



Slum Upgrading and Affordable Housing Framework

Facilitating increased access
to affordable housing through
inclusive market approaches

Habitat for Humanity International / Liberia Country Program

Cities Alliance
Cities Without Slums

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Introduction

Facilitating the delivery of adequate and affordable housing and the upgrading of slum settlements is a core component of achieving inclusive, safe, resilient and sustainable cities and human settlements, as envisioned in the New Urban Agenda and the Sustainable Development Goals, or SDGs. However, cities face many challenges in trying to achieve this goal. In this framework, we look at the key constraints and offer a set of interventions that can facilitate improvements in the enabling environment for slum upgrading and affordable housing in greater Monrovia from a policy, market and community perspective. Among our key findings:

- **The challenging urban environment.** Fourteen years of civil war and an Ebola crisis have significantly contributed to the inadequate and hazardous conditions in which the vast majority of urban residents live. The financial system collapsed, and urban infrastructure was virtually destroyed by the civil war. There are huge challenges to meeting the urban population's existing and growing needs for housing, basic services and infrastructure.
- **Seventy percent of the urban population lives in informal settlements around greater Monrovia.** Some residents are affected by locational hazards such as sea erosion, river/estuary flooding and informal land reclamation; climatic hazards related to surface flooding; and nonclimatic hazards related to poor hygiene, disease vectors,

blocked stormwater drains and inadequate housing.

- **Climatically, Monrovia is the wettest capital in the world (Economist 2012).**
Because of poor citywide drainage systems, most city and slum settlements are affected by seasonal flooding, which harms livelihoods such as informal trading, the construction sector and businesses that require goods and services to be transported by road across the country.
- **Housing is not represented by a single ministry or prioritized at a national level.**
The current housing mandate is spread among the National Housing Authority; the Ministry of Internal Affairs; the Ministry of Public Works; the Ministry of Lands, Mines and Energy; and the Metropolitan City Councils. Current housing policies and programs focus on delivering subsidized mortgage housing through greenfield developments to the small percentage of the population who are employed and can afford a mortgage of around US\$20,000. There are no policy guidelines or housing programs to support the needs of low-income households and slum communities that could improve their shelter incrementally.
- **The land administration system is weak** as a consequence of years of civil war and is fragmented among many government agencies. The Land Rights Bill of 2014 still has not been passed by the Legislature. The bill seeks to clearly define and delineate the different categories of land ownership and land rights and establish clear procedures and processes for land acquisition, use, management and administration. Currently, tenure insecurity is high, as secure tenure depends on a functional land administration system and sound land policies. Because of these systemic inadequacies, residents lack formal titles to their land, live in fear of eviction, and struggle to find property where they could reside legally.
- **Zoning laws and building regulations are outdated**, and there is no comprehensive land-use planning to guide urban development. The majority of urban residents live in unplanned settlements with no secure tenure or basic services on public or private land that is either legally or illegally occupied.
- **The Liberian housing market is highly complex and dysfunctional**, which is reflected in the uneven delivery of housing-related products and services to homeowners and renters and the high level of informality. There is also a huge discrepancy in quality

and cost of homes between high-income and low-income households. Both public- and private-sector capacity in Liberia are very low and will require ongoing support in order to improve the value chain for affordable housing.

- **Affordability levels are low.** Sixty-four percent of Liberians live below the national poverty line¹. On average, low-income households use only 15 percent of household expenditures for housing costs². In general, the accepted standard is that housing costs should consume no more than 40 percent of household expenditure. This is much lower in Liberia because low-income households prioritize other pressing needs, such as food, education and health care. Middle-income households base most construction decisions principally on price, not quality, as a consequence of low affordability levels.
- **Public- and private-sector capacity is limited and weak.** Because of limited resources and tough economic and social conditions, public institutions and private-sector firms have limited capacity to perform their functions across the board, particularly in support of slum upgrading and delivery of affordable housing.

These findings indicate that new interventions that support slum upgrading, incremental housing and increases in rental stock are essential for improving the living conditions and quality of life of low-income households in greater Monrovia. Accelerating self-managed and incremental construction to increase the affordable and adequate housing supply at scale requires adequate policies, markets for the poor, and capacity building support. A significant expansion of the affordable and adequate housing stock is needed to address these inadequacies, through appropriate interventions that take into consideration existing weak public- and private-sector capacity; low affordability levels; and contextual dynamics around access to land, infrastructure, finance, and construction materials and services. The housing mandate needs to be consolidated, funded and prioritized to support slum upgrading and affordable housing. Greater Monrovia requires a holistic and integrated urban planning approach that takes into consideration all of these contextual challenges. The identification of land for affordable housing and the regularization of slum settlements are key issues that need to be addressed within the Liberia Country Program. Interventions to improve basic services and city infrastructure need to

¹ Data from World Bank Development Indicators (2015) and UNDP's International Human Development Indicators (2014).

² Consumer Price Index data (2013).

be addressed as part of the entire city development strategy and the Liberia Country Program, as they require large investments and will have an impact on the entire city infrastructure, in addition to a direct impact on the ability of the private and public sectors to deliver affordable housing.

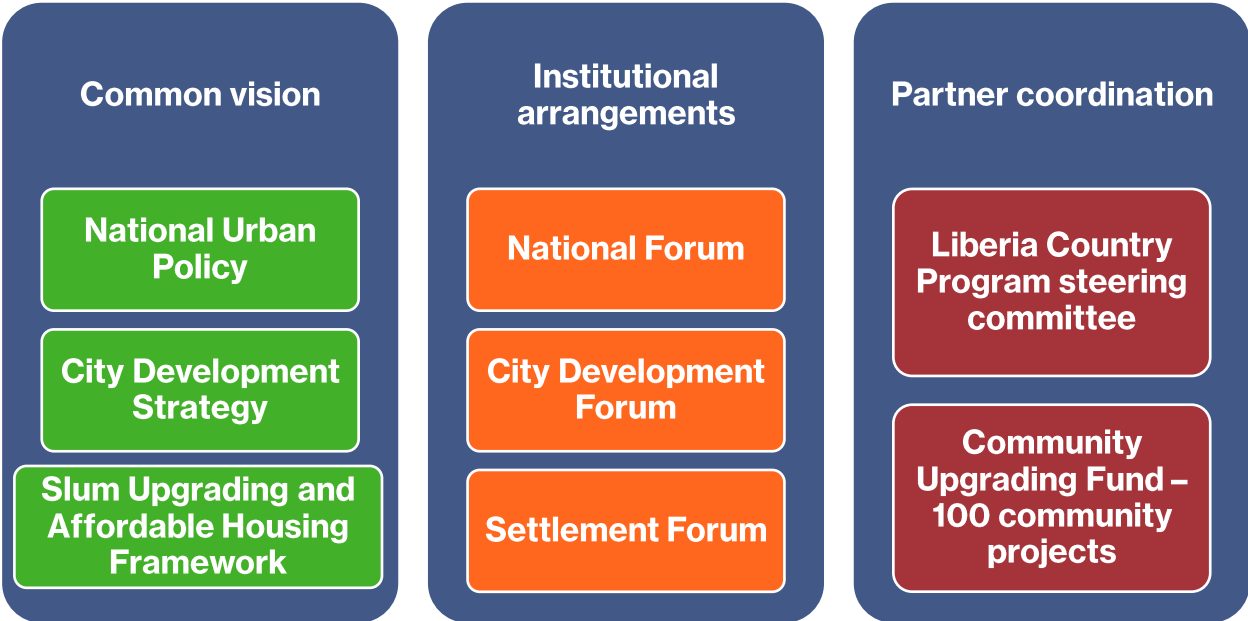
The proposed interventions in this framework are based on the concept that policy-, market- and community-level interventions are required to address constraints and contribute to creating systemic change and an enabling environment that supports and enhances the delivery of affordable and scalable housing solutions.

In conclusion, accelerating self-managed and incremental construction leading to adequate housing at scale requires adequate land; housing, infrastructure and regulatory policies, laws and regulations; markets that work for the poor; and capacity building support for the economically poor and relevant public- and private-sector institutions.

Slum Upgrading and Affordable Housing Framework objectives and methodology

This **Slum Upgrading and Affordable Housing Framework** has been developed by Habitat for Humanity International as part of the Liberia Country Program led by Cities Alliance. The Liberia Country Program is a five-year programmatic approach to address specific urban needs in a comprehensive and integrated manner. The program creates a platform to promote community engagement, partnerships and institutional capacity building and includes the development of a Slum Upgrading and Affordable Housing Framework, or SUAHF; a City Development Strategy, or CDS; and a National Urban Policy, or NUP, all of which contribute to creating a common development vision for greater Monrovia.

Diagram 1: Liberia Country Program



The Liberia Country Program implementing partners include the government of Liberia; Slum Dwellers International, or SDI; UN-HABITAT, Habitat for Humanity International; and Women in Informal Employment, Globalizing and Organizing, or WIEGO.

Habitat for Humanity International is an international nongovernmental organization dedicated to helping low-income households secure adequate and affordable housing. Habitat is based in Atlanta, Georgia, USA, and works in over 70 countries. The organization has worked directly with many households and families around the world to repair, renovate and build existing homes, and with public- and private-sector actors to improve the efficiency of housing market systems and support incremental housing. In greater Monrovia, Habitat aims to work with all the relevant public, private and community actors to facilitate improvements to the living conditions of low-income households; the development and expansion of market-based housing services, products, and financing for low-income households; and the enabling environment for affordable housing delivery. In Habitat's experience, scalable and sustainable housing outcomes are best achieved through the implementation of targeted policy-, market- and community-level interventions that are piloted and implemented through people, public/private partnerships, and collaborations.

The objectives of this Slum Upgrading and Affordable Housing Framework are to:

- **Highlight the constraints³ that affect low-income households**, including bottlenecks hindering the expansion of market-based housing services, products and financing for low-income households and the creation of an enabling environment to support slum upgrading and affordable housing in greater Monrovia.
- **Propose practical interventions at the policy, market and community levels** in order to address identified constraints, including identifying relevant implementing partners and their capacity building requirements.
- **Create a common platform for collaboration** by being the plan that other stakeholders, partners and donors can use to identify and support the implementation of additional interventions and to channel funds in a targeted and integrated manner.

This Slum Upgrading and Affordable Housing Framework has been developed based on inputs gathered from desktop research; a hazards and vulnerability assessment⁴; a housing value

³ A detailed constraints list is attached as Annexure A.

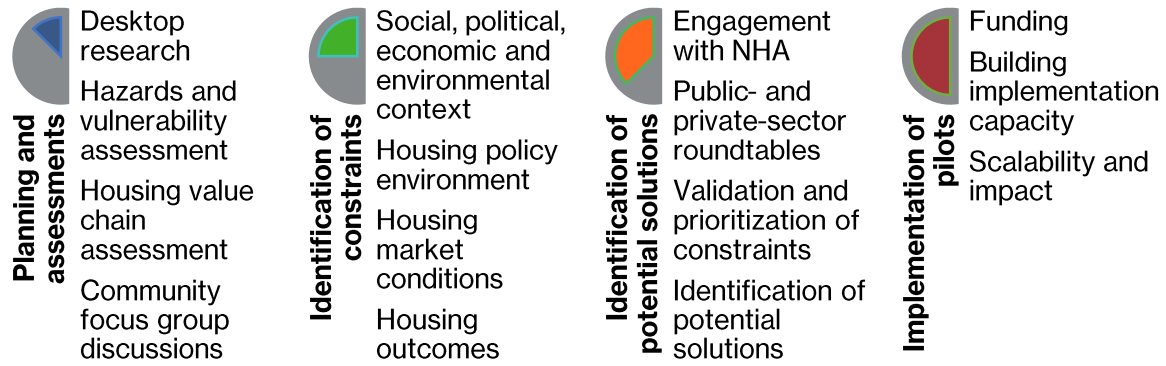
⁴ The Community Hazards, Risk and Vulnerability Assessment Report is attached as Appendix 1.

chain assessment⁵; site visits to several slum communities; focus group discussions (in seven communities); interviews and consultations with private-, public- and community-sector actors; and roundtable discussions (the public-sector roundtable was attended by 41 people with representation from 15 different organizations; the private-sector roundtable with financial institutions was attended by 42 people with representation from 18 organizations; and the private-sector roundtable with housing supply-side firms was attended by 32 people with representation from 13 organizations). The overall objective of the public and private sector roundtable discussions was to share the findings of the assessments, validate constraints, and co-create potential interventions.

The analysis and collation of the information gathered through these processes provides for a more in-depth understanding of the context; the relationships and roles of public, private and community actors in the housing value chain; the hazards and vulnerabilities affecting low-income households and communities; overarching constraints and opportunities that affect the delivery of affordable housing; and the identification of potential solutions that could be implemented through pilots to test their sustainability and scalability. All the outputs and findings of these processes have been used to develop this Slum Upgrading and Affordable Housing Framework. Diagram 2 on the next page illustrates the process adapted in the development of the framework.

⁵ The Greater Monrovia Housing Value Chain Analysis is attached as Appendix 2.

Diagram 2: Methodology for developing the Slum Upgrading and Affordable Housing Framework



Summary of hazards and vulnerability assessment⁶

The hazards and vulnerability assessment conducted in September 2016 consisted of macro-level and community-level assessments. The objective was to identify critical hazards and vulnerabilities affecting informal settlements and other areas in greater Monrovia, to identify critical actions, and to analyze the impact and consequences of proposed actions in consultation with key stakeholders. Both the macro-level and community-level assessments were accomplished by gathering information directly from local stakeholders and communities and from reviewing relevant secondary data, including data to be collected from Slum Dwellers International. Methodologies included surveys, mapping (reviews of existing GIS/satellite data), key informant interviews, transect walks and others, as context dictated.

The principal findings of this study were:

- **Settlement viability and relocation:** There are several factors, particularly sea erosion and river flooding, that place the viability of certain settlements and areas fundamentally in question. Notably, the ongoing reformation of the land in West Point presents a significant challenge, as a man-made intervention might not be able to overcome the powerful impact of oceanic and hydrological forces. The assessment suggested considering relocation and densification in a similar manner to the Urban Promotion Areas and Urbanization Control Areas proposed under the 2009 master plan (JICA, 2009).
- **Surface flooding:** Extreme levels of rainfall coupled with low-lying terrain and swamplike conditions are endemic to Monrovia and require a metropolitan-scale strategy to allow space for water. A detailed study of the topographic and drainage profile of the city should be conducted in order to inform this strategy. Minor improvements could be made at the local level, but any such interventions would be at risk to changes “upstream.” The magnitude of investment required to mitigate this risk could be in the tens of millions if not

⁶ The Community Hazards, Risk and Vulnerability Assessment Report, including maps and photographs, is attached as Appendix 1.

hundreds of millions of dollars. For reference, the Japan International Cooperation Agency, or JICA, estimated the cost of rehabilitation of the existing drainage system in central Monrovia at \$14 million (JICA, 2009). There is no evidence, however, that rehabilitation of the existing system will be adequate.

- **Climate change adaptation:** Based on current evidence of rising sea levels and storm surge, Liberia is the second most at risk country in West Africa. Unfortunately, mitigation is not a viable option for Liberia. Adaptation measures should be introduced to all sectors and plans with a particular focus on the co-benefits in the transport and housing sectors. A more detailed and granular assessment of potential impacts at the metropolitan level should provide additional information.
- **Underlying economic conditions:** Liberia is an extremely poor country, and without an improvement at the national and household levels, the cost of delivering many of these developmental improvements will be unattainable. Monrovia was a successful commercial capital in the 1980s, and national GDP then was approximately double what it is today. Monrovia has many of the legal and institutional foundations to drive national economic growth. Any initiative or strategy must put economic development and livelihoods at its core.

Summary of housing market analysis⁷

On Sept. 1-16, 2016, Habitat for Humanity International conducted an abbreviated housing value chain analysis in the greater Monrovia area to ascertain the possibilities for working with the private sector to expand access to housing products and services for underserved and unserved segments of the market.

The value chain analysis consisted of several months of preparatory work, involving first contacts and desk-based research, an orientation for the value chain researchers, and two weeks of in-country research. A team of five global Habitat staff members — representing African, North American and Latin American housing contexts — carried out the value chain analysis, traveling to Liberia and conducting over 40 interviews with public- and private-sector

⁷ The Housing Value Chain Analysis is attached as Appendix 2.

stakeholders and seven focus group discussions with low-income households residing in informal settlements.

The value chain exercise used Habitat's typical process for assessing a housing market and designing a market development approach that works with the private sector to expand access to housing products and services. The methodology in Liberia included the following steps:

1. **Orientation and review** of value chain and market development principles.
2. **Review of interview strategies** for value chain analysis and logistical preparations for fieldwork.
3. **Value chain analysis**, mapping, end-market assessment, and identification of constraints.
4. **Market-based solution identification:** Throughout the fieldwork, the team developed a list of the major constraints and gaps identified through interviews and observation. The team then worked to identify market-based solutions that correspond to value chain constraints while identifying self-motivated market actors who could provide these solutions on a commercial and sustainable basis.

The assessment found that Liberia's housing market is profoundly dysfunctional, delivering a very uneven product to homeowners and renters in greater Monrovia. From the perspective of an individual homebuilder, the principal dysfunctions center on affordability, land and tenure security, basic services and infrastructure, access to finance, and construction services and materials.

- **Affordability:** More than 80 percent⁸ of the greater Monrovia area derives its income from the informal sector, and incomes are uniformly low. Sixty-eight percent of Liberians live below the poverty line. Because of the low household incomes and resulting low affordability levels, low- and middle-income households make most construction decisions based principally on price, not quality. This decision is usually based on the immediate costs of the materials, however, not the life-cycle costs of the construction materials, typically resulting in increased housing costs over the long term. The issue of low incomes is greatly compounded by the high costs of construction materials and limited livelihood and employment opportunities for many households. On average, it

⁸ More information at heritage.org/index/country/Liberia.

takes seven years to build a home.

- **Land access and tenure security:** Liberia has a land administration system that is in tatters after many years of civil war. Tenure security, dependent on a functioning land administration system and sound land policies, is highly insecure. Additionally, much of the prime land within Monrovia is privately held and not available to the government for public housing. Generally, while the cost of land is not exorbitant, the transactional costs for acquiring land and registering it are prohibitively expensive, if it is even possible to do so.
- **Basic services and infrastructure:** Serviced land within greater Monrovia is rare and not typically provided by public entities. Most often, developers and contractors are responsible for providing the necessary infrastructure, greatly adding to the cost of new house construction and ultimately deterring investments in residential construction. Informal settlements, usually located in low-lying areas, suffer the most.
- **Access to finance:** Financing new home construction or incremental building is a challenge for many segments of the market. Liberia's mortgage market is highly underdeveloped and offers less than 100 mortgages a year. Loans to salaried workers are offered by commercial banks, and bank informants estimated that 60 to 70 percent of these loans are used for housing construction. Salaried workers are a small percentage of the population. Banks and microfinance institutions offer loans to small and medium enterprises, but these loans typically reach only the relatively high-income segments. Microfinance institutions and credit unions have comparatively small operations within Monrovia, and for most of the population, formal financing is out of reach. This leaves the majority of the market reliant on informal self-financing through savings and loans from family and friends, remittances, and diversion of microenterprise loans where financial access is possible within microfinance institutions and credit unions. In general, a large proportion of the population remains outside of the formal banking system.
- **Construction services and materials:** Most construction supplies are of industrial nature and imported, as Liberia has limited manufacturing capabilities. Import and excise duties add to the costs of these supplies. Where local manufacturing operations exist for

cement, plywood, PVC piping and rebar, the expense of self-generated power adds significant cost to the final product.

In terms of construction services, masons and other construction artisans often learn informally, with little knowledge of and access to state-of-the-art training to upgrade their skills. As a result, the skill level of local construction artisans and laborers is very low, making development more costly for developers. Additionally, low-income households rely on these artisans who may not have adequate skills to build a quality house.

Overall, the construction sector in greater Monrovia, of which housing is a large component, is a significant source of employment and a generator of economic growth. According to the Labor Force Survey, construction generates about 13,000 informal sector jobs for men and 3,000 for women, 2.2 percent of all informal employment.⁹

Low-income homes are found in the urban areas and informal settlements around Monrovia, and are scattered throughout greater Monrovia. Their construction is catered through several formal distribution and retail chains and informal actors supplying the homebuilding products, mainly imported materials. These products are sold through local retail shops and in some cases through centralized wholesale/retail “factories” within the city, the local name for where various retailers congregate to enable easy access by buyers.

Summary of housing finance and affordability analysis

When developing strategies for affordable housing, it is important to understand the proportion of income targeted households can devote toward housing costs. The following narrative summarizes Habitat for Humanity’s initial affordability analysis for housing finance products.

Housing affordability gap: In general, acceptable housing costs should consume no more than 40 percent of household income. In the case of Monrovia, according to Consumer Price Index data from 2013, household expenditure accounts for no more than 15 percent of income. The same data suggest that the lower 60 percent of Liberia’s population have household expenditures of less than US\$2,200 per annum and a per capita expenditure of less than

⁹ Liberia Housing Profile. UN-HABITAT, 2014.

US\$400 per annum.

As the Liberia Housing Profile from 2014 describes, “at 15 percent of household expenditure, housing should cost less than US\$330 per annum or US\$27.50 per month for the lower 60 percent of the population by expenditure.” This is a small amount when compared with formal sector initiatives available in the market. Overall, formal sector initiatives consist of high-cost housing projects unsuitable for the majority of households. Even the houses built through the housing programs by the National Housing Authority cost between US\$20,000 and \$30,000 and require households to have a minimum combined household income of US\$750 per month to qualify for a mortgage through the Liberian Bank for Development and Investment.

Even if incomes improve in the next few years, adequate housing affordability shall remain far beyond reach for most Liberians. Because of affordability levels and because the housing finance market is also underdeveloped, initial offerings will likely need to focus on the segments of the market that can currently afford such products. In the medium term and as the market evolves, financial institutions and intermediaries can focus on going down market.

Please refer to the table below that highlights housing finance solutions that could be affordable to the middle and top quintiles of the population within the short term¹⁰:

Table: Housing finance solutions

Target group	Proposed quintile household borrowing capacity/month	Potential demand/year (Greater Monrovia)	Proposed solution
Group 1: Middle income	LDS12,500–20,000 US\$44-\$64	12,000 loans	Housing microfinance (home improvement and incremental housing loans)
Group 2: Middle income	LDS15,000-20,000 US\$44-\$64	500 loans	Mortgage and micromortgage loans

¹⁰ Habitat for Humanity International validated annual expenditure data by quintile with nationally representative data available from LISGIS to segment the market at the base of the pyramid.

Housing microfinance products in Liberia. As opposed to mortgages, housing microfinance products are almost always used for small, cost-effective, progressive home improvements, ranging from material replacements to utility service linkage to room additions and sometimes land acquisition. It rarely includes the purchase of a new or used full home. Potential clients for housing microfinance are usually self-employed or very low-income salaried employees, most of whom live in self-built homes.

Please refer to the diagram below for descriptions of the products and types of home improvement:

Diagram 3: Types of housing microfinance loan products

Home improvement loans (US\$400-\$600)	Incremental building loans (US\$600-\$1,200)
<ul style="list-style-type: none"> • Potential beneficiaries: Moderate households, informal, formal or mixed-income. • Loan tenure: 24-36 months. • Borrowing capacity: \$18-\$22 per month. • Projected income: \$120-\$148 per month. • Collaterals: Personal guarantees (no mortgages involved). 	<ul style="list-style-type: none"> • Potential beneficiaries: Moderate households, informal, formal or mixed-income. • Loan tenure: 24-48 months. • Borrowing capacity: \$22-\$33 per month. • Projected income: \$148-\$215 per month. • Collaterals: Personal guarantees (no mortgages involved).
Use of home improvement loans	Use of incremental loans
<ul style="list-style-type: none"> • Roofing repairs/replacement. • Energy-efficient solutions. • Water and sanitation. • Flooring, plastering, painting. • Ceiling, doors, windows, kitchens, bathrooms. • Site security, fence, gates. 	<ul style="list-style-type: none"> • Additional rooms. • Auxiliary structures. • Foundations walls. • Purchase of land.

Mortgages and micromortgages. There is an opportunity to expand the market for mortgages, as it is very small at the moment. Unlike housing microfinance, mortgage lending is collateralized by the client’s property. This requires clients to have documentable income and land title. Mortgages are often for larger amounts and longer periods than housing microfinance loans.

Some of the challenges to making this happen revolve around financial intermediaries' struggle to identify adequate long-term financing. In addition, an even more complex issue is the need for clarity on land tenure to enable repossession on default.

Please refer to the table below as we suggest potential mortgage and micromortgage product characteristics:

Table: Potential mortgage and micromortgage product characteristics

Home mortgage loans	Microloans
<ul style="list-style-type: none"> • Potential beneficiaries: Moderate-income households, salaried workers, entrepreneurs, etc. • Loan tenure: 15–30 years. • Down payment: 20-30 percent of the price of the home. • Monthly mortgage payment to be determined by the financial institution. • Life insurance policy. 	<ul style="list-style-type: none"> • Potential beneficiaries: Moderate-income households, salaried workers, entrepreneurs, etc. • Loan tenure: 5-15 years. • Down payment: 20-30 percent of the price of the home. • Monthly mortgage payment to be determined by the financial institution. • Life insurance policy.

In conclusion, to promote affordable housing finance solutions in Monrovia, innovative solutions should address strategies that can:

- Unlock liquidity in the Liberian banking sector.
- Mitigate risk for participating financial intermediaries and developers.
- Enable moderate- and middle-income Liberian households to gain affordable access to housing.

Analysis of affordable housing delivery in Greater Monrovia

Poor and vulnerable households: The vast majority of poor and vulnerable households live in informal settlements. Seventy percent of the population of Monrovia lives in informal settlements. Most of the households that reside in informal settlements prefer building houses themselves or use family labor or rent from homeowners. These houses are quickly assembled using local materials, often lack concrete floors, and may fit in any of these categories:

- Poles with mat wall and plastic roofing.
- Poles with mat wall and zinc roofing.
- Poles with hardboard walls and plastic roofing.
- Poles with hardboard walls and zinc roofing.
- Poles with mud walls and plastic roofing.
- Poles with mud walls and zinc roofing.
- Poles with zinc walls and zinc roofing (most dominant in the informal settlements).
- Uncompressed laterite block walls laid with laterite filling – commonly referred to as “dirt to dirt” – with zinc roofing.
- Uncompressed laterite block walls laid with cement and roofed with zinc.

Houses constructed in these ways may be upgraded to concrete block walls and zinc roofing after several years. Land in Monrovia is either owned by homeowners or has been acquired through squatting. The vast majority of informal settlements in Monrovia have been created through squatting, and the residents lack security of tenure. Because of low income levels, the vast majority of houses are built incrementally by the homeowners themselves or with the assistance of local artisans, and these homes are inadequate from a housing quality standard perspective (basic services, secure tenure, energy efficiency and design).

The government, through the National Housing Authority, has recently constructed shelters in Brewerville for families who have been displaced by sea erosion in West Point. However, the government of Liberia needs to take a more strategic approach to the identification of land for

relocations of communities affected by various hazards and vulnerabilities, such as locational risks and climate change. The NHA needs to develop and use good relocation practices that take into consideration households' livelihoods and social networks while promoting community participation, engagement and choice. The National Housing Authority lacks a strategy and capacity to work on incremental housing and needs to develop its knowledge in this and formulate clear guidelines on the upgrading and formalization of slums, including finding innovative solutions to support the incremental housing process in low-income communities.

Government subsidies need to be targeted to the most vulnerable and low-income households in Greater Monrovia instead of responding only when a disaster strikes. Currently, there is no government program focused on dealing with these risks and vulnerabilities. NHA and relevant public-sector institutions should advocate for and encourage government investment in resources that meet the housing needs of the most vulnerable poor communities, especially by encouraging that grants and subsidies be diverted from middle- to high-income earners who can be easily be served by the commercial sector. Overall, the government of Liberia requires a longer-term strategy to support the funding of subsidies and may need to consider the development of a "housing trust fund" that is funded through public taxation mechanisms.

Low- to middle-income households: Informal, small-scale, single-person and semiformal contractors tend to dominate construction service provision to the majority of low- and middle-income households and individuals. These contractors provide labor while the customer provides land, construction materials and labor fees. Such arrangements between informal contractors and their clients are rarely in the form of a written agreement. The construction process is often in phases, with many prolonged time gaps in between to enable the homeowner to gather enough money and materials to complete subsequent stages. For example, a household would complete the foundation in one phase, walls may take one to two phases, then roofing in three to four phases, as opposed to completing the home room by room, which would be a more efficient way to use resources and could provide the homeowner with the potential to earn an income from renting out completed rooms. The current approach to house delivery leaves both land and the house unoccupied until building work for the entire house is at an advanced stage of completion. The process may take seven to 10 years and puts a burden on the household's income as the homeowner continues to pay rent over extended periods instead of putting money into completing the house.

The skill level of local construction artisans — such as masons and informal contractors — and laborers is low. This affects houses that are built incrementally, as households rely on masons who have been trained on the job and might not have adequate skills to build a quality house. Government-led expansion and certification of construction-related vocational courses should be investigated, along with firm-led training initiatives targeting low-skill areas that have a significant adverse impact on housing outcomes in Monrovia.

There are no standards or guidelines for construction fees, so the contractors negotiate or decide on service fee rates based on their personal judgement of their client's wealth, as opposed to the required work or the quality or predetermined fee rates. Sometimes homeowners dictate construction prices to contractors, especially those contractors who are in desperate need of work, and the contractors become dependent on the amount clients are willing to pay for their services in order to survive.

Houses delivered under this category are mainly made of concrete brick walls with zinc roofing. These are one- or two-story buildings, depending on the level of income of homeowners, and they are often of low quality since they do not adhere to minimum building codes and standards. Furthermore, building codes are outdated or nonexistent, do not incorporate alternatives for concrete construction, and do not appropriately address the construction of incremental housing or mitigation against locational or climatic risks and hazards. Some work around building codes has been ongoing, led by the Zoning Department of the Ministry of Public Works, or MPW. MPW should continue leading this and consult NHA to ensure that enhancements to the building code incorporate a variety of materials; support both formal and informal (incrementally built) houses; and take into consideration prevalent locational, climatic and climate change risks.

NHA needs to coordinate a Technical Working Group consisting of firms within the housing supply chain, including material suppliers, architectural companies, builders, etc., to evaluate existing research, conduct additional research as appropriate to understand the advantages and disadvantages of alternatives to concrete block construction (such as soil stabilized blocks, bamboo and wood), and evaluate a wide range of affordable and climate-resilient construction materials and designs suitable for low- and middle-income earners. NHA should look for opportunities through community pilots.

There is an immediate need to reduce housing costs from a materials perspective and a design perspective, focusing on materials currently used, with the understanding that alternative materials will take time to penetrate the market. In addition, NHA would benefit from having a menu of housing typologies for a variety of scenarios; building capacity within the agency to make the right selections. It would add value for NHA to develop a technical housing construction guide for different densities, typologies and climatic conditions.

High-income households (and individuals): The top-end housing market is served by a small number of formal contractors in Monrovia, some in partnership with international firms. The contractors use American standards and designs and are faced with a challenge of finding laborers with the required professional skills and work ethics. Although they build cheaply, it is too expensive for most Liberian homeowners.

Between its formation in 1962 and 1984, the National Housing Authority constructed 1,789 housing units and provided 600 plots for low-cost housing. The recently established 5,000 Houses Program is a government initiative managed by the National Housing Authority. It is the largest formal program delivering housing in Liberia at a cost between US\$15,000 and \$20,000 for “low- to middle-income” clients. Although the cost per house is higher than the specified target clients, the houses are highly subsidized, which creates a market distortion and a barrier for private property developers outside the program to enter the market. Furthermore, the houses are not fully serviced.

The NHA on average sells the homes it builds for \$20,000, but these homes actually cost around \$28,000, which includes approximately \$8,000 for the cost of the land, internal roads, water wells and other infrastructure subsidized by the government. This does not include the cost of connecting the units to basic services such as water, sewer, electricity and solid waste management. These homes are targeted for “middle-income” families with regular household incomes of \$750 per month and above.

Over 200 houses have been built under this program, ranging between one- and three-bedroom bungalows, but they lack basic infrastructure and public services such as roads, clean drinking water, schools, electricity and social amenities. This gap is attributed to the absence of a national policy mandating that all relevant line ministries prioritize housing and invest resources toward planning and implementation of such projects. Key challenges facing NHA in

implementation of the mortgage program are:

- NHA playing a double conflicting role in the sector — on one side as a regulator and on the other as an implementer.
- Limited institutional and human resource capacity to effectively implement its mandate.
- Inadequate accessibility of financial resources to fund its operation and investment into social housing.
- Inadequate financial resources for investment in corresponding site and service infrastructure.
- Public-private partnership in housing development is deterred by short-term mortgage funding, which limits mortgage tenor to no more than three years.

NHA will advocate for completion and ratification of the National Housing Policy, which will provide for all other relevant public institutions offering public goods and services relevant to the sector, such as clean access to land, water, waste disposal, roads and electricity, to plug into a joint planning process and deliver decent housing services as possible. This will inform a comprehensive master plan leading to budgetary allocation toward better housing in greater Monrovia.

A formal recognition is required for government and stakeholders to take cognizance of not only challenges facing informal settlements but also the immense opportunity and contribution that informal settlements present - socially, culturally and economically. NHA needs to work with all relevant stakeholders and support actions that will lead to the enforcement of land rights and housing policies and ensure that all social, economic and cultural barriers that prevent people from accessing adequate housing are lifted. Land and housing markets should respond to the needs and financial capacity of low-income earners.

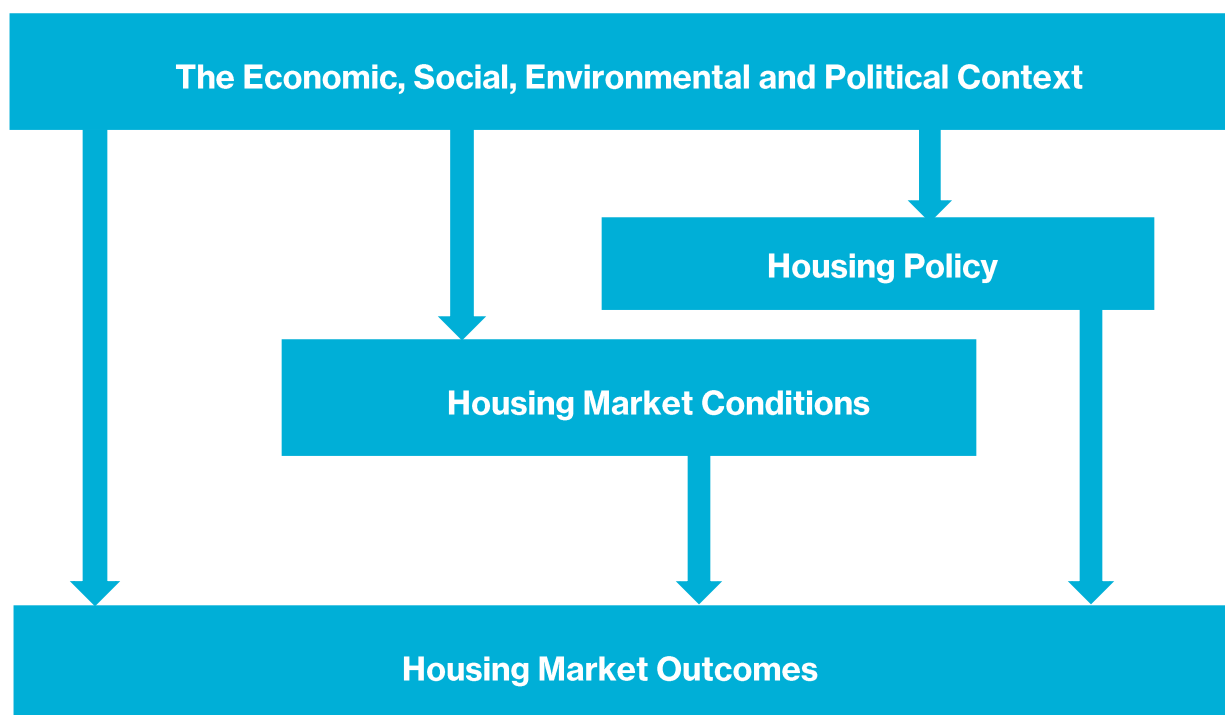
Creating an enabling environment for affordable housing delivery

The delivery of affordable housing and the upgrading of slum settlements are fundamental components of urban and city ecosystems and should be addressed in an inclusive and comprehensive manner that contributes to the overall development of the city. Housing outcomes are determined by the economic, social, environmental and political context; housing policy environment; and housing market conditions.

This section illustrates the conceptual analysis framework used to identify the key requirements for an enabling environment for affordable housing delivery and slum upgrading in greater Monrovia.

The hazards and vulnerability assessment, the housing value chain assessment, desktop research, site visits, community-focus group discussions, interviews and roundtable consultations with public- and private-sector actors were all inputs into the conceptual analysis framework. The output of the analysis is a detailed constraint list (attached as Annexure A) organized by context, policy environment, housing market conditions, and housing outcomes. The policy-, market- and community-level interventions proposed in the next section have been developed as potential solutions to some of the identified constraints.

Diagram 4: Impact of context policy environment and housing market conditions on housing outcomes



This analysis and the development of policy-, market- and community-level interventions to address the identified constraints are also based on the following concepts:

- Improving the efficiency of value chains for low-income housing is essential for homeowners to gain access to affordable and adequate housing. This requires analyzing the context and current value chains across heterogeneous market systems, both formal and informal, and highly complex subsectors that include the land market; water and sanitation; household energy and electricity; hazard and risk vulnerabilities; housing, construction and building materials; financing mechanisms (microfinance and savings); and housing support services (legal and technical assistance).
- In an ideal situation, most houses should be constructed, financed, maintained and exchanged by the market, and the government should focus on enabling markets to work. When there is an affordability gap between what the market can provide and what

low-income households can afford, as is the case in Liberia, there is a need for government to intervene through the implementation of housing programs and subsidies.

- Facilitating systemic change and improvements to the enabling environment requires interventions at the policy, market and community levels to address the identified constraints and blockages affecting the delivery of affordable housing. This involves working with public-, private- and community-sector actors to support enhancements to the policy environment and housing market systems for low-income households.

The various components of the conceptual analysis framework are detailed below:

Context: Includes the social, economic, environmental and political context — poverty levels, urbanization rate, population growth, distribution of income, macroeconomic conditions, hazards and vulnerabilities, existing housing conditions, and other challenges and opportunities.

Housing policy environment: The following need to be examined when looking at the housing policy environment:

- Land, property and secure tenure rights — adjudication of property rights and housing.
- Housing finance — development of regulations of housing finance institutions.
- Subsidies — administration of housing subsidies.
- Residential infrastructure — provision and maintenance of residential infrastructure.
- Legal and regulatory framework for the housing market — laws and regulations that affect the performance of both the demand and supply sides of housing. Regulations that impact the development, building, owning and managing of housing stock. Residential zoning and land use management regulations, building codes and standards.

Housing market conditions: Understanding the housing market conditions requires an understanding of the availability of land, conditions in the residential construction sector, the availability of finance, and the housing value chain in terms of both the demand and supply sides of housing.

Housing outcomes: These are determined by affordability level; community needs and priorities; climatic conditions; culture; and materials that affect household size, quality and

typology. The outcomes include housing prices, quality, affordability, tenure, rents, dwelling size, densities, etc.

Diagram 5: Conceptual analysis framework



Potential interventions

The proposed interventions in this framework are based on the concept that policy-, market- and community-level interventions are required to address constraints and contribute to creating systemic change and an enabling environment that supports and enhances the delivery of affordable and scalable housing solutions.

The interventions proposed in this framework have been identified after taking into consideration the following guiding principles:

- Interventions should focus on the incremental building process that the majority of low-income households use to acquire their own housing.
- A partnership approach is desirable in order to draw on existing synergies, including resources, technical expertise and local knowledge in the public, private and community sectors to maximize achievements and scale.
- The designed interventions shall be cost-sensitive and efficiently delivered to ensure that they all are affordable to the ultimate consumers, the low-income households.
- Interventions are designed on the basis of comprehensive, prioritized requirements, based on what is most important to both households and what is required to contribute to the creation of an enabling environment for affordable housing delivery.
- Interventions are sufficiently impactful and consider long-term versus short-term effectiveness and the use of multiple targeted strategies to effect change.
- Interventions are sustainable. Thought must be given to institutionalizing the intervention over time. To really be successful, the intervention must become ingrained in the culture of the implementing institution.
- Interventions are designed with the viability of development and implementation in mind. Every intervention needs human resources and organizational support. Interventions should be designed using an iterative approach; that is why the use of pilots is suggested.
- Interventions are adaptable to the local context.

Community-level interventions

Low-income households and informal settlements in Greater Monrovia face several locational, climatic, nonclimatic and climate change risks and hazards that affect their living conditions and need to be addressed and mitigated against in order to support the delivery of affordable and appropriate housing options. The systemic and structural nature of the risks identified by the

hazards and vulnerability assessment and the scale of investment required to mitigate these risks implies that community-level interventions will always have limited impact without addressing risks at the metropolitan scale through a comprehensive, multiyear master development plan. Primary dimensions of this master development plan should be the planning and implementation of relocation of households at risk through careful de-densification and densification policies, along with the design and construction of urban protective infrastructure.

Underlying socioeconomic conditions exacerbate the vulnerabilities associated with the risks and hazards identified under the assessment. Food insecurity was a frequently reported concern, which is a clear indicator of the economic vulnerability associated with poverty. Several neighborhoods and community groups identified food, education and health as their main priorities for potential additional spending. The underlying reality of limited economic development, unemployment and underemployment, and a lack of savings all contribute to low-level resilience among these populations. Therefore, it will be most important that these interventions at the settlement/community level explore and intentionally exploit linkages with livelihood development and support. Opportunities can be identified into potential shelter-livelihood links, WASH-livelihood links, etc. Effective participation of slum dwellers in enumeration, planning processes and community contracting for physical interventions should be highly encouraged.

As observed in the hazards and vulnerability report, the systemic nature of the identified risks and the scale of investment required means that a community-level response will have limited impact without a metropolitan-scale master development plan and a risk reduction strategy, which should include the following:

- **Relocation and de-densification:** Involves relocating households in high-risk areas not subject to protection by physical infrastructure interventions, either by reasons of cost-benefit analysis or because of anticipated rising sea levels. Relocation could be implemented intrasettlement or in nearby areas (Greater Monrovia is, in general, a low-density city). Further detailed studies and consultation with stakeholders will be required.
- **Infrastructure development:** For certain areas, construction of new works and improvement of existing infrastructure systems is appropriate and needed, especially those structures related to stormwater drainage, sanitary sewerage, protective coastal infrastructure (including recovery of natural mangrove habitats), road infrastructure, etc. Further topographical and drainage studies are required.
- **Construction of community slum-upgrading models** that adhere to suggested improvements under the proposed slum-upgrading guidelines created with hazards and associated climatic risks in mind while demonstrating use of proven alternative construction materials. This may require identification of land for slum upgrading within existing informal settlements and putting up improved housing structures that serve

households within the settlement while taking into account the incremental building process and rental options and using basic services and infrastructure.

Specific and prioritized community-level interventions are as follows:

Hazards and risk awareness: The basic purpose of this intervention is to work with existing communities to increase education and awareness of households around prevalent hazards and risks, identifying ways to mitigate or prepare for adverse effects on their shelter and settlements, using participatory methodologies such as the Community-Based Disaster Risk Management, or CBDRM, and the Participatory Approach for Safe Shelter and Awareness, or PASSA, by implementing programs with selected communities. PASSA in particular delivers community action plans vetted and prioritized by the community through a validated process. The goal is to develop local capacity to reduce shelter-related risks by raising awareness and developing skills in joint analysis, learning and decision-making at the community level. This corresponds very well with an expressed need identified during the roundtable consultations held in Monrovia early in 2017. PASSA is a process that guides community groups through eight participatory activities that enable participants to:

- Develop awareness of shelter safety issues in their community.
- Identify hazards and vulnerabilities that create risk.
- Recognize and analyze causes of shelter and settlement vulnerability.
- Identify and prioritize potential strategies and interventions to improve shelter and settlement safety.
- Create a plan to put those safety strategies into place and carry out interventions based on local capacities (community action plan).
- Monitor and evaluate progress.
- Include technical support to ensure that outcomes are sustainable and realistic. Oversight of this process should be provided by the government agency designated to lead the initiative.

Community infrastructure improvements: Based on the findings and outcomes of CBDRM and/or PASSA processes (community action plans), a prioritized list of small community infrastructure works should be implemented in selected communities to improve environments and health components. A sample of these interventions could be physical works to improve storm drainage, solid waste management schemes, communal latrines and showers, paving of access roads and walkways, and introduction of street lighting and water distribution points. This is not a comprehensive list; conceptualization and prioritization should be the outcome of community-led processes. A designated government agency should take oversight and provide support to this intervention by providing technical assistance; support with engineering designs, bidding and contracting; field supervision; and quality control and assurance. Criteria for selecting specific projects should be based on scope, priority for beneficiaries, sustainability,

maintenance issues and costs.

Diversified shelter solutions: This intervention relates to the introduction of an incremental construction and improvements approach to address shelter needs. It involves the implementation of pilot, demonstration shelter solutions, such as repairs at different levels, expansion of existing dwellings, construction of transitional shelter solutions, etc. The incremental construction approach should be the preferred strategy for slum upgrading (together with the community infrastructure improvements) in viable informal settlements. Skills training programs (masonry, carpentry, welding, general construction management, etc.) should also be part of the mix to support quality improvements and the incremental approach, while elevating livelihood opportunities. Currently, the NHA focuses on greenfield developments that deliver fully finished housing solutions with a relatively high cost, not on improving existing housing stock. On-site improvements, repairs, retrofits and house expansions are market opportunities that need to be leveraged because of the advantages related to urban density and nondisruption of existing livelihoods.

Land tenure continuum: To support secure land tenure, this community-level intervention will allow for land surveys to be conducted (both topographical and property occupancy status) in order to inform casework for households to regularize tenure. Surveys can also allow for reconfiguration of urban layout and technical description of plots of land for land registration purposes. Political will and government intervention are required to promote the issuance of “certificates of tenure” or any other legal or binding document to prevent forced evictions. This intervention should be linked to a wider policy oriented to promote secure tenure while connecting to relocation and/or densification initiatives based on city-level settlement viability studies (land use/planning).

Institutional capacity building: Specialized units will be developed at the NHA, the EPA and related government entities in order to create an institutional platform to support knowledge transfer processes and the implementation and oversight of community-level interventions, initially at the pilot and demonstration level, and later as a matter of sustainability of these approaches. The inception of these concepts and methodologies will require activities such as training of trainers, formation of facilitators, etc. Government entities will also have to modify their mandates and operational setup in order to incorporate these modalities of interventions in communities in order to ensure replicability of pilots beyond sample communities. This has policy implications, as current organizational mandates and strategies will need to be modified, with impacts on organigrams and budgets.

Livelihood support: This refers to the need to intentionally identify and leverage the linkages between shelter and livelihoods in the Greater Monrovia context, and to ensure that they are embedded in all other community-level interventions. In addition to a skills training component, ideas include the involvement of community groups in direct implementation of infrastructure works or incremental construction through community contracting schemes, labour provision, cash for work, etc. Another component could look into the many concrete block production

schemes taking place at the community level, and introduce elements to improve quality and marketing of such production for use in improvements.

Table: Summarizing community-level interventions

Metropolitan-level interventions			
Need	Description	Potential intervention	Actors
Prevent life and property loss by locational and climatic recurrent hazards in high-risk areas (nonviable settlements)	<ul style="list-style-type: none"> Relocate households located in high-risk areas while preventing major impacts on livelihoods. Density existing low-density urban areas through an infill strategy. 	<ul style="list-style-type: none"> Implement urban relocation and densification studies. Prevent additional settlement in high-risk areas by enforcing alternative mechanisms. 	NHA, MIA, MCC, PCC, etc.
Reduce further impacts of prevalent locational and climatic hazards in medium-risk areas (viable settlements)	<ul style="list-style-type: none"> Structural disaster mitigation through infrastructure development to reduce the impact of flooding and sea erosion. 	<ul style="list-style-type: none"> Conduct hydrological, drainage and topographical studies and mapping; determine citywide patterns of storm runoff and flood levels for areas subject to natural ecosystem renewal; conduct sea erosion studies; select appropriate mitigation interventions with livelihood support potential. 	MPW, EPA.
Increased institutional capacity to implement citywide interventions	<ul style="list-style-type: none"> Increase the knowledge and management capacity of key government agencies to manage increased planning, design, implementing, regulatory and enforcement roles. 	<ul style="list-style-type: none"> Funding and capacity building initiatives to support additional staff members, operating resources, management education and training. 	MPW, LCP.
Settlement-level interventions			
Increased awareness of hazards, risks and safe shelter practices	<ul style="list-style-type: none"> Increase the education and awareness of households and communities around prevalent hazards and ways to mitigate or prepare for adverse effects on their shelter and settlements. 	<ul style="list-style-type: none"> Implement community awareness and empowerment around risk reduction and preparedness, through identification of hazards, prioritization and potential implementation of identified solutions. Introduce and implement a participatory methodology 	NHA, EPA, LCP, Habitat for Humanity.

		such as CBDRM or PASSA for this purpose.	
Institutional capacity to implement education and awareness on hazards, risks and safe shelter practices	<ul style="list-style-type: none"> Institutional capacity building. 	Training of trainers initiatives to facilitate knowledge transfer on CBDRM and/or PASSA.	NHA, EPA, Liberia Red Cross, IFRC, Habitat for Humanity.
Improved settlement environment	<ul style="list-style-type: none"> Reduce impacts of climatic and nonclimatic hazards on community-level infrastructure. 	Implementation of settlement-level maintenance and sanitation initiatives (drainage, sanitation, solid waste management, etc.) with links to livelihood development.	NHA, MPW, MCC, LCP, Habitat for Humanity.
Diversified approach to safe shelter solutions	<p>No one size fits all.</p> <ul style="list-style-type: none"> Introduce a comprehensive housing strategy and expand options to scale up safe shelter and settlements through innovative new approaches for self-owned and rental housing markets. 	Introduce and support a diversified, incremental housing solution approach that includes repairs, transitional shelter units, building of extra/additional rooms, building of core houses, addition of latrines, and construction skills training.	NHA, LCP, Habitat for Humanity.
Institutional capacity to implement a diversified, incremental approach to safe shelter and settlements solutions	<ul style="list-style-type: none"> Institutional capacity building for NHA. 	Training of trainers initiatives to facilitate knowledge transfer on an incremental housing solutions approach.	NHA, MCC, PCC, etc., LCP, Habitat for Humanity
Secure tenure, land regularization in informal settlements	Regularize tenure under a reconfiguration scheme for informal settlements.	Includes activities related to field surveys, enumeration of occupying households, determination of property lines, technical description of plots, settlement layout with defined public/private boundaries, issue of government-validated certificates of tenure.	MIA, NHA, MCC, PCC, etc.

Market-level interventions

Regarding the proposed market interventions, we note six broad categories of constraints in the housing market in Liberia, namely land supply, infrastructure, housing finance, housing supply

(inputs and services), capacity of the private and public sectors, and household affordability levels. Of those categories, housing finance and housing supply most readily lend themselves to potential private-sector solutions, though as noted in the assessments, the market is thin and the challenges to commercial viability are great. These then are the broad entry points for the potential interventions. A sound strategy for markets requires us to look at solutions that address underlying systemic constraints in order to make housing markets more inclusive of the poor, sustainably and at scale. This often requires us to source ideas and solutions from the private sector, who then takes responsibility for proposed pilots, with a facilitating organization (such as Habitat for Humanity or any other) supporting the process. Any solution that then makes commercial sense and will be tested through a pilot, adapted by the firm(s) and promoted or offered on an ongoing basis without significant additional input. Other firms may copy the success of the innovation and increase reach into the communities and markets they serve. In that way, the solution achieves a level of systemic change resulting in a more inclusive and resilient market, which will continue after the facilitating agent leaves.

A range of potential interventions that focus on private-sector housing arose from Habitat for Humanity International’s assessments and consultations. The interventions are highlighted below and divided between those that focus on housing supply and those that focus on access to housing finance — the two areas where the private sector has the biggest role to play. The list below should be seen as comprehensive but not exhaustive.

Table: Summarizing market-level interventions: Housing supply

Housing supply public sector/enabling environment interventions			
Need	Description	Potential intervention	Potential actors
Materials research and development	<ul style="list-style-type: none"> There is little diversity in building materials and technologies because they are little used and little understood. More research and experimentation must be done to understand the advantages and disadvantages of alternatives to concrete block construction (such as soil-stabilized 	<ul style="list-style-type: none"> Comparative cost benefit analyses of different types of materials. Testing of alternative materials, evaluation of their durability and proper use, and use of these materials in the construction of public buildings to demonstrate their potential. There is a role for the National Housing 	<p>National Housing Authority, with assistance from the South African government, Ministry of Public Works, vocational schools.</p> <p>Facilitator: Development organizations.</p>

	<p>blocks, bamboo and wood) and to commercialize these alternatives.</p>	<p>Authority, related government ministries and agencies, and NGOs to play in this category. The inclusion of the private sector would be essential to ensure commercialization of the materials.</p> <ul style="list-style-type: none"> • The government of Liberia should use alternative building materials in the construction of public buildings to demonstrate its potential. 	
Appropriate designs	<ul style="list-style-type: none"> • There is an immediate need to reduce housing costs from a materials perspective and a design perspective, focusing on materials currently used, with the understanding that alternative materials will take time to penetrate the market. Additionally, the National Housing Authority would benefit from having a menu of housing typologies for a variety of scenarios, building capacity within the authority to make the right selections. • Development of a technical housing construction guide for different densities, typologies, and climatic conditions. 	<ul style="list-style-type: none"> • Development of designs that provide guidelines on typical building materials to minimize costs while maintaining quality. • Development of designs for different population densities, and development of core house designs using existing materials. • Implementation of design competitions that use local skills and promote awareness of alternative designs and materials. 	<p>National Housing Authority, Liberian design and architecture consultancies and firms, Stella Maris Polytechnic, Monrovia Vocational & Training Institute (MVTI), Liberia Opportunity for Industrialization Centre (LOIC). Development organizations (facilitating knowledge transfer).</p> <p>The National Housing Authority; technical, vocational and training institutions; and interested NGOs have a role to play in this, along with the private sector, which would be necessary for commercialization of the designs.</p>
Building codes and standards	<ul style="list-style-type: none"> • Building codes support quality as well as long-term value of homes, but currently the codes are outdated or nonexistent and do not incorporate alternatives to concrete construction or appropriately address incremental housing or hazard risks. 	<ul style="list-style-type: none"> • Review and revision of the building codes to ensure they incorporate a variety of materials and support both formal and informal (incrementally built) housing, as well as prevalent hazards. 	<p>National Housing Authority, Ministry of Public Works, Ministry of Internal Affairs, Government of South Africa (support). Development organizations (advocating). The updating of the building codes and standards would require a substantial amount of work and</p>

			would need to be undertaken jointly by the National Housing Authority and the Ministry of Public Works.
Employee work readiness and management deficiencies	There is a general lack of managerial skills, in particular project management skills, in the construction sector, felt keenly by developers and contractors.	<ul style="list-style-type: none"> Development and/or use of existing project management curricula, and work readiness training for construction-related professionals and artisans. The technical and vocational education and training institutions in Monrovia have a large role to play in facilitating this. 	<p>National Housing Authority should play a leading role in developing the skills in the construction sector.</p> <p>The government of South Africa could play a role in providing technical assistance, as it has an existing agreement with the NHA.</p>
Housing knowledge sharing	<ul style="list-style-type: none"> There is a lack of housing-related research and knowledge that is publicly available in a centralized location. The National Housing Authority should consider collecting and publicly sharing all present and future research in the Liberian housing sector. 	<ul style="list-style-type: none"> A website should share this information and be regularly administered. Additionally, a centrally located National Housing Authority demonstration site and resource center in Monrovia, open to the public and perhaps jointly administered with the housing and construction private sector, might be viable. 	<p>National Housing Authority, Ministry of Internal Affairs, and a consortium of housing firms.</p> <p>Facilitator: Development organizations.</p>
Incremental housing capacity at the National Housing Authority	The National Housing Authority lacks a strategy and capacity to work on incremental housing.	<ul style="list-style-type: none"> Development of guidelines related to incremental construction. Development of a strategy for incremental housing. Experience sharing with the South African government around incremental housing. 	National Housing Authority, the government of South Africa and development organizations.
Private-sector interventions			
Private-sector innovations	There is a need to draw on the experience of the private housing sector and source ideas to lower construction costs and increase access to quality housing and housing inputs, especially for	<ul style="list-style-type: none"> Solicitation of firm-led initiatives that can be supported by development organizations through advisory services and financing. 	<p>Housing suppliers/firms, National Housing Authority.</p> <p>Facilitator: Development organizations.</p>

	homebuilders who are constructing their homes incrementally.		
Construction labor and labor providers	The skill level of local construction artisans (masons, informal contractors) and laborers is low. This affects incremental housing, as households rely on masons and other artisans who have been trained on the job and may not have adequate skills to build a quality house.	<ul style="list-style-type: none"> • Research into key deficiencies in the construction labor market, government-led expansion and certification of construction-related vocational courses. • Firm-led training initiatives targeting low-skill areas that have a significant adverse impact on housing outcomes in Monrovia. This latter category could be an intervention undertaken by firms to improve the skills of their clients while helping positioning the firms in the market. The process would be similar to that used for the “private-sector innovations” category. 	National Housing Authority; vocational training schools; and construction firms, material retailers and wholesalers with a commercial interest in upgrading their clients’ skills.
Housing and rental transparency in the market	There is a need to establish a way for the public to peruse what housing is available in the market, in terms of sales and rental, as it is currently communicated mostly by word of mouth and there is little transparency around pricing.	<ul style="list-style-type: none"> • Establishment of neighbourhood or community bulletins and online platforms for publishing real estate and rental advertisements, pricing, and transaction history. 	National Housing Authority, Realtors and relevant housing associations.

Table: Summarizing market-level interventions: Housing finance

Housing finance enabling environment financial sector interventions			
Need	Description	Potential intervention	Actors
Regulatory framework for the microfinance sector	The lack of a strong regulatory framework was highlighted by various stakeholders. The Central Bank of Liberia has a role to play in developing these policies and regulations. This is a longer-term intervention that would need to take place as the sector develops, and may	<ul style="list-style-type: none"> • CBL develops microfinance policy/regulatory framework based on emerging issues as the sector evolves. 	CBL, microfinance institution network. Potential facilitator: Development organizations.

	not be necessary at this early stage.		
Capacity building for the microfinance sector	<p>The microfinance sector is nascent and is characterized by a range of capacity deficits. There is a need to promote the growth of the sector, to improve transparency, and to allow regulations to facilitate delivery and accountability in the system. For commercially successful operations focused on housing microfinance to succeed, a range of stakeholders will need to focus on strengthening the sector as a whole to administer loans and sustain operations.</p> <p>Related to the need for capacity building of the microfinance sector, there is a need to strengthen the microfinance institution association that serves its members in Liberia. There is a network, but it is not functioning effectively and lacks capacity. Intervention possibilities include supporting the functioning of an autonomous microfinance institution association/forum of practitioners, capacitating the association to participate in policy formulation and ensuring adherence by its members, while helping the association train trainers.</p>	<ul style="list-style-type: none"> • Involve the CBL and microfinance association to develop a training-of-trainers workshop for the microfinance sector. • Conduct rapid capacity building assessment for the microfinance sector • Provide orientation to microfinance institutions on best practices. • Conduct a peer exchange-knowledge transfer with other African microfinance institutions. • Habitat for Humanity's housing microfinance tool kit can be adapted to develop modules so that finance institutions can determine their readiness for introducing housing products to their portfolio. • Support the functioning of an autonomous microfinance institution association/forum of practitioners. • Microfinance institution association participates in policy formulation and ensures adherence by its members. • The association engages in training of trainers around capacity building. 	<p>Development organizations/NHA facilitate and source consultants to conduct capacity assessment.</p> <p>CBL and microfinance institution association will co-facilitate training.</p>
Credit reference bureau	<p>There is a need for an organization providing information on individuals' borrowing and bill-paying habits. Credit information, such as a person's previous loan performance, is a powerful tool to predict her or his future behavior. Such credit information reduces the effect of asymmetric information between borrowers and lenders, and alleviates</p>	<ul style="list-style-type: none"> • Launch of an informational credit rating platform that can be accessed by finance institutions in the country. • Establishment of linkages of the microfinance institution association with service providers in other African countries around credit reporting. 	<p>Microfinance institutions, CBL, NHA.</p>

	problems of adverse selection and moral hazard. First, however, a fundamental issue that must be addressed is that there is no national identification number for every Liberian citizen.	<ul style="list-style-type: none"> Central Bank of Liberia supports the process of establishing a credit tracking bureau and beneficiary tracking systems. 	
Long-term funding	There is a lack of sources of long-term funding in the market. There is also a lack of norms and standards and best practice in the sector that is required to attract the necessary investors.	<ul style="list-style-type: none"> In the short term, explore the establishment of a guarantee fund that can back up loans and diminish the risk of FIs in entering housing finance. Identification of sources of long-term funding suitable for the purpose (housing microfinance, micro-mortgages) MFI Association ensures that CGAP benchmarks for best practice is adhered by its members. 	CBL, MFI association, Development organizations (coordination role and identifies potential sources for the guarantee fund, in order to incentivize investors)
Private-sector interventions			
Increasing reach into the informal sector	Formal financial institutions find it challenging to work with clients in the informal sector, which includes the majority of potential clients in greater Monrovia.	<ul style="list-style-type: none"> Work with apex organizations or associations (such as Napetul) to identify potential collaborations and aggregate demand for housing microfinance. VSLA or other credit unions can organize demand and offer savings as collateral for incremental housing of low-income households. Provision of capacity building to these financial service providers to take on housing finance products through workshops or trainings. 	Microfinance institutions, housing supply firms, YMCA, VSLA APEX, Napetul, NHA. Potential facilitator: Development organizations.
Incremental housing products	There are no financial products focused on productive housing that increases access to housing finance and improves livelihoods.	<ul style="list-style-type: none"> Solicitation of financial institutions interested in pilot-testing products, supported with technical assistance. Institutional capacity assessment around governance and 	Microfinance institutions, NHA, microfinance institution association, development organizations.

		<p>management, operations staff, and operational systems.</p> <ul style="list-style-type: none"> • Potential establishment of a pay-for-performance process for microfinance institutions that are taking on the new product to mitigate risk. • Potential down payment incentives for clients. 	
Housing microfinance products	<p>There are no housing microfinance products focused on incremental construction, adapted to the needs, capacity and preferences of the clients.</p>	<ul style="list-style-type: none"> • Solicitation of financial institutions interested in pilot-testing products, supported by technical assistance. • Institutional capacity assessment around governance and management, operations staff, and operational systems. Ongoing institutional mentoring and accompaniment based on identified gaps. • Potential establishment of a pay-for-performance process for microfinance institutions that are taking on the new product to mitigate risk. Potential down payment incentives for clients. 	<p>Microfinance institutions, NHA, microfinance institution association, development organizations.</p>

Policy-level interventions

The analysis of the housing policy context revealed major gaps in the land, housing and infrastructure policy environment. The weak land administration system and the need for land reform will hopefully be resolved by the passing of the Land Rights Bill, 2014. Procedures for the regularization of slum settlements still need to be established and would need to be implemented through a collaborative effort between various government departments, including the National Housing Authority, Ministry of Internal Affairs, Ministry of Public Works, Ministry of Lands, Mines and Energy, Environmental Protection Agency, or EPA, Land Authority and the Metropolitan City Councils. The National Housing Policy is 90 percent complete and has been through a countrywide consultation and validation with key stakeholders and is pending cabinet presentation and ratification. However, the draft housing policy requires updating to be relevant to the current urban context and to meet the housing needs of low-income households,

including slum upgrading, affordable rental housing, the provision of basic services and bulk infrastructure to support affordable housing delivery and support for incremental housing processes through which the majority of low-income households improve their housing conditions.

Current housing policies and programs in Liberia are limited and narrowly focused on delivering subsidized houses to middle-income households who could afford mortgages of US\$15,000 to \$20,000. There has been no focus on low-income households, even though 70 percent of the population of Monrovia lives in slums and builds homes incrementally. The only housing the NHA currently provides to low-income families are the shelters provided in Brewerville for families displaced by sea erosion in West Point. To address the current qualitative and quantitative shortage of housing, the mandate, policies, strategy and programs of the government of Liberia need to shift from the ad hoc greenfield projects that serve a few privileged employed households to a more comprehensive programmatic approach that addresses the needs of the majority of low-income households that are living in slums, renting, and making improvements to their shelter and homes incrementally.

Table: Summarizing policy-level interventions

Policy-level interventions			
Need	Description	Potential intervention	Potential actors
Voluntary relocation guidelines	<ul style="list-style-type: none"> Relocation guidelines: Certain low-income households that are at risk because of environmental hazards and vulnerabilities, including sea erosion, river flooding, etc., may require relocation to more suitable areas. Advocate to government for the use of good relocation practices that are conducted in a manner that takes into consideration household livelihoods and social networks and promotes community participation, engagement and choice. Identification of land within greater Monrovia for relocation and densification. 	<ul style="list-style-type: none"> Support NHA in developing relocation guidelines that include best practices to support required relocations and identification of land for relocation and densification. 	NHA, EPA, MCC, PCC, UNDP, supported by Habitat for Humanity International and CA.

Slum upgrading guidelines	<ul style="list-style-type: none"> • A clear policy is needed on slum upgrading that addresses the formalization and upgrading of informal settlements. 	<ul style="list-style-type: none"> • Provide support to NHA to develop slum upgrading guidelines that include best practices and lessons from piloting the upgrading of community-level interventions. 	NHA, MPW, Land Authority, MCC, PCC, Government of South Africa, Community, Cities Alliance, Habitat for Humanity International, SDI, YMCA, UN-HABITAT.
Incremental housing capacity at the National Housing Authority	<ul style="list-style-type: none"> • The National Housing Authority lacks a strategy and capacity to work on incremental housing. • The NHA needs to develop an incremental housing support program. 	<ul style="list-style-type: none"> • Development of guidelines related to incremental construction. • Development of a strategy for incremental housing. • Experience sharing with South Africa's government on incremental housing. • Provision of guidelines for the incremental housing program. 	National Housing Authority, Government of South Africa, Habitat for Humanity.
Housing forum to coordinate activities among public, private and community actors	<ul style="list-style-type: none"> • Housing is at the heart of the New Urban Agenda and should be at the center of city and urban development. • Create partnerships and alliances with other organizations that are willing to promote incremental housing in Monrovia and can help initiate housing finance. 	<ul style="list-style-type: none"> • Establish a housing forum under the City Forum as a community of practitioners in order to share opportunities, challenges, experiences and synergies among stakeholders, including financial service providers. 	<ul style="list-style-type: none"> • NHA will spearhead formation and running of the housing forum. Habitat will support effective running of the forum secretariat.
Clear housing mandate	<ul style="list-style-type: none"> • Housing requires representation at the ministerial level, as currently there is only a National Housing Authority. • The housing mandate is spread among NHA; the Ministry of Internal Affairs; the Ministry of Public Works; MCC; and the Ministry of Land, Mines and Energy. The mandate needs to be consolidated, funded and prioritized to support slum upgrading and affordable housing. • The government of Liberia needs to prioritize housing issues at a national level and needs to link housing to poverty reduction. 	<ul style="list-style-type: none"> • Establishment of a Ministry of Housing or annexing the NHA expansion to an existing ministerial portfolio. 	GOL (Governance Commission), NHA Facilitator: Cities Alliance.

National Housing Policy guidelines	<ul style="list-style-type: none"> • The policy is 90 percent done. Countrywide consultation and validation with key stakeholders has been done pending cabinet presentation and ratification but would need to be updated to include incremental housing, slum upgrading, rental housing, etc. • The policy should include the definition of affordable housing and low-income households. • Guidelines are needed on minimum Housing Quality Standards, including household density standards. 	<ul style="list-style-type: none"> • Provide NHA with guidelines to expand the draft National Housing Policy to support low-income households. 	<p>GOL (Governance Commission), NHA, MIA, MPW, Government of South Africa, Cities Alliance, Habitat for Humanity International and UN-HABITAT.</p>
Government subsidy policy targeted at low-income and vulnerable households	<ul style="list-style-type: none"> • Government subsidies need to be targeted for the most vulnerable and low-income households in Greater Monrovia. • A clear definition of income categories and benefits is needed. • A long-term strategy is required to support the funding of subsidies. • A model for a Housing Trust Fund must be developed that is funded through taxation. 	<ul style="list-style-type: none"> • Support NHA in developing a subsidy policy. • Establish a Housing Trust Fund. 	<p>House and Senate Committees on State-Owned Enterprises, Civil Service Agency, National Commission on Concessions, NHA, Ministry of Finance, Government of South Africa, Cities Alliance, Habitat for Humanity International.</p>
Updated building codes and regulations that are contextually relevant	<ul style="list-style-type: none"> • Building codes support quality and the long-term value of homes, but currently the codes are outdated or nonexistent, do not incorporate alternatives to concrete construction, and do not appropriately address progressive housing or hazard risks. • Some work around building codes has been ongoing, led by MOPW's Zoning Department. MOPW should continue leading this. There is need for further discussions in Year 3 to establish the status and collaboration. More financial resources may be mobilized from other sources. 	<ul style="list-style-type: none"> • Contribute to the enhancement of the building codes and ensure they incorporate a variety of materials, and support both formal and informal (incrementally built) housing, as well as prevalent hazards. 	<p>National Housing Authority, Ministry of Public Works, Ministry of Internal Affairs, Cities Alliance, Habitat for Humanity International, Government of South Africa, Association of Liberian Construction Contractors, Liberia Institute of Architects.</p>

Amendment of the National Housing Authority Act	<ul style="list-style-type: none"> The current act is outdated and needs to be amended to address current housing issues. 	<ul style="list-style-type: none"> Support NHA in amending the National Housing Authority Act 	GOL (Governance Commission), International Republican Institute, NHA, MIA, Government of South Africa, Cities Alliance, Habitat for Humanity International and UN-HABITAT.
Citywide planning to support affordable housing delivery	<ul style="list-style-type: none"> Adoption of a citywide plan for greater Monrovia that supports a comprehensive approach to affordable housing development. Identification of land for affordable housing. Development of clear zoning and land-use management regulations that are contextually relevant. Consideration of the impact of hazards and vulnerabilities. 	<ul style="list-style-type: none"> Provide inputs into the city development strategy. Advocate for housing sector focus. Advocate for a comprehensive land use management system for greater Monrovia. 	MIA, EPA, CA.
Coordination of targeted interventions and programs	<ul style="list-style-type: none"> Need public-sector coordination to promote dialogue and collaboration around targeted urban development and housing interventions. 	<ul style="list-style-type: none"> Coordination around technical advice from different government service providers for housing. 	Relevant government ministries and agencies, NHA.
Housing knowledge management and sharing	<ul style="list-style-type: none"> Need to share information and build knowledge around affordable housing, alternative building materials, technologies and typologies. 	<ul style="list-style-type: none"> Develop a knowledge management platform linked to NHA's website. 	NHA, HFHI, CA.
Enabling environment interventions			
Increasing access to long-term financing	<ul style="list-style-type: none"> Access to long-term funding: There is little access to long-term funding in Liberia. The government needs to intervene in terms of providing government bonds and guarantees to attract long-term financing investors. There is no debt market, low GDP, and a lack of macroeconomic conditions that all make it difficult to attract long-term financing. Establishment of the mortgage market: 	<ul style="list-style-type: none"> Long-term financing solutions for banks, microfinance institutions, etc. 	Central Bank, government of South Africa. Facilitator: NHA.

	<p>Liberia’s mortgage market is highly under-developed and offers fewer than 100 mortgages a year. Loans to salaried workers are offered by commercial banks, and 60-70 percent of these loans are used for housing construction, according to some bank officials. Salaried workers are a small percentage of the population.</p> <ul style="list-style-type: none"> • Promoting growth in the microfinance sector: The microfinance sector is underdeveloped and under-capacitated in Liberia. Other banks and microfinance institutions offer loans to small and medium enterprises, but these loans typically reach only the “largest” of the small. No microfinance institution specifically provides loans for housing improvements. • Promoting growth of the semiformal sector: A majority of the market relies on self-financing through savings and loans from family and friends, remittances, and diversion of microenterprise loans where microfinance institution and credit union access is possible. A large part of the population remains outside of the formal banking sector. 		
<p>Functional land market, inclusion and strategic management of land for affordable housing</p>	<ul style="list-style-type: none"> • Need functional land markets, a land administration system and strategic management of land for affordable housing. • Increase access to land, secure tenure and housing for vulnerable low-income communities. • Much of the prime land within Monrovia is privately held and not available to the government for public housing. 	<ul style="list-style-type: none"> • Identification and digitalization (GIS) of all public land within Greater Monrovia while determining what land is available for infill low-income housing. • Development of various types of land development models for affordable housing. 	<p>Land Authority, MCC, PCC, MLME, NHA, LISGIS. Cities Alliance, Habitat for Humanity International</p>

	<ul style="list-style-type: none"> • Need to identify land for de-densification or densification for affordable housing. • Serviced land within greater Monrovia is rare and not typically provided by public entities for housing development. Most often, developers and contractors are responsible for providing the necessary infrastructure, greatly adding to the cost of new house construction and ultimately deterring investments in residential construction. 		
<p>Improve the quantity and quality of urban infrastructure to support housing</p>	<ul style="list-style-type: none"> • Infrastructure provision for housing severely lacks resources and funding. The government's allocation for investment in this sector rounds to 0.2 percent per fiscal year (around US\$1 million). • Sewer: The sewerage network is barely operational and serves only 5 percent of the population in Greater Monrovia. • Stormwater drainage: Greater Monrovia is prone to flooding because of poor storm runoff, planning and management. The underground stormwater drainage in Monrovia is limited to central areas and is a separate system from the sanitary sewerage. In high-density informal areas, drainage is a major problem, and local flooding is the most prevalent hazard, exacerbated by the low-lying land in which these settlements locate (tidal variations and high water tables). • Solid waste management: Garbage disposal is a real problem in high-density informal areas such as West Point. 	<ul style="list-style-type: none"> • Adopt a master plan for Greater Monrovia to support the coordinated development of citywide bulk infrastructure. • CA should raise awareness and prioritization through the City Development Strategy. • A funding strategy is required here. 	<p>NHA, Ministry of Public Works, Ministry of Finance, Department of Development Planning, EPA.</p> <p>Facilitator: Cities Alliance.</p>

	<p>Solid waste management in Greater Monrovia is under the Monrovia City Corporation.</p> <ul style="list-style-type: none"> • Electricity: Electricity is notably absent in much of Liberia's urban areas. • Water: 63 percent of Liberian households have access to improved sources of drinking water (the percentage rises to 82 percent for urban households). • Ecological systems adaptation plan: Explore alternative ecological solutions to support stormwater drainage in Greater Monrovia. 		
Building awareness around hazards and vulnerabilities	<ul style="list-style-type: none"> • Creating awareness around locational, climatic, non-climate and climate change risks and hazards. • Assessments of impact of climate change on low-income households living in informal settlements. 	<ul style="list-style-type: none"> • Adoption of climate change policy. • Providing awareness campaigns around hazards and vulnerabilities. • Linkages to climate change policy and impacts on affected households. 	EPA, NHA, MCC, PCC, Habitat for Humanity International.
Livelihood strategies	<ul style="list-style-type: none"> • More than 80 percent of the greater Monrovia area derives its incomes from the informal sector, and incomes are uniformly low. Sixty-eight percent of Liberians live below the poverty line. • Fifteen percent of household expenditure is spent on housing, and households have low purchasing power for materials. Low-and middle-income households make most construction decisions based principally on price, not quality, because of affordability constraints. This decision is usually based on the immediate costs of the materials rather than the life-cycle costs of the construction materials, typically resulting in increased housing costs 	<ul style="list-style-type: none"> • Implementation of livelihoods strategies across interventions, especially related to the construction sector. • Leverage and linkup to other livelihood programs to maximize support. 	NHA, Habitat for Humanity International, government of South Africa, MG.

	and less durable housing over the long term.		
Providing housing inputs into the New Urban Policy	<ul style="list-style-type: none"> • Definition of income levels. • Land concessions and provision of housing • Growth strategy for secondary cities. 	<ul style="list-style-type: none"> • Provide housing inputs into development of urban policy. 	UN-HABITAT, NHA, EPA, UNDP, Cities Alliance and Habitat for Humanity International.

Annexure A: Constraints list

Social, economic, environmental and political context																						
Key element	Constraint/key issues	Potential intervention/risk mitigation strategy																				
Population	<p>Monrovia is the political, financial, commercial and international center of Liberia. It is a statistical outlier in relation to the system of cities with a population of approximately 1.26 million, which represents 56 percent of the national urban population (World Bank, 2016 of 3.5 million, based on the 2008 census. The city has the highest population concentration in Liberia at 1,553 people per square kilometer.</p> <p>Liberia</p> <table border="1"> <tbody> <tr> <td>Population (2013)</td> <td>4.5 million</td> </tr> <tr> <td>Population growth rate (%)</td> <td>2.4</td> </tr> <tr> <td>Urban population (% of total)</td> <td>49.7</td> </tr> <tr> <td>Urbanization rate (% in 2013)</td> <td>3.20</td> </tr> <tr> <td>GDP per capita (current US\$)</td> <td>456</td> </tr> <tr> <td>GDP growth rate (annual %)</td> <td>0.30</td> </tr> <tr> <td>GDP (Current US\$)</td> <td>2 billion</td> </tr> <tr> <td>Population below national poverty line (%)</td> <td>63.8</td> </tr> <tr> <td>HDI (Global Ranking)</td> <td>177</td> </tr> <tr> <td>HDI (Country Index Score)</td> <td>0.43</td> </tr> </tbody> </table> <p>Data from World Bank's World Development Indicators (2015) and UNDP's International Human Development Indicators (2014)</p> <p>Monrovia was built to cater for 500,000 people. The current population and urbanization rate places increasing pressure on the city's existing infrastructure, services and land.</p>	Population (2013)	4.5 million	Population growth rate (%)	2.4	Urban population (% of total)	49.7	Urbanization rate (% in 2013)	3.20	GDP per capita (current US\$)	456	GDP growth rate (annual %)	0.30	GDP (Current US\$)	2 billion	Population below national poverty line (%)	63.8	HDI (Global Ranking)	177	HDI (Country Index Score)	0.43	<p>The National Urban Policy needs to take cognizance of the high concentration of people in Greater Monrovia and allocate appropriate guidelines and resources to provide for the growing urban areas, especially in relation to infrastructure, services and land.</p>
	Population (2013)	4.5 million																				
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Urbanization	<p>Liberia's urbanization rate was 3.20 in 2013¹¹, and Monrovia has experienced rapid urbanization because of population growth and internal displacement from decades of civil war. This has placed significant strain on existing infrastructure, services, roads and housing within</p>	<p>The development of a National Urban Policy can help to examine more closely the relationship, dependencies and</p>																				

¹¹ Data from World Bank's World Development Indicators (2015).

	<p>urban areas and has contributed to the growth of informal settlements.</p> <p>Urban areas are concentrated along the coast. The coastal areas of the city have higher concentrations of population that are likely to have increased since the last census as a result of recent urban migration.</p>	<p>linkages between rural and urban areas and how sustainability efforts can be more balanced along that rural-urban continuum.</p>
<p>Economic growth and level of economic development</p>	<p>Liberia is classified by the World Bank as a Low Income Country with GDP per capita of US\$786. GDP growth after the civil war ranged from 5 to 9 percent per annum but has fallen below 1 percent as a consequence of the Ebola outbreak. UNDP ranks Liberia 177th/188th on the 2015 Human Development Index, with 83 percent of the population living below US\$1.25 per day. The GINI index for 2007 was 36.48. Relative to other African countries, Liberia has a high level of urbanization at approximately 49.7 percent in 2015. That level is currently growing at 3.2 percent.¹²</p> <p>The significant decline in commodity prices, the post-Ebola fall in external support, and the exit of the U.N. mission in Liberia, have all negatively affected the economic recovery, according to the International Monetary Fund.</p> <p>The government is dependent on external budgetary support grants to meet a portion of its expenditures.</p> <p>Liberia is heavily reliant the income from the exportation of primary commodities such as rubber and timber with no or little value addition. Therefore, the Liberian economy and the government's revenue and ability to deliver services are vulnerable to global commodity price fluctuations.</p> <p>Monrovia accounts for two-thirds of Liberia's GDP and houses the national port complex and airport.</p>	<p>The National Urban Policy should look at how improvement of the economic base of urban areas can be supported.</p>
<p>Distribution of income</p>	<p>Less than 5 percent of the city's inhabitants are employed in the formal sector. The majority of inhabitants are involved in micro, small and</p>	<p>Work closely with the Ministry of Agriculture, the</p>

¹² Data from World Bank's World Development Indicators (2015).

	<p>medium activities in the informal economy to varying degrees.</p> <p>Seventy-seven percent of Liberia’s informal workers are engaged in petty trading and street vending, comprising the largest informal livelihood group in the country.¹³</p> <p>Over 2.9 million people earn less than US\$1.25 a day. Only 4.1 percent have formal employment.</p>	<p>Ministry of Commerce and Industry, and other relevant government ministries to promote and create employment in the informal business sector.</p>
Informal sector	<p>The informal sector includes small-scale economic units (including small and medium enterprises and cooperative forms of enterprise) in Liberia. Financial institutions are reluctant to lend to individuals who generally lack collateral and have limited financial products targeted at small and medium enterprises, especially risk capital or equity financing. The absence of business skills and operational and financial reporting capacity constrains the ability of these enterprises to build financially viable businesses and further limits their access to finance.</p>	<p>A well-established association of street and market traders is active in Monrovia.</p> <p>NAPETUL should facilitate engagement with its members who, as own-account operators, are among the smallest enterprises operating in Monrovia.</p>
Concessions	<p>Concessions have been signed with a number of international firms, such as Firestone. These concessions exploit natural resources and serve to leverage investment in infrastructure and services in specific growth corridors and in selected industries, such as rubber, palm oil, etc.</p>	<p>Where concessions are granted for mining, etc., concession agreements should include corporate social responsibility and social development funding commitments earmarked for use outside their immediate project area, which can be pooled and used for skills training in</p>

¹³ laborsta.ilo.org/informal_economy_E.html.

		construction by the government. ¹⁴
Political history and current situation	<p>Liberia just emerged a decade ago from two civil wars that lasted 14 years in total and killed more than 270,000 people, left half a million people internally displaced, nearly destroyed the capital's infrastructure, destroyed the national electrical grid, badly damaged the transportation network, left the financial system in collapse and resulted in the sanction of all of Liberia's resource exports.</p> <p>There is political uncertainty as general elections are scheduled for October 2017 and the government will be reorganized depending on who is elected. This impacts government commitments and mandates.</p>	<p>The government requires institutional capacity building support in order to deliver services and build up urban infrastructure.</p> <p>The engagement strategy should target permanent civil servants within the relevant government departments to ensure continuity.</p>
Basic infrastructure access	<p>The basic services and infrastructure in urban Liberia are very weak and substandard. Existing bulk infrastructure, electrical grid, road and transportation networks, and financial systems were badly damaged by the war, and the lack of proper maintenance has crippled almost all these systems. Climatically, Monrovia is the wettest capital in the world (Economist 2012), and the rainy season runs for six months from May to October. Because of the poor citywide drainage system, most of the city and informal settlements are affected by seasonal flooding, which affects livelihoods such as informal trading, the construction sector and businesses that require their goods and services to be transported by road across the country.</p> <p>Interventions to improve basic services and city infrastructure need to be addressed as part of the entire City Development Strategy and the Liberia Country Program, as they require large investments, affect the entire city infrastructure and have a direct impact on the ability of the private and public sectors to deliver affordable housing.</p>	

¹⁴ Liberia Housing Sector Profile, 2014.

	<p>Sixty-three percent of Liberian households have access to improved sources of drinking water (the percentage rises to 82 percent for urban households) and only 21 percent of urban households have access to improved toilets. There is a sewerage network, but it is barely operational and serves only 5 percent of the population in Greater Monrovia. This system was built in the 1950s and included sludge-pumping stations and a waste stabilization pond, but these became nonoperational during the civil war.¹⁵</p>	
<p>Social dynamics</p>	<p>There seems to be a lack of trust among community members, public and private institutions, foreigners running businesses, etc. There is a perception that some savings groups don't grow because no one trusts the other members to pay back adequately.</p> <p>Community members and individual families must show willingness to actively undertake housing interventions, commit resources, enter into agreements, and follow through on their respective housing interventions.</p>	<p>Work closely with Cities Alliance partners that are responsible for community mobilization and engagement in order to provide ongoing support to families — and technical advisory services if needed — as they prioritize, plan and implement their housing interventions.</p>
<p>Affordability levels</p>	<p>Extremely low levels of income and affordability. Families prioritize food, health and education above all else and have very limited disposable income.</p>	<p>Engage other actors in the public and private sectors and establish linkages with targeted communities to a wider diversity of livelihoods and economic pathways and programs. Additional income generated by low-income households could be directed to</p>

¹⁵ Liberia Housing Sector Profile.

		cover the cost of housing. In addition, establish affordable housing options and prototypes with a phased payment modality suitable for low-income households. Promoting local productive industries is one of the best ways forward.
Government capacity and sustainability	The government has a financial deficit and has difficulty paying salaries. The projected revenue is not close to the actual collected revenue. This has many negative effects, such as an inability to attract skilled technocrats and on the part of the private sector to make large investments.	Encourage the Liberian government to review its dependency on extractives and refocus investment in exportable agricultural goods that have the potential to generate more revenue.
Inflation, savings and conditions in the financial sector	<p>The financial sector is very weak, and there is a lack of long-term funding, limited mortgage funding, and few microfinance providers.</p> <p>Liberia’s economy is in a vulnerable state. As such, the banking sector is facing pressure with significant nonperforming loans, weak profitability, a high cost of credit and scarce access to financing, particularly in the case of small and medium enterprises, This is continuing to impede entrepreneurial activity and private-sector development. Eight commercial banks currently operate in Liberia, with almost 80 branches across the country.</p>	Advocate for more government involvement in the housing finance sector and encourage investment into housing finance banks with products tailored to suit the local capacities of low-income households.
Housing and human settlement conditions	The majority of Liberians lack decent and affordable housing, and live with substandard housing conditions in slums. It is estimated that 70 percent of the population of greater Monrovia live in informal settlements and lack the financial capital to improve their living conditions.	

Conditions in the construction sector	<p>Wholesale and retail construction is dominated by foreigners, as they have better access to finance (externally and internally) and better support networks. The perception among Liberians is that the money leaves Liberia and does not return. However, many foreigners whom we engaged are reinvesting in land and real estate, as they see this as a better long-term investment. For programs focused on developing Liberians-owned businesses, there is a limited pool to draw from.</p>	
Hazards and vulnerabilities	<p>The climatic conditions are challenging, as it rains for six months from May to October. The rain affects livelihoods, transportation, incremental housing and the ability of business to operate because of the lack of roads and infrastructure, which hinders the transportation of goods, services and cash.</p>	<p>Use the rainy season to mobilize required resources, and scale up infrastructural works during the dry spell, including undertaking more hours of work per day to minimize interruptions caused by poor weather conditions.</p>
Informal settlements	<p>The rapid growth of the city resulted in the proliferation of slums and informal settlements in Monrovia, which continue to mushroom because of inadequate and incompetent development control mechanisms, along with poor and outdated planning standards and laws. The relocation of some informal settlement residents will have to be considered because many of these settlements are located in mangroves and areas prone to flooding and sea erosion.</p>	<p>Create new and better employment opportunities and conditions via mining and agricultural concessionary companies in order to provide an incentive to relocate communities from informal settlements.</p>
Partnerships	<p>Public-private-people partnerships are essential because of the complexity of the urban areas and the interconnectedness and interdependencies among the political, social, economic and environmental layers.</p>	<p>Establish an alliance for affordable housing with all relevant stakeholders involved. This will be a platform to identify available and emerging opportunities for</p>

		improving the incomes of low-income households, sharing information and updates related to affordable housing options and prototypes, and serving as an advocacy and policy advisory body to the government.
Infrastructure	<p>There is a lack of bulk and basic service infrastructure to support urban development, the upgrading of slums and the identification of relocation sites for communities living in disaster-prone areas or those with high flooding risk.</p> <p>a. The cost of infrastructure per household should be around US\$2,500 capital cost or \$20 per month at 2013 prices. This cost indicates that shared taps and toilets, non-waterborne sanitation technologies, and community-operated waste disposal are the likely technologies to fit the bill. In addition, there must be limited plot space per household to shorten pipe and road lengths, which indicates multi-occupant housing for many households. (Liberia Housing Profile)</p> <p>b. Provision of appropriate water, sanitation and hygiene, or WASH, services to high-density neighbourhoods should be a priority, as improvement in infrastructure from a zero base generates the highest social, health and economic benefits. The choice of technologies and planning for incremental improvements is crucial. Community involvement at the planning, installing and operating phases and information campaigns are all essential for sustainable supply used in appropriate ways. (Liberia Housing Profile)</p> <p>c. Though restoring the water-borne sewerage system in Monrovia is currently regarded as a priority, infrastructure providers should consider whether it is cost-effective to do</p>	

	<p>so; pour flush to septic tank solutions may be more appropriate where densities are high. (Liberia Housing Profile)</p> <p>d. Infrastructure in small cities should be appropriate to their ability to provide and maintain WASH and other services over the long term, both in the reach of services and their continuing operation day by day. Community-led and operated schemes are more likely to succeed than top-down imposition. (Liberia Housing Profile)</p> <p>e. Tariffs and sanctions for nonpayment should be operated at levels that ensure sustainable services. This includes the government and its agencies paying for their services on time and ensuring that major service providers are financially stable. (Liberia Housing Profile)</p> <p>f. Alternatives to burning wood or charcoal are essential for sustainable urban fuel use. (Liberia Housing Profile)</p> <p>g. Rainwater harvesting is an important way of accessing water in the context of inadequate collective water infrastructure systems, but it is important to use sealed containers in order to avoid any leakages, especially if the water is to be used for drinking. (Liberia Housing Profile)</p>	
<p>Climate change</p>	<p>The Climate Change Vulnerability Index ranks Liberia at high risk because of high levels of poverty; extreme dependence on climate-sensitive sectors like agriculture, forestry, fisheries, energy and mining; and weak national capacity to adapt to predicted changes in the climate.</p> <p>Various global climate models project a sea-level rise in Liberia of 0.13-0.56 meters by the 2090s relative to the sea level from 1980 to 1999. With 560 kilometers of coastline, Liberia is ranked eighth in the world for the percentage of population living in low-elevation coastal zones. Added to this are low human development and income levels and low coping capacity, making Liberia highly vulnerable to the impacts of sea level rise and extreme weather events. An estimated 95 square kilometers of land along the</p>	

	<p>coast would be inundated if the sea level rises by 1 meter.</p> <p>Within Liberia, the capital, Monrovia, is one of the worst affected and most vulnerable to climate change-induced coastal impacts. With a sea level rise of 1 meter, parts of the city, including West Point and New Kru Town, will be affected, as those areas are less than 1 meter above mean sea level. A USAID study conducted in 2013 estimated that US\$250 million worth of land and infrastructure will be lost. An assessment conducted for this study estimates the replacement cost of infrastructure to be in the range of US\$765 million (see table below).</p> <p>The impacts of rising sea levels and extreme weather events on the society, economy and environment of Monrovia Metropolitan Area include:</p> <ol style="list-style-type: none"> a. Displacement of people due to loss of settlements to a receding coastline. b. Loss of critical infrastructure and economic assets due to receding coastline. c. Loss of livelihoods and social disruption. d. Loss of critical ecosystems and ecosystem services due to erosion. <p>Sea erosion observed in Monrovia is estimated to be 4.5 meters per year on average since 2006. In some parts of the city and its immediate environs, residents report that the coast has receded nearly 100 meters over the past 30 years. Some reports, superimposing 1970s military maps with 2008 satellite maps, show a shoreline recession of nearly 250 meters. So far over 674 households are reported have been displaced by erosion of coastal settlements in a number of areas, including West Point Township and the Borough of New Cru Town. The government estimates that a further 30,000 families are likely to be affected if no action is taken. The affected areas are mostly low-income informal settlements where the main livelihood strategies are informal trading and fishing. The most significant environmental impact of sea-level rise could be damage to the</p>	
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	<p>ecologically, economically and culturally important remaining mangrove forests. Although much of the original mangrove systems have already been compromised, they are critical for marine and coastal biodiversity. Mangroves are also important for the local economy in a number of ways, including for the manufacture of charcoal for fish drying. The loss of mangroves has two feedback loops to further exacerbate the impact of sea level rise and extreme events. First, the reduction in area of the mangrove wetlands results in a loss of buffering capacity, and second, the loss of mangroves further limits the livelihood resiliency of affected communities.</p>	
Climatic conditions	<p>Liberia has a tropical and humid climate. The temperature remains uniformly high throughout the year, with an average varying between 26 and 28 degrees Celsius. There are two seasons: the rainy season starts in May and ends in October each year, while the dry season starts in November and ends in April of the following year. Annual rainfall varies from 3,500 to 4,600 millimeters in the south, and declines to about 1,500-2,500 millimeters in the north (see Figure 02). Most areas have a water surplus for five to eight months each year.</p>	

Table: Housing policy environment and government capacity

Housing policy environment and government capacity		
Key element	Constraint/details	Potential intervention/risk mitigation strategy
Land access and tenure security	<p>Land access and tenure security are perhaps the most fundamental building blocks of affordable housing. In the absence of this, affordable housing becomes an impossibility. This is also the trickiest and most complicated issue to tackle. Globally, the most successful solutions to land and tenure security issues are mainly policy-related, enacted by governments. In Liberia, a comprehensive land reform process has begun, and it is not the purpose of this framework to step into the middle of that</p>	<p>In terms of intervention, our suggestion is that the national government see that reform process to the fullest extent.</p> <p>a. Land sharing, land re-adjustment and landpooling might all be tried to allow</p>

	<p>process. In terms of intervention, our suggestion is that the national government see that reform process to the fullest extent.</p> <p>a. Land sharing, land re-adjustment and landpooling might all be tried to allow neighbourhoods to develop while keeping significant numbers of their current occupants close to their chosen location. (Liberia Housing Profile)</p> <p>b. Land tenure security at less than freehold but offering protection against eviction in the foreseeable future and the right to build in permanent materials should be introduced without a cadastral survey or full land registration to encourage occupants to invest more in their homes. (Liberia Housing Profile)</p> <p>c. Any new law dealing with plot sizes should reduce the minimum and consider encouraging multioccupied housing in many neighbourhoods. (Liberia Housing Profile)</p> <p>d. The new Land Rights Act should be passed into law without delay, and chiefs should be encouraged to take part in discussions on urban expansion wherever it is likely to occur. (Liberia Housing Profile)</p>	<p>neighbourhoods to develop while keeping significant numbers of their current occupants close to their chosen location. (Liberia Housing Profile)</p> <p>b. Land tenure security at less than freehold but offering protection against eviction in the foreseeable future and the right to build in permanent materials should be introduced without a cadastral survey or full land registration to encourage occupants to invest more in their homes. (Liberia Housing Profile)</p> <p>c. Any new law dealing with plot sizes should reduce the minimum and consider encouraging multioccupied housing in many neighbourhoods. (Liberia Housing Profile)</p> <p>d. The new Land Rights Act should be passed into law without delay, and chiefs should be encouraged to take part in discussions on urban expansion wherever it is likely to occur. (Liberia Housing Profile)</p>
	<p>i. Establishment of a private-sector working group or umbrella organization on</p>	<p>1. Policy-makers should not assume</p>

	<p>low-income housing, for coordinating actors and determining challenges from their perspective that could be addressed by policy change and government action.</p> <p>ii. Development of governmental programs and strategies for incremental homebuilders.</p> <p>iii. Government efforts devoted to encouraging the development of more locally manufactured materials.</p> <p>iv. Lower excise duties and import taxes for construction supplies.</p> <p>v. Large-scale training investments in Liberians who wish to become construction-related professionals.</p> <p>vi. Fellowship opportunities for construction-related professionals who wish to work in Liberia.</p> <p>vii. NHA: development of an incremental housing strategy. NHA should switch its focus from its planned 5,000 Houses Programme into encouraging and enabling the production of large amounts of cheap multioccupant housing suitable for the poor majority.</p> <p>viii. Focus on changing household behavior.</p>	<p>that a market in housing will develop in Liberia in the medium term. This is highly unlikely. Thus, the housing policy should be developed in the absence of an easy way for owners to improve their housing by selling and buying another.</p>
Land rights legislation	<p>Comprehensive land rights legislation has been drawn up and endorsed by the cabinet but has not been enacted. There is concern that if it does not pass under the current presidential administration, it may never pass. This creates uncertainty for the formalization of land rights and land administration.</p> <p>Major constraints are related to the formalization of land rights, the transfer of land rights and the provision of security of tenure for slum residents.</p>	
Land administration	<p>There are weak land administration and registration processes for acquiring land. There is also a limited centralized land registry, and it is relatively easy to forge registration, making the authenticity of title deeds questionable.</p>	
Land ownership	<p>Foreigners can only lease land or own land by proxy. Interviewees suggested that a large pool of real estate investment is in the</p>	<p>Policy interventions:</p>

	hands of foreigners and the diaspora, and the assumption by some is that these individuals are primarily speculating, which keeps viable land off the market for housing development.	<ul style="list-style-type: none"> • Policies that discourage land banking and speculation. • Change policies around citizenship for non-Africans. (Controversial) <p>Potential service provider: Government</p>
Land invasion and settlement	Low-income communities have invaded or been settled on marginal or public land with government support since the 1920s, so many communities (especially areas such as West Point, Samuel Doe, Logan Town, Bushrod Island) have been developed on low-lying, poorly drained swamplands. Because these lands are high hazard and vulnerability areas, it is technically difficult and expensive to make them habitable, and relocation is costly.	
Regulations	There are no regulations requiring domestic banks and insurance companies to invest a certain percentage of their reserves/float in T-bills. This limits the amount of investment capital the government might have in infrastructure, affordable housing development, mortgage market development, etc.	Regulations that require banks and insurance companies to invest a certain percentage of their reserves in T-bills.
Central Bank	The Central Bank plays a role in the microfinance market as both a regulator and a direct provider of funding and retail lending (US\$50 million), which potentially distorts the market (need to confirm). This is also true for the National Housing Authority, which subsidizes the houses built by the agency. This potentially distorts the market for financial institutions and private-sector developers.	The Central Bank should engage only in wholesale lending that is available to all interested, qualified institutions. The NHA should target with subsidies a segment of the market that is not potentially attractive to developers.
Financing of guarantees	It is difficult to find financing and guarantees for developers who wish to move into real-estate management, building multiunit	<ul style="list-style-type: none"> • Identify sources of long-term funding for developers who

	housing and charging an affordable rent (US\$100-\$500 per month).	wish to move into real-estate management. <ul style="list-style-type: none"> Identify guarantee funds for wholesale and retail lending to developers.
Housing policy	<p>There is a housing policy but no housing legislation, especially around supporting incremental housing and subsidizing the most vulnerable.</p> <p>As the crux of the housing policy, assistance should be targeted at small-scale, local contractors using labor-intensive technologies through (among others) small loans, improved understanding of the market, training in bookkeeping, customer relations, quality control and site supervision. (Liberia Housing Profile)</p>	<p>Advocate and Support establishment of a housing regulation that supports incremental housing and channels subsidies to LIHs who require it most</p> <ul style="list-style-type: none"> Housing policy should be based on enabling the supply of new housing solutions for 512,000 households by 2030. (LHSP)
Housing programs	There is no program or vision within any existing governmental agencies to assist households in the process of incremental housing. This means existing affordable housing programs target only a very small percentage of the population, who can afford a complete home. Low-income households have to rely on their own skills, network, and resources to improve their housing.	<ul style="list-style-type: none"> Development of governmental programs and strategies for incremental homebuilders.
Bulk infrastructure	Because of rapid urbanization, the consequences of the civil war, and insufficient resources in the public sector, most of the city has little bulk infrastructure and few functional services. The priority systems should be roads, drainage, solid waste, water, sanitation (including treatment) and electricity.	<ul style="list-style-type: none"> Large-scale investments in priority infrastructure.
Lack of serviced land for housing developments	Developers are responsible for providing infrastructure, which greatly increases the price, time frame and complexity of the development process. This limits housing investment and development and slows	<ul style="list-style-type: none"> Provision of serviced land for developers and large-scale

	down the construction process for existing projects.	residential contractors.
Road network	The road network outside of Monrovia and throughout the country (along with most nonprimary roads within Monrovia) is very poor, impacting on everything, including sending and receiving cash from rural areas; the transportation of people, goods and services; the location of housing; etc. This impacts microfinance operations, transportation costs for goods and services, etc.	<ul style="list-style-type: none"> • Large-scale investments in road infrastructure.
Lack of funding	There is a lack of funding for infrastructure investments (a useful catalogue of estimated costs can be found in the JICA master plan).	
Electricity	Public electricity generation and delivery are extremely limited, and most electricity for households, manufacturing and industry is self-generated, at a high cost. This limits industrial development and household electricity access and affordability. The availability of power will be greater once the hydro plant comes online later this year, though household access will still be very limited.	<ul style="list-style-type: none"> • Connect households to hydro power. • Expand distribution networks and marketing of solar products in the homes of off-grid customers.
Maintenance of infrastructure	There is a general lack of capacity to maintain and manage infrastructure sustainably. This, coupled with the inability of users to pay for the services, has contributed to their neglect and falling into disrepair. For example, 85 percent of treated water is lost through leaks in the network. (JICA, 2009)	<ul style="list-style-type: none"> • Develop capacity to maintain and manage infrastructure.
Lack of record keeping	Loss of records and inadequate record keeping results in significant unknowns about what infrastructure did exist and where. This makes it disproportionately expensive to find, repair and rehabilitate infrastructure.	Encourage investment in a database system with limited access rights to safeguard records.
Master planning	No master plan for the city has been officially endorsed and adopted. Additionally, there is no national land use map for Liberia and no zoning map for greater Monrovia. As a result, there is no comprehensive strategy for managing land and supporting land markets.	A comprehensive land management strategy/master plan should be developed and implemented.

Land-use planning	The Building Code and Zoning Law have both fallen into disuse. All planning applications pass through the Ministry of Public Works in Monrovia. The proposed new Zoning Law seems to take no cognizance of the local capacity to regulate development.	
Building regulations	<p>Where building regulations or codes do exist, they are generally not enforced. There is also a lack of awareness in the community of construction professionals about these standards. This results in variable construction quality and typologies that may not be compatible with existing regulations/codes.</p> <p>Alternative building materials (such as soil-stabilized blocks) are not yet included in the building codes. This means that banks cannot use this type of housing as collateral, limiting housing finance in the country.</p>	<p>i. Local materials (laterite, thin timber) are plentiful, but Liberia needs building standards focusing on local materials to complement and replace cement.</p> <p>ii. A new building code should be developed to specifically permit the use of local traditional building materials, especially laterite. It should also include guidance for local disaster risks. (Liberia Housing Profile)</p> <p>Expand the building code to include the use of new materials and building technologies.</p>
Urban development	For urban development, there are conflicting mandates among government agencies, overlap in functions, and lack of a central urban planning department. There is also a very limited housing mandate. The national government is also responsible for the development process in greater Monrovia because of the lack of capacity by municipal and local governments. All of this impacts negatively on the housing development process.	Through a housing alliance network, establish a clear definition of the roles and responsibilities for each actor to avoid duplication of efforts and roles.
Lack of professional	There is no technocrat capacity within the government (described as “top heavy” by some informants, in the sense that most	Encourage development of a master plan that

skills – planning, engineering, architecture	government agencies are staffed by employees who do not have adequate education or technical capacity for their scope of work). There is also little continuity in programs between administrations, as new administrations seek to make their mark instead of building on what came before.	would easily be followed by future administration to ensure project consistency. This also requires policy reform.
NHA capacity	The National Housing Authority has weak capacity to support incremental housing processes, which is the main mechanism that low-income households use to build their homes.	Midcareer education in pro-poor urban planning and incremental housing in developing countries should be a priority for staff at NHA and any ministry dealing with housing. ¹⁶
Operational budget	The government has a financial deficit and has difficulty paying salaries. The projected revenue is not close to the actual collected revenue. This has many negative effects, such as an inability to attract skilled technocrats and on the part of the private sector to make large investments.	The government should reinforce its revenue collection and diversify alternative sources of revenue such as agriculture and business investment.

Table: Housing market conditions

Housing market conditions		
Key elements	Constraint/details	Solution/risk mitigation strategy
Availability of land	Land for low-income housing development is scarce. Physically, there is a limited amount of habitable land because of the ecology of the area. There is also a lack of public land because the majority is privately owned. Low-income households often own land in rural areas and rent in urban areas in search of educational and livelihood opportunities and because most economic opportunities are concentrated in Monrovia (banking, medical services, education, etc.)	Policy intervention: Identifying all land owned by the government and setting aside land for affordable housing within greater Monrovia.

¹⁶ Liberia Country Profile

Finance		
<p>Availability of mortgage finance</p>	<p>The Liberian Bank for Development and Investment launched the first formal mortgage program for post-conflict Liberia in 2013, which was financed with US\$10 million from the Central Bank of Liberia Mortgage Credit stimulus initiative. The program involved LBDI taking ownership of a 30-year-old estate that had been built for low-income earners and managed by the National Housing Authority. LBDI then sold the units to the tenants. There were 89 beneficiaries as of August 2016. The Mortgage Credit stimulus initiative also allowed LBDI to offer about 100 mortgages financed over 10 years.</p> <p>There are no sources of long-term funding for mortgages or housing finance products in general, nor are there secondary markets or guarantee funds to facilitate the development of a mortgage market. There are also missed opportunities around concessions, which could provide long-term guarantees as part of their agreement with the government, along with missed opportunities around government outreach to multi-laterals who could provide guarantees. This results in a scarcity of mortgages for homebuilders and keeps adequate housing out of reach for many families.</p>	<p>Policy intervention:</p> <p>Identify sources of long-term funding for the Liberian mortgage market.</p> <p>Identify guarantee funds for wholesale mortgage lenders.</p> <p>Develop government strategies for negotiating long-term guarantees with concessions.</p> <p>Establish a secondary market for Liberian mortgages. Potential service provider: Liberia's government</p>
<p>Guarantees</p>	<p>It is difficult to find financing and guarantees for developers who wish to move into real-estate management, building multiunit housing and charging an affordable monthly rental rate. This limits the available stock of affordable rentals and pushes families into lower-quality housing options.</p>	<p>Policy intervention:</p> <p>Identify sources of long-term funding for developers who wish to move into real-estate management. Identify guarantee funds for wholesale and retail lending to developers.</p> <p>Potential service provider: Liberian government</p> <p>Time frame: Medium</p>

		Impact: High Urgency: High
Savings	Savings groups are well-perceived and a normal practice for low-income households, but sometimes they are not trusted because of repayment concerns. Related to this, there is a lack of a “credit culture” because of expectations after the conflict that microfinance loans were relief money not meant to be repaid. There is also low financial literacy and savviness of bank and microfinance institution clients. All of this limits the growth of savings and savings-backed products in the country and restricts access to financing for middle- and low-income households.	FSP Market Development Program: Capacity-building for microfinance lenders. Financial literacy and awareness training to current and potential bank and microfinance institution clients. Establishment of savings groups built on current “best practices” in the sector. Time frame: Medium Impact: Low Urgency: Medium
Housing finance products	The staff capacity and products of financial institutions are focused on the formal sector, primarily small to medium enterprises and commercial customers, all short-term lending. This limits the market for financial services to middle- and low-income households who derive their income from the informal sector.	FSP Market Development Program: Development of housing finance products for non-small to medium enterprise or commercial middle-income households. Capacity building with banks and microfinance institutions with commercial incentives to develop housing loan products for underserved middle-income segments.

		<p>Potential service providers: Banks, microfinance institutions, credit unions; financial consultants</p> <p>Timeframe: Medium</p> <p>Impact: Low</p> <p>Urgency: Medium</p>
Lack of financial access	Masons, construction specialists and foremen (including iron/rebar workers, carpenters, plumbers, electricians, etc.) lack access to various credit mechanisms that could increase their ability to invest in improved tools and equipment.	FSP Market Development Program: Awareness of and access to finance for masons and construction specialists.
Mobile money	The amount of money that can be transacted via mobile money is quite small, which could limit loan repayment possibilities for the poor and increase friction in loan collection.	Expand the utility of mobile money for both users and providers and grow the market for mobile money.
Technology/product development		
Imported construction materials	Nearly all semifinished and finished construction materials are imported, and this, along with excise duties and import taxes, drives up prices for construction supplies and affects the affordability of construction, especially for low-income housing.	<p>Development of more locally manufactured supplies.</p> <p>Lower excise duties and import taxes for construction supplies.</p>
Choice of construction materials	There is a lack of choice in building materials and technologies in the urban housing market. This is due, in part, to the price of new technologies, underdevelopment of the market, and low acceptance within greater Monrovia of traditional (mud bricks) and new materials and processes (such as paneling and pre-fab housing). This leads to hesitance to import or develop a market for these technologies on the parts of firms and ultimately limits choice in the marketplace.	Promotion of locally manufactured materials and alternate building technologies to low-income households. Development of “showcase projects” that demonstrate the use of affordable

	<p>The development of a sustainable local building materials industry is key to the supply of appropriate housing in Liberia. Efforts should be focused on identifying local resources available as raw materials. Local small-scale industries should be encouraged to produce building materials from identified raw materials. (Liberia Housing Profile)</p> <p>Use should be made of the completed research on building materials from Ghana, Nigeria and elsewhere in West Africa, to make the best use of locally available raw materials, including laterite with and without additional cement for stabilization. (Liberia Housing Profile)</p> <p>The government and its partners, such as EC, UNICEF, USAID, etc., should encourage the use of such locally available materials. The government should show the way by building clinics, classrooms and other public buildings with stabilized soil blocks. (Liberia Housing Profile)</p>	<p>alternative building technologies.</p> <p>Awareness of and access to new products and technologies to low-income consumers and small to medium enterprise construction professionals.</p>
<p>Manufacture of blocks and bricks</p>	<p>Block and brick making for many urban households is principally done on site by dedicated block makers, and is overseen by the household. Because of the diffuse nature of block making, quality is hard to monitor and ascertain. Block makers are also not always using best practices in concrete-block production (e.g., curing, mixing, vibration, water, etc.) and many block makers do not use gravel/aggregate or will stretch a bag of cement to make double the amount of blocks recommended, resulting in lower-quality blocks and weak construction. Quality blocks are produced by firms but are not available at a price point that low-income households can afford.</p>	<p>Training in and access to quality verification methods for low-income consumers and small to medium enterprise block manufacturers. Training in best practices in construction (especially concrete blocks) to masons and other construction professionals.</p> <p>Access to affordable, high-quality materials for concrete block makers.</p>
<p>Raw material constraints</p>		

Sea sand	Sea sand is a poor material for construction, and sand mining on beaches contributes to coastal erosion and is now illegal, though enforcement is uncertain and EPA capacity is weak. River sand pumping operations are now being set up by foreign firms, though sites are difficult to access during the rainy season or just inaccessible for low-income households. Lack of access to this crucial ingredient impacts on the quality of low-income housing construction.	Adequate and reliable access to river sand for middle- and low-income homebuilders.
Timber	<p>Liberia has one of the largest timber reserves of any West African country, but cutting/curing practices are rudimentary and quality is variable. Forestry in Liberia is regulated, but enforcement and control practice are weak with valuable species primarily for export. Large swaths of forests are occupied by concessions. Timber may be underused in housing construction as a result.</p> <ul style="list-style-type: none"> i. Access to affordable, high-quality materials for concrete block makers. ii. Development of production and marketing capacity in the timber industry and among artisans/carpenters. iii. Promotion of timber for use in incremental homebuilding. iv. Sensitization on the long-term construction outcome differences between high- and low-quality construction materials (concrete blocks, etc.) and safe building practices. 	Development of production and marketing capacity in the timber industry and among artisans/carpenters. Promotion of timber for use in incremental homebuilding.
Market access constraints/conditions in residential construction market		
Lack of affordability	Because of low affordability levels, low- and medium-income households make most construction decisions based principally on price, not quality. This decision is usually based on the immediate costs of the materials rather than the life-cycle costs of the construction materials. Additionally, owners often lack awareness of safe building practices and materials, along with the consequences of cheaper construction techniques. The result is substandard and	Sensitization on the long-term construction outcome differences between high- and low-quality construction materials (concrete blocks, etc.) and safe building practices.

	unsafe housing and increased housing costs over the long term.	Livelihoods for low- and middle-income households.
Climatic conditions	Climate conditions (in particular the rainy season), coupled with inadequate infrastructure, restrict business operations periodically and make estimates challenging for developers and construction professionals, thus lowering profit margins and predictability of income, expenditure, returns, etc. These climatic conditions also affect poor-quality, incremental construction.	Improvement of road infrastructure.
Business management, organizational and marketing		
Work readiness	Employee work readiness, absenteeism and a general lack of trust are management challenges for many of the firms we spoke with. This inhibits growth and vibrancy in the private sector.	Work readiness training for lower-level and management employees in private-sector, construction-related businesses.
Lack of marketing skills and resources	Many masons and artisans do not employ marketing techniques to find new work, relying on word-of-mouth and passers-by to be hired. This results in lost work opportunities and unstable income flows.	Access to customers and training in marketing and outreach for masons, engineers, foremen, hardware stores and cement factories.
Skills level/labor constraints		
	Artisan training: “The World Bank reports that suppliers of skills for TVET (Technical Vocational Education Training) are of uneven quality, respond to specific needs sometimes for short periods, and many of them do not operate certificated courses. Co-ordination and improved certification are required. There is a need to focus on transfer of construction skills through collaboration between formal housing developers and informal-sector artisans working together to improve the finishing skills that are seriously lacking among local workers.” (Housing Profile)	v. Training in and access to quality verification methods for concrete blocks to consumers. vi. Training in best practices in construction (especially concrete blocks) to masons and other construction professionals. vii. Training in improved construction techniques and skills

		<p>to masons and other specialists.</p> <p>viii. Development of artisan unions and associations.</p>
Lack of skilled labor	<p>Generally, there is a small number of formal developers and contractors working in the housing market (often for upper-income households), and they have access to a very small pool of skilled professional workers (engineers, urban planners, architects). This ultimately limits housing development for middle- and low-income earners.</p>	<p>Large-scale training investments in Liberians who wish to become construction-related professionals.</p> <p>Fellowship opportunities for construction-related professionals who wish to work in Liberia.</p>
Low level of skilled artisans	<p>Masons and other artisans are learning informally, with no continuing education. They lack knowledge of and access to state-of-the-art training to upgrade their skills. As a result, the skill level of local construction artisans and laborers is low, making development more costly for developers. This also affects progressive housing, as low-income households rely on masons who have been trained on the job and may not have adequate skills to build a quality house.</p>	<p>Training in improved construction techniques and skills to masons and other specialists.</p> <p>Development of artisan unions and associations.</p> <p>Facilitating the formation of construction brigades to improve their skills and promote their construction services “on site.”</p> <p>A major effort should be made to attract, train and keep young people in the construction industry. The expansion and certification of vocational courses is important if young</p>

		people are to maximize their career prospects. (Liberia Housing Profile)
Capacity of financial institutions	For financial service providers, there is a lack of skills and capacity for targeting and providing services to low-income, middle-income and informal sector earners. This manifests in challenges around risk assessment, character assessment and longer-term lending. All of this results in a lack of housing finance products for the general population.	Capacity building with banks and microfinance institutions with commercial incentives to develop housing loan products for underserved middle-income segments.
Lack of urban planners	Surveyors are planning the city because of a lack of a master plan and urban planners. This results in piecemeal development of the city based on individual interests, limiting holistic neighbourhood development for all income levels.	Fellowship opportunities for construction-related professionals who wish to work for a time in Liberia. Incentives to potential urban planning students within and without Liberia.
Lack of artisan unions and associations	There are no artisan unions or associations that could focus on formalizing the profession or self-enforce quality standards. This results in an inability to standardize and promote good construction practices and challenges the ability of households who are managing their own construction process to identify skilled artisans.	Development of artisan unions and associations.
Vocational schools	There is a need to increase the capacity of Technical Vocational Education Training and other tertiary education institutions to train construction labor at all levels, from basic skills through site supervision to professional levels. Vocational courses need to be linked with apprenticeships and should be a priority focus of education funding. Training centers should be supported, and they should teach building technologies that are sustainable and suitable to the local affordability, materials and climate. International organizations and	

	skilled local professionals can train trainers in improving local building technologies. ¹⁷	
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Table: Housing outcomes

Housing outcomes		
Key elements	Constraint/details	Solution/risk mitigation strategy
Dwelling units and living space	Dwellings in greater Monrovia are mainly multioccupant, with up to 20 people per dwelling. Facilities such as toilets and bathrooms are often shared. This poses health risks, as witnessed in congested dwellings during the Ebola outbreak of 2014-15.	Introduce affordable, optional and decongested housing structures, including regulating space limitation for a given number of people/families. This would require the updating and enforcement of building regulations and a provision to support households making incremental improvements to their dwellings.
Housing quality	Quality of housing is poor, and most low-income households have no sewerage, drainage, water supply, electricity or sanitation. Most houses have leaking roofs caused by sea breeze corrosion and high amounts of rainfall leading to the rusting of zinc sheets. This makes the cost of repair and maintenance high for low-income households.	Consider introducing roofing materials that are less susceptible to rusting and resistant to corrosion by sea breeze; introduce and sensitize households on rainwater harvesting and storage to bridge the water shortage gap during the dry season.
Housing production	Low-income families usually build their own homes incrementally over time, use family labor, or rent from homeowners.	Policy regulation and enforcement of building controls are needed, along with

¹⁷ Liberia Country Profile, 2014.

and investment	Most low-income housing suppliers are informal building contractors and individual artisans operating outside any formal controls and regulations.	building the capacity of local artisans and homeowners to be aware and observant of the minimum standards.
Housing solutions	Need to consider housing finance product options that improve and/or expand existing housing stock and expand financing options to a lower-income segment than that currently served by the market.	Housing solutions should cost US\$7,500 capital cost at the median or less than US\$60 per month at 2013 prices ¹⁸ .
Rental housing	<p>A majority of households rent in greater Monrovia. The SDI/YMCA enumeration of West Point also indicated that the majority of households are renting.</p> <p>Housing improvement should focus on giving households in multioccupant housing the opportunity to rent at least one extra room. This might be partly achieved by encouraging current landlords to add extra rooms to their rental houses.¹⁹</p>	<p>Because of the incredibly low repayment capacity of many households in Monrovia and the low capacity of the financial sector to serve clients in the informal sector, a housing finance product that allows households to expand their homes for rental purposes is a more feasible option than traditional housing microfinance products.</p> <p>There is a need, however, to establish better information sharing on housing available for rent and for sale.</p>

¹⁸ Liberia Housing Sector Profile, 2014.

¹⁹ Liberia Housing Sector Profile, 2014.

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Slum Upgrading and Affordable Housing Framework