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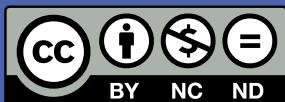
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VALUE CHAIN TOOLS

This co-produced guide includes 17 practical tools that can be used to undertake a value chain analysis. The most useful way to apply these tools is flexibly, so communities can use them whenever it is appropriate. These tools should be considered guides rather than a strict protocol.

Tool 1. Stakeholder mapping exercise

Tool 2. What are we going to do?

Tool 3. What, why and how of looking at building materials

Tool 4. Comparative settlement analysis

Tool 5. Creating an inventory of materials

Tool 6. Examining the characteristics of building materials

Tool 7. Detailing a value chain

Tool 8. Focus group key discussion points

Tool 9. Some criteria for selecting households to be interviewed

Tool 10. Household sample survey

Tool 11. Private/public sector key informant interviews (KIIs)

Tool 12. Institutional KIIs

Tool 13. Considering building materials

Tool 14. Considering exchanges

Tool 15. Sharing lessons from the experience

Tool 16. Tools for communicating to different audiences

Tool 17. Identifying potential opportunities

In the approach developed by Slum Dwellers International (SDI), the methodology is negotiated with the community, which means that key elements such as the number of people involved and the processes used are agreed upon in discussions with community members. For example, when considering focus group discussions, questions might include: what determines the number of groups? Should the number of focus sessions be determined by the number of different groups within the community? The size of the population? Who is going to participate? Should separate groups be run for women and men? When SDI undertakes this type of analysis, these decisions are all co-decided.



INTRODUCTION

The purpose of this how-to guide

This guide aims to capture an existing process and approach for data analysis being used by the transnational social movement Slum Dwellers International (SDI) network. It aims to incorporate participatory learning and action methods and be tailored to local contexts. To take into consideration the heterogeneous nature of informal settlements, it allows for varied levels of mobilisation and collaboration with local stakeholders, as well as existing knowledge of housing and construction in different neighbourhoods. The guide, designed with and for SDI affiliates, is also anchored in community practices, such as women-led saving schemes, opening ways to identify common priorities and for shared challenges to be addressed.

The approach is highly adaptable. We applied it to a building materials value chain, specifically looking at building materials used for homes in informal settlements. We use the building materials value chain as an example, but this guide also usefully introduces communities to the wider concept of value chain analysis and aims to provide guidance on how to carry out similar exercises. While aimed at SDI networks, we recognise that the guide documents an approach that can also be used by other communities and researchers.

Who this guide is for

Organised communities: the guide is primarily aimed at supporting peer-to-peer exchanges for organised communities, including federation members within SDI. The approach in the guide builds on the existing community mobilisation strategy and learning-by-doing methodologies used by the alliances between Dialogue on Shelter Trust (DoST)/Zimbabwe Homeless People's Federation (ZIHOPFE) and the Centre of Dialogue on Human Settlements and Poverty Alleviation (CODAHSAPA)/Federation of Urban and Rural Poor (FEDURP). It is a resource for communities to carry out a value chain analysis of building materials or other provisions such as basic services, building on their existing experiences of participation and leadership.

Supporting organisations: the guide offers support to partners and other development actors (civil society, researchers, practitioners and government institutions) who want to understand the approaches used by organised communities like SDI affiliates. It can help these actors support communities in finding more resilient and inclusive approaches to the pressing issue of inadequate housing provision.

Donors: the guide aims to give potential and existing financial partners wanting to support SDI initiatives an insight into how the network collects and analyses data. It offers specific insights into housing and building material value chains in informal settlements and how organised communities understand them.

How to use the guide

This guide, created with and for community-based organisations, takes readers through a sequence of steps to support preparatory work ahead of carrying out a value chain analysis. Using a buildings materials model applied in four settlements within in two African cities, this community-led approach comprises seven sections, mapping out processes of engagement starting from community groups through to potential stakeholders. The guide connects basic parts or elements of a process, shaping them into production flows. Using building material case studies as a guide, it highlights where relevant regulatory processes were identified, along with key actors. Offering 17 practical tools, the guide allows the facilitator to build on the relevant processes, asking key questions and opening discussions; leading groups to finish with a thorough analysis and reflection on the challenges and impacts, and to consider potential solutions moving forward. Finally, as is relevant for community-based organisations like SDI, the guide highlights the opportunity to consider shared learning and the wider dissemination of knowledge at different scales and with relevant audiences.

Principles and conditions for the successful use of this tool

First, a state of community cohesion or sense of solidarity needs to exist. The collectives using this guide may take many forms, but a pre-existing relationship, in one form or another, makes it easier to carry out group discussions where common needs and priorities are identified.

Second, in the case of building materials, it is vital that the community finds merit in understanding the building materials value chain and how its analysis can contribute to the improvement of their housing. In Harare and Freetown, the research took place in four settlements where communities identified that improvement of housing was important. It is crucial to have a common goal in place, for example addressing issues such as being landless, being at different stages of securing tenure, or having commenced or be nearing the completion of home building.

Thirdly, mutual respect needs to be in place, where community knowledge is valued, where the method is not extractive but mutually beneficial, and where knowledge that is generated can be useful to households and communities that have contributed directly and indirectly.

ACCESSING BUILDING MATERIALS IN INFORMAL SETTLEMENTS

Cities in the global South are expanding and, with them, so are informal settlements. Settlement communities build incrementally, the residents investing in their homes as and when they can afford to do so.

Frequent and extreme weather events due to climate change are exacerbating construction costs, requiring more robust materials and further investment in homes for the urban poor. The need to rebuild damaged homes and build more robustly means more consideration is needed of the methods and materials for fully proofing homes against flooding and heat. This is increasing the burden on the urban poor financially, socially and environmentally.

IIED's housing justice team and SDI affiliates in Sierra Leone and Zimbabwe worked together to review the value chain of building materials in two cities. As part of a global agenda on rights to adequate housing, the work aimed to identify the challenges and opportunities for pro-poor, resilient, sustainable building solutions. Evidence gathered in the cities of Freetown and Harare highlighted which set of criteria determined the choice of materials, the impacts of those choices and how much control or influence residents have over those decisions. This guide aims to share the learning from this analysis.

For building materials, a value chain analysis looks at who the key actors in the value chain are, and what the barriers and enablers are for the uptake of grassroots solutions. It also looks at regulatory systems supporting or hindering access to building materials, and offers tools to advance them towards more sustainable, resilient housing in global South cities.

WHAT IS A VALUE CHAIN?

A value chain is a model for mapping components in a sequence and the steps taken to move them through a 'chain' from one end of a series of processes or activities to the other. In the case of building materials, the value chain typically starts with raw materials (extraction) and moves through to manufacturing and transportation of the finished product.

Actors in the value chain can be direct or indirect. Direct actors are those involved in extracting and producing raw materials and those who take ownership of the materials. Indirect actors are those offering operational support to direct actors, such as suppliers, traders and transporters. Of particular interest for the building materials analysis in Freetown and Harare was understanding how different actors interacted with one another across the different segments of the chain and what governed their relationships.

External influences on the value chain, such as economic, technical, environmental, sociocultural and political factors, are also considered.

For people living in informal settlements considering sustainable approaches to building more resilient homes, using this model offers a systematic way of understanding access to materials in settlement neighbourhoods. It considers what elements are within residents' control and what changes could be beneficial for achieving more resilient buildings in the future. It highlights the risks and burdens at every stage of the value chain, and the considerations that govern residents' choices on coordinating mechanisms and forging relationships with actors along the chain.

WHY CONDUCT A BUILDING MATERIALS VALUE CHAIN ANALYSIS?

The study carried out in Harare and Freetown highlighted several important reasons for carrying out a value chain analysis on building materials in informal settlements:

1. **To support the urgent need for adequate shelter:** living without adequate housing is directly and disproportionately affecting the lives of the urban poor. A resilient approach to sustainable construction and an understanding of the workings of the building materials value chain, particularly in informal settlements, is a potential pathway to addressing some of these issues.
2. **To support more affordable homes for the urban poor:** recent studies show that communities in informal settlements from sub-Saharan African cities spend 15–30% of their monthly earnings on buying materials for their homes. Understanding where this cost lies within the chain can support residents to find more cost-effective materials — and even alternative approaches to construction where gaps and challenges are identified.
3. **To address challenges of rapid urbanisation and climate change:** accelerating climate change and urbanisation increase costs for cities, which are unprepared for the rapid expansion and high demand for housing and services. This is directly affecting affordability and access to reliable and robust materials, and highlights the pressing need to find alternative solutions that are cost-effective and sustainable.
4. **To improve accessibility for settlement residents:** in terms of governance, vulnerable communities face injustices when it comes to access and cost, unequal risks and burdens related to acquiring and using building materials. An analysis of local value chains can help to identify sustainable alternative approaches to building homes and using recycled materials. It can identify where there could be a reduction in energy, transportation and waste.

5. **To support claims to land tenure security:** depending on the level of security already achieved, secure tenure affects and is equally affected by the way homes are built. A value chain analysis supports an understanding of the impact of disrupted value chains and supports stronger arguments and negotiations with authorities.
6. **To safeguard livelihoods supported by the value chain:** the building materials value chain supports a complex network of informal and formal livelihoods. Understanding this complexity offers room to support and improve opportunities for individuals working outside as well as within the community.
7. **To advocate for the need for pro-poor policies on housing:** the analysis requires an understanding of the role of policy and regulatory frameworks as barriers and enablers to sustainable construction in informal settlements. Gathering evidence and local solutions supports governments in making realistic interventions for the most vulnerable neighbourhoods.



STAGES OF THE HOW-TO GUIDE

This section sets out the seven stages of the guide. Each stage examines a key part of the process, using tools to determine and develop a scheme that moves from involvement, to mapping, to analysing and then disseminating the information for impact.





1

COMMUNITY
ENGAGEMENT

1.1 WORKING WITH ORGANISED GROUPS

AIM: to understand how carrying out a value chain analysis contributes to strengthening solidarity within slum communities

SDI, with its collective agenda and methodologies, uses a learning-by-doing model of gathering and analysing data for research. Reinforcing a people-centred approach, it enhances the empowerment of slum communities, strengthening their capacity to mobilise and bring about change to their living environments. This approach sees residents taking ownership of their data, mapping, profiling and enumeration processes, recognising local knowledge not only as a source of information from beneficiaries but also as enhancing community voice and, ultimately, people's rights to the city. This approach recognises and builds on these methodologies as a critical and principal point of departure for a building materials analysis to:

- Gather data, carry out self-surveying and mapping on current building material availability, affordability and access challenges faced by people building homes in informal settlements
- Identify building material value chain processes, actors, limitations and opportunities
- Understand where the construction of homes and associated challenges lie in the priorities of residents
- Carry out a community-led approach that seeks resident engagement in settlement-wide issues, looking beyond the household level
- Analyse and document the findings, ultimately supporting residents' legitimacy in dealings with local government, and
- Carry out a community-led approach that helps informal settlement residents analyse and become aware of city-wide, regional and international dynamics that affect their living conditions.

1.2 CO-DESIGNING THE PROCESS

AIM: to determine the roles and responsibilities of the participants in a co-designed process, as well as mechanisms through which they will engage in the analysis of the value chain

The role of community/residents in value chain analysis

The building materials study carried out in Harare and Freetown applied a co-design approach, first and foremost identifying the involvement and contributions of settlement residents.

1. **Household representatives**, through their roles as end users, homeowners and homebuilders, are key contributors in understanding the needs for resilient homes.
2. **Community leaders** representing residents and organised groups, federation leaders, traditional chiefs and other community representatives from various informal settlements are key in communicating and facilitating collaboration with residents, both within and beyond organised groups.
3. **Organised groups**, through collective agency and trust, can build the capacity to deal and negotiate with external actors, reinforcing governance from the ZIHOPFE grassroots level. Mobilised federation members from SDI affiliates FEDURP in Freetown and ZIHOPFE in Harare, already familiar with issues of citizenship and rights to the city, were involved from the initial stages of the project until the end.
4. **Identified champions and mobilisers** support the training of new community members on tools and processes used to analyse the value chain of building materials, further building on existing solidarity. In the case of SDI, youth-run Know Your City TV (KYCTV) played a valuable role in following the process.

Other stakeholders in a value chain analysis may include:

Nongovernmental organisations (NGOs)

In carrying out the building materials analysis, local NGOs play a role in offering professional and technical support:

- Connecting residents to local actors in the value chain outside of informal settlements
- Connecting residents to institutions, universities and other key partners of support, and
- Engaging decision makers in value chain discussions and workshops with residents and representatives to identify challenges and co-produce solutions.

In Freetown and Harare, the analysis built on the existing housing agendas of SDI affiliates CODOHSAPA and Dialogue on Shelter, primarily striving for increased community participation and community governance in urban development by:

- Engaging residents from the outset, verifying the relevance of carrying out research on housing justice
- After establishing interests and priorities, connecting the research to wider issues and existing programmatic work, and
- Ensuring the ownership of knowledge generated through the involvement of community researchers.

Researchers

In carrying out the building materials analysis, researchers play a key role. The IIED/SDI partnership aimed primarily to:

- Co-produce with community researchers methodologies for collecting and disseminating information on processes around residents' access to construction materials in the two cities
- Co-produce findings on key actors in the value chain, including the extractors, producers, transporters, suppliers, builders and others
- Investigate the incentives, norms or regulations exerted on the value chain and its different actors, and
- Provide publications and advocacy tools to enable replication of the methodology, building on the experience of carrying out a value chain analysis not only for building materials but also for other areas of work.

Role of local and national government

Involving local government and inviting them to be engaged throughout the project offers the opportunity to:

- Develop more awareness of building material challenges experienced by settlement communities and understand their role in finding solutions
- Hear firsthand from residents how the enforcement of regulations and standards impacts negatively or positively on the process of building homes
- Clarify the workings and technical aspects of building regulations and standards that influence the use, choice and access to building materials
- Through the presentation of solutions, be encouraged to support pro-poor urban development and provide spaces for engagement and further discourse, and
- Act as intermediaries between settlements and state government in proposing equitable and inclusive regulations and policies that support a more flexible, sustainable approach to building.



Tool 1. Stakeholder mapping exercise

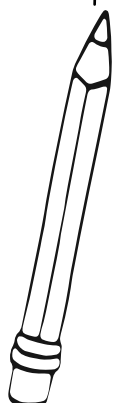
Participants: Research team, NGO, community leaders, CBO settlement representatives

Time needed: 1 hour

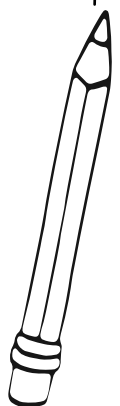
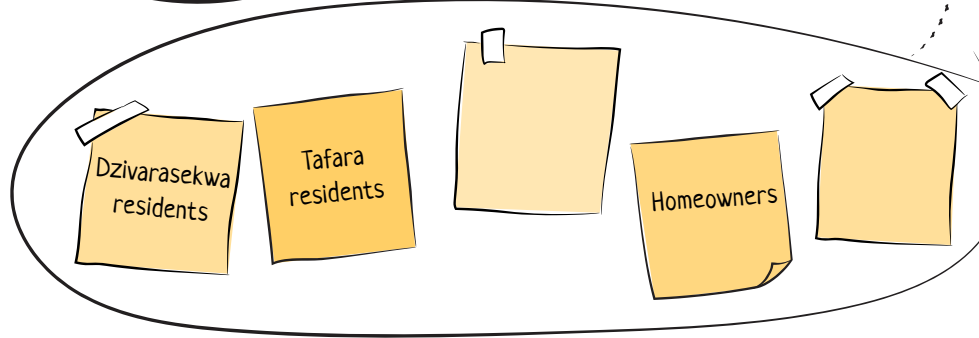
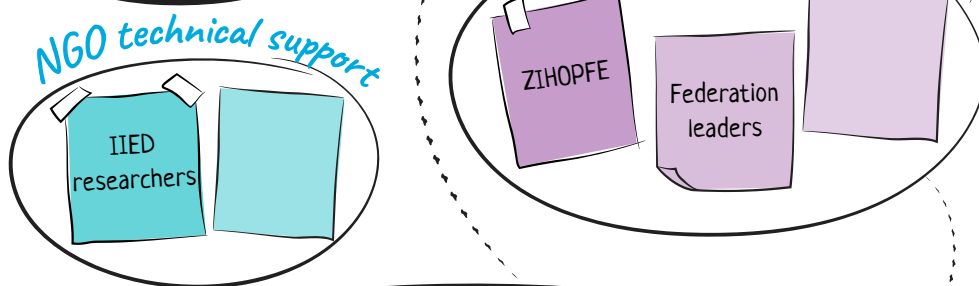
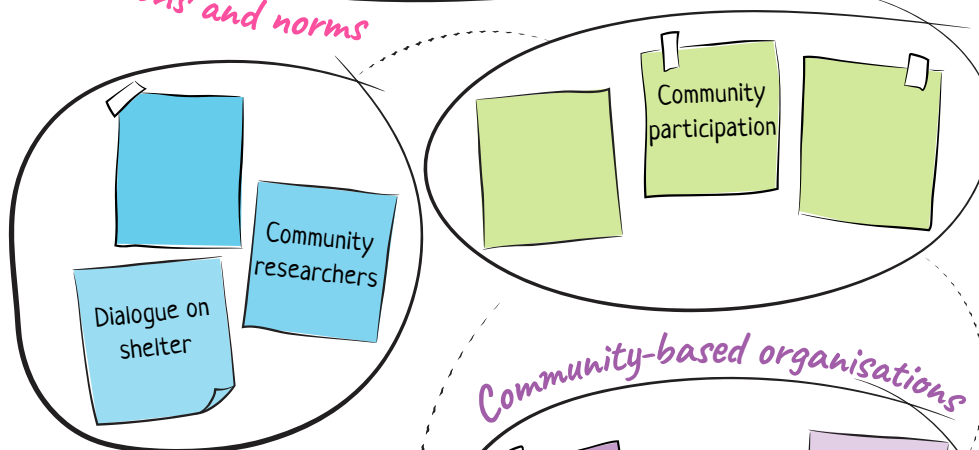
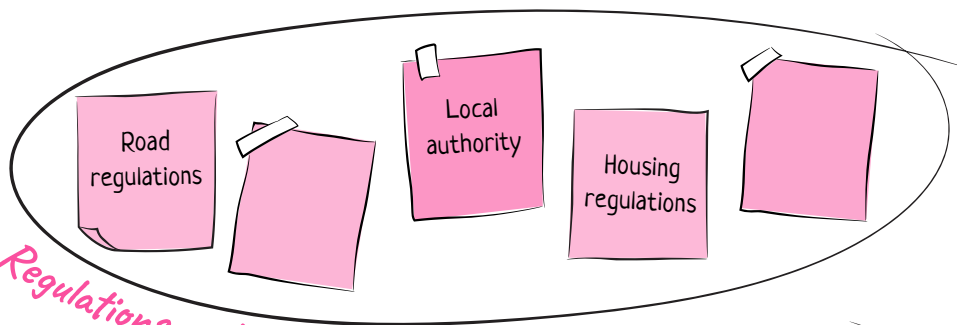
This is a co-designed tool to help identify different groups of stakeholders that should be involved in the research and in what capacity. This tool consists of, firstly, mapping out stakeholders identified as influencing and having invested interests in the process, as well as those stakeholders impacted by the processes of a value chain.

Once a broad list of stakeholders has been identified, some key questions about the objectives of the analysis are identified. Example questions from the building materials exercise were:

- Who can help us understand the processes of the value chain, its workings, barriers and enablers?
- Who can ensure the knowledge captured about the value chain is kept and shared across different communities?
- Who can ensure key messages reach decision makers where necessary?



For the building materials analysis in Harare and Freetown, careful mapping of the relevant stakeholders was a strategic exercise in ensuring a balancing of powers, empowerment and accountability in the process. A mix of key groups of individuals and institutional stakeholders, including community members, research and technical actors, regulatory stakeholders, suppliers, transporters and artisans all played a role in ensuring representation from different sectors of society.



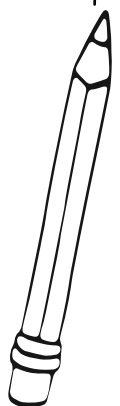
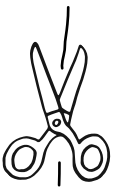
Tool 2. Defining scope and plans

Participants: Research team, NGO, community leaders, CBO settlement representatives

Time needed: 1 hour

Once the relevant stakeholders are identified, this tool helps create a plan that guides stakeholders by setting out the main stages of work to be carried out. Creating a clear strategy includes determining what needs to be done earlier or later, and what can be done collectively. It is important to ensure the right representation and that the people who are best placed to do the work are identified, including those with valuable local knowledge, leadership and connections, technical know-how and cultural understanding. Five tasks for consideration are suggested in this example:

1. **Field work, mapping, interviews**, focus group discussions, industrial and institutional informant interviews
2. Establishing **common objectives** for carrying out the study
3. Creating a working structure that determines what **parameters, criteria and priorities** to be analysed
4. **Analysing barriers and enablers** to carrying out the study: what is the current political situation, what is accessible and what is not, who will be consulted, who should not be, and
5. Establishing a timeline for work, carrying out **analysis and dissemination** of findings for different audiences and in strategic forums.





2

MAPPING THE VALUE CHAIN

2.1 CARRYING OUT A BUILDING MATERIALS PROFILE

AIM: to promote a collective intent to undertake a value chain analysis, examine existing available data, determine how and what should be collected, and how it connects to wider issues and priorities within the community.

The analysis was aimed at understanding the lived realities of residents and the challenges of building homes in informal settlements, as well as the risks and barriers to residents. Some preliminary issues around health, land tenure and climate change were identified.



Tool 3. The what, why and how of looking at building materials

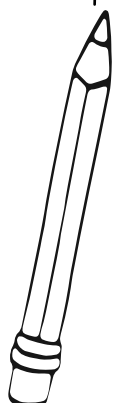
Participants: Research team, NGO, community leaders,
CBO settlement representatives

Time needed: 1 hour

This tool can be used in any initial discussion to explore the concept of carrying out a value chain analysis. It offers NGOs, CBOs, researchers and data gatherers the opportunity to reflect with residents on where their housing issues currently stand. It introduces a way of looking at home building through a value chain lens. It gives an indication of how much is known about access to materials. It offers a gauge as to what materials should be prioritised and why. It also highlights the wider implications of housing beyond basic needs, looking at it from a wider perspective and thinking about health, risk, environment and so on.



1. Why is it important to think about the materials we build with?
2. Do we know how much we spend on building our homes? Do we pay more in informal settlements?
3. Who builds our homes? Do we/they have enough knowledge of techniques? Are we happy with the standards?
4. Could the workmanship be improved? How?
5. Do we need to repair our houses regularly?
6. Are the materials temporary or permanent? Why? Which materials would be better to use?
7. Does the way we transport materials influence our choices?
8. How does the way we build affect us? Our health and wellbeing? Our financial situation? Our sense of security?
9. How do our building methods protect us from or expose us to extreme weather (heat, cold, rain and drought)?
10. On reflection, is there value in having a better understanding of these issues?



In early preparation, the facilitator can consider some questions that will shape the purpose and priorities at different levels of the survey. Some examples from Freetown and Harare that have helped to identify common vulnerabilities to residents are:

At household level

- What are the impacts and risks of building techniques and material use on resident health and wellbeing?
- How much do residents pay for materials when buying in smaller or larger quantities?
- How much negotiation is necessary to get a good price on materials?
- Where do residents tend to buy materials from? Are they places that others have recommended?

At community level

- What are the common vulnerabilities across the community?
- How does the state of tenure affect how homes are built?
- How and where do we work collaboratively to easily access materials and overcome barriers to cost?
- How does building support livelihoods within the community?

At city level

- Where do building materials come from — local versus international?
- What regulations and inspections are put in place to support good building techniques?
- What is the state of infrastructure to help transport the goods into informal settlements?

2.2 CONSIDERING THE CONTEXT

AIM: to decide on which informal settlement is best suited to carrying out the analysis

Informal settlements are heterogeneous and have a number of different housing typologies.

The affiliates in Freetown and Harare created a basis for selecting the appropriate settlement for the study by first examining and listing the factors they considered important and should be taken into consideration, such as geographical location, land tenure status and willingness of the communities to participate in the study. Our team chose settlements with diverse characteristics to provide more contrast. In Harare, strategically, the study offered the opportunity to pair Dzivarasekwa, where residents are already building permanent homes, with Tafara, where the residents build with temporary materials. This afforded the Tafara community an opportunity to begin visualising the conditions and steps needed to move incrementally towards building more permanent structures.



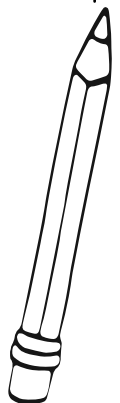
Tool 4. Comparative settlement analysis

Participants: Research team, NGO, community leaders, CBO settlement representatives

Time needed: 1 hour

To mirror the fact that settlements are heterogenous spaces, this tool picks up the SDI methodology and 'ritual' of reflecting on the different characteristics of each settlement. In each city, assessing and establishing the best fit for the study allows us to consider factors such as relevance, the level of collective solidarity and the potential for impact, all weighed against a standardised set of criteria. This tool has adopted SDI's methodology for the building materials value chain when considering the appropriate context for the study.

1. **Geographical location:** coastal, hill sides, flood plains and so on
2. **Type of tenure status:** tenure arrangements, boundaries of settlement
3. **Type of slum:** emergent or old dilapidated slums
4. **Legal status:** whether formally allocated or not by the state, whether under threat of eviction
5. **Year of establishment:** age of settlement
6. **Land ownership:** how many homes are already owned
7. **Process of development:** how the settlement emerged and the powers that influenced its establishment
8. **Services and infrastructure:** level of service provision
9. **Permission** to construct houses
10. **Political access** to the community at that particular time, for example election season and so on
11. **Potential for impact** of findings beyond project
12. **Collective development** process and financing
13. **Federated or non-federated** settlement



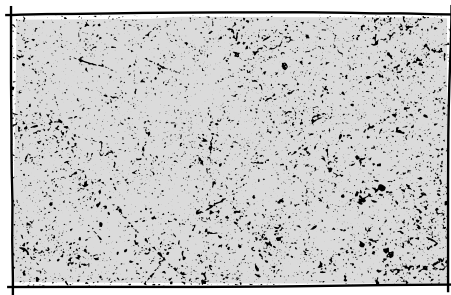
2.3 CREATING AN INVENTORY OF MATERIALS

AIM: to identify the main materials used in the informal settlements selected.

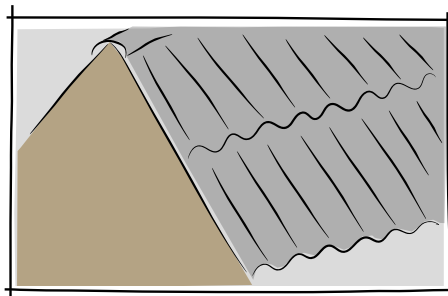
Looking at how, why and where they are used.

This section examines the materials used for building in settlements, including materials used for walls, roofs, flooring and foundations, as well as the elements used to hold the structures together.

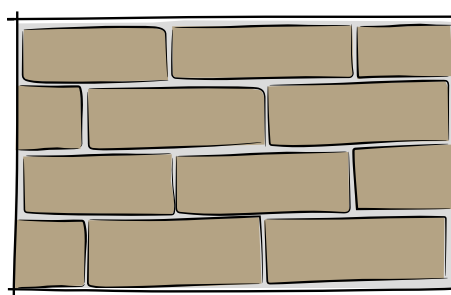
In Harare and Freetown, this highlighted how residents take into consideration gauges, weights and proportions of materials. Some principal materials used for shelters include:



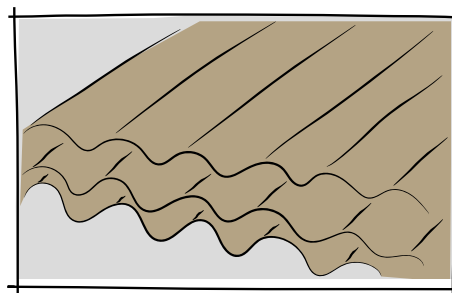
Concrete floors



Metal sheeting roofing



Brick/cement bricks



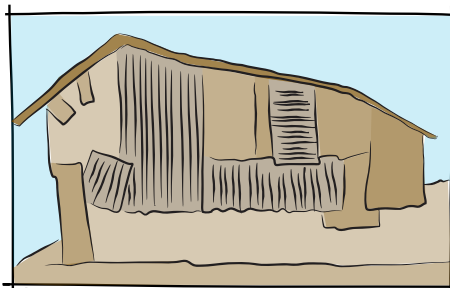
Asbestos sheets

Tool 5. Creating an inventory of materials

Participants: Researchers, NGO, community representatives, residents in focus group discussions

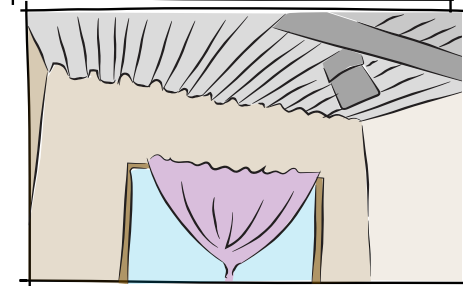
Time needed: Approximately 2 hours

For this tool, the idea is to look at each component of a home and list all the materials typically used to build it. This exercise offers residents the chance to collectively consider which materials are used more prominently than others, why they have been selected over others and what has determined residents' choices. It allows consideration of governance and how much choice residents have in selecting and using different materials. This list offers the chance to create a shortlist of materials for the next phase.



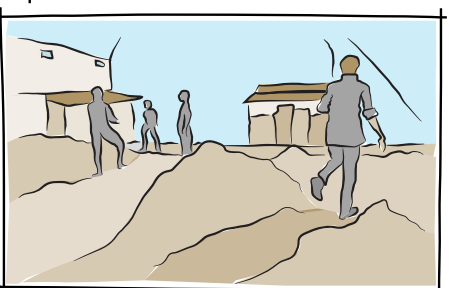
Walls:

Wood boards	Metal sheets
Cement bricks	Mud
Fired bricks	Sand
Farm bricks	Plastic sheets
	Cardboard



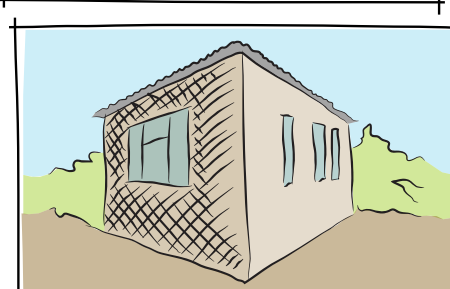
Roof covering:

- Plastic sheets
- Metal sheets
- Asbestos sheets



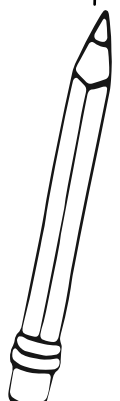
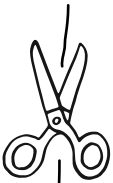
Flooring:

- Sand and cement
- Polished cow dung
- Recycled bricks and tiles



Structural elements:

- Timber 1 x 12 inches, 1 x 14 inches
- Iron rods
- Coal
- Granite boulders



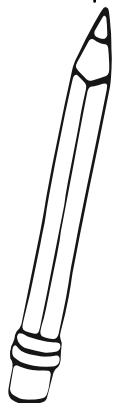
Tool 6. Examining the characteristics of building materials

Participants: All stakeholders

Time needed: Approximately 1 hour

Continuing from the inventory list of tool 5, the information gathered here contributes a list of suggested characteristics that build on general knowledge about materials. By determining a basis from which to compare the prioritised list, the analysis takes into consideration what residents' expectations of materials are from different perspectives, and what is prioritised and valued. This exercise helps to support the choice of materials and their associated value chains considered worth studying.

- **Description:** durability, accessibility, transportability
- **Definition of different qualities:** strength, thickness, gauge
- **Prices, use and re-use:** affordability, recyclability
- **Practices linked to it:** adaptability, practicality, ease of maintenance, versatility
- **Climate performance:** stands up to/contributes to weather-related issues
- **Sociocultural status:** prestige, desirability of material.



2.4 SELECTING A VALUE CHAIN TO FOLLOW

AIM: to begin describing the purpose, nature and life cycle of a value chain.

When deciding whether to follow a long or short value chain, the residents ask whether the material comes from far away or whether it is locally produced. In Harare and Freetown, the federation members decided to select two materials per settlement, one from nearby with a short value chain and another with a long chain.

The next step is to identify key nodes along each value chain in terms of activities and direct and indirect actors, how they are connected and where the powers lie. Working directly with federation members can give insights into governance structures, particularly when considering climate change preparedness, infrastructure issues and regulations.

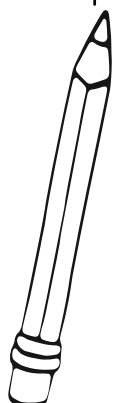
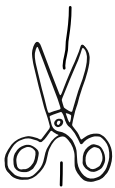
Tool 7. Detailing a value chain

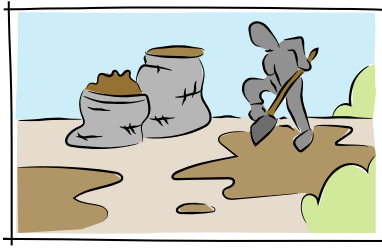
Participants: Residents and homeowners

Time needed: 2 hours

This tool offers a simple mapping exercise that takes the first step in connecting the materials used in informal settlements to wider processes beyond the settlement. It offers communities a chance to question their understanding of what is known, presumed or missing from their knowledge. It gives homeowners the chance to gain new understanding or share knowledge on where and how materials are sourced that might offer insightful or innovative solutions to others. Following goods and services along the chain can be done as a series of steps, taking into consideration the different stages of the journey from start to finish. The same tool can be used in several ways, as a single study or in sequence:

1. **Following goods and services:** our studies identified six key elements for building materials. Following goods or services along a value chain can involve asking where and how materials are extracted, produced, processed, distributed, sold or purchased, and how they reach their final destination.
2. **Identify key actors:** similarly, the sequence can then be used to identify the key actors such as producers, manufacturers, retailers, distributors and end users. Identifying them helps understand who they are and how they access, distribute and deliver goods. It can highlight the challenges that can arise, what opportunities they offer, and alternatives for accessing decent and affordable materials, while also indicating the different livelihoods gained, both formally and informally.
3. **Costs incurred:** the tool can also be used to understand how the cost of goods and services increase as they move through the chain and what influences the cost increases. Studies carried out in Freetown and Harare suggest those living in informal settlements pay a penalty or higher price for materials than those elsewhere.
4. **Regulatory points:** to map and identify where regulatory points hinder or facilitate access to better materials. The studies in Freetown and Harare suggest that residents in informal settlements are heavily burdened by certain regulations that make building decent homes and accessing building materials unaffordable and difficult.

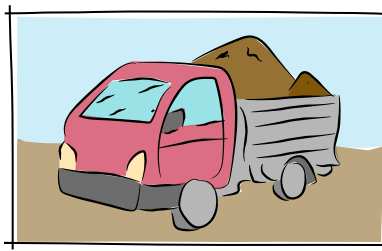




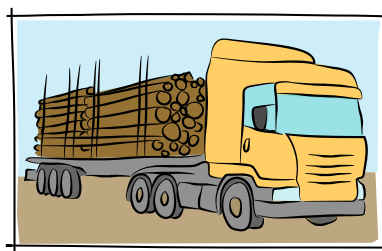
Extraction: raw materials needed as basis for construction such as sand, gravel or clay used for making bricks and mixing with cement and other materials for walls and floors.



Production and processing: processing of raw materials such as moulding and firing in brickmaking, packing of sand and gravel from fresh and salt water into bags.



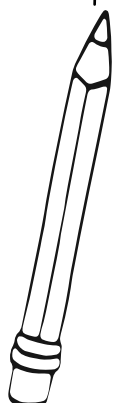
Distribution: transportation methods such as boats, lorries, small trucks, wheelbarrows, motorbikes and pushcarts used to deliver materials from extraction sites through to construction sites.



Wholesale and retail: large-scale suppliers bringing goods from international sources as well as small-scale suppliers selling in smaller quantities to local communities.



End users: local residents, community groups, builders and artisans based in informal settlements or elsewhere able to directly use the materials or store them for use over time.



2.5 IDENTIFYING ACTORS ALONG THE VALUE CHAIN

AIM: to identify all the direct and indirect actors involved in the value chain.

Identifying actors will allow us to understand who controls access to materials coming into the chain and at which point residents can intercept the process to access materials not always available to them. Looking at Harare and Freetown, some of the roles the actors played are described below as examples.

Importers/suppliers of raw materials

In the long value chain, this would mean importers and suppliers of processed materials, such as metal sheeting from China or asbestos from Brazil, transported by sea or road from other countries. In the case of short value chains such as in Freetown, this might consist of importers and suppliers of sand extracted from the sea for cement, or in Harare, clay for farm bricks.

Manufacturers

Those responsible for bringing materials in long chains to central distribution points in the centre of the city. They are responsible for storage, continued processing and ensuring minimum quality.

Distributors and transporters

The study identified that the transportation of different materials plays an important role in both long and short value chains. This could mean from manufacturers to households, retailers to households, city centre to informal brick moulders, or raw materials to sites of construction. In some instances, transporters of the materials might make three to four stops on the way to the site as the quantities slowly reduce with demand. Depending on the material, some may require the use of heavy vehicles or lorries, while others simply require a wheelbarrow where roads are unable to cope with larger forms of transportation or are narrow.

Local retailers

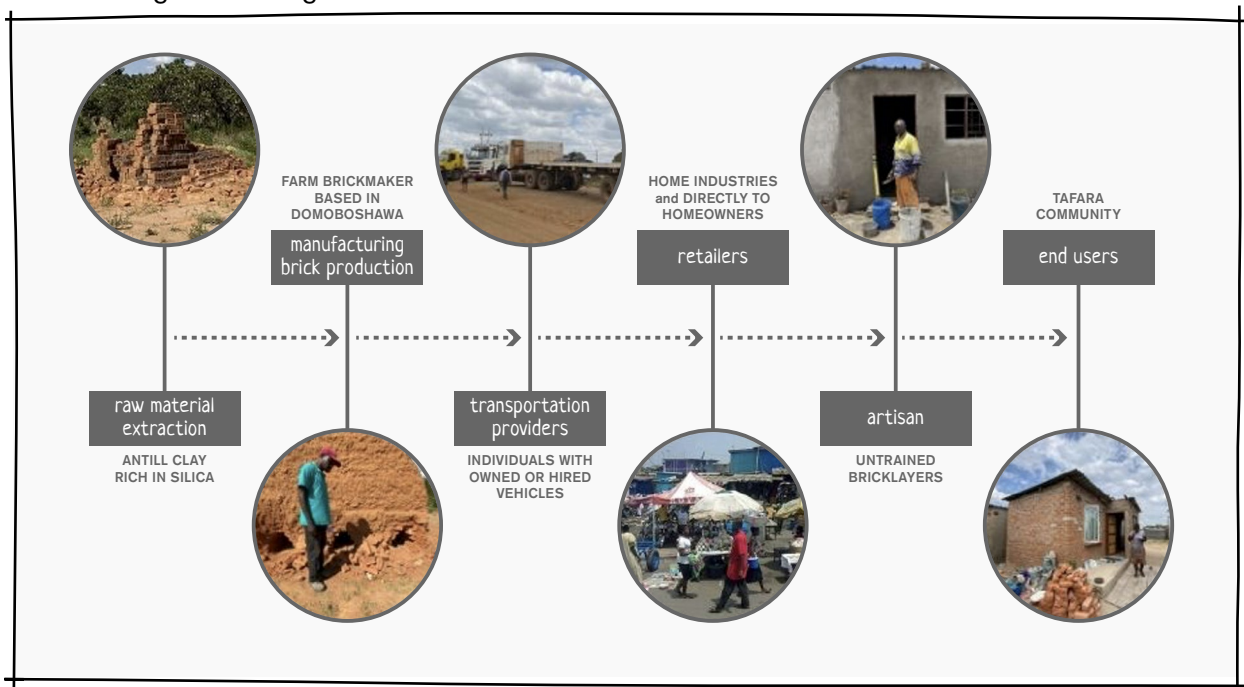
Local retailers take the responsibility of ensuring larger quantities of materials are more easily distributed in quantities that are more affordable to those in informal settlements. They carry the burden of balancing stocks against orders, permitting small transactions that are labour-intensive. They are a vital connector between city and informal settlements, manufacturers and smaller retailers, and manufacturers and builders, which are positioned in proximity to informal settlements on roadsides or other strategic locations that allow residents to carry their materials home.

Artisans/builders

Artisans and builders in Freetown and Harare form a vital part of their communities. They demonstrate a readiness to be flexible in accommodating the immediate, or long-term, construction ambitions of residents. This allows them to support residents in building homes, adjusting to residents' access to resources and spending power, and working through all weather conditions and under constrained conditions with or without required licences.

Homeowners

As residents build their homes, they form part of the value chain. In Harare, they have been involved in making their own bricks from locally sourced sand and cement bought from local retailers. They often buy bricks collectively with other residents, paying for them to be loaded and offloaded from self-sourced or informal transport. Where lighter materials are sourced locally, carrying them balanced on heads or on bicycles is easiest. Re-use of material is commonplace, for example, sheets of asbestos or re-used cement bricks bought from neighbours.



Source of this illustration and photos: Marcelle Mardon, IIED.



3

COMMUNITY-LED DATA COLLECTION

3.1 FOCUS GROUP DISCUSSIONS

AIM: to gather local groups' understanding of material value chains in informal settlements and understand key issues at the settlement level.

Focus groups offer a good way of bringing together people of particular social identities, such as women or youth. Focus groups can also bring different perspectives together and reveal differences, synergies and complementarities.

The sessions carried out in Tafara and Dzivarasekwa settlements in Harare and Colbot and Moyiba in Freetown highlighted the complexities of specific informal settlements. Specifically, issues of accessibility, proximity to the city, cost of transporting materials from other sites and the clear advantages of working collectively in accessing materials.

Individual circumstances, such as the burdens of women-led households, highlighted the advantages of building incrementally, as well as the challenges, particularly keeping out the elements while doing incremental builds.



Tool 8. Focus group key discussion points

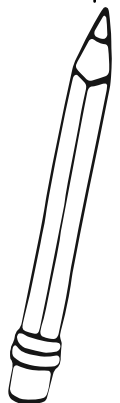
Participants: CBOs, homeowners, leaders and research team

Time needed: Approximately 2 hours

This tool marks the commencement of fieldwork and the collection of initial data on building materials. Community researchers and representatives initiate the discussions with an introduction about the process to date, explaining what the overall objectives are, with clarity and transparency, to manage expectations.

The information gathered forms the basis for selecting the materials and associated value chains to follow. The discussion points below will support a better understanding of the risks faced, of general wellbeing and perceptions of support offered from institutions.

- What materials do homeowners use? Why have they chosen to use those particular materials?
- Where do they source the funding? Do they use group savings or their own resources?
- Where do the materials for construction come from and what do they cost?
- How are the materials transported? What challenges do those transporting them encounter?
- Who builds their homes? Why do they opt for that method of construction?
- With increased heat, rain and wind, are their homes affected? How? Why?
- Is this affecting their wellbeing? How? Does this affect the decisions they make in buying materials?
- Are they able to do something to improve on buying inferior materials?
- What do they think the city council could do to support homeowners to access better materials?



3.2 DOOR-TO-DOOR INTERVIEWS

AIM: to carry out a survey that will give detailed information and evidence of the structure of the value chain of materials at household level.

Key to carrying out a value chain analysis is gathering information at important stages that offers insights into practical issues, such as costs and operational processes in accessing goods or services. It also offers insights into where the barriers or challenges occur along value chains and where there is potential to support cost reductions, offer improvements in the quality of goods and services, and create a more enabling environment to secure their continued delivery to end users, particularly for those in informal settlements. Preparing a set of questions that can be put to several households will give a clear indication across a wider field of the extent to which goods and services are being used and their characteristics.

In gathering information, community-led surveys of households were carried out. The survey deliberately selected households with specific criteria to reflect materiality and security of tenure, and was gender-responsive.



Leveraging the SDI methodology, carrying out a survey gives the federations a chance to update general enumeration and mapping. This is an important ritual that promotes solidarity around planning issues that affect the entire neighbourhood. It is a process that sees information sharing about savings groups and their power to activate changes in power dynamics.

The latest data-gathering process, therefore, is an opportunity to update information on numbers, challenges and shifts in relations, all contributing to gauging what is happening generally in the community. The exercise itself is a powerful part of the mobilisation around housing issues, building community interest in the project and its processes. In the case of building materials, it is aimed at allowing communities to identify relevant issues worthy of further consideration.

Tool 9. Some criteria for selecting households to be interviewed

Participants: CBOs, homeowners, leaders and research team

Time needed: Approximately 2 hours

Building on the information received in the focus group discussions, the participants identify and come to a consensus on what criteria will give a true and diverse comparison of materials used across the settlement. The criteria should take into consideration as many factors as possible, such as socioeconomic situation, gender and home ownership. The criteria will then determine which households in the settlement will be interviewed.

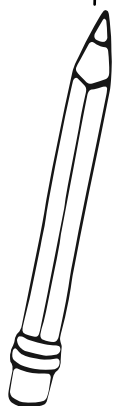
Location: a diverse representation across the settlement and from different savings (or lending) groups, religious groups or types of livelihood/economic situation.

Consideration of head of the household: taking into account the dynamics and capacity of the family, including economic status and decision-making processes.

Ownership: in Harare and Freetown, only homeowners were considered as respondents; tenants were not included in the interview process.

Level of house completion: consider homes completed and under construction. In Harare and Freetown, all the selected households had roofed structures.

Materials used for walls, roof covering, floors: for example, in Harare and Freetown, the selection criteria involved households that had used different types of bricks in their construction, including sun-dried/unburnt farm/clay bricks, face bricks and cement bricks.




Tool 10. Household sample survey

Participation: Homeowners (approximately 3–5 per settlement)

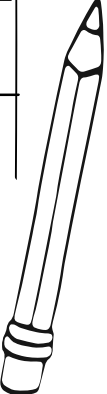
Time needed: 30 minutes per interview

As a second important part of data collection, a sample of approximately 3–5 households in each settlement are interviewed. This allows for the collection of quantitative information. A clear method for the accurate recording of information is needed. A questionnaire compiled by the research team from earlier discussions creates the design for the baseline areas to be covered.

Tool 10 offers some suggestions based on what was covered in Freetown and Harare. The surveys were recorded as document templates as well as digitally generated and downloaded into a spreadsheet for easier comparison and analysis.



Key information for building materials survey	
Material characteristics	<ul style="list-style-type: none"> • What are its qualities/measures/characteristics/gauges? • Why the selected material? • Are the components recycled?
Purchase	<ul style="list-style-type: none"> • Where were materials bought and what was the reason for selection? • Were they bought all at once or incrementally, and what were the payment arrangements? • What was the price paid? And what were the resources used?
Transportation	<ul style="list-style-type: none"> • How was the material transported home and what were the challenges encountered?
Storage	<ul style="list-style-type: none"> • Where was the material stored and for how long?
Construction work	<ul style="list-style-type: none"> • Who builds the homes? • Do they need repairs? Who carries this out?
Regulations	<ul style="list-style-type: none"> • What regulations, permits, licences and standards are needed throughout the process?
Risks	<ul style="list-style-type: none"> • Were they related to health and wellbeing, transporting, working with and using the material?
Environment	<ul style="list-style-type: none"> • What are the effects, over time, of heat, rain, wind and drought?



3.3 PRIVATE/PUBLIC SECTOR AND INSTITUTIONAL INTERVIEWS

AIM: to carry out a survey that will give detailed information on production, distribution, transportation and use of materials.

The analysis in Harare and Freetown collected data from several other key informant interviews outside the settlements.

As this was a community-led process, the key informant lists were compiled by CBO representatives, NGOs and research teams.

Some suggested interviews with different actors in the private/public sectors and in regulatory and statutory implementation are set out on the next page.

Tool 11. Private/public sector key informant interviews (KIIs)

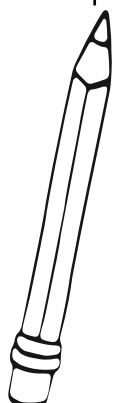
Participants: Identified suppliers in private/public sector

Time needed: Approximately 1 hour

Following on from face-to-face interviews at household level, a similar exercise supports gathering information further along the chain. Deciding who is best placed to offer key information on the value chain depends on the specific context, modes of transportation used, length of chain (long and short) and so on.

Tool 11 identifies stakeholders to be interviewed using the sample survey sheet offered in tool 10.

- Retailers, manufacturers, importers
- Builders and artisans (federation-trained, other)
- Transporters, including truck drivers (operating at large and small scales), sailors, other intermediaries
- Onloaders and offloaders, baggers, wheelbarrow transporters
- Gravel collectors, sand miners, brickmakers (including artisans), brick moulders



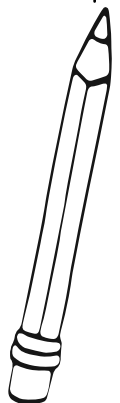
Tool 12. Institutional KIIs

Participants: Relevant governmental institutions

Time needed: Approximately 1 hour

Tool 12 identifies issues to be assessed during interviews with institutional actors. The sample survey sheet offered in tool 10 continues to offer a basic structure.

- Bylaws and community regulations enforcement
- Housing and planning policy regulations
- Environmental management
- Building standards enforcement
- Road use regulations
- Infrastructure, roadworks
- Maritime regulations
- International transportation regulations





4

ANALYSING THE DATA

4.1 ANALYSING THE DATA

AIM: to understand the processes and actors in the value chain.

In carrying out the analysis of value chains in informal settlements, we aim to capture information, evidence, stories and emerging themes, and analyse them in follow-up meetings with CBO representatives, SDI leaders, and local and national government representatives. For SDI and its federations, this is about accuracy on the ground and ensuring ownership: that data collected remains within the community. Data gathering and analysis, as well as the methods used to carry them out, are key for engaging decision makers, providing them with evidence and solutions, and forging new relationships with the authorities. There are several key stages in the analysis:

1. **Sorting of recorded evidence** in the form of surveys, interview sheets and mappings from all the sites. In our example analyses, responses from all the interviews were organised in order of thematic areas. Some considerations — such as those in tool 6 — included material use and characteristics, affordability, accessibility, transportation and desirability, along with questions posed in question six.
2. **Analysing the information gathered.** This stage begins a process of understanding material use. In Harare and Freetown, information taken from each settlement was gathered from a) approximately 30 people that joined the focus groups, b) five households, c) two suppliers/manufacturers, d) two artisans/builders, and e) two institutional representatives. Households were selected in different parts of the settlement; in Freetown they examined the key materials of sand and metal roofing, and in Harare, bricks and roofing (metal and asbestos).
3. **Identifying key findings:** an exercise co-produced by the community and the research team working together to draw from extensive and new data the relevant commonalities, such as contrasts and peculiarities of context, settlement and resident priorities. Four key lessons emerged in Freetown and Harare; tool 13 highlights them for consideration in other contexts.

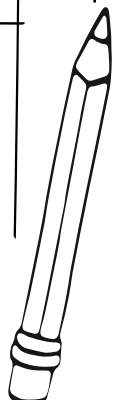
Tool 13. Considering building materials

Participants: NGOs, community researchers, federation representatives

Time needed: Approximately 3 hours

As a starting point in analysing the data, this tool suggests some key social, political, cultural and environmental themes, based on some of the issues identified in Freetown and Harare. They are deemed relevant considerations, with implications that are site-specific, given the heterogeneous nature of informal settlements. The tool offers open questions as a prompt to determine the relevance of these issues in new data gathered in different cities and informal settlements.

Considerations	Potential questions
1 Actors operating within the value chain	<ul style="list-style-type: none"> • What is the impact on the livelihoods, at different points, of those involved in extraction, processing, transporting, retailing, storing and assembling of building materials? • What could governments do to secure the safety, security and livelihoods of those operating within the value chain?
2 Land tenure security	<ul style="list-style-type: none"> • Is the choice of materials used in homes connected to land tenure security? In what way? What impact is choice of materials having? • What government interventions could support more resilient choices for homes? What government interventions could support advancing secure tenure?
3 Distribution of climate change burdens and responsibilities	<ul style="list-style-type: none"> • How is the choice of materials used to build homes protecting or exposing residents to different forms of extreme weather? • How easy or difficult is it to identify and influence governance mechanisms that control and incentivise certain types of materials used?
4 Governance over technological solutions	<ul style="list-style-type: none"> • What opportunities for collective bargaining have been identified that could make quality materials more affordable and accessible? • What existing initiatives can this exercise tap into? • What community-led solutions have been identified?





5

PEER LEARNING AND EXCHANGE

5.1 COMMUNITY LEARNING EXCHANGES

AIM: to share and incorporate into SDI community and network learning cycles the concept of value chain analysis, and in particular, analysis of building materials value chains for homes.

The SDI rituals of 'peer-to-peer learning exchanges' are central to the workings of federations and affiliates, contributing to:

- Increased mobilisation of the collective across different levels of the network, particularly through promotion of women-led and youth initiatives
- Returning ownership of knowledge back to the community: understanding the situation they are in offers communities the opportunity for solutions through precedent setting
- Increasing and offering learning through innovative work for those who build with the materials and those who form an important part of discussions on their use based on experience and action, and
- Shifting power: government and other stakeholders are invited into community learning spaces. This has successfully forged new relationships that eventually lead to more practical partnerships and the co-producing of solutions and interventions.

Reflecting and feeding findings back to the community is empowering. Community learning exchanges are a key part of this communication. They offer communities the chance to collectively re-evaluate how they see themselves and how they can make improvements to their lives. The exchanges support the prioritisation, needs and aspirations of the collective, and this reflection supports taking the next steps in acting on the findings, considering the gaps and the opportunities for intervention and direct impact, as well as making recommendations to present to decision makers.

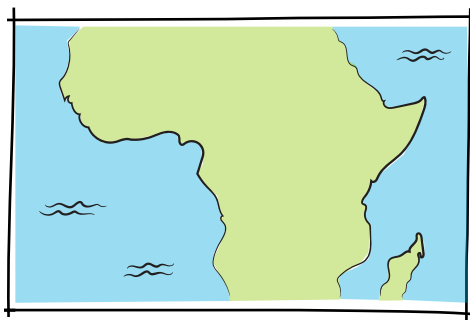
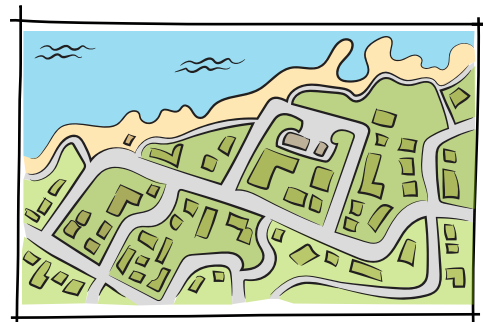
5.2 WHERE DO EXCHANGES HAPPEN?

AIM: to identify various opportunities for sharing lessons and experiences in different spaces and contexts. CBOs are often part of wider networks, giving them access to other ways of knowing and doing that support innovative solutions. Examples below draw from SDI processes and experiences.



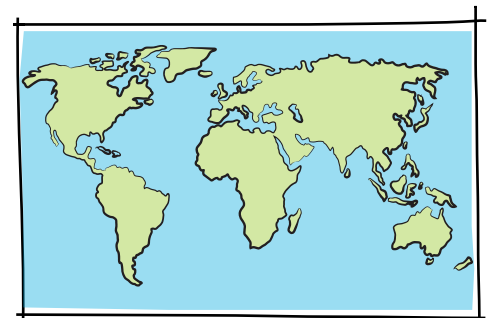
Settlement level: by carrying out the building materials analysis across more than two settlements in both Harare and Freetown, exchanged learning of federation members is carried out from the outset. Settlement-to-settlement learning strengthens collective knowledge and increases participatory governance of local residents.

City to city: on completion of the analysis, learning takes place across cities through visits and workshops. For the federation, this supports the amplification of data, stories and voice. City-level exchanges also support involving city officials, not only within cities but between them.



Regional level: SDI, as a women-led transnational network, links urban poor organisations in different countries through community exchanges (including many visits to nations where federations have not yet developed or are only in the early stages of development) and supports them in their negotiations with international agencies. For building materials analysis, this offers the opportunity to come together to share and discuss the validity and appetite for this work in other regions.

Global: SDI supports its affiliates and federations through international peer-to-peer exchange. It aims to upscale pro-poor development approaches and build a global movement. SDI develops campaigns and advocacy together with partners, advancing the agenda and building alliances with new partners who share the same values.



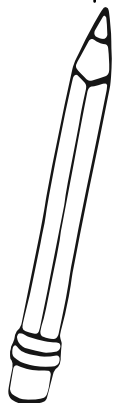
Tool 14. Considering exchanges

Participants: NGOs and organised community representatives

Time needed: Approximately 1–2 hours

At what level would exchanges be important/feasible? For what purpose?
For what outcome?

- What would be shared? Is it relevant for that context?
- Who should be involved? Who should host it? Why?
- What outcomes and benefits are expected from of the exchange?



Tool 15. Sharing lessons from the experience

Participants: CBO representatives, NGOs, research team

Time: Approximately 2 hours

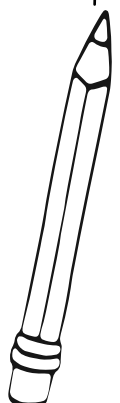
This tool reflects on the findings from Freetown and Harare in a way that supports the transfer of knowledge that may be relevant for consideration in other cities. For SDI affiliates, as part of the process of peer-to-peer learning, the tool makes the distinction between prompts specifically designed for building materials and those for other value chains. This allows for flexibility and adapting the analysis for other processes relevant for communities in informal settlements.

On building materials

- What were the opportunities identified for direct action?
- How can we bring more federation members into this process for resilient homes?
- How has the analysis increased opportunities for creating awareness, learning new skills and sharing knowledge on how to improve affordability and accessibility for better quality materials?
- What are the common issues identified for other informal settlements?
- How have others found solutions to deal with the same issues?
- How can the solutions be used to influence policies, standards, regulations and programmes?
- What degree of control can communities have over the solutions identified?

On value chains

- How can this type of analysis be used to understand other important thematic areas in informal settlements?
- How and where can this analysis be used to strengthen collective vision and contribute to collective empowerment?





6

SHARING KNOWLEDGE ON VALUE CHAINS

6.1 COMMUNICATING THE FINDINGS

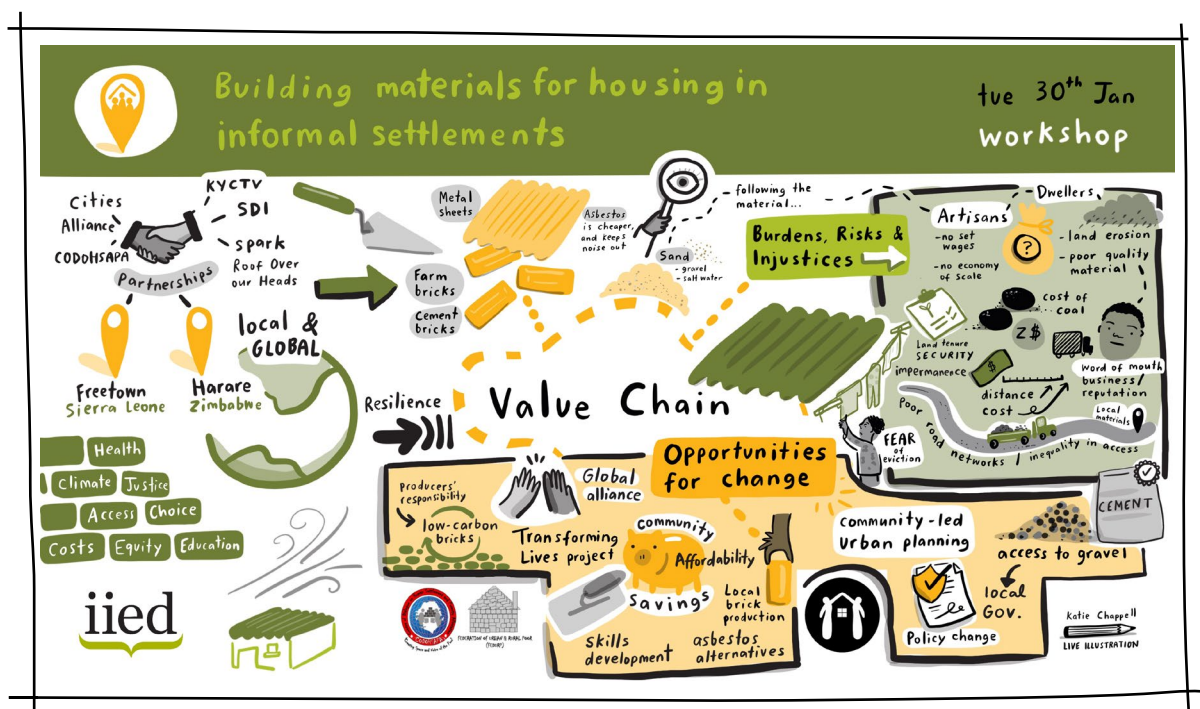
AIM: to identify communication and advocacy strategies for a more inclusive, resilient, pro-poor approach to city planning.

Carrying out a building materials analysis can give a better understanding of housing dynamics in informal settlements, identifying factors influencing the type of housing in relation to cost and realising that some communities pay more for materials than others depending on location. More importantly, the analysis carried out in Harare and Freetown has raised critical questions about the preparedness of informal settlements to tackle growing climate risks. The exercise has offered an opportunity to raise awareness of the need to prioritise more resilient strategies in addressing housing needs. Bringing new evidence in the context of housing justice to communities themselves, government and other partners, as well as to a wider global audience, is an important part of contributing to new narratives for housing justice in an urbanising world.

1. **Community learning.** Through participation at settlement level, representatives from each community can engage throughout the data gathering and analysis stages, forming an integral part of the research team. With the analysis going beyond the settlement boundaries, community representatives can follow the value chain to businesses and markets to understand where materials are sourced, processed and housed. In addition, community representatives, as in Harare and Freetown, can play a key part in the interviewing of local authority departments. Embedded into the SDI strategy is youth-led media production. In both Harare and Freetown, the young filmmakers KYCTV gathered stories and interviews from settlements to highlight learning for other affiliates. An in-person peer-to-peer learning exchange is planned to follow up with affiliates from across the region.

2. **Local and national urban decision makers.** To create real impact beyond the settlement, findings from the building materials analysis should be shared with decision makers whose responsibility it is to ensure equitable and inclusive approaches to housing provision. Findings have also been highlighted through research outputs, co-produced animations with partners at IIED, and publishing key recommendations promoting pro-poor policy, actions and pathways for impact.

3. **Researchers and other partners.** In a similar way, communicating the findings allowed communities to open up discussions about building materials with other partners, potential donors and professionals in the construction space to build support for amplifying the work, and giving space for experiences and lessons coming out of informal settlements, as was done with the research and case studies carried out in Freetown and Harare.



Graphic from live illustrations of a workshop on building materials for housing in informal settlements. (Illustration: Katie Chappell)

4. **International/global advocacy.** At the global level, findings from Harare and Freetown were shared at COP28 in 2023. Dialogue on Shelter Trust shared the realities and multiple challenges experienced by informal settlements in the face of growing urbanisation in cities and the exacerbation of extreme weather. For settlement communities, presenting evidence in these development arenas presents a real opportunity for the needs and priorities of settlement inhabitants to be incorporated into global development strategies and agendas, harnessing global advocacy to raise support for local solutions and impact.



Tool 16. Tools for communicating to different audiences

Participants: CBO representatives, NGOs, research team

Time: Approximately 1 hour

This tool offers the opportunity for CBO members to reflect on the best communication strategy to present the findings. Depending on the audience, context and scale, careful consideration needs to be given of how to disseminate the information gathered. Affiliate NGOs and the research team can support in identifying appropriate timings and methods for communicating at community level, as well as at international level. This tool suggests an array of different communication methods used by SDI affiliates in the past. The list is interchangeable and extensive and is a prompt for different audiences.

With communities

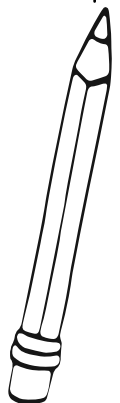
- Exchanges and/or workshops
- Recorded media/short downloadable stories
- Animations/illustrations
- Guides and toolkits

With policymakers/decisionmakers

- Workshops
- Online workshops
- Reports
- Live illustrations
- Publications (working papers/policy papers)

With wider audience (researchers, donors, other NGOs)

- Blogs
- Illustrations/animations
- Publications (working papers, policy papers, etc)





7

SHARING OPPORTUNITIES FOR IMPACT

7.1 SOME KEY GAPS IDENTIFIED

AIM: finally, participants in the value chain analysis can consider key issues that have been highlighted and how these issues could be presented to wider audiences to increase the impact of their work.

Target audiences could include policymakers, researchers and donors. In the building materials analysis in Harare and Freetown, participants identified several important issues, including:

1. **Lack of land tenure rights.** Where temporary structures are being built, quality is seriously compromised, exposing residents to extreme weather hazards, such as flooding and overheating. In Tafara settlement, self-builders and artisans take shortcuts to make savings, for example by using lower sand-to-cement ratios to make cement bricks. This exposes homeowners to health issues such as damp and water seepage into their homes, affecting their health and wellbeing. Without regulations, residents continue to accept substandard materials.
2. **Preconceived ideas about decisions and choice of materials by residents.** In Freetown and Harare, some research findings were unexpected, particularly in relation to why people choose certain building materials, what influences their choice and even where they purchased them. This suggests that durability and cost of building materials are not always of primary concern. In many cases, there are other factors, such as transportation at a minimum cost. This makes the location of informal settlements, often in peripheral areas, significant for building material choice. In sourcing materials, the proximity of peri-urban home industries, and even the proximity of rural locations to settlements, becomes a hugely influencing factor, for cost efficiency and minimising transportation hassles.

3. **Voices from the settlements are not being heard.** Residents are often aware of the penalties they pay and the risks they face in using certain building materials; however, they have little influence over these decisions or the acute infrastructural and regulatory issues that increase these burdens. There is an urgent need to integrate the concerns and experiences of residents into the debate on seeking alternative solutions to the impending challenges for the building and construction industry. Concerns around infrastructure and building regulations are going unheard. Governance issues are being compromised. A lack of knowledge about the factors that affect the supply chain for materials makes it hard to take effective action.

TESTIMONY:



The building materials research has been able to give a better understanding of the housing dynamics in the informal settlements, as it helped us identify factors influencing the type of housing, particularly in relation to cost and availability. Sand as local material, for instance, has often been taken for granted, thinking that it is available and accessible in the communities we serve. On the contrary, we have realised that it is mined in distant locations using canoes to transport from source, thereby creating an extensive production and marketing chain.

Francis Reffell (CODOHSA, Freetown, Sierra Leone)

7.2 GAPS BEING ADDRESSED THROUGH THE FREETOWN AND HARARE ANALYSIS

AIM: to enhance the capacity of CBOs to research the value chain of building materials.

The focus group discussions in Harare and Freetown highlighted where untapped opportunities exist, particularly in construction processes. Discussions can help to generate potential solutions, such as taking opportunities to access more durable materials through collective purchasing. Some gaps could be identified and addressed through support, such as peer-to-peer learning exchanges in settlements that have already undergone construction cycles where homes are complete or almost complete. Going through the construction cycle provided a greater appreciation of procurement processes. It offered an opportunity to check the quality of materials and informed some participants about what to look for when buying building materials. It highlighted the potential to deal with high transportation costs via collective purchasing, the importance of onsite storage and improving skills for negotiating with builders and other suppliers.



The research process and the partnership between SDI and IIED continue to support the dissemination of this work and its findings, and contribute to an emerging advocacy agenda. We have published our findings and produced a policy briefing to reach local and global decision makers. We aim to share our findings with construction industry practitioners and professionals, potential donors and other partners. We have also identified pathways to expand this work as set out in the next section.

TESTIMONY:



In order to get security of tenure, you have to look at the very small things that contribute to it, one brick at a time, one roofing sheet, etc. The importance of disaggregating to understand what contributes to the whole when taking the discussion to the smallest level and understanding why the big picture is what it is! Something else that was significant, (was) understanding why people choose the material that they do, what influences them to pick certain kinds of materials and equally important, where they purchase them and why. It is not only a question of durability or the cost of material but how easy it is to transport at the minimum of cost to informal settlements of which most, unfortunately, are found at the periphery of the city.

Patience Mudimu (Dialogue on Shelter, Harare, Zimbabwe)

7.3 IDENTIFIED PATHWAYS FOR CHANGE

AIM: to move the analysis work into more direct action for grassroots movements.

In moving forward from the analysis, our learning from Freetown and Harare indicated that to keep the momentum of the work, it was vital for the communities to consider meaningful and direct actions they could take at the grassroots level. We identified six key pathways for change across all four settlements:

1. Support collective action at the grassroots level

- **Enhance community bargaining power.** This can be done by pooling resources or, in the case of SDI, existing community savings groups to access bulk or more resilient quality materials. The experiences in Harare and Freetown identified that shared transportation costs by homeowners offered an accessible opportunity for immediate action.
- **Leverage support from actors along the value chain.** Negotiating payment plans with suppliers through paying in instalments: suppliers in Harare agreed to store material until bulk deliveries could be made.
- **Community-based building material production.** Self-produced, more robust materials, such as cement or farm bricks, offer the benefits of supporting livelihoods, community solidarity, training, safety and efficiency.

2. Create capacity-building opportunities

- **Support robust building techniques for climate change.** Offer programmes that support informal settlement disaster-resistant construction techniques for building more weatherproof structures.
- **Offer educational resources to residents.** Support training that promotes sustainable practices, environmental conservation, health and safety awareness and improvement, and wellbeing.

3. Influence policy and regulatory frameworks

- **Advocate for pro-poor policy changes.** We were not able to identify any policies designed to address the challenges and risks we identified in the case study locations. Some existing bylaws exacerbate challenges, restricting the use of cost-effective materials. In Tafara, most bricks used do not meet national standards, but they are what residents can afford.
- **Promote community-led urban planning.** Advocate for secure land tenure and upgrading of informal settlements. Promote improved, more permanent, affordable and sustainable structures. In Freetown, FEDURP/CODOHSAPA is working for the designation of special planning areas (SPAs) in two coastal settlements. The processes and methodologies for upgrading can also be applied in other areas.
- **Establish regularised frameworks and quality control in informal settlements.** Bring quality control mechanisms into informal production sectors to reduce the risk of substandard materials and building techniques to allow for safe and durable structures.

4. Increase the sourcing of local materials

- **Use abundantly available local materials.** In Freetown, access local building materials such as granite stones, appropriate soil materials, timber and bush sticks. In Harare, use materials such as farm and clay bricks mixed with recycled coal, or support locally produced cement bricks and metal sheet manufacturing.
- **Local alternative building technology systems.** In Freetown, the Kolat Brick company is producing low-cost, high-efficiency bricks, and the TEKK Landscape company is producing pavement and drainage blocks using local materials, such as river sand and granite.

5. Collaborate with other institutions

- **Work with other NGOs and development agencies.** NGOs can support by identifying where communities can access knowledge and financial resources to implement sustainable and resilient housing solutions in informal settlements and/or sourcing high quality, affordable materials. Institutions can offer other support, such as enhancing the capacity of informal settlements in disaster preparedness, response and recovery.
- **Work with various educational institutions.** In Freetown, we identified several institutions, such as the Free Trade Centre at Kissy Dockyard, Milton Margai College of Education Technology and the Department of Architecture in Fourah Bay, that can support human capital development in the building and construction industry.
- **Explore other initiatives.** The Presidential Infrastructure Initiative in Freetown, for example, includes the construction of low- and middle-income housing. The initiative offers the opportunity to look at durable, local and affordable materials for construction. The government is also looking at how to use low-cost materials while maximising high value and efficiency.

6. Accessing finance and capital

- **Explore opportunities for microfinance and capital access.** Facilitate support for community-based initiatives such as brick production. Review mortgage systems that allow people to access affordable homes, such as projects in Freetown that use clay and locally affordable materials. This project is currently testing the construction of 5,000 houses and aims to roll out the model once successful.
- **Improve purchasing power** by supporting buying materials, such as roofing materials or bricks, collectively in bulk from suppliers.
- **Establish new partnerships** with financial institutions or NGOs tailored to the needs of informal settlements for responsible production.

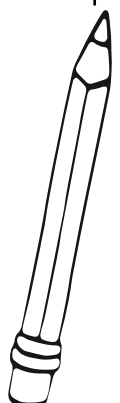
Tool 17. Identifying potential opportunities

Participants: CBO representation, NGOs, local residents

Time needed: 2 hours

This tool supports the mapping of next steps for improving access to more sustainable building materials for communities. The tool looks at how the findings in Freetown and Harare can be used to support other cities. We suggest six guiding questions to help in identifying tangible opportunities for more immediate action and for considering both immediate and longer-term impact. It is crucial to support communities to map out a way forward beyond the analysis, supporting with proposed options for continued development.

1. What opportunities were identified at community-level to improve access to better-quality materials?
2. What kind of capacity building or training was identified that could improve community understanding of the construction and building materials value chain, construction techniques and solutions that are adequate for informal settlements?
3. What policy, regulations and standards could be adapted or implemented to mitigate risks and challenges and/or support more resilient options?
4. What locally available options exist that could be expanded or leveraged for more inclusive and resilient solutions?
5. What opportunities exist to collaborate with academics, NGOs and financial or other organisations to test new initiatives or build the capacity of informal settlement residents?
6. What financial or credit resources can be accessed or tapped into to support new initiatives or improve community purchasing power?



REFERENCES

ACTogether Uganda, (2013) A Learning-by-Doing Approach to Active Urban Citizenship in Uganda: The Toolkit. https://sdinet.org/wp-content/uploads/2015/04/Uganda_LEARNING_BY_DOING_2013_1.pdf

Architecture Sans Frontieres UK and Sierra Leone Urban Research Centre (2022) Freetown Community Planning Toolkit: Settlement Profiling. https://issuu.com/asf-uk/docs/isp_toolkit_final_220419_

Celentano, G and Habert, G (2021) Beyond materials: The construction process in space, time and culture in the informal settlement of Mathare, Nairobi. *Development Engineering* Vol. 6, 100071 DOI: 10.1016/j.deveng.2021.100071

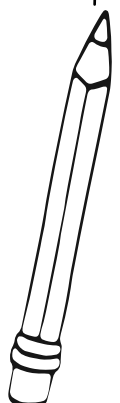
Cities Alliance (2023) An international review of slum upgrading practices: Lessons learned and remaining challenges of projects and programs. www.citiesalliance.org/resources/publications/publications/international-review-slum-upgrading-practices

Cociña, C, Mardon, M and Frediani, A (2024) Building sustainable housing futures for all: filling the knowledge gap on building materials in informal settlements. IIED, London. www.iied.org/22466iied

Frediani, A, Cociña, C and Mardon, M (2024) Building resilient homes in informal settlements. IIED, London. www.iied.org/building-resilient-homes-informal-settlements

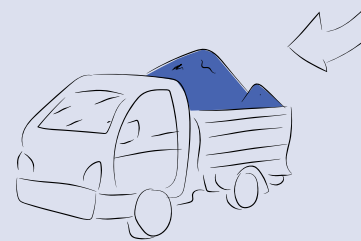
Maina, M, Braimah, F, Frediani Apsan, A, Kyessi, AG, Macarthy, J, Mwathunga, E, Oyalowo, BA, Tarawally, A, Turay, Ai and Uduku, O (4 Jan 2023) Rising costs and worsening housing conditions in Africa's informal settlements. African Cities Research Consortium, Manchester. www.african-cities.org/rising-costs-and-worsening-housing-conditions-in-africas-informal-settlements

United Nations Environment Programme (2023) Building Materials and the Climate: Constructing a New Future. <https://wedocs.unep.org/handle/20.500.11822/43293>





This co-produced guide aims to capture an existing process and approach for data analysis being used by the Slum Dwellers International (SDI) network, using the value chain of building materials in informal settlements as an example. It aims to incorporate participatory learning and action methods and be tailored to local contexts. To take into consideration the heterogeneous nature of informal settlements, it allows for varied levels of mobilisation and collaboration with local stakeholders, as well as existing knowledge of housing and construction in different neighbourhoods. The approach is highly adaptable. We applied it to a building materials value chain, specifically to look at materials used for homes in informal settlements. However, this guide also usefully introduces communities to the wider concept of value chain analysis, and aims to provide guidance and practical tools that can be used to undertake similar exercises.



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