

Sustainable Shelter Design and Materials for the Urban Poor in Malawi

Regularizing the effective designs and construction guidelines



Chimwemwe Bright Nyirongo

Architect

Buildings Department, Ministry of Lands, Housing & Urban Development,
Capital Hill, Lilongwe, Malawi.

Introduction

The Government of Malawi through Malawi Government Development Strategy (MGDS) is determined to facilitate improved access to sustainable and affordable housing for all Malawians as a prerequisite for the socio-economically development in the eradication of poverty in Malawi. The implementation of the MGDS on housing has been made through the National Housing Policy (NHP) 2007 which is still in draft format. In part, the policy proposes changes in the design and construction guidelines so that they should reflect; the current demands and needs, modern building technologies (e.g. use of alternative building materials) and make housing affordable to most Malawians. However, with the growing agro-based economy which has failed to develop the rural areas leading to rural-urban migration (i.e. urbanisation) and a huge deficit in housing; the tendency of most players in the housing sector has been to mass produce without paying particular attention on the quality of the shelter. It is for this reason that Ministry of Lands, Housing and Urban Development, through Buildings Department has started finding lasting solutions to this problem of poor quality of the shelter through implementation of effective designs and construction guidelines with emphasis on the use of alternative building materials.

1 Shelter Situation Analysis

1.1 Basic General Data

1.1.1 Geography and Administration

Malawi is one of the smallest countries located in Southern Part of Africa. It lies 13 30 South and 34 00 East. It is tucked among three neighbouring countries; Tanzania, to the North and North-East; Mozambique to the East, South and South-West; and Zambia to West and North-West. The land-locked country covers a total area of about 118,484 square kilometres and stretches about 900 Km (North to South) and between 90 and 160 Km (East to West).

Malawi, a Republic and led by a democratically-elected government, is divided into three regions namely; Northern Region; Central Region; and Southern Region. The country's capital city, Lilongwe is located in the Central Region where most of the central government administration is carried out. Other major cities include; Blantyre, a commercial city; Zomba, the old capital city and now a municipality city; and Mzuzu. The development within these major cities/towns is under the administration of local city assemblies/council.

1.1.2 Demography and Health

According to the 2008 population and housing census results of National Statistics Office (NSO), Malawi has a population of about 13,066,320 people; 80 percent of which live in rural areas and the remainder in the urban area. Out of 13,066,320 people, 6,365,771 (49%) are males and 6,709,549 (51%) are females. The population continues to grow at 2.746% annually and the rate of urbanisation is around 5.2% (CIA World Fact book).

1.1.3 Economy

Malawi's economy is predominantly based on agriculture which accounts for more than 45% of GDP and about 90% of export earnings (CIA Fact Book 2008). The main agricultural products are; tobacco 70%; Tea- 7.5%; Sugar – 7.4% & Coffee – 4.1%. (MH The country is one of the poorest countries in the World whose three-year average Gross National Income (GNI) per capita is less than USD 750. The economy continues to grow from a low base, but is threatened by HIV/AIDS and the decline in the tobacco industry, arising largely from the anti smoking lobby. However, agriculture in general and commercial agriculture in particular

has failed to develop the rural areas leading to many people especially the young generation migrating to urban areas causing spontaneous settlements with poor quality of the shelter.

1.2 Shelter Related Fact and Figures

1.2.1 Access to Shelter

Access to affordable and decent shelter still remains a challenge as Malawi strives to attain the 2015 Millennium Development Goals. In the urban areas in Malawi, access to shelter is a major problem against a very limited stock of housing units available. Malawi Housing Corporation (MHC) a para-statal created to supply housing for rent and for sale reported in 2010 that it has a waiting list of about 110,000 applicants against about 6,300 housing stock, all currently under occupation in all the major cities of Malawi. The new households forming in these cities require the construction of about 21,000 dwellings per year up to 2010 (MUHSP 2010)¹. The MHC plans to build around 1,000 dwellings and service 1,000 plots per year between 2008 and 2012. The rest of the formal sector² plans to build a few hundred dwellings per year. In total, MHC and the rest of the formal sector plan to build around 3,000 at most. The housing deficit that would not be covered by the formal sector is almost six times that number of the dwellings planned to be built.

According to the data on Integrated Household Survey (IHS) 2004-2005 shown in Table 1 below, above 51% of housing tenure by urban household were rented; about 42 % were owner occupied; about 2 % were employee provided and about 5% were free, authorised. In 2008 the number of households were about 2,957,693 with a mean household size of 4.4 persons (NSO 2008). The figures reflect a similar situation now and rents are relatively high when compared to the minimum wages in these urban areas.

¹ MUHSP 2010 – Malawi Urban Housing Sector Profile, 2010 is a publication on the findings and recommendations of UN-HABITAT on an in-depth study on functioning of Malawi’s urban housing sector highlighting its strength and weaknesses.

² Formal sector includes government, non-governmental, private and international organisations.

Table 1. Distribution of Housing Tenure by Urban and Rural households

Kishindo reports rents of MWK 1,000³ (equivalent USD 7) per month for a two bedroom dwelling house at a time when minimum wages were MK55 (equivalent US0.40). Out of these, median households live in two or three roomed dwelling house rather than single rented room (MUHSP 2010). A slight majority of urban households have one person per room, while 22 per cent have more than three persons per room. Lilongwe and Blantyre, the two major cities in Malawi, have a slightly higher occupancy rate than the urban average (IHS 2004-2005). See Table 2 below.

Source: Kadale Consultants (2009), from data on the Integrated Household Survey (IHS) 2004 – 2005.

Table 2. Housing Occupancy Rates, 2005

	PERSONS PER ROOM				
	1	2	3	4+	MEAN
Urban	51.8	26.0	12.0	10.0	1.8
Lilongwe	36.9	27.5	19.0	16.8	2.2
Blantyre	39.6	33.3	16.0	10.8	2.0

Source: Columns 1-4, Government of Malawi (2006a).

A lot of urban housing in Malawi is not constructed to acceptable quality standards. This is also mainly due the difficult financial capacity of a lot of house owners who settle for low quality local building materials and methods of construction. The problem is further compounded by lack of proper and effective guidelines in terms of shelter design and the use of these local building materials.

According to Census Population Index(CPI) figures from National Statistical Office (NSO), the ratio of house cost to annual income (consumption) stands at 5; in that the cost of a dwelling house for an average urban household is 5 times the median expenditure which

³ MWK 1,000 stands for One Thousand Malawi Kwacha- the name of the currency in Malawi.

equals MWK 976,000 (equivalent USD 6,970) at March 2009 prices. This house cost to income ratio is considered quite high for a lot of Sub-Saharan African countries like Malawi. In 2001, Chome divided the urban housing into two broad groups;

1. Temporary – which utilises traditional, organic and earth-based materials with mud floor, mud-brick walls and thatched roofs, often reinforced with plastic sheeting to improve waterproofing.
2. Permanent – This is built with cement screed flooring burnt bricks walls and metal sheet roofing.

However, it is obvious that there cases where mixtures of these materials are used as housing improves incrementally (MUHSP 2010).

1.2.2 Access to and cost of Basic Services/Infrastructure

In terms of provision of basic services, the urban areas in Malawi can be divided into two; those privileges, established, formal cities where services are provided to each dwelling but sometimes do not work and; those informal urban areas where services are generally absent or provided by household by households who live there. In the established urban areas water supply to, or close to, each dwelling is standard and supplied by the Water Board, a statutory corporation responsible for water supply in the major cities. Sanitation is by water-borne system either to septic tank or a local sewerage system. Electricity supply in the established urban areas is through the mains and is generally quite expensive even for the middle income earners. The electricity supply is regulated through Electricity Supply Commission of Malawi (ESCOM), a statutory corporation responsible for the supply of electricity in Malawi. Roads are engineered topped with bitumen except in the Traditional Housing Authorities (THAs) where roads are engineered to earth standards with only the main road topped with bitumen. The cost of accessing these basic services is generally high for middle and low income groups in the urban areas.

The situation of basic services is a bit different in the informal urban areas. Water supply in the informal urban areas is through kiosk or shallow wells. Sanitation mainly relies on pit latrines and there is no or little electricity supply. The roads are non-surfaced (and even non-engineered) earth roads. The basic services in these areas are normally financed through community development efforts or through support of NGOs.

1.2.3 Access to and cost of Education

In Malawi, access to basic primary education was made compulsory through Malawi Government directive 2008/2009 and the cost of primary education was made free in 1994. Secondary (High school) and Tertiary (University) education is offered at a fee and is mostly expensive to the low income groups. Most students walk to long distances of approximately 2km to school.

1.2 Housing Policy

In 2007, the National Housing Policy in Malawi was in its final draft. However, since then very little efforts have been made to finalise the document and make it legal. The policy stresses on the government role in promoting efficiency in housing market so that sustainable shelter is provided at affordable prices by most households especially the low income groups. On planning and building standards the policy particularly states that “*planning and requirements for building are not affordable for most Malawians and have the effect of discriminating against the use of local materials*”. The policy further states that the present planning registration is a burden and inappropriate in poverty alleviation strategies

1.3 Actors in Shelter Delivery and their Roles

(a) **Ministry of Lands, Housing & Urban Development-** The ministry has the following major roles in the delivery of housing in Malawi;

- Development of national housing and urban development policies
- Infrastructure development on public land
- Direct housing delivery for government departments such as health, education, police and the army.

(b) **The Malawi Housing Corporation (MHC)-** MHC is a statutory corporation established in 1964 and has the responsibility to undertake the development, construction and management of housing estates throughout Malawi, for both high and low income households. MHC is also a major landowner in Malawi’s cities and is expected to construct houses and provide services land that could be used by private developers to build their own houses.

(c) **Local Authorities – City Assemblies-** Under the local government Act (No. 42 of 1998), many functions previously formed by central government were delegated to the city

assemblies. The city assemblies are responsible for the administration of Traditional Housing Areas (THA's) transferred from Malawi Housing Corporation (MHC) in 1992. In particular, the city assemblies' responsibility for THA's was enhanced by statutory powers to manage low income housing with the THA's and through settlement upgrading under the Local Government Act 1998.

1.5 Shelter Design

The Town Planning and Country Planning Act 1988 provide a framework for urban land use zoning in Malawi. Land use plan seem to zone sufficient land, but when it comes to implementation in surveying and servicing, only marginal residential land is made in formal sector. The needs of the majority poor are meant to be served through Traditional Housing Authorities (THA's), but the city assemblies have been responsible for administering or expanding them. There are multiple land administrators in the cities. The lands department is responsible only for land under its jurisdiction.

2 Organisation

Buildings Department is one of the departments within the Ministry of Lands, Housing & Urban Development and is headed by the Director of Buildings who is a government advisor on building policies, regulations and standards. According to the MGDS (section 5.04), the Buildings Department, is also responsible for the provision of quality, safe and sustainable built environment in an efficient, economical and transparent manner. The department is currently working on formulating the National Housing Policy and reviewing the National Building Regulations, which have been in draft form for many years.

The draft National Housing Policy section 4.2.2.5 outlines a number of supporting roles the department plays among which are supporting operations of National Construction Industry Council (NCIC) and formulating and enforcing building regulations and standards. The department also designs and supervises construction, maintenance and rehabilitation of public buildings. The department's vision is to provide adequate and sustainable shelter for all Malawians through the following ministry's strategic objectives;

- Managing national housing legal framework
- Providing adequate and sustainable office and housing accommodation to government and public servants throughout Malawi.
- Creating access to affordable, safe and secure housing for all income groups

- Creating enabling environment to encourage investment in urban development by local and foreign investors.
- Facilitating the provision of quality, cost effective and timely built environment, infrastructure and management of government buildings.

3 Shelter Problem

One of the major problems in the delivery of urban housing for the poor in Malawi is the poor quality standards of the shelter. With the fast growing economy at 7.2%, the huge urbanisation rate at 5.2 %, the lack of National Housing Policy still in draft format, all these leading to a huge deficit in the housing stock the tendency of most players in the social housing sector has been providing shelter to the urban poor at a faster pace to meet their targets without looking at quality of the shelter. This shelter quality problem is mainly evident in the following areas;

3.1 Physical Planning of the Settlement Areas

In most of these urban informal areas there is absolute no order or proper planning of the areas. Development is spontaneous. The authority in charge in these areas, the THA's, has little power since there is no legal framework (i.e. Planning or building bye-laws) to enforce the proper planning guidelines for the areas. The only legal framework which is the Town and Country Planning Standards and Guidelines for Development only covers for the towns and the formal urban areas. In addition that, most of the buildings regulations/ bye-laws were prepared in the 1960's and do not reflect current building technologies; for example, burnt bricks have been taken to be the only permanent building materials for most housing construction segregating the current technologies like Stabilised Soil Blocks (SSB's), Hollow Cement Blocks and Compressed Earth Blocks etc. This also has had an effect on the mindset of general public and the professionals alike, to take these local building materials as temporary building materials and hence not fit for use in the urban housing construction

3.2 The Actual Shelter Design

At least in those areas where social housing has been provided through efforts of other players in the social housing like CCODE, MHC & HfH, most of shelter designs are not tailored to user's needs resulting in spoiling development of temporary structures like kiosks or kraals

around planned houses to accommodate other income generating activities. Most shelter designs are tailored from a budget or grant/loan perspective and don't reflect the current life styles. A lot of the typical houses designs provided in these areas have been adopted from the old British System. The designs provide very limited possibilities for incremental development as the family and their income levels grow. The problem is further compounded by lack of proper planning guidelines leaving most areas with little or no space at all for further expansions.

3.3 The Use of the Local Building Materials and Construction Technologies.

There is lack of technical knowledge in the use of the local building materials which account for a bigger percentage in most of the shelter designs for the urban poor. Most people engaged in construction of the houses in these areas use a lot of common knowledge and their own building experience acquired over the years. Most of them have little or no understanding of the technical details of the construction technologies and use of these local building materials. While some of them might get access to some of the technical documents, the challenge is in understanding them and putting them to proper use. The problem is more evident in;

- Their roof constructions which are mostly constructed with a shallow pitch which renders the roof covering material vulnerable to rust and corrosion as rainwater doesn't run off quickly. See Figure 2.
- Construction of their foundation which is mostly done with weak building materials which are mostly eaten away by rain water over time as shown in Figure 2. The foundation footing is almost eaten and rendering the whole super structure vulnerable to collapse.

The problem of quality of shelter is just a portion of the overall problems facing the provision of shelter for the urban poor in Malawi. The whole shelter delivery process needs to be looked at critically in a holistic manner from the actual context, land acquisition, the registration system, the housing micro financing institutions to property acquisition.

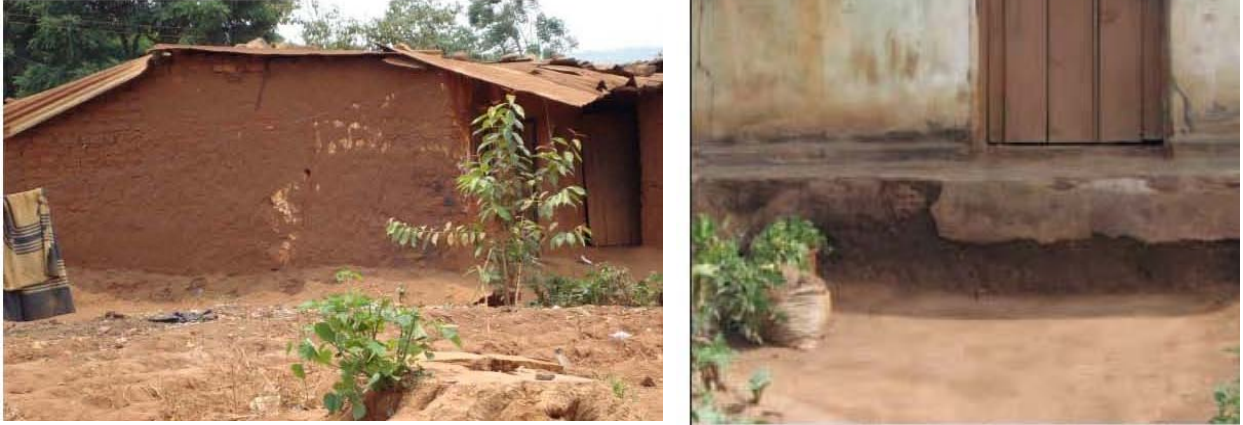


Figure 2. Quality of Shelter in Mchesi Area in Lilongwe. Note the rusty roofing materials and the eaten foundation footing. (Source: MUHSP 2010)

4 Proposal for Change and Improvement

In order to effectively address the quality standards of shelter design and materials in urban housing, the Ministry of Lands, Housing & Urban Development through Buildings Department is in the process of coming up with effective regulation in terms of a shelter design and construction guideline pamphlet (see Appendix B) for the urban poor that could be incorporated in the Town and Country Planning Standards and Guidelines for Development or in the National Building Regulations yet to be finalised. The guidelines emphasize on the effective use of the local building materials in shelter design and construction technologies. These guidelines will be enforced by Traditional Housing Authority (THA) in these informal urban areas in Malawi.

This proposal for change and improvement is a *continuous process of refinement and improvement* which involves field research, literature review and drafting of the effective design and construction guidelines and would be conducted in five phases;

1. The Preliminary Phase- which was conducted between October 2010 and January 2011.
2. First Phase will be conducted from March 2011 – June 2011 and the expected outcome will be the 1st technical draft for the Effective Design and Construction Guidelines.

3. Second Phase will be conducted from July 2011 to October 2011 and the expected outcome will be 2nd technical draft for the Effective Design and Construction Guidelines.
4. Third Phase will be conducted from November 2011 to February 2012 and the expected outcome will be 3rd technical draft for the Effective Design and Construction Guidelines.
5. Fourth Phase will be conducted from March 2012 to June 2012 and the expected outcome will be 4th technical draft for the Effective Design and Construction Guidelines.

The preliminary phase of the process which was conducted from October 2010 to January 2011 started off with a preliminary field research to establish the needs of the urban poor in term of their shelter and also have knowledge on their day-to-day lifestyles; and then literature review was done in order to establish good practices of effective shelter design and construction guidelines that have being successfully used in other areas. The following are some of the findings from the first phase of field research and the literature review;

4.1 Field Research Findings

Due to cost constraints and unavailability of recorded data, judgemental sampling technique was used in the Mchesi, Chilinde and Kawale areas in Lilongwe. Questionnaires were distributed randomly to residents of the housing units in these areas to fill. Out of 125 residents approached during the exercise, only 98 residents properly responded to the questionnaires. Of the 98 residents who properly responded, 67 were women and 31 were men and out of the 98 residents sampled 53 were tenants and 45 were landlords (owner occupied). The questionnaire was based on the residents' everyday life activities from morning till the time they go to sleep at night. In some homes residents were not found and some didn't want to nor had no time to answer the questionnaire.

The findings indicate that most women are housekeepers and have their domestic activities as their main task, which means they spend most of their time in their homes. The findings further indicate that men do a few activities at home because they always out searching for food for the family or doing business to make ends meet. Most respondents were happy with their homes because of the location of their homes and the affordable rentals they pay however, they were generally not happy with plot and room sizes. Most women expressed dissatisfied with their kitchen whilst most men wanted their houses extend with inclusion of

more bedrooms and a bigger lounges; 71% of the respondents said their houses were not adequate and 29% said their houses were adequate. But it was apparent from the findings that these women who mostly are low-income earners are disproportionately affected by the badly designed housing and neighbourhoods. When asked if there could be chance to make alteration/improvements to their homes, most respondents preferred having small place within the plot or part of the house (e.g. kiosk or shop) to make small-scaled business to support their families. Others preferred enlarging their homes with bigger sized rooms and contentment of all rooms within the house (e.g. toilets and bath)

4.2 Literature Review

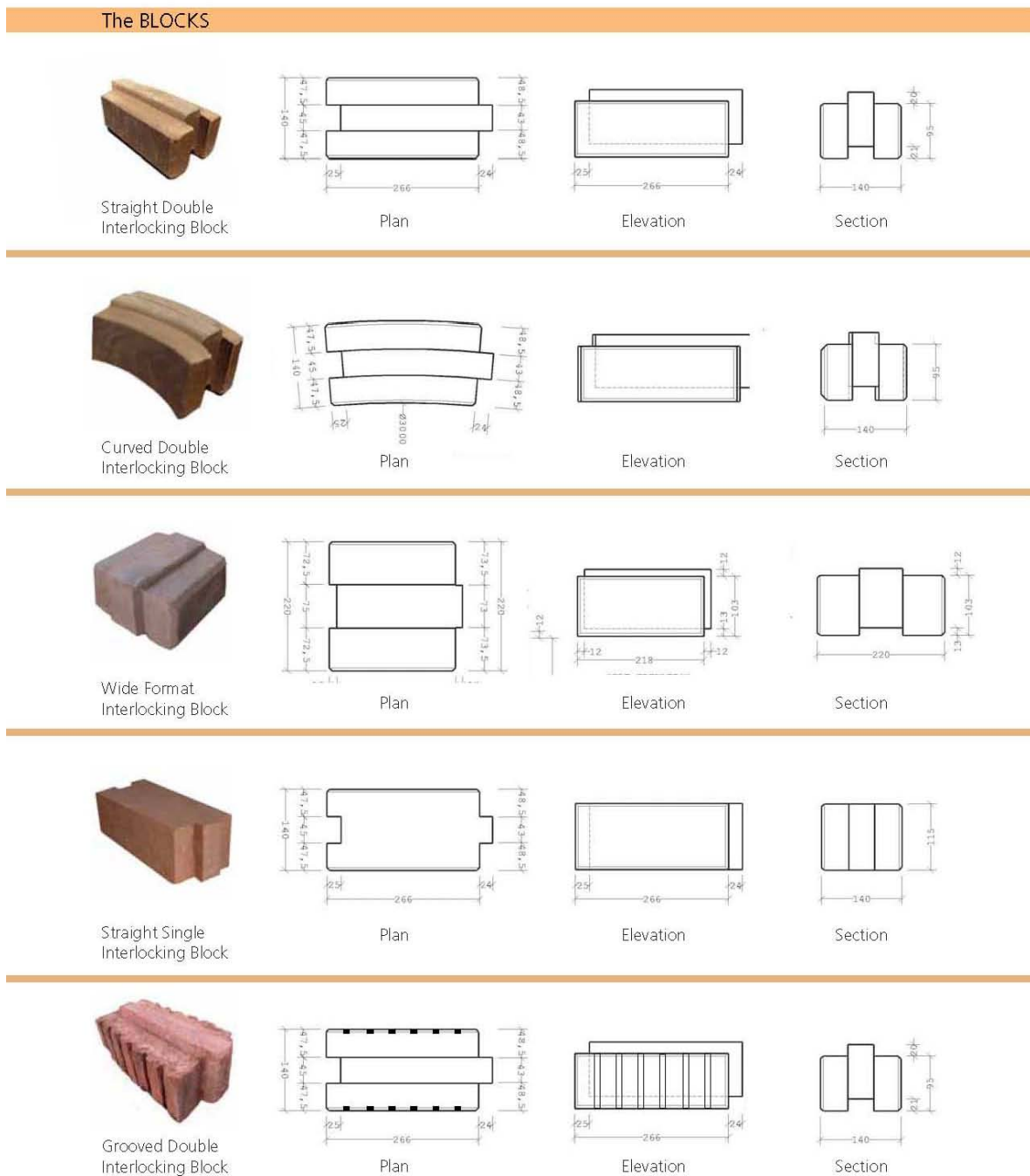
The main aim of the literature review was to gather as much relevant technical data as possible on shelter design and construction guidelines used elsewhere. Due to time constraints in this phase not many literature were reviewed however the ones which were reviewed had sufficient information on the guidelines. For example, the UN-habitat publication (2009) on “Human Settlements in Crisis” the publication discusses the use of Interlocking Stabilised Soil Blocks (ISSB) within the context of Uganda as an alternative to burned bricks, wattle and daub. The publication discusses effective ways of producing the blocks, construction details, case studies and also the lesson learned from the case studies. Most of these details are yet to be incorporated in the full draft of the effective design and construction guidelines. The concentration was mainly on the Stabilised Soil Blocks and the Concrete Hollow Blocks which are gaining ground in affordable housing construction in Sub Saharan Africa.

4.3 Effective Shelter Design & Construction Guidelines

Based on the literature review and some preliminary analysis conducted it was discovered that an effective way to come up with effective design and construction guidelines with an emphasis on the local building materials was through “*Composite Use of the different local building materials*”. Some of the local building materials are good for the foundations; others are good for the superstructure while others are good for loading bearing. Hence the technical properties such as the load bearing capacity, the compressive strength, block appearance and the shape for these local building materials are important in establishing their effective use in shelter design and construction.

For example the use of Interlocking Stabilised Soil Blocks can be very effective if they are used on the different types of Interlocking Stabilised Soil

Blocks (ISSB) that can be produced such as;



- a) **Straight Double Interlocking Blocks:** the most commonly used block for wall creation.
- b) **Curved Double Interlocking Block:** used for making water tanks and sanitation facilities.

- c) **Wide Format Interlocking Block:** allows for stronger, thicker walls especially useful when making high walls.
- d) **Straight Single Interlocking Block:** contain a larger face, hence less blocks are needed to cover wall area. This was the predecessor to the straight double interlocking block
- e) **Grooved Double Interlocking Block:** the grooves of the block facilitates plastering, however this machine is no longer produced.

The other way is looking at the properties of these local building materials and establishing where they can be best used in the shelter design and construction. For example, the interlocking stabilised soil blocks, stabilised soil blocks and the concrete masonry unit compare as follows in their different properties;







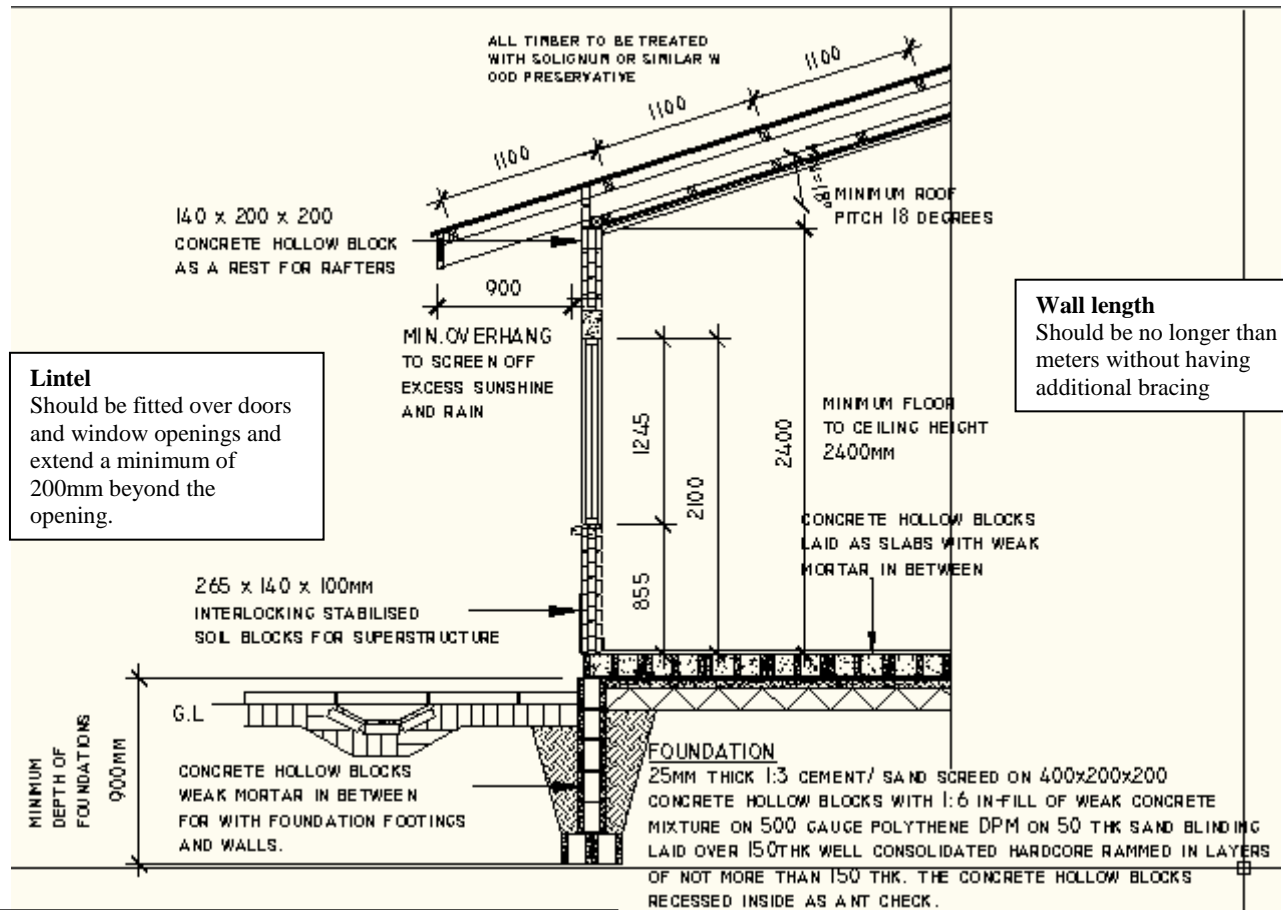
Properties	Interlocking Stabilised Soil Block	Stabilised Soil Blockb	Concrete Masonry Unit
GENERAL INFO			
Block Apperance			
Wall Apperance (not rendered)			
Dimension (L x W x H)(cm)	26.5 x 14 x 10 cm	29 x 14 x 11.5 cm	40 x 20 x 20 cm
Weight (kg)	8-10 kg	8-10 kg	12-14 kg
Texture	Smooth and flat	smooth and flat	coarse and flat
Blocks needed to make up a sq.m.	35	21	10
PERFORMANCE			
Wet Compressive strength (mps)	1 - 4	1 - 4	0.7 - 5

Figure 4. Different types of Local Building Materials with their Properties.
(Source: UN-Habitat 2009)

A Typical Design and Construction Guideline with Composite Use of Different Local Building Materials (ISSB & Concrete Hollow Block)



Lintel

Should be fitted over doors and window openings and extend a minimum of 200mm beyond the opening.

Wall length

Should be no longer than 5 meters without having additional bracing

Anti termite Insecticide

Where it is afforded of the anti termites' insecticides should be applied to the soil around the foundation. The effectiveness of the treatment depends on the brand and supplier.

The long term solutions to the poor quality of shelter and lack affordable shelter in general more especially to the urban poor remains; the establishment of the Housing & Research Unit with the Buildings Department which will be responsible for conducting more research on social housing sustainable building materials, implementation of socialised housing schemes and the establishments of Private-Public Partnership in the social housing sector with different modes of subsidies.

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HS/1184/09e
ISBN:978-92-1-132150-0

APPENDIX A

Research Questionnaire

Please return all answered questionnaires to the following address;

Buildings Department
P/Bag B 365
Lilongwe 3, Malawi.

Email address
cbnyirongo@gmail.com
credo1979@yahoo.co.uk

This research exercise is for the government to establish the day to day life-styles of its people and their needs in terms of shelter within the city/ town. Your answers will assist government to have knowledge of your shelter needs and the information provided would be kept private and confidential.

SECTION 1 - GENERAL INFORMATION

1. Name..... *(Please tick the appropriate answer in the boxes)*
2. Male Or Female
3. Area of location Telephone/Cell No
-
- (Please tick the appropriate answer in the boxes provided on the left)*
4. You are staying in the house as..? Landlord Tenant

SECTION 2 - LIFE-STYLE AT HOME

5. What is the first activity that you do at home when you wake up early in the morning?
-
- a) Then?
- b) Then?
- c) Then?
6. What activities do you usually do in the **afternoon** when you are at home?
-
-
-
7. What activities do you usually do in the **evening** when you are at home?
-
-
-

SECTION 3 - THE NEEDS FOR YOUR HOME

8. What are the things that **excite** you most about the house you are currently staying in?
-
-
-
9. What are the things that **don't excite** you at all about the house you are currently staying in?
-
-
-
10. Is the house you are currently staying-in adequate for all your needs like your furniture, equipment and rooms for your family? (a) No- it's not adequate (b) Yes – its adequate
11. If there could be a chance to make alternations/improvements to the house you are currently staying in, what sort of alternations/ improvements would you suggest?
-
-
-

Thanks you so much for your answers.

APPENDIX B

Table 1 Day-To-Day Home Activities Conducted by Men and Women in Mchesi, Chilinde & Kawale in Lilongwe District.

Time of the day	Activities conducted by Women	Activities conducted by Men
Morning	Washing their face and teeth (<i>Kusukusula</i>)	Washing their face and teeth (<i>Kusukusula</i>)
	Taking a Bath (<i>Kusamba</i>)	Taking a Bath (<i>Kusamba</i>)
	Mopping the house (<i>Kukolopa mnyumba</i>)	Going to their places of business
	Cleaning the outside the house (<i>Kusesa panja pa nyumba</i>)	
	Preparing breakfast for the family (<i>Kukonza chakudya cha m'mawa cha pakhomo</i>)	
	Going to the market (<i>Kupita ku msika</i>)	
	Washing Clothes (<i>Kuchapa zovala</i>)	
	Preparing lunch for the family (<i>Kukonza chakudya cha masana</i>)	
Afternoon	Washing dishes (<i>Kuchapa mbale</i>)	
	Selling merchandise at home (<i>Kugulitsa zinthu ku msika kapena pakhomo</i>)	Selling merchandise at home (<i>Kugulitsa zinthu ku msika kapena pakhomo</i>)
	Chatting with friends (<i>Kucheza ndi abale</i>)	Chatting with friends (<i>Kucheza ndi abale</i>)
Night	Preparing supper (<i>Kukonza chakudya cha madzulo</i>)	Watching Television (<i>kuwonera televishoni</i>)
	Watching Television (<i>kuwonera televishoni</i>)	Chatting with family (<i>Kucheza ndi abale</i>)
	Chatting with family (<i>Kucheza ndi abale</i>)	

Exciting things about their homes	Non-exciting things about their homes
Location of their home	The kitchens are too small
Affordable rents they pay	Bedrooms are too small
Yard	Toilet and bathroom being outside the house
	The leaking roofs
	The cracks on the walls

Their Suggestions on alteration/improvements to their homes

A small place or room (e.g. kiosk or a shop) within the plot for a small- scale business
Enlarging the lounge, Kitchen and bedrooms
Extending the house to incorporate, a dining, a storeroom and more bedrooms for the family
Having a toilet and bath inside the house