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Livelihood Opportunities Through Informal Housing in the New Capital City of Dodoma, Tanzania

MOYENS DE SUBSISTANCE GRACE A L'HABITAT INFORMEL DU JOURNAL

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Abstract

Between March 2008 and March 2009 we conducted a desk study and field work on informal and low cost housing endeavours undertaken by building artisans in the new capital city of Dodoma in Tanzania. The study focused on the livelihood opportunities that can be derived from the informal housing building sub-sector as semi-skilled artisans' grapple with the realities of unmet housing needs of the designated capital city of Tanzania. The argument is that there is a market for construction of low-cost housing in informal settlements in the new capital city even though these settlements are beset with problems of lack of legal tenure, poor infrastructure and sanitation. It is further argued that informal construction work offers possibilities for employment and income earning for semi-skilled artisans. It was felt that a detailed study of informal housing building would provide a better understanding of the key factors and trends affecting the livelihood opportunities of people in the sub-sector and the expectation was that the findings would enlighten on the phenomenon and stimulate policy debates on how the sub-sector can be developed sustainably considering the fate of those concerned. The results show that the sub-sector could contribute immensely in the construction of the new capital city as well as improving the livelihoods of the practitioners if only they were well organised in cooperatives, enabled capacity-wise and training and given legal recognition.

Key words: Artisan; Building; Capital; City; Dodoma; Informal; Housing; Livelihoods; Policies; Poverty; Settlements; Sub-sector; SWOT; Tanzania; Theory; Urbanisation; Vulnerability

Résumé

Entre Mars 2008 et Mars 2009, nous avons mené une étude théorique et travail de terrain sur le logement informel et peu de coûts efforts entrepris par la construction des artisans dans la nouvelle capitale de Dodoma en Tanzanie. L'étude a porté sur les moyens de subsistance qui peut être dérivé de la construction de logements informels sous-secteur de s'attaquer semi-qualifiés des artisans avec les réalités des besoins de logement non satisfaits de la capitale désigné de la Tanzanie. L'argument est qu'il ya un marché pour la construction de logements à bas prix dans des établissements informels dans la nouvelle capitale, même si ces établissements sont en proie à des problèmes de manque de tenure légale, la médiocrité des infrastructures et l'assainissement. Il est en outre soutenu que les travaux de construction informelle offre des possibilités d'emploi et de revenus pour les artisans semi-qualifiés. On a estimé qu'une étude détaillée de la construction de logements informels permettrait une meilleure compréhension des facteurs clés et les tendances affectant la possibilités de subsistance des populations dans le sous-secteur et l'attente était que les résultats seraient éclairer sur le phénomène et de stimuler les débats politiques sur comment le sous-secteur peut être développé de façon durable considérer le sort des personnes concernées. Les résultats montrent que le sous-secteur pourrait contribuer énormément à la construction de la nouvelle capitale, ainsi que l'amélioration de la

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subsistance des praticiens, si seulement ils étaient bien organisés en coopératives, ont permis le renforcement des sages et de formation et une reconnaissance juridique.

Mots-clés: Artisan; Bâtiment; Capitaux; Ville; Dodoma; Informelles; Logement; Les moyens de subsistance; Les politiques; La pauvreté; Les colonies; Sous-secteur; SWOT; Tanzanie; Théorie; L'urbanisation; La vulnérabilité

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NTRODUCTION

Urbanisation, Poverty and Informal Settlements in Tanzania

Urbanisation

Urbanization in Sub-Saharan Africa is often associated with the urbanization of poverty, and with the extensive development of informal settlements. Urbanization in Tanzania is characterized by the proliferation of informal settlements, unguided spatial expansion, and settlement densification, deterioration of social services and public utilities and decline in formal employment. In recent times, the development of informal settlements has been the main problem associated with expansion of Tanzanian cities. This was a result of existing formal urban planning policies and regulations not being able to cope with the pace of the growth and government's failure to cope with the rapid urban population growth in terms of provision of serviced land for housing (Sliuzas, 2004; Lerise et al., 2004; Kyessi and Kyessi, 2007). It is true that as in other sub-Saharan countries rapid urbanisation in Tanzania has led to increased pollution, haphazard housing and settlement development, environmental degradation, land tenure insecurity, and poor infrastructure maintenance (UN-Habitat, 2009). Furthermore, it has been established that the urban planning practice in Tanzania is unable to address the specific problems of human settlements (Nnkya, 2001) particularly the informal ones. This is indicated by non-coherent regulatory frameworks and rigid and unaffordable set standards. In addition, urban authorities are faced with low capacity in terms of resource base, including human technical know-how as all of which contribute to poor performance to administer and foster planned development in their respective urban areas.

The National Human Settlements Development Policy (URT, 2000) identified twelve important issues of which four were relevant to the study:

i) A rapidly urbanizing population, mainly as a result of rural-to-urban migration. Concern is to the effect that services have been concentrated in large urban centres although small urban areas are increasingly taking up a higher burden of the urbanization process.

ii) Growth of unplanned settlements as a major form of access to and development of land in all urban areas, large and small.

iii) Inadequate housing stock in both rural and urban areas, leading to most houses being constructed by the informal sector and not conforming to building regulations and standards

iv) Lack of official housing finance facilities so that most housing has to be constructed from savings and does, of necessity, take too long to complete due to poverty status of most builders.

Poverty

In economic terms, poverty can be measured as a lack or deficiency of economic attributes such as income, capital, and assets. In social and political terms, it can be seen as a lack of human capital (e.g. skills) and basic needs such as housing and education, as well as political participation and control over decisions that affect individuals. In existential terms, it can be seen as a lack or deficiency of social capital, and networks (e.g. affection from friends and family and loved ones), exclusion and isolation and even culture, as was the case with the culture of poverty debate surrounding the third world (Yeboah, 2005). Poverty can also be caused by policies, institutions and processes that are not supportive of achieving adequate livelihoods (Vandenberg, 2006). Urban poverty is generally reflected in housing conditions, which range from pavement dwellings to illegal slums (often in environmentally unsuitable locations). Their quality also varies from temporary shelters to semi-permanent and permanent structures. Poor people's health is further affected by inadequate services, including irregular water supplies, lack of sanitation and the resulting defecation in the open, poor waste management and drainage (Victor et. al, 2008). Whereas many recognised slums have benefited from public sector programmes to provide basic services, most illegal settlements have not.

Informal Settlements

In Tanzania, increasing levels of poverty, population growth and inadequate resource to implement sustainable housing policies mean that urban growth is often absorbed into informal settlements, which at present is estimated to be 70%, though Kironde (2006) is of the opinion that the percentage is even higher if the whole country is considered. Informal settlements are characterized by unguided housing densification and spatial disorderliness that inhibit provision of basic services, for instance portable water and access roads. Some of the informal settlements are located in environmentally hazardous areas including flood prone areas and steep slopes. The emergence and growth of these settlements is to a

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large extent characterised by unguided land acquisition and housing development processes. Increasing housing density have resulted into poor sanitation, unsatisfactory solid waste disposal and collection, vehicular inaccessibility in case of emergencies such as fire accidents and low level of service provision in terms of education, health and security, which together may compound into increased exposure to heath, economic and environmental risks among urban dwellers. Though informal settlements provide affordable housing which generally meets the cost, location and space needs of low-income households compared to more stringent, expensive and demanding alternatives, it is a fact that most of the houses in informal settlements lack official tittles such as long term leases. Formal land titles are limited due to expensive and prolonged procedures to acquiring the same. As a result many houses in these settlements face the risk of demolition without compensation in case of road extension, sewerage and drainage works. Demolition of buildings without compensation renders tenants and property owners homeless and poor and thus increasing their level of vulnerability to other shocks.

Informal Housing or Houses in Informal Settlements

Continuously, studies (cf. Lupala, 2002, Magigi and Majani, 2006) have shown that two thirds of urban housing in Tanzania is classified as informal. At the same time it has been demonstrated that the informal building sector plays a crucial role in reducing the housing pressure resulting from rapid urbanisation and phenomenal rural-urban migration (Magigi and Majani op cit). However, there are no efforts and motivations to housing developers to invest in or adopt the potentials of the informal housing delivery option (Kombe & Kreibich, 2001). Kamau (2002) has noted that since there is a huge shortfall in public housing provision the role of individual housing development will continue to rise in cities of developing countries resulting from a diminished public-sector and commercial investment in construction, due to various reasons. For example in the face of declining workloads many main contractors have shed their permanent workforce, preferring instead to employ workers on short-term contracts when they need them. This has opened up new opportunities for small enterprises and self-employed workers in the role of subcontractors and labour suppliers. Researchers in Tanzania have found that some enterprises in the private, low-income house building sector (the traditional realm of the informal sector) may also work as sub-contractors supplying labour to other firms (Mwaiselage, 1991; Tegelaers, 1995). According to Wells (1998) the National Informal Sector Survey of 1991 found 163,438 operators and employees working in informal construction enterprises (i.e. those with fewer than 5 employees) though not all of them were working full time (URT, 1991). By comparison, the number of employees in formal construction enterprises in 1994 was only 22,000 (URT, 1996). Indeed since urbanisation in Tanzania is taking place within a context of stagnating industrial growth, job opportunities are limited. Recurrent government retrenchment policies implemented with the onset of structural adjustment programmes further reduced the number of employment opportunities in the formal sector (Schulz, 1995). According to ILO reports, the total labour force for the whole country by 1992 was 11.6 million but only 1.02 million (8.8%) of the total labour force was in the formal wage employment (ILO, 1999).

Housing Delivery Systems

In Tanzania, available statistics show that a decade ago there were about 9,745,700 urban dwellers demanding 2,370,404 dwelling units out of which 1,802,785 are unfulfilled demands (URT, 2003a). The estimated current annual demand is about 600,000 housing units but the supply of housing is below 20% of the requirements. The result is that a large proportion of the population lives in informal unregulated and poorly serviced settlements where poor housing is a key factor adversely affecting people's livelihoods. However, housing provision in these areas is by informal delivery systems which offer livelihood opportunities for informal artisans.

Some studies (cf. Sheuya, 2004) have shown that the development of quality shelter delivery systems is hindered by several factors, including poor economic growth, previous land policies that prevented a workable land market, and severely restricted access to credit for the construction and improvement of housing. It also depends on personal savings, which entails a long period of time, leading to house construction process being undertaken in a very slow pace and protracted (Magigi et al, 2006). For individuals, the chance to improve their built environment is extremely small as procedures for acquiring land are very long, cumbersome and bureaucratic and there is lack of housing finance institutions (Kreibich and Olima, 2002; Kombe, 1994; Kironde and Rugaiganisa, 2002). Looking at the current status of the construction industry, studies reveal that construction is now widely recognized as an activity that plays a vital role in the process of economic growth and development, both through its products (infrastructure, buildings) and the employment created in the process of construction itself (Wells, 2001). Therefore the major objective of policies of most countries could be

[4]"Informal labour" is defined to include all construction workers who are employed on a casual or temporary basis without any proper form of contract, as well as those who work for themselves either alone or in small groups. The terms and conditions of employment are not regulated in any way and hence the workers have no protection from the law against dismissal and no social protection against sickness, old age or incapacity to work (Mitullah and Wanchira, 2003).

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developing an efficient construction industry dominated as it is by an elite calibre of contractors, subcontractors and consultants. Little attention has been paid to the diffuse 'informal labour'[4] force, about which often very little is known (Mitullah and Wanchira, 2003).

Problem Statement

Informal production systems use 'artisanal' methods and are characterised by an intensive use of labour, both in on-site construction and in the production and distribution of building materials (Mlinga and Wells, 2002; Nguluma, 2006). This is in effect an efficient (low cost) and appropriate way of working in a context of capital scarcity and an urgent need for employment creation. The expansion of artisanal activity in the informal systems can therefore be seen as a beneficial outcome of economic reforms undertaken in post-Nyerere era[5] which need to be beefed up by deliberate interventions by the state as Kironde (2006) has argued, "The majority of the poor aspire to acquire housing. In this respect Tanzania now needs a housing policy and a housing law that will address housing as a product, how it is acquired, how it should be enjoyed and maintained, and how it could be used in poverty alleviation strategies. The aim really should be to reach low-income households and have them own houses".

The study was therefore concerned with the livelihood opportunities that can be derived from the informal building industry especially in the informal housing sub-sector. The premise was that a study of the informal housing building sub-sector, where the majority of the artisans are engaged, would provide a better understanding of the key factors and trends affecting the livelihood opportunities of people in the sub-sector. It was anticipated the findings will facilitate policy debates on how the sub-sector can be developed for sustainable livelihoods and we found the new capital city an ideal site for our study.

Dodoma as a Case Study

In 1973, a dramatic political decision elevated Dodoma town into a futuristic Capital City of the United Republic of Tanzania. The project was initiated by the late president Julius Nyerere who had projected it to be completed within ten years. The development of the new capital city is guided by master plans as well as political and government policies. The 1976 Master Plan seriously overlooked the need to plan for a very high population of low income earners in Dodoma, a group which would demand a major proportion of the future housing stock. A revised plan of 1988 reviewed the original national capital master plan and observed that there was an urgent need to revaluate the whole concept of subsidized housing, proposing for the promotion of affordable home ownership and a change in policy related to housing standards, building regulations, financing and methods of construction. It pointed out that the informal settlements in Dodoma were a steadily growing segment in the housing sector and were providing accommodation for approximately 30% of Dodoma's population and that these settlements provided invaluable resources in terms of housing and labour and it was felt that these developments could reasonably be incorporated into a revised master plan. The issues identified included: housing demand and supply, affordability, housing finance, standards, access to land, the building processes and approvals for buildings etc). In its annual report (1986), CDA notes that whereas in1974 there were 9,000 squatters; by 1984 the number had risen to 30,000 and while this was a modest increase it nevertheless presented a serious obstacle to the rational development of Dodoma as envisaged in the master plan. It also stated how CDA adopted a deliberate policy which accepted that the negative aspects of squatting may be turned to positive effect by careful modelling. One such way was through site and services schemes. In view of that, the "Low Cost Housing Unit" was established in 1981 after a study conducted jointly by CDA and UNCHS-Habitat which concluded that about 80% of Dodoma residents and those expected to shift to Dodoma in the course of relocating the Capital City, would be low-income earners. The innovative "low-cost housing" as a unit was established to plan, design and manage low cost housing projects and assist Dodoma residents in their development. Emphasis was on technical service provision and development of cooperatives, technical service-designs for core houses, onsite construction supervision, training on building techniques, and formalities needed. It was also established as a centre for producing Building Raw Materials at affordable selling price(s). Could this option offer prospects of livelihood opportunities to informal artisans? According to Kulaba (1981) the role of the popular or informal housing sector is bound to continue and expand.

1. RESEARCH METHODOLOGY

1.1 Research Strategy

In order to identify livelihood opportunities that can be sustained in building industry, a case study was chosen as the main research strategy with focus on construction activities in the low-cost housing sub-sector of the building industry. Two settlements of Kisasa and Nkuhungu in Dodoma were selected to provide the necessary data. The two settlements were selected on the

[5]Previous to the current presidency of Jakaya Mrisho Kikwete (since December 2005) Tanzania has had three phases of government (viz: Julius Nyerere (1962-1985) Ali Mwinyi (1985-199) and Benjamin Mkapa (1995-2005)

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basis that there were more on-going building construction activities, for majority of low income earners, than other settlements. The unit of analysis was the micro-entrepreneur in building sub-sector: mason, carpenter, plumber, electrician, labourer and the family in Dodoma municipality.

1.2 Sampling

The respondents were selected from community sections whose livelihood strategies are closely involved in the construction industry and cluster. These were drawn from:

a. Skilled building sector artisans: carpenters and masons (with more than 2 years experience);

b. Unskilled labourers who work in construction sector (with less than 2 years experience, or under apprenticeship); and

c. Household members (spouses, children etc) of the above.

A total of 90 respondents were involved in the research. Almost all of them (94.5%) were male, while women accounted for 5.5 %. The ages of respondents ranged from below 20 to 59, with an overwhelming majority (81.1%) being between 20 and 39 years. 17.7% were between 40 and 49 years. Only one respondent was under 20 years of age and two respondents were aged above 50 years.

Another group of respondents were other active participants in the sub-sector and knowledgeable observers. Key informants identified included suppliers of building materials, wholesalers and retailers, and representatives from trade groups in the sub-sector; staff of relevant central government, CDA and municipal council departments, dealers and traders in the sub-sector, architects and draughtsmen, landlords and other developers, and low income home owners.

1.3 Data Collection

A detailed desk study formed part of the data and information gathering on the sub-sector. It consisted of review of project document and data on low cost housing and experience elsewhere in Tanzania. However, there seems to be a dearth of up to date reports on the subject. Internet search was also carried out to get insights and ideas from other similar work in different parts of the world. Primary data was collected using a combination of tools. To start with some discussions and interviews were held with key informants from local authorities and private businesses involved in the sub-sector, such as hardware traders and developers complimented by focus group discussions with artisans.

1.4 Data Analysis

The data was compiled and analysed in two phases. Preliminary collected data from interviews and FGDs was transcribed and collated. Initial field reports were triangulated to verify the data whereby related information from different interviews and discussions were compared and put together to confirm and authenticate results, the output of which was a collection of field notes.

The rest of the field data from administration of questionnaires was coded and transcribed into an excel spreadsheet and analysed using SPSS. This was followed by interpretation of the study results which produced a draft outline for the final report and a set of preliminary findings and conclusion. Finally further analysis, with respect to study hypothesis, was carried to arrive at the key findings.

2. FINDINGS AND DISCUSSION

2.1 Urban Housing and Employment in New Capital City

Dodoma is located in the heart of the country, in a scenic area with astounding vistas, and a relatively cool climate. At the beginning of the 19th Century, Dodoma was just a small settlement of local inhabitants of the area, the Wagogo people. The importance of Dodoma came with construction of the Central Railway line built by the Germans in 1890's. Dodoma is located along the so-called Great North Road, an imperial dream envisioned by the British Empire that was to stretch the length of Africa, from Cape Town to Cairo. As a railway station and later as a provincial administrative centre under the British rule, Dodoma grew modestly until independence in 1961. In spite of Dodoma becoming the legislative capital in February 1996, Dar-es-Salaam remains home to most government ministries as well as foreign missions and continues to thrive commercially, socially and politically (Lyimo, 2008). This is adversely affecting livelihood opportunities to the majority of hopeful residents of Dodoma especially those who are engaged in the informal building sub-sector.

The results of the study indicate that the informal settlements in Dodoma have been a steadily growing segment in the housing sector and are providing accommodation for approximately 30% of Dodoma's population. These settlements are providing invaluable resources in terms of housing and labour. This implies that construction activities are mainly carried out by young men who are expected to be strong, energetic and active. On the other hand women's role on construction sites was found to be limited to selling affordable food to construction workers.

Further analysis shows that about two thirds (63.4%) of the respondents were married while a third (33.3%) were single. In addition, just over a third (35.5%) had no children while over half (56.8%) had between 1 and 4 children, while 7.7% had 5 to 8 children. About a fifth (18.9%) had no dependants; whereas over a half (53.3%) had between 1 and 4 dependants; 17.6% had between 5 and 8 dependants while 11.0% had 9 and above people depending on them. As such most of the respondents have

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to contend with supporting kith and kin.

2.2 Sub-sector Analysis: Overview

This section presents a summary of the results of sub-sector analysis fieldwork based on administration of questionnaire, focus group discussion and in depth interviews with key informants. The objective of mapping the sub-sector was to systematically represent the principal participants (or trade groups) in the low cost housing of the building industry in such a way to show their economic interrelationships with each other and with different markets.

The mapping process was iterative, involving various stages of speculation and testing, as information was elicited, cross-checked and confirmed from different sources. Initial maps were very complex, overlaid with information, but subsequently were simplified as the mapping progressed while establishing key relationships, channels and flows.

2.2.1 Functions

It was established that the construction of low cost houses using the informal building sub-sector involves a variety and combination of functional stages, as well as different skills of artisans as follows:

i) Masonry
ii) Carpentry
iii) Painting
iv) Plumbing
v) Electrification

2.2.2 Trade Participants

The sub-sector is fully fledged with a multitude of actors including agents; contractors; government institutions, regulators, and associations. The trade participants are composed mainly of building materials suppliers, however, they include:

i) Developers
ii) Materials traders
iii) Materials producers
iv) Hand tools manufacturers

The role of trade participants in the sub-sector growth was further investigated. The findings from the survey (Figure 3) revealed that just over half (51.1%) of the respondents found customers within the capital city while 25.5% catered for the whole region of Dodoma. However, a significant percentage (22.3%) did not respond to this question.

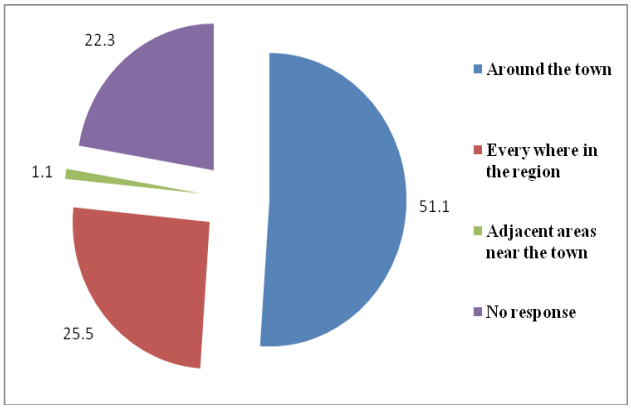


Figure 1
Sources of Customer

Further exploration on construction requirements showed that overall the building materials accounted for 28.9% of the required inputs. This was followed by block making machines with 23.3% of the responses. Carpentry accounted for 14.4% of the answers and painting followed at 10.0%; plumbing and electric portable tools 8.9% and 8.0% respectively.

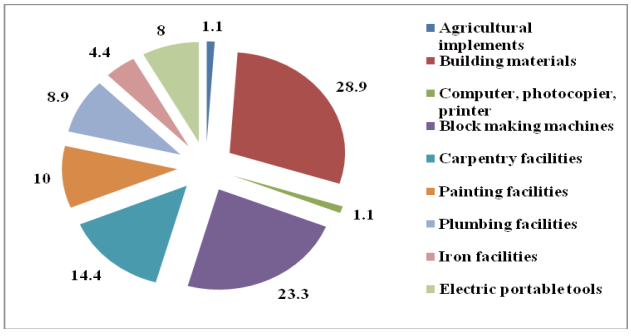


Figure 2
Variety of Materials Used/Needed in Work (%)

Furthermore, most of the purchases (76.6%) were made by the artisans themselves while the clients were responsible for just over a fifth of the purchases. Only 1.1% of the purchases were done in collaboration. What does this suggest to the findings in the study?

With regard to equipment and tools, most of the low income houses were found to be constructed by labour-intensive techniques with very little use of plant and equipment. The main reason for the profession being so labour intensive is the high capital and operating costs of construction equipment which neither individuals nor groups in the informal building construction sub-sector can afford.

2.2.3 Policies and Regulations

The sub-sector is emerging under the auspices of the Tanzanian Construction Industry and Small and Medium Scale Enterprises. This follows policy reforms which realize on the importance of sub-sector in spearheading

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the nation's development. Although the sub-sector works informally, but in actual fact it is supposed to operate under existing national policies and regulations of the construction industry, which include:

• **Construction Industry Policy, 2003:** Following need for stimulating growth in the construction industry, the Construction Industry Policy was formulated in 2003 so as to spearhead development of the construction industry in a co-ordinated manner. The Policy is currently being translated into specific strategies and activities.

• **The Small and Medium Enterprises Development Policy** that has been designed to revitalise the sector to enable it contribute to the objective of the National Development Vision 2025 by creating a mechanism that puts in place an effective framework for its implementation, coordination, monitoring and evaluation.

• **National Construction Council Act** seeks the formation of an institution, namely National Construction Council to spearhead development of the construction industry in Tanzania.

• **Architects & Quantity Surveyors Act, No. 16 of 1997** regulates the conduct of Architects, Quantity Surveyors and firms practicing in Architecture and Quantity Surveyor. The Act sought the formation of the Architects & Quantity Surveyors Registration Board.

• **The Contractors Registration Act, No. 17 of 1997** regulates the conduct of contractors in Tanzania. It is an offence to practice as a contractor without being registered in Tanzania. The Act establishes the **Contractors Registration Board** which is responsible for registering, regulating and promoting contractors in Tanzania.

• **The Occupational Health & Safety Act (OSHA), 2003** regulates the practice in relation to Occupational Health & Safety.

• **Public Procurement Act, 2004:** The Public Procurement Act, 2004 follows amendments made on the Public Procurement Act, 2001. This Act which is a major milestone in the Tanzanian construction industry seeks for fair and transparent procurement in public entities. It is supported by the Public Procurement Regulations, which are also undergoing review.

• **Engineers Registration Act, No. 15 of 1997** regulates and monitors engineering activities and conduct of the engineers or engineering consulting firms in Tanzania. The Act established formation of the **Engineers Registration Board**.

Review of the above policies and legislation reveals that they do not adequately address the needs of the informal sector, where the bulk of the labour force is found. Nonetheless, it appears that this weakness is being addressed through the much talked about **Property and Business Formalisation Programme** for the poor (MKURABITA) which seeks to empower otherwise marginalised low income people.

2.3 Sub-Sector Analysis: Dynamics

2.31 Nature of the Sub-Sector

The study sought to find out how the building sub-sector was coping with or being influenced by the regulatory environment before further investigation to the dynamics of the industry was explored. Table 1 summarises the perceptions of the study respondent showing that the majority artisans were of the opinion that reduction of tax on building materials would lower down the cost of building material and thus stimulate building construction activities in which they were engaged and formed the main source of their livelihoods.

Table 1
Respondents Perceptions (N=90)

Perception	Percent
Need for increased know-how	6.6
Reduce tax on construction materials	38.9
Strengthen economy	5.5
Set policy to control quality of artisans	30.0
Govt should check on quality of building materials	11.1

Furthermore, about half of the respondents want the government to control inflations on prices of construction materials (Table 2). Apparently almost two thirds of the respondents (62.2%) noted that there had been an increase in the price of materials; a quarter (25.5%) did not notice any change while 12.2% were of the opinion that there had been a decrease.

Table 2
Government Role in Assisting Low Cost Housing

Action	Percent
Control inflations on prices of construction materials	42.2
Reduce taxes on construction materials	20.0
Provision of loans to the people	23.3
Punish fake material sellers	12.2
Nothing	2.2
Total	100

A mason in Nkuhungu noted how the price of a bag of cement (50kg) has escalated from TZS 7,000/- in 2003 to TZS 13,000/- in 2009 and a 6" cement block price shoot up from TZS 500/- to 1300/- in same period. Another artisan in the carpentry trade testified that the price of timber had also shot up. For example, a 2"x4" timber for roofing which was TZS 800/- five years previously had jumped to TZS 4000/-.

2.4 Sub-Sector Opportunities and Threats

The main setbacks were listed as decrease in demand (20.0%), strong competitions from fellow artisans (20.0%), failure to meet increased demand (17.8%), and improvements in technology and quality of services (16.6%). Other factors mentioned were shortage of equipments (8.9%), price increase on building materials (7.8%) and increase of fake materials (6.7%). On the other hand, respondents found opportunities through:-

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i) Increased constructions activities (68.9%);
ii) Availability of raw materials (16.6%); and
iii) Govt policy to expand the Dodoma region (14.4%).

The main constraints (Figure 3) were seen to come from high delivery [transport] prices (27.8%) and high tariffs on building materials especially on timber (17.7%). At the same time a significant percentage of respondents (15.4%) found no constraints confronting them.

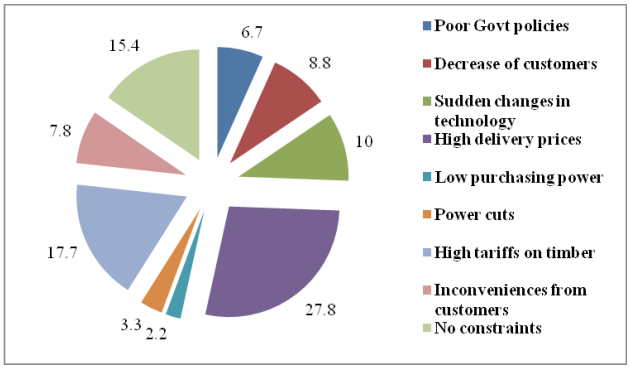


Figure 3
Constraints and Threats on Business (%)

2.5 Competition

According to the responses competition came from fellow artisans. Thus 61.1% were of the opinion that fellow artisans were a threat, while 34.5% thought competition came from those with big capacities. Accordingly such competition arose from: Wherewithal [capital], trainings/ education, better equipments, experience, strategic location and better work/relationship.

2.6 Overcoming Constraints

Of the 90 respondents, 24.4% hoped to improve their lot through increased exposure; 17.8% stressed the need for training, 15.6% thought loans would help and 12.2% preferred the expansion of ones business. Other aspects such as: the need to register business (8.0%; working as a group (8.9%) and more division of labour within the group (8.0%) were mentioned. In order to come to grips with these constraints, respondents suggested the following measures (Table 3).

Table 3
Response to Sub-Sector Constraints

Type of constraint	Percent
Control inflation	27.8
Enhance loan provisions	16.6
Govt to reduce tariffs on material	15.5
Capital infusion	12.2

The respondents were asked if they had adopted or introduced to new technologies or innovation. The majority of the respondents (71.2%) had not been introduced to new technologies. The few that had been introduced to technological changes were due to adaptation (16.1%), innovation (9.6%) and other changes (3.2%). The changes were of technical (16.1%), improved skills (9.6%) and security and welfare (3.2%) nature.

2.7 Livelihoods[6] Analysis in the Sub-Sector

This section presents the results of the livelihoods fieldwork conducted with low-income women and men in Dodoma municipality for whom the informal construction sector is a significant source of income. Specific information of their livelihoods was derived from secondary data, interviews and focus group discussions (FGDs) with artisans, unskilled labourers and household members.

2.8 Assets Portfolio

Assets are the building blocks of sustainable livelihoods. In this study we identified the types of livelihood assets which were available for access. The key point is that poverty reduction, according to this understanding, is not a matter of plugging gaps or closing cracks, much less saving the people who fall through them. Poverty reduction becomes instead a process of building and maintaining the assets that sustain self-sufficiency. These include human, physical, social, financial and natural capital. This asset-building perspective describes a vast array of actions that the informal housing sector may be considered in order to create meaningful opportunities for all participants. It's an invitation to integrate community action and factors that might otherwise remain disconnected.

Human Capital

In the context of the study, **Human Capital** is the stock of competences, knowledge and personal attributes embodied in the ability to perform labour so as to produce economic value. Based on the 2002 National Population and Housing Census, the population of Dodoma was 324,347 of whom 157,469 (48.5 percent) are male and 166,878 (51.5%) are female. The status and quality of human capital has been enhanced by the proliferation of education establishments in the new capital city. These include:

(a) The College of Business education, Dodoma Campus which offers Accountancy, Business Administration, General Management, Marketing, Review and Special Courses, Procurement and Supply Management and Information and Communication

[6]Chambers (1995) defines livelihoods as "…the means of gaining a living, including livelihood capabilities, tangible and intangible assets".

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Technology courses.

(b) The Institute of Rural Development Planning (IRDP), Dodoma officially established by an Act of Parliament (No. 8) of 1980 as a body corporate and an important national centre for providing training, research and consultancy services in the field of rural development planning.

(c) In 2007 two new universities one private and the other public were opened: St Johns University of Tanzania, owned by the Anglican Church of Tanzania, and University of Dodoma (UDOM) planned to have a total of 40,000 students when fully operational. The UDOM is designed to be an all round institution of higher learning to train and produce human capital in the major professions for economic development. As an institution of higher learning offering comprehensive education UDOM would have diversified academic programmes geared towards the realization of national strategic goals that are guided by the country's sector policies and will operate on college mode. St. John's University aims at advancing in the fields of arts, sciences, technology and learning.

However, as far as the study target group is concerned the Vocational Education Training authority (VETA) is more applicable as of now. The Dodoma campus of VETA offers the following courses:

- Catering and Hotel Service (CH)
- Civil Draughting (CD)
- Electrical Installation (EL)
- Welding and Fabrication (WF)
- Motor Vehicle Mechanics (MVM)
- Painting and Sign writing (PS)
- Road construction (RC)
- Plumbing & Drainage (PD)
- Meat Processing & Slaughtering
- Electronics
- Masonry & Bricklaying (MB)
- Motor Driving (MD)

Study findings on the human capital potential and capabilities with respect to the above status of education facilities in Dodoma, showed the following:

• **Skills and Training:** Education wise, of all the respondents just over a half (54.4%) had completed primary education; 20% had secondary ("O" and "A" level) education and 24.5% had post secondary education. 22.2% had some form of on-the-job training while 77.8% had had none. Over three quarters (77.8) learned their artisanship through apprenticeship while about a quarter (22.2) benefited from vocational training. As presented in Table 4, the respondents were a variety of artisans. The block makers formed the bulk of the artisans interviewed while house developers' category was the least with 4.4% representation. ***This implies that the block making, masonry and carpentry in low cost housing are the dominant activities***.

Table 4
Specialisation

Skill Type	Percent
Block making	28.9
Carpentry	16.7
Masonry	10.0
Painting	7.8
Welding smiths	7.8
Electrical technician	6.7
Hardware operators	6.7
Plumbing	5.5
House developers	4.4
Roofing	5.5
Total	100

Furthermore, the reasons for specialization were cited as training (26.7%), own interest (23.3%), need for income (16.7%), and the fact that there was no other choice (33.3%).

• **Information:** Furthermore, most of the respondents said they had learned their jobs through long time experience to work with already experienced people as opposed to very few of them who got education for their job on vocational training.

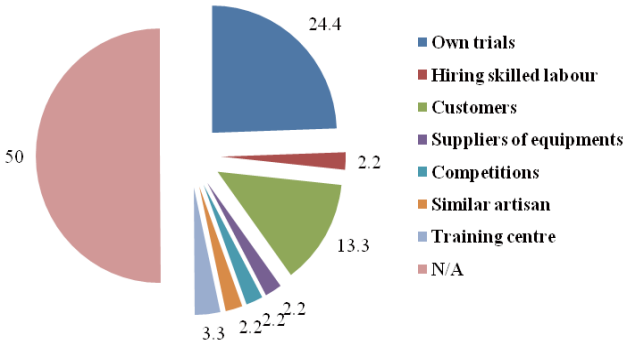


Figure 4
Sources of Information for Changes (%)

The respondents were then asked the sources of information for skill improvement. While half of the respondents did not respond to the question, the majority (24.4%) of the rest used self trials to improve their skills. A significant number (13.3%) of the respondents added knowledge through their customers (Figure 4).

• **Health:** It was reported by respondents that a number of them had health problems associated with the nature of construction activities. On coping with the eventuality of a health problem, about a third relied on fellow workers or friends, less than a quarter counted on monetary remittances, 12.2% had to make do with personal savings while only 4.4% had social security and 11.1% could not cope either way (Table 5).

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Table 5
Coping Mechanism During Health Problems

Option	%
Rely on fellow workers or friends	32.1
Remittances	20.0
Own savings	12.2
Support from social security fund	4.4
Nothing	11.1
No response	17.2
Total	100

Physical Capital

The study considered physical capital to include buildings, land, materials, equipment and properties.

Housing: Some studies (e.g. Moser and McIlwaine, 1997; Victor and Makalle, 2003) on non-income form of poverty have established that housing is an important productive asset that can cushion households against severe poverty. The implication is that urban development authorities need to put in place a system that encourages and assists urban residents to build a home that they can afford.

Housing development in Dodoma is guided by the 1976 Master Plan. One of the main goals of the master plan was to ensure adequate supply and choice of residential land and accommodation to meet the social and economic needs of housing in the new capital city. To achieve the goal, the following objectives were laid down:

- Provide a range of land and sites for housing and other forms of accommodation;
- Provide a range of residential accommodation which satisfies safety, affordability and tenure needs; reduce current room occupancy rates;
- Promote home improvement and undertake area improvement schemes to upgrade conditions in established residential areas; and
- Increase access to housing finance, and provide and support community facilities to service residential areas.

Study findings show that the 1976 CDA Master Plan seriously overlooked the need to plan for a very high population of low income earners in Dodoma. The situation has not changed even with the fact that the proliferation of Institutions of Higher learning will increase the demand of housing for low income earners.

It was further revealed that the cost of government subsidies for housing finance is virtually non-existent if not prohibitive. This could be the cause of severe inadequacy of housing stock. A study carried out in Dodoma through a Core Welfare Indicators Questionnaire to 450 randomly selected households (URT, 2006) showed that only 16% of respondents had property titles or rent contracts. This study revealed that two thirds of respondents were eager to build and own their own houses. A third did not think they could do so. This is explained in Table 6 in which four fifth of them indicated their inability to own their own houses.

Table 6
Ability to Build Own House

Response	Percent
Yes	20.0
No	80.0
Total	100

Yet a majority of the respondents (82.2%) say they can use income from their artisan work to afford a farm or plot of land (Table 7).

Table 7
Affordability of Farm/Plot Using Income from Artisan Work

Response	Percent
Yes	82.2
No	17.8
Total	100

The implication of these findings is that the deficiency in formal housing stock creates room for informal housing construction option.

Building Materials: When the capital development programme first began, there were practically no building materials in Dodoma. For example, stone aggregates that were available were laboriously broken by hand [and] fired clay bricks were virtually unknown and the only roofing materials were corrugated iron. Thus, one of the CDA's earliest priorities was to establish basic industries for the production of building materials from local resources, which in turn created employment.

However, the building materials base which began enthusiastically in mid-1970s started to crumble in the 1980s and has not been resuscitated. These are the Bricks and Tiles factory at Zuzu, the Ceramics factory at Kitelela and the Stone and Concrete Nyankali complex all of which lay idle either due to withdrawal of investors and/or failure to get foreign currency to purchase spares and lack of qualified personnel (CDA, 1991).

Study findings show that overall building materials lead by 28.9% in terms of requirements in construction works; followed by block making machines with 23.3% of the responses. Carpentry accounted for 14.4% and painting at 10.0%; plumbing and electric portable tools accounting for 8.9% and 8.0% respectively.

Tools and Property: The respondents were found to be using simple basic tools that are purchased over time as funds become available. Just over half (51.1%) of the respondents owned the tools and equipment they worked with while 23.3% borrowed and 10.0% relied on equipment owned on a group basis.

Infrastructure: The study identified the following service providers who serve the new capital in terms of infrastructure requirements for the subsector: The

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study findings showed varying degrees of satisfaction in infrastructural services provided by agencies and institutions presented in Table 8. For example just over a third (36.7%) of the respondents use electricity in their business and a majority of then (81.1%) used mobile phones for business transactions. On the other hand 80% of the respondents utilised DUWASA water services.

Social Capital

Social capital can be defined as the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them. The guiding principle of planning for the new capital was that of "residential communities", "neighbourhoods" or "urban villages" of 7,000 people each. In accordance with the defunct policy of "socialism and self reliance" these were planned to offer an environment where family values and village life would be preserved and where the traditions of sharing, cooperation and considerations of others would endure. It was proposed that each community would have differential types of housing for all income and social groups and Julius Nyerere had advised on development in Dodoma of, "… sites and services projects so that people can build themselves homes which are appropriate for their incomes" (The Arusha Declaration: Ten Years After, 1977 pp. 27-31). Our questionnaire responses could not capture this aspect but the following window provides an indication of cooperation and networking.

"Some of them are in informal groups of work sharing equipments while helping each other to work together. In some of the groups, there is more than one category i.e. Carpenters, welding and roofing can be found in one group" (field data)

Financial Capital

The history of housing Finance in Tanzania (Government Efforts) is punctuated by the following milestones:

- 1953 African Urban Housing Loans established
- 1960 Urban Roof Loan Scheme formed
- 1963 A Revolving Loan Fund for senior Government employees established
- 1968 The Permanent Housing Company formed
- 1972 Tanzania Housing Bank (THB) established to: mobilize local savings and external sources of finance; give loans for housing development and provide related technical assistance. THB collapsed in 1993 due to:
  - Operational and managerial problems
  - Poor capital base
  - Poor funds mobilization strategies
  - Liberalization of the banking sector
  - The bank had issued many housing loans which were irrecoverable due to high default rate.

Since the collapse of the Tanzania Housing Bank the Country has been struggling to establish a new housing finance facility that will provide loans to house buyers/ developers. Currently the purchasers have to dig deep in their pockets to finance their houses. Due to lack of mortgage facilities Tanzanians prefer to acquire plots and at their own pace, construct their houses. The idea of purchasing completed units is not common in Tanzania. According to Siwale (2008) currently there are only two Commercial Banks that provide mortgage lending namely: Azania Bancorp Ltd and the International Bank of Malaysia.

The study findings showed that most of them don't have saving accounts because of insufficient income but also only 16.1% acquired loans for their business. One respondent lamented: *for what purpose shall I have an account in a bank? Where is the money? "Pato dogo, dagaa shilingi elfu mbili, hapo kuna akaunti benki?"Lit: pitiful income, sardines cost two thousand shillings, can one talk of a bank account really? But another respondent had the following alternative we can form a group to open account so as to get the loans. The assets are our own working tools. The mode of returning the loans shall base on the income we get. We don't have houses but we are working.*

Natural Capital

Natural capital is generally considered to comprise three principal categories: natural resource stocks, land and ecosystems. One of the objectives of the CDA strategic plan related to housing was to ensure an adequate supply and choice of residential land and accommodation to meet the social and economic needs of the housing in the new capital city. Informal settlers yearn to formalise by obtaining titles for securing loans and assured tenure of ownership. In the same vain to avoid densification and expansion of the existing informal settlements within the Capital City District, CDA decided to regularise existing informal settlements by providing individual titles, and by 2005 about 3,000 titles in three informal settlements were issued (Sawe, 2008).

The findings of this study indicate that about a third (28.8%) of the respondents owned a house, farm or plot. Analysis of the tenure system showed the majority (40%) of those who owned a piece of land/plot had bought it (Table 8).

Table 8
Tenure Systems

Means of Acquisition	Percent
Buying	40.0
Inheritance	22.2
Renting (Tenants)	27.8
Govt allocation	6.6
No response	3.3
Total	100

It is pertinent to point out the misgivings raised by a number of respondents over land/plot acquisition through CDA. One complained: *to buy a plot from CDA is expensive. We just end up buying the land on areas not yet surveyed. When they come, they demolish our houses*

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sometimes without compensation. You can't build using cement blocks as any time the CDA can come to destroy. We just build the "biscuits" Lit: Temporary structures.

Another respondent added: *the plots they sold recently (Plate 1) were very few compared to the demands of people. Yet they had announced to the whole country and as such people had come all way from Arusha, the Sukuma, and all over the country just for five hundred plots! Why didn't they give first priority to the people of Dodoma?*

Yet another complaint was: *We have no special area to do our work. We have been loosing customers because CDA has been disturbing us, saying that this is not a special area for work like this. Where shall we go now? We have requested the plots for so long but there is no answer yet." And one added: it is three years now since I requested the map from CDA, but there is no any answer. Their duty is sale of plots. Nothing is going on!*

2.9 Vulnerability[7] context

2.9.1 Economic and Financial Trends

Dodoma city is situated in an economically depressed area in the country. Although it has rich agricultural land, it is affected by harsh semi-arid climatic conditions, and the traditional agricultural methods are still predominating. In the urban area the main activities of the residents are commerce, service provision and informal activities including occupational artisanship and petty trade.

The study findings showed that the average income of respondents was found to be about TZS 99,000 (Table 9). A third (34.4%) of the respondents owned a house or a plot of land; while two thirds (65.6%) did not have such property. About a quarter (26.6%) lived in government owned housing; over a half (59.7%) in private landlords and 12.2% lived in their parents' home. Just over a third (36.7%) uses electricity in their business, whereas almost two thirds (63.3%) do not. However, a phenomenal 81.1% (four fifth) use telecommunication services (presumably cell phones). About a third (31.1%) have bank accounts while over two thirds (68.9%) do not have bank accounts. In the same vein about a quarter (22.4%) sought loans from financial institutions while over three quarters (77.6%) did not.

Table 9
Average Monthly Gross Income

Range	Percent
0-99,000	46.6
100,000-199,000	15.5
200,000-249,000	11.5
3000,000-499,000	14.2
500,000 and above	12.2
Total	100

It should be noted that such income varied seasonally depending on increase or decrease in volume of construction activities (Table 10).

Table 10
Volume in Construction Activities

Trend	Percent
Increasing	38.9
No change	14.4
Decrease	28.9
Can't tell	17.8
Total	100.0

Yet, despite of income variation only about a quarter (24.4%) of the respondents was engaged in other non-artisanal activities such as petty trading and farming. In the same vein just over a quarter (26.7%) of the respondents involved family members in their artisanal work while about three quarters (73.3%) did not. From the respondents the majority (73.3%) were not supplementing their artisanal work with paid tasks as shown in Table 11.

Table 11
Types of Supplemental Livelihood Activities

	Frequency	Percent
Farming	12	13.4
Small business	7	7.8
Tailoring	2	2.2
Formal employment	2	2.2
Handicrafts	1	1.1
N/A	66	73.3
Total	90	100.0

2.9.2 Health Problems Associated with Artisan Work

The main health risk identified was: Injuries accounted for almost two thirds of the risks encountered in artisan work. TB accounted for an insignificant percentage and it is doubtful whether the infliction resulted from one working as an artisan (Table 12).

Table 12
Typical Health Problems of the Subsector

Affliction	%
TB	2.2
Falling down	10.0
Injuries	63.3
None	24.4
Total	100

It is a bit strange that two thirds of the respondents who experience mishaps in their work did nothing to deal with the health risk encountered (Table 13).

[7]Vulnerability refers to the risk of adverse outcomes, such as impoverishment, ill health, social exclusion. It reflects not only the likelihood that an untoward event occurs, but also the capacity to cope with it.

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Table 13
Adjustment to Health Problems

Options adopted	%
Opt for another trade	2.2
Substitute or fellow worker	6.6
Close business	1.1
Stop working	16.7
Nothing	63.3
No response	10.0
Total	100

For those who sought treatment about a third went to a government health facility while a quarter were treated in private facilities and another third did not receive treatment at all (Table 14).

Table 14
Place of Treatment

Facility	Percent
Government health facility	32.2
Private health facility	23.3
No treatment	24.4
No response	20.0
Total	100

2.9.3 Insurance on Business

In modern society insuring properties is requisite for sustaining livelihoods. In the study it was revealed that only 3.3% of the respondents insured their businesses while the rest did not, the reasons (see table below) being ignorance (44.4%) and high costs (52.3%). Reasons for not insuring business were mainly due to inability to afford insurance costs but also partly due to ignorance as shown in Table 15.

Table 15
Reason for not Insuring Business

Reason	%
Ignorance	44.4
Inability to afford costs	52.3
No Answer	3.3

2.9.4 Social Conflict and Insecurity

It was reported by the majority of respondents (79%) that there were significant and prevalent social conflict and insecurity in the sub-sector. To establish the underlying cause of these, the researchers had in-depth discussion with key informants. One religious leader warned that lack of adequate housing stock, especially now when there is an increase of low income earners employed in new institutions of higher learning will exacerbate the sharing of rooms with consequential social ramifications (personal communication with a priest). He further cautioned of frustrated livelihoods arising from residence in such congested surroundings.

One medical practitioner in the psychiatry department put the situation in more tragic consequences, "(It is like) causing murder or even suicide if parents seek vengeance. He added in extreme cases frustrations can turn tragic. The prevalent form of abuse is physical followed by emotional, with verbal abuse being the commonest, the predominant aspect of which is the use of vulgar language".

In addition, this can cause reduced social cohesion, which if coupled with rise in poverty levels, can raise levels of crime and personal insecurity. Several of the unskilled labourers mentioned incidences of robbery and theft, while home developers complained of the assets such as clothes, mobiles phones, cutlery, etc. being stolen by the so-called 'fundis'(artisans). This left the poor poorer.

However, the original master plan concept entailed the articulation of a number of different land uses for the attainment of a man centred city, "…of grace and space which is convenient to work in and pleasant to live in (Kahama, 1975, CERES Vol. 8 No. 6).

2.10 Analysis of Livelihood Opportunities in the Sub-Sector

The premise for this research project was that a study of the low-cost housing sub-sector, where the majority of the artisans are working, provides a better understanding of the key factors and trends affecting the livelihood opportunities. It was therefore hypothesised that:

i) Given opportunity poor households can improve their lot through informal house building endeavours

The pros and cons of the sub-sector (Table 16) have been put into a SWOT analysis as follows:

Table 16
Livelihood SWOT Analysis of the Sub-Sector

STRENGTHS	•	Ability to search for work opportunities
	•	Establishing credulity and good relations with customers
	•	Training and expertise in various fields within the sector
	•	Availability of building materials
	•	Innovativeness and technological prowess and new designs
	•	Propensity to organize as a work group (workforce) and cooperation
	•	Extended residence and work in city has made us known and trusted
WEAKNESSES	•	Lack of appropriate working tools and equipment
	•	Improper relations between artisans and employers (contractors) e.g. change in maps/designs

To be continued

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Continued

	•	Inability of artisans to keep up with changes in technology, designs etc
	•	Lack of licenses and seasonality of work
	•	Many artisans have learned on the job (apprenticeship) and have not had professional training which can be used by some clients negatively
	•	Low earnings leading to misunderstandings with clients and mistreatment
	•	Lack of bargaining power; at the end of the day we are losers for there is no profit and therefore no savings
	•	Enmity between artisans as they compete for jobs and failure to organize; no cooperatives and therefore
	•	Lack of legal backing to undertakings between clients and artisans
	•	Failure to adhere to security regulations in work sites, hence accidents do occur
	•	Low nutrition due to meagre earnings
	•	Failure of government to recognize informal artisans and lack of government and CDA assistance to artisans
	•	Inability to advertise to clients
OPPORTUNITIES	•	Job opportunities are plenty as many companies, contractors and individuals come to build and the city continues to expand
	•	Understanding and appreciation by clients of the importance and role of artisans
	•	New means of communications have enabled easy information, awareness, communication and networking
	•	Ready availability of building and other hardware
	•	Increase in number of artisans and contractors can be turned into a blessing in disguise to learn more, innovativeness and news ideas etc
THREATS	•	Rise in prices of building materials and hardware
	•	Big contactors and builders from outside Dodoma
	•	Corruption in getting tenders and others
	•	Lack of insurance in case of accidents and idleness
	•	Fake working tools and equipments
	•	Bogus intermediaries and lack of transparency in employment
	•	Lack of proper training such that they can be outwitted by others

ii) The informal building sub-sector is becoming the mainstay of many urban dwellers in the new capital city of Dodoma

Despite of the setback in education level, most of the artisans are not ready to change their business or works rather they want to improve them. The increased construction activities in Dodoma main town has been a great opportunity for the artisans as it provides temporary employment for them.

CONCLUSION AND RECOMMENDATIONS

Conclusions

The **theoretical** and **conceptual** frameworks propound the following hypotheses:-

i) Given opportunity poor households can improve their lot through informal housing endeavours;

ii) The informal building sub-sector is becoming the mainstay of many urban dwellers in the new capital city of Dodoma; and

Using SLA and SSA frameworks the main objective of the study was to investigate the role of informal housing building sub-sector in coming to grips with poverty using the proposed new capital city of Tanzania as a case study. Specifically the study sought to undertake a preliminary mapping of the sub sector, identify its dynamics, trends and forces and the opportunities and constraints facing small enterprises and artisans in the sub-sector.

1. The mapping process revealed that the construction of low cost houses using the informal building sub-sector involves a variety and combination of functional stages, and artisans ranging from masons to electricians.

2. The sub-sector is a fully fledged preoccupation with a multitude of actors including agents; contractors; developers and traders

3. As shown in the SWOT analysis a number of factors have enabled the artisans to do well in their profession in spite of inherent difficulties. These include the incessant quest for work opportunities, creating credibility and good relations with customers, networking and cooperation and extended residence in the new capital.

4. At the same time the artisans are constrained/ disadvantaged in a variety of ways including lack of appropriate working tools and equipment, seasonality of work, inadequate professional training lack of bargaining power due to their dispersal and legal imperfections and inflation

5. Although the sub-sector operates informally it is supposed to operate under existing national policies and regulations of the construction industry which however were found to inadequately address the needs of the sector.

6. However, this weakness can very well be dealt with by Property and Business Formalisation Programme for the poor (MKURABITA). As Kironde (2006) has argued and advocated, "The majority of property owners use their land as housing. The majority of the poor aspire to acquire housing. In this respect Tanzania now needs a housing policy and a housing law that will address housing as a product, how it is acquired, how it should be enjoyed and maintained, and how it could be used in poverty alleviation strategies. The aim really should be to reach

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low-income households and have them own houses". (Retrived from http://www.mkurabita.go.tz/userfiles/2007-7-27-3-37-33_national% 20consultation %20 conference %20-%20clep_fgds.doc).

7. The sub-sector's dynamics involved its nature, strengths, weaknesses, opportunities and threats which were captured in the responses to the questionnaire, focus group discussions and the SWOT analysis.

8. Respondents expressed their perceptions and opinions towards the status, constraints and trend of the sector, the role of government, CDA, relations with clients and among themselves.

9. The SWOT table fairly summarises the livelihood opportunities and constraints that impinge on the artisans which can be used as a basis for improving their situation.

10. Questionnaire responses, focus group discussions as well as the SWOT analysis demonstrate how the artisans have to contend with a seemingly haphazardly organised sector. This sector could contribute immensely in the construction industry of the new capital city as well as improving the livelihoods of the artisans themselves if only the practitioners were well organised in cooperatives, capacity building and training as well as informed on how best to exploit the assets potential in the form of human, physical, natural, social, and financial capital(s)

11. It is due to the failure to utilise these endowments that the sub-sector practitioners are vulnerable to a variety of vicissitudes such as health problems, social conflict and insecurity in a city which was planned to be "of grace and convenient to work in and pleasant to live in".

Recommendations

1. Livelihood analysis has shown that practitioners in the informal housing building sub-sector depend on other skills that enable them to supplement incomes from alternative construction-related activities like plumbing and electrical works. The registered contractors should focus on providing livelihood opportunities to marginalised but hard working artisans in the informal building sub-sector.

2. Sub-sector analysis has established that the artisans are not ready to change their business or works rather they want to improve them. They should be encouraged and supported, at all levels of governance, to form groups so that they can be trained, availed information services and technology development.

3. A more thorough mapping exercise should be done to determine the extent, characteristics and future of the informal sector including the artisans.

4. There is the National Housing and Building Research Agency (NHBRA) responsible for research on low cost housing; its mission is stated as "to provide Tanzanians with high quality services and products of appropriate housing technologies and techniques that reduce construction costs through innovative solutions to satisfy customer needs for improved shelter hence quality of life". NHBRA should be made an active player in Dodoma and in fact should have at least a branch in the new capital.

5. MKURABITA (Mpango wa Kurasimisha Rasilimali na Biashara za Wanyonge Tanzania or Programme to Formalise the Property and Business of the Poor in Tanzania, is duty bound to come to the aid of the informal plight of the artisans. According to J Wells et al (2010) the Tanzania Mines and Construction Workers Union (TAMICO) has gained recognition through the Contractors Registration Board (CRB) and stands to benefit from the MKURABITA provisions.

6. The bickering between the CDA and Dodoma Municipal Council on responsibilities and areas of operation should be ironed out to provide an enabling building environment for all actors including artisans.

7. The niceties of the "The Dodoma Special Investment Area Act (1989)" which provides for the institution of "appropriate fiscal and other economic measures for the attraction and benefit of investors in the Dodoma capital development area" need to be popularized to attract investors.

8. The constraints and threats listed in the SWOT analysis are challenges not only to the artisans themselves but to CDA, the ministry responsible for capital city transfer, the Municipal council and NGOs and should be acted upon.

9. Professional surveyors who are the producers of plots and hence instrumental in facilitating proper land use in urban areas in the country, are grossly underutilized today compared to the 1960s and early 1970s. According to Lugoe (2008) the public sector employs about ¼ of the more than 500 surveyors in the country. is number and even over 20 survey firms whose employment capacity is mostly dependent upon the availability of cadastral survey projects are not fully utilized, concluding that plot production in Tanzania is not an issue of capacity availability but that of under-utilisation of professional human resources.

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Acronyms

CDA =Capital development Authority

CRB =Contractors Registration Board ().

FGDs=Focus Group Discussions

ILO=International Labour organization

MKURABITA= Mpango wa Kurasimisha Rasilimali na Biashara za Wanyonge Tanzania OSHA=Occupational Health and Safety Act

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REPOA =Research on Poverty Alleviation ()
SPSS=Statistical Package for the Social Sciences
SWOT=Strengths weakness opportunities threats
TAMICO= Tanzania Mines and Construction Workers Union ()
TB = Tuberculosis
THB Tanzania Housing Bank
T.shs=Tanznaia shillings
UDOM= University of Dodoma
UN=United Nations
UNCHS= United Nations Centre for Human Settlements
URT =United Republic of Tanzania
VETA=Vocational Education and Training Authority

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