

Decisions Impacting on the Quality of Low Income Houses in South Africa

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Abstract

At the advent of the democratic dispensation in South Africa, the government embarked on low income housing project to address society ills of the past. The housing project is named Reconstruction and Development Programmes (RDP) after the document that set it up. However, there are problems due to paucity of ‘know-how’ among contracting parties. A major issue at stake is the quality of delivered houses. Thus, this paper discusses the factors that have engendered the quality of low income housing in a metropolitan area in South Africa. Visual inspection of housing projects is followed by semi structured interviews, which shows that small and medium sized contractors involved in such housing projects have to avoid the use of unskilled labour, and poor quality materials. It was also apparent from the study that the projects lack proper project management and there was a lack of strategy to improve the quality of houses. The conclusion drawn from the conducted interviews is that contractors must enrol with the relevant low income housing regulatory body; and the public sector client should verify that indeed the contractor is enrolled with the body in order to assure the quality of work that meet the expectations of eventual occupants. This research recommends that it is important that project managers involved in the management of RDP housing projects have the necessary skills and level of education to execute their duties. Furthermore, the Department of Human Settlements (DHS) in South Africa should ensure that relevant oversight and policy implementation, which impact on good practices and conformance to standards, take place.

Keywords

Contractors, Low income housing, Quality, South Africa

1. Background

The vision of South African government as stated in the constitution (1996) is to ensure that its citizens have access to adequate housing. Better designed houses contribute to physical and psychological well-being of people. This can be achieved through building houses that are sustainable by ensuring that houses are designed and built in an environment that is socially and economically sustainable (Zaki *et al.* 2014). The vision is underpinned by the realization that the urban landscape in South Africa suffers from the spatial legacy of apartheid. Many problems need to be addressed in order to reshape existing cities with spatial legacy of apartheid. Unemployment, rapid urbanization and an expanding population are

problems that affect provision of housing, and the quality of houses in South Africa and these factors must be properly addressed for improvement purposes (Department of Housing. 2008).

The ‘Reconstruction and Development Programme’ (RDP) housing policy invented in 1994 failed in a number of times and was later changed and a new approach was adopted in 2004 under the label ‘Breaking New Ground’ (BNG). The intention of the BNG is to shift the development focus to sustainability of communities (Goebel, 2007; Tomlinson, 2007; Pillay, 2008). BNG moves away from a focus on attempting to give housing through delivery on quantity of houses to a focus on demand driven quality of housing products by addressing the multi-dimensional needs of sustainable human settlements. It aims to increase the rate of delivery of well-located housing of acceptable quality with increased prominence on the process of housing delivery (Tissington 2011). This study therefore investigated the reason houses built through RDP fail to meet set functional requirements. The inadequacies in housing quality have negative socio-financial effect for end users and contractors.

2. The Quality Question in Low-income housing sector in South Africa

Media reports related to poor quality of low income houses are common in South Africa. These negative publicity ranges from allegations of corruption levelled against government officials to technical failures identified in built low income houses. Such media headlines include:

- APF Questions Quality of RDP Houses (SANGONeT, 16 November 2008).
- RDP housing hiccups (Daily tenders, 18 February 2009).
- 20,000 RDP houses defective (Times live, 13 May 2010).
- Broken Homes (Dispatch online, 26 May 2010).
- Houses of horror (The Herald, 23 July 2010).

A common theme among the cited media reports is poor quality of low income houses, which seemingly have become somewhat not unsurprisingly, multi-dimensional. Some of the reported cases involved total demolition and reconstruction running into million of Rand in tax payers money, poor sanitation and in some extreme cases, fatalities even occurs among occupants of such houses. As if the media reports are not enough reminders of the detrimental effects of poor quality houses, findings in the academia have also mentioned challenges relative to these houses. While Huchzermeyer (2001) reported that new houses and infrastructure such as sewerage services are of poor quality, which are rapidly deteriorating and require maintenance in low income houses, Olivier (2010) contends that a critical national constraint in the delivery of housing remains the lack of available bulk infrastructure, which effectively places a drag on economic growth and the ability to deliver housing with a dignified level of services.

Empirical studies indicate that the quality of built low income houses is one of the reasons for dissatisfactions expressed by occupants. For instance, a case study in Pelindaba Bloemfontein reveal that in general, 74% of the respondent recorded negative perceptions about the quality of their public sector built low income houses (Mehlomakulu and Marais, 1999). The respondents indicate prevalence of cracks in their houses (78%), roof leakages (58%), and they were not satisfied with the physical structures of the houses. Similarly, the study conducted by Madzidzela (2008) at Nyandeni Local Municipality discovered that 85% of the respondents experienced problems with the low income houses they are occupying. Reported problems include flooding (27.5%), lack of water (25%), lack of electricity (12.5%), and drainage related issues (35%). Goebel (2007) contends that in the South African context, sustainable habitats approach to low income housing must understand and prioritise pro poor H&S and livelihood issues in terms of improved sanitation systems, cleaner, safer, and cheap cooking and heating energy sources and interventions on safe usage of new and larger low income housing designs and other solutions rooted in both political and technical realms. Without a doubt all these hiccups in housing delivery merit research, but it is instructive to state that the primary thrust of this particular investigation deals with poor quality of low income housing projects attributable to lapses at the implementation phase of a construction project life cycle.

3. Methodology

The phenomenological study attempts to understand people's perceptions relative to the quality of low income houses in South Africa. According to Creswell (2012), participation in phenomenological research can vary from 5 to 25 individuals who have had direct experience with the phenomenon being studied. As such, interviews were conducted with 5 building inspectors, 4 consultants and 1 contractor. In other words, 10 built environment professionals participated in the field work. At the time of the study, all the interviewees were involved in low income housing projects in a metropolitan area in South Africa. In terms of background information, the interviewees are professionals with various construction tertiary education qualifications and the minimum years of relevant experience that was recorded is 2.

The interviews were about 20 to 30 minutes long and participants were given assurance that the interview was strictly confidential and the objective was to uncover reasons for poor quality of RDP houses. The interview protocol comprised of three themes with one to four questions. The questions include 'what is the root cause of non-conformance to quality in the RDP sector', 'what are the common failures synonymous with RDP houses', and 'what policy intervention would engender improvement in the sector'. All interviews were recorded and transcribed. The results of the interviews are presented based on respondent group in the next section.

4. Findings of the Interviews

Views of Building Inspectors

In response to the question "what is the root cause of non-conformance to quality in the RDP housing sector?" the building inspectors were of the view that some appointed contractors do not have adequate skills and knowledge of construction industry as they are at times trained on site in order to familiarize themselves with the environment. An inspector with more than a decade long low income housing inspection experience say the competence of the contractors is often evident through the use of supply chain members, subcontractors and suppliers, which cannot get the job done. The appointment of such contractors is said to be underlined by political favours. In addition, another inspector was of the view that contractors are not building RDP houses in accordance with the specification of the National Home Builders Registration Council (hereafter referred to as NHBRC) as they are not familiar with construction industry even though they are registered with NHBRC. The inspector cited an instance where houses that would be built on or / and near the boundary line or the direction that the house is facing will be wrong, not according to the plan.

When the building inspectors were requested to comment on the common failures synonymous with the low income houses, all of them pointed to the quality of such houses. They noted that the problem with poor quality of RDP houses emanates from hired unskilled labour by the contractors through ward councillors; cheap material that are bought and used by the contractors which are not according to the specification; political interference, which allows payment to contractors even though building inspectors disapproves the work due to poor quality; and low monitoring / inspection capacity in large municipal areas. An example that necessitates close inspection is the case where low income houses are built on a single brick work, which is not capable of withstanding the pressure of roofing structure and sometimes is affected by strong winds and / or heavy rain falls. It is however notable that the inspection team has a mechanism in place for tackling some of the above mentioned problems. Building inspectors say that mechanisms in place to rectify such mistakes is that the Departmental database have changed; they are now appointing contractors with capacity to ensure that service delivery are approved, and non performing contractors sanctioned and paid the outstanding claims for material they bought. Department of Human Settlements, who is responsible for housing delivery in South Africa, has also started the use of digital devices for project monitoring.

In the area of policy change that would address the problem, the building inspectors were of the opinion that existing regulatory environment would suffice if implementation is effective. The inspectors indicate that the criterion that the department should use in appoint contractors' is through the use of registered NHBRC contractors with capacity in terms of skill adequacy and knowledge of work to be carried out. As at times the department will use contractors that are not registered due to the fact that the appointed contractor would be friends or family with the person who's appointing him / her. The inspectors further note that if work on site does not comply with building regulation, the contractor should be held liable to defects if found that the methods or measures used were not in accordance to the set specification and criterion. If the contractors persist in building houses of poor quality; such contract should be terminated. Surety from the contractors should be provided in order to cover for the work that was not properly done. Also NHBRC officials and consulting engineers should always be on site to ensure that contractors conform to building regulations.

All building inspectors did not however understand what this policy change means but managed to give their views. The responses are as follows: "*inspectors' feels that the current policies in place are correct, according to the law and binding but political interference hamper proper channels to be followed.*" Inspectors added that contractors should be appointed on merit through proper supply chain procurement policy and committees not; rather than through favouritism and / or corruption. NHBRC should also be involved in all RDP houses that are built as it is not the case currently as these will force contractors to abide by the policies set.

Views of Consultants

The perceptions of the consulting team involved in low income housing projects are not so different from the views of the building inspectors. With regard to the causes of poor quality in the low income housing sector, the consultants were of the view that some appointed contractors do not have the skill and knowledge; hence there is a poor quality of houses. They added that quality is hampered by the poor labour performance and the use of sub-standard construction materials. One consultant with 5 years' experience indicated that appointed contractors do have the knowledge and skill to execute the work, and the fact that they are mostly looking out to score additional profit somewhere in the contract exacerbates the problem. Such contractors end up cutting corners by not buying quality material and not employing skilled artisans.

The consultants further say that most of the contractors do not build RDP houses according to the National Building Regulation and Standard Act as they always need guidance from the project managers, building inspectors and engineers with oversight roles in the project. The consultants also flag shortage of inspectors as a challenge because certain areas cannot be reached in large metropolis.

According to the consultants, notable problem with poor quality emanates from poor workmanship through the use of unskilled labour and /or site foreman, and inappropriate materials. These entire issues manifest when the contractors are trying to make additional profit from existing projects. One consultant cited a project where poor dimension for the foundation and walls result in houses that have defects and other failures. Consultants say that there is a digital device that they use in order to inspect and identify mistakes that the contractor have done and assist by recommending to the contractor on how to fix the mistake and / or defects. One consultant says that there are no mechanisms in place as the problems experienced on site still persist.

In terms of policy direction that would engender improvement, a consultant suggests that building contractors should submit their project portfolio that stipulates number of past similar projects and the qualification plus the relevant experience of their site employees. In addition, the interviewees were of the opinion that if a project does not comply with the building regulations, the house should be demolished and re-built at the cost to the contractor.

Views of the Contractor

After obtaining the perspectives of the building inspectors and the consultants, the principal investigator visited a low income housing project to interview a building contractor. The transcribed interview shows areas of agreement with the views that have been expressed earlier by the building inspectors and consultants. As an illustration, the contractor is of the view that most of them are limited in terms of experience and their qualification for projects is often due to registration with relevant institutions. Such registration is obtainable through the Construction Industry Development Board (CIDB) contractors' register. In addition, the lack of adequate / proper supervisory employees to oversee the work was also highlighted by the contractor. These trends and the compromise on the quality of materials have continued to propagate the delivery of substandard low income houses despite the registration of contractors with the relevant regulatory body, such as the NHBRC.

The principal problem starts from the source based on the opinion of the contractor. The contractors cited the appointment of contractors, which has questionable records as a major problem that contributes to poor quality in the sector. Such accountability issues should be addressed by the government in order to put a stop to it. The contractor opines that contractors should provide full documentation with financial background of company and surety to complete project prior to mobilization to site; and when they are found wanting with regard to the quality of their work, the appropriate authorities should be ready to implement relevant regulations.

5. Discussion and Concluding Remarks

The results from the conducted interviews validate the existence of the quality problem within the low income housing sector in South Africa. The exploratory study also shows that the inspection process plays a significant role in terms of eradicating the problem. In a nutshell, the study contends that some building contractors lack skill and knowledge required to consistently deliver superior quality low income houses in South Africa. Although the minimum criterion of registration with the NHBRC is mostly obtained by such contractors, the evidence from the performed work suggests that their indicative competence is questionable. It is herein argued that the quest for increased profit, unwanted interference, and inadequate implementation of relevant policy have joined lack of skills and knowledge to make the quality of low income houses a problem that must be addressed in South Africa. It may be concluded that appointment of qualified contractors with skills and knowledge of the construction process is a major factor that could lead to acceptable quality low income houses. The study therefore concludes that if the following can be considered, quality of RDP houses can be assured:

- The building contractors involved in low income housing sector must have necessary skills know-how to execute their duties.
- Clients and their implementing agents should ensure that best practices in respect of conformance to the set standards are executed.
- The appointment of building contractors should be free from irregularities.
- The monitoring and / or inspection team in large municipal areas should be given additional capacity for effectiveness.

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