



**KZN Human Settlements**

---

**uMnyango Wezokuhlaliswa  
Kwabantu**

**ISIFUNDAZWE SAKWAZULU-NATALI**

**RESEARCH REPORT: INVESTIGATING CHALLENGES IN  
ADHERENCE TO INDUSTRY NORMS AND STANDARDS.**

**PREPARED BY PRODUCT DEVELOPMENT  
OCTOBER 2010**

## TABLE OF CONTENTS

LIST OF FIGURES .....	2
EXECUTIVE SUMMARY .....	3
1. PROBLEM STATEMENT .....	4
2. BACKGROUND .....	4
3. RESEARCH METHODOLOGY .....	4
3.1. Sample.....	4
3.2. Limitations of the study .....	5
3.3. Data analysis .....	5
3.4. Research questions.....	6
3.5. Research Objectives.....	6
4. FINDINGS.....	6
4.1. Interpretation of findings .....	6
4.1.1. The status of adherence to Norms and Standards in low-cost housing in KwaZulu-Natal and associated elements. ....	7
4.1.2. Challenges in encountered in adhering to industry norms and standards.....	8
4.1.3. Knowledge of industry norms and standards:.....	10
5. DISCUSSION.....	12
5.1. The status of non-adherence to Norms and Standards in low-cost housing in KwaZulu-Natal and associated elements. ....	12
5.2. Challenges encountered in adhering to Norms and Standards.....	13
5.2.1. Lack of synergy between key role players.....	14
5.2.2. Lack of Capacity / Professionals to undertake work .....	14
5.2.3. Cost of training labour and cost of material.....	15
6. OTHER ISSUES NOTED BY THE RESPONDENTS.....	16
7. CONCLUSION .....	16
8. RECOMMENDATIONS.....	17
9. REFERENCES: .....	18
PROPOSED RECOMMENDATION/ACTION PLAN .....	19

## **LIST OF FIGURES**

1. FIGURE 1 & 2: Achievement of norms and standards by municipalities and IA's.
2. FIGURE 3& 4: Norms and standards versus current subsidy amount
3. FIGURE 5 & 6: Support by DoHS to municipalities and IA's.
4. FIGURE 7 & 8 : Cost of material
5. FIGURE 9 & 10 : Cost of training labour
6. FIGURE 11&12 : Cost of Professionals to undertake/ certify work
7. FIGURE 13&14 : Knowledge of SANS 10400
8. FIGURE 15&16 : DoHS norms and standards
9. FIGURE 17&18 : Uniformity / Lack of inspection

## **EXECUTIVE SUMMARY**

Quite a number of poor quality housing has been reported in the province. These have caused extensive speculation from the media and the general public. This puts stakeholders at a position of pointing fingers and shifting blame in every direction.

The Department of Human Settlements spends millions on housing projects every financial year; however a concern comes with the quality of the final products. This is a major concern for the Province, since it has a duty to provide the public with products of excellent quality within available resources. Over the years the issue of poor quality prevails and brings dilemma in the housing industry as millions are spent on re-building houses a few years later. The National Housing Code of 2009, Volume 2 clearly stipulates the National Norms and Standards and further states that all residential developments that will be undertaken through finance provided in terms of the National Housing Programmes must comply with these National Norms and Standards. However stakeholders of the industry are not complying with these norms and standards, the reasons for non-compliance remains vague hence a study of this nature was considered critical.

The study reveals that there are quite a number of contributing factors to non-adherence and they vary from one project to another. These include lack of knowledge, cost of material, cost of training labour and cost of professionals to undertake or certify work among others. These challenges are discussed in the report .In response to the challenges a number of recommendations were made. These included, capacitation of stakeholders, appointment of resident engineers and more project inspectors, making it mandatory for stakeholders to submit quality management plans before construction begins and development of a

uniform checklist to be used by all inspectors from different organizations working in a project.

## **1. PROBLEM STATEMENT**

The study aims to investigate challenges in adherence to industry norms and standards in response to prevalence of poor quality houses in the Province.

## **2. BACKGROUND**

Back in the days when low cost housing took platform it was more about quantity rather than quality. Government was on a mission to reach out to masses of people at a very limited budget hence quality took a backseat. Poor quality became prevalence as a result the Housing Act 107 of 1997 was introduced making provision for the Minister to determine national policy, including national norms and standards, in respect of housing development. Housing norms and standard then came into effect, but still some level of non-compliance was still detected through cases of poor quality. It became evident that a shift from quantity to quality was indeed crucial. Hence National Home Builders Registration Council (NHBRC) became a dominant role player in government as a quality management measure. Currently the Provincial Department has drafted a quality assurance framework which is still under discussion as another measure to ensure no compromise on the quality of products.

## **3. RESEARCH METHODOLOGY**

### **3.1. Sample**

The survey investigating the challenges in adherence to industry norms and standards was carried out by the Product Development using structured questionnaires. Questionnaires were divided into three sets, each for a different group i.e. a questionnaire structured for NHBRC officials, and a separate one for municipalities and Implementing agents and also one for Project monitors/facilitators (Questionnaires attached as Annexure A). The original methodology

was to distribute questionnaires to municipalities that were randomly selected; these were uMhlabuyalingana, Jozini, Mtubatuba, Big five false bay, uMziwabantu, Vulamehlo, Ukhahlamba and Impendle. Unfortunately only one of these municipalities responded, then the team decided to distribute questionnaires at an information session (Quality Assurance Workshop) which took place in all three regions (Inland, Coastal and Northern) in September 2010, in which municipalities, implementing agents, project monitors/inspectors and NHBRC officials were invited.

### **3.2. Limitations of the study**

The survey had the following limitations:

1. Limited responses - Responses were only received from 9 municipalities across the Province and 5 implementing agents.
2. Incomplete questionnaires - Some Questionnaires were not filled in completely (this has been indicated as No Response in the in findings: figures).
3. Level of understanding – Some respondents seem to not understand some of the issues, this might be the core reason for the incomplete questionnaires.
4. Sampling method used – Responses were only received from the officials who attended the workshops, this could promote bias. However the workshops took place in all three regions and that could be enough to provide a holistic view of the entire province.

### **3.3. Data analysis**

Data analysis for closed questions entailed quantifying the extent to which respondents rated in responding to a given statement using most critical, critical , some contribution, minor, nil and Not Sure., and worked out a percentage for ratings per question. This was done by means of grouping and categorizing responses.

To analyse results of open ended questions, content analysis was applied. The answers were then aligned to form part of the discussions and recommendations.

### **3.4. Research questions**

The following questions were investigated:

1. What is the extent of perceived non-compliance in KZN?
2. What are the challenges encountered in adhering to Norms and Standards?
3. What are the proposed interventions?

### **3.5. Research Objectives**

The following research objectives were set:

1. To identify status of adherence in low-cost housing in KwaZulu-Natal.
2. To identify the causes of non-compliance in KwaZulu-Natal from the perspective of the Department of Human Settlements, municipality and Implementing agents.
3. To identify how these challenges are currently being addressed.
4. To propose practical interventions.

## **4. FINDINGS**

### **4.1. Interpretation of findings**

The purpose of this section is to provide an overview of the findings of the study. Graphs have been used to illustrate findings and allow easy interpretation of data. Responses are divided into different sections, namely the status of non-adherence to norms and standards in low cost housing in KZN and associated elements, challenges encountered in adhering to norms and standards, lack of synergy between key role players and lack of capacity/ professionals to undertake or certify work.

### 4.1.1. The status of adherence to Norms and Standards in low-cost housing in KwaZulu-Natal and associated elements.

a) Do you think Norms and Standards are being achieved by the key stakeholders?

Figure 1

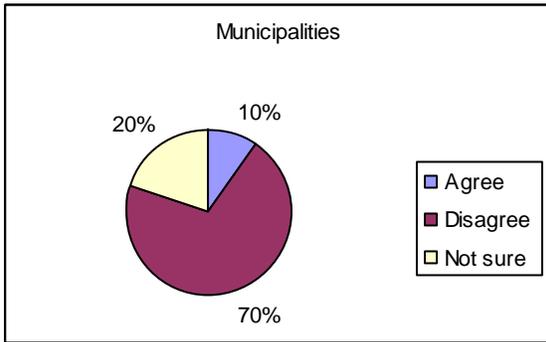
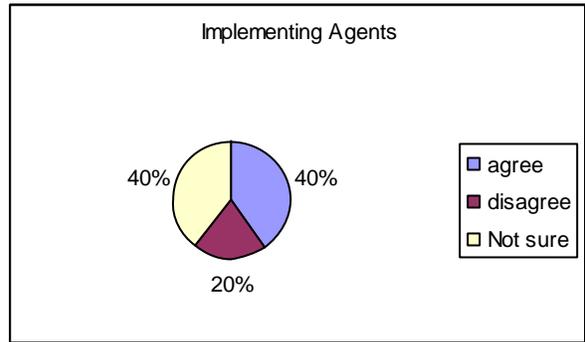


Figure 2



Results:

Figure 1 shows that most of the respondents (70%) Disagree that Norms and standards are being adhered to by the key stakeholders, 10% agrees and 20% not sure. In Figure 2, 20% of respondents concur with the majority of figure 1. While 40% agrees that key stakeholders adhere to norms and standards and 40% were not sure.

b) Do you think Norms and standards are achievable within the current subsidy amount?

Figure 3

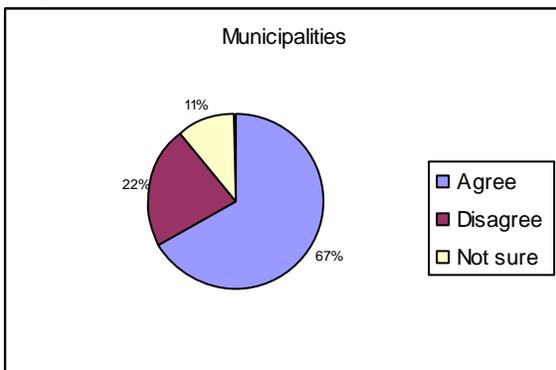
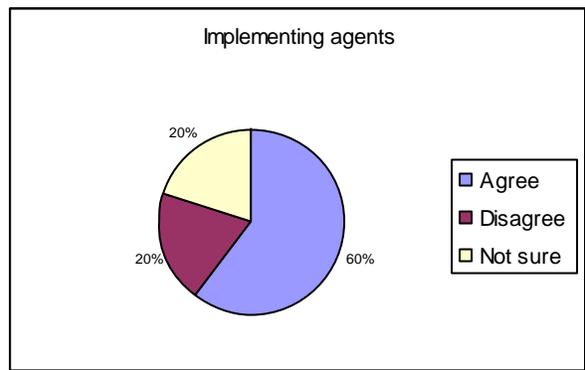


Figure 4



**Results:**

In both figures 3 & 4 most respondents (60% and above) agrees that norms and standards are achievable within the current subsidy amount. In figure 3, the remaining 22% disagrees and 11% were not sure.

c) Is the Department of Human Settlements giving required support to the stakeholders i.e. municipalities and IA's?

Figure 5

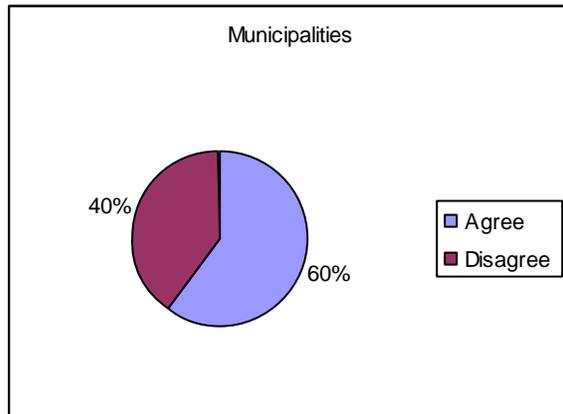
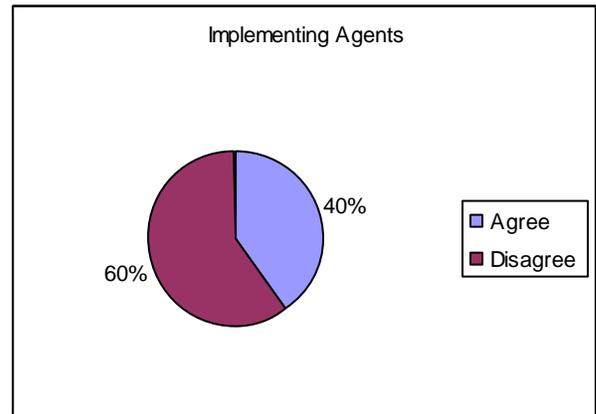


Figure 6



**Results:**

In figure 5, most respondents (60%) agree that their organizations are receiving required support from the Department of Human Settlements, 40% in the same category disagrees. On the contrary in Figure 6, most respondents (60%) Disagree to be receiving required support from the Department of Human Settlements and 40% of the respondents agreed.

**4.1.2. Challenges in encountered in adhering to industry norms and standards.**

**a) Cost of material:**

Figure 7

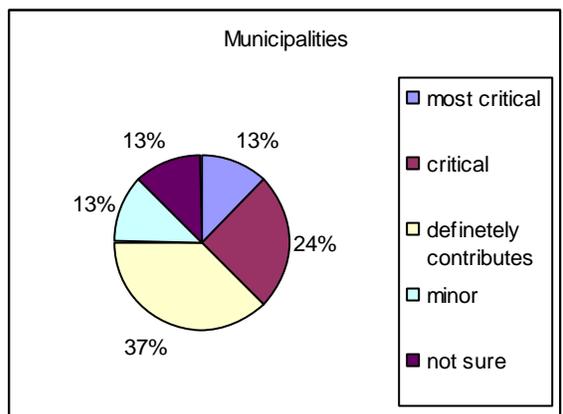
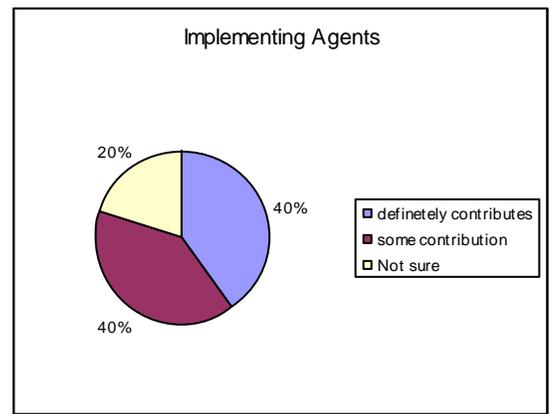


Figure 8



Results:

Most of the respondents (37%) in figure 7, agreed that cost of material definitely contributes to non-compliance, 24% rated cost of material as a critical contributor, 13% rated it as a critical contributor, 13% rated it as having minor contribution and 13% of respondents were not sure. In figure 8, 40% Of respondents agreed that cost material have some contribution to non-compliance, another 40% in the same group agreed that cost of material definitely contributes and 20% of respondents were not sure.

**b) Cost of training labour:**

Figure 9

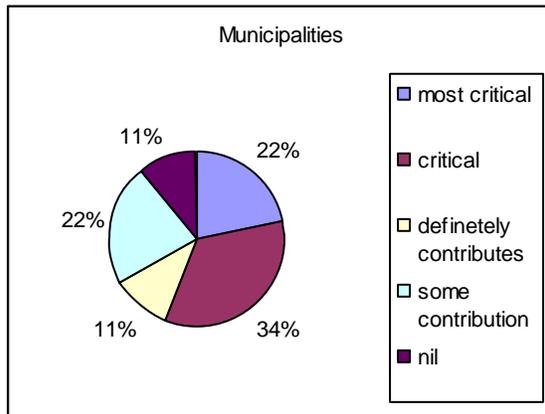
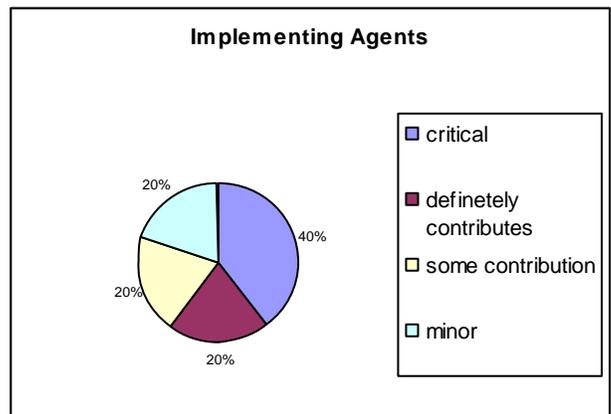


Figure 10



Results:

In both figure above (figure 9 & 10) most respondents (34-40%) rated cost of training labour as a critical contributor to non-compliance with industry norms and standards. Other respondents in figure 9 (22%) rated this as most critical, another 11% respondents rated it as a definite contributor, 22% thought it had some contribution and 11% rated as having zero contribution to non-compliance. in figure 10 other respondents(20%) rated cost of material as a definite contributor, another 20% rated it as having some contribution and 20% of respondents thought it had minor influence on non-compliance.

**c) Cost of Professionals to undertake/ certify work:**

Figure 11

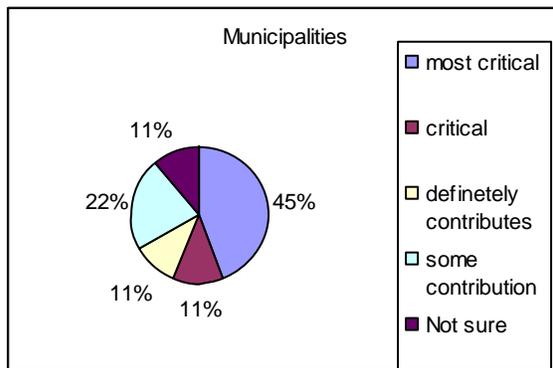
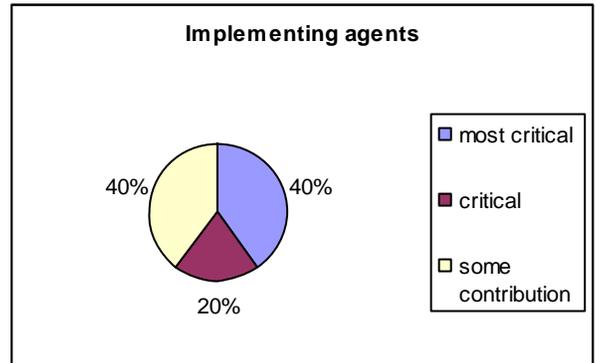


Figure 12



**Results:**

In the above figures 11 & 12, most respondents (40-45%) rated Cost of professionals to undertake/ certify work as most critical contributor in non-compliance to industry norms and standards. Other respondents in figure 11 (22%) rated it as having some contribution, 11% thought it had critical influence, 11% said it definitely contributes and another 11% of respondents were not sure. In figure 12, other respondents (40%) cost of professionals has some contribution and 20% rated it to have critical impact to non-compliance.

**4.1.3. Knowledge of industry norms and standards:**

**a) Knowledge of SANS 10400**

Figure 13

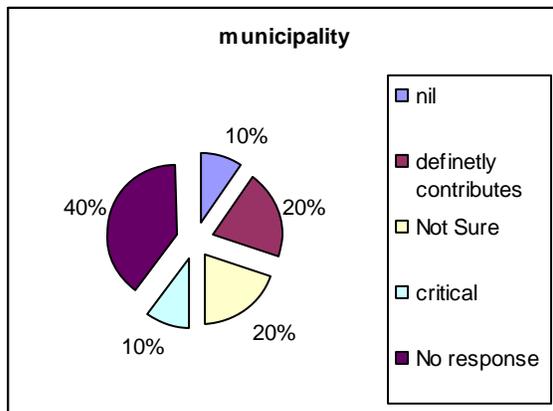
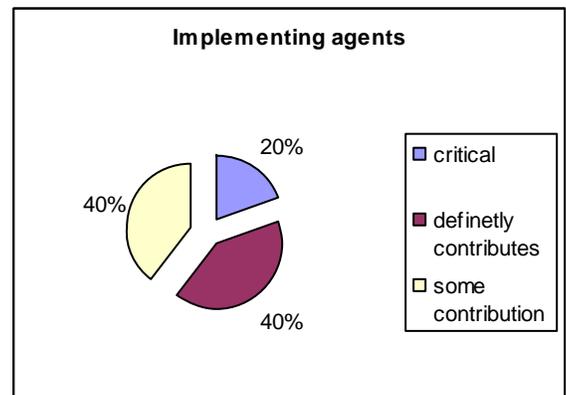


Figure 14



**Results:**

In figure 13 most respondents (40%) did not respond when asked to rate Knowledge of SANS 10400 as a possible contributor to non-adherence to industry norms and standards. Other respondents in the same figure (20%) rated it as a definite contributor, another 20% of respondents were not sure, 10% thought it had zero impact and 10% thought it is critical factor. In figure 14, 40% of the respondents rated Knowledge of SANS as a definite contributor to non-compliance, and another 40% rated it as an element having some contribution to non-compliance and 20% rated it as having a critical contribution.

**b) DoHS norms and standards**

Figure 15

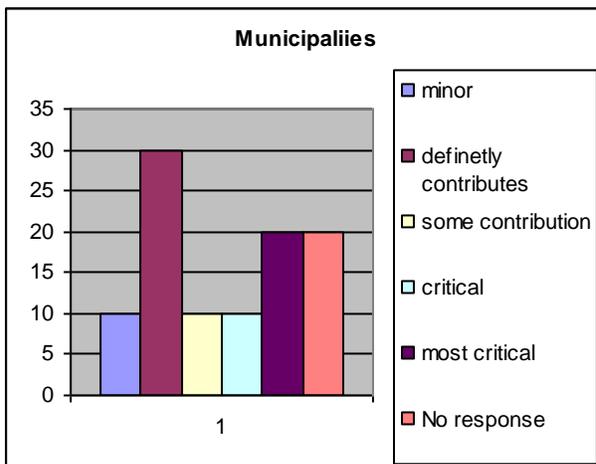
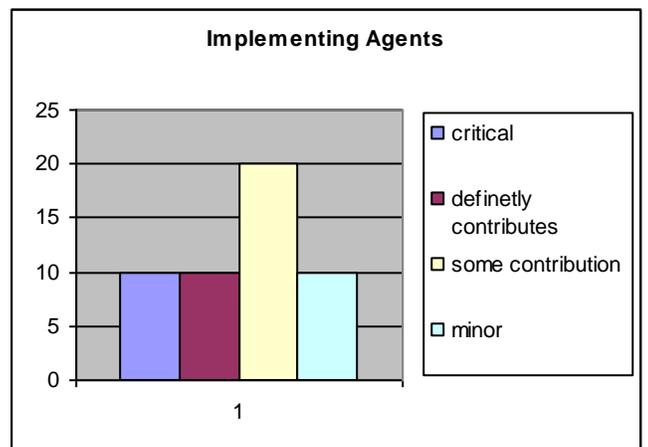


Figure 16



**Results:**

Figure 15, most respondents (30%) rated that lack of knowledge of DoHS norms and standards as a definite contributor to non-compliance, 20% rated it as most critical, 20% did not provide response, 10% rated it as critical, 10% rated it as having some contribution and another 10% thought it had minor contributions. Figure 16, most respondent (20%) rated this factor as having some contribution to non-adherence to industry norms and standards, 10% of respondents rated it as a critical factor, 10% thought it is a definite contributor and 10% thought it had minor contributions.

### c) Uniformity / Lack of inspection

Figure 17

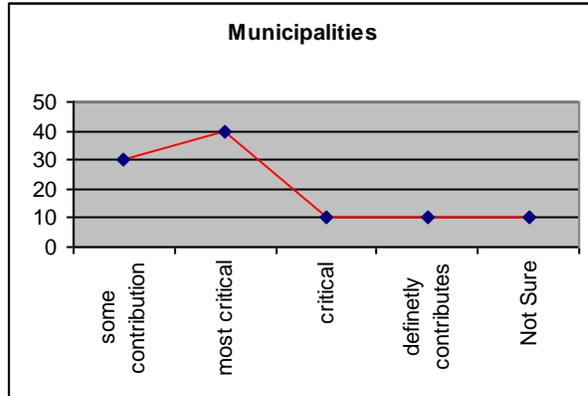
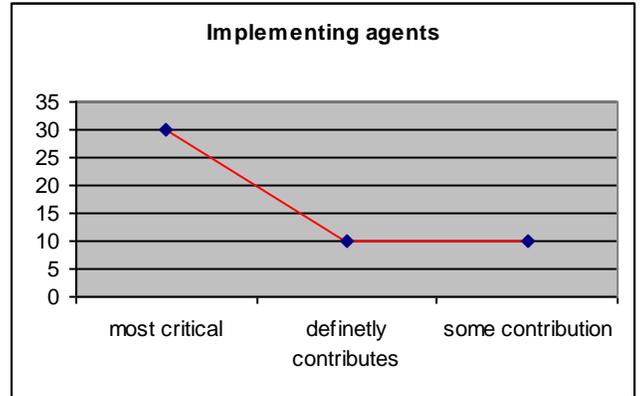


Figure 18



#### Results:

In figures 17 & 18 above most respondents (30-40%) in both groups rated Uniformity or lack of inspection as the most critical challenge leading to non-compliance to industry norms and standards. In figure 17, 30% rated it as having some contribution, 10% thought it has critical contribution, 10% rated it as a definite contributor, 10% of respondents were not sure if uniformity or lack of inspection is a factor contributing to non-compliance. In figure 18, 10% thought it definitely contributes and another 10% thought it had some contribution.

## 5. DISCUSSION

### 5.1. The status of non-adherence to Norms and Standards in low-cost housing in KwaZulu-Natal and associated elements.

Figure 1 demonstrates that 70% of the municipalities agreed that norms and standards are not being achieved by key stakeholders but on the contrary in figure 3, 67% also agrees that norms and standards are achievable within the current subsidy amount. This then links directly with the issue of knowledge of industry norms and standards (refer to 4.1.3). During the analysis of the questionnaires one could pick up that there is an overall lack of in-depth understanding of industry norms and standards. For example in figure 13, 40% of municipalities did not provide any response when asked to rate the importance of

knowledge of SANS 10400, this present an assumption that respondents could have not known what SANS 10400 is all about. Municipalities are guardians of the housing projects and if they are not fully aware of what is expected in terms of quality then a serious problem exists.

Capacitation of municipalities might already be over emphasized but these findings indicate that lack of understanding of imperative issues is still lacking among key role players and it is a critical factor that must not be overlooked or minimize in dealing with the non-compliance puzzle.

On the other side Implementing Agents are proving to be more aware of the Industry norms and understand and are more in tune with their position and what is expected of them. In figure 2, there is an overlap where half of the respondents agree that Norms and standards are being achieved and an equivalent half disagrees. This links up with municipalities not being fully aware of these norms and standards themselves as discussed above. This open loopholes as Implementing Agents could easily do things their way and unnoticeable so if the supervisors (municipalities) are not fully aware of the appropriate proceedings. A majority of implementing agents 60% (refer to figure 4), also agrees that non-adherence to industry norms and standards is not attached to the subsidy amount.

## **5.2. Challenges encountered in adhering to Norms and Standards**

There are a number of challenges that respondents in all categories rated as critical causes to non-compliance. These challenges include lack of knowledge among stakeholders (as already addressed in 5.1.), cost of professionals to undertake or certify work, lack of uniformity in inspection procedures and lack of synergy between key role players.

### **5.2.1. Lack of synergy between key role players**

Even though 60% of the municipalities agreed that they are receiving enough support from the Department, 40% stressed that they were not receiving support from the Department especially when it comes to issues of quality (figure 5). They highlighted that the Department sometimes disregard issues raised by municipalities and release payments only to find that those concerns will re-surface at a bigger scale later and municipalities are required to provide answers without any back up from the DoHS. This indicates that there are poor linkages between these organizations and this cause loophole as they are both co-guardians of the projects. Their mandate has everything to do with working together to bring best out of a development project.

The contrasting findings on the perception of support might be expected however as the implementing agents are appointed to supplement the lack of expertise within government to implement programmes. On the other hand it also point to a need to assess the nature of support required by them in the context of ensuring quality.

### **5.2.2. Lack of Capacity / Professionals to undertake work**

The respondents (both municipalities and IA's) noted that there are not enough inspectors per project and encouraged that the department employ more people in this field with a focus on technical capacity (figures 11 & 12). The respondents also noted that there is a critical need for the Department to have its own Residential Engineers as it is not appropriate to place its trust on the engineer's employed by the IA's.

In the study it came out that even with departmental officials there is a critical need for training on certain issues because they sometimes lack knowledge too of certain aspects. Policy issues might be a good place to start in terms of

training DoHS officials since it forms basis for understanding all processes within different housing programmes. This could be done by Product Development component, by asking all regions to submit a list of policies that they would like training on at the beginning of each financial year. These lists could then be updated when a need or gap is brought forward to Product Development.

### **5.2.3. Cost of training labour and cost of material**

Whilst stakeholders perceive the subsidy quantum to be sufficient to achieve quality in terms of industry norms and standards, there seems to be agreement that cost of material, labour and professionals have a significant impact. Cost of professionals is deemed to have the most significant impact. This correlates with Adhoc comments received relating to the subsidy budget provision being below industry norms in terms of professional fees.

Most respondents in both figures 9 & 10 rated cost of training labour as a critical contributor to non-compliance, even more so in an era where there are policies in place to facilitate that local labour is used in projects. The use of local labour and contractors seems to form part of the bigger problem. Emerging contractors are not experienced enough to solely take up construction in large numbers.

Cost of material was also rated by most respondents in figures 7 & 8 as a definite contributor to non-compliance. When the respondents were asked if they could explore the usage of innovative products to save on cost, the majority indicated that they do not prefer the use of such products in projects as the beneficiaries prefer conventional structures.

### **5.2.4. Lack of knowledge**

Poor response on SANS 10400 is alarming and could indicate a lack of knowledge. Responses on SANS 10400 and norms and standards indicate that more training might be required.

## **6. OTHER ISSUES NOTED BY THE RESPONDENTS**

- Department should ensure on time payments to the Implementing agents to ensure that quality products are ensured.
- NHBRC documents should be made available in other languages as well.
- Inadequate project preparation contributes significantly to poor quality of housing products.
- The Department must hold back a percentage of claims until all defects have attended to.

## **7. CONCLUSION**

It is evident that quality assurance in low cost housing does not lie with one part, it is rather a joint effort from all stakeholder in the construction from DoHS, Municipalities, NHBRC, CIDB , Implementing agents, appointed professionals and building contactors. These stakeholders all have the most critical roles to play and defects in one part can bring the house down.

The study reveals that there are quite a number of contributing factors to non-adherence and they vary from one project to another. These includes lack of knowledge, cost of material, cost of training labour and cost of professionals to undertake or certify work among others. These challenges are discussed in the report and recommendations are also made in this regard.

Lack of knowledge, lack of capacity came out as the most dominant factor. Clearly a lot of work still needs to be done in terms of capacitating stakeholders with regards to Housing policies and procedures. The study reveals that this is not only critical to Municipalities but also to Departmental and NHBRC officials as they are gaps in certain areas.

Also there seem to be a lack of coordination across all stakeholders, from municipalities, DoHS, NHBRC, implementing agents even contractors as well. All

these organisations need understand that they are all part of the bigger picture. Hence they must sit together to clearly define and document each organization's roles and responsibilities. The Department, NHBRC and Municipalities also need to define roles of their projects inspectors to ensure uniformity, cooperation and effectiveness at all times.

## **8. RECOMMENDATIONS**

The following recommendations are then tabled:

- It is recommended that the department continue to capacitate municipalities especially with the knowledge of core issues i.e. Housing Policies as it is evident that lack of understanding of certain issues is still in question.
- Further sessions be conducted by the Capacity Building Unit and the NHBRC regarding the norms and standards and Building regulations.
- The Department must employ its own professionals (Resident Engineers), who will be full time on site guarding different aspects of quality management. It is not good management for the Department to place all its trust to the Engineers employed by the IA and employment of a clerk of works on site is also recommended.
- Before construction contactors, implementing agents and municipalities must submit quality management plans. It is also recommended that DoHS (assisted by the NHBRC) also workshop contractors and ensure that they are aware of what is expected of them and what standards are set.
- The Department must capacitate the inspectorate division and invest in training them accordingly. Must also develop a checklist for quality control on site to achieve uniformity across all professionals responsible for this task from different organization, i.e. municipalities, NHBRC and the Department. Also the role of these three organization's in inspections be clearly defined to ensure uniformity and effectiveness of inspections

- DoHS must develop a system to ensure that projects are enrolled with the NHBRC before they start because NHBRC usually receive projects at a late stage.

## **9. REFERENCES:**

1. Milne, M.M. 2006. An investigation into quality concerns in house construction in government-subsidised low-income Housing Projects in the Pietermaritzburg area. University of KwaZulu-Natal.

2. National Housing Code.2009. Technical and General Guidelines. Pretoria : Department of Human Settlements.

3. Govender, M. 2010. Department. Media release Re: Umlazi Housing Project. <http://www.kznhousing.gov.za/Portals/0/docs/Media%20Release1.pdf>, accessed 23 July 2010.

4. Housing Act 107 of 1997

4. Newspaper article:

The witness. 06/11/2008

The Mercury .01/21/2010

5. Acknowledgements:

Product Development acknowledges different municipalities, Implementing Agents, NHBRC Officials, Project monitors and Inspectors who took time to respond to the questionnaires on request.

**PROPOSED RECOMMENDATION/ACTION PLAN:**

<b>RESPONSIBILITY:</b>	<b>ACTION:</b>	<b>START DATE:</b>
Product Development, Capacity Building and Integrated Planning.  Human Resources Management	Identify training needs of the municipalities, departmental officials and other stakeholders, divide these needs according to which section they are relevant to and provide training for such.  To critical identify skills gaps and arrange for training (for officials who work on projects direct or indirect). This can be only be done effective by liaising directly with the affected division through questionnaires or face to face basis.	These can be aligned with business plans for 2011/2012
Product Development, Project Management, Municipalities And NHBRC.	Product Development must draft an inspection checklist in engagements with the other stakeholders to ensure that there is uniformity in inspections and that roles for each organization are clearly defined in that context.	These can be aligned with business plans for 2011/2012
Department of Human settlements	The Department must Employ Resident Engineers and more project inspectors.  The Department must Employ a clerk of works on site.	These can be aligned with business plans for 2011/2012  To be discussed by Senior Management.
Project Management	Ensure that quality management plans are submitted before the project commences.	These can be aligned with business plans for 2011/2012