



MANAGING HOUSING NEEDS IN POST CONFLICT HOUSING RECONSTRUCTION IN SRI LANKA: GAPS VERSES RECOMMENDATIONS

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ABSTRACT. Addressing housing needs in post conflict housing reconstruction leads to successful housing reconstruction. As part of a study of investigating how the housing needs can be effectively addressed in post conflict housing reconstruction, this paper identifies the gaps in managing housing needs in post conflict housing reconstruction within the context of Sri Lanka and presents the recommendations to minimise such gaps. Data was collected through un-structured interviews conducted with 37 participants, comprising policy makers, practitioners, academics and beneficiaries who engaged in post conflict housing reconstruction in Sri Lanka. Gaps were mainly found in conflict sensitivity, measures related to physical housing, performance of implementing agencies, policy and practice issues. On the job training, application of ‘do no harm’ principles, enhanced beneficiary participation, enhanced accountability, effective monitoring, enhanced knowledge sharing, adequate drinking water facilities, irrigation development and initiatives for material manufacturing were suggested as recommendations to minimise these gaps. Identification of gaps in managing housing needs in post conflict housing reconstruction and recommendations to minimise them inform policy makers to address the housing needs effectively through incorporating these aspects into the related policies. This in turn enhances the sustainability in housing development after conflicts.

KEYWORDS: Post conflict housing reconstruction; Managing housing needs; Gaps; Recommendations; Sri Lanka

1. INTRODUCTION

Conflicts lead to damage and destruction of housing (Barakath 2003; Carlowitz 2005; Leckie 2005) limited housing production (Malpass 2003) and lack of maintenance (Wegelin 2005). Hence, countries experience a housing shortage at the end of most conflicts. Therefore, housing reconstruction can be identified as a significant intervention within post conflict reconstruction. Post conflict housing reconstruction contributes to the social and economic well-being of conflict affected people and peacekeeping. For instance, it enables the rapid return of people to their home communities and the resumption of their livelihood and income generating activities (Barakath, Zyck 2011). Post conflict housing reconstruction can contribute to gender equity and empowerment through minimising the difficulties that women face in accessing housing reconstruction assistance (Barakath, Zyck 2011).

Moreover, the importance of using capacities that women have gained during the conflict in post conflict interventions (Wanasundara 2006; Smet 2009) and post conflict housing reconstruction can promote the participation of women in planning, designing and constructing homes (Ndinda 2007). As Ndinda (2007) indicates, the participation of women in construction and their livelihood capacity can be enhanced through construction skills training. According to Leest *et al.* (2010), identifying vulnerable groups and enabling their participation in the development process through capacity-building and empowerment initiatives promote inclusiveness, which is fundamental to peace building. Furthermore, Barakath (2003) asserts that post conflict housing reconstruction is a crucial incentive to reintegrate communities as part of the efforts towards peace. It also supports the peace process through restoring the security, trust and faith in

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the future among conflict affected people and investors (Barakath *et al.* 2004). Housing reconstruction has important implications for the legitimacy and stability of the state (Barakath, Zyck 2011) as it enables communities to foster goodwill towards the governing institutions through providing sufficient, timely and transparent assistance.

In spite of the importance, the success of housing reconstruction is hindered by a number of interrelated problems, such as the lack of strategies to address the challenges faced by vulnerable people (Barakath *et al.* 2008), lack of local participation (Mokoena, Marais 2007), lack of local economic development (Minervini 2002) that leads to unsustainable housing (Brun, Lund 2009), lack of community linkages (Awotona 1992), lack of a sense of home (Stefansson 2006), locally and culturally inappropriate housing (Barakath *et al.* 2004, 2009; Sepic *et al.* 2005), lack of beneficiary consultation (Barakath *et al.* 2004), poor quality housing (Barakath *et al.* 2008) and lack of security of land tenure (Garstka 2010). If not properly managed, these problems lead to hindering the success of post conflict housing reconstruction.

This study argues that a lack of concern for housing needs has directly or indirectly given rise to most of these problems and adequate housing measures of accessibility, habitability, affordability, location, availability of services, cultural consideration and security of land tenure provide a general guideline in addressing housing needs in post conflict housing reconstruction. For instance, female headed households can be considered as a disadvantaged group and prioritised in accessing post conflict housing. Furthermore, their financial difficulties can be considered through affordability. It also leads to the use of culturally appropriate building materials and building technology through the aspect of cultural consideration. Consequently, addressing housing needs contributes to overcoming the problems of having local people involved and lack of local material use. Moreover, cultural considerations help minimise the issues related to lack of cultural and local identity. The consideration of habitability, affordability, location, and availability of services and facilities also contributes to the development of strategies to minimise the related issues of local, cultural and socio economic conditions in housing reconstruction. In the meantime, the problems related to land ownership can be ensured through security of tenure.

While adequate housing measures provide a general guideline in addressing housing needs,

there is a need for developing strategies to address housing needs due to the challenges posed by the characteristics of a post conflict setting. The need to design programmes according to the post war situation is well acknowledged in the literature (Brown 2005). This context requires managing housing needs in post conflict housing reconstruction and this study aimed to investigate how the housing needs can be effectively managed in post conflict housing reconstruction. The study's objectives were to explore how the housing needs are managed, identify the gaps in managing housing needs and develop recommendations to minimise such gaps. As part of this main study, this paper discusses the gaps in managing housing needs and recommendations to minimise such gaps.

It is centred in Sri Lanka as Sri Lanka's 26 year conflict ended in 2009 and housing reconstruction is essential to ensure the sustainable return of displaced people. Furthermore, as conflicts widely exist in many developing countries (Cuny, Tanner 1995; El-Masri, Kellett 2001; Anand 2005; Bagwitz *et al.* 2008; Fearon *et al.* 2009) and they have a great impact on the built environment in developing countries (Barakath 2003), focusing this study in a developing country like Sri Lanka would bring immense benefits to the international community and such developing countries. Moreover, Sri Lanka, as the researcher's country of origin, means that the difficulties of accessing information (from respondents while ensuring their personal safety) are minimised. The war caused an immense amount of damage including a huge loss of life, displacement of hundreds of thousands of civilians and widespread destruction of infrastructure and left the northern and eastern provinces underdeveloped in comparison with areas the government had controlled. Infrastructure and housing in most of the North and East had already been severely damaged by the war (Kelegama, Mel 2007; Barakath 2011). According to a need assessment survey conducted in 2003, the war led to the destruction or damage of 290,615 housing in the North and East (NEHRU 2004). Once the East was liberated on 10 July 2007, the GoSL launched the reconstruction programme known as 'Eastern Reawakening' in July 2007, which had development plans at US\$ 1.8 billion over four years (Goodhand 2010). The GoSL also initiated the reconstruction programme known as 'Northern Spring' in June 2009 to develop the Northern province (Manoharan 2009; Colombo Page News Desk 2012).

2. METHODOLOGY

As the management of housing needs in post conflict housing reconstruction is deficiently found in the literature, the grounded theory approach is chosen as the most appropriate research strategy, which can provide more insights into the phenomenon through the explanations based on the reality. Moreover, a grounded theory approach provides systematic, yet flexible guidelines for collecting and analysing qualitative data (Charmaz 2006) that can minimise the complexities faced by novice researchers. Interviews were selected as the primary method of data collection for this study since they are useful in exploring a phenomenon in depth. Moreover, interviews are acknowledged to be the preferred method of data collection in grounded theory studies (Creswell 2007). Accordingly, less structured interviews were conducted with 37 participants comprising policy makers (POM), practitioners (P), academics (AC) and beneficiaries (B) who were directly engaged in managing housing needs in post conflict housing reconstruction and who shared the experiences indirectly in Sri Lanka. While beneficiaries were from the Northern (BN) and the Eastern (BE) provinces of the country, the policy makers, practitioners and academics worked in the Western, Northern and Eastern provinces. Practitioners included Programme Officers (PO), Programme Managers (PMN), Programme Reviewers (PR), Project Coordinators (PC), Project Managers (PM), Engineers (E), Quantity Surveyors (QS) and Architects (A) who involved in post conflict housing reconstruction. Data collection was initiated by interviewing individuals involved in post conflict housing reconstruction, who could provide relevant information. The subsequent participants are chosen to follow up the ideas prompted by data. Therefore, theoretical sample technique is used, where the sampling is based on the concepts evolved from the study. Data collection and analysis were done concurrently until the data ceased to reveal any new concept. Interviews were conducted over the summer 2011 and the interviews each lasted between 45–120 minutes.

Primary data was inductively analysed through open, axial and selective coding procedures and Nvivo (Version 8) was used to support the data analysis procedures. Soon after the first interview, analysis began as the first data collected provided the foundation for further data collection and analysis. The digitally recorded interview was transcribed and then imported into

Nvivo (Version 8) with a unique code for reference purposes. Once the interview transcript was stored in Nvivo (Version 8), the researcher became thoroughly familiar with the data through reading and re-reading the transcript. Coding then began through identifying natural breaking points and examining each piece of data in detail. In examining each piece of data for the ideas contained within them, the researcher presented her thoughts in memos, which were also written in Nvivo (Version 8). In analysing the data, the researcher identified and differentiated the levels of concepts that led to establish the links between the concepts. Accordingly, higher level concepts were differentiated from lower level concepts that define the properties of higher level concepts. The researcher also identified the dimensions of lower level concepts during the analysis. Hence, attempts were made to do some axial coding in the early stages of the analysis. The data analysis of the first interview, directed the next data collection. Accordingly, the researcher built upon the previous analysis using the data collected through the second interview and so on. The alternate data collection and analysis led to validate and enrich the research findings considerably as it allowed for follow-up on the concepts emerging from previous interviews. Where practical, interview data were supplemented by creative visual images. Images that are specifically generated for the purpose of the investigation are called for as created images, according to Denscombe (2007), are considered as primary sources of data that provide a valuable means of recording events. Therefore, photographs were used as a supplementary source of data alongside the interviews. The primary data was also verified through reviewing the written documents once they were sufficiently evaluated for their authenticity, credibility, ability to represent and meaning.

3. FINDINGS AND DISCUSSION

3.1. Gaps in managing housing needs in post conflict housing reconstruction

This section discusses the gaps in managing housing needs in post conflict housing reconstruction in Sri Lanka. Gaps can be identified in related to the policy and practice as below.

Lack of conflict sensitivity

Post conflict housing reconstruction in Sri Lanka is implemented through beneficiary participation.

Accordingly, the beneficiary family is required to mobilise labour and materials while contributing their unskilled labour during construction. Nevertheless, the beneficiaries appear to have contracted their housing reconstruction to third parties due to undue influences of some former rebel groups. Such influences appeared to have been based on the communal divisions among people. For instance, former rebel combatants have endangered beneficiaries by not buying construction materials from local Muslim traders, leading them to subcontract the construction for such groups. Even so, the efforts were taken to enhance the communal linkages through rehabilitation of former rebel combatants, yet some rebel combatants appeared to have re-established the communal divisions despite such rehabilitation. Freely available weapons furthered the re-establishment of such divisions. For instance, one interviewee confessed:

“...We were not in a position to tell anything against them. They were with their weapons. So we handed over this contract to them. We withdrew the money from the bank and gave them to construct the house... (BE)”.

Apart from the communal divisions, equality was also affected during housing reconstruction, particularly financial equality when the amount of financial grant was increased to overcome the increased cost of materials and labour. Some agencies failed to provide the increased financial grant as they had already committed to assisted housing reconstruction before the decision was made to increase the financial grant. Thus, these agencies had to proceed with the original financial grant amount while those agencies who committed later provided the increased financial grant amount. Hence, the financial grant increment resulted in unequal housing assistance. According to an interviewee:

“...For example in our agency, we have two schemes. One scheme recently started and they provide a Rs 500,000 grant amount for constructing houses. But in the other scheme, the grant amount is still Rs 325,000, because they had commissioned to construct houses in 2009. The decision to increase the grant amount was taken in 2010. So they could not provide Rs 500,000 even though the construction started in 2010. The agencies who commissioned to construct the houses late 2010 or early 2011, provided Rs 500,000 grant (PC)”.

As different amounts of housing grant can create conflicts, agencies ensured that the beneficiaries from the same village were not provided with

different financial grant amounts. Despite this strategy, some of the beneficiaries were aware of this inequality. Furthermore, inequality resulted in allowing some people to enlarge their floor space. As per the guideline, beneficiaries are given flexibility to enlarge their housing space provided that they can afford the additional cost of the extension. Accordingly, any beneficiary was able to enlarge their housing space, whether they could afford the cost of the extension or not. However, permission to enlarge the housing space was not granted for some beneficiaries even though they were able and willing to afford the cost of the work, which frustrated those beneficiaries. Inequality also resulted in terms of providing access to the affected people's places of origin. Though relocation as a result of heavy mining and zoning was inevitable, people believed that there had been an unequal access to their places of origin.

Lack of cultural consideration

In reconstructing post conflict houses, cultural requirements of conflict affected people were considered in specifying the minimum housing requirements. For example, the housing layout included two bedrooms to enhance the privacy of households and the kitchen was constructed with a chimney to facilitate firewood cooking. Moreover, the sanitary facilities were detached from the house due to the cultural factors. As architectural designs were developed in accordance with minimum housing requirements, those cultural requirements were also considered in the architectural designs. Nevertheless, the designs were not in accordance with some architectural beliefs of the communities. An interviewee commented:

“In the first plan, there was a 13×13 feet room. According to ‘Sastra’ 13 and 21 are not accepted as good dimensions in a house (BN)”.

This gap is consistent with the literature which suggests that post conflict housing reconstruction tended to provide culturally inappropriate housing (Barakath *et al.* 2004, 2009; Sepic *et al.* 2005). Despite the lack of consideration of the people's architectural beliefs at the design stage, measures were not taken to address them at the construction stage. This appeared to have resulted in the technical officers' lack of sensitivity to the architectural beliefs of such communities.

Lack of drinking water facilities

Since people in these areas mainly depend on well water, water facilities were provided through rebuilding some community wells. Domestic wells

also served as a means of supplying drinking water and beneficiaries even shared domestic wells when community wells were not available. Nevertheless, some beneficiaries were confronted with difficulties in their supply of drinking water due to the lack of wells close-by or due to the high salinity of well water. For instance, an interviewee stated:

“...Drinking water is supplied from a well in the distance. We cannot drink water in this area due to the high salinity. We fetch water from far away (–BN)”.

Inadequate water facilities appear to have resulted from the lack of finance that led to excluding the reconstruction of domestic wells within housing reconstruction.

Gaps in managing flexibility to enlarge housing space

The flexibility to increase the floor area contributed to meeting the space requirement of large families. Nevertheless, such permission appeared to have been granted without an estimate to the cost of the extension. This led beneficiaries to enlarge the house without the sufficient finance. Consequently, they were confronted with difficulties in completing their enlarged houses. Some of them accessed financial loans even without any proper income thus furthering the existing vulnerabilities of the beneficiaries. According to an interviewee:

“I enlarged the house. I spent Rs 800,000 to complete the house up to this level. We spent our savings and also we got a loan. We still need to pay the instalments of the loan. The problem we have now is we have to settle the loan. We have to settle Rs 300,000 odd loans. My husband working as a labourer in one of the construction companies that constructs roads in the North these days.... So we do not have a permanent income. I heard about another loan scheme of Rs 550,000 recently. So we are planning to take that loan if possible (BN)”.

Some beneficiaries appeared to have enlarged the house dismissing the implementing agencies' advice to fulfil housing desires rather than the need for more space. Such improper housing enlargement resulted in beneficiaries being confronted with difficulties in reconstructing habitable houses and prolonged living in substandard temporary housing.

Poor habitability

Sanitary facilities were identified as important and were included within the minimum housing requirements. Accordingly, post conflict housing ensured the protection from disease. Nonethe-

less, some beneficiaries left out sanitary facilities in order to upgrade their house construction. Figure 1 shows the incomplete sanitary facilities as recorded by the researcher during the field visit. Furthermore, according to an interviewee:

“Rs. 335,000 grant was given to construct a habitable house including the toilet. Some people have not constructed the toilet and that money also spent for the house (BE)”.



Fig. 1. Incomplete sanitary facilities

As a result, these beneficiaries were sharing neighbourhood sanitary facilities or defecating in nearby jungles posing health threats. Habitability of post conflict housing is also threatened through the lack of protection from weather. Since the specification of habitable finishes limited the door and window sashes for a bedroom, other doors and windows were left without sashes and thus led to a lack of protection from wind and rain. While some beneficiaries covered the doors and windows with temporary materials (refer to Fig. 2), such measures were not taken by most beneficiaries and they blamed this on the limited finance grant provided by the agencies.



Fig. 2. Doors and windows covered with temporary sheeting

Poor quality materials also hampered the protection from weather events. Although seasoned timber was specified for housing reconstruction, poor quality timber was used for door and window sashes and roof structures. These poor quality door and window sashes provided less protection from the rain. Decaying roof structures due to poor quality timber also led to structural hazards. Figure 3 shows the sagged roof of a house that was rebuilt using poor quality timber for the roof structure. An interviewee commented:

“This is my house. This was constructed in 2007. Can you see, its’ roof is sagging. Coconut beams were used for the roof and these beams sagged due to the load of the roof. Therefore the roof also sagged (BE)”.



Fig. 3. Sagged roof

Moreover, as per the specification of habitable finishes, finishes were constrained to internal finishes. Such were further limited to a bedroom and the kitchen. Thus, a bedroom and the kitchen were required to be rendered, plastered and fixed with a lockable door and window sashes. Despite such specifications, some houses were not completed up to the habitable standard and hindered the beneficiaries living in the houses. Figure 4 illustrates incomplete finishes in a kitchen (a) and a bedroom (b), while Figure 5 illustrates incomplete door and window frames.

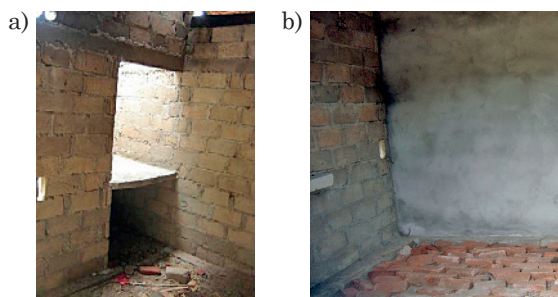


Fig. 4. Incomplete internal finishes



Fig. 5. Incomplete door and window frames

Although habitable finishes were included within the minimum housing standards, many beneficiaries failed to accomplish the finishes with the grant provided. The failure to accomplish habitable finishes appeared to have resulted from the mismanagement of housing reconstruction by some of the housing implementing agencies. Such agencies tended to plaster external walls to misrepresent the completion of reconstructed houses, spending the limited finance on external finishes rather than on essential internal finishes. Figure 6 shows such external plaster works in reconstructed post conflict houses.



Fig. 6. External plastering not specified under habitable finishes

Inadequate monitoring

Monitoring of housing reconstruction was accomplished by the housing implementing agencies. Nevertheless, some agencies failed to monitor the housing reconstruction as expected and appeared to have paid the instalments without ensuring that housing was being built in accordance with stipulated standards and schedule of construction. Hence, inadequate monitoring also hindered the habitability of post conflict housing. An interviewee indicated:

“The technical officer passed the relevant instalment to our account, other than that they did not visit to supervise during construction. We withdrew money from our account and paid for the masons. Even after construction, so far no one came to see these constructed houses (BE)”.

It also appears that post occupancy evaluations have not been carried out by the agencies. This supports previous research, which suggests that the lack of technical oversight during construction led to poor quality housing (Barakath *et al.* 2008) and the absence of post occupancy evaluation reflects the lack of interest in beneficiary satisfaction in post conflict housing reconstruction (Barakath *et al.* 2004).

Inadequate beneficiary awareness raising

Beneficiary awareness was raised regarding the minimum housing requirements, the payment strategy, bulk purchasing of materials and the necessary technical details. Nevertheless, awareness regarding beneficiaries' unskilled labour support appeared to be lacking. As opposed to providing unskilled labour support some beneficiaries had hired unskilled labour. As the beneficiaries' own labour contribution was specifically sought to accomplish minimum housing requirements within the limited financial grant available, the hiring of unskilled labour hindered the accomplishment of minimum housing requirements. An interviewee indicated:

"Masons are constructing my house with unskilled labourers. Masons charge Rs 1,200 a day. Labourers charge Rs 800. Some even ask Rs 900 (BN)".

Furthermore, the beneficiaries demonstrated a lack of awareness regarding habitable finishes. As opposed to settle in habitable finishes, beneficiaries' desire was to fully complete the housing which was not possible with the limited financial grant.

Inadequate consideration of low financial gain

A livelihood support package was provided to enhance the beneficiaries' capacity to generate their own income so that they could complete the remaining construction while occupying the house being rebuilt. Nevertheless, some beneficiaries experienced difficulties in completing the remaining construction due to the low financial income. According to one interviewee:

"We are fishing in the lagoon. We get Rs 300 to Rs 400 a day. This is even not enough for the food expenses of the day. The main problem we face is having not enough money to complete the house (BE)".

Therefore, interviewees suggested that reconstruction of habitable housing was not successful for low income beneficiaries. Lack of completion of

the remaining work hindered the living of young women in particular due to the lack of security and privacy. On the other hand, inadequate irrigation facilities limited those beneficiaries who relied on agriculture for their living. Those beneficiaries who had savings did complete the remaining construction.

Inadequate consideration of vulnerability

As per the beneficiary participation implementation strategy, beneficiaries were required to contribute their unskilled labour during construction as a means of minimising the amount of financial grant. However, some vulnerable beneficiaries were confronted with difficulties in contributing their unskilled labour during construction, which hindered the accomplishment of minimum housing requirements. According to an interviewee:

"...you know our amount for the house is Rs 325,000 rupees. We know that this is not sufficient for vulnerable people. May be, specially the widows, they do not have, support from their husbands. Then they are suffering as they are unable to complete the specified works within this limited amount (PO)".

This led to vulnerable people borrowing additional finance to complete the specified works. Furthermore, these beneficiaries were faced with additional difficulties in completing the remaining construction due to their poor income earning capacity. An interviewee stated:

"Economically it is hard. I am working as a labourer. I am bit old now, so I cannot work as a labourer anymore. I am now 62 years old (BN)".

This agrees with the literature that suggests strategies to address the unique challenges faced by female headed households are lacking in post conflict housing reconstruction and this has resulted in them making significantly slower progress in housing reconstruction (Barakath *et al.* 2008).

Lack of professional involvement

Interviewees suggested that professional involvement in post conflict housing reconstruction was inadequate as architectural designs and cost estimates appeared to have been prepared without the involvement of professionals. This led to poor architectural designs which dissatisfied users, and inaccurate estimates that hindered the accomplishment of habitable housing within the financial grant provided. The lack of consequences of poor transparency of the Sri Lankan construction industry was supportive for such disorder.

Irregular payment of instalments

Since the cash grant was to be paid in a number of instalments, a schedule of instalments was prepared based on construction stages. This ensures that the finance is effectively utilised for housing purposes. Accordingly, the first instalment was scheduled to be paid to complete the foundations of the house including the toilet. The second instalment was paid to complete the walls, door and window frames and the toilet. The third instalment was paid to complete the roof. The fourth instalment was paid to accomplish the habitable level finishes. The fifth instalment was paid to complete other necessary works of the habitable house. These financial instalments were scheduled to be paid in advance to facilitate the mobilisation of the required materials and skilled labour. However, some agencies demanded completion of construction before the respective financial instalment was made. This led some beneficiaries to borrow the required materials and hire skilled labour to accomplish the specified work.

"I got Rs. 500,000 grant under the new phase. However I was not paid any instalment yet. I borrowed the materials and masons to construct this foundation. As the hardware shopkeepers are sure that we are going to get the money from the agency, they do not reluctant to lend materials. Masons and the labourers are also the same. Agency told me that they are going to pay the instalment after completing the foundation (BN)".

Agencies appeared, therefore, to have held up some financial instalments. This prolonged the post conflict housing reconstruction and extended their living in temporary housing. This is consistent with the literature, which suggests housing assistance is frequently described as being late and these delays contribute to a lack of progress (Barakath *et al.* 2008). Payment of financial instalments was also hindered by the inefficiencies of the financial institutions. This also led some beneficiaries to borrow the materials and labour due to their desire to complete the housing construction sooner.

Unverifiable minimum housing standards

Minimum housing requirements in post conflict housing in Sri Lanka were established to comply with minimum housing standards. Nonetheless, these minimum housing standards appeared to be unverifiable. Certain interviewees suggested that these were determined based on the Universal Standards while some interviewees suggested that the Standards of National Housing Development Authority were adapted. Above all, some in-

terviewees proposed the United Nations' housing standards as the basis of determining the minimum housing requirements.

Inadequate knowledge management

Gaps in post tsunami housing reconstruction in Sri Lanka led to the development of minimum housing standards to enhance successive housing reconstruction in Sri Lanka. These newly developed housing standards appeared to have considered a wide range of aspects relating to housing but a lack of consideration of such aspects led to the improvements in the standard of living being hindered. Moreover, the new housing standards were developed through consultation with end users, experts and professionals in the housing sector and these standards were validated and accepted for use in future housing reconstruction. Despite such efforts, these newly developed standards have not been adapted in reconstructing post conflict houses. According to an interviewee:

"...If they are not even aware of these developed standards, then we are not going to have any improvement in the way that we are delivering housing in this country (AC)".

It was also suggested that the lack of professional involvement contributed to the gaps in adapting the newly developed housing standards. So, the lack of professional involvement furthered the gaps in knowledge management.

Having presented the gaps in managing housing needs in post conflict housing reconstruction, the following section discusses the suggested recommendations to minimise these gaps.

3.2. Recommendations to minimise the gaps in managing housing needs in post conflict housing reconstruction

This section discusses the recommendations to minimise above gaps in managing housing needs in post conflict housing reconstruction in Sri Lanka.

On the job skills training

As some beneficiaries were confronted with difficulties in completing the remaining construction due to low financial income (despite the provision of livelihood support packages to initiate their income generation) on the job skills training was suggested as a means to further the livelihood capacity of beneficiaries. The beneficiary's labour contribution during construction would further facilitate the on the job skills training, while reducing the cost of housing reconstruction. An interviewee commented:

"Funds are a big issue for a country like Sri Lanka. Therefore, it is important to get the contribution of beneficiaries, while they also benefit. That is why capacity building programmes during the reconstruction is important. Thus people can be trained on the job. Then they can use these skills to do a job (PM)".

Vocational training institutions are proposed to accomplish on the job skills training through the skilled masons involved in post conflict housing reconstruction. Assessment would be undertaken by the representatives of the vocational training institution. When unskilled labour support is not provided by the beneficiaries, on the job skills training can be provided by reducing the wages of unskilled labour in return for the craftsmen training being offered. This contributes to reducing the unskilled labour cost incurred by vulnerable beneficiaries.

Developing designs for enlarged houses

Permission to increase the floor area appeared to have been granted without a cost estimate of the extension due to the limited administrative capacity of the implementing agencies. Therefore, agencies were confronted with difficulties in monitoring such extensions. As a remedy, interviewees suggested the development of a few standard designs for houses with an increased floor area. This would enable agencies to determine the cost of the extension in advance, and it would enhance the monitoring of such extensions. According to an interviewee:

"...Therefore, it should be done at a manageable level...we can have pre-defined expansions that means several models for enlarged housing (AC)".

Therefore, no further flexibility would be given to change the designs other than giving them the flexibility to choose among already developed standard designs.

Application of 'do no harm' principles

As the lack of conflict sensitivity resulted in a lack of equality, interviewees emphasised the application of 'do no harm' principles to avoid potential inequalities. One interviewee commented:

"...we also need to be very careful on 'Do no harm principles'. Because I cannot build a tile house for one person and I cannot build a normal cement house or just a wattle and daub house for another, I cannot have discrimination. 'Do no harm principles' have to be applied (PC)".

Furthermore, do no harm principles would help in understanding the existing communal divisions and developing necessary strategies to enhance communal linkages.

Beneficiary consultation in the design stage

The management of housing needs benefited from the participation of beneficiaries in its implementation. However, as discussed, the architectural designs were not in accordance with the architectural beliefs of some local people and this gave rise to culturally inadequate designs that left those people dissatisfied. Hence, interviewees stressed beneficiary consultation in the design stage. According to an interviewee:

"What I am trying to stress is there should be inclusive development. So those beneficiaries or the projected beneficiaries must take an active role in the design process...But what I feel is that we have not been going to the grass root level (POM)".

Accordingly, beneficiary consultation in the design stage contributes to incorporating diverse cultural and livelihood aspects into housing designs. It also contributes to incorporating location specific housing needs. As cultural, livelihood and location specific requirements vary from location to location, sample studies are recommended to be carried out in identifying the beneficiaries' housing requirements. Furthermore, beneficiaries' participation was recommended to ensure the acceptance of the developed designs by them. Physical models were suggested to enhance the beneficiaries' active participation. The application of the humanitarian accountability framework also enhances the participatory approach to housing reconstruction.

Enhanced transparency

As the lack of professional involvement led to poor architectural designs and inaccurate housing estimates, their involvement was asserted by the interviewees. An interviewee indicated:

"We can give a few design options, because you identify peoples' requirements are different. That is why it is important to involve professionals in design and estimates (AC)".

Inadequate professional involvement compounded the inadequate knowledge management; professionals' involvement contributes to enhancing the knowledge management through reusing the relevant knowledge and experience of professionals to enhance post conflict housing reconstruction. Interviewees suggested influencing policy makers regarding the appointment of professionals in post conflict housing reconstruction. The role of the media in influencing policy makers to enhance transparency was also highlighted by the interviewees.

Vulnerability assistance

Since every beneficiary was provided with a fixed amount of financial assistance, vulnerable beneficiaries were confronted with difficulties in contributing their unskilled labour during construction. This hindered the construction of habitable houses by such vulnerable people. Moreover, vulnerable beneficiaries were presented with increasing difficulties in completing the remaining construction due to their low earning capacity. Interviewees suggested the need for diverse assistance approach in housing reconstruction.

“While everybody is treated almost equally you can treat different households in different ways because their requirements and their issues are different such as widows, female heads, disabled and elderly (AC)”.

Accordingly, it was suggested that vulnerable beneficiaries should be assisted through a vulnerability assistance programme that could be integrated with housing reconstruction. Hence, every beneficiary should be provided with equal financial assistance through the housing reconstruction programme, while vulnerable beneficiaries get additional assistance through the vulnerability assistance programme.

Adequate beneficiary awareness raising

Beneficiaries demonstrated a lack of awareness of their unskilled labour contribution. Thus beneficiaries tended to hire unskilled labour, hindering the capacity to construct a habitable house. Moreover, beneficiaries evidenced a lack of awareness of the specified habitable finishes. Furthermore, their lack of awareness led to hinder the habitability of the reconstructed housing. Therefore it is important to raise their awareness adequately on the specified beneficiary contributions and minimum housing requirements which are important elements of successful housing reconstruction.

Effective monitoring

As previously discussed, failure to monitor housing construction can hinder the habitability of post conflict housing. Furthermore, poor management of beneficiary desires prolonged their living in temporary housing and this was also linked with inadequate monitoring. Therefore, effective monitoring is significant to establish the habitability of post conflict houses. Since post occupancy observations and evaluations help to identify the gaps in construction monitoring, agencies also need to address them.

“Actually agencies must do post occupancy observations and evaluations to identify the issues in their monitoring. Then they should avoid these issues subsequently (PMN)”.

Enhanced knowledge management

As the lack of knowledge management impeded the success of post conflict housing reconstruction, it is necessary to enhance knowledge management through shared good practice and lessons learned.

“When the sponsoring agencies responsible for the whole process of planning of housing they should apply these developed housing indicators....If not other basic requirements may not necessarily be met as a result (AC)”.

Reconstruction of houses in phases supports the effective transfer of knowledge to successive phases.

Prompt payment of instalments

As irregular payment of instalments led beneficiaries to be confronted with difficulties in mobilising skilled labour and materials, agencies need to ensure prompt payment of instalments as specified. Prompt payments also contribute to improving beneficiaries' habitable living. Interviewees suggested having meetings with beneficiaries to discover the difficulties confronted by them and addressing such difficulties promptly.

“Agencies need to pay the instalments as scheduled. They should avoid the delays in practice. Actually I think agencies should have meetings with beneficiaries during the construction. This helps to understand their difficulties and address them quickly (PMN)”.

Adequate water facilities

Some beneficiaries had difficulties in accessing drinking water facilities due to the salinity of water and lack of availability of safe drinking water facilities close-by. By considering the limited finance, interviewees suggested constructing adequate community wells for beneficiaries who had experienced difficulties in accessing drinking water.

“As money is limited, they cannot assist beneficiaries to construct domestic wells. That is true. But at least they should construct common wells for these beneficiaries (PMN)”.

Irrigation development

Inadequate irrigation facilities have limited the agricultural financial income of beneficiaries. As irrigation development contributes to enhancing beneficiaries' agricultural livelihoods and therefore

affordability to complete the remaining construction, interviewees suggested prioritising the development of the irrigation system in the conflict affected area.

“Irrigation systems contribute to agriculture. Restoration of the irrigation system also needs to be prioritised among the infrastructure reconstruction (AC)”.

Material manufacturing

Disrupted material manufacturing led to a material shortage in the conflict affected area. On the other hand, transportation of materials from outside the area hinders the economic development of the conflict affected areas. Therefore, it is important to enhance materials manufacture in the conflict affected area.

“People have started to produce bricks and blocks to reduce the cost. Like that it is required to improve the manufacturing of other types of materials as well in this area (PMN)”.

Interviewees suggested training people to produce construction materials locally during the housing reconstruction. Furthermore, it was suggested that measures be initiated to use sea sand to overcome the shortage of river sand.

4. CONCLUSIONS

Managing housing needs in post conflict housing reconstruction requires the development of strategies in response to the challenges posed by the characteristics of a post conflict setting. As part of a main study exploring how housing needs can be effectively managed in post conflict housing reconstruction, this paper identified the gaps in managing housing needs in post conflict housing reconstruction and recommendations to minimise such gaps. Though a number of studies have identified the gaps in post conflict reconstruction in general, this study particularly identified the gaps in addressing housing needs in post conflict housing reconstruction and developed recommendations to minimise them.

Despite the efforts taken to promote communal linkages through rehabilitation of ex-combatants, some of the former combatants influenced the implementation of post conflict housing reconstruction through promoting communal divisions. Equality was affected due to the increased amount of financial grant, giving flexibility to enlarge the standard design and providing access to the places of origin. In addition, architectural designs were not in accordance with cultural requirements of

some communities leading to a lack of cultural consideration. Moreover, it was revealed that some of the beneficiaries suffered from a lack of drinking water facilities. The absence of cost estimates and poor management of beneficiary desires led the flexibility granted to change the standard architectural design to be ineffective. A lack of protection from disease resulted from the non construction of sanitary facilities; a lack of protection from weather resulted from the absence of door and window sashes and poor quality materials; and a lack of protection from structural hazards resulted from the poor quality structural materials and the absence of habitable finishes affected the overall habitability of housing. Monitoring during construction was inadequate while beneficiaries' awareness was not sufficiently raised regarding the minimum housing requirements and the payment strategy. Furthermore, due consideration was not given to the low financial income and vulnerability of some beneficiaries. Professional involvement was also lacking in designs and estimates. Irregular payment of instalments was apparent by the implementing agencies. Lack of shared effective knowledge and lessons learned was also evident.

The interviewees suggested that on the job skills training would be a means to further the livelihood capacity of beneficiaries. Developing standard designs for enlarged floor areas was proposed to minimise the gaps in flexibility given to enlarge the standard house design. Furthermore, it was recommended to apply ‘do no harm’ principles to minimise inequality and maximise communal linkages in post conflict housing reconstruction. Beneficiary consultation was proposed at the design stage to promote culturally appropriate housing designs. Enhanced transparency in post conflict housing reconstruction was recommended in appointing parties to develop housing designs and estimates. Strategies also need to be developed in providing additional support for vulnerable beneficiaries such as female headed households. Accordingly, the interviewees highlighted the need for developing a vulnerability assistance programme integrated with the post conflict housing reconstruction programme. Adequate beneficiary awareness raising was emphasised in order to meet the minimum housing requirements within the limited cash grant. Agencies need to ensure an effective monitoring procedure during construction to enhance the habitability of housing. They also need to ensure prompt payment of instalments to expedite habitable living. Good practices and lessons learned from previous similar projects need

to be effectively used to enhance the success of managing housing needs in post conflict housing reconstruction. Provision of adequate drinking water facilities was asserted as essential while the development of irrigation facilities was suggested in order to enhance the agriculture based livelihoods. Initiatives to promote local material manufacturing were also recommended to avoid material shortage and most importantly to enhance local economic development.

These gaps and recommendations inform the policy development in post conflict housing reconstruction to enhance the sustainability in housing development after conflicts. However, it should be noted that the findings are based on Sri Lanka findings are contextualised to Sri Lanka. Nevertheless, rich data enables to make judgements about how far the findings would apply to other comparable instances.

REFERENCES

- Anand, P. B. 2005. *Getting infrastructure priorities right in post-conflict reconstruction*. Helsinki: United Nations University-World Institute for Development Economics Research.
- Awotona, A. 1992. Approaches to post-war reconstruction and development, *Habitat International* 16(4): 79–98. [http://dx.doi.org/10.1016/0197-3975\(92\)90054-3](http://dx.doi.org/10.1016/0197-3975(92)90054-3)
- Bagwitz, D.; Elges, R.; Grossmann, H.; Kruk, G. 2008. *Private sector development in (post) conflict situations*. Eschborn: GTZ.
- Barakath, S. 2003. *Housing reconstruction after conflict and disaster*. London: Humanitarian Practice Network at Overseas Development Institute.
- Barakath, S. 2011. *An evaluation of post war recovery in eastern Sri Lanka Batticaloa District*. York: Post War Reconstruction and Development Unit, University of York.
- Barakath, S.; Elkahout, G.; Jacoby, T. 2004. The reconstruction of housing in Palestine 1993–2000: a case study from the Gaza Strip, *Housing Studies* 19(2): 175–192. <http://dx.doi.org/10.1080/0267303032000168586>
- Barakath, S.; Zyck, S. A. 2011. Housing reconstruction as socio-economic recovery and state building: evidence from Southern Lebanon, *Housing Studies* 26(1): 133–154. <http://dx.doi.org/10.1080/02673037.2010.512750>
- Barakath, S.; Zyck, S. A.; Hunt, J. E. 2008. *Housing compensation & disaster preparedness: in the aftermath of the July 2006 war in South Lebanon*. Beirut: Norwegian Refugee Council & Post War Reconstruction & Development Unit.
- Barakath, S.; Zyck, S. A.; Hunt, J. E. 2009. *The reconstruction of Gaza: a guidance note for Palestinian and international stakeholders*. York: Post War Reconstruction and Development Unit.
- Brown, R. H. 2005. Reconstruction of infrastructure in Iraq: end to a means or means to an end, *Third World Quarterly* 26(4–5): 759–775. <http://dx.doi.org/10.1080/01436590500128006>
- Brun, C.; Lund, R. 2009. ‘Unpacking’ the narrative of a national housing policy in Sri Lanka, *Norwegian Journal of Geography* 63: 10–22. <http://dx.doi.org/10.1080/00291950802712079>
- Carlowitz, L. V. 2005. Resolution of property disputes in Bosnia and Kosovo: the contribution to peace, *International Peacekeeping* 12(4): 547–561. <http://dx.doi.org/10.1080/13533310500201969>
- Charmaz, K. 2006. *Constructing grounded theory: a practical guide through qualitative analysis*. London: SAGE Publications.
- Colombo Page News Desk. 2012. *Sri Lanka spends rupees 425 billion for north east development* [online]. Available at: http://www.colombopage.com/archive_12/Mar29_1333035289CH.php [accessed 11 June 2010]
- Creswell, J. W. 2007. *Qualitative inquiry and research design*. 2nd ed. London: SAGE Publications.
- Cuny, F. C.; Tanner, V. 1995. Working with communities to reduce levels of conflict: “Spot reconstruction”, *Disaster Prevention and Management* 4(1): 12–20. <http://dx.doi.org/10.1108/09653569510078989>
- Denscombe, M. 2007. *The good research guide for small scale social research projects*. 3rd ed. Berkshire: McGraw-Hill.
- El-Masri, S.; Kellett, P. 2001. Post war reconstruction participatory approach to rebuilding villages of Lebanon: a case study of Al-Burjain, *Habitat International* 25: 535–557. [http://dx.doi.org/10.1016/S0197-3975\(01\)00023-6](http://dx.doi.org/10.1016/S0197-3975(01)00023-6)
- Fearon, J. D.; Humphreys, M.; Weinstein, J. M. 2009. Can development aid contribute to social cohesion after civil war? Evidence from a field experiment in post conflict Liberia, *American Economic Review: Papers and Proceedings* 99(2): 287–291. <http://dx.doi.org/10.1257/aer.99.2.287>
- Garstka, G. J. 2010. Post conflict urban planning: the regularisation process of an informal neighbourhood in Kosovo, *Habitat International* 34: 86–95. <http://dx.doi.org/10.1016/j.habitatint.2009.07.004>
- Goodhand, J. 2010. Stabilising a victor’s peace? Humanitarian action and reconstruction in eastern Sri Lanka, *Disasters* 34: 342–367. <http://dx.doi.org/10.1111/j.1467-7717.2010.01212.x>
- Kelegama, S.; Mel, D. D. 2007. *Country study: Sri Lanka*. Colombo: North-South Institute.
- Leckie, S. 2005. *Housing land and property rights in post conflict societies: proposals for a new United Nations institutional and policy framework*. Geneva: United Nations High Commissioner for Refugees.
- Leest, K. V. L.; Kolarova, D.; Mecreant, L. 2010. *A guidance for integrating peacebuilding into development*. Brussels: Partners for Democratic Change International.
- Malpass, P. 2003. Wartime planning for post war housing in Britain: the Whitehall Debate, 1941–5, *Planning Perspective* 18: 177–196. <http://dx.doi.org/10.1080/0266543032000055757>

- Manoharan, N. 2009. *Where is the 'northern spring' in Sri Lanka* [online]. Available at: http://www.ipcs.org/article_details.php?articleNo=2974 [accessed 11 June 2012]
- Minervini, C. 2002. Housing reconstruction in Kosovo, *Habitat International* 26: 571–590. [http://dx.doi.org/10.1016/S0197-3975\(02\)00026-7](http://dx.doi.org/10.1016/S0197-3975(02)00026-7)
- Mokoena, M.; Marais, L. 2007. The missing link in co-operative governance and housing delivery: lessons from Mangaung local municipality, *Urban Forum* 18(4): 311–327. <http://dx.doi.org/10.1007/s12132-007-9016-3>
- Ndinda, C. 2007. Women's participation in housing delivery: the case of Ezilweleni, South Africa, *Development Southern Africa* 24(5): 665–680. <http://dx.doi.org/10.1080/03768350701650579>
- NEHRU. 2004. *North and East housing reconstruction programme: operationa mannual* [online]. Available at: <http://nehrp.com/> [accessed 01 July 2011]
- Sepic, L.; Biondic, L.; Delic, A. 2005. Housing reconstruction of war damaged towns and villages in Eastern Croatia, in *33rd IAHS World Congress on Housing: Transforming Housing Environments through Design*, 27–30 September 2005, Pretoria, South Africa.
- Smet, S. 2009. A window of opportunity – improving gender relations in post conflict societies: the Sierra Leone experience, *Journal of Gender Studies* 18(2): 147–163. <http://dx.doi.org/10.1080/09589230902812455>
- Stefansson, A. H. 2006. Homes in the making: property restitution, refugee return and senses of belonging in a post-war Bosnian town, *International Migration* 44(3): 115–137. <http://dx.doi.org/10.1111/j.1468-2435.2006.00374.x>
- Wanasundara, L. 2006. *Rural women in Sri Lanka's post-conflict rural economy*. Bangkok: Food and Agricultural Organisation of the United Nations.
- Wegelin, E. A. 2005. Recent housing resettlement and reconstruction in Southeastern Europe, *Global Urban Development Magazine* 1(1) [online]. Available at: <http://www.globalurban.org/Issue1PIMag05/Wegelin%20article.htm> [accessed 12 October 2008]