

# Towards improving the design and planning of post-conflict housing reconstruction projects: *A Conceptual Framework*

## Abstract

**Purpose** – There is a significant dearth of theoretical and practical knowledge with respect to the design and planning stages of post-conflict housing reconstruction projects. This research presents the development of a conceptual framework towards improving the design and planning processes of post-conflict housing reconstruction projects.

**Design/methodology/approach** – A systematic review of the literature on post-conflict housing reconstruction in developing countries, incorporating the themes of collaboration and stakeholder engagement, is presented. A synthesis of this literature is used to inform the development of a conceptual framework that seeks to address the limitations of current housing reconstruction models in post-conflict environments by establishing collaborative approaches at the initial stages of design, as well as the tasks required to achieve efficient results through the aid of relief organisations (NGOs).

**Findings** – While the review essentially identifies the fundamental issues and inadequacies of the current housing reconstruction models, the proposed framework aims to enable the implementation of better and efficient collaborative design and planning strategies and practices in post-conflict housing reconstruction.

**Originality/value** –The conceptual framework aims to promote more effective collaboration through the design of post-conflict housing reconstruction projects by strengthening communication and coordination between the key stakeholders. Furthermore, the research highlights several gaps in the extant literature, signposting new directions for future research in the area of stakeholder engagement during the design and planning post-conflict housing.

**Keywords** – Housing, Reconstruction, Post-conflict reconstruction, Design, Planning, Stakeholders, Project management.

**Paper type** – Research paper

## INTRODUCTION

Conflicts affect the social, economic, and political environments of human geographies. Since World War II, there have been nearly 150 wars, each resulting in thousands of deaths, human displacement and mass destruction (El-Masri and Kellett, 2001). Destruction of housing is the leading consequence of conflict (Panic, 2005). The World Bank (2006) recognizes that physical reconstruction is the most noticeable measure of economic restoration among conflict-affected communities and are dependent on housing reconstruction for social development and sustainable peace (Seneviratne et al., 2011).

Housing reconstruction in post-conflict environments necessitates careful planning and preparation; however, there is often an immediate need to rehouse the displaced population, together with the tendency of donors to set early deadlines for the expenditure of funds. This can often lead to the

development of unsustainable housing schemes (Amoatey and Hayibor, 2017; Afolabi *et al.*, 2018). Rathmell (2005) asserted that in post-conflict societies, project planning and reporting structures were assembled arbitrarily. Post-war Iraq and Afghanistan reconstruction programmes were criticised for the lack of planning, resources, and exit strategies (Coyne, 2007). Besides, implementing agencies tend to craft their own organisational policies, design, programmes, and operating procedures with little regard for the needs and skills of the beneficiaries. This results in alien housing units that are abandoned or altered by end-users (Cain, 2007).

Post-conflict reconstruction of housing projects is intricate, highly uncertain, with numerous interdependencies, and can be characterised by stakeholders making erratic decisions under time-constraints (Von-Meding *et al.*, 2016). The fragmentation of design, lack of local knowledge and engagement, poor resource allocation, budget and time constraints (donor conditionality) and adversarial relationships between stakeholders pose challenges to delivering quality units to end-users, while exacerbates social divide and financial costs (Sospeter *et al.*, 2021). Several projects in post-conflict regions suffer from low-quality design or sub-standard construction (Barrett, 2008). Thus, there is an urgency to plan and manage design processes, meet budgets, accomplish milestones, and communicate design requirements efficiently. Seneviratne *et al.* (2010) advocate prioritising design of housing projects in the early stages of reconstruction by incorporating the fundamentals of collaboration and sustainability. This will prevent the wastage of financial and human resources.

The aim of this research is to develop a conceptual framework to improve the design and planning stage of housing reconstruction projects under post-conflict conditions. Drawing on the evidence from the existing body of knowledge, the key features of the framework include establishing more collaborative approaches at the initial stages and realigning the role for international non-governmental organisations (INGOs). The paper will first critically review the current housing reconstruction models and highlight the limitations and then introduce a more collaborative strategy and set the fundamentals and design and planning stages of the conceptual framework. Finally, it discusses the credibility of INGOs in promoting collaborative programmes for post-conflict housing reconstruction. Current housing reconstruction practices in post-conflict settings have many shortcomings; therefore, the paper suggests that current models should be redesigned to facilitate better planning of projects with INGOS as intermediaries.

## **RESEARCH METHODOLOGY**

This paper provides a systematic review of the literature on post-conflict housing reconstruction. This study adopted a qualitative research approach to analyse current housing reconstruction models, their

management approaches, and limitations. This resulted in the development of a conceptual framework for better practice in the design and planning stage of post-conflict housing reconstruction projects.

The Systematic Literature Review (SLR) followed a five-step approach, as a first step, research questions are developed to clarify the study's objectives. The second step involves determining the location of the sources to investigate the literature. The third step is to identify the literature through electronic search on bibliographic databases and selection of keywords. The databases chosen for the literature search included Google Scholar, Scopus, Emerald, and ScienceDirect. Furthermore, relevant literature was obtained from websites of reputable organizations including UNDP, UN-Habitat, Oxfam, national and international NGOs, and open access journals. The first search engine used was Scopus in which titles, abstracts, and keywords were examined. Scopus is popular among construction researchers in both physical sciences and social sciences as well as review papers. (Yuan and Shen 2011). Harari et al. (2020) suggested that while Google Scholar can find grey literature and specific, known studies, however, should not be used alone for systematic reviews. As such searches were also adopted on ScienceDirect, Emerald and Elsevier. The time span designated for the SLR was from 2000 to 2022. The year 2000 was chosen as the starting point since the discussion on challenges in post-conflict housing reconstruction models can be traced back to that year. This paper's research questions were addressed by a comprehensive set of search keywords that ensured the search wasn't restricted, while remaining well-targeted. The articles were identified by title, abstract and keywords. The keywords adopted were post-conflict reconstruction, stakeholders, housing, reconstruction, design, planning, and project management.

The fourth step was to assess and analyse the identified literature through applying exclusion and inclusion criteria. Articles not related to post-conflict conditions, housing reconstruction and built environment (e.g., articles related to agronomy, public-health, and technology) were excluded. The study focused only on English language papers. This will ensure a thorough and consistent thematic analysis was conducted to determine how the articles addressed the research questions. The inclusion criteria included peer-reviewed academic articles, conference papers and reports from reputable organisations in the area of housing reconstruction projects under post-conflict conditions. The paper will only focus on design and planning factors that emanate from pre-construction decisions, a critical stage for successful project delivery. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) was followed through a review of bibliographies and references to uncover literature useful to the study. The titles, abstract and keywords method identified a total of 400 references. Through the exclusion and inclusion criteria and in-depth review of titles and abstracts, irrelevant articles were eliminated, and 200 were chosen for initial analysis. Based on the PRISMA results, 67 papers meeting the defined SLR conditions were identified as final references for a comprehensive analysis. The findings were divided into several headings and subheadings to address the overall question. The overall main headings consisted of: (1) Challenges in housing reconstruction

in post-conflict countries; (2) Current housing reconstruction models; (3) Collaborative practices for post-conflict housing reconstruction programmes. As seen in Figure 1 the systematic literature review process follows five main steps:

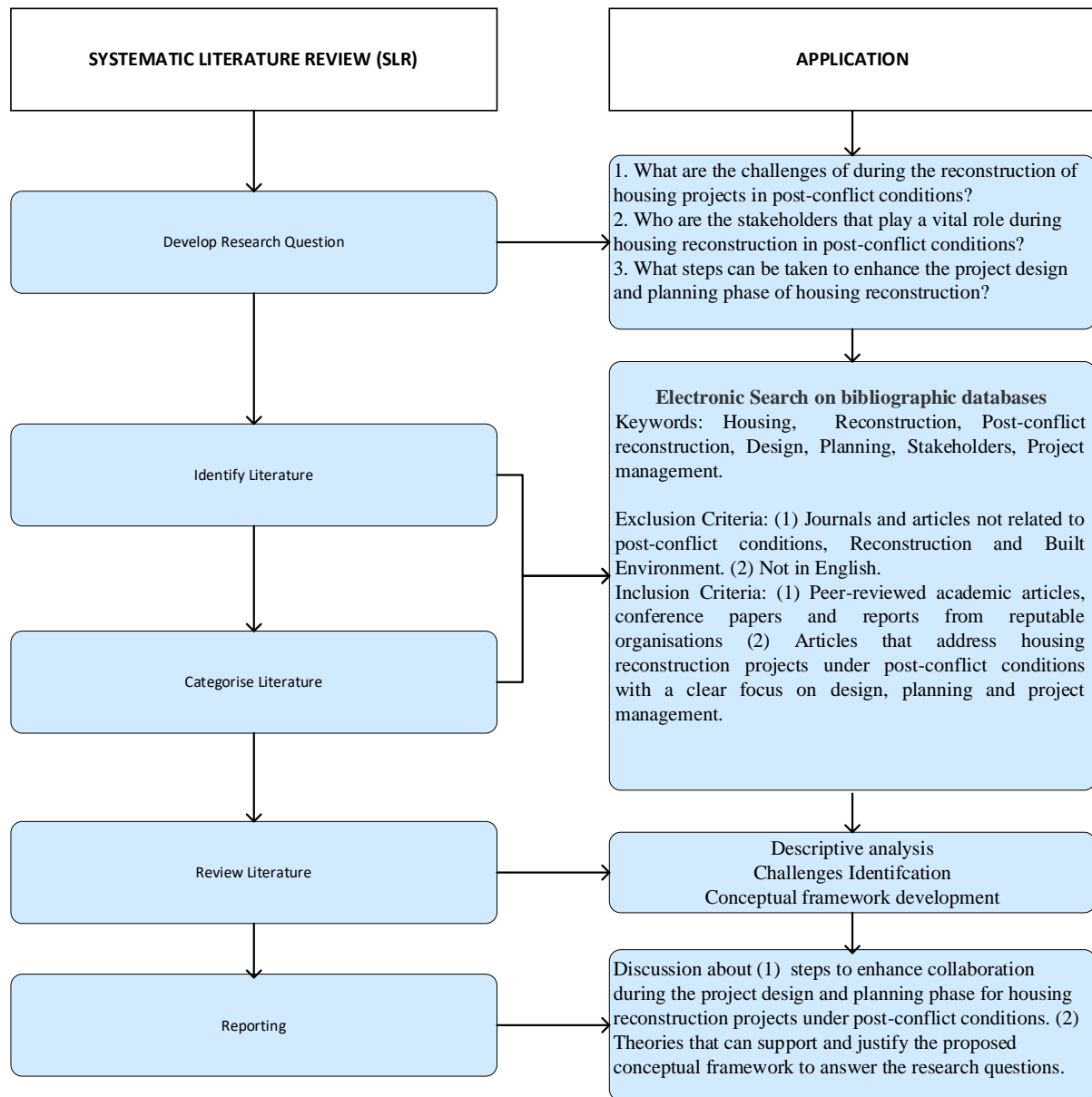


Figure 1. Summary of systematic literature review process

## CURRENT HOUSING RECONSTRUCTION MODELS

There are different approaches in the design and planning of housing reconstruction projects primarily in terms of stakeholder engagement. The internationally acknowledged approaches implemented in previous post-conflict countries are the top-down and bottom-up methods. Generally, in top-down programmes beneficiaries would have limited access to the reconstruction of housing projects. Reconstruction of housing units are entirely managed by agencies from inception to hand-over

(Karunasena and Rameezdeen, 2010). Roosli et al. (2018) found that beneficiaries, during housing reconstruction in Malaysia, acknowledged a desire to participate in housing reconstruction projects but knew little about the opportunities. Many respondents complained that their level of involvement was very low and had trouble accessing information. Therefore, Roosli et al. (2018) suggest that stakeholders need to collaborate and develop methods to facilitate community participation, and that participatory methods should be integrated into the design and planning phase. Mass-housing production, based on prefabricated technology and professional judgement, has been prescribed as a remedy for large-scale destruction to rapidly rehouse the displaced population (Lyons et al., 2010). Consequently, the outcomes of such 'symbolic schemes' produce housing units with little regard to the built environment, local conditions, and end-users' needs, skills, and resources.

Saleh et al., (2021) reported that during the aftermath of conflict, it is often that the governmental authorities within the affected countries are financially incapable as well as are limited in capacity to execute reconstruction programmes. Therefore, are dependent on external stakeholders to plan, develop, and implement projects as such external agencies tend to take the lead in initiating reconstruction programmes. This was portrayed following the 2005 war in Lebanon, the country faced limited capacity within their ministries and municipalities, which allowed international partners to take charge in implementing reconstruction projects (Hamieh and Ginty, 2010). Furthermore, in Gaza, reconstruction projects were hampered by weak government institutions and a lack of local skills (Al-Qeeq and El-Wazir, 2010). In the case of Iraq, the completion of Bab Sinjar Housing Complex by UN-Habitat in West Mosul that offers residence for 2,300 returnees and was funded by the Japanese government (UNITED NATIONS, 2022). In some post-conflict countries, governments, communities, and local organisations lack project management skills to conduct housing reconstruction projects. This includes needs assessment, procurement, logistics and monitoring and evaluation of projects. Often post-conflict countries are in a political sensitive situation, therefore, require contracting parties such as UN-led agencies and NGOs to implement reconstruction programs and coordinate with local authorities and donors (Saleh et al., 2021).

Bottom-up approach emphasizes on the involvement of beneficiaries, if carefully planned and implemented, can offer many advantages as they are better tailored towards the needs and skills of end-users (El-Masri and Kellett, 2001). Through this approach, donors offer financial assistance, also known as 'cash for shelter,' and beneficiaries spend the funds on restoration projects (Tafti, 2012). However, the lack of institutional capacity of governmental entities, the displacement of communities, the lack of professional expertise, and mistrust among parties raises difficulties to implement bottom-up approach in post-conflict environments (Ismail et al., 2014; Davidson et al., 2007; Bilau et al., 2018). The limited capacity and resources in post-conflict settings exacerbate local difficulties in the design, planning, and management of housing projects, as a result, the top-down approach is administered, and the local community are not involved. Beneficiary participation facilitates better problem understanding

and leads to user satisfaction and project success. While the bottom-up approach allows some flexibility and recipient control, it also exacerbates development and political difficulties in situations that lack ready-made technical assistance and organised funding structures, which are often lacking in post-conflict settings (Barakat, 2003). As part of the housing reconstruction of Al Burjain village in post-conflict Lebanon, the people controlled the major decisions related to design, construction, materials, and management. However, the housing projects suffered from many defects such as design weaknesses, financial constraints, inadequate infrastructure, and shortage of materials (El-Masri and Kellett, 2001). As Tafari (2012) argues, this approach is a single component of housing restoration and not an overall plan with multiple discrepancies in its planning and operations. Hence, bottom-up programmes lack the accommodation of whole life-cycle values, stakeholder coherence, resource mobilization, and change management strategies (Salami et al., 2015).

Although the top-down and bottom-up approaches have been criticised for excluding certain interest groups in the design and planning stage, which is the reason for the recurrence of housing reconstruction challenges, we must acknowledge that ineffective engagement of stakeholders is part of the issue. The top-down approach lacks community participation and result in short-sighted implementation policies. While in bottom-up approach, the government, donors, and specialised aid are secondary actors with little control; therefore, the unsecure commitment to timeframes and conditions by donors and governments results in project delays (Ismail et al., 2014). Lyons et al. (2010) stated that both approaches have gaps in construction quality and social compliance and asserted that it is vital to include end-users at the beginning, despite technical experts' uncertainty about local's capacity and it is also vital to provide management structures to handle design and resources. Bouraoui and Lizarralde (2013) assessed the relationship between organizational structures and end-user satisfaction of a housing reconstruction project in Bousalem, Tunisia, and found that decisions should be decentralized at a level that optimises local stakeholders' efficiency, facilitates end-user participation, and ensures an appropriate distribution of responsibilities and risks among key stakeholders. The reason is that certain decisions can affect both the ability of project initiators to deliver adequate solutions and end-users' expectations. Similarly, according to the findings of Dikmen (2007), ignoring participatory approaches in favour of centralised decision-making has numerous disadvantages, including the inability to collect information and concerns from end-users and the inability to incorporate local actors in project design. Ineffective collaboration and communication between donors, implementing agency, beneficiaries and monitoring parties produce poor housing projects (Saleh et al., 2021). Davoudi and Strange (2009) highlight the importance of collaboration and communication in planning, and both attributes create transparency. Stakeholder participation throughout the project process ensures control and higher success rates (ILO, 2010). Yi et al. (2020) suggests that the collaboration of top-down and bottom-up models can increase social knowledge as well as build capacity and integration. The collaboration of top-down and bottom-up approaches can be accomplished by institutional innovations to set new

guidance's and to create transparent and equal policy environment. As such, Yi et al. (2020) suggests the housing reconstruction interventions should be dominated by the bottom-up policy implementation approach, but the elements of top-down approaches should be brought into steps housing reconstruction process. In this context, engaging both beneficiaries and non-beneficiaries is imperative to ensure optimal design practices, increase community mobilisation, resolve problems, maximize resources, and improve relationships between state, professionals, and locals. Therefore, collaborative environments are significant drivers for efficient design and an integrated system that coordinates beneficiaries and non-beneficiaries to find cost- and time-efficient solutions is required.

## **COLLABORATIVE APPROACH THROUGH THE AID OF INGOS**

Housing reconstruction projects in post-conflict conditions have been acknowledged to comprise of several stakeholders that include local authorities, aid agencies, beneficiaries, community representatives and contractors. According Bilau et al. (2018) the diversity of stakeholders causes inadequate distribution of roles and responsibilities, which leads to gaps, overlaps and duplication of efforts. Ineffective cooperation between donors, implementing agency, beneficiaries and monitoring parties yield poor housing reconstruction projects (Fayazi and Lizarralde, 2019). Furthermore, insufficient participation of communities has halted housing reconstruction projects (Davidson et al., 2007 and Bilau et al., 2018). In post-conflict Kosovo, Earnest (2015) argued that agencies worked without the participation of local communities. As a result, houses were not sized, designed, nor built in a manner that suited the local culture. Furthermore, Lack of communication with local governments also produced poor housing reconstruction projects. Hence, in Gaza, it was reported that several agencies were conducting reconstruction projects without coordinating with the local authorities (Al-Qeeq and El-Wazir, 2010).

The lack of coordination among stakeholders in reconstruction projects affects transfer of data and increases duplication of effort (Bilau et al., 2015). Insufficient coordination systems resulted in poor monitoring and evaluation of projects. This can also be attributed to the scarce personnel in post-conflict conditions (Boen, 2014). Therefore, institutional capacity to perform tasks is an indispensable requirement that requires both administrative and management resources (Barakat, 2003). Many local NGOs in post-conflict settings are supportive structures for community mobilisation, but lack transparency, administrative structures, and are often biased towards selective development. Therefore, local NGOs lack trust from donors and governmental entities to manage housing reconstruction projects and local NGOs selective development and partiality result in social resentment among communities. Furthermore, external donors and UN-led agencies are often the dominant stakeholders in PCR of housing projects, however, implement short-sighted decisions with little regard to the community (El-Masri and Kellet, 2001). While research confirms the benefits of community involvement in bottom-up approaches, in post-conflict environments, communities lack the management expertise to carry out housing programmes (Jayasuriya and McCawley, 2010). Finally, most governmental entities and local

authorities in post-conflict environments may have collapsed or confounded by the complexities of politics and corruption. Therefore, considering the limitations of local NGOs, communities, local authorities, and donors in managing post-conflict housing reconstruction programmes, and their adversarial relationship, the collaborative approach requires an impartial third-party to guide housing reconstruction projects. A consistent stakeholder coordination system can be established to ensure the exchange of necessary information and to promote collaborative environments. This can be achieved by appointing an intermediary to mitigate the adversarial relationship between stakeholders, reaching mutual agreements and implementing continuous integration, which the design and planning of housing reconstruction demands.

There is growing literature on the role of INGOs as intermediaries between beneficiaries, governments, and international relief/development organisations in housing reconstruction projects (Soelaksono, 2009; Von-Meding et al., 2009; Golini and Landoni, 2014; Amaratunga et al., 2015; Baruah, 2015). Amaratunga et al. (2015) portray intermediaries as secondary stakeholders that are indirectly affected parties in housing reconstruction projects this includes consultants, contractors, NGOs, and CBOs. Research published by Baruah (2015) found that NGOs can play an important role in facilitating the design and construction of high-quality, culturally-appropriate housing projects, stimulating and expanding livelihoods, and reducing physical and social vulnerability. However, with clearly defined roles, responsibilities, and accountability measures. INGOs' impartiality strengthens their position as facilitators in the design and planning of housing reconstruction projects given their ability to reach out to states, experts, donors, and beneficiaries, develop relationships, and operate with ethnic, religious, and political prejudices (OCHA, 2000). Their participatory approach can address the complex challenges associated with housing reconstruction.

Makdisi and Soto (2020) reported that building a nations capacity goes together with donor funding. Donors are a major external force affecting reconstruction agendas. While external aid can have positive effects on enabling growth in post-conflict countries, however financial streams necessitate proper management to minimize unforeseen consequences. Elbadawi et al. (2008) suggest that aid might be more effectively used if delayed until capacity was restored. However, Stains (2004) argues external assistance is more productive during the initial post-conflict period when the government has committed to follow macroeconomic strategies, especially if support is provided for stabilization of the budget. Barakat (2003) therefore suggests INGOs as possible conduits for facilitating finance and distribution of funds. Additionally, local communities' benefit from INGOs' direct approach to reaching out to beneficiaries. In this way, the interests of the beneficiaries are given priority, and the progress of finances and programmes are directly monitored, thereby avoiding misappropriation and corruption within the local government. Ismail et al. (2017) suggest that INGOs are key players in housing reconstruction projects and can increase community participation.



According to Bruen et al. (2013), INGOs involvement in early stages of projects is crucial, as well as their need to comprehensively understand the context and set project parameters at the outset. However, in Bruen et al. (2013)'s study, INGOs reported that they were frequently invited to advise or takeover projects after the initial stages had been completed by another party. In their view, these decisions have a detrimental effect on the project's outcome and long-term sustainability, and that the beneficiaries are going to suffer in the long-term. However, it is common for sovereign states to restrict the activities of international agencies, independent of political affiliations, to manage the perceived threat they pose and when the state controls the restoration activities, INGOs face political and power barriers (Goodhand, 2006). At a social context, there is concern that INGOs act as 'agents for donors' by fulfilling donors' obligations rather following their own charters. In environments where 'NGO culture' has not taken root, beneficiaries may disregard INGO interventions, and their work is misinterpreted as private businesses i.e., a method of making profit and facilitating foreign and governmental interferences (Barakat, 2003). The framework proposes a better collaborative strategy, which can only be achieved through organisational rearrangements of management structure to provide a coordination system (CS) among stakeholders and, since INGOs are already a part of housing reconstruction programmes, additional responsibilities can be given to achieve a collaborative environment due to their preparedness to administer projects.

## **DISCUSSION**

Gould and Joyce (2011) emphasize that efficient design is the result of multidisciplinary collaboration. Design collaboration will remove the traditional barriers between design and construction and bring together participants with different knowledge and skills. The objective of the conceptual framework is to utilize every participant's knowledge throughout the design phase to make resources relevant to the context. This can only be achieved through appropriate collaborative design activities that improve physical conditions, community participation, and institutional reforms. Construction of housing projects requires solutions that improve the structure's design (functionality and configuration) and production (materials) while considering sustainability, cost, and societal expectations (Hayles, 2010). According to Bahmani and Wei (2022), several prerequisites need to be met for reconstruction projects to be successful: effective institutional management, well-defined coordination, competent management, effective communication, accessible information management, defined goals, and adequate resource allocation. The first step of Anilkumar and Bnerji's (2021) study of critical success factors for designing housing reconstruction is to identify an appropriate institutional mechanism to handle governance issues that arise in post-conflict settings. A second factor is efficient stakeholder management, as efficacy requires the participation of several stakeholders, a clear understanding of their roles and efficient coordination (Charles et al., 2022). Third, an appropriate reconstruction strategy that encompasses sustainable recovery objectives, such as social impartiality and risk mitigation. This can be attained when the strategies meet local needs, and the

assessment of local capacity is well thought-out by agencies. A reconstruction strategy should include transfer of knowledge, monitoring and evaluating stakeholders' capabilities, and mechanisms for coordinating their participation (Jha and Duyne, 2010). As shown in Figure 2, the INGOs' hierarchical position in housing reconstruction programmes should be reviewed. Combining the top-down and bottom-up approaches and centralizing the functions of INGOs reduces the rigidity and disorder and promotes better collaboration, coordination, and communication. Moreover, increase practices knowledge transfer through solid communication strategies. INGOs can act as vital conduits for knowledge transfer between people, governments, agencies, and donors, which is critical to the achievement of project objectives (Shaw, 2003).

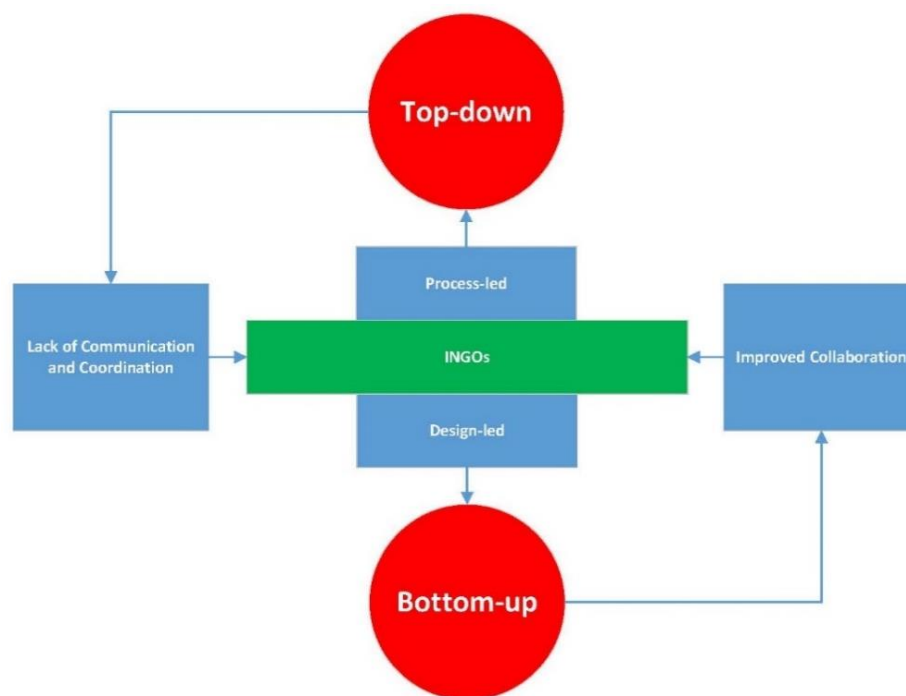


Figure 2: Centralising the INGO's role to achieve collaboration in PCR.

## CONCEPTUAL FRAMEWORK

Considering the evidence from previous PCR housing models, to address the limitations and challenges, a new conceptual framework for the design and planning stage of housing reconstruction projects under post-conflict conditions is proposed. The framework proposes an increase in collaboration during the design and planning phase and assigns international non-governmental organisations (INGOs) to promote more efficient and effective PCR results that are sustainable. The conceptual framework as seen in Figure 3, is based on the analysis of the literature is set on three principles:

- Establish an organisational management facilitator (OMF).
- Establish an on-ground housing reconstruction design committee (HRDC).
- Establish a coordination system for stakeholders and resources (CS).

## **Stages of the Conceptual Framework**

As opposed to regular housing construction projects, post-conflict reconstruction projects face time and budget limitations as well as complexity and uncertainty (Ismail et al., 2014). Housing reconstruction projects require a greater emphasis on project life-cycle management than conventional construction projects (Xiao et al. 2019). Numerous studies have established the adaptability of project management knowledge in PCR projects. Anilkumar and Banerji (2021) indicated that implementing project management approaches can produce better project outcomes for complex reconstruction projects. Therefore, project management activities for post-conflict conditions are largely modified from traditional activities. Best practices and the knowledge made available during traditional construction can be applied during post-conflict situations as well (Bilau et al., 2015). However, in post-conflict conditions, project design must be set by an accurate assessment of the post-conflict environment, driven by local conditions, sound preparation, execution, monitoring, and efficient use of donor funds (Sospeter *et al.*, 2021). The assessment will ensure that resources are used for their intended purpose and achieve long-term goals. Stakeholders should be defined and understand the scope of the project, ensure that the project objectives have measurable benchmarks to evaluate project milestones, and beneficiaries should participate in the selection and project design (Mefalopoulos, 2005). The success factors of reconstruction project include a clear mission, appropriate communication, and project tools, understanding of goals, project plans and working procedures identified and accepted by all key parties. Therefore, the stages of the conceptual framework comprise of project identification and project design phase.

### ***Project Identification Phase***

The aim of the project identification phase is to define the project scope and identify and construct the project's blueprints. This step requires understanding the setting of the project and identifying the concerns of the beneficiaries. It's critical to gain a thorough picture of the situation, which consists of stakeholders' different viewpoints, even if their interests aren't always evident in the framework. This can be achieved through establishing a coordination system at the initial stages and enabling dialogue between stakeholders can be quite helpful in resolving this problem (Golini and Landoni, 2014). The project identification phase also includes conducting a feasibility study assessing local needs and capacity as well as securing project support.

### ***Project Design Phase***

Peacebuilding indicates that a programme promotes constructive peace in three areas: the tasks performed, the implementation process, and the impact or results (Llamazares and Levy, 2003). The design process is divided into several stages. It is not just a collection of start and finish dates, but an organised method for planning and managing the evolution of the project. The project design phase is composed of project objective, project communication, and project planning. Its goal is to structure and direct design activities while keeping key objectives and issues in mind.

### ***Project Objective***

A clearly defined project scope is established through setting goals and objectives. Previous initiatives lacked community participation during project selection, and reaching consensus is essential to obtaining honest insights from all stakeholders. This will ensure that project components are understood and agreed upon (Earnest and Dickie, 2012). In case of delay, the OMF and HRDC should plan alternative methods and communicate them to project stakeholders to minimise changes. The design process must be reciprocal and highly integrated, with decisions constantly monitored and evaluated throughout the project lifecycle.

### ***Project Communication***

Inefficient bureaucratic systems impeded communication and implementation of activities in housing reconstruction programmes (Minervini, 2002). Hence, as a part of the project design, formal communication standards must be established to ensure information exchange and the OMF must maintain clear and regular contact with the HRDC and local community, engage in collaboration, and keep stakeholders informed about design decisions and deviations. This can be achieved, since a key fundamental of the conceptual framework is set on developing an integrated coordination system that is governed by the OMF. Thus, the coordination system is designed to promote cooperation channels between parties by utilizing communication tools to mitigate communication gaps.

### ***Project Planning***

The project concept is formulated as a comprehensive operating plan, which can be evaluated based on a series of criteria i.e., feasibility, environment, gender, sustainability, etc (Earnest and Dickie, 2012). The implementation of reconstruction programmes requires maintaining the standards of delivery, cost, quality, and satisfaction, while also dealing with challenges such as limited resources, cultural differences, local regulations, political risks, and human resources. At this stage, the HRDC, in collaboration with the OMF, determines the project cost, timetable, resources, quality, procurement, and risks to create a design strategy for effective implementation.

### **Fundamentals of the Conceptual Framework**

Collaboration is the key component of INGO participation in post-conflict housing reconstruction, which seeks to develop efficient design methods while deploying appropriate organizational and institutional capabilities. According to Hailey (2001), the effectiveness of INGOs depends on their understanding and response to the needs of local communities, as well as the balance of social and institutional developments. In addition to the beneficiaries' interests, INGOs must align with donor policies and objectives to ensure the continuous flow of funding. This can be achieved since the core purpose of the OMF is to serve as intermediaries between donors and beneficiaries, encourage voluntary participation, and collaborate with stakeholders to reach multilateral agreements. In fact, before OMF begins project design, it is critical that all key stakeholders are correctly identified to establish an HRDC

as well as understand and accept objectives and milestones. A shift in management and organisational restructuring could enable integration. Therefore, this framework is urgently needed, and as INGOs continue to participate in post-conflict housing reconstruction around the world, the results will be valuable. The OMF is determined by its ability to demonstrate transparency, accountability, managerial competencies, as well as monitoring and evaluation capabilities, and INGOs are equipped with these characteristics.

### ***Transparency and Accountability***

The collaboration between INGOs and local NGOs is common for community mobilization, but local NGOs suffer from a lack of administration, financial transparency, and resources to manage projects (Simmons, 1998). In addition to their complicated relationship with the state, INGOs have encountered many challenges in reconciling their non-profit interests with governmental interests, including addressing issues such as accountability, space, and budget allocation. However, INGOs have a high degree of responsibility as mediators between donors and the people. They hold upward accountability to donors, lateral accountability to the state and downward accountability to beneficiaries (Kutty, 2017).

### ***Managerial Competency***

Competence is a set of knowledge and skills required to effectively complete an activity (Mills et al., 2002). To be a source of long-term competitive advantage, competencies must be desirable, scarce, and difficult to replicate. Intangible assets, such as learning and communication patterns, technical expertise, and organisational practises, are critical to gaining a competitive advantage in the construction industry. INGOs hold the intangible assets to lead the reconstruction industry to better practises. The involvement of INGOs results in the satisfaction of beneficiaries, governments, and donors, as well as positive coverage and stakeholder confidence for future financing (Von-Meding et al., 2009).

### ***Monitoring and Evaluation***

For the efficient use of donor funds, post-conflict projects need continuous monitoring and evaluation to ensure the rational use of resources and achieve project goals (Earnest, 2015). A lack of autonomy among supervisory/monitoring parties, political interference, corruption, and a lack of communication between donors, implementing agencies, beneficiaries, and monitoring parties all contributed to ineffective housing reconstruction. Moreover, the delay in project monitoring and evaluation is related to the lack of personnel to complete the task (Bilau et al., 2018). As INGOs engage directly with beneficiaries, agencies, and other parties, they can closely monitor and evaluate programs, preventing risks and fraudulent activities.

### **Tasks to foster collaborative design environments**

A factor driving INGOs' participation in the planning-design-construction phase is effective communication and collaboration. Agencies that mobilise their resources and expertise to respond to

disasters whether natural or man-made are regarded as effective state partners for collaboration and completion of reconstruction initiatives (Tauber, 2013). The conceptual framework suggests tasks the OMF should perform to achieve collaboration during the design process, which includes knowledge transfer, resource allocation, capacity building, and problem resolution.

### ***Local Knowledge Transfer***

Information flow has the potential to reduce distrust and enable community participation. Incorporating local knowledge can improve the quality of decisions and promote institutional transparency (Bakker, 2003). The analysis of local knowledge is one of the main collaborative opportunities for housing reconstruction (Hickey and Mohan, 2004). The dissemination of information by local stakeholders can improve efficiency and provide key information that would otherwise not be available, which will lead to the rapid resolution of related problems (Fung and Wright, 2001). One of the important stakeholders is the local community, and their participation determines the tacit knowledge of the project environment, that is, political, social, and cultural factors (Golini and Landoni, 2014). The understanding of local capacity to acquire resources to meet reconstruction needs positively impact the design and planning in post-conflict reconstruction projects (Saleh et al., 2021). INGOs have sufficient capabilities to attend to communities and transfer knowledge. This can be implemented with the help of field experts (Bruen et al., 2013).

### ***Resource Allocation***

According to Rondinelli and Montgomery (2005), achieving positive results in post-conflict conditions requires informed decision-making, effective governance, and better allocation of scarce resources. Management and selection of appropriate materials and technology are key features in the design of housing reconstruction programs. It is necessary to allocate and prioritise project resources, ensure the efficient allocation of resources, and control project risks, deviations, and misappropriation. INGOs possess the management skills to ensure that efficient use of equipment and materials is essential to achieving objectives. They also devote both time and resources to ensure that strategic decision-making occurs at every stage (Bruen et al., 2013). This can also be achieved through INGOs ability to directly reach the community, understand the local environment, and utilize the resources accordingly.

### ***Capacity Building***

Post-conflict reconstruction of housing projects is hampered by a lack of local institutional capacity, poor stakeholder coordination, and a lack of trust among implementing parties (Bilau et al., 2018). The purpose of capacity building is to increase the performance of individuals, groups, and organizations in each area (Fanany et al., 2010). As part of developing local capacity, INGOs encourage ownership and legitimacy between parties in PCR projects and ensure that local stakeholders have an active role (Kutty, 2017). In post-conflict environments, skilled personnel are in short supply, and organisations struggle to meet resource demands to design and implement projects. Improving local institutions will not only benefit the community, but also maximise long-term advantages of international relief. Consequently,

strengthening local capacity and effectively utilising donor resources can mitigate risks and expectations (Collier, 2003).

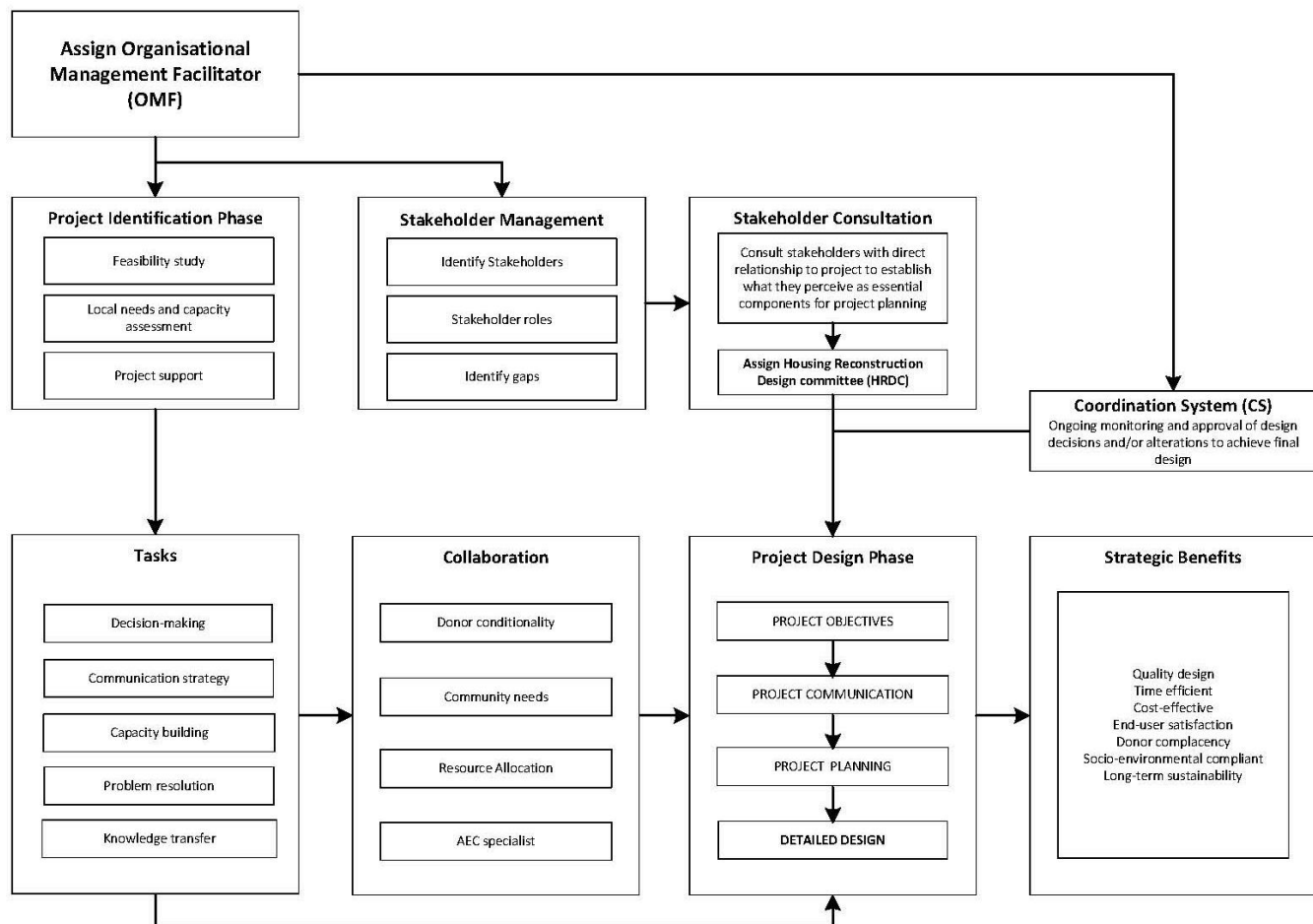


Figure 3: Conceptual framework for collaborative design and planning in housing reconstruction under post-conflict conditions.

## PRACTICAL IMPLICATIONS

In order to increase stakeholder satisfaction and ensure project delivery, improvements in collaboration are necessary during the design and planning of housing reconstruction projects. The conceptual framework proposes the introduction of an intermediary role to mitigate and exchange information between stakeholders as well as increase coordination. In addition, INGOS are identified as having the capacity and capability to undertake this role and at the same time improve collaboration in project design and participate as a facilitator in the process. These findings will assist field experts, practitioners, policymakers, NGOs and implementing agencies as they aspire to improve the effectiveness of such projects. This research lays the conceptual basis for better design and planning of housing reconstruction projects in post-conflict conditions and will serve as a resource for researchers and practitioners for future studies on the subject.

## CONCLUSION

Reconstruction programmes for housing in post-conflict situations have been criticized for lacking appropriate planning and design. The reasons for this are poor stakeholder engagement in the interest of speed, profit, and time. This requires a rethinking of current models of process management to increase stakeholder engagement during project design and planning. This research has presented the findings of a systematic literature review which is then used to inform the development of a new conceptual framework of the design and planning of housing reconstruction projects in post-conflict countries. This framework identifies the key factors affecting stakeholder engagement and collaboration and proposes the introduction of a new intermediary role to promote more effective coordination. The study proposes a combination of top-down and bottom-up models to achieve improvements in collaboration. The introduction of a new intermediary role is seen as a key change towards bridging the existing communication gaps between stakeholders. This intermediary role will encourage communication and coordination between stakeholders and hence help to improve overall project design. In addition, the introduction of INGOs will help to promote the establishment of collaborative design environments, support capacity building and improve the allocation of resources in housing reconstruction projects. The conceptual framework and arguments presented indicate that as INGOs continue to participate in housing reconstruction projects, organisational restructuring will promote collaboration and help overcome the many weaknesses of the existing top-down and bottom-up approaches.

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