

# FROM RECOVERY TO RESILIENCE: PARTICIPATORY APPROACHES TO SUSTAINABLE AND POST-DISASTER HOUSING

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ОД ОБНОВЕ ДО ОТПОРНОСТИ:

ПАРТИЦИПАТИВНИ ПРИСТУПИ ОДРЖИВОМ СТАНОВАЊУ И  
СТАМБЕНОЈ ИЗГРАДЊИ НАКОН КАТАСТРОФА

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## Abstract

Housing is deeply intertwined with socio-cultural identity, psychological stability, livelihood systems, and community continuity. In post-disaster contexts, where damaged houses signify both material loss and symbolic rupture, reconstruction becomes a socio-political process that extends beyond the delivery of physical structures. This paper presents an integrative review of global post-disaster housing and resettlement experiences, examining how reconstruction approaches, policy provisions, and community participation shape long-term recovery outcomes. Among the five approaches, evidence indicates that Owner-Driven Reconstruction (ODR) is often the most responsive model because it supports autonomy, cultural alignment, and incremental adaptation, although it remains limited for vulnerable groups with restricted technical or financial capacity. The paper also analyzes the influence of policy coherence, legal frameworks, governance mechanisms, and spatial planning, including site selection, land-use considerations, building codes, and inter-agency coordination, on reconstruction equity and sustainability. The review of community participation shows that meaningful, iterative, and inclusive engagement enhances cultural fit, reduces abandonment, improves psychosocial recovery, and strengthens long-term resilience, whereas top-down models often lead to dissatisfaction and misalignment with local practices. The synthesis argues that effective post-disaster housing recovery requires integrated, participatory, and context-sensitive processes that respect cultural practices, address intersectional vulnerabilities, and support households in rebuilding their lives, livelihoods, and sense of place.

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## Сажетак

Становање је дубоко испреплетено са социо-културним идентитетом, психолошком стабилношћу, системима за живот и континуитетом заједнице. У контекстима након природних непогода и катастрофа, где оштећене куће означавају и материјални губитак и симболични прекид, реконструкција постаје социополитички процес који превазилази само обезбеђивање објеката. Овај рад представља интегративни преглед глобалних искустава у посткатастрофичној стамбеној изградњи и поновном насељавању, испитујући како приступи реконструкцији, политички прописи и учешће заједнице обликују дугорочне исходе обнове. Међу пет испитаних приступа, доказано је да је реконструкција вођена корисницима често најпромишљенији модел јер подржава аутономију, културну усаглашеност и растућу адаптацију, мада остаје ограничен за рањиве групе са ограниченим техничким или финансијским капацитетом. Рад такође анализира утицај политичке кохерентности, правних оквира, механизма управљања и просторног планирања – укључујући избор локације, коришћење земљишта, грађевинске прописе и координацију између агенција – на праведност и одрживост реконструкције. Преглед учешћа заједнице показује да значајно итеративно и инклузивно ангажовање побољшава културну адекватност, смањује напуштање објеката, унапређује психосоцијалну обнову и ојачава дугорочну отпорност, док модел *одозго на доле* често доводи до незадовољства и неслагања с локалним праксама. Рад указује на то да ефикасна обнова становања захтева интегрисане, партиципативне и контекстуално осетљиве процесе који поштују културне праксе и рањивости и подржавају домаћинства у обнављању живота, прихода и осећаја припадности месту.

**Кључне речи:** стамбена реконструкција, поновно насељавање, реконструкција вођена корисником, учешће заједнице, политика и управљање становањем.

## Introduction

Housing is not merely a physical shelter but a fundamental determinant of social identity, economic security, psychological stability, and cultural continuity (Tafti & Tomlinson, 2015; Wijegunaratna et al., 2018). It is often the most valuable asset a person or family owns, and one of the most affected sectors during disasters (Ophiyandri et al., 2013). Shelter may offer immediate protection, but housing represents normalized living, community cohesion, and longterm development

(Rapoport, 1969; Tucker et al., 2014). Moreover, housing is not a static entity but an evolving process, shaped continuously by inhabitants through adaptation and expansion to meet changing needs (Lawrence & Low, 1990; Sridarran, 2018).

National and international legal frameworks have increasingly recognized the right to housing as a cornerstone of human dignity and social inclusion. Nepal's Constitution (2015) and the Right to Housing Act (2018) affirm this right, in line with Article 25 of the 1948 Universal Declaration of Human Rights and Article 11.1 of the 1966 International Covenant on Economic, Social and Cultural Rights (UN, 2023). The right to adequate housing includes security of tenure, habitability, affordability, accessibility, and cultural adequacy. Sustainable Development Goal (SDG) 11.1 commits to ensuring access to safe, adequate, and affordable housing for all by 2030 (UNDP, 2023).

Complementing these legal instruments, the Sphere Association (2018) defines shelter as encompassing both living space and essential household items that support daily life. It emphasizes that adequate shelter must enable privacy, safety, and health, support livelihoods, and include appropriate space for sleeping, food preparation, and social and cultural activities. These international standards underscore that housing is not only a physical construct but a space of everyday practices and social reproduction. Housing must thus be aligned with the social and cultural practices it supports (Rapoport, 1969).

In the aftermath of disasters, housing reconstruction becomes an urgent priority due to its social and symbolic significance. As a major physical asset, housing in rural developing contexts is not just shelter but deeply entwined with livelihood systems and cultural patterns (Chen et al., 2020; Peng et al., 2013). Post-disaster, the destruction of homes disrupts identity, cultural practices, social relations, and psychological well-being (Anilkumar & Banerji, 2021; Kurum Varolgunes, 2021). The form of a house reflects the lifestyle it supports (Rapoport, 1969), making recovery a deeply personal and community-wide process. However, providing post-disaster housing is complex, shaped by funding modalities, political agendas, donor imperatives, and the socio-cultural fabric of affected communities (Tucker et al., 2014)). In rural areas, challenges include dispersed settlement patterns, privacy concerns, and limited infrastructure. Housing reconstruction often deviates from original designs, relying on unfamiliar materials or construction norms, leading to dissatisfaction (Jigyasu & Upadhyay, 2016). A critical understanding of these dynamics is essential for sustainable outcomes (Lyons, 2009; Peng, 2013).

Disasters such as the 2015 Gorkha earthquake in Nepal, the 2001 Gujarat earthquake in India, and the 2004 Indian Ocean tsunami have exposed systemic failures in reconstruction, including governance deficits, design mismatches, and the marginalization of local needs (Kurum Varolgunes, 2021; Lyons, 2009; Wijegunaratna et al., 2018). While housing typically receives the largest share of post-disaster funding, it often produces

the most socially fraught outcomes. In rural contexts, where built structures are deeply entwined with kinship, subsistence, and ritual, poorly aligned reconstruction efforts can result in long-term dislocation, dissatisfaction, and cultural erosion. This reinforces the paper's core argument: that sustainable housing recovery requires participatory, culturally embedded, and policy-coherent approaches.

Effective reconstruction policies must also account for the psychological, social, and economic disruptions caused by displacement. Resettlement is not merely logistical but involves adaptation to new terrains, loss of natural and cultural assets, and transformation of daily practices (Gaillard, 2015; Manatunge & Abeyasinghe, 2017). Resettlers risk losing physical plots, natural capital (land and forests), and human assets (skills and networks) (Chambers & Conway, 1991). Without careful planning, these losses deepen vulnerability rather than alleviate it. Unlike spontaneous conflict migrations or voluntary relocations, post-disaster resettlement is highly orchestrated, involving large-scale policy planning and multi-level governance (Rogers & Wilmsen, 2020). The main challenges lie in managing uncertainty, time pressures, and building trust. Mechanisms range from interest-free loans and participatory housing construction to the provision of pre-designed units (Danquah et al., 2014; Iuchi, 2010). Yet their success varies depending on implementation coherence, legal frameworks, and community involvement.

This paper examines the intertwined processes of housing reconstruction and resettlement in post-disaster contexts. It argues that housing must be understood not as a static product but as a participatory and adaptive process embedded within cultural, spatial, and governance realities.

Drawing on global experiences and an integrative literature review, the paper outlines five dominant reconstruction approaches, evaluates their merits and limitations, and highlights OwnerDriven Reconstruction (ODR) as a responsive yet imperfect model. It further interrogates the institutional, policy, and participatory dimensions critical for successful outcomes, with particular attention to the vulnerabilities experienced by disaster-affected households. The framework presented in Figure 1 synthesizes these themes by illustrating the key dimensions influencing post-disaster housing recovery: the multidimensional nature of housing, reconstruction approaches, policy and governance factors, and community participation, which collectively shape the sustainability and inclusiveness of recovery outcomes.

### Resettlement approach

Post-disaster housing reconstruction approaches are neither uniform nor neutral. They reflect institutional priorities, community capacities, and cultural expectations. Based on comparative global experiences, five widely recognized models shape post-disaster housing outcomes: the Cash Approach (CA), which provides unconditional financial transfers; OwnerDriven Reconstruction (ODR), which links financial assistance with technical and regulatory guidance; Community-Driven Reconstruction (CDR), where community organizations lead planning and implementation; Agency-Driven Reconstruction In-Situ (ADRIS), involving contractor-built houses on original plots; and Agency-Driven Relocation and Reconstruction (ADRRS), where agencies construct standardized houses in new sites. These approaches span both

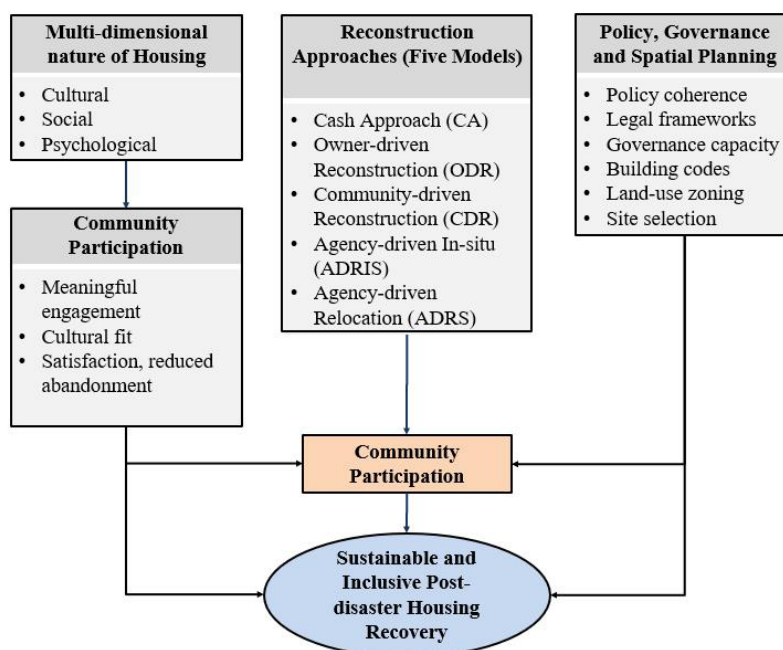


Fig. 1. Framework for Sustainable and Inclusive Post-Disaster Housing Recovery

in-situ reconstruction and off-site resettlement depending on hazard levels, policy decisions, and land availability. Table 1 summarizes the defining characteristics, strengths, and limitations of each model as documented across contexts including India, Sri Lanka, Nepal, and Pakistan (Barenstein, 2012; Danquah et al., 2014; Jha et al., 2010). Table 1 summarizes their core characteristics, strengths, and limitations.

ODR is widely regarded as one of the most effective reconstruction models, especially for rural and culturally rooted communities. The model gained prominence after the 1993 Latur Earthquake and became institutionalized during the 2001 Gujarat Earthquake (Jha et al., 2010; Tafti & Tomlinson, 2015), and later in Nepal's 2015 Gorkha earthquake response. It empowers homeowners to rebuild using local materials and salvaged resources, blending formal regulatory requirements with vernacular techniques (Barenstein & Iyengar, 2010; Lyons, 2009). Empirical evidence from Gujarat indicates strong user preference and satisfaction: 73% opted for ODR and reported 93.3% satisfaction (Danquah et al., 2014). In principle, ODR enables personalization, top-up investments, and incremental construction, encouraging psychological investment and community solidarity. Conditional cash transfers paired with mandatory technical oversight promote seismic safety and structural compliance (Barenstein, 2012; Danquah et al., 2014; Jha et al., 2010). However, ODR assumes a baseline capacity to manage labor, finances, and bureaucratic procedures. This disadvantages households with limited literacy, mobility impairments, or socio-economic marginalization (Jha et al., 2010; Tafti &

Tomlinson, 2015). Installment-based disbursements, intended to ensure compliance, can create administrative stress, delay construction, and undermine autonomy (Ophiyandri et al., 2013). These constraints highlight that the narrative of empowerment may obscure procedural rigidity for vulnerable groups.

CDR entrusts reconstruction responsibilities to community-based organizations, enabling participatory planning, coordinated construction, and mutual support. It has shown strong outcomes in contexts with high social cohesion, as demonstrated in Sri Lanka and Indonesia (Lyons, 2009). It allows communities to tailor settlement layouts, designs, and material choices to local cultural and livelihood practices, thereby fostering greater acceptance and cultural fit. However, CDR requires strong local institutions, time for consensus-building, and extensive facilitation, conditions that may not be available in emergency-driven reconstruction environments (Vahanvati & Mulligan, 2017). Without inclusive decision-making mechanisms, internal community hierarchies may marginalize vulnerable subgroups.

The CA model offers full financial flexibility, making it appropriate for urban areas with established markets and skilled labor availability. However, the absence of technical oversight increases risks of poor construction quality, unsafe structures, and misuse of funds (Peng, 2015). Where household capacity or awareness is limited, CA may worsen disparities between better-resourced and marginalized groups. ADRIS involves government agencies or NGOs rebuilding homes on original plots through contractors. While efficient

Approach	Key Feature	Community Role	Context Suitability	Risks / Limitations
CA – Cash Approach	Unconditional cash transfers without technical oversight	Minimal	Urban settings with access to labor/markets; fast-track reconstruction	Poor quality control; misuse of funds; technical non-compliance (Peng, 2015)
ODR – Owner-Driven Reconstruction	Grants linked to compliance with building standards; technical guidance	High	Rural/dispersed settlements; culturally rooted communities	Excludes households lacking capacity, literacy, or labor; administrative burden (Tafti & Tomlinson, 2015)
CDR – Community-Driven	Community organizations plan and implement	Medium–High	Strong social cohesion; organized community groups	Time-consuming; requires strong facilitation and institutional capacity
ADRIS – Agency-Driven Reconstruction In-Situ	Contractor-built houses at the existing location	Low	Low-risk zones, where rapid delivery is prioritized	Cultural misfit; limited personalization or incrementality (Carrasco et al., 2015)
ADRRS – Agency-Driven Relocation & Reconstruction	Agency-built houses in new sites	Low	High-risk original sites; large-scale displacement events	Displacement trauma; livelihood disruption; abandonment (Peng et al., 2013)

Table 1: Comparative Characteristics of Dominant Reconstruction Approaches

in delivering standardized, compliant structures, ADRIS often overlooks household-specific needs, cultural preferences, or spatial organization. Post-occupancy modifications undertaken to adapt homes to daily practices are common and can impose financial burdens on affected households (Carrasco et al., 2015). ADRRS is adopted when the original settlement is deemed unsafe for habitation. Although relocation can reduce physical exposure to hazards, it often disrupts socio-spatial relationships, livelihoods, and cultural identities. Evidence from multiple contexts shows that agency-built relocation settlements frequently fail to reflect original community structures or preferences, resulting in dissatisfaction, dislocation, and in some cases, abandonment or return to unsafe areas (Carrasco et al., 2015; Peng et al., 2013).

Across global cases, ODR and CDR approaches consistently achieve higher satisfaction, cultural fit, and long-term adaptability, as they allow households and communities to exercise agency, retain vernacular construction logics, and rebuild at a pace aligned with livelihood realities. However, their success depends on enabling policy frameworks, accessible technical support, and inclusive decision-making processes to ensure that vulnerable groups are not excluded. In contrast, agency-driven models, while faster and more standardized, are prone to cultural mismatches and limited personalization and may neglect the psychosocial and socioeconomic dimensions of recovery. These shortcomings are particularly pronounced in relocation contexts, where site selection, livelihood access, and socio-cultural coherence are critical determinants of sustainability (Carrasco et al., 2015; Peng et al., 2013).

In this sense, no single approach is universally applicable. The comparative evidence suggests that reconstruction effectiveness is shaped by the interplay of institutional capacity, community participation, cultural appropriateness, and attention to vulnerabilities, factors that determine whether post-disaster housing becomes merely a technical deliverable or a foundation for long-term resilience and well-being.

## Policy provisions for a successful outcome

Policy frameworks fundamentally shape the quality, equity, and long-term sustainability of post-disaster housing reconstruction and resettlement. In disaster-prone developing contexts, policies influence not only the selection of reconstruction approaches but also the extent to which reconstruction processes are inclusive, culturally appropriate, and technically robust (Keraminiyage & Piyatadsananon, 2013; Vahanvati & Mulligan, 2017). When policies are coherent, flexible, and grounded in local realities, reconstruction outcomes tend to support resilience; however, poorly designed or rigid policies frequently exacerbate vulnerability and dissatisfaction.

### Policy Coherence, Legal Frameworks, and Institutional Coordination

Legal and institutional frameworks determine how responsibilities are distributed across government levels, donors, and communities. They are not merely procedural instruments but active agents that shape the equity and durability of reconstruction outcomes. Where legal provisions are clear, adaptable, and coordinated, recovery progresses more effectively. Conversely, fragmented or poorly designed frameworks, such as unclear land-tenure arrangements, inconsistent beneficiary criteria, or rigid administrative procedures, have repeatedly undermined recovery processes (Carrasco et al., 2016; Oliver-Smith, 1991; Onder et al., 2010; Sangasumana, 2018). Oliver-Smith and Sherbinin (2014) emphasize that legal ambiguity and institutional gaps frequently lead to delays, duplication of efforts, and diminished community trust. International examples illustrate the importance of policy coherence. China's post-disaster resettlement strategy, which prioritized improved infrastructure and services in relocation sites, fostered stronger acceptance

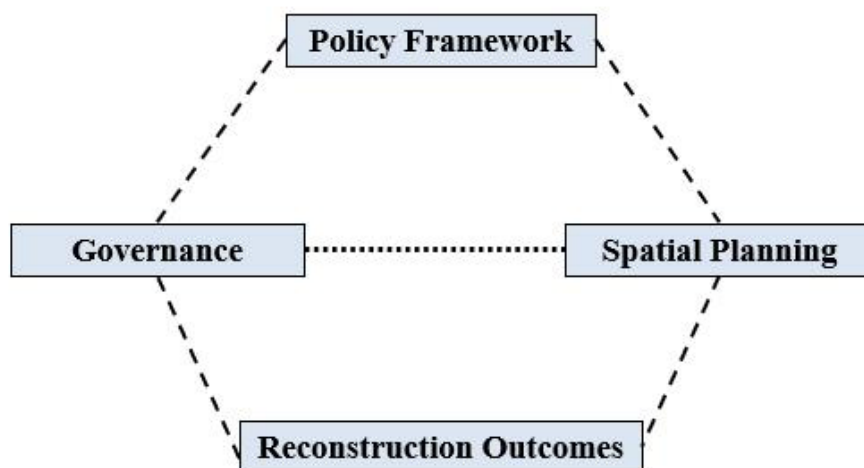


Figure 2: Policy, Governance, Planning Interaction in Post-Disaster Housing

among affected communities (Peng et al., 2013). Japan's Tohoku recovery demonstrates the advantages of empowering local governments to interpret and contextualize national guidelines, ensuring that reconstruction is aligned with community needs (Iuchi & Mutter, 2020). These cases highlight that flexible and well-coordinated institutional systems tend to yield better long-term outcomes

### Spatial Planning, Building Codes, and Site Selection

Spatial planning decisions, including land-use zoning, hazard mapping, access to infrastructure, and building-code requirements, directly affect the sustainability of reconstruction. Regulatory frameworks that enforce seismic safety, land-use restrictions, or minimum infrastructure standards can enhance resilience, but rigid application can clash with local cultural practices or livelihood patterns. In Nepal, for instance, stringent earthquake-resistant design codes created tensions between safety requirements and culturally preferred housing forms (Baniya, 2021). Poor site selection has been a central cause of failures in relocation programs globally: sites distant from agricultural land, markets, or traditional networks often result in dissatisfaction or abandonment (Carrasco et al., 2016; Onder et al., 2010). Spatial mismatches can also erode social cohesion. High-density layouts and standardized spatial arrangements may optimize land use but disrupt traditional social organization, privacy norms, and the communal orientation of rural households (Carrasco et al., 2016). These findings reinforce the need for spatial planning to consider both environmental safety and socio-cultural suitability to ensure long-term acceptance.

### Governance, Participation, and Communication Mechanisms

Governance structures significantly influence reconstruction implementation. Decentralized governance can enhance responsiveness by allowing local institutions to adapt national guidelines to context-specific needs (El-Masri & Tipple, 2002). Yet decentralization alone is insufficient if inter-agency coordination, role clarity, or accountability mechanisms are weak. Numerous post-disaster contexts have suffered from stakeholder fragmentation, limited coordination, or unclear mandates, resulting in inefficiency and community dissatisfaction (Capell & Ahmed, 2021; Carrasco et al., 2017). Indonesia's REKOMPAK program illustrates the benefits of effective coordination between national authorities and local institutions, leading to contextually appropriate designs and stronger community ownership (Iuchi & Mutter, 2020). Communication mechanisms also play a central role: when information regarding eligibi-

lity, timelines, financing, or design decisions is opaque, community trust deteriorates, and participation declines (Ophiyandri et al., 2013). Conversely, participatory policy processes tend to improve adherence, legitimacy, and psychosocial well-being (Keraminiyage & Piyatadsananon, 2013; Opdyke et al., 2019). Inclusivity is particularly important. Research from Sri Lanka shows that participation alone does not improve satisfaction when vulnerable and marginalized groups are not actively included (Baniya, 2021; Senanayake et al., 2022). Without meaningful inclusion, participatory mechanisms risk reproducing existing social hierarchies.

### Policy Implications for Reconstruction Models

Each reconstruction approach (CA, ODR, CDR, ADRIS, ADRRS) depends on specific policy preconditions. ODR requires coherent safety regulations, flexible financing mechanisms, and targeted support for households with limited capacity (Ophiyandri et al., 2013; Tafti & Tomlinson, 2015). CDR depends on strong facilitation, institutional support, and community mobilisation (Lyons, 2009). Agency-driven approaches, especially relocation, require careful spatial planning, adequate service provision, and culturally aligned design to avoid dissatisfaction and abandonment (Carrasco et al., 2015). Evidence shows that policies emphasizing community agency, even when they lengthen implementation timelines, tend to produce more sustainable and acceptable outcomes (Affairs et al.; Dias et al., 2016). When supported by inclusive, flexible, and well-coordinated governance systems, ODR and CDR consistently outperform agency-driven methods by enabling local adaptation, cultural resonance, and long-term resilience (Tafti & Tomlinson, 2015).

## Community participation

Community participation is widely recognized as a critical determinant of success in postdisaster housing reconstruction and resettlement. Beyond improving the physical quality of housing, participation strengthens cultural fit, supports psychosocial recovery, and enhances long-term satisfaction. Research consistently demonstrates that when disaster-affected populations are meaningfully involved in planning, decision-making, design, and construction, reconstruction outcomes are more contextually appropriate, equitable, and sustainable (Ahmed, 2011; Dias et al., 2016; Vahanvati & Mulligan, 2017). Despite extensive global advocacy for participatory recovery, however, many reconstruction programs continue to rely on donor-led, technocratic, and top-down models, revealing persistent gaps between policy intent and operational practice (Capell & Ahmed, 2021).

## Participation and Cultural Appropriateness

Evidence from diverse contexts shows that community-driven approaches, particularly ODR and CDR, produce housing that better aligns with cultural preferences, family structures, spatial norms, and livelihood practices. In Gujarat, households choosing ODR reported significantly higher satisfaction due to the ability to personalize designs, use vernacular materials, and integrate culturally meaningful spaces (Danquah et al., 2014). Similarly, in Indonesia and Sri Lanka, participation in site selection, layout planning, and design decisions contributed to stronger social acceptance, reduced modifications, and improved functionality (Carrasco et al., 2017; Vahanvati & Mulligan, 2017). By contrast, agency-driven or contractor-led models frequently fail to incorporate local practices, leading to post-occupancy dissatisfaction, costly retrofits, or underutilization (Mulligan & Nadarajah, 2011; Tas et al., 2007).

## Participation and Resettlement Acceptability

Participation is especially crucial when reconstruction involves relocation. Where communities are excluded from decisions about relocation sites, service provision, or spatial organization, resettlement programs often suffer from high levels of dissatisfaction, disengagement, or return migration. Experiences from the Philippines and Mozambique demonstrate that the absence of community consultation contributed to the rejection of resettlement sites, even when housing quality improved (Carrasco et al., 2015). In such cases, the lack of attention to livelihood access, social networks, and place attachment undermined the longterm viability of resettled communities.

## Depth and Timing of Participation

Meaningful participation extends beyond consultation. Scholars emphasize that effective community engagement requires decision-making power, transparency, and sustained involvement throughout assessment, planning, construction, and post-occupancy evaluation (Opdyke et al., 2019). Johnston's four pillars of trust-building, genuine opportunities, visible community value, and shared ownership remain highly relevant. However, many reconstruction programs involve communities too late in the process or limit their role to information-sharing, producing outcomes that lack cultural resonance or user satisfaction (Capell & Ahmed, 2021). ODR demonstrates that institutionalized participation through policy can generate spatial adaptability, incremental improvements, and cultural alignment (Barenstein & Iyengar, 2010; Jha et al., 2010). By enabling households to mobilize local materials, informal net-

works, and vernacular knowledge, ODR fosters both empowerment and continuity with pre-disaster living patterns. In dispersed rural settlements, standardized external designs often fail, whereas ODR allows households to integrate culturally meaningful layouts and multifunctional spaces (Jha et al., 2010).

## Participation and Inclusion

Despite its benefits, participation is not inherently equitable. Many groups, such as women, the elderly, landless tenants, persons with disabilities, and marginalized castes, are frequently excluded from participatory processes, even though they are disproportionately affected by disasters and displacement. Research from Sri Lanka shows that participatory mechanisms improved outcomes only when inclusivity was deliberately ensured (Baniya, 2021; Senanayake et al., 2022). Without attention to power asymmetries, participatory processes can reproduce existing inequalities. Targeted support is essential. Vulnerable groups may lack technical literacy, financial capacity, or social leverage to benefit from participatory technologies. Technical assistance, legal facilitation, material support, and livelihood integration are therefore necessary to ensure that participation translates into substantive agency rather than symbolic inclusion (Ophiyandri et al., 2013; Tafti & Tomlinson, 2015).

## Participation as a Foundation of Psychosocial Recovery

A crucial but underexplored dimension of participation is its role in psychological and emotional recovery. Participation helps restore a sense of control, rebuilds confidence, and facilitates place-based belonging, factors central to long-term recovery and resilience. Through participation, households regain agency in shaping their post-disaster environment, strengthening community cohesion and reducing trauma associated with loss, displacement, or uncertainty. Although often absent from engineering- or policy-oriented frameworks, these psychosocial benefits are essential to sustainable reconstruction.

## Conclusion

Post-disaster housing recovery extends far beyond the technical exercise of rebuilding structures; it is an inherently social, cultural, and political undertaking that shapes how individuals and communities reclaim stability, identity, and dignity after crisis. The evidence reviewed in this paper demonstrates that housing must be understood as a dynamic, contextually embedded process whose success depends on the interaction among

reconstruction approaches, governance systems, policy frameworks, and the lived realities of affected households.

Across global experiences, Owner-Driven Reconstruction (ODR) has consistently shown the most significant potential to align reconstruction with household priorities, local material cultures, and incremental rebuilding practices. Yet its effectiveness is not inherent to the model itself. Rather, ODR succeeds when enabling conditions, targeted support for vulnerable groups, flexible financing, and inclusive policy frameworks address unequal household capacities. Without these, the narrative of self-recovery risks privileging those with resources and marginalizing those already disadvantaged. Resettlement, implemented when in-situ rebuilding is not viable, presents deeper social challenges. Relocation unsettles socio-economic networks, spatial routines, and community identity. Its success, therefore, depends less on the provision of a physical house than on how relocation processes integrate livelihood considerations, cultural norms, and community preferences. Global cases show that top-down, agency-driven relocations often underperform, whereas resettlement processes grounded in participatory decision-making exhibit greater acceptance, functionality, and long-term resilience.

A central finding of this review is that community participation acts as the mediating mechanism across all reconstruction models. Participation is not simply a procedural step but a decisive factor shaping cultural adequacy, institutional

trust, satisfaction, and adaptive recovery. When participation is inclusive, attuned to gender, caste, class, tenure insecurity, and age, it mitigates structural inequalities and supports equitable outcomes. Moreover, emerging research underscores the psychosocial value of participation: through involvement in planning and rebuilding, households regain agency, reduce trauma, and reconstruct a sense of control and belonging. These insights point to a broader reframing of post-disaster housing recovery. The challenges observed across cases, whether in ODR, community-driven models, or agency-driven relocation, reveal that successful recovery depends on the alignment of four core dimensions: (i) the multidimensional meaning of housing, (ii) the appropriateness of reconstruction approaches, (iii) coherent policy and governance systems, and (iv) meaningful, sustained community participation. The framework proposed in this paper integrates these dimensions, offering a holistic lens for understanding and operationalizing housing recovery.

As disasters become more frequent and complex under accelerating climate change, the imperative for context-sensitive, socially just, and culturally coherent reconstruction grows ever more urgent. Future recovery efforts must prioritize not only the structural safety of dwellings but also the restoration of agency, cultural continuity, and socio-economic stability. Building back better must therefore evolve into building forward inclusively, grounding reconstruction in dignity, autonomy, and collective memory.

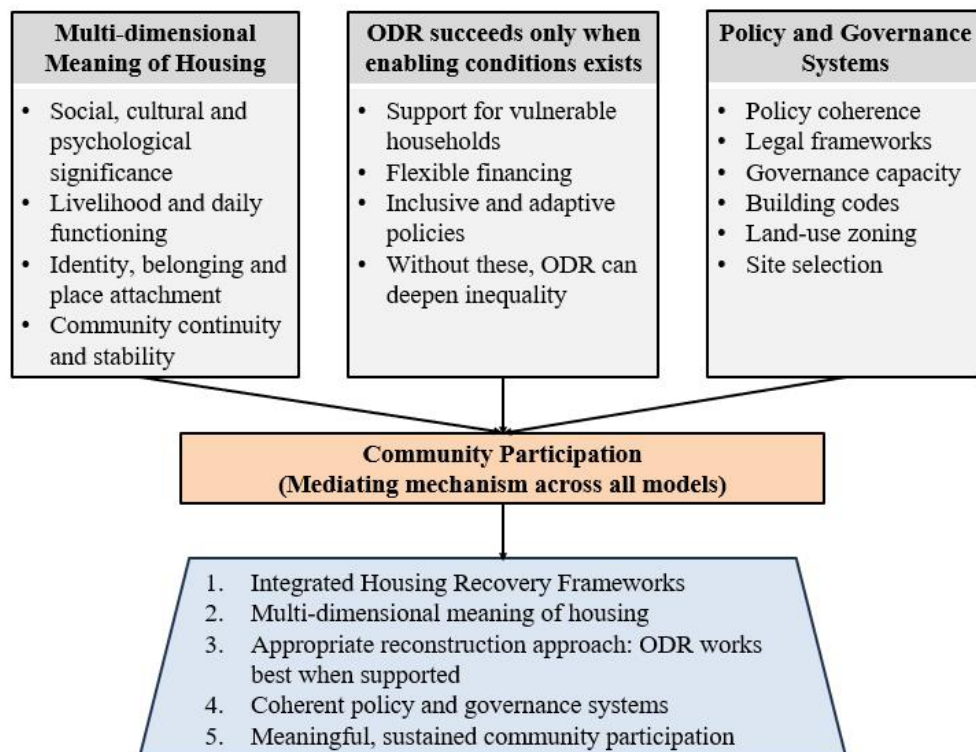


Figure 3: Integrated Housing Recovery Framework

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