

## CHAPTER 12

# Disaster Recovery (After Catastrophes)

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### Abstract

This chapter provides an overview of the emergence of the sustainability concept in disaster recovery initiatives and disaster studies. We then specifically focus on the genealogy of the concept ‘owner-driven recovery’. This concept currently dominates disaster recovery policies, but from here it has been adopted more widely into urban slum development initiatives. We provide two kinds of cases from the Indian context—top-down interventions that actively use the ‘owner-driven’ agenda, and those that are

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driven by community ownership—and discuss what is being sustained and what the potential cascading effects of such initiatives might be. The case of urban recovery after the 2001 Gujarat earthquake illustrates how insensitivity towards inequalities and discrimination results in recovery that contradicts the parameters outlined for sustainable development: reduced inequalities, sustainable cities and communities (Sustainable Development Goals 10 and 11), and sustainable holistic disaster recovery principles of ‘participatory processes’ and ‘equity’.

### **Genealogy of Owner-Driven Post-Disaster Housing Recovery**

Connecting disaster rehabilitation and recovery with longer-term sustainable development interventions and developmental processes emerged in the disaster management discourse in the late 1990s and early 2000s. Since then, sustainability has become a popular concept, referred to as sustainable holistic disaster recovery (Adie 2001; Smith and Wenger 2007: 237) with the goal of ensuring an equitable chance to all sectors and people to recover and become resilient (Phillips 2009: 51). Although it identifies six principles, including ‘participatory processes’ and ‘social and intergenerational equity’, the ‘mitigating to ensure disaster resilience’ principle (Adie 2001) dominates the current sustainable housing recovery discourse. Recovery usually refers to restoring social and other infrastructure, and revitalization of the economy. It is considered only successful and sustainable when it is driven through community or citizen–government partnerships, along with the significant reduction of the role of other civil society actors and international humanitarian organizations (ADRC 2005: 38). However, in practice, it often limits itself to the rebuilding of basic infrastructure and building permanent housing without due consideration to social processes, thus contradicting the parameters outlined for sustainable development: reduced inequalities, and sustainable cities and communities (Sustainable Development Goals 10 and 11).

Disillusioned by the socially oppressive and contextually insensitive forms of housing that modern architecture was producing (Vahanvati 2017: 26), John Turner (1972) introduced the idea of ‘self-help’ in housing reconstruction and propagated the idea of owner-driven reconstruction. From his experience of squatter settlements (*barriadas*) in Lima in the 1950s and 1960s, Turner *emphasized* the importance of the housing process and proposed that ‘value of housing was related to dweller-control more than to its physical features, therefore people deserve the freedom to build’ (Arroyo and Åstrand 2013: 2). Although the concept has existed in Europe since the first World War for reconstruction (Arroyo and Åstrand 2013: 2), the idea of aided self-help housing provision was put into practice in post-disaster reconstruction much later (Taheri-Tafti 2012: 347). It has become a mainstay in post-disaster recovery and major urban slum resettlement since the first guidelines on shelters and disasters emphasizing citizens as a ‘primary resource during reconstruction’ were released in 1982 (Vahanvati 2018: 26). However, research focusing on vulnerable groups has pointed out that housing reconstruction efforts fail to give sufficient priority to such groups as low-income renters or squatters (Mukherji 2010: 1085).

Also labelled as the self-help or self-build model of reconstruction, owner-driven reconstruction has been taken up after major destructive events, such as Colombia’s Popayán earthquake of 1983 and in the Balkans from 1993–2000 (Barakat 2003: 33). This approach—often recounted as a better and more sustainable alternative to contractor, or donor and NGO-driven, housing construction (Thiruppugazh 2016: 172–73)—was also applied in the reconstruction efforts after the 2001 Gujarat earthquake, learning from the mainly contractor-driven approach used by the Government of Maharashtra after the 1993 Latur earthquake (Barakat 2003: 33–34; Barenstein 2006: 5; Taheri-Tafti 2012: 347). It was the first large-scale implementation of the approach where the government intervened only through financial, material and technical assistance (Barenstein 2006: 5–6; Taheri-Tafti 2012: 348).

With the popularity of the model, critiques have emerged that highlight the challenges and myths related to the approach.

The conceptual shift from ‘self-help’ to ‘owner-driven’ has meant: the exclusion of those without land tenure (Mukherji 2008: 45; Taheri-Tafti 2012: 349–350), tenants, sharers, and squatters (Maly and Yoshimitsu 2012; Taheri-Tafti 2012); reduction of owners to labourers rather than decision-makers within the ‘do-it-yourself’ interpretation (Lizarralde et al. 2010b: 13); and rejection of slow and time-consuming housing processes of consulting the affected population (Jha et al. 2010: 95095). Since it transforms traditional top-down and technocratic decision making, the model is, at times, considered as ‘demeaning’ the role of the nation-states and non-governmental organizations (Vahanvati 2018: 27).

Taking this critique forward, the rest of this chapter brings forth the shades of the owner-driven housing approach that was implemented in the aftermath of the 2001 Gujarat earthquake by focusing on two owner-driven recovery processes implemented in urban west Kachchh (Bhuj and Bhachau). The two disaster housing recovery models bring forth the significance of social processes in addressing issues of capacity, autonomy and social justice within the context of urban recovery and sustainable development.

### **Urban Planning and Owner-Driven Housing Recovery in the Post-Earthquake Gujarat**

The 2001 Gujarat earthquake recovery was globally the first large-scale implementation of both the owner-driven approach and the disaster recovery paradigm: accelerating the transition from relief to recovery and disaster resilience where the state government, with the support of international financial institutions, coordinated the reconstruction and repair of over a million houses through financial, material, and technical assistance (Barenstein 2006: 5; Mukherji 2008: 114; Taheri-Tafti 2012: 348). Over 13,000 people lost their lives as a result of the earthquake that occurred on 26 January 2001 (GSDMA 2002). It is estimated that 70 percent of the damaged buildings were located in the district of Kachchh, including 75 percent of the housing stock of Bhuj city.

The Gujarat government set up Area Development Authorities for post-earthquake urban planning with a loan from the Asian

Development Bank, yet the concrete tasks of town planning were contracted to private/non-profit planning agencies. Though the town-planning exercise caused delays between the relief, provision of temporary shelters, and permanent housing construction, it also created new opportunities and pressures on land redistribution and building of disaster-resilient towns. The process followed the generic town-planning legislation, except that the preparation, publication, revision, and sanctioning was completed in just six months compared to the two years it normally takes (Balachandran 2010: 106). Despite the speed, the state government declared:

It [the recovery programme] aims at becoming a people's program. It emphasizes the empowering process through continuous consultations with the community ... It will apply principles of equity and empowerment, and ensure, through appropriate mechanisms, that the voices of the weak and poor are always held.

(GSDMA 2002: 2, 4)

The reconstruction process in Gujarat involved various options and initiatives, from adopting villages to granting total control of reconstruction to the families. The adoption of villages restricted the ownership of the community; instead, the implementing agencies had the final say in choices and control of the reconstruction programme while advocating a participatory process. The owner-driven process adopted was a partnership between the government of Gujarat, private sector/NGOs, and the beneficiaries. The approach worked to strengthen each participating group and provided an appropriate implementation strategy for overall development (UNNATI 2006: 9).

Although the housing policy in Gujarat included the precondition to reinstate tenants after reconstruction (Thiruppugazh 2016: 173), it was only after years of advocacy, campaigning, and public demonstrations that specific affirmative action—namely, provision for new housing/land for tenants, and pre-earthquake urban informal settlements—was addressed in the most affected cities (Mukherji 2008; 2010; 2015). Although the Gujarat model was

conceptualized from the shortcomings of the contractor-driven approach in the context of the Latur earthquake, it was not as reflexive as the policy framework for the 2004 Chuetsu Earthquake in Niigata, Japan, which drew lessons on housing processes from the shortcomings of the response to the 1995 Kobe earthquake (Maly and Yoshimitsu 2012: 9–10).

Thus, outcomes of town planning and owner-driven housing schemes differ greatly: owner-driven reconstruction most benefited the homeowners with legal property documents, the middle class, and affluent castes that have both financial resources and social capital available to them. The results are less encouraging for renters and squatters, unless they receive specific attention from early on—this was the case in Bhachau, which had a focus on inclusiveness and people's participation matching the recovery efforts with the community's needs and capacities (Mukherji 2008; 2010; 2015). Participation in disaster recovery is aimed at improving the value of the intervention by focusing on the deliberation and inclusiveness of decision-making processes. In addition, linking policies with local experiences and decision making at the local level is believed to ensure the sustainability of intervention results (Barenstein 2006: 5).

Two case studies in Japan have demonstrated changes in post-disaster policy based on lessons learnt from post-disaster housing approaches in the past. After the 2004 Chuetsu earthquake in the Niigata region, reconstruction policies were modified based on experiences from previous disasters such as the 1995 Kobe earthquake, also locally known as the Hanshin-Awaji earthquake. A more open and comprehensive reconstruction approach was adopted in which the plight of tenants and homeowners was taken into consideration. In Hanshin-Awaji, several wooden houses, generally occupied by low-income tenants, were left out of housing policy, and the reconstruction followed a government-driven approach. However, after the 2004 Chuetsu earthquake, conscious efforts were made to lessen the restriction on compensation for private homeowners and public housing to allow rebuilding at a smaller community-level scale. Public-housing rent was

subsidized through a policy amendment that created an income-based rent system that was sensitive to income location and size of units. This continued for five years after occupation and was later extended on several occasions to aid recovery (Maly and Yoshimitsu 2012).

The rest of this chapter focuses on two towns located close to the epicentre of the earthquake, where houses located in the old town, squatter settlements and high-rise apartments were destroyed (Mukherji 2008: 2) and two very different town-planning and urban owner-driven housing approaches were adopted: one in Bhuj that was more tightly controlled by the state government and another in Bhachau which was more open to civil society and local citizen group participation from the outset (Mukherji 2010: 145).

### **Snakes and Ladders: When Temporary Displacement Becomes a Permanent One**

Anuradha Mukherji (2008) has argued that, due to the significance of the district capital Bhuj as the economic, cultural and administrative centre of Kachchh district, and the interest from the government in choosing Bhuj as an important showcase of its successful recovery initiative, the state government's grip of the town planning and urban housing scheme was stronger than in other towns. Although not considered an important element of the town-planning exercise initially, the process did include extensive and documented meetings with earthquake-affected neighbourhoods, community groups, elected members, experts, municipal government town planners, and architects. However, these consultations were not successful in integrating urban inclusion and equality concerns, but rather provided a forum for the economically and socially more affluent groups to make sure that their needs and concerns were heard in the process.

Simultaneous with the release of the first town-planning scheme, which was to be used as the basis of housing construction at the new relocation sites, the state government announced a temporary

shelter site located approximately 5 kilometres from the collapsed old city of Bhuj to be built at an underdeveloped, industrial/waste-land area owned by the state government. Although it was remote from livelihoods, the city's main markets and business streets, the local newspaper enthusiastically advertised the decision as a step toward building a 'New Bhuj', a new neighbourhood that would not only offer the affected populations a roof over their heads before the approaching monsoon rains in June, but also provide all the necessary basic urban housing infrastructure and access to different government agencies, such as education, health care, and social welfare.

The area was divided into 18 sectors, which were further divided between different temporary shelter-implementing partners varying from religious organizations to international humanitarian organizations and their local and Indian partners. Housing structures, financing schemes, and owner-driven models varied among the implementers. Some future residents were trained in new building techniques with the help of masons from the Latur 1993 earthquake-affected areas; for others, membership in a religious- or caste-based organization allowed crowd-sourcing of funds to add features to the light-weight prefabricated units. The simplest housing unit consisted of one room with an attached bathroom, but the owners could add elements to it with their own funds or through community funding. Authorities in charge of the house beneficiary registration process encouraged the potential residents to form clusters of families, leading to highly segregated communities. The most powerful and affluent groups were successful in using the temporary shelters as a buffer after the initial relief shelters before moving to permanent housing units when the town planning and development of relocation sites for permanent housing were completed in 2004–2005 (Mukherji 2010). For others, such as renters and urban squatters, the buffer period of residing in the temporary shelters, and in the neighbourhood, has turned out to be longer. Mukherji (2010) suggests that the lack of a dedicated social housing policy led to major delays in housing recovery for the dislocated renters, sustained uncertainty of housing for the poorest households, firmed up a lack of affordable

yet up-to-standard rental housing units in the city, and left questions of housing equity and land tenure unsolved (Mukherji 2010: 1136).

All in all, roughly 5,000 units were built in the neighbourhood by different non-governmental organizations 6–16 months after the earthquake. The area was formally recognized two years later as a relocation site in 2003 as a result of demands by the residents and NGOs. However, 20 years after the earthquake, it still lacks sustained basic services such as gutters and sewage lines, a water supply, and quality roads. The neighbourhood became one of the most affordable, low-cost housing location for the migrant labourers who moved to Bhuj in search of reconstruction-related work. Gaps in the earthquake housing recovery are currently being dealt with by ongoing citizens' activism, and local non-governmental organizations have facilitated the central government's slum redevelopment housing initiatives.

However, based on life-historical interviews conducted with the residents of the area,<sup>1</sup> the promise of an owner-driven permanent housing scheme has failed to deliver their expectations due to limited availability of housing for those in need. This has led to conflicts between the aspirant beneficiaries, project managers, and the committees that decide on the beneficiary priority lists, as well as attempts to influence the selection process. Residents also consider the initiative as a failure due to insufficient collaboration between different stakeholders such as residents, NGOs, politicians, and government agencies; misuse of middle-management positions (such as contractors, committee members) for financial gain; irresponsible management; and lack of financial control over the housing process.

Project evaluations and independent research conducted in the neighbourhood suggest that owner-driven models adopted for the temporary shelter initiative reiterated and accelerated the existing pre-earthquake caste-based and socio-economic

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<sup>1</sup> Marjaana Jauhola's Academy of Finland-funded research project 'Gendered Political Violence and Urban Post-Disaster Reconstruction' (2015–2020); more details at <http://scrapsofhope.fi/>.

discrimination, inequalities, and segregation. The neighbourhood turned out to be the only mixed-community neighbourhood with internal communal divisions between sectors or clusters of houses in the city, where all the other three housing relocation sites follow caste and religious group boundaries. Recovery and social inclusion and justice experts have called the initiative a failure as it was driven by technocratic and engineering priorities and rapid aid delivery ideology, and thus it was unable to prevent the devastating long-term social and economic impacts and the slum-like urban living conditions of the newly built neighbourhood. Lack of basic urban infrastructure sustained dispossessed populations in the city. The landfilling required for the area was completed in 2001 using earthquake debris from the damaged old city. However, as with other debris dumping sites, it has caused damage to old ponds and natural rainwater streams, causing floods and new disaster vulnerabilities (see Balachandran 2010: 2017; Virmani 2010: 151–53). This repeats the discussion on ‘sustainability’, where recovery processes are narrowly focused on mitigation, but have neglected participation and social inclusion in the overall process.

### **Small Scale Socially Inclusive Owner-Driven Housing Recovery in Bhachau**

Contrary to the experience in Bhuj, the post-disaster recovery process in a smaller town of Bhachau created collaborative spaces for NGOs and public–private partnership for reconstruction and rehabilitation. Organizations with experience in pre-earthquake social mobilization and community-support initiatives became involved in recovery processes using a participatory framework (Mukherji 2008: 128). In this framework, starting with the temporary shelter reconstruction phase, special attention was paid to vulnerable populations such as widows, persons with disabilities, and orphans from among the marginalized squatter communities of Muslims, Dalits, Bhil, Vadi, Koli, and Khwas Rajputs (Mukherji 2008; UNNATI 2006).

A local NGO facilitated the reconstruction programme at various stages in Bhachau through the Citizen Support Cell (Nagrik

Sahyog Kendra, NSK), a collaborative effort between citizens and the government. The NSK collaborated with the newly established State Disaster Management Authority (GSDMA) and Area Development Authority (ADA) in Bhachau to support regular meetings with district authorities, World Bank officials, government engineers and planning consultants; and also published a newsletter. A significant contribution of NSK was the creation of a database on a range of issues faced by the citizens as well as the authorities that were instrumental in facilitating decision making for process modification and the integration of people's concerns. The facilitation was initiated in 2001 and was successful in several settlements with marginalized populations like the residents of Junawada and Vadinagar. The reconstruction in Bhachau town too was delayed owing to the six months needed to prepare the town development plan (TDP), infrastructure plan, and town-planning schemes. The technical planning document was elucidated by the local NGO to enable community participation and feedback. This facilitation enabled the recognition of the minority communities (Rabari, Bhil, Muslim and Dalits) in Junawada, and also intercepted the relocation of Vadinagar and let it settle in its original location (UNNATI 2006; Mukherji 2008).

The facilitation process by NSK and local NGOs started with the needs assessment through survey and local-level planning. Local committees were created and empowered to negotiate and manage issues in reconstruction. Thus, local-level planning was facilitated to resolve technical and legal issues related to development plans and town-planning schemes. The local NGOs worked with local committees in finalizing strategies to reduce conflict and duplication while supporting them in approvals and documentation. They also provided guidance to local government bodies on planning for infrastructure at the local level, and NGO project engineers worked with government engineers in awareness generation<sup>2</sup> (UNNATI 2006).

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<sup>2</sup> For more details of the facilitation process of UNNATI (local NGO) working in post Gujarat earthquake, refer to <http://www.unnati.org/pdfs/books/OwnerDrivenHousingProcess.pdf>.

The ADA of Bhachau processes for building permission were complicated, and around 1700 families were unable to get documentation; this obstructed rebuilding. In this context, the ADA of Bhachau and NSK initiated a facilitation process of land regularizing and verification. While the government engineers focused on safety features, site supervision, post-construction validation, completion certification, and government compensation, NGOs were involved with families that had been left out. NSK facilitated the design-approval process for the modification of houses to enable retrofitting of those houses that had not been built following the safe construction guidelines by linking owners with NGOs equipped to facilitate this process in collaboration with the development authority. Approximately 1500 slum dwellers benefitted from the advocacy initiative of the local NGOs. Affected families were involved in the reconstruction process by transportation of material, developing house designs, budgeting, material planning, and as labour for reconstruction. Temporary shelters built in Bhachau, as in Bhuj, on distant and undeveloped wasteland that lacked basic urban infrastructure were successfully refused by approximately 500 families owing to the social mobilization, citizen activism, and critique toward unequal forms of recovery (Mukherji 2008).

Unlike in Bhuj, the ADA in Bhachau, had autonomy in decision making as it was not under the direct scrutiny of the state and media and was receptive to engaging with NGOs in recovery. Thus, the planning process in Bhachau accounted for community participation in which the local NGOs collaborated with different agencies to initiate a multi-stakeholder consultative process. The role of NGOs was significant in supporting the squatters with permanent housing. They were successful in bringing change to the urban housing policy by urging the authorities to provide housing for squatters, as half of the housing destruction was in squatter areas. However, the renters were largely left out of the reconstruction process as the GSDMA policy did not account for the tension between landlords and tenants, and the efforts by political actors and citizen groups were not as successful as in the case of squatters (Mukherji 2008).

## Discussion and Conclusions

Recovery programming was adopted into the disaster management toolbox in the late 1990s and early 2000s to connect the temporalities of disaster rescue, relief, and longer-term rehabilitation and sustainable development to one another. The aim was to reduce disaster vulnerability, and ensure the reduction of inequality in sustained ways. However, as this chapter has illustrated, urban housing policy in reconstruction negatively impacts vulnerable groups of non-owners such as tenants, sharers, and squatters. This impact is not just found in Gujarat. For example, in Iran, female-headed households suffered due to unequal inheritance laws after an earthquake (Taheri-Tafti 2012: 349–350). Thus, the issue of land ownership has emerged as a major concern in several post-disaster reconstruction contexts. The onus of providing and establishing ownership ultimately falls on the affected community, along with the efforts of trying to recover. Pre-existing patterns of discrimination, marginalization from processes, structural and cultural barriers, and ignorance of those in authority position are some of the significant factors contributing to the impediment of sustainable recovery. Hence, participation of all stakeholders and addressing the power hierarchies is significant to ensure equitable inclusion (Phillips 2009: 51, 53).

The Gujarat experience illustrates how the different capacity of the affected households to recover was not part of the policy and decision-making process: the owner-driven approach, promoted as people-centric, followed a standardized technical and financial process that neglected socio-economic, political and cultural factors that influence the recovery of families and households (Taheri-Tafti 2012: 350). This standardization created recovery gaps as the government was too caught up in maintaining the system and following procedures. Both the cases—the towns of Bhuj and Bhachau—provide examples of how filling such recovery gaps is actively advocated by both citizen activism and locally based civil society organizations. Phillips (2009) notes that sustainable recovery means an equal opportunity for all to recover, however prevailing social, economic, and political set-

tings obstruct this. Further, research on sustainable recovery suggests adaptive planning approaches that meet the local demands as part of the recovery strategies (Smith and Wenger 2007: 241), which was not evident in Bhuj.

Furthermore, the above reflective long-term analysis of town planning and owner-driven approaches in Gujarat illustrates the unsustainability of recovery efforts. In fact, non-inclusive recovery processes may contribute toward the formation of the shadows of modernization, vulnerability reduction, sustainable development, and disaster resilience. They contribute to the emergence of permanently/sustained dispossessed populations, and, finally, resistance to unequal forms of development, unless they are structured to address urban housing and land tenure inequalities. Pre-existing power relations and inequalities (such as land tenure, homelessness, social and economic inequalities, or inadequate living conditions) tend to be reinforced during reconstruction and, unless attended carefully and with long-term endurance, they produce permanent global structures of inequality, dispossession, and conditions that form shadowlands of development, a subaltern to the success stories of international reconstruction aid, disconnected from any colonial continuities (Biswas and Nair 2010: 20).

The picture that emerges from such a scholarship points toward questions of the price, or the shadows, of claimed post-disaster urban planning and industrialization success stories (see e.g. Desai 2016 for an analysis of the post-disaster price to that of coastal Kachchh): whether such reconstruction interventions in fact normalize (urban) inequalities and dispossession, rather than aiming to achieve sustainable recovery. It is noteworthy that, although those involved in the town-planning process (see e.g. Ballaney 2008; Balachandran 2010; Thiruppugazh 2016) generally acknowledge the (re)production of urban inequalities as part of the reconstruction initiatives, attempts to 'solve all the economic and social problems created by the disaster and those that existed prior to the disaster' (Thiruppugazh 2016: 174) are seen as unrealistic. However, for others, lessons from the failures and success of such owner-driven temporary shelter initiatives after the 2001

Gujarat earthquake—and also after the 2004 Indian Ocean earthquake tsunami—have been used in the National Campaign for Dalit Human Rights to address caste-discrimination in humanitarian responses and to develop mapping and monitoring tools with the International Dalit Solidarity Network, which focuses specifically on Dalit and gender inclusion in disasters (IDSN 2013; Paul and Binoy 2013). Incorporating such tools and mechanisms would also ensure that the overall desire for sustainable recovery would be contextually tuned into addressing prevailing social inequalities and discrimination, rather than reiterating or reinforcing them.

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