

The Impact of Post-Disaster Reconstruction Policies on Different Beneficiary Groups: The Case of Bam, Iran



Fig. 1 : Permanent houses built through Owner-Driven Reconstruction (ODR) Policy in Bam. Photo credit: Fayazi

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| Start date of the project | 09/2012 – 09/2016 |
| Place of the project | Bam, Iran |
| Ethics certificate number | CPER-14-082-p |
| Partner institutions | |
| Funding | Œuvre Durable |
| Other funding sources | |

Abstract: Disaster management studies have demonstrated that housing reconstruction programs often lead to different levels of community recovery. Yet, insufficient knowledge still exists about the impact of reconstruction policies on different social groups. The purpose of this paper is to explore *why* and *how* reconstruction policies impact households in different ways. Using a set of indicators from pre- and post-disaster conditions among six household categories, this qualitative research examines the housing reconstruction program conducted after the 2003 earthquake in Bam. Findings confirm that the scant attention to different categories of tenancy, families' socio-economic conditions, and demographic changes (before and after the disaster) led authorities to adopt housing reconstruction policies that benefited some groups of households while having the opposite effect on others. Single-family homeowners, for instance, rebuilt their permanent houses quickly and resumed normal activities in a relatively short period of time. Members of extended families - who before the disaster relied on a complex social fabric based on proximity - were instead adversely affected by policies that allocated them a unit in a residential complex situated in the city outskirts. The results show that the effectiveness of reconstruction programs depends on the understanding of the heterogeneous character of individual families and their different social and income levels, and tenancy statuses, thus highlighting the inefficacy of the one-policy-fits-all approach.



Fig. 2: Residential complexes located in the periphery of the city (Razmandegan Town). Photo credit: Fayazi

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| Research Problem | In the last few decades, disaster and reconstruction-related studies have made considerable endeavors to determine the variables behind the failure and success of reconstruction programs. Numerous studies have examined the short and long-term impacts of interventions on settlements to pave the way for improving reconstruction policy (Alexander, 2008; Barenstein, 2006; Comerio, 1998). Duyne-Barenstein (2006), for instance, explores how the reconstruction of houses after the 2004 tsunami in Tamil Nadu paid inadequate attention to the social-cultural and environmental conditions of the local population, thereby affecting peoples' cultural identity and livelihood resources. Other authors have found that reconstruction policies adopted after disasters often neglect the variety of beneficiaries and the diversity of their needs and desires (Aysan & Oliver, 1987), and fail to consider how differently they affect communities (Aldrich, 2012; Davidson et al., 2007). Despite the existence of consensus over the uniqueness of every disaster and the need for the adoption of appropriate reconstruction policy, still little is known about <i>how</i> and <i>why</i> a policy often causes different levels of recovery between affected families living in comparable contextual conditions. |
| Objectives | This study aims at exploring <i>why</i> and <i>how</i> housing reconstruction policies fail to achieve recovery among different categories of households. |

Theoretical Framework: It is well documented in the hazard-related literature that different sorts of people-centered policy may fit with specific social, economic, political, and environmental conditions. For instance, Alexander (2015) recalls that the injection of cash into the local economy drove up the price of essential supplies and hindered recovery after the 2013 typhoon in the eastern-central region of the Philippines. Davis (2015), however, points to the contribution of cash grants allocated by the Pakistani government in the reconstruction of about half a million rural houses and the long-term recovery of households after the 2005 earthquake. In Pakistan, the cash grants acted as a leverage, ensuring the compliance of new buildings with the required building standards and introducing families to banking – an essential step for further economic development. Lizarralde (2010) finds similar findings in the Colombian rural reconstruction project conducted by FOREC in 1999.

Some scholars in the disaster and reconstruction fields already point to *'it depends'* types of arguments and emphasize the importance of pre- and post-disaster conditions on the recovery process (Barenstein, 2010; Boshier, 2008, 2009; Cuny, 1983). However, reconstruction programs rarely promote



different housing solutions for different categories of affected beneficiaries (Lizarralde et al., 2016).

Scant information about ownership rates, livelihood resources, demographic conditions, and social and political structures before disasters tends to obscure household diversity. Given various pre-disaster vulnerabilities and resilience levels, every disturbing event can potentially impact different groups of families in distinct ways. Low-income families and informal settlers are typically more fragile than affluent ones who live in less vulnerable areas and more resistant buildings (Lizarralde, 2014). Loss of family members (and heads of families, in particular) may cause serious problems and radically hamper recovery. Chaotic conditions after disasters often involve supposedly similar families losing their loved ones and looking for help, but they may possibly be very different and have different needs, desires, and expectations for recovery (Bolin, 1994; Jha et al., 2010). Numerous studies, relying on theories of vulnerability and resilience have tried to understand the exact impacts of undesirable events on human settlements, communities, and families (Barenstein, 2008; Bolin, 1982; Caporale, 1989); however, such an understanding remains still inadequate.

Policy-makers thus typically fail to consider how policy and decision-making can potentially affect different categories of residents in a distinctive manner (Aldrich, 2012; Aysan & Oliver, 1987; Oliver Smith, 1991). Lizarralde et al. (2016) and Fayazi et al. (2015) challenge the “one-size-fits-all approach” and explain how oversimplifying diverse groups of beneficiaries can threaten the recovery process and lead to further crises such as the emergence of new informal settlements, the exacerbation of social gaps, and the increase of vulnerabilities and inequalities.

Methodology : This study is an explanatory research and is based on a deductive reasoning strategy. It is based on centered on a detailed longitudinal, qualitative-quantitative case study of the housing reconstruction program conducted after the earthquake that struck the city of Bam, Iran, in December 26, 2003. The case of Bam was selected for its diversity of housing reconstruction policies and the different levels of recovery occurred among various groups of households, so as to observe the impacts of distinct policies – from owner-driven to subsidized programs- adopted. The analytical technique in this research relies on pattern matching comparing a predicted pattern (theoretical proposition) with empirical findings. In the first steps of the study, a detailed and extensive review of housing policies in developing countries, and post-disaster housing reconstruction policies in particular, led to the formulation of a hypothetical proposition. The data was collected using field trips, 12 interviews with officers and authorities and 70 interviews with residents. The complementary data was also collected from more than 32 reports and six policy documents, including minutes of project meetings, press releases and construction documents, and the 11 thematic reports of the Bam Reconstruction Documentation Project (BRDP) conducted by the Housing Foundation of Islamic Republic (HFIR).

Results

- The Iranian Government adopted Owner Driven Reconstruction (ODR) policy about two months after the earthquake, recognizing house-owners as managers of their houses in the reconstruction process and enabling them to recover faster. Equal compensation and distribution of the same resources (5% interest loans of about \$10.750 US) was provided to all affected house-owners. Two years after the disaster, investigations showed that only 32 percent of the population was able to reconstruct their houses (Figure 1), and about a third of pre-disaster house-owners had not reconstructed their houses.
- Two years after the earthquake, a grant of \$10,750 US was provided to tenants, members of extended families, and young couples who married after the disaster, to start the reconstruction of their houses. The prerequisite for receiving the grant was to own land in the city or to be able to use a plot of land with the agreement of its owner. While a total of 4,950 residential units were built using this grant, it insufficiently addressed the most vulnerable households, low-income tenants in particular. Those who received this assistance were among the wealthier middle-



class tenants, apartment owners, and extended family members.

- Three years after the disaster, a significant number of vulnerable and low-income households were still living in temporary housing camps. The first ODR policy and the subsequent modification could not reach them. The following policy was an agency-driven reconstruction plan in a relocated site. The HFIR, in collaboration with the Ministry of Housing and Urbanism, built about 2,300 apartment units located in 50 multi-storey residential complexes on the eastern side of the city called Razmandegan Town (Figure 2). The families also had to pay \$150 USD per month for ten years. In total, every apartment unit cost \$24,650 USD to be paid in ten years. The units were generally more expensive than the owner-driven reconstructed houses and the relocation imposed increased transportation costs for residents.

Implications

The first and most important implication is that the oversimplification of pre-disaster heterogeneous conditions can potentially impact households in very different ways, exacerbating pre-disaster vulnerabilities. Diverse pre-disaster conditions, priorities and needs cause dissimilar levels of recovery among households in Bam. In fact, the case of Bam illustrates that the one-policy-for-all approach cannot effectively lead to the recovery of affected families. The second implication concerns the inaccurate understanding, in theory and practice, of owners in the owner-driven reconstruction approach. Extended families in Bam traditionally give one or more rooms of their houses to the married children who are often economically, socially, and emotionally dependent on their family and neighbours. Finally, in the case of Bam, the time intervals between different policies were at least one year, causing insecurity and frustration among some households who often felt excluded from the housing reconstruction program. Therefore, it is critical to adopt different policies at the same time to allow households to choose a set of policies that fit properly to their conditions, priorities, and needs.

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