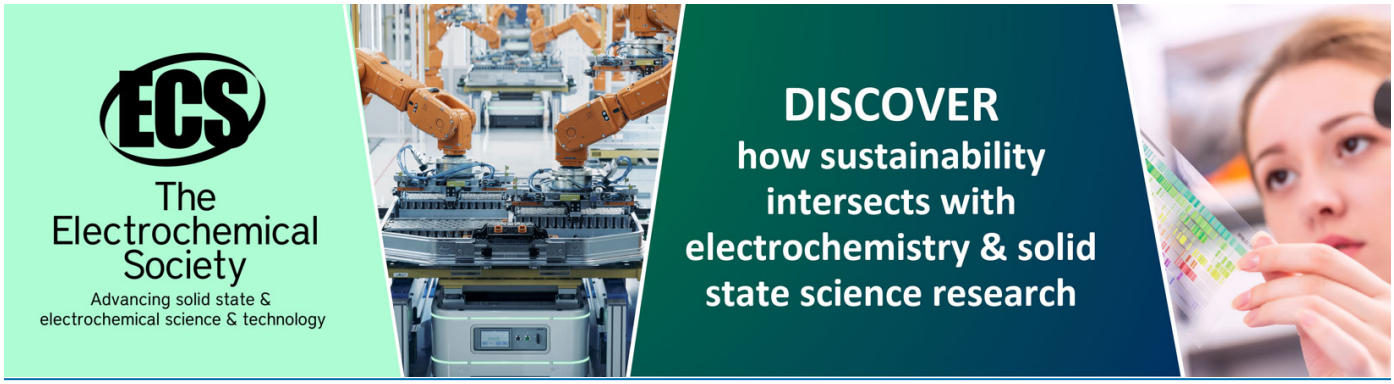
Rethinking “Build Back Better” in housing reconstruction: A proposal for “People Centered Housing Recovery”



Rethinking "Build Back Better" in housing reconstruction: A proposal for "People Centered Housing Recovery"

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Abstract Since 2004, when "Build Back Better" (BBB) was used to call for post-tsunami recovery in Aceh that reduces risk and improves people's lives, BBB has become widely-used in disaster risk reduction and recovery, and has been featured in post-disaster recovery plans of several countries and the 2015 Sendai Framework for Disaster Risk Reduction. Improving on pre-disaster conditions is a shared goal for recovery, but in relation to housing reconstruction the term BBB has become both too broad to offer meaningful direction. It is also used to narrowly describe safer construction without holistic consideration of what is "better" for people's lives. This paper argues that "People Centered Housing Recovery" (PCHR) could provide a more meaningful and comprehensive set of principles to guide post-disaster housing reconstruction: housing design and form that meet people's needs; genuine participation of empowered residents in decision making and construction; and related policies that are accountable to all residents. This paper applies the framework of PCHR to three cases of post-disaster housing recovery--Mt. Merapi in Indonesia, Typhoon Yolanda in the Philippines, and the Great East Japan Earthquake and tsunami in Japan.

1. Introduction

The term "Build Back Better" was used to describe goal for disaster recovery after 2004 Indian Ocean Tsunami, after UN Special Envoy for Tsunami Recovery William Clinton used it to call for recovery that: reduces future risk; supports a "better and faster" transition from relief to recovery; and helps communities towards "a path to development" with improved safety and economic vitality [1]. In the decade since, the term Build Back Better (BBB) attained a prominent role in the Sendai Framework for Disaster Risk Reduction [2] adopted at the World Conference on Disaster Risk Reduction held in Sendai, Japan in March 2015, and has become more broadly used as part of recovery plans [4,5].

Although it is easy to agree on the goal of "building back better"—for recovery to improve upon the previous/pre-disaster situation—BBB is used to describe various aspects of recovery, making the concept into a vague umbrella term for "good practices" in recovery [3]. For example, Clinton's 10 propositions included reducing future risk, as well as improving inter-agency coordination and emphasizing roles of the private sector along with people's own roles [1]. BBB has also been used to emphasize linking of relief and development [3]. In the Sendai Framework, intended to guide policy for disaster risk reduction (DRR), Build Back Better is used to describe recovery measures that contribute to reduction of future disaster risk [2]. Beyond potential vagueness, BBB can also be interpreted narrowly, such as in the context of disaster risk reduction, when BBB can be used to justify requirements for certain levels of structural design, or the choice to relocate households away from a designated risk area without considering other life or livelihood impacts.

2. Objective and Methodology

This paper considers the use and limitations of term Build Back Better, through an examination of three recent international examples of post-disaster housing reconstruction and relocation. The three cases studies include residential relocation as part of post-disaster recovery in: Mt. Merapi, Indonesia, after the 2010 volcanic eruption; Tacloban City after the 2013 Typhoon Yolanda; and the Tohoku region of Japan after the 2011 Great East Japan Earthquake and tsunami.

Drawing on a review of relevant literature and the author's past research the three areas, this paper analyzes the three case studies of post-disaster recovery and housing reconstruction, and considers the relationship of the concept of BBB at the multiple scales of individual houses, community and neighborhood, and disaster-wide policy. Based on this analysis, the concept of people-centered housing recovery (PCHR) is proposed as an underlying principle to guide housing reconstruction that is indeed 'building back better' for affected people.

3. Build Back Better and People Centered Housing Recovery

As discussed, the term Build Back Better has been used to describe a variety of goals for recovery, ranging from broad integration of development ideas to specific improvements of structural safety. The three cases discussed in the following section all include the provision of strong housing in safer locations; BBB is often used to describe this kind of approach, and it has been argued by Kennedy et al. that building back *safer* might be a more appropriate term [6]. However, while providing stronger structures in a safer area is building back better buildings, it is not necessarily building back better lives for the affected people. In addition, in the provision and construction of housing, BBB does not offer any direction for thinking about housing design or people's participation in the reconstruction process.

In recent years, the ideas of "putting people at the center," or People-Centered Housing Recovery, have been increasingly supported in the fields of housing recovery. Several key documents [7][8][15] called for putting people at the center of their own housing decisions since the 1970s, and people centered approaches are also supported in international development [16,17]. Several key guidelines for housing reconstruction and and have called for people-centered approaches, including publications from the World Bank, UNHabitat, UNDP, and the Red Cross [9][10][11][12][13][14][18]. The idea of 'putting people at the center' of recovery has been increasingly supported in recent years [9][10][11][12][13], as have principles emphasizing residents' participation in recovery decisions and/or reconstruction [9][11][12][13][14][19][20]. Based on an analysis of these and related documents, this paper uses the concept "People-Centered Housing Recovery" to include: 1) housing recovery policy that supports livelihood recovery; 2) a recovery process that includes residents' involvement in decision-making; and 3) houses whose design and construction meet residents' needs. The following sections describe the three international housing reconstruction case studies and consider them in terms of BBB and PCHR ideas.

4. Post-Merapi REKOMPAK program in Indonesia

In October 2010, the volcanic eruption of Mt. Merapi, north of the city of Yogyakarta, caused heavy damage to communities living near Mt. Merapi. Almost 3000 houses were destroyed by the pyroclastic flow, buried under the lahar, or flooded as material from the volcano caused river floods. Drawing on past disaster recovery experiences, the Indonesian government implemented the Community-Based Rehabilitation and Reconstruction Settlement Project (REKOMPAK). Using a process with significant participation of residents from the early planning stages, site and community design, and community-based construction, this project also provided technical experts and facilitators to support each phase of the project, which led to the construction of close to 3000 new houses [21].

Based on a 6x6 meter expandable core house design, residents could choose from several different configuration of rooms, and continue to modify/expand their houses. House design and configuration was also developed in response the various sites, along with site planning in consultation with

technical experts/facilitators. With intense participation throughout the process, the REKOMPAK program exemplifies the focus on decision making and resident involvement at the community scale. During the implementation, the largest number of houses provided through the REKOMPAK program became those in collective resettlement sites. However, the program provided support for a number of options: rebuilding individual houses on former or newly acquired sites outside of the hazard area; support for small groups of residents who found their own resettlement sites; and combining support with other non-government donors.

5. Post-Yolanda housing reconstruction in Tacloban

In November 2013, Typhoon Yolanda caused devastation across the Philippines and Tacloban City was especially hard hit. With almost 30,000 houses destroyed, the majority from informal coastal communities, Tacloban City's housing reconstruction focused on the provision of new housing in resettlement sites in the northern part of the city [22]. As of 2016, the City-coordinated plan included more than 13,000 housing units to be built by the National Housing Authority (NHA) and another 2,500 houses to be built NGOs on land coordinated by the City [23]. Independent from the City, two other resettlement sites are planned by NGO/donors [23].

The city-coordinated housing recovery process includes various combinations of different support to provide safer housing to the city's most vulnerable residents; the vast majority of houses are built by the National Housing Authority (NHA). With 22.5 square meter are, NHA houses are row houses built of reinforced CMU block, and are constructed by developers, according the NHAs established methods to provide socialized housing. At the scale of the house, the design is standard, without much options for modifications by residents. Whereas the residents' voices were not included in the planning process to designing houses or settlement planning, coordination from Tacloban City Dept. of Housing and Community Development attempted to facilitate community-building within the process of relocation. The City Dept. of Housing and Community Development office has attempted to move residents together as groups from temporary to permanent housing, and support this transitional process through staff support and promotion of community leadership.

In contrast to the standardized housing units provided through the NHA, there are also examples of resettlement sites organized by non-profit organizations. Including members Development and Peace and Urban Poor Associates, the FRANCISCO consortium has started construction of 500 houses was part of a model community that includes livelihood and farming. Along with local partners, the international NGO Catholic Relief Services (CRS) is also planning a resettlement area for 900 families. UPA and CRS are each supporting the construction of a housing resettlements site on land they have acquired. Using community facilitation, these projects include the future residents in the planning for the site; residents are also involved in the building construction [23]. Limited by scale, future residents of these projects represent only a small fraction of all post-Yolanda housing beneficiaries in Tacloban, but these projects provide a meaningful demonstration of how people-centered housing recovery can be done in this context.

6. Great East Japan Earthquake

On March 11, 2011, the Great East Japan Earthquake and tsunami devastated communities along Japan's northeastern Tohoku coast; almost 400,000 houses were damaged or destroyed [24]. Based on past precedents for disaster recovery, government support for housing reconstruction includes two main approaches: the construction of new Disaster Recovery Public Housing units; and provision of new residential lots as part of Collective Relocation for Disaster Mitigation projects, which move residents to high land areas. Including single family detached public housing and collective multi-family apartment style public housing, about 30,000 units of public housing are planned for the disaster-affected municipalities; as of July 2016, construction had been completed for about 20,000 units, or 2/3 of the total [25]. Site preparation is complete for almost half of the 19,500 lots planned for residents to use for private house reconstruction in relocation projects.

Residents have only several options in regards to housing reconstruction and the use of government provided housing support; the main decision is between private rebuilding or public housing. For those who decide to rebuild their own houses, options include renting or buying a residential lot provided through the collective relocation project, or choosing not to wait for the government sponsored project, and finding their own land [26]. Of course, residents rebuilding their own houses can select their own contractor and house design.

Residents who choose to move into public housing have fewer options, but some may have some housing choices for which area they want to move to. Similar to the case of Tacloban mentioned above, the various housing units available as part of the recovery project do not necessarily mean that individual residents can make individual choices. In many rural fishing village areas, single family public housing units are provided; in many municipalities, larger multi-family units are provided in areas with more urban density. The size and configuration of public housing is decided by family size; some efforts have been made to accommodate the needs of local residents—for example large sinks in houses for residents of fishing communities who need to be able to clean fish. However, from a PCHR point of view, residents are not involved in the design and planning of housing units or sites; these projects are carried out without residents' participation in decision making, and remain a commodity provided as part of social welfare support.

7. Comparison and Analysis

Although the focus of all three cases is government-driven housing provision as part of relocation and resettlement, as shown in Table 1, the aspects of PCHR vary applied at the three scales of policy, community, and houses. Of the three examples, the support for housing recovery in Japan is the most monolithic—relying exclusively on the national government budget and recovery project support, without any other complementary support from sources. In contract, the examples from Merapi and Tacloban include some flexibility and variation of options through combinations of government and non-government support. Since residents are not always able to chose which of these options they would like for their family on an individual basis, there may some unevenness in access to different kinds of housing support. In Japan, on the other hand, although there is some variety in how municipalities chose to implement housing reconstruction, there is a greater degree of standardization across the disaster area.

Although housing advocates and international guidelines have for decades promoted the idea that housing recovery should be implemented in a way that it can become a tool for residents to improve their lives, the three cases show that there is still a prevalence of housing support that takes the form of objects being provided to passive residents. Reasons contributing to this situation vary between the different local context in these cases. In the case of Japan, a wealthy nation, the majority of residents are not used to being directly involved with the construction of their houses—rather they pay for the finished product--although households receiving support (especially public housing) in Tohoku are not wealthy. Whether it condominium or detached housing, housing is a commodity in the non-disaster housing market. Yet the government is acting on their obligation to provide support (in the form of housing) to disaster survivors.

In the case of Tacloban, the economic situation in the Philippines is the opposite—housing built for the disaster recovery targets extremely poor and vulnerable residents from informal settlement, who are used to building their own shelters from whatever materials and on whatever land they can access. Yet, similar to Japan, when the national government is the primary housing provider, for the majority of permanent housing provided by the National Housing Authority in Tacloban, the voices of the residents are not included in the decision-making process, and the hands of the residents are not included in the construction process.

Table 1. Comparison of Housing Recovery cases and relationship to PCHR

Disaster and Housing Reconstruction	Housing recovery program	PCHR at house scale	PCHR at community scale	PCHR at policy scale
Oct. 2010 volcanic eruption of Mt. Merapi, near Yogyakarta, Indonesia. Around 3000 houses damaged; designated areas at risk from future volcanos.	Community-based housing recovery program (REKOMPAK) supported new housing on site (not risk) or resettlement areas. Close to 3,000 houses built.	Residents involved in choosing the design (room configuration) of their houses; directly involved in the construction.	Intensive resident participation in planning process from the early stage, to site planning and construction, expert support.	Project based on people-centered principles of residents' participation, role in housing and site decisions. Program flexibility allows wide support.
Nov. 2013 Typhoon Yolanda in Tacloban City. Including multiple actors and providers, housing recovery is coordinated by Tacloban City. Target beneficiaries are informal coastal residents. Most housing recovery support in the provision of new housing in resettlement sites to the north. NGOs are also involved with housing provision, including in coordination with the City's relocation plan, as well as independently.	The largest number of housing units will be provided by the National Housing Authority, more than 13,000 units planned.	NHA standard 22.5m^2 townhouse design, built by contractors. Residents not included in design or construction.	No participation in the settlement design, but some attempts at community-building.	The goal of the project is to provide stronger houses; housing provided as a relief object without including people.
	Two NGOs (UPA and CRS) supporting construction of new housing resettlement sites close to city center. Around 500 houses planned for each.	Residents included in planning for house and site design, and included in construction	Participation in decision making (home owners association) and construction	Housing program designed to support needs of residents-including location and livelihood support activities.
GEJE-Japan government. After the Great East Japan Earthquake and tsunami, Japanese government housing support include the provision of public housing and lots for private reconstruction in collective relocation programs.	Government' planned support for housing reconstruction includes 30,000 units of disaster recovery public housing and 19,500 residential lots for private reconstruction.	Although there have been attempts to design public housing units that are responsive to residents' needs, people are not directly involved in the design.	Various levels of community-building related to moving public housing; efforts are made, but are not part of housing provision.	Public housing is constructed by the government and provided to residents as a social welfare commodity; they are not involved in planning.

Based on previous experiences in post-disaster housing recovery in Indonesia, the REKOMPAK program is a rare case of community-based housing recovery support from the national government. Similar to successful examples of owner-driven housing reconstruction that have been proven successful in Gujarat and Pakistan, and also used in previous housing recovery after the 2006 Java Earthquake in the same region, the REKOMPAK program in Merapi provided building materials, along with technical experts and advisors, to residents who took a primary role in the rebuilding process. With large component of relocation, housing recovery in Merapi also including the provision of land in resettlement sites, or compensation for land that residents acquired themselves. As shown in Table 1, the REKOMPAK program demonstrates People-Centered Housing Recovery principles at all 3 scales: individual houses, community participation, and disaster-area-wide policies [21].

Other factors also contribute to the relative success of the REKOMPAK-Merapi as a housing resettlement program in comparison to the other cases. Distances that residents were relocated was minimal-usually less that 5 kilometers from their former land and resettlement site, which allowed them to return to their land and is many case continue to use them for farming. In contrast, the ongoing relocation in Tacloban is moving people with very little economic capital to an area with few options for livelihood development as of now. In Japan, the distance from former neighborhoods to relocation areas is not that large, but the larger challenge stems from economic decline, depopulation and aging population in the region. Another factor is resident involvement in reconstruction as part of local culture where this is a normalized activity; from communities discussing and deciding their housing

needs as group, and then being directly involve in the reconstruction process could be implemented in Indonesia, whereas in Japan this kind of direct participation in housing provision is unfamiliar. In the case of Tacloban, the smaller scale NGO-driven projects of UPA and CRS demonstrate that while it is possible for the local residents to be involved from the planning to construction states, the main housing provision still relies on contractor-driven housing construction by NHA without residents' involvement.

8. Conclusion

Although *build* back better directly relates to the reconstruction of housing and settlements, the interpretation of BBB has not been clearly defined in relation to other key principles of housing recovery, although there are connections principles of human rights in housing recovery, housing and development, and disaster risk reduction. The term Build Back Better (BBB) has been widely used to describe the goals of recovery plans and projects, yet the specific meaning and application of BBB is often unclear. In terms of housing relocation, there is a potential for BBB to be interpreted narrowly, prioritizing avoidance of risk over other factors that support residents' life and livelihood recovery.

The three cases discussed in this paper all include the provision of houses to reduce future disaster risk; in Merapi and Tacloban, houses are designed with seismic reinforcement, and in all three cases, residential relocation is intended to move people out of areas at risk from future hazards. With the increased safety and high quality of housing construction, these houses can all be considered to represent Build Back Better (BBB). However, when considered in relationship to the ideas of People Centered Housing Recovery, the limited role and participation of affected residents becomes clear.

Along with 'participation' in the recovery process, most recent literature on housing recovery post-disaster clearly supports the benefit of 'putting people at the center of recovery.' In this paper, 'people-centered housing recovery' was defined as a framework with multiple aspects (policy, process, and housing form) applied to multiple scales (disaster area, community, and individual household). Although policies dealing with housing recovery in these three cases and countries vary, as do the respective cultural and economic contexts, using the framework of 'people-centered housing recovery,' allowed for a comparison of relevant aspects of each case study, and the identification of respective strengths and weaknesses of different aspects of each project in terms of the impacts on residents' lives. Compared to BBB, "people centered housing recovery" could represent a more detailed way to consider the varied aspects of housing recovery projects.

REFERENCES

[1] Clinton, W. "Key Propositions for Building Back Better." Office of the UN Secretary-General's Special Envoy for Tsunami Recovery (2006) 2.
[2] UNISDR. Sendai Framework for Disaster Risk Reduction 2015-2030 (2015).
[3] Fan, L. Disaster as opportunity? Building Back Better in Aceh, Myanmar and Haiti. ODI: London. (2013).
[4]Pakistan's Earthquake Reconstruction & Rehabilitation Authority (ERRA) website.,. http://www.erra.pk/. Accessed 3/23/2016.
[5]Government of Nepal, National Planning Commission *Post Disaster Needs Assessment*. Kathmandu: Government of Nepal (2015)
[6] Kennedy et. al. The Meaning of 'Build Back Better': Evidence from Post-Tsunami Aceh and Sri Lanka. Journal of Contingencies & Crisis Management, 16 (1) (2008) 24-36.
[7]UNDRO (United Nations Disaster Relief Organization), Shelter after Disaster, Guidelines for Assistance (1982).55.
[8] Turner, J.F.C. Housing by People: Towards Autonomy in Building Environments. Marion Boyers: London (1976).

[9] Jha, A et al. Safer Homes, Stronger Communities: A Handbook for Reconstructing after Natural Disasters. World Bank (2010).
[10] UNHabitat. *Shelter and Housing*, *UN HABITAT in Disaster and Conflict Contexts,* (2011).
[11] Lyons, M. et al. Building Back Better: Delivering People-centred Housing Reconstruction at Scale. Rugby, UK: Practical Action (2010).
[12] Schilderman, T. and Parker, E., Eds. Still Standing: Looking back at reconstruction and disaster risk reduction in housing. Rugby, UK: Practical Action (2014).
[13] IFRC and OCHA. Shelter after Disaster, 2nd Edition (2015).
[14] Davis, I. and Alexander, D. Recovery after Disaster. London: Routledge (2016).
[15] Davis, I. Ed. (1981) Disasters and the Small Dwelling, Pergamon: Oxford. Pp13-16.
[16]United Nations Development Program (UNDP) (2011). *People-centred Development: Empowered lives. Resilient nations.*
[17] Korten, D. (1987). "Third Generation NGO Strategies: A Key to People-centered Development," *World Development*, Vol. 15, 145-159.
[18] IFRC (2015). *Shelter after disaster*, 2nd Ed.
[19] Lankatilleke, L. (2010) "The people's process: The viability of an international approach," in Lyons, M. et al. Building Back Better: Delivering People-centred Housing Reconstruction at Scale. Rugby, UK: Practical Action.
[20] Schilderman, T. (2010), "Putting people at the centre of reconstruction," in Lyons, M. et al. Building Back Better: Delivering People-centred Housing Reconstruction at Scale. Rugby, UK: Practical Action.
[21] Maly, E., Iuchi, K. and Nareswari, A. (2015). Community-based Housing Reconstruction and Relocation: REKOMPAK program after the 2010 Eruption of Mt. Merapi, Indonesia. Institute of Social Safety Science Journal, Volume 27, 205-214.
[22] Iuchi, K. and Maly, E. (Forthcoming 2016). Residential Relocation Processes in Coastal Areas: Tacloban City after Typhoon Yolanda. Chapter 14 in: Sapat, A. and Esnard, A-M. (Eds.). *Coming Home after Disaster: Multiple Dimensions of Housing Recovery*. Routledge: Boca Raton.
[23] Maly, E and Iuchi, K. (2016), "The Role of NGOs in Post-Disaster Housing Provision for a People Centered Recovery," Conference Paper presented at the 11th International Symposium on Architectural Interchanges in Asia (ISAIA), Sept. 21, 2016.
[24] Iuchi, K., Maly, E., and Johnson, L. (2015). Three years after a mega-disaster: Recovery policies, programs and implementation after the Great East Japan Earthquake. In Post-tsunami hazard reconstruction and restoration, ed. by V. Santiago-Gandino, Y. A. Kontar, and Y. Kaneda. London: Springer.
[25] Reconstruction Agency (2016), "Current situation of provision of public housing and support for private housing reconstruction after the Great East Japan Earthquake," (in Japanese), Aug. 3. 2016. http://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-15/20160831_jutakukyokyuu.pdf
[26] Tamiyo Kondo, 2012a, Annual Change of Housing Rebuilding in the Disaster Area-A study on housing rebuilding in City of New Orleans after Hurricane Katrina (2005), Journal of Architecture and Planning vol.679, pp.2283-2292.