

Paper:

# Learning from a Post-Typhoon Haiyan/Yolanda Recovery Institution (OPARR): A New Research Agenda for Recovery Governance

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In the phase after disasters, particularly those of an unprecedented magnitude, governance structures often emerge specifically oriented toward rebuilding, with a post-disaster institution at its center to head the reconstruction process. However, little is understood about such institutions' actual operation, impact on recovery, and role in recovery governance. As post-disaster institutions are trending in recovery, it is important to better understand their nature. As a first step to comprehending the role of these institutions, this study explores a framework for evaluating their success and unpacking the implications of managing recovery in a compressed timeframe. Methods included literature and ethnographic analysis using first-hand knowledge accumulated through longitudinal in-person interviews. The case institution is the Office of the Presidential Assistance on Reconstruction and Recovery (OPARR), established after the 2013 typhoon Haiyan (local name Yolanda) in the national government of the Philippines. Two major findings are reported: First, seven themes – “establishment,” “funding,” “coordination,” “politics,” “leadership,” “achievement,” and “post-disestablishment” – are identified as useful to assess post-disaster institutions. Second, concepts of permanency versus impermanency of institutions after disasters and bottom-up participatory versus top-down structured processes are identified as key implications of operating recovery under time compression, and as areas for further research. The proposed framework provides a basis to better understand and ultimately improve these institutions' operation and will ideally further efforts to research cross-comparisons in various locations. The study results also suggest a first step in increasing knowledge toward more effective institutions and refining methodological approaches to better examine institutional operation and recovery governance.

**Keywords:** Typhoon Haiyan/Yolanda, recovery institutions, recovery governance, OPARR (Office of the Presi-

dential Assistance on Reconstruction and Recovery), literature and ethnographic analysis

## 1. Understanding Post-Disaster Institutions Established for Rebuilding After Large Scale Disasters

### 1.1. Trends in Recovery Institutions After Major Disasters

Adequately addressing post-disaster recovery has become an increasingly pressing issue in response to rising rates of large-scale devastation due to natural events after the start of the 21st century. Because recovery institutions represent a critical role in leading successful recovery, they have been increasingly established. Rebuilding from a few recent large-scale disasters, namely the Indian Ocean tsunami affecting various countries including Indonesia (2004), the Kashmir Earthquake in Pakistan (2005), the Canterbury earthquakes in New Zealand (2010 and 2011), the Great East Japan Earthquake in Japan (2011), Typhoon Haiyan in the Philippines (2013), and the Gorkha earthquake in Nepal (2015), were led by national-level reconstruction agencies. These were *Badan Rehabilitasi dan Rekonstruksi NAD-Nias* (BRR; Rehabilitation and Reconstruction Agency for Aceh and Nias) in Indonesia, Earthquake Reconstruction and Rehabilitation Authority (ERRA) in Pakistan, Canterbury Earthquake Recovery Authority (CERA) in New Zealand, *Fukkocho* (Reconstruction Agency, RA) in Japan, Office of the Presidential Assistant for Rehabilitation and Recovery (OPARR) in the Philippines, and National Reconstruction Authority (NRA) in Nepal. All except one, ERRA, have dissolved or are planned to be dissolved after their mandates are fulfilled.

The establishment of national-level institutions became popular for several reasons. First, as a response to societal pressure for the government to quickly rebuild [1]. Second, for the coordination of multiple plans, projects, and implementation that occurs in a phase designated as

reconstruction and recovery. The coordination aspect becomes even more crucial due to a phenomenon known as time compression – i.e., infrastructure and urban development projects which normally take decades to complete occur in a short timeframe – typically evident after disasters [2]. Third, these institutions can establish a platform for collective decision making by various stakeholders and reduce red tape [3]. While it is likely that these post-disaster institutions will continue to be formed, their operations, impact on recovery, role in recovery governance as part of broader disaster governance, and the institutions themselves are not well understood.

## 1.2. Studies on Disaster Related Governance and Post-Disaster Institutions

Governance is a new concept in relation to disaster studies [4], complicated by its multi-faceted and multi-dimensional nature. For instance, Tierney [4] argues that “Governance regimes are polycentric and multiscale, show variation across the hazards cycle, and tend to lack integration and to be formulated in response to particular large-scale disaster events (p. 341).” Others suggest that disaster governance is a societal system which includes multi-layered diverse actors, involving public entities – such as governments – and private entities, in private sector and civil societies [4–6]. While still broadly defined, studying governance within the context of disaster studies is unique in its association with time. Disaster management cycles constitute different phases (i.e., mitigation, preparedness, response, and recovery), and managing disasters in these different phases requires different approaches. In particular, studying the recovery phase via observations and assessments requires consideration of the nature of time compression. Post-disaster institutions, created after large-scale disasters to lead rebuilding, present a unique opportunity to examine the impact of time compression upon recovery governance and represent a deviation from standard governance operations (i.e., it is distinct due to a concentration of rapid recovery decisions, coordination, and actions).

While a few studies focus on post-disaster institutions (Smart [1], Thiruppugazh [3], and Mannakkara and Wilkinson [7] are notable exceptions), there are not enough conceptual arrangements, analytical frameworks, and examined cases to represent a field of study. Efforts to understand such institutions as well as establish a framework for analysis are critical to comprehend the potential and hindrances to such institutions’ ability to effectively orchestrate recovery.

This study targets the OPARR, which was established a month after the 2013 typhoon Haiyan (local name: Yolanda) in the Philippines, as a representative case study institution. As there is no specific framework to analyze post-disaster institutions, this study draws upon and then expands the exploratory framework developed by Jibiki and Iuchi [8].<sup>1</sup> Using key propositions found in disaster recovery studies by Johnson and Olshansky [9] and

Murai [10], the study identified key themes of “funding,” “coordination,” “leadership,” and “politics” for assessing post-disaster institutions. While Jibiki and Iuchi’s study was limited in its understanding of the breadth of the institution’s operation due to the text analysis approach, the current study combines literature and ethnographic analysis, allowing for a deeper and broader understanding.

Following this introduction, the following section explains the objectives, methods, and contexts. The section on analysis and results presents findings from the in-depth contextual review and is followed by a discussion section. The conclusion suggests a potential framework and concepts for furthering research on this emerging topic.

## 2. Objectives, Methods, and Context

### 2.1. Objectives

This study explores a framework for evaluating the success of post-disaster institutions. By identifying key themes to unpack the implications of time compression on managing recovery, this study presents a point of entry to understand governance in the recovery phase as institutions established after disasters play a key role in leading successful rebuilding. OPARR was chosen as a case study for several reasons. First, it has been more than six years since OPARR’s establishment, providing adequate time for reflection and related material to be published. Second, the authors bring first-hand knowledge of the situation post-Haiyan, gained from fieldwork between 2014–2020 in Manila and Leyte, allowing for confirmation of the context and substance of available literature. Third, OPARR provides an opportunity to examine two aspects of governance – internal decisions and management of the institution itself, and the impacts of its actions on the rebuilding process. This is possible due to the amount of accessible information published to conduct a literature analysis, complemented by the authors’ on-site activities including interviews. The literature search utilized a semi-systematic selection, notable for its inclusion of works beyond those used for traditional narrative reviews that exclusively focus on gathering content based on what literature reviewers typically seek [11]. The on-site activities allowed for tracking of detailed information on changes OPARR had undergone.

Currently, our knowledge of post-disaster institutions is limited due to the complex understanding required to comprehend such institutions’ dense operations, particularly with respect to time compression. Studying OPARR using literature as well as ethnographic analysis allows for a comprehensive overview of the operation and impact of post-disaster institutions. Developing an analytical frame-

ing OPARR as a case study. Eight themes were chosen from key themes identified in earlier disaster recovery studies such as Johnson and Olshansky [9] and Murai [10]. Text mining was used to scan 83 newspaper articles published via the Philippines News Agency on OPARR, from November 8, 2013 to May 24, 2016. Results indicated that in newspaper articles, words related to “funding,” “coordination,” “leadership,” and “politics” were associated with explanations of OPARR; while words representing other themes such as “information,” “time,” “preception,” and “urban planning,” did not show significance.

1. This exploratory study tentatively tested eight themes that may be useful in evaluating national level post-disaster recovery institutions, us-

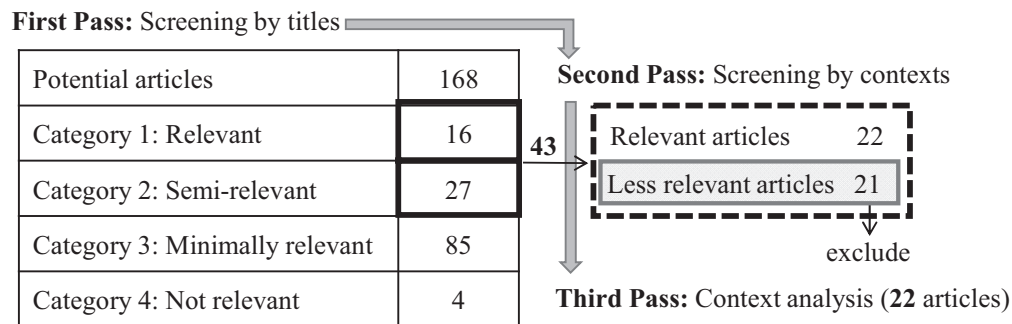


Fig. 1. Systematic literature search workflow.

work would aid in evaluation and better operation in the future.

## 2.2. Methods

This study adopted literature and ethnographic analysis as analytical approaches. For the literature analysis, we adopt a systematic literature search of scholarly publications related to OPARR, using the literature search framework outlined by Xiao and Watson [12]. We then analyze this published data using knowledge gained from fieldwork, through in-person interviews conducted over six years as a foundation for ethnographic analysis.

For the systematic literature search, the first pass searched for literature using Google Scholar, cross-referenced with Scopus and the Web of Science. The keywords included: the Philippines, typhoon Yolanda/Haiyan, and OPARR. We limited the timeframe to begin in 2014, because OPARR was officially established in December 2013 and began to function in January 2014. This resulted in 168 potential articles. The first screening classified the selected literature into four categories by titles: Category 1 – relevant; Category 2 – semi-relevant; Category 3 – minimally relevant; and Category 4 – not relevant. Relevance was defined as the way the publication titles addressed the governance structure and governmental operation on Haiyan recovery, especially those featuring OPARR. Through this classification, 16 articles were identified for Category 1, 27 for Category 2, 85 for Category 3, and 40 for Category 4. For the second pass, we investigated the 43 articles that fell under Categories 1 and 2 to examine and confirm their relevance to explanations of OPARR’s internal decisions and external impacts. Of these, it was determined that 21 articles that fell in Category 2 in the first pass only minimally addressed OPARR’s official mission without further explanation and were excluded. Thus, a total of 22 articles from Categories 1 and 2 remained for analysis in the next step (see Fig. 1).

The remaining 22 papers were analyzed using themes identified as critical for understanding post-disaster institutions by Jibiki and Iuchi [8], namely on “coordination,” “funding,” “politics,” and “leadership.” We coded key descriptions and findings on OPARR from the 22 articles to comprehend the breadth of its function. We further inves-

tigated the potential relevance of other areas of description on institutional operations.

For the ethnographic analysis we used first-hand knowledge gained from fieldwork to assess the data from the 22 articles. Semi-structured interviews and informal conversations targeting various actors in recovery were conducted starting four months after the typhoon in early 2014, and interviewees were recurrently revisited until early 2020. The interviewees worked in agencies playing key rebuilding roles after Haiyan, including: (i) National level agencies such as OPARR, departments representing five clusters established for Haiyan recovery,<sup>2</sup> and the Office of the Civil Defense,<sup>3</sup> the lead entity managing national disasters; (ii) multi- and bi-lateral agencies for international development<sup>4</sup>; (iii) local governments and regional offices of national departments in the Leyte region; and (iv) nationally and locally based academic institutions. Longitudinal data gathered from the interviews helped track changes to OPARR’s roles and responsibilities in rebuilding, an aspect that is often missed in research and practice. In addition, it helped validate and organize the data around the four themes and develop additional themes for researching post-disaster institutions.

## 2.3. Context

In this study, post-disaster institutions are assessed in the context of OPARR’s history. As part of President Aquino III’s administration, OPARR was established to provide support to affected local governments in implementing rebuilding strategies, plans, and programs organized at the national level in the reconstruction policy paper titled Reconstruction Assistance on Yolanda (RAY) [13]. The nature of this office was interim – the office initially aimed to serve for 2.5 years but dissolved

2. The five clusters included: Department of Public Works and Highways (DPWH), Department of Social Welfare and Development (DSWD), Housing and Urban Development Coordinating Council (HUDCC), Department of Trade and Industry (DTI), Department of Budget and Management (DBM), and National Economic Development Agency (NEDA).

3. The Office of Civil Defense (OCD) leads the National Disaster Risk Reduction and Management Council (NDRRMC) responsible for national disaster management during normal times. In the post-Haiyan setting, OCD did not have a central role in the rebuilding process but monitored and initially collected initial post-typhoon data.

4. The World Bank, Asian Development Bank (ADB), United Nations Development Programme (UNDP), and Japan International Cooperation Agency (JICA).

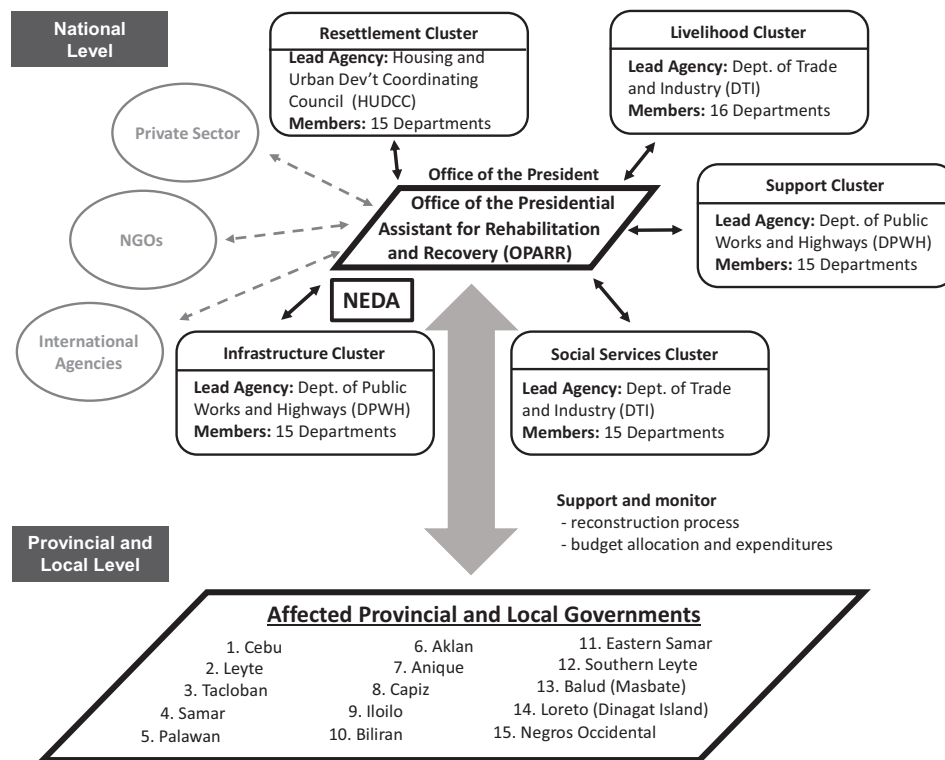


Fig. 2. OPARR's coordination structure.

after 1.5 years in April 2015 [14]. OPARR was formed within existing governmental systems, under the Office of the President, and was tasked with helping 15 affected local governments at the provincial and local levels with implementation and monitoring of physical reconstruction, budget allocation, and expenditures. RAY further appointed the National Economic Development Agency (NEDA), an agency ordinarily responsible for national development plans, to oversee the rebuilding process together with OPARR [13]. To lead OPARR, President Aquino III appointed former Senator Panfilo Lacson as the Yolanda rehabilitation czar.

As the recovery structure gradually evolved, OPARR became responsible for coordinating and overseeing the progress of five clusters: (i) livelihoods and business development, (ii) housing and resettlement, (iii) social services, (iv) infrastructure, and (v) support<sup>5</sup> [15]. OPARR also coordinated with actors outside the Philippines' government system, such as international agencies (multi- and bi-lateral agencies), NGOs (international and national), and a consortium of private sector firms on their flash appeals to recovery activities (see Fig. 2).

One of OPARR's important achievements was the creation of a Comprehensive Rehabilitation and Recovery Plan (CRRP), a collection of detailed plans and programs for the affected provincial and local governments, collaboratively prepared by local governments and national government agencies. OPARR was then perceived to manage and implement the plans. However, in December 2014,

Lacson announced an intent to transfer the continuing rebuilding effort to the National Disaster Risk Reduction and Management Council (NDRRMC) – a Council responsible for disaster risk reduction and management in regular times – claiming that OPARR had successfully fulfilled its mandate [16]. NEDA, an agency with economic development planning responsibility, but no obligation on project implementation, took over OPARR's entire function in April 2015.

### 3. Analysis and Results

#### 3.1. Literature for Analysis

The literature search identified 22 articles for in-depth analysis. These articles are presented by year in Table 1, and reference publications are listed in the reference section. Publication dates ranged from 2014 to 2020; of these, three were in 2014, seven in 2015, three in 2016, one in 2017, four in 2018, three in 2019, and one in 2020.<sup>6</sup>

#### 3.2. Analysis of Four Themes

Drawing on the earlier findings by Jibiki and Iuchi [8], this study took relevant pieces of information on OPARR from the selected articles and coded them according to the four suggested themes of "funding," "coordination,"

5. Support cluster managed cross-cutting issues of the four clusters and assisted OPARR in gathering plans and allocating funding.

6. The authors acknowledge that the data collected and the subsequent analysis was all conducted in the first half of 2020, and that relevant articles may be published later on in the year.

**Table 1.** List of selected literature for analysis by year.

Year	Article reference number	Number of articles published
2014	[17–19]	3
2015	[20–26]	7
2016	[27–29]	3
2017	[30]	1
2018	[31–34]	4
2019	[14, 35, 36]	3
2020	[37]	1

“politics,” and “leadership,” enabling the formation of a more comprehensive picture of OPARR.

### 3.2.1. Funding

OPARR proposed PHP 170.1 billion for rebuilding in August 2014, which included the resettlement of 205,000 houses across 14 affected provinces into designated safe zones [17, 30]. Besides the national budget, funds for rebuilding came from international agencies and private sector contributions. A multi-donor trust fund was established by the Asian Development Bank and the World Bank [18]. Additionally, over 1,000 private sector projects were pledged at an amount of USD 268 million [21]. Funding was released promptly; a year and a half after the rebuilding budget was approved, about 62% of the total budget was released to national departments and local governments [30]. However, OPARR had no control over these budgets, and was unable, for instance, to prioritize funding distribution in line with needs identified through a bottom-up process [27]. It was similarly difficult for local governments to manage the funds. There were cases where submitted plans did not meet OPARR’s criteria, and the required revisions inevitably became overly bureaucratic and caused delays [22, 31]. In contrast, OPARR was completely externally funded, with the exception of a contribution by the Leyte provincial government; the majority of office space, staff salaries, and technical personnel were covered by international agencies, including the United Nations Office for Coordination of Humanitarian Affairs, the United Nations Development Programme, and the United States Agency for International Development (USAID) [23, 32]. Although reduced, USAID continued their support for more than a year after OPARR dissolved, even when its functions were transferred to NEDA and the Department of Budget and Management (DBM) [23, 32].

### 3.2.2. Coordination

OPARR was primarily established to address coordination [23, 28] and in this capacity worked with national agencies, affected local governments, international agencies, and private sector actors.

First, a new form of coordination was evident at the national level. The response to unprecedented devastation such as the kind seen post-Haiyan called for an atypical governance structure. OPARR coordinated national departments and agencies through five clusters by holding integrated cluster meetings to advance recovery projects, which increased efficacy of reconstruction information sharing [28].

Second, OPARR’s role in coordinating with affected local governments to submit rebuilding plans for funding distribution was critical to establishing a “bottom-up and step-by-step approach” [28, 31]. Local governments were responsible for developing rebuilding plans and requesting funding [31–33]. OPARR reached out to provincial governors and city mayors via Local Government Coordination Unit-Provincial Rehabilitation and Recovery Offices to provide advice and support funding flows [32]. However, local-level processes and rebuilding supporters complicated efforts [32].

Third, other types of coordination existed beyond those between national and local governments. OPARR sought international partners who could address capacity and rebuilding concerns [22]. For example, USAID dispatched personnel to participate in monitoring recovery and rehabilitation [23, 32]. Japan International Cooperation Agency (JICA) developed infrastructure projects as a part of recovery as well as future risk reduction for the benefit of the disaster-stricken areas [32]. In addition, they provided housing, classrooms, fishing materials, and boats in collaboration with local governments, NGOs, and the private sector [22].

### 3.2.3. Politics

Rebuilding involves political discourse. This was also the case after Haiyan, and “familial politics, red tape and rehabilitation” [22] were often offered as the causes for lagged recovery. This political aspect of rebuilding often manifests as relocating communities and rebuilding houses, and in OPARR’s case fell under the housing and resettlement cluster. Arroyo [35] suggests that housing recovery was politically complex throughout due to multiple actors with various political backgrounds. Disputes surfaced particularly when funding allocation lagged or was different from the expected amount. Lacson faced criticism by local governments and was accused of intentional delay and injustice [22, 23].

### 3.2.4. Leadership

Lacson was appointed OPARR’s head, a position that was intended to have lasted until President Aquino III termed-out in 2016 [22]. Although he was able to provide “direction to the rehabilitation and reconstruction efforts [28],” in reality OPARR’s limited power and authority hindered project implementation efforts [28]. In fact, existing departments and agencies “retained control over their funds and disbursements, which essentially relegated the OPARR to coordination [22].” This situation created difficulties for OPARR during the implementation stage,

prompting Lacson to resign [22, 35]. Whereas it seemed the President gave him authority to rebuild the affected regions, in reality, superior power continued to be held by the national departments [35].

### 3.3. Additional Proposed Themes of Analysis

While analyzing the literature against the existing themes, it became apparent that there was substantial relevant information which fell outside the four categories. A close examination of this data revealed patterns which can be grouped into themes of “establishment,” “achievement,” and “post-disestablishment.” An analysis of the data suggests that these additions will provide a more comprehensive understanding of internal decisions and external impacts of post-disaster institutions, and enables exploration of the reasons for certain outcomes.

#### 3.3.1. Establishment

While the NDRRMC is responsible for managing disasters during normal times, the Council did not play a central role in the recovery effort after Haiyan due to the overwhelming devastation and rebuilding needs [14]. To fill this gap, OPARR was established via Memorandum Circular No.62 in December 2013 [14, 28, 32] to coordinate national agencies and local governments and to unify and lead post-Haiyan rebuilding [23–25, 29, 34]. OPARR’s responsibilities at the time of establishment included: reporting to the President on rebuilding progress and implementation [18], developing an overall vision and strategy to rebuild by assembling the CRRP [14, 19, 32, 34, 37], and proposing a rebuilding budget for Presidential approval [30]. Lacson was appointed to lead the institution [35], a move considered to be a “positive and prompt” [28].

OPARR adopted a cluster approach [36], establishing five working clusters – resettlement, livelihoods, social services, infrastructure, and support clusters – with cabinet secretaries and heads of national agencies representing each group [14, 24, 29]. Notably, the Housing and Urban Development Coordinating Council (HUDCC) was appointed the resettlement cluster lead. As a point of historical contrast, in rebuilding from an earlier typhoon devastation the Department of Social Welfare and Development was appointed as the lead agency for the resettlement cluster, not the HUDCC [35]. This resettlement cluster was one of the most controversial, as it was responsible for relocating communities out of the 40 meter-width no-dwelling (formally stated no-building) zone. According to RAY, resettlement housing units had to be located in the safe zone, though implementation faced strong opposition from the provincial and local governments [19, 36]. OPARR explains they did not impose this no-dwelling policy on affected local governments due to its complicated definition, interpretation, and implementation [19, 35].

#### 3.3.2. Achievement

OPARR had several key achievements. One of the most salient outcomes is the CRRP that outlines approximately 19,000 rebuilding programs, projects, and activities to be implemented in the affected areas [23, 28]. The first step for this CRRP was to have local governments complete Local Government Rehabilitation and Recovery Plans. As many local governments had no experience developing such plans [14], OPARR extended their support [28, 32]. The plan was submitted to the President about nine months after the typhoon and was approved about two months later, just a month before the first anniversary of Haiyan [14, 32]. Another less cited but crucial achievement is the rebuilding decision and statements by OPARR on RAY’s “no-build zone” policy. RAY called to prohibit any building to be standing in the 40-meter “no-build-zone” buffer, but it was unrealistic given many unsuccessful previous cases and lack of scientific evidence considering different coastal geographic conditions [26]. To end this controversy, OPARR officially stated four months after the typhoon that the “no-build-zone” policy is not recommended [18]. Instead, it reclassified the zone as “no-dwelling,” with adoption decided by the local governments on a case-by-case basis [26]. OPARR also mentioned that they would identify “safe” and “unsafe” zones while specifying “no dwelling zones” based on geo-hazard mapping [18].

A third achievement is the Electronic Monitoring Platform Accountability and Transparency Hub for Yolanda (eMPATHY), developed towards the end of OPARR’s life [21]. This was designed to ensure that funding distribution and expenditure remained transparent [22].

#### 3.3.3. Post-Disestablishment

OPARR was short-lived, operational for approximately 1.5 years and terminated when the CRRP was approved by President Aquino III and Lacson declared OPARR’s role was no longer necessary [14, 37]. Responsibilities were then diverted to NEDA as the vice-chair of the NDRRMC to lead rebuilding and the DBM as budget manager with Memorandum order No.79, s. 2015 [14, 32]. For approximately the next two years, while NEDA and DBM officially supervised rebuilding progress, “NEDA retained and utilized the existing cluster structure established by OPARR to monitor and assess the status of and address the remaining policy issues related to the rehabilitation and recovery efforts in the affected areas [34].” Nevertheless, NEDA was viewed as “taking the back seat [29]” as they had no mandate on project implementation during normal times. In August 2017, an Administrative Order was issued to create an Inter-Agency Task Force (IATF) [38] to boost recovery efforts [14]. The Task Force included members beside those directly relevant to recovery activities, suggesting rebuilding efforts had integrated into normal development activities. Furthermore, local representatives of national agencies – in this case the Office of the Presidential Assistant for the Visayas – gained greater responsibilities [14], revealing a decentral-



ization of administrative power. OPARR's roles and activities in Haiyan rebuilding had been returned to the regular routines of departments and agencies.

#### 4. Discussion

This study on OPARR suggests five areas for discussion. While the first two are derived mainly from the literature analysis, the latter are a result of incorporating ethnographic analysis with the literature analysis.

First, the following seven themes summarize OPARR's function through its establishment to post-disestablishment. The process of explaining the overall picture of OPARR revealed that these identified themes are important for future evaluation of post-disaster institutions.

- i. Establishment: There is general agreement that OPARR was established to manage recovery efforts. This was in contrast to NDRRMC, which, while typically tasked with disaster risk management, was structurally incompatible with the recovery effort.
- ii. Funding: OPARR proposed an amount of PHP 170.1 billion to rebuild from Haiyan, which was approved in full. OPARR itself, however, had to rely heavily on external funding (i.e., their operation was not financed by national funding).
- iii. Coordination: OPARR provided unique support to affected local governments to develop rebuilding plans needed for funding approval. Actors external to the Philippines' government – e.g., international agencies, NGOs, and private sector organizations – were also capable of supporting local governments via coordination with OPARR. Having different actors share a vision of building back the affected areas was possible due to OPARR's existence, as its governance was structured to incorporate local visions in a bottom-up process. However, actually implementing this approach to developing plans was challenging due to the variations in the actual planning capacity of local governments.
- iv. Politics: The time required for OPARR to coordinate and achieve approvals from the President was often politically motivated. Historical family rivalry between the central and local governments surfaced as the reason for lagged rebuilding decisions and implementation.
- v. Leadership: Lacson faced significant barriers to exercising leadership due to the limited power granted to OPARR despite its mandates for reconstruction.
- vi. Achievement: Although OPARR seemingly dissolved sans achievements, three are worth noting. First, OPARR compiled plans from the local and provincial governments and integrated them to create the CRRP, which became the basis for Haiyan recovery. Second, OPARR directed the roadmap for rebuilding, in particular taking responsibility for the resettlement cluster's controversy, the no-dwell zone. Third, OPARR created eMPATHY, an electronic budget management system which secures accountability, credibility, and transparency for the rebuilding process.
- vii. Post-Disestablishment: OPARR's responsibility was ultimately diverted into NEDA and DBM, and later to the newly created IATF to normalize recovery into local development.

Second, there are several implications with respect to time compression in managing recovery. A key issue identified is the importance of OPARR's actual authority and power in managing recovery coordination and actions. Even if the institution was established with mandates, it does not mean it has the power to enforce policies. Analysis suggests that setting up an interim institution swiftly [28] to manage recovery was a "strong governmental initiative" [23]. OPARR was helpful in collecting and sharing information with key stakeholders. However, it lacked "full command over the functions linking international, local, national and private organizations [28]" and its working relationship with various levels of governments as well as its actual power to coordinate recovery efforts was unclear. This suggests that a lack of authority and power to control national departments [37] was the main reason for OPARR's short life and the impression of failure on leading recovery. While the President gave OPARR the responsibility to lead rebuilding, there was no real authority in "a temporary bureaucratic setting in the national governmental system [23]." OPARR was effectively perceived as another layer of bureaucracy [23], and the budget allocation process was deemed political [22], bureaucratic, and lengthy [31]. As such, OPARR was criticized for lagging on releasing rebuilding plans and funds to proceed with reconstruction, when in reality the way in which its authority and power was provided was the reason for the extended timeframe. While the bottom-up and participatory approach of compiling local governments' needs and incorporating them into national-level plans for funding was innovative, local governments who lacked experience in plan development – and thus needed more time – were among the bottlenecks. These assessments raise questions about the impact of impermanency on post-disaster institutions, which leads to the lack of authority and power, and the role time plays in creating enough space for bottom-up participatory planning.

Third, in-person fieldwork adds critical value to comprehending post-disaster institutions. The authors' long-term research on OPARR, and to a larger extent the Philippines' efforts regarding disaster risk reduction and management, enabled a nuanced understanding of the institution's position in the Philippines government and the larger socio-political context. In addition, such deep understanding allowed the authors to paint a comprehensive picture as well as identify areas where information and knowledge were lacking. For instance, much of the pub-

lished information was piecemeal, resulting in a failure to recognize OPARR's achievements. OPARR at least aimed to determine the level of integrating risk reduction with recovery, especially on conceptualizing, programming, and managing the no-dwelling zones and community relocation. Without OPARR's leadership in these areas, the recovery itself would have been in disarray, without secured funding and systemized support to the local governments. Although this critical component should have been referenced more as an achievement of OPARR, the literature does not highlight it. Furthermore, there are several other important aspects that are not addressed in this article, as such information was not present in the available literature. These missing pieces, for example, include OPARR's size (it was critically understaffed), its internal structure (it operated in an administrative silo), as well as the micropolitics of national and international donors from the public and private sectors. Realizing that the available published literature has not yet addressed many other aspects of OPARR's existence, as illustrated by the aforementioned examples, reveals that studying post-disaster institutions requires accessibility to various levels of governments, needs different layers of political understanding, and relies heavily on trust built with stakeholders to obtain timely and critical information.<sup>7</sup>

Fourth, the combination of literature analysis and ethnographic analysis was key to evaluate the success of a recovery institution operating within time compression. The process of first adopting the framework suggested by Jibiki and Iuchi [8] and creating an initial grouping of literature around their suggested themes was crucial to uncovering the additional proposed themes. Ethnographic analysis supported by first-hand knowledge gained through field interviews helped develop a comprehensive understanding of the evolution and transformation of OPARR. This understanding ultimately helped advance the narrative and validated key information from the literature search. A combination of the two methods revealed that to the authors' knowledge, no published literature has covered OPARR's history from establishment to post-disestablishment, much less reflected on its achievement. This was not particularly surprising, as the entire story cannot be fully told without a baseline understanding gained through long-term connections and ongoing communication with key stakeholders involved in rebuilding.

Finally, through this research, we found that while most of the literature identified as important to explain OPARR primarily came from social science disciplines, they mostly addressed other topics such as planning, housing, and community development. None have focused solely on assessing the success of OPARR. This suggests a need for additional studies on OPARR as well as on post-disaster institutions in general, in order to advance understanding on how recovery institutions are han-

dling recovery policies and actions. Such studies would be important to better understand recovery governance within the broader field of disaster governance.

## 5. Conclusion

To develop a framework to understand the success of post-disaster institutions particularly within the context of managing recovery under time compression, this paper proposed identification of several key themes. Studying post-disaster institutions is an entry point to understanding recovery governance, as a part the field of disaster governance. Towards this end, OPARR was selected as a case institution.

There are two major takeaways. First, a total of seven themes – namely, “establishment,” “funding,” “coordination,” “politics,” “leadership,” “achievement,” and “post-disestablishment” – were identified as useful to understand post-disaster institutions. Revisiting the four themes identified in the previous study [8] reconfirmed their importance in assessing recovery institutions. The additional three themes – “establishment,” “achievements,” and “post-disestablishment” – were identified as critical additions in this study. These seven proposed themes allow for a more comprehensive cross-comparison of institutions established in different environments.

Second, the dichotomies of permanency versus impermanency of institutions after disasters and bottom-up participatory versus top-down structured processes are identified as key implications of operating recovery under time compression, and as areas in need of further research. Post-disaster institutions are unique in their capacity to manage the non-normative work required post-disaster, largely attributed to their impermanency. However, this temporality often also results in reduced power and influence over budget and implementation, leaving the institution to play no more than a coordination role. In contrast, organizational permanency comes with funding and implementation power, but also inflexibility in responding to non-structured tasks. Regarding recovery processes under time compression, while bottom-up participatory processes are an opportunity to rebuild considering needs on the ground, they require time for coordination. Conversely, although top-down processes provide structured goals which save time, they also often create cookie-cutter responses. Further research on these dichotomies may shed light on how to promote quality rebuilding within a reasonable timeframe.

While this study focused its review on a case study of OPARR in the Philippines, there is a growing need to better understand post-disaster institutions' handling of different recovery cases. They are increasingly expected to play a leadership role by coordinating horizontally with national and international agencies as well as vertically with local governments, NGOs, and the private sector; all functions beyond that which existing agencies could play. Although a comprehensive literature search resulted in more than 150 articles that mention OPARR in some

7. While the change from the Aquino III to the Duterte administration in 2016 had a significant impact on Haiyan rebuilding operations, we did not highlight this point as OPARR had already dissolved, and the literature reviewed did not address it.



capacity, very little has been published directly analyzing its operation, suggesting a limited understanding of post-disaster institutions. We hope that the new framework proposed will advance understanding of these institutions' operation and allow for further research on cross-comparison of post-disaster institutions in various locations. Additionally, we hope that the results of this study provide a first step in increasing knowledge towards more effective institutions and improving approaches to examine institutional operation and recovery governance.

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## References:

- [1] J. Smart, "The Role of Post-Disaster Institutions in Recovery and Resilience: A comparative study of three recent disasters," J. Boston, J. Wana, V. Lipski, and J. Pritchard (Eds.), "Future-Proofing the State: Managing Risks, Responding to Crises and Building Resilience," pp. 229-250, Australian National University Press, 2014.
- [2] R. B. Olshansky, L. D. Hopkins, and L. A. Johnson, "Disaster and recovery: Processes compressed in time," *Natural Hazards Review*, Vol.13, No.3, pp. 173-178, 2012.
- [3] V. Thirupugazh, "Post-disaster reconstruction and institutional mechanisms for risk reduction: A comparative study of three disasters in India," R. Shaw (Ed.), "Disaster recovery: Used or misused development opportunity," pp. 17-39, Springer, 2014.
- [4] K. Tierney, "Disaster Governance: Social, Political, and Economic Dimensions," *Annual Review of Environment and Resources*, Vol.37, pp. 341-363, 2012.
- [5] J. Minnery, "Stars and their supporting cast: State, market and community as actors in urban governance," *Urban Policy and Research*, Vol.25, No.3, pp. 325-345, 2007.
- [6] United Nations Development Programme (UNDP), "Discussion paper: Governance for Sustainable Development – Integrating Governance in the Post-2015 Development Framework," 2014.
- [7] S. Mannakkara and S. Wilkinson, "Selecting an institutional mechanism for Building Back Better: Lessons from Victorian bushfires recovery," *Int. J. of Disaster Risk Reduction*, Vol.19, pp. 273-279, 2016.
- [8] Y. Jibiki and K. Iuchi, "Developing evaluation framework of national level interim reconstruction agencies after mega-disasters: An initial attempt on evaluation by referring to international case," N. Yoshihara, K. Nitakai, and M. Matsumoto (Eds.), "Records of 'Restoration' of the Victims' Refugee Lives in the Great East Japan Earthquake," pp. 186-204, Rikka Press, 2017 (in Japanese).
- [9] L. A. Johnson and R. B. Olshansky, "The Road to Recovery: Governing Post-Disaster Reconstruction," *Land Lines*, Vol.25, No.3, pp. 14-21, 2013.
- [10] R. Murai, "Comparing three rebuilding authority in earthquake recovery – Government and administrative change in post-modern Japan," M. Iokibe and T. Mikuriya (Eds.), "Comparative political analysis on rebuilding process after the great earthquakes: Evaluating three earthquake disasters of Kanto, Hanshin-Awaji, East Japan," Minerva Shobo, 2016 (in Japanese).
- [11] M. Kastner et al., "What is the most appropriate knowledge synthesis method to conduct a review? Protocol for a scoping review," *BMC Medical Research Methodology*, Vol.12, Article No.114, 2012.
- [12] Y. Xiao and M. Watson, "Guidance on Conducting a Systematic Literature Review," *J. of Planning Education and Research*, Vol.39, No.1, pp. 93-112, 2017.
- [13] National Economic and Development Authority (NEDA), "Reconstruction assistance on Yolanda," Government of Republic of the Philippines, 2013.
- [14] K. Iuchi, Y. Jibiki, R. Solidum Jr., and R. Santiago, "Natural hazards governance in the Philippines," Oxford University Press (Ed.), "Oxford Research Encyclopedia of Natural Hazard Science," 2019.
- [15] National Economic and Development Authority (NEDA), "Reconstruction assistance on Yolanda: Implementation for results," Government of Republic of the Philippines, 2014.
- [16] Rappler.com, "Lacson to step down as Yolanda rehab czar," December 21, 2014, <https://www.rappler.com/nation/78594-panfilo-lacson-resigns-yolanda-rehab-chief> [accessed June 22, 2020]
- [17] E. R. Florano, "Community governance for disaster recovery and resilience: Four case studies in the Philippines," Philippine Institute for Development Studies, Report No.2014-38, 2014.
- [18] K. Iuchi, "'Build back better' after Hurricane Yolanda: Initial planning dialogue on land use and risk after the hurricane of November 2013," *Proc. of Int. Symp. on City Planning*, 2014.
- [19] S. M. Borrás, O. Visser, and M. Uson, "Grabbing the 'clean slate': The politics of the intersection of land grabbing, disasters and climate change; Insights from a local Philippine community in the aftermath of super typhoon Haiyan," *Int. Institute of Social Studies of Erasmus University (ISS)*, 2014.
- [20] M. Uson, "Grabbing the 'clean slate': The politics of the intersection of land grabbing, disasters and climate change," *Institute of Social Studies, ISS Working Paper Series/General Series* 603, 2015.
- [21] A. L. Santiago and F. Y. Roxas, "Catastrophic Disasters as Opportunities for Sustainable Reconstruction: The Case of Typhoon Yolanda," *De La Salle University (DLSU) Business & Economics Review*, Vol.25, No.1, pp. 143-154, 2015.
- [22] L. C. Salazar, "Typhoon Yolanda: The politics of disaster response and management," *Southeast Asian Affairs* 2015, pp. 277-302, 2015.
- [23] M. Kammerbauer and I. Mateo-Babiano, "Disaster governance for sustainable recovery of infrastructure and housing in Tacloban," *Decentralized Disaster Governance in Urbanizing Asia*, National University of Singapore, 2015.
- [24] L. V. O. Estevez, "Philippine Compliance with International Standards for the Protection of Internally Displaced Persons," *Philippines Law J.*, Vol.89, No.374, 2015.
- [25] A. Gocotano, L. S. Geroy, M. R. Alcido, M. M. Dorotan, G. Balboab, and J. L. Hall, "Is the response over? The transition from response to recovery in the health sector post-Haiyan," *Western Pacific Surveillance and Response J.*, Vol.6, No.Suppl.1, pp. 5-9, 2015.
- [26] K. Iuchi and E. Maly, "Residential Relocation Processes in Coastal Areas: Tacloban City after Typhoon Yolanda," A. Sapat and A.-M. Esnard (Eds.), "Coming Home after Disaster: Multiple Dimensions of Housing Recovery," pp. 209-226, Routledge, 2017.
- [27] J. C. Cuasmesma, "Assessment of the Implementation of the Typhoon Yolanda Rehabilitation Program," *J. of Politics and Governance*, Vol.6, Special Issue, pp. 118-143, 2016.
- [28] E. E. A. Co, M. B. J. Pamintuan, and L. M. F. Diño, "Building back better: A democratic accountability assessment of service delivery after Typhoon Haiyan," *The Int. Institute for Democracy and Electoral Assistance*, 2016.
- [29] G. Paragas, A. Rodil, and L. Pelingon, "Tacloban after Haiyan: Working Together Towards Recovery," *International Institute for Environment and Development*, 2016.
- [30] D. T. Villacin, "A review of Philippine government disaster financing for recovery and reconstruction," *Philippine Institute for Development Studies, Report No.2017-21*, 2017.
- [31] M. Kammerbauer, I. Mateo-Babiano, and J. Minnery, "Planning and governance for disaster recovery in Tacloban after Typhoon Haiyan (the Philippines)," G. Forino, S. Bonati, and L. M. Calandra (Eds.), "Governance of Risk, Hazards and Disasters: Trends in Theory and Practice," 1st Edition, Taylor & Francis, 2018.
- [32] Y. Jibiki and Y. Ono, "Typhoon Yolanda in the Philippines: Qualitative analysis of institutional and political factors influencing the continuum," A. Hanatani, O. A. Gómez, and C. Kawaguchi (Eds.), "Crisis Management Beyond the Humanitarian-Development Nexus," 1st Edition, pp. 185-206, Routledge, 2018.
- [33] V. Maynard, E. Parker, R. Yoseph-Paulus, and D. Garcia, "Urban planning following humanitarian crises: supporting urban communities and local governments to take the lead," *Environment and Urbanization*, Vol.30, No.1, pp. 265-282, 2018.
- [34] S. Jha, P. F. Quising, Z. Ardaniel, A. J. Martinez, and L. Wang, "Natural disasters, public spending, and creative destruction: a case study of the Philippines," *ADB Institute, Working Paper No.817*, 2018.
- [35] I. Arroyo, "User involvement in housing recovery: Cases from Haiyan affected areas in the Philippines," *Lund University Publications*, 2019.
- [36] I. Arroyo and J. Åstrand, "Housing recovery outcomes after typhoon Haiyan in the Philippines: a critical realist perspective," *J. of Critical Realism*, Vol.18, No.2, pp. 142-168, 2019.

- [37] K. Iuchi and J. Mutter, "Governing community relocation after major disasters: An analysis of three different approaches and its outcomes in Asia," *Progress in Disaster Science*, Vol.6, Article No.100071, 2020.
- [38] The President of the Philippines, "Administrative Order No.5: Creation of an Inter-agency Task Force for the Unified Implementation and Monitor of Rehabilitation and Recovery Projects and Programs in the Yolanda-affected Areas," 2017.



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- K. Iuchi, Y. Jibiki, R. Solidum Jr., and R. Santiago, "Natural hazards governance in the Philippines," Oxford University Press (Ed.), "Oxford Research Encyclopedia of Natural Hazard Science," doi: 10.1093/acrefore/9780199389407.013.233, 2019.

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- H. Suzuki, J. Murakami, Y.-H. Hong, and B. Tamayose, "Financing transit-oriented development with land values: adapting land value capture in developing countries," *Urban Development Series*, World Bank Group, 2015.