Administrative Functionality as an Invisible Engine for Disaster Recovery: A Reflection from 2015 Nepal Earthquake

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Abstract;

The purpose of the study was to explore foundational factors in public administration that matter to citizens' daily life post natural disasters. It is a qualitative study guided by classical grounded theory with 2015 Nepal Earthquake as a case. Sorting out of the data set by pattern specific entries revealed that response phenomena to Nepal 2015 Earthquake broadly fall under the following five key categories: (a) policies that pertain to disaster management, (b) institutional framework to respond to disaster situations, (c) establishment of National Reconstruction Authority, (d) sub-national chaos and hardship, and (e) retrospective thoughts. Further analysis of these features provided the logical founding of the study specific grounded theory as: Local level administrative functionality accompanied by minimum infrastructure that sustained is what matters for public service delivery to move citizens with their lives. By adding evidence to the body of knowledge on risk governance, this study is envisaged to inform policy makers to deeply question about operability of policies and frameworks when creating and/or revising them, as the study's grounded theory confirmed that the abundance of nationally constructed policies and frameworks did not affect required responses for the citizens in need.

Keywords: administrative functionality, grounded theory, local government, risk governance

Introduction

In disaster management arena, policy frameworks and institutional arrangements seem to take a center stage for disaster risk governance discussion. On this phenomenon, Birkland (2016) provides an insightful view stating that disaster policy making has reactive nature where policy makers respond to a "focusing event" (p. 2), a sensational event that receives sudden attention, and create and/or amend policies in reference to the events that occurred. Such event-dictated policy making might not necessarily accompany in-depth reviews of how policies and institutional arrangements in question effected or not effected swift normalization of people's day-to-day life. Also, it might miss out an evaluation of if there was a clear link between policies and/or institutional arrangements and ground operation of public service delivery at the time of disaster recovery. As the connect between government's arrangements through policies and/or frameworks and the intended beneficiaries of such arrangements, public administration officials are a catalyst. Then, how do they perform their jobs in such difficult times, and what support and sustain them for serving citizens?

The purpose of this study was thus set to explore and delineate foundational factors in public administration that contribute to the normalization of citizens' daily lives post natural calamity. Taking the case of 2015 Nepal Earthquake with a focus on one of the 14 most severely affected districts, Sindhupalchowk District, this study examined critical factors that contributed to the early recovery of regular public service delivery in a country where numerous policies were available but not effected as idealized. This study is anticipated to add evidence on how some foundational factors hold keys for public administration's disaster response and in turn to inform policy makers to become mindful about how applicable their policies and frameworks are.

Materials and Methods

On 25 April 2015, the first major earthquake took place with a magnitude of 7.8 M. The epicenter was east of Gorkha District, about 77 km northwest of the country's capital, Kathmandu. Then, the second one occurred on 12 May 2015 with a magnitude of 7.3 M. Its epicenter was 18 km south of Kodari, near the Chinese border. Numerous aftershocks continued to affect the recovery and reconstruction operations as well as people's perception on how to cope with the disaster. Therefore, both earthquakes and numerous aftershock events that followed are referred as 2015 Nepal Earthquake and included as the target of the study.

This exploratory study focused on learning from the experiences of select managerial level public administration officials who were posted in one of the 14 most severally affected district of 2015 Nepal Earthquake, Sindhupalchowk District. In Sindhupalchowk District, more than 50,000 houses were destroyed and more than 15,000 houses partially damaged. For a population of 65,802, it means a vast majority of houses became inhabitable (ACTED, 2015).

Data collection and analytical procedure were guided by classical grounded theory approach, one of the three streams of grounded theory originated by Glaser and Strauss (Chun Tie, Birks, & Francis, 2019; Mediani, 2017). In contrast to deductive methods, as explained by Glaser, grounded theory is a structured and systematic way to discover "emerging patterns in data" (Walsh et al., 2015, p. 21) and to develop a theory empirically (Mediani,

2017). The resultant theory that is generated from a specific context is called substantive theory as opposed to formal theory that is attained by a deductive approach (Santos et al., 2018).

This study adopted grounded theory as it allows theoretical conceptualization of "living phenomena" (Mediani, 2017, p. 3) as truthful to the people who experienced. Among the three streams of grounded theory, that are classical, Straussian, and constructivist, classical grounded theory was chosen as the most appropriate approach for the study, as classical grounded theory objectively guides to attain "a clear, accurate understanding of what is actually happening in the data" (Mediani, 2017, p. 3). Following Glaser's tenet, the study proceeded with a combination of (a) data collection, (b) coding and analyzing, (c) theoretical sampling and sorting using constant comparative method, and (d) theorizing, a process termed as "a package of research method" (Mediani, 2017, p. 3). As unique to grounded theory, the process (a) through (c) were repeated to ensure rigor in the comparison of data set.

Data was collected from two streams: interviews with select government officials posted at Sindhupalchowk District and literature on policies, governance frameworks, as well as analytical work pertaining to 2015 Nepal Earthquake and situations thereafter. Benefiting from the researcher's involvement in the Post Disaster Needs Assessment (PDNA) as one of the 250 experts drawn from the Government of Nepal and development partner agencies to assess damages and compute financial needs for recovery (National Planning Commission, 2015), field notes prepared for this publication (Tsumagari & Fradot, 2015) was referenced as the first-round data set. The interviewees who provided critical information for PDNA were determined as a purposive sample. It consisted of representatives of District Administrative Office (DAO) and District Development Committee (DDC). Second-round data set was drawn from a follow-up interview of the former DAO official, who had been interviewed for PDNA (thus, a key participant of the purposive sample) and had stayed at the district duty station until two years after 2015 Nepal Earthquake. This interview was conducted precisely four years after the first of the two major shocks of 2015 Nepal Earthquake, in April 2019. For the third, final-round data set collection, the researcher revisited Sindhupalchowk in June 2019 and discussed with the officials currently posted at DAO and at the transformed entity of DDC, named District Coordination Committee (DCC). All along the way, the gathered information was referenced against available literature to validate and back up information that was verbally obtained based on the recollection of the interviewees, and these additional data was added to augment the rigor of the data set.

After the data set were sorted and organized by pattern specific entries, three-stage coding was conducted. The initial coding was conducted as open coding, where the researcher grouped entries into "key categories." Then, the intermediate coding was conducted as selective coding, where the relationship of central and associated concepts was examined to draw "core concepts." Finally, for advanced coding that is theoretical coding, the identified core concepts were integrated into a "theory" (Fig. 1).
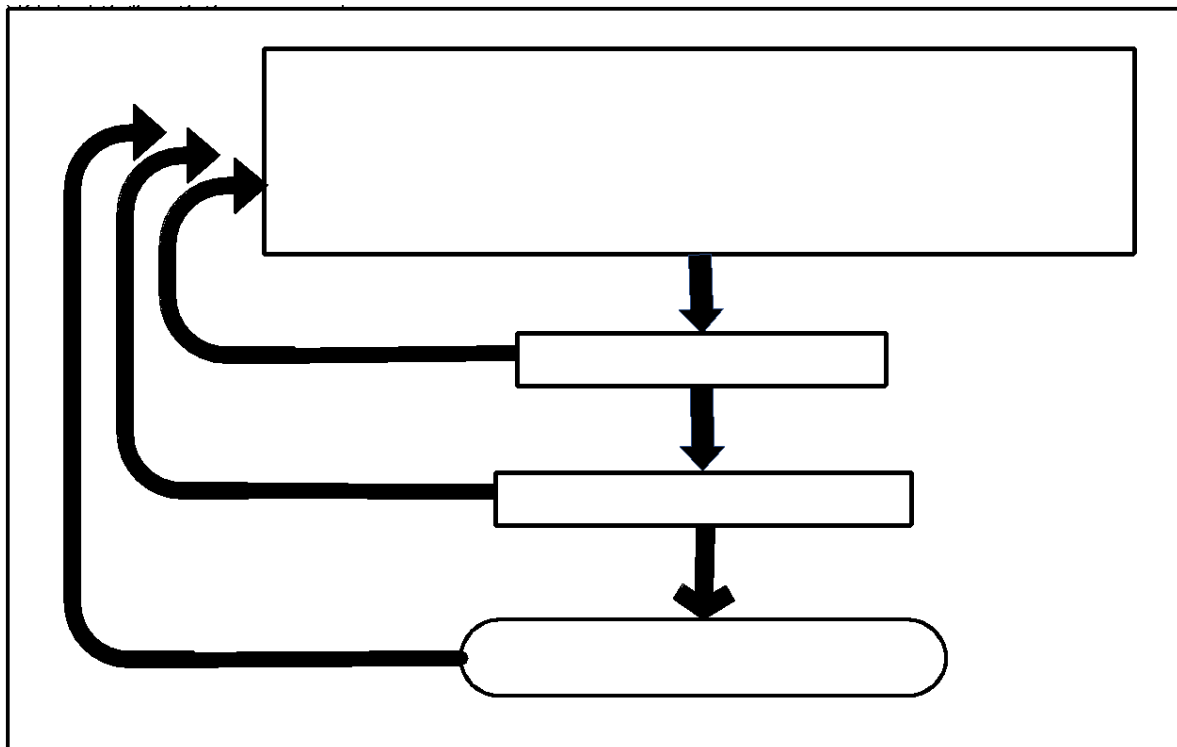

Figure 1 Research design and procedure

The "key categories" based on the initial coding are presented as Finding. The "core concepts" developed by the intermediate coding and the resultant "grounded theory" through the theoretical coding are then presented in Discussion.

Results

Sorting out of the data set by pattern specific entries revealed that responses to Nepal 2015 Earthquake broadly fall under the following five key categories: (a) policies that pertain to disaster management, (b) institutional framework to respond to disaster situations, (c) establishment of National Reconstruction Authority, (d) sub-national chaos and hardship, and (e) retrospective thoughts.

Policies That Pertain to Disaster Management

Traditionally, natural disasters had been managed on an ad-hoc basis in Nepal (Nepal, Khanal, & Sharma, 2018), and only in 1982, the Government of Nepal formulated and enacted the first disaster and recovery framework, Natural Calamity (Relief) Act 2039 (1982) (Nepal Law Commission, 1982). This Act was thus applied to respond to 2015 Nepal Earthquake. At the central level, Central Natural Calamity Relief Committee stipulated by the Act consisted of various sectoral ministers. For the localized actions, Local Self-Governance Act 2055 (1999) (Ministry of Law and Justice, 1999) was the de facto policy reference. However, this Act for local responses did not come with stipulations for the special budget provision to cope with extra ordinary circumstances.

For operationalization, National Strategy for Disaster Risk Management in Nepal (NSDRM) (National Society for Earthquake Technology, 2008) was prepared and had been made available in 2008. National Disaster Response Framework prepared in 2013 (Ministry of Home Affairs, 2013) described specific roles assigned to relevant public entities. However, the major emphasis was placed on facilitation for receiving international support based on "Cluster Approach" that had been promulgated by the United Nations (UN)' Inter-Agency Standing Committee (IASC) in 2005 as a globally accepted UN mechanism for humanitarian action. Again, the major thrust was on the levels of national and above, as opposed to local measures.

With the shocking scenes of crumbled buildings that caught global attention for 2015 Nepal Earthquake, one might have wondered if Nepal had no policy stipulations pertaining to its physical structure. Nepal did have National Building Code formulated in 1993. This Act outlined legal obligations to be followed by the builders and owners of the properties. In addition, the Building Act 2055 (1998) (Nepal Law Commission, 1998) made provisions for regulating building construction works in order to protect structures against earthquake, fire and other natural calamities. However, the government's post-earthquake remark acknowledging the importance of the code and its belated reaction as "the code is now being implemented throughout the country" (Ministry of Home Affairs, 2018a, p. 14) validates that implementation and enforcement were not sufficient up to 2015 Nepal Earthquake. Thus, when the country faced 2015 Nepal Earthquake, it did have a set of policy arrangements, but for their emphasis on the national level (Nepal et al., 2018), local level, at that time, that of the district (since local election did not take place till 2017) faced a situation where centralized directives had to be interpreted for their own circumstances, including the definition of who is affected and therefore eligible for relief and reconstruction aid (Lord & Moktan, 2017).

Post 2015 Nepal Earthquake, the country experienced monumental events that re-set its policy-as-discourse: One was the promulgation of Constitution of Nepal 2015 that federated the country with three-tiered governance mechanism, and the other was the 2017 Nepalese local elections that took place as a result. In replacing Local Self-Governance Act 2055 (1999), Local Government Operation (LGO) Act 2017 was enacted, entrusting the local level units with the responsibilities of formulating their own laws, by-laws, and regulations, in addition to the judiciary responsibilities (Ministry of Home Affairs, 2018b). In replacing Natural Calamity (Relief) Act 2039 (1982), Disaster Risk and Management Act 2074 (2017) was installed. The new Act is credited for its addressing different stages of disaster management cycles, such as preparedness, response and rehabilitation and mitigation (Nepal et al., 2018).

It can be stated that the national policies have reflected the experiences of the 2015 Nepal Earthquake. However, still to be proved is if the local governments, now officially mandated to respond as frontrunner entities but yet to run at full capacity due to inadequate staffing, can be sufficiently prepared in time for the next natural calamities the scale of 2015 Nepal Earthquake.

Institutional Framework to Respond to Disaster Situations

As per the National Disaster Response Framework of 2013, Central Disaster Relief Committee was called at the central level, while its local liaison was activated at the district under the District Disaster Relief Committee, for which Chief District Officer (CDO) served as the Chair, and Local Development Officer (LDO) was slotted in as Member Secretary. CDO is an administrative rank officer under Ministry of Home Affairs, who is appointed by the government as the highest administrative officer in a district to head DAO. LDO, on the other hand, is dispatched by Ministry of Federal Affairs and Local Development, the governing body for DDC and is tasked to coordinate local development matters. In the case of Sindhupalchowk District, District Disaster Relief Committee managed the coordination of all the actors along with the humanitarian community consisting of eight sectoral clusters whose twice-per-week meeting results and recommendations were immediately shared and endorsed. The

officials and members of the international community met and interviewed by the field visit of PDNA team in May 2015 unanimously voiced their satisfaction on the cooperation arrangement made by this platform (Tsumagari & Fradot, 2015).

With this arrangement, international as well as national non-governmental organizations (NGOs) were all requested to report to the District Disaster Relief Committee and to share their terms of references (TORs) as well as plans with the Committee. For vertical arrangement further down the channel, relief distribution plans were discussed with DDC and DDC in turn informed the Village Development Committee (VDC) Secretaries, usually by telephone, about the assistance coming their way. VDC then liaised with the Ward Citizen Forum (WCF) further downward to ensure that the affected communities at the local level were informed (Tsumagari & Fradot, 2015).

On the ground, some Secretaries were made to head multiple VDCs. Furthermore, even one year after the earthquake, over 80 VDCs in the earthquake-affected districts were still without their own Secretary (Lord & Moktan, 2017). Such a situation depicts the gravely distorted institutional arrangement for responding to area specific disasters with centrally tilted framework. Where standard operation procedures were required to mobilize local communities, the absence of the elected local government body compounded with insufficient as well inexperienced VDC Secretaries led to the gap between a large executive structure on the top and thin implementing vehicles on the ground (Sharma, KC, Subedi, & Pokharel, 2018).

Establishment of National Reconstruction Authority

Eight months after the earthquakes, National Reconstruction Authority was finally constituted on 25 December 2015. It was after a long germination period that was politically influenced while the country's population was left as bystanders, not to mention the earthquake affected citizens who continued to scramble for life. In September 2015, the government presented to the parliament a new bill for the establishment of National Reconstruction Authority but failed to have it approved before the timeframe set for 60 days. Tussles over which political party would control this Authority through its appointed chief executive officer (CEO) was at stake (Lord & Moktan, 2017). Political warfare continued, changing who oversees the government, and that in turn questioned the continuity of the Authority's leadership in the initial period.

As a national entity, National Reconstruction Authority is structured as top heavy: Its numerous committees are quoted as "redundant" (Thapa, 2018, p. 6) for service delivery that requires decentralized approach. At the national level, an Advisory Committee is chaired by the Prime Minister, aided by the Vice Chairperson who is the opposition leader in parliament. The Committee members include not only sectoral ministries but also representatives from the military and civil society. The Steering Committee is also chaired by the Prime Minister with members drawn from key ministries, experts, and the Authority's CEO. The role of the Steering Committee is to provide directions for reconstruction work and to approve policies and plans submitted by the Executive Committee. The Executive Committee is then led by the CEO with politically appointed experts as members (Thapa, 2018).

This co-owning arrangement makes coordination and execution a challenge: The members of the Central Project Implementation Unit and District Project Implementation Unit stretch across four different ministries, making their responsibility and accountability dispersed and mobilization difficult (Thapa, 2018). For systematic, structured and prioritized recovery and reconstruction, National Reconstruction Authority prepared Post Disaster Response Framework (PDRF) whose basis was drawn from Post Disaster Needs Assessment (PDNA) (National Reconstruction Authority, 2016). However, Thapa (2018) questions effectiveness of National Reconstruction Authority stating that "some of PDRF's critical provisions have not been implemented" as well as "the Reconstruction Fund that it touts and the Resource Center at the local level are absent" (p. 6).

Sub-National Chaos and Hardship

By the early June 2015, less than two months since the first major earthquake, the Government of Nepal announced to issue to those affected an Earthquake Victim Identity Card. The details of damages suffered would be recorded on the card so that qualified victims could use it to access relief supplies and facilities (Andersen, 2015; Government of Nepal, 2015). But the logistical nightmare was the next reality faced by the Government and the victims alike.

On the part of the Government, Ministry of Home Affairs was assigned to print the card while Ministry of Federal Affairs and Local Development was the one to instruct its local staff, VDC Secretaries, to come to the district office to collect, bring back, and distribute. In a situation where one out of every six VDCs in the affected districts did not have assigned VDC Secretaries, this operation was in no way a smooth task, since there were multiple administrative steps that had to be conducted before one could be handed out an Earthquake Victim Identity Card.

On the part of the victims, in order to prove one is a victim of 2015 Nepal Earthquake and therefore a rightful owner of the damaged assets such as house, his/her starting point was to prove he/she is a citizen of Nepal. Citizenship Identity Card is the natural verification tool, but many of the victims lost the original Card by the earthquakes in their buried homes. In rural part of the country, most people's records are stored in VDC offices, based on which Ministry of Federal Affairs and Local Development issues verification letters to survivors who lost

their Citizenship Identity Cards (Aryal, 2015). That means, either VDC office itself being damaged by the earthquake or VDC Secretary missing for some reasons got the victims lead nowhere.

Then, as the best alternative, in order to expedite relief distribution and rehabilitation process, Government decided to make use of All-Party Mechanism, which had remained dissolved since 2002. All-Party Mechanism used to be VDC's advisory group consisting of local political party leaders and functioned as a substitute for the local government bodies (Aryal, 2015). As resource for local knowledge, these leaders collected critical earthquake related information on households, and clarified cases where VDC Secretary, typically hailed from other regions, was in doubt regarding victims' identity. These leaders would also help with the first-hand knowledge about house ownership situations of the area (Aryal, 2015).

Although it was a practical solution to move the process, this decision came to create significant irregularities by local leaders allowing relatives, friends, and supporters to register as victims even when they were not directly affected. Such favoritism led to considerable discrepancy between the number of Earthquake Victim Identity Card application and the most recent population census record for the given district. In the case of Sindhupalchowk District, as of January 2016, 84,600 families received government relief while the number of families in Sindhupalchowk according to 2011 census was 68,000. Around the same time, 482 complaints were submitted to DAO regarding fake victims (Rai, 2016).

Sindhupalchowk District Administration Office (DAO). The building of Sindhupalchowk DAO was heavily damaged with cracked walls, making it non-usable with category red. However, as its structure was sustained, DAO could pull outside pertinent equipment and resources such as furniture, documents, hardcopy of input data and quickly restored service delivery (Tsumagari & Fradot, 2015).

DAO was composed of 14 staff. The first month after the earthquakes was devoted for relief with regular operation suspended. For the immediate rescue and relief activities, 150 staff were deployed from within the district (Tsumagari, 2019b). Three additional staff were also sent from Ministry of Home Affairs to support DAO to resume regular administrative tasks (Tsumagari & Fradot, 2015).

Because of the urgency of residents opting for overseas employment opportunity where in-country future seemed even more dire, DAO was under pressure to resume passport application service, one of the two main service window lineups along with citizenship related services. DAO resumed regular operation in the parking lot under a temporary tent on 24 May, exactly a month after the first earthquake. DAO managed to issue 50 citizenship certificate copies and 20 new Citizenship Identity Cards in the first four days. For passport, DAO was receiving some 15 to 20 applications daily (Tsumagari & Fradot, 2015). Many victims traveled from far for citizenship certificates, as their originals were under the rubbles of their homes, combined with the possibility that their nearby VDCs were not operating either due to damages to their building or unavailability of VDC Secretaries. In one month since the earthquakes, the number of officers deployed for relief was reduced from 150 to 20. However, since work arrangement was well structured with different sub-teams covering relief and normal business separately, DAO's regular operation was not affected (Tsumagari & Fradot, 2015).

DAO's pertinent office-stored documents consisted of both physical files and electronic files. Data stored in DAO's computers were regularly transferred to the central record keeping unit at the Ministry in the capital, Kathmandu, therefore retrieval was possible (Tsumagari, 2019b). Electronic data is the lifeline of DAO's work and its significance was proved by 2015 Nepal Earthquake as the office could swiftly resume operations and provide the services most needed for the earthquake victims to move on with their lives, either by acquiring passport for overseas employment or for assembling citizenship record needed to apply for Earthquake Victim Identity Card (Tsumagari, 2019a).

Sindhupalchowk District Development Committee (DDC). Pre-earthquake, Sindhupalchowk DDC   was accommodated in a two-story government building that housed over 100 officers, including those seconded from various ministries and national agencies. Eighty-nine VDCs, too, had their district level outlets in the same building. From there, all the development work was handled (Tsumagari, 2019a). 2015 Nepal Earthquake flattened this whole building, and by the time of the field visit of PDNA, the site was being cleared using heavy machinery (Tsumagari & Fradot, 2015).

DDC had 45 staff at the time of 2015 Nepal Earthquake. Fortunately, all the staff were accounted for. However, difficulties faced by the staff were evidenced in their stress level, and emotional support was voiced as would-be helpful under the circumstances (Tsumagari & Fradot, 2015). Since the whole premise was flattened, it did not seem DDC staff could scavenge any office facilities such as computers, printers, copiers, to pick up on day-to-day operation, and therefore they were relying on mobile phone as the primary means of their coordination work, which was headquartered in a tent (Tsumagari & Fradot, 2015).

Physical access to some localities were lost due to road closure, and that also affected the operation of DDC as it was tasked to manage on-site operation where people were affected (Tsumagari, 2019a). For information dissemination, local FM radios were also used (Tsumagari & Fradot, 2015). For relief material distribution, the materials were kept at army camp for security purpose, and DDC used galvanized iron sheet-built storage as its distribution store. In addition to relief provision, whole village relocation was handled by DDC where it was deemed too dangerous to continue living (Tsumagari, 2019a).

While some of the accounting records could be recovered (Tsumagari, 2019a), most of the records were lost with the building (Tsumagari & Fradot, 2015). Verification of electronic data on social protection records and vital registration records from before 2015 Nepal Earthquake was entrusted to Ministry of Federal Affairs and Local Development (Tsumagari, 2019a). For handling of Earthquake Victim Identity Card issuance, guidelines reached DDC from National Emergency Operation Center, Ministry of Home Affairs. While funds would come to DAO first and be assigned to the VDC, DDC was responsible to print cards as well as application forms (Tsumagari & Fradot, 2015). For the task, a committee of eight to nine staff were formed at VDC level comprising of VDC Secretary, five local teachers, one social mobiliser and one VDC staff to determine the eligibility of households. VDC Secretary was responsible to issue Earthquake Victim Identity Card to the rightly affected victims (Tsumagari & Fradot, 2015).

Below district. Village Development Committee (VDC) and the residents. Prior to 2015 Nepal Earthquake, out of 68 VDCs in Sindhupalchowk District, only 50 VDCs were installed with VDC Secretaries. Post-earthquake, Ministry of Federal Affairs and Local Development deployed 17 additional VDC Secretaries to fill the vacant posts. Yet, one VDC Secretary still had the responsibility to cover two VDCs. On top, these 17 newly appointed VDC Secretaries did not have prior relevant experiences and were hastily called from other offices including post office. Such lack of experiences was feared to affect the provision of efficient and competent service delivery by these VDCs (Tsumagari & Fradot, 2015).

Regardless of track record and/or experiences, VDC Secretaries were slotted into becoming the point person for all relief and recovery-related activities at the local level. They were responsible for collecting data and overseeing relief distribution, and later, also for assisting with all the administrative requirements of disbursing government aid for reconstruction (Lord & Moktan, 2017).

Nepal Disaster Report 2015, prepared by Ministry of Home Affairs, acknowledged some hard lessons focusing on the ground, including failure in reaching the affected in time during initial search and rescue operation, lapse in damage and needs assessment, and lack of open spaces for temporary shelters, emergency warehouses and proper inventory for relief materials that affected distribution activity (as cited in Thapa, 2018). In light of the scarcity of VDC Secretaries to lead the ground operations, poor actions were predominantly attributed to lack of locally elected bodies at the time of the earthquakes (Lord & Moktan, 2017).

Retrospective Thoughts

Calling 2015 Nepal Earthquake "a mega disaster" (Ministry of Home Affairs, 2018b), Government of Nepal openly acknowledged that the country's responding capability was visibly insufficient. For the unprecedented scale of relief and rehabilitation work, the country's prevailing disaster reduction plans and policy measures did not prove as functional or effective as per imagined as a machinery (Thapa, 2018). Furthermore, initial enthusiasms for treating the tragedy as a "national movement" (Thapa, 2018, p. 6) started to wane with time both at the national and local levels.

To start with, although it was highlighted as a national tragedy, the earthquakes themselves were location specific phenomenon. More to it, while the impact of the disaster in Kathmandu was well-documented and broadcasted, damages and suffering in the rest of the country, particularly in remote, inaccessible areas, were left from the focus (ACTED, 2015). Then, not only for the late operationalization saga, but also for the top-heaviness and inability to reach the realities on the ground, reconstruction arrangement by National Reconstruction Authority has largely been criticized (Thapa, 2018).

In the meantime, the detached local levels had to scramble as the direct response windows for the affected citizens, even though many of themselves were also some way or the other affected by the earthquakes, working and residing in the same localities. Asked about the existence of pre-cautionary measures prior to the 2015 earthquakes, district and below level representatives met in Sindhupalchowk responded that there was no such mechanism or mindset in preparation for the scale of disaster. Nonetheless, they considered that it was not lack of policies that mattered for them: Their challenges were how better to act given the infrastructural challenges that lied ahead of them, be it no-office-space to base themselves as headquarters, road closure that prevented them from reaching citizens, lack of communication channels, deficiency of documentation backups (Tsumagari, 2019b; Tsumagari & Fradot, 2015). What can be improved have since been reflected as local proactive measures, such as securing open space in front of VDC offices as evacuation ground (since it revealed that many VDCs did not have sufficient space to distribute relief materials neither for people's evacuation spot), and no taller than two stories as a regulation for new buildings (Tsumagari, 2019a).

The representatives interviewed unanimously responded that the current three-tiered government arrangement with municipalities in charge of disaster response is a better arrangement, as it allows closer on-site operation that the district level administered response could not adequately handle (Tsumagari, 2019a). Yet, the district level as providing backup safety net role should not be neglected, they also voiced. One critical measure is to make citizens' records readily available, as it is not realistic to assume ordinary households, particularly those in the remote areas, possess their records electronically. For that, Sindhupalchowk DAO is spearheading scanning effort of the record at their hand. While Government of Nepal has initiated cloud data management, Government Cloud (G-cloud), with the establishment of the Government Data Center, with which DAO's upper ministry, Ministry of

Home Affairs, is the registered user (Ministry of Communication and Information Technology, 2019), if the facility can meet full scale needs of the Government is not yet made clear (Tsumagari, 2019a).

Discussion

The five key categorical features presented in Finding was then analyzed to identify what determined the ways public administration responded to 2015 Nepal Earthquake. The analysis revealed that the determining factors are (a) pre-existence of national policies and institutional framework, (b) absence of effective local governance arrangement, (c) centralized response for regional/local disasters, and (d) availability of minimum infrastructure to pick up service delivery. The below sections describe each determining factor, followed by the presentation of a grounded theory drawn specifically from the study through the conceptual integration of those factors.

Pre-Existence of National Policies and Institutional Framework

For the scale of damages and chaotic scenes publicized, the availability of policies and institutional frameworks were largely questioned when the world witnessed 2015 Nepal Earthquake. On such doubts, this study illustrated that the country pre-possessed a set of acts, policies, and arrangements that describe how the country planned to cope as a nation. Unfortunately, however, emphasis was placed more on how the country appeals to the external world on seeking assistance rather than how to protect and serve own citizens at risk. Subsequently, the operations were dictated by the nationally made arrangement meant for international collaboration for rescue and recovery.

Absence of Effective Local Governance Arrangement

Regarding total unpreparedness to address and cope with the tragedy on the ground, the study confirmed that the void of local governance mechanism was attributed as a grave, hindering factor. No matter how much resource is acquired from the international community, it is the national and local administrative capability that channels the resources. Also, it is the domestic entities that can ascertain the rightful victims for support. The non-existence/no-functioning of local governance bodies close to the people hampered the early recovery and restarting of victims' lives.

Centralized Response for Regional/Local Disasters

The inevitable arrangement with National Reconstruction Agency remotely commanding the local reconstruction efforts created breeding ground for what can be ironically termed "secondary disasters." In order to speed up the operation under the circumstances where the pool and/or experiences of VDC Secretaries were far from adequate, Government tapped into the local knowledge and network of All-Party-Mechanism. What that led was the inflated number of quake victims because of fake quake victims, who received favor of local politicians. Inevitably, such phenomenon alienated real victims from support badly needed on time, for they did not have ties to the powered. It was an outcome totally opposite of what should have been the case.

Availability of Minimum Infrastructure to Pick Up Service Delivery

Factors that divided the fate of Sindhupalchowk Districts' two government offices, DAO and DDC, are informative as to what dictated the fate of their post disaster public service delivery abilities. DAO's primary service for citizens is issuance of citizenship documentations at the office for which citizens pay visits. Office building having escaped a collapse, DAO could set up and resume operation relatively swiftly as the necessary source documents along with some furniture could be retrieved from the building, even though needy citizens had to make their own arrangements to reach the office.

On the other hand, DDC was totally collapsed, and the officers could not access pertinent documents making it difficult for them to swiftly support who lost their social security records. Furthermore, the nature of DDC's work requiring them to liaise closely with VDCs, much of it through on-site visits, the restricted mobility due to road closure, for example, handicapped their ability to operate.

Study Specific Grounded Theory

The factors presented in the previous sections shape the building blocks of the logic for the study specific grounded theory as follows:

1.   Even if one is a developing nation seeking international assistance for disaster responses, there are domains that must be managed by the country's internal ability.

2.   It is the ability to sustain administrative functionality at local levels that requires minimum associated infrastructure.

3.   2015 Nepal Earthquake evidences that the sustenance of administrative functionality where the disaster occurred holds an important key for contributing to disaster resilience.

4.   For mitigating impacts of future disasters, therefore, more than creating policy frameworks, installation of resilient local governance mechanism that continues to function under a disaster near where citizens reside matters.

With the logic's building blocks assembled integratively, this study founded its grounded theory as: Local level administrative functionality accompanied by minimum infrastructure that sustained allows public service delivery to move citizens with their lives post natural disasters.

Conclusions

The purpose of the study was to explore and delineate foundational factors in public administration that contributed to normalization of citizens' daily life post natural disasters taking the case of 2015 Nepal Earthquake. Focusing on one of the 14 most severely affected districts, Sindhupalchowk District, and employing grounded theory approach, this study illuminated that an abundance of nationally constructed policies and frameworks did not ensure swift normalization of people's day-to-day life. Rather, local level administrative functionality accompanied by minimum infrastructure that sustained was what mattered for public service delivery to move citizens with their life. The study also discovered that the gap between nationally dictated disaster response and ground operation that had to be managed at the local level without the availability of local governments costed the citizens for delayed and/or insufficient recovery service when it was needed most. The study confirmed that under all the odds, the frontline government officers at the district level assumed catalytic roles to fill the gap because of unavailability of local governments who would have led the recovery operation. Their effectiveness was relative to the level of damages they themselves suffered, underlying the significance of the minimum infrastructure availability in order to sustain public service delivery.

In a hard way, Nepal learned that installation of local government body near where the citizens live is a foundational need to cope with natural disasters. Importance of proximity of government to people is synonymous to the concept of citizen-centric public service delivery, as both refer to citizen focused government. While 2017 local elections stipulated a way towards such direction, a full-fledged local governance bodies properly installed with adequate staffing and resources are yet to be seen.

By adding evidence to the body of knowledge on risk governance, this study is envisaged to inform policy makers to deeply question about the operability of policies and frameworks when creating and/or revising them, as the study's grounded theory confirmed that the abundance of nationally constructed policies and frameworks did not effect required responses for the citizens in need.

Acknowledgments

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