DISASTER PREPAREDNESS AND RESPONSE DURING POLITICAL TRANSITION IN NEPAL:

> ASSESSING CIVIL AND MILITARY ROLES IN THE AFTERMATH OF THE 2015 EARTHQUAKES

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A collaboration of The Asia Foundation and the Program on Crisis Leadership of Harvard Kennedy School

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The 7.8 magnitude Gorkha Earthquake struck Nepal's densely populated Kathmandu Valley on April 25, 2015. Aftershocks continued for weeks, including a second, 7.3 magnitude quake on May 12. Nearly 9,000 people were killed, 22,000 were injured, and a tenth of the population, 3.5 million people, were left suddenly homeless. Four hundred health facilities, 9,000 classrooms, and more than 800,000 homes were damaged or destroyed, a US\$10-billion toll of destruction equivalent to 50% of Nepal's GDP.¹ In response, the Nepali government, army, and civil society mobilized to help the survivors, joined by an outpouring of international assistance.

While there were many positive elements in Nepal's own efforts during the crisis, there were also significant shortcomings in effectiveness. Among the challenges encountered in the response, an overall need for improved domestic military-civil coordination within Nepal's national disaster preparedness and response framework is clearly indicated. Inevitably, the relationship between the military and civil society affects all disaster preparedness and response efforts, with great potential for creating value for the country if the shortcomings revealed by the 2015 experience can be addressed.

Addressing such shortcomings will be very challenging: they nest within a far larger frame of change. Because Nepal is in the process of institutionalizing a new and still unfinished constitutional and political structure, it is necessary to redefine the full relationship between the military and civil authorities - at not only national, but also subnational levels. The historical and contemporary relationship between the Nepal Army and the Nepali people is complex. Historically, the role of the military was to serve the monarchy, to be a "private army of the king."² This has understandably resulted in a deficit in the Nepali public's trust of the military. That trust deficit has also been acutely felt by the elected, civilian government since 1990-91. As will be discussed below, however, there are signs that the public's attitudes are changing. The military's role in a republic with a new constitution is still a work in progress.

As the 2015 earthquake response showed, the Nepal Army is a crucial actor in disasters — and this can be a significant

way for the army both to contribute to national welfare and to further improve its standing with the Nepali people. The Nepal Army has many critical resources — people, organization, leadership, equipment, skills — that can and should be mobilized in response to major disasters such as earthquakes, floods, and landslides. Within minutes of the devastating 2015 earthquake, the Nepal Army began mobilizing — ultimately mustering 90 percent of its personnel in affected areas and rescuing 1,336 people alive from collapsed buildings. Forty-one percent of all lives saved were in the first 72 hours of the earthquake, before most foreign rescue teams had arrived. The army provided medical care for 85,954 survivors and distributed 5,707 tons of relief materials.³

Looking to the future, there are many opportunities for improving the partnership between the Nepal Army and domestic civilian agencies in addressing Nepal's key areas of vulnerability. Using the 2015 earthquake response as a case study, this policy brief **highlights the key factors that inhibited effective coordination between the Nepal Army and the civilian agencies of the Government of Nepal (GoN), and identifies potential ways to improve future disaster responses.** We also look at ways that international organizations can support efforts of the GoN and the Nepal Army to improve the effectiveness of coordination in disaster response.

This paper is part of a broader, ongoing effort to better understand how to improve Nepal's disaster preparedness and response capabilities. To explore this topic, existing disaster management plans, reports, and post-earthquake evaluations from the national government, the military, NGOs, and press sources, both domestic and international, were reviewed. To deepen and build upon this research, over 30 personal interviews were conducted in Nepal and via phone with a wide variety of stakeholders from the disaster management community. These included both current and former senior officers of the Nepal Army, representatives of the U.S. military (Office of Defense Cooperation), Nepali government ministries, international and local NGOs, development agencies, and the private sector. In the following pages, we summarize key findings and suggested action on civil-military coordination.

NEPAL'S POLITICAL LANDSCAPE AND THE ROLE OF THE MILITARY

No picture of Nepal would be complete without, first, an understanding of the tremendous upheavals of political transition that Nepal has experienced, and, second, some comprehension of Nepal's current, precarious position within this transition. Here, critical Nepali institutions including the Nepal Army, which has evolved from an absolute, royal instrument to a democratic, civilian instrument, play a vital role in the country's transitional political landscape.

After a decade-long civil war, Nepal has transitioned in the last ten years to a state of relative calm - referred to by many in Nepal as a "restless peace." Achieving this state involved momentous events without which the change would not have been possible. Here, the Nepal Army has played a crucial role. It is impossible to imagine the current political landscape without the transformation of what was then the Royal Nepal Army (RNA) into today's Nepal Army (NA), and the integration of the Maoist combatants into the NA. It is not difficult to imagine what might have happened if the RNA had confronted the multiparty and rebel-led People's Movement II, or if the renamed NA had refused to integrate Maoist combatants within its ranks. Over the same period, the NA also helped secure both the 2008 and the 2013 Constituent Assembly elections under the supervision of civilian authority. Consequently, the role of the military in Nepal's transition to peace, and from a constitutional monarchy to a democratic republic, is noteworthy.

However, though state institutions like the NA have helped Nepal's transition to peace, the process has been very difficult and fatiguing in practice. The eight years since the Constituent Assembly elections in 2008 have witnessed many changes in executive government, including eight prime ministers. The number of political parties has burgeoned, from 76 to 139, with the three largest parties holding 75 percent of seats in Parliament; and these years of often-bizarre political negotiations have produced a new but controversial Constitution.⁴

The long-awaited approval by Parliament of the new Constitution on September 20, 2015, was celebrated by

many domestic stakeholders and international observers, including the United States and China. However, the reactions were not all positive. The same core issue that had delayed the constitutional process for so long — the demarcation of federal provinces — continued to be very contentious. Prior to its approval, protests in the southern plains of Nepal against the constitutional draft had already resulted in the deaths of 40 people. In cases like the Tikapur (Kailali) riots, which resulted in the deaths of eight police personnel and a child, the Kailali District Administrative Office declared the municipality a riot-hit zone and mobilized the NA to keep order⁵ and assist with intelligence to track alleged perpetrators.⁶ The NA, in this instance, was mobilized as a last-resort security option to maintain law and order inside the country.

Protests in the southern plains against the 2015 Constitution intensified after its approval, and were exacerbated by India's lukewarm reception of the announcement.⁷ This discontent was most dramatically expressed through a blockade of supplies on the Nepal-India border by protestors, resulting in a crippling fuel shortage in Nepal during late 2015 and the early months of 2016. Here, too, the NA was proactive in providing military resources for emergency and humanitarian purposes during a time of dire need in the country.

Following the 2015 earthquakes, public opinion surveys identified the NA as a more "trusted" institution than the police, courts, government, civil service, and others.⁸ This may be attributed to the broad visibility of military responses to the earthquakes, including those of international military forces.⁹ The NA's human resources — almost a hundred thousand strong¹⁰ — its logistical capabilities,¹¹ and the institutional character displayed by its disciplined, nationalistic, and patriotic conduct in a broadly orchestrated response immediately after the disaster, have conveyed the impression that the NA is a more effective institution than others during national crises and emergencies.

The NA is present across Nepal, with six divisional headquarters (eastern, central, valley, western, midwestern, and far-western) and a national headquarters in Kathmandu. This potentially provides a well-established infrastructure for effective deployment in circumstances like the 2015 earthquakes. However, this infrastructure is also part of Nepal's autocratic past, where successive rulers divided the country into development zones and regions. Given Nepal's recent political transition to a federal structure with seven provinces, a certain degree of restructuring of the NA's deployment can be anticipated.

The NA is the sixth-largest contributor to the UN's peacekeeping mission worldwide, with 4,365 peacekeepers currently deployed and over 100,000 deployed in total since Nepal joined the UN in 1955.¹² This results in approximately US\$60 million per year in cash inflow (with 22 percent going directly to the Nepal Army Welfare Fund).¹³ Consequently, the Nepal Army has a particular sensitivity to any appearance of human rights violations in its operations at home, which might jeopardize its UN missions; it thus generally prefers to have a civilian face from the Ministry of Defense leading its domestic efforts.

Nepal currently has two other security forces: the Armed Police Force (APF) and the Nepal Police (NP), with approximately 35,000 and 50,000 active personnel, respectively.^{14,15} The APF was formed on October 24, 2001, to combat the Maoist forces during the decade-long civil war, mainly due to the sensitivities of the Nepal Army described above. The NA and the APF have overlapping mandates, especially with respect to disaster response.¹⁶ Both the NA and the APF focus on the broad, underlying issues of immediate disaster relief and management, not on specifically delineated responsibilities.

KEY LIMITING FACTORS IN THE 2015 RESPONSE

Civil-military coordination efforts in Nepal during the 2015 disaster response were affected by both the existing national disaster response *structure* and the domestic disaster preparedness and response *capacity*. Although laws, policies, and plans for disaster response, such as the National Strategy for Disaster Risk Management (2009), the Draft Disaster Management Act (2015), and the National Disaster Response Framework (2013) did provide a framework for a national response,¹⁷ the framework could not deliver what it seemed to promise.

The National Reconstruction Authority (NRA) was legally established by the NRA Act in late December 2015, but it did not begin operations until mid-January 2016.¹⁸ It is the lead government agency for all postearthquake reconstruction activities and has a broad mandate relating to the coordination and facilitation of reconstruction, recovery, and preparedness work. In May 2016, over one year after the first major earthquake on April 25, 2015, the NRA published the Post Disaster Recovery Framework (PDRF), which establishes the institutional and policy framework for reconstruction from 2016 to 2020.¹⁹

The NRA plans to utilize the technical expertise of the Nepal Army, the Armed Police Force, and the Nepal Police to expedite reconstruction work, particularly for rebuilding private homes, for which the quake survivors have received the second tranche of aid.²⁰

DISASTER RESPONSE STRUCTURE

Four dimensions of the disaster response structure negatively affected civil-military coordination, and thus the overall response to the 2015 earthquakes.

(1) Lead responsibility: Disaster response in the GoN is assigned to a single agency, the Ministry of Home Affairs (MoHA). This arrangement has proven problematic in several ways. MoHA is supposed to coordinate the roles of several peer ministries and other government entities - each of which has functions and resources critical to disaster management — in preparation for and response to disasters. However, despite MoHA's lead responsibility, other agencies display limited responsiveness to MoHA's lead in preparedness and coordination activities.²¹ MoHA is on the same bureaucratic level, and thus has limited authority and leverage over these other agencies. Moreover, because lead authority for disaster response resides in a single ministry, rather than at a higher level, the ability of the GoN to orchestrate disaster response across ministries, security forces, and international organizations is seriously undermined. Recognizing this, a plan for an independent disaster management body operating *above* the ministry level was recommended in an influential document, the 2009 National Strategy for Disaster Risk Management.

Even though that plan has not been adopted formally, the Prime Minister's Office sought to coordinate emergency response following the 2015 earthquakes. That clearly undermined the convening ability of MoHA. This issue was repeatedly discussed in the Nepali media. An article in the *Kathmandu Post* of May 2, 2015, stated:

The joint-secretary-led department [MoHA] has been unable to provide instructions to the Nepal Police, the Armed Police Force, and the Nepal Army due to issues of protocol. In several cases, state security agencies have even published contradictory data about the disaster. After the earthquake, the Prime Minister's Office and the Home Ministry were [both] coordinating rescue and relief efforts, creating further problems, according to officials. Without a powerful coordinating body, many international rescue teams have had to wait for several hours at the Tribhuvan International Airport as the government failed to promptly assign them to specific areas. Much relief is also similarly stranded at the airport.²²

(2) Available resources: The teams tasked with critical coordination responsibilities in this national-level, civil, disaster response structure were widely reported to be under-resourced, particularly in terms of manpower, before, during, and after the 2015 earthquakes. The National Emergency Operation Center (NEOC), the linchpin of the Nepal disaster response strategy, sitting within MoHA, faced difficulties in managing an urgent and burgeoning workload with only a handful of full-time dedicated staff and a slow-to-activate support system of representatives from other ministries. While accounts of the timeline differ, there is widespread agreement that, even once it reached full capacity, the NEOC was unable to handle the immense coordination needs and relied heavily on the NA and international agencies to fill the gap.

(3) *Overlapping mandates*: Nepal's three security forces, the NA, the APF, and the NP, have overlapping mandates in disaster response. Directly following the 2015 disaster, reports from both local and international sources lauded the performance of the security forces in immediately responding with search-and-rescue efforts. However, the overall effectiveness of these efforts was limited by two key factors: the lack of equipment, which is discussed in more

detail below in the Operational Capacity for Disaster Preparedness and Response section; and the existence of overlapping and, in some cases, identical mandates for each of the security forces. In practical terms, this resulted in duplication of effort and confused responses in situations where more than one of the security forces was present.

(4) Weak linkage of national and subnational disaster management structures: The national disaster management structure and its coordination mechanisms are required to be replicated at each level of government (regional, district, and local) in Nepal. This replication of structure is necessary to ensure that aid givers stationed near the site of the disaster can quickly respond with people and equipment; will have detailed knowledge of local geography, social conditions, and physical surroundings; can collaborate with added support from higher-level governments located close by; and can operate within a structural framework that supports rather than frustrates coordination. However, the actual on-the-ground implementation and effectiveness of the subnational disaster response structure is highly variable. Moreover, and importantly, local elections have not been held in Nepal since 1997. The absence of elected representatives, combined with often-weak local response capabilities, created severe shortcomings in the targeting of responses to the 2015 earthquakes. Though subnational and local structures operated with considerable effectiveness in some areas, especially considering the scale and severe stress of the disaster, in other areas they were nearly inoperative, or were taken over by parochial interests.²³ As a result, when the national government, international aid givers, or NGO relief forces from farther away arrived on the scene, they frequently lacked data on damages, contextual information, and well-organized, knowledgeable, local partners onto whose capacities they could couple and who could provide a foundation for coordinated action.

NEPAL'S OPERATIONAL CAPACITY FOR DISASTER PREPAREDNESS AND RESPONSE

The 2015 earthquakes exposed major shortcomings in Nepal's operational capabilities for disaster preparedness and response.

The scale of the 2015 earthquakes revealed a considerable need to upgrade the country's disaster response equipment and supplies. A severe shortage of search and rescue equipment affected both the military and civil response forces. Interviewees told stories of security force teams being sent out shortly after the first earthquake to a particular zone in Kathmandu or the surrounding area with little more than their bare hands to rescue trapped people. In full recognition of this shortage, equipping the Nepal security forces with disaster response equipment has already become a key focus of many international development agencies in Nepal. While there have subsequently been marked improvements in stockpiles of basic equipment like improved communication systems, much work remains to be done to prepare responders for another serious disaster.

Through its Disaster Relief Committees and Emergency Operations Centers, MoHA has presided over efforts to strengthen Nepal's capacities for disaster response, but the disaster response simulation exercises with various international organizations in 2009, 2013, and 2014failed to stimulate the level of disaster preparedness that was required in 2015. ²⁴ While MoHA, civil security forces, and other stakeholders were included in various exercises, the leadership and investment came mainly from the NA. In practical terms, this may have resulted in a lack of commitment or sense of ownership by the civil government. The exercises conducted before 2015 were missed opportunities to fully test response systems; to practice relief methods; to gain proficiency in the use of equipment; to meet counterparts; to establish relationships among response organizations and key leaders who would later need to collaborate in the field after the earthquake; and then, in advance of a disaster, to refine the full set of disaster response procedures.

NEPAL'S NEGLECT OF DISASTER MITIGATION STRATEGIES

In the aftermath of the earthquakes, Nepal has been significantly criticized for its disproportionate focus on developing its response capabilities at the expense of another form of preparedness: taking steps to mitigate disaster impacts. An early version of Nepal's own National Strategy for Disaster Risk Management points out this weakness:

Thus, a predominantly reactive approach to disasters has continued across generations among most of the relevant stakeholders, rather than the less expensive option of proactive preparedness and risk mitigation.²⁵

Interestingly, this open criticism was removed from the final approved version — though the emphasis on preparedness activities remained.²⁶

Multiple interviewees pointed to stronger building codes (including retrofitting requirements as well as standards for new construction) and, critically, serious code enforcement as key issues in need of greater government investment and commitment to mitigation measures. These important steps may be possible while memories of the 2015 earthquakes are vivid, but they may prove ever more difficult as time passes, because they require considerable expenditures by government, impose financial burdens on householders, and demand highly local enforcement actions in a range of places where parochial, short-term, politically expedient considerations create resistance to such requirements.

A FRAMEWORK FOR IMPROVEMENT

The goal of improved emergency response is to increase the resilience of Nepali society. "Resilience" means the ability of an individual, organization, community, or nation to withstand a negative shock and return rapidly to a "new normal" ²⁷ — physically, economically, socially, culturally, and environmentally. Those new conditions are not necessarily the same as before; but a high level of resilience allows a society to recover with minimal loss or even with enhancements in some dimensions. Less resilient societies may experience much greater loss and be much slower to recover. The tremendous disruption caused by the 2015 earthquakes, and the slow recovery and adaptation in the post-earthquake period, point very clearly to the need for greater resilience in Nepal.

How can a nation become more resilient in the face of disaster? In thinking about enhancing response capacity,

we should think in terms of emergencies in two broad categories: "routine emergencies" and "crises."²⁸

Routine emergencies are routine in the sense that *the type* of hazard faced can be anticipated even when its timing, scale, and precise location cannot. Routine emergencies occur frequently enough to frame and inform expectations about future incidence and effective methods of response. The ability of response organizations to anticipate emergencies by type potentially confers important advantages in building resilience. Most importantly, organizations can prepare for response by framing plans to avert, minimize, or respond to such emergencies; by putting response resources in place (people, equipment, supplies); by training, equipping, and exercising responders so they will be ready; and, ultimately, by deploying resources quickly and effectively when the anticipated hazard actually occurs. Ideally, over time and repeated occurrences, organizations, leaders, and individual responders gain experience with the type of hazard and become expert in handling it. When well prepared for routine emergencies, response organizations can respond with confidence, discipline, a clear sense of purpose in what is to be accomplished, and the advantage of skills that are well honed. At their best, response organizations can aim for precision in confronting routine emergencies.

In Nepal, routine emergencies include fires, floods, landslides, avalanches, and small earthquakes. While there is much room for improvement in dealing with these kinds of emergencies — particularly in how well various parts of the country are prepared — Nepal has developed much useful capacity for response.

Crises are different. In contrast to routine emergencies, crises involve substantial *novelty* — characteristics of an emergency that have not previously been encountered. This novelty may stem from several different sources, the most common of which is an event that, while anticipated by type, is so large in scale that it exceeds the planning frame and the resources ready to deploy in response. A second form is an event that is truly unprecedented — something "new under the sun" — for which no plan has been prepared and which may require improvised tactics and resources in response. Or third, novelty may arise from a combination of emergencies occurring at the same time

or close together, each of which may have been planned for separately, but whose conjoined occurrence severely challenges responders.

Crises, like the 2015 earthquakes, place enormous strain on the response system, on both organizations and individuals. In a prototypical crisis, situational awareness - to gather information and understand what is happening, project likely impacts forward, and conceive and implement appropriate actions in response — is very poor compared to routine emergencies. Responders may feel that the situation is out of control and beyond their usual operating capabilities, generating high stress and fear. There are typically no standard operating procedures or checklists to guide them. Although responders may have experience with some aspects of the situation, no single leader or decision-maker is a comprehensive expert on what is happening or how to respond. In such an unprecedented emergency, not only operational chiefs but also political leaders are likely to become deeply involved. Strategy and actions must be improvised, usually by piecing together existing plans and capacities and receiving outside aid from higher levels or international sources. As a result, unlike routine emergencies where a single, specialized response organization is likely to have the lead or sole role, in a crisis, multiple response organizations must find ways of collaborating effectively rather than overlapping, duplicating, or interfering with each other. Coordination of domestic responders and, in a severe crisis, integration of the resources of international aid givers is crucial. Moreover, in a crisis, goals and priorities may be unclear or conflicting, generating contention among political leaders or sharp tensions between operational chiefs and political leaders. The 2015 earthquake response demonstrated most of these features of the prototypical crisis.

To be resilient, societies need to be prepared for both **routine emergencies** — which are likely to constitute the vast majority of threats that they deal with — and the less frequent but potentially far more damaging **crises** like the 2015 earthquakes. In effect, the response organizations that protect society must become *ambidextrous* to deal with both kinds of emergencies.

Several challenges face Nepal in achieving greater resilience in the face of disaster. First, national-level

response organizations — including but not limited to the Ministry of Home Affairs — must develop even stronger skills in handling the routine emergencies that Nepal most frequently confronts. In some cases, these organizations do not adequately train personnel, fail to prepare robust plans for varied contingencies that they know are likely to arise, and too infrequently practice what they have planned.

Second, preparedness must be pushed down to the district and local levels — for governments and for the populace at large. They will be the principal responders in many routine emergencies and the first line of defense in larger events. But localities vary considerably in preparedness and resilience. What constitutes a routine emergency is *subjective*. It varies from nation to nation and from place to place within countries. What may be routine in one locale can be a crisis in another, because responders have had different opportunities to learn the characteristics of various emergencies from training or actual experience. Some local organizations in Nepal have considerable skills and capacity, while others do not; the range of capability differs substantially.

Third, all levels of government must ready themselves for future crises. In Nepal, the 2015 earthquakes constituted a crisis because of the unprecedented character of the emergency and the lack of preparedness revealed at all levels of society. Looking forward, we can see the need for improved response capacity both at the national level and at the local level. This includes, but is not limited leaders developing stronger skills, jurisdictions to, acquiring and mastering the use of response resources, and, very importantly, leaders developing cross-boundary coordination capabilities. This last is essential so that national-level organizations can work together, civil and military organizations can coordinate, and Nepali organizations can effectively collaborate and integrate their efforts with international aid givers.

Fourth, preparation for future crises encompasses more than getting ready for timely, effective emergency response. Increased investment in mitigation efforts will go a long way to build disaster resilience and reduce the likelihood of disruptive events becoming devastating crises. And if catastrophic events do occur, a greater commitment to disaster mitigation measures will be crucial to limiting deaths, severe injuries, and property damage — not from earthquakes alone, but also from floods, landslides, and other serious hazards.

Fifth, since natural disasters are bound to occur, advance thought should be given to how to manage recovery from such events. The National Reconstruction Authority's work can be an opportunity to learn which methods of recovery work well, which need refinement or substantial change, and where alternative strategies are necessary. Even after recovery from the 2015 earthquakes is complete, some form of reconstruction authority should remain in place so that capacity does not have to be built from a standing start if future events require it.

AREAS FOR IMPROVEMENT IN CIVIL-MILITARY COORDINATION

This policy brief concentrates not on the full agenda of improving societal resilience, but on the more specific and critical issue of improving coordination between domestic civil organizations and the Nepal Army in disaster response.

Working to increase the effectiveness of coordination between the Nepal Army and domestic civil agencies is critical both to improve Nepal's disaster response capabilities and, more broadly, to address Nepal's key areas of vulnerability. To promote that cooperation, several steps can be taken, including but not limited to (1) conducting applied research, (2) helping to develop enhanced capacity and procedures, and (3) supporting strategic thinking and dialogue.

APPLIED RESEARCH

An important step toward generating a consensus agenda to improve response capabilities would be to complete a detailed, independent review of the performance of existing, national-level coordination mechanisms in the 2015 earthquake response. This should include assessing and documenting both the formal mechanisms — the NEOC, the Multi-National Military Coordination Center (MNMCC), and the On-Site Operations Coordination Center (OSOCC) — and the ad hoc mechanisms that were established as the need became apparent — e.g., the Joint Coordination Center and the Airport Coordination Team. In addition, it would be useful to document local-level responses to the 2015 earthquake, placing particular emphasis on the points of civil and military coordination. Preliminary research suggests that local responses varied widely across villages and districts, but most information is anecdotal and informally documented. There is a need for a systematic and comprehensive review of the structure and effectiveness of on-the-ground coordination mechanisms.²⁹

Targeted best-practices studies are required to capture expertise and learning from regional and international partners. Regionally, it would be beneficial to examine closely the disaster management systems of neighbors, including Bangladesh and India. In addition to a highlevel review of the national-level emergency management structure of each country, an in-depth review of Bangladesh's Civil Disaster Response Volunteers and India's National Disaster Response Force (NDRF) could provide valuable insights. Internationally, it would be beneficial to learn best practices from best-in-class disaster management systems, especially if Nepal-specific contextual factors permit viable transfer of best practices. The ongoing effort to implement a federal structure of government in Nepal suggests a potential need to create the capacity at regional and local levels to act independently and effectively. This requires building sufficient trust in regional and local governments that central, Kathmandu-based authorities will not try to micromanage responses.

CAPACITY AND PROCEDURAL DEVELOPMENT

More specific steps to enhance response capabilities should involve direct discussion and cooperation between policyfocused organizations on one hand, and both military and civil authorities on the other.

Based on the research outlined above, research organizations should identify the key areas in need of better-defined standard operating procedures (SOPs) between domestic agencies and security forces. This would involve collaborating with these stakeholders to do the often-overlooked work of role definition and process mapping to ensure that critical SOPs are well defined, documented, understood, and widely shared. Developing SOPs for the MNMCC helped to effectively mobilize the resources brought in by foreign military humanitarian assistance teams and to coordinate their activities.³⁰ It would also be important to identify key gaps in the existing legal and institutional arrangements in place to govern Nepal's acceptance and use of international assistance. During the 2015 earthquake response, many aspects of this framework were being established "on-thego," leading to confusion and delays.

Working collaboratively with key stakeholders, research organizations should help Nepal develop specific plans to optimize the use of international resources within its overall disaster response strategy. This could include, for example, outreach to neighbors to foster the development of clear and detailed SOPs, an inventory of neighbors' equipment and capabilities, and outlining a regional response plan.

In addition to GoN's own response capabilities and the integration of international assistance, it is critical to develop innovative methods to engage, coordinate, and train the civilian population on disaster response best practices and strategies. The first hours of search and rescue are often performed by neighbors helping neighbors.³¹ Efforts to better equip the local population for such activities will pay dividends in future disasters. Proactive engagement with the public between (and during) disasters is immensely important to durably embed disaster risk reduction and response strategies.³²

The impending shift to federalism presents opportunities to improve local-level disaster response structures, but there are also risks of degraded performance. Research organizations should analyze the potential effects and how enhancements to local capacity can be engineered. Effective local response will require significant upgrades of local capacity, and analyses should consider how to mitigate any resulting risks to performance. Given the current uncertainty about the eventual federal structure, and the likely wide variability of capacity across local government units, an analysis of alternative local-level scenarios is appropriate. This should include a proactive identification of opportunities for greater military and civil coordination at the local level. Policy research and advocacy organizations can also identify ways to improve coordination among civil and military disaster management stakeholders, in the areas of both structures (e.g., establishing a dedicated unit within the NEOC, the Ministry of Defense, and the security forces whose members work together on an ongoing basis) and procedures.

SUPPORT FOR STRATEGIC THINKING AND DIALOGUE

Foundations and research organizations are in a strong position to offer strategic support — funds, expertise, and convening ability — to both civil agencies and the military in building enhanced disaster response capacities. The ideas presented below should be considered a preliminary agenda that is likely to evolve considerably as other actions described above are undertaken.

By sponsoring or facilitating workshops and conferences and offering training opportunities, these organizations can help promote increasing knowledge of needs and potential ways of improving response. Importantly, such events can help build informal, cross-institutional ties among the disaster response leaders of military and civil agencies. Such relationships can be critically important when disaster strikes, because they create confidence and trust in advance of the emergency and facilitate collaborative action during response. It is also highly important to focus discussion on the role of the military in disaster response, drawing upon regional and international best practices and expertise, but adapting this learning to meet the unique characteristics of the Nepali system and the practices of the international humanitarian community. The military role in disaster response is sometimes controversial, even among the citizens they are charged with protecting. Countries across Asia and in many other parts of the world have accumulated experience and expertise in balancing the challenges and opportunities when engaging their militaries in domestic disaster response operations. Even recently in Nepal, during a peace conference marking the ten-year anniversary of the Comprehensive Peace Accord, a panel debated the size of the NA.33 Whereas doubling NA forces from 1996 to 2006 to fight a national rebellion may have been justified, 10 years into a peaceful transition, when the political landscape has changed and the country has a popular peace agreement, the current size of the military is controversial. However, the NA's size was a significant, positive contributor to earthquake relief and made up for weaknesses in state responses. Discussions of "rightsizing" the NA thus should carefully consider the army's role in disaster response during an uncertain period of political transition and administrative restructuring.

Foundations and research organizations can also work to increase the priority of local-level disaster management training, helping to facilitate and sponsor these activities. Preliminary research suggests that the pre-2015 earthquake disaster management trainings and simulations were primarily targeted at national-level stakeholders. Given the importance of local-level response, especially in the immediate aftermath of a disaster, these trainings must include local stakeholders and direct engagement between locals and the military, so that interfacing with the military is not a sudden, new experience for local jurisdictions in the immediate aftermath of a disaster.

To prepare civilian leadership for the first critical days after a disaster, it will be important to engage them in exercises and simulations that also involve the full range of stakeholders likely be involved in an emergency, including but not limited to the military.

Foundations and research organizations can encourage and facilitate the widespread public dissemination of key disaster response information, helping to avoid duplication, promote collaboration, and more easily identify gaps in the existing information.

Table 1: Summary of Areas for Future Intervention



	APPLIED RESEARCH Improve response capabilities	CAPACITY & PROCEDURAL DEVELOPMENT Enhance response capabilities based on the applied research	SUPPORT FOR STRATEGIC DIALOGUE Convene stakeholders to build enhanced disaster response capabilities
1.	Conduct a detailed and independent review of the performance of existing national- level coordination mechanisms in the 2015 response.	Identify key areas in need of better SOPs among various domestic agencies and security forces.	Support cross-institutional trainings and simulation exercises.
2.	Create detailed documentation of the local-level responses to the 2015 earthquakes.	Identify key gaps in legal and institutional arrangements governing Nepal's acceptance and use of international assistance.	Prioritize supporting local-level disaster management trainings as well as training national-level stakeholders.
3.	Conduct a comprehensive review of the existing domestic search and rescue equipment inventory.	Optimize the use of international resources (via SOPs, inventory, regional response plan).	Aid the improvement of informal ties between the military and civil agencies through workshops, conferences, trainings, etc.
4.	Perform a targeted, best- practices study to capture various partners' expertise and learning from regional and international response to disasters, e.g., the Indian Ocean earthquake and tsunami, the Haiti earthquake challenges, etc.	Develop innovative solutions and methods to better engage, coordinate, and train the civilian population in disaster response best practices and strategies.	Facilitate open and collaborative discussion of the role of the military in disaster response.
5.		Identify methods for improving coordination among and within NEOC, MoD, and the security forces.	Standardize and promote public dissemination of key disaster response information.
6.		Evaluate the potential impacts of the national transition to federalism, and identify opportunities for greater civil-military coordination under the new system.	

ENDNOTES

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