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Lessons on International Coordination from the Nepal Earthquake of 2015

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Abstract

The International Community generally coordinate Humanitarian Assistance and Disaster Relief (HADR) operations relatively well between themselves, when working in failed state or intervention scenarios. However, the model for working through a functional, if temporarily degraded host nation, is less clear. The experience of the 2015 Nepal Earthquake, demonstrates the need for a more nuanced model for coordination in such scenarios. This paper highlights that related doctrine is currently suboptimal, and does not adequately consider that the host nation may well be in a stronger position to shoulder the burden of early operations. The analysis also indicates that assisting contingents may be unduly limited by their own governing policies. Importantly, most internationals tend to depart before alternate arrangements are fully in place, potentially leaving gaps for the host nation to fill. While the Nepal disaster is used to examine these issues, the lessons have implications for future HADR operations worldwide. Recommended measures include closer coordination to work with and through the host nation, a multinational military coordination center (MNMCC) framework, increased flexibility of deploying contingents, and the need for foreign contingents to help minimize any gaps when withdrawing, by working to enable the host nation from the outset.

Keywords: *International coordination, 2015 Nepal earthquake, international humanitirian assistance, disaster management, coordinated efforts*

Lessons on International Coordination from the Nepal Earthquake of 2015

On a sunny Saturday morning on the 25th of April, 2015, Nepal was devastated by the planet's deadliest earthquake that year, affecting almost a third of the country's population (Mercy Corps, 2019). In response to a request from the government of Nepal, the international community rushed to the country's aid with military teams from 18 countries, altogether 4319 personnel (Government of Nepal, 2016). The United Nations (UN) and Western countries have generally coordinated well between themselves when operating within a model for international response to disasters in failed state or intervention scenarios, often with a capable nation in lead.

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The situation in Nepal was different. The government mechanisms were certainly severely degraded, but nevertheless functional. It quickly became clear that the model for international humanitarian assistance and disaster relief (HADR) needed to be adjusted. The international response to the Gorkha Earthquake of 2015 in Nepal highlights the requirement for adoption of a more nuanced model of coordination for large-scale humanitarian assistance to functional, if temporarily degraded, sovereign states. Increased effort is required to enable the host nation to more effectively shoulder the burden of the early response and coordination, because the UN and international contingents may be relatively less effective in the initial stages of the disaster. Similarly, the effectiveness of international assistance stands to benefit from increased flexibility in the policy framework of contributors to better suit the context. Likewise, the generally limited period that international contingents tend to deploy in support of a host nation warrants increased support to develop the capability of such vulnerable nations, along with due diligence to minimize the gaps created by their own withdrawal.

A marque earthquake disaster event had long been expected in Nepal. Prior preparations, little as they may have seemed, proved invaluable in saving countless lives, and allowing the response mechanism to function at all. Coordination of the international response was a challenge from the outset. Each country naturally arrived with its own standard operating procedures (SOPs), and also the baggage of its own experiences. Significantly, the majority of the international teams left within the month, and the host nation had to fill any voids. A Harvard study suggests that, despite "distressing regularity of landscape-scale disasters," the international community is often caught inadequately prepared (Howitt et al., 2009). Lessons from marquee events such as the Gorkha Earthquake have significance for the International Community, because these events are so salient, and how effectively they handle them often becomes a defining characterization of both their values and competence (Howitt et al., 2009).

This paper, after setting the context of the international response to the Gorkha earthquake and exploring the approaches and impacts of the assistance rendered by key friendly countries, will seek to recommend a generic model to serve as a framework for international response coordination in a non-failed state, non-intervention setting. In doing so, it will also compare and contrast relevant aspects of coordination from the Haiti Earthquake of 2010, Typhoon Haiyan in the Philippines in 2013, and the Pakistan Earthquake of 2005. But first, to understand the significance of the lessons of the Gorkha Earthquake, it is necessary to understand the magnitude of the events and the context of the international response.

The Power of Twenty Thermonuclear Weapons

According to research published by Australian Geographic, the Gorkha Earthquake of April 25, 2015–so named after the location of its epicenter–was "more powerful than an explosion of 20 thermonuclear weapons" (Kyriacou, 2015). The earthquake and its aftershocks killed around 9000 people, destroyed or seriously damaged almost a million structures, including some 5748 school buildings (Nepal, 2017). It was the largest natural disaster in Nepal in some 80 years (Government of Nepal, 2013). Yet, taken in context, it can be argued that it was not really the worst-case scenario. It hit during a weekend, mercifully with children out of school. The mild spring featured neither the incessant rains of the tropical monsoon, nor the frigidity of the Himalayan winter. It struck in the late morning, when most people were outside their homes

and allowed for crucial daylight hours for the initial rescues. The only international airport, the Tribhuvan International Airport (TIA), was not rendered inoperable. The highways to India, limited as they were in number and capacity, remained open. Nevertheless, the impoverished nation, currently the region's least developed country was quickly stretched beyond capacity (UNDP, 2009). Furthermore, other than the military and certain agencies which had engaged in prior international HADR exercises, the country as a whole was little prepared for a disaster of that magnitude. International assistance, and the effective coordination of its implementation, was going to be essential to the rescue, relief, and recovery efforts.

They Fell Back on Their Training

At the time of the earthquake, Nepal's national architecture for HADR, regarding legislation as well as capability, was inadequate. The host nation had to drive the requirements for assistance, facilitate and de-conflict the work of the various teams and be prepared to fill the void left by foreign teams as they departed. Yet, at the time of the earthquake, the National Strategy for Disaster Risk Management (Government of Nepal, 2013) had not yet been widely internalized by concerned stakeholders. There was a provision for the highest steering mechanism of the central government, the Central National Disaster Response Committee (CNDRC), an on-call body, to be invoked before, or during, crises. The National Emergency Operations Center (NEOC), housed in a hardened building in the premises of the Ministry of Home Affairs (MoHA), was functional, if undermanned. However, of the planned 75 District Emergency Operations Centers (DEOC – one for each District in Nepal), only 47 were established and operational at the time (UNDP, 2015). This gap in the response framework severely handicapped the NEOC at the central level in the acquisition of the critical situational awareness. Given the inadequacy of established government regulations and national directives, most of the participants, not least the national military, the Nepali Army (NA), fell back upon joint training with the armed forces of friendly nations, conducted over the last decade (Government of Nepal, 2013). They were augmented by foreign teams that arrived full of goodwill and energy, but also with the baggage of their past experiences.

Challenges to Doctrinal Alignment and Implementation

In principle, the UN policy framework generally allows for the host nation to lead in HADR operations. The core UN General Assembly agreement governing humanitarian assistance, Resolution 46/182, states that, the "affected State has the primary role in the initiation, organization, coordination, and implementation of humanitarian assistance within its territory" (UNGA, 1991). United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) policy further states that "OCHA's role is to augment national and local coordination capacities, and to promote coordination structures that are complementary to established national mechanisms and capacities" (OCHA, 2015).

However, in practice, that spirit is not adequately reflected in the coordination mechanisms. National and international doctrine mostly focus on coordination optimized for humanitarian assistance in failed state scenarios. Part of the gap is in the framework of understanding of responding to such disasters. Literature in the HADR field does not delve adequately into specific considerations on working through a host nation, in a non-failed state

scenario. The United Kingdom (UK) doctrinal manual on Disaster Relief Operations Overseas, for instance, asserts that in large relief operations, the UN OCHA will usually deploy a UN Humanitarian Civil-Military Coordination (UN-CM Coord) cell, which makes separate Civil-Military Cooperation (CIMIC) centers unnecessary (UK Chief of Staffs, 2018). It goes on to highlight that, wherever possible, national CIMIC staff should be UN-CM Coord trained. This perception, quite aptly describing the process when deploying into a political and administrative vacuum, is not adequately caveated with the potential requirement of an alternative model that prioritizes working with, and through, host nation entities. The argument is not solely based on potential sovereignty concerns of such host nations, significant as they may be. An equally compelling and practical aspect is the fact that, as witnessed in the Nepal case, the host nation may initially be more capable than the UN and other internationals, and better poised to coordinate the effort.

The UN OCHA did not have a permanent presence in Nepal. Nepal was covered by the Regional Office for Asia and the Pacific (ROAP), based in Bangkok. Therefore, the UN OCHA lead in the Humanitarian-military operations coordination Centre (HuMOCC) was initially represented by a handful of staff members rushed in from abroad. They collocated with the Multi National Military Coordination Center (MNMCC), which had been immediately established in the aftermath of the earthquake. Their cell could not become fully functional until around a week into the response (Khatri, 2016). The OCHA head of office arrived some four weeks later to expand their operations (Grünewald & Burlat, 2016). In effect, the UN and the supporting nations came to Nepal with doctrine that placed the UN at the very center of coordinating the international HADR effort. However, in the initial days of the response effort the government of Nepal proved relatively better poised to undertake such coordination.

Even Annex X of the 2016 UN contingency plan for reacting to earthquakes in Nepal–developed a year after the experience of the Gorkha Earthquake–does not sufficiently highlight the lead function of the host nation. The model places the UN-centric HuMOCC very much at the center of coordination. As shown in Figure 1 below, it does not adequately reflect the requirement for the host nation civilian authorizes to set priorities and pass on requests to the military coordination mechanism (HuMOCC in this example) or the civilian equivalent, the On-Site Operations Coord Center (OSOCC), to service. The primacy of the host nation civilian government in guiding the overall effort, is reflected only through links onto the sides, and is not abundantly clear. On the ground in Nepal, this lack of clarity proved unhelpful, as some contingents were reluctant to coordinate through host nation mechanisms, and seemed to prefer more familiar UN or international led mechanisms, as would be present in a failed state scenario.

On the ground in Nepal, the arrangement conceptualized the CNDRC at the national ministerial level as a strategic body at the apex. An operational body in the form of the NEOC, below the CNDRC, was meant to act as a one-stop-shop for all requests for assistance, and provide guidance to both the military elements (national and international) through the mechanism of the MNMCC and the civilian elements (national and international) through the OSOCC. The MNMCC would then coordinate all military elements, while the OSOCC did the same with all civilian elements, to service the tasking orders.

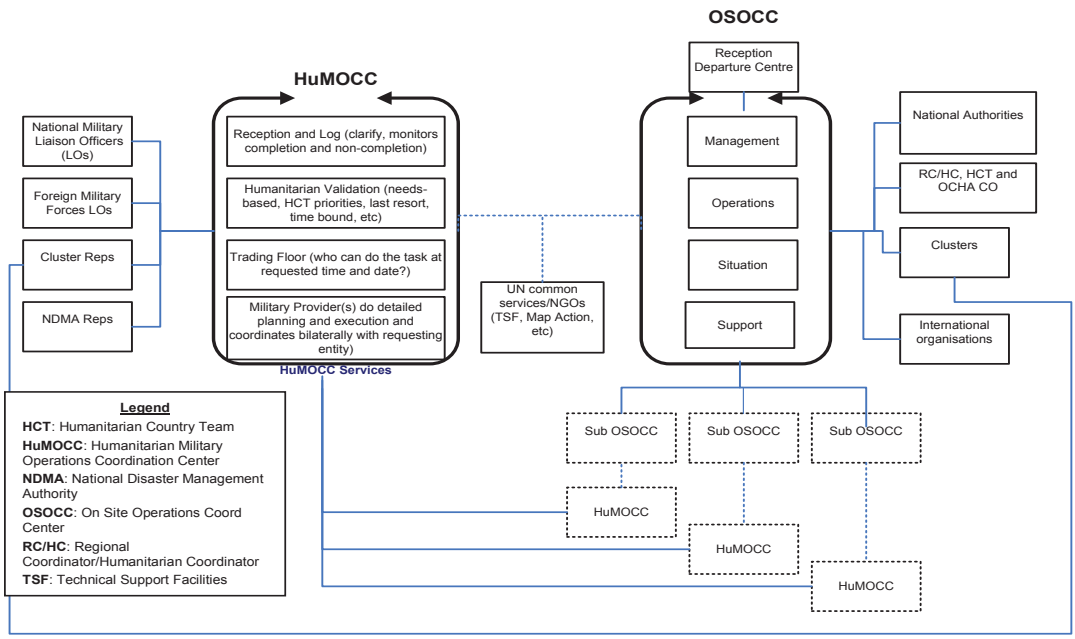

Figure 1. HuMOCC Model as Depicted in UN Country Team Contingency Plan, Nepal: Earthquake, 2016 (Grünewald & Burlat, 2016)

The UN Innovates

The UN bureaucracy, despite a slow start, innovated to tailor its response and coordination mechanism to fit the situation. Without a local office, the UN OCHA was hampered in their ability to rapidly contribute to the coordination of the initial search and rescue effort. However, from the outset, the UN demonstrated an appreciable degree of flexibility, and tailored the response to requirements and realities on the ground. The UN system, through UN OCHA, set up a virtual OSOCC very soon after the earthquake. It contained basic, routinely-updated information, particularly useful for those international search and rescue teams trying to orient to the challenge at hand. It served as the initial source of information for 46 percent of civilian international teams (UN OCHA, 2016). On the ground, it was a few days before the UN OCHA facilitated OSOCC, the designated body to help coordinate civilian teams arriving in Nepal, was up and running. Credit is due to the UN, however, as its staff were not oblivious to their own limitations, and adapted quickly. They demonstrated flexibility and professionalism, and ensured they best used what mechanisms were available. Consequently, the MNMCC–not even mentioned in the chart in Figure 1–ended up facilitating the first 16 international civilian teams until the OSOCC could be effectively established (Government of Nepal, 2016).

With experience, it became clear that lateral coordination between the MNMCC and OSOCC, mainly for the servicing of tasking requests from NEOC by appropriate military and/or civilian teams, required a mechanism beyond the remit of liaison officers. Actual de-confliction of the tasking of various teams and collaboration on the prudent use of any spare capacity had to carried out by empowered staff officers. Consequently, UN OCHA, in conjunction with the MNMCC, established a Joint Coordination Center (JCC). This mechanism was established on an ad hoc basis and the JCC met as required to coordinate between the

military and civilian capabilities. They shared information on spare capacity and requirements and worked out how best to achieve synergy. This late experiment was reportedly seen as a welcome and successful measure (Karki, 2019). It contributed to a better shared understanding of the situation, requirements and capabilities available, and helped avoid duplication. This recognition of ground realities, and the willingness to adapt in the greater interest of helping the victims of the earthquake, was also displayed by most international contingents.

The Neighbors Pour In

For the most part, troops from the bordering countries (India and China) arrived with fewer caveats than the Western nations. The earliest arriving Indian aviation assets reached Kathmandu within six hours (Government of Nepal, 2016). Altogether 1415 Indians and 942 Chinese, together made up more than the sum of the remaining 16 teams put together (Government of Nepal, 2016). Reportedly, the then Chief of the Army Staff of India, who also happened to be from a Gorkha Regiment, and an Honorary General of the NA, remained in constant personal touch with the NA leadership, offering a wide scope of assistance (IANS, 2015). This may have been courteous symbolism amongst friends, but it seemed to help reassure the host nation. At any rate, the Indian contingent was very much integrated into the MNMCC, and well appreciated. The Chinese were equally keen to assist, and be seen to assist. They deployed with a wide spectrum of capabilities: aviation; medical; engineers; and search and rescue teams with sanitization and decontamination kits. Whatever the perception regarding the degree of their integration with other contingents within the MNMCC, they ensured their operations were fully vetted and driven by the host nation (DA, 2017).

The U.S. Adapts to 'Make It Happen'

The U.S. contingent had to adapt their aid request and delivery processes to best suit ground realities. By policy, the United States Agency for International Development (USAID) is the lead agency for humanitarian assistance delivered by the U.S. military (USAID, 2015). In Nepal, the special context of working in a sovereign country, on whose bilateral invitation the US contingent had arrived, placed certain challenges on this mechanism. For instance, the 48-hour lead time required to submit requests for flights to USAID, meant that the Nepali had to have something ready 55 to 60 hours ahead to pass the request through the US Marine liaison officers attached to the MNMCC (DA, 2017). This in turn meant that the US aviation could not be as nimble–and therefore as usable–and potentially risked being less appreciated than the aviation assets of other armed forces. The Indians and Chinese, for instance, were able to react to requests submitted the night before.

Furthermore, only requests on the USAID tasking order could be flown. Theoretically, this could have meant that host nation authorities did not get visibility of what was being prioritized by USAID, and flown in U.S. military aircraft. The pragmatic U.S. contingent got around this by training the NA staff on directly inputting the NEOC requests on a draft mission tasking matrix (MITAM) (DA, 2017). This helped the U.S. contingent them save time by focusing on vetting the requests, instead of drafting them. Conversely, combined staff also ensured that the flight details on the final USAID list were reflected in the MNMCC's own tasking orders. This was accomplished through diligent staff work on both sides. Hence, USAID still controlled what U.S. military aviation flew, and the Nepali authorities were satisfied that

all foreign flights were visible in the MNMCC lists. Both sides were happy. This requirement to tie-in with the host nation is also in consonance with U.S. policy, reflected in the Department of Defense Instructions on Humanitarian and Civic Assistance (HCA) Activities, which states that they "are conducted with the approval of the host nation's (HN) national and local civilian authorities" (Department of Defense [DoD], 2014).

The U.S. military leadership demonstrated particular empathy through its decision to assist in the airlift of troops to remote sites. Rescue flights and the delivery of lifesaving aid materials were, appropriately, the priority set by USAID. The Nepali were told that this precluded the airlift of troops (DA, 2017). However, a unique situation developed in the early days of the operation. In many areas, adequate amounts of critical basic supplies had been stocked at the district headquarters, delivered on trucks and by air. However, many outlying areas still could only receive aid by helicopters. But first, troops had to reach these areas, secure landing zones, and help establish distribution points. For that critical period of the effort, it was clear that a tranche of troop movement needed to be prioritized. When approached in some desperation by the MNMCC and the NA, U.S. Marine Brigadier General Paul Kennedy arrived at a compromise solution. Recognizing the genuine military necessity of the request, he asked for the flights to take place, reportedly tasking his staff to find other funds, and make it happen. U.S. Marine aircraft (V-22 Ospreys) deployed Nepali troops to remote locations, making it possible for the remainder of the humanitarian assistance to flow (DA, 2017).

The United Kingdom (UK) Seeks to Adjust

The British public, ever fond of the Nepali and Gurkhas, raised 87 million sterling pounds within a few months, some of the highest private donations from any country (Disaster Emergency Committee, 2018). Despite such an outpouring of public goodwill, and the advantage of being Nepal's oldest partner, with presence of Gurkhas in their own armed forces, the UK seems to have been less able, or less willing, to coordinate its response with the host nation mechanism. The UK armed forces arrangement with the UK aid agency, the Department for International Development (DFID), was similar to the U.S. military's relationship with USAID. British military doctrine states:

> All humanitarian interventions carried out by Her Majesty's (HM) Government will be managed under a DFID lead and in accordance with the humanitarian principles of humanity, impartiality, independence and neutrality. UK military support will therefore be at the request of DFID and will be consistent with DFID's response strategy. (UK Ministry of Defence, 2016)

However, unlike the U.S., the UK initially proved less inclined to adapt, and significant coordination issues emerged. The UK did place a contingent within the coordinating umbrella of the MNMCC, but they also seem to have retained some Gurkhas outside the mechanism, perhaps on the basis that they were simply helping out in their home country. One official account of the Nepali government puts the size of the UK contingent working through the MNMCC at 134 (Government of Nepal, 2013). The same figure is found in the January 2016 report of the independent French humanitarian response related organization Urgence, Rehabilitation, Development (Groupe URD), which provides a detailed breakdown of all international contingents (Grünewald, el at., 2019). The figures in the UK press reports were generally "around 300" (Rockett, 2015). These included, as featured in the website of the Kathmandu based British Embassy, additional military support that "will see the Gurkhas

provide direct welfare support to the villages of serving Gurkhas and their families, as well as Gurkha veterans" (Gov.UK News Story, 2015). It must be remembered that the Gurkhas in the Indian Army–called 'Gorkhas'–outnumber the British Gurkha contingent around twenty fold, with around 40,000 soldiers (Deshpande, 2017). Arguably, the Indians could have followed the same logic and deployed Gorkhas across their home villages. Yet the Indians, perhaps recognizing the prudence of helping Nepal demonstrate consistency in its relations with regard to all military contingents, not least of both her neighbors (India and China), fully integrated themselves within the MNMCC.

Furthermore, three Royal Air Force Chinooks from the UK were rushed in, seemingly without thorough coordination with the Government of Nepal. They remained grounded in India for weeks, while permission was sought from Nepali authorities (BBC, 2015). On the surface, lack of space at the airport and the threat of their excessive downwash on the village huts, rendered fragile by the tremors, were cited by various quarters denying the requests (Gayle, 2015). That notwithstanding, the British seem not to have adapted as quickly as some others, at least until some damage was done. They apparently stuck with their insistence that these assets would solely support DFID, and hesitated to fully coordinate through the MNMCC framework. A suggestion was apparently made to the British representatives to consider following the U.S. example of integrating the parent aid agency requirements (as done regarding USAID) at the staff level, but it appears not to have materialized (DA, 2017). Given the age old close relationship, particularly between their armies, it could have, and should have, been done better. This, however, in no way diminish the positive impact of the immense goodwill displayed by the UK, and particularly, her people, for Nepal and the Nepali. Cooperation and trust between the forces are, if anything, stronger today.

How Soon Will They Arrive and How Long Will They Stay?

The Nepali experience shows that two predominant questions regarding the international contingents concern a sovereign host nation: how soon will they arrive, and how long will they stay? Time taken for the international response, not helped by Nepal's landlocked status and single international airport, meant that the Nepali had to shoulder the main burden of the rescue effort for the first 72 hours. In the early hours, the NA alone rescued 43 per cent of those pulled from collapsed structures, amounting to 1336 lives saved (Pun, 2016). Indeed, 41 percent of all rescues across the country took place within the first 72 hours (Government of Nepal, 2013). A further 2,928 people, cut off by landslides and collapsed bridges, were rescued by NA aviation (Pun, 2016). Nepal's laws allow for automatic deployment of armed forces during disasters, and this enabled some 75 per cent of the army, 66,096 troops, to spring into action, which helped mitigate the gaps to an extent, until better equipped and resourced international teams could arrive. This underscores the need to augment, not replace, the effort of the host nation.

Rescue teams from nearby India, following on the heels of aviation assets, which had arrived earlier, were in Nepal within 12 hours, but it was a week before most of the contingents from the region and beyond arrived (Cook, et al., 2016). Of those who arrived earlier, it is unclear how many were effective before 72 hours. The 134 international search and rescue teams saved some 19 people from collapsed structures (Cook, et al., 2016). Despite the relatively low numbers, it is worth noting that the NA's official After Action Report highlights their immense value, observing that these were, "beyond the rescue capabilities of national

teams" and that the "…presence of highly equipped international teams also helped reassure public confidence" (Government of Nepal, 2013, p. 54).

Their significant positive impact notwithstanding, most foreign military teams had departed within a month, as depicted by the chart in Figure 2, leaving the host nation to fill any emerging voids. The Indians stayed the longest, at 40 days. Canada, the U.S. and China withdrew at 35, 33 and 30 days respectively. The internationals had made a huge impact in many areas, including the delivery of 966 tons of initial relief, and treatment of 27,390 casualties (U.S. Embassy, 2016). There had been no time, in the heat of the crisis response, to establish new capabilities to assume the burden of their tasks. It fell upon the existing mechanisms of the host nation, and to an extent, the international humanitarian community, to shoulder these responsibilities upon the withdrawal of the international teams.

A few of the contingents that thought through this inevitability, attempted to strengthen the host nation capacity to continue dealing with the situation. The U.S. remained in close touch after their withdrawal, continuing–among other activities–a series of training programs to build partner capacity. The U.S. had also rapidly delivered vital communications equipment in the aftermath of the earthquake, and helped construct a hardened Regional Crisis Management Center (RCMC) and warehouse (The Economic Times, 2015). Similarly, the Indians and British continued assistance in many areas, and the Chinese delivered two mobile hospitals on May 26, a month following the earthquake, synchronized with the withdrawal of their own contingent (Khatri, 2017). However, other contingents that tended to work alone, arguably risked leaving a void as they withdrew. This strengthens the argument that internationals in a non-failed state, non-intervention scenario, will do well to work from the outset to shore up the sovereign host nation's capacity.

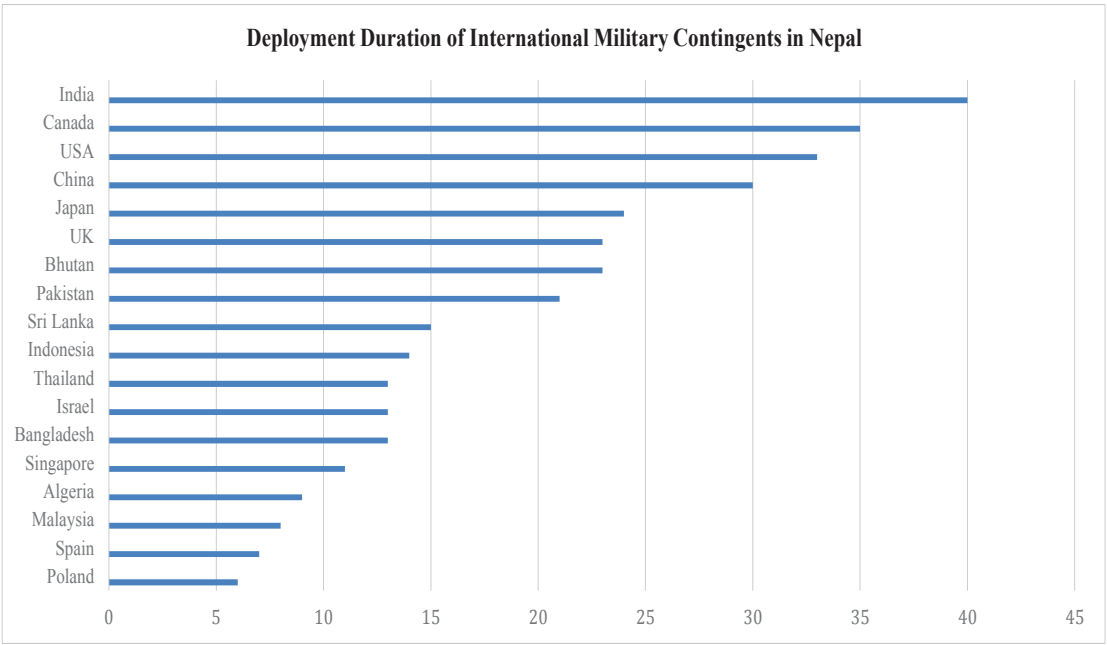

Figure 2. Deployment Duration (in Days) of International Military Contingents (Cecchine et al., 2013, p. 31)

Coordination Experiences in Haiti, Philippines and Pakistan

Examination of coordination challenges in recent international responses across a variety of disasters around the world provide further credence to the observation that established coordination mechanisms are more suited to a failed state scenario, and that there are compelling justifications to adapt the model when assisting through a host nation. The U.S. response to the 2010 Haiti earthquake is first highlighted below to examine the more familiar failed state or intervention model at play, where relatively efficient coordination was carried out under U.S. and UN lead. The 2013 Typhoon Haiyan in the Philippines is then presented as a case where international coordination, in order to be successful, had to lean heavily on a pre-existing, formal, bilateral relationships between the U.S. and the Philippines. Finally, the Pakistan earthquake of 2005 is offered as an example closest to the Nepal experience, where the mechanisms for the coordination of international assistance had to adapt to work through the host nation. While the effort has been to meaningfully draw similarities and parallels where useful, the overwhelming lesson is one of the primacy of the context, which demands flexibility.

The U.S. and international responses to the 2010 Haiti earthquake bore all the hallmarks of a classic model of HADR coordination in a failed state or intervention scenario. In lieu of a sound host nation partner to work through, the U.S. was compelled to lead in the coordination of the effort. It made history as the U.S. military's biggest humanitarian effort till that time, and required sustained commitment well after the initial response (Cecchine et al., 2013, p. xi). The active role of the government of Haiti was largely limited to provision of the initial request, when, "surviving officials of the Government of Haiti (GoH) made an urgent request for U.S. assistance" (Cecchine et al., 2013, p. 54). The U.S., as a major, traditional contributor, responded unilaterally and in coordination with the United Nations Stabilization Mission in Haiti (MINUSTAH). Although the UN already had a humanitarian coordination mechanism on ground within and alongside MINUSTAH, with the earthquake leveling the MINUSTAH headquarters and killing 101 UN staff, along with the Special Representative of the Secretary General (SRSG) and his deputy, the U.S. did not have the luxury of waiting on formal coordination mechanisms to start the rescue and relief efforts (Cecchine et al., 2013, p. XVI) The U.S. Joint Task Force (JTF-Haiti) established a humanitarian assistance coordination cell to coordinate with interagency, intergovernmental, multinational, and partners in the Non-Government Organizations, while MINUSTAH established its own Joint Operations and Tasking Center (JOTC) (U.S. Army War College, 2016). Within 38 hours of a totally unforeseen earthquake in Haiti, the U.S. responded with the largest rapid movement of troops since Desert Shield, and for the most part, conducted HADR operations as it saw fit (Powell et al., 2016). It led in the coordination effort, not because that was deemed the most desirable or sustainable option, but because the ineffective Haitian government apparatus simply was not a viable alternative.

The U.S. response to the 2013 Typhoon Haiyan, in the Philippines, as part of Operation Damayan, may appear to be a model of coordination when working through a host nation, but the Philippines's status as a U.S. ally, and the existing deployment of U.S. forces on nearby islands, make it highly contextual. It reflects the relative freedom to undertake international coordination for HADR activities while operating in countries where the U.S. has established relationships (USAWC, 2016). With the nature of the impending disaster allowing for a degree of early warning, The United States Pacific Command had pre-positioned personnel and

transportation assets in and around the Philippines (Parker et al., 2016). Indeed, Joint Special Operations Task Force–Philippines (JSOTF-P), which provided some of the early response, was already deployed on the Philippine Island of Mindanao (Center for Excellence in Disaster Management and Humanitarian Assistance, 2014, p. 20). Coordination with the Philippine government, and with wider contributors, was also eased by common experiences developed during years of combined exercises. Indeed, "the Philippines-U.S. relations could be traced back to the late nineteenth century with the Spanish-American war," and despite ebbs and flows, a legacy relationship did exist, which provided a cultural and organizational basis for U.S. assistance. (Trajano, 2016, p. 15) This is unlikely to be the case where the U.S. cannot leverage such pre-existing relationships. Despite such established relations with the U.S., which allowed for the initial utilization of the bilateral Command Coordination Center (CCC) framework, delays in the establishment of a Multinational Coordinating Center to cater for wider contributors "frustrated the quick delivery of the relief items to far flung areas" (SIPRI, 2008).

The U.S. and international responses to the 2005 Pakistan Earthquake is probably the example closest to the Gorkha Earthquake, with the U.S. and other contributors working through the Government of Pakistan. Pakistan was a functional state, although its control over some of the frontier areas has always remained questionable. The scale of the 2005 Earthquake, combined with remote geography and sparse infrastructure, overwhelmed the resources of the Pakistani government. Consequently, the international contribution was generally welcomed. However, with multiple security challenges including traditional enmity with India, Islamist terrorism, and general lawlessness, the government of Pakistan insisted that the welcome was conditional to cooperation within parameters set by Islamabad. In other words, the norm for coordination in a failed state or intervention settings, with the UN or main international contingent leading, had to be adapted. An ad hoc model, working through the host nation of Pakistan, emerged.

Pakistani authorities also led in coordination as only limited U.S. assets (coming from nearby Afghanistan) were able to arrive within 24 hours. It was many days–almost two weeks in the case of the much needed engineering capabilities–before other international contributions arrived and became operational (SIPRI, 2008, p.109-110).

The UN Disaster Assessment and Coordination (UNDAC) team arrived a day after the earthquake, and also coordinated with the Federal Relief Commission (FRC) established by the Pakistani military the following day (SIPRI, 2008, p.109-113). Inadequate understating of the opaque model for international coordination for assisting through a host nation also resulted in other obstacles. Some contingents arriving under the North Atlantic Treaty Organization (NATO) banner, while "ostensibly under a unified command…still required that all tasks be cleared by their national commands" (SIPRI, 2008, p.109-115). Similarly, NATO air assets initially remained under NATO's direction, "despite the North Atlantic Council's declaration that NATO assets should work 'with and for' the Pakistani authorities" (SIPRI, 2008, p.109-115). Eventually, they were placed under the umbrella of the UN Humanitarian Air Service (UNHAS), which itself coordinated with Pakistani authorities–reportedly increasing effectiveness in the response (SIPRI, 2008, p.111). Eventually, the pressing humanitarian concerns to assist the increasingly vulnerable population resulted in adjustments, and a compromise model emerged,

with the Pakistani authorities providing overall direction. Finally, as commonly evidenced in the practice of assistance through a host nation, "the majority of foreign military assets were deployed in Pakistan by late October 2005 and were withdrawn by early February 2006, with very few remaining to participate in the rehabilitation phase" (Martin, 2019).

The aforementioned examples highlight that every disaster is contextual, and it is useful to develop a tool bag of different coordination mechanisms. The U.S. and other contributors learn from each crisis and build upon relevant lessons to ensure better performance in subsequent responses. Nevertheless, as corroborated by experiences in Nepal and elsewhere, there is arguably a gap with regard to coordination of international response within the context of a non-failed state, non-intervention model, where there are inadequate formal arrangements for assistance, legacy alliances and partnerships, or prior basing of concerned foreign troops.

So What?

So what pertinent lessons of global in interest does the Gorkha Earthquake carry, regarding the coordination of international assistance to sovereign states? The Gorkha Earthquake offers lessons to countries stricken by major disasters, and the international community, including the U.S., responding to them. This is particularly pertinent in the case of assistance going into a sovereign state with a functional, if temporarily degraded, government. The experience suggests that the host nation must be prepared to initially bear the brunt of the tasks, clearly articulate and drive the requirements, facilitate and de-conflict the efforts of the foreign teams, and be prepared to take over their work as seamlessly as possible.

All the goodwill in the world cannot ensure that external help can be mobilized effectively at the outset of the disaster. The host nation must be prepared to bear the lion's share of the urgent task of saving lives during the golden period of the first 72 hours. The host nation must help carefully shape, articulate, routinely revise, update and drive the requirements expected from foreign assistance. The host nation does not command the foreign teams, but must facilitate coordinating their efforts through joint mechanisms like the MNMCC. Most importantly, it must be poised to take over the vital tasks undertaken by the foreign teams as they start to redeploy. Analysis by the Honolulu based Center for Excellence in Disaster Management and Humanitarian Assistance shows that U.S. contingents reacting to a disaster into a host nation traditionally withdraw within four to six weeks (Government of Nepal, 2016). For the international community trying to assist a vulnerable nation, perhaps the most worthwhile support it can render is in the areas of resilience and prior preparation, particularly for the initial response and coordination. Vulnerable nations would also stand to benefit from development of better-defined processes that allow for rapid needs assessments, along with articulation and communication of actual requirements. Development of common SOP would help.

Foreign military contingents, will prove more effective if further flexibility is built-in to allow them to tailor their responses to emerging requirements on the ground. In particular, the flexibility to work around the general restrictions imposed on account of their funding through the lead civilian aid agencies, would help. Due authority and allocation of separate funds and authority to the military commander to undertake such vital tasks as assisting the host nation

to move troops to aid distribution points, would go a long way in making the deployment more meaningful and appreciated by the recipient state.

It may be ideal to seek to have a memorandum of understanding (MOU) with the host nation in place prior to a disaster. While, this may not always be feasible, or hope to cover all scenarios, known vulnerabilities can and should be planned for. The known risk for major earthquakes in Nepal is an example of known conditions that warrant preparatory arrangements, including the pursuit of MOUs to facilitate rapid response, and minimize obstacles to deployment and employment of foreign contingents.

Similarly, the utility of the MNMCC, arguably validated by the Philippine and Nepali experiences, is worth reinforcing. While overarching matters of national assistance, contributions, and even caveats, can and should be a matter of discussion at higher levels, such as the NEOC in Nepal's case, the actual coordination of military assets within a HADR operations in a host nation setting is best carried out in a participatory MNMCC, or equivalent. This best achieves economy of effort and mitigates duplication. The enhanced transparency achieved from all military assets operating under a common umbrella supports the host nation, and arguably even contributes to regional stability. Within the MNMCC, all participants must be prepared to take on more work initially, perhaps even helping coordinate early civilian teams, until designated civilian mechanisms can become functional. At a macro level, the MNMCC must be better tied in with its civilian counterpart, the OSOCC, or equivalent.

The sum of the aforementioned factors points towards the requirement of a more nuanced model, optimized for international assistance rendered to a sovereign state. Such a model should be developed with some key guiding principles in mind. First, the international military contingents must work closer with, and through, the host nation. Second, while civilian entities such as the NEOC can serve as a one-stop-shop for all coordination at higher level, the tactical level coordination following decisions from NEOC are better placed at the MNMCC (or equivalent) for the military, and the OSOCC (or equivalent) for the civilian teams. This would be consistent with the core principles and policies of major assistance providers like the U.S. and UK, while also serving to best shore-up the host nation. Third, arrangements governing deploying contingents should be revised to not be unduly limited by preexisting arrangements with their parent aid agencies. Finally, all foreign contingents must strive to work themselves out of a job by planning, from the outset, for the handover to, and enabling of, the host nation capacity.

An outline of a recommended model for the coordination of international military contingents and others in a non-failed state, non-intervention scenario should both: bestow due recognition to the pivotal role of a host nation, while retaining the independence of the contributing parties; and be structured to achieve better coordination with civilian entities. The coordination with civilian entities, particularly with regard to the OSOCC equivalent, may be achieved by establishing a Joint Coordinating Cell (JCC) with staff officers (who not only liaise, but can conduct actual planning) to meet regularly to coordinate and de-conflict. The recommended model is depicted in Figure 3 below.

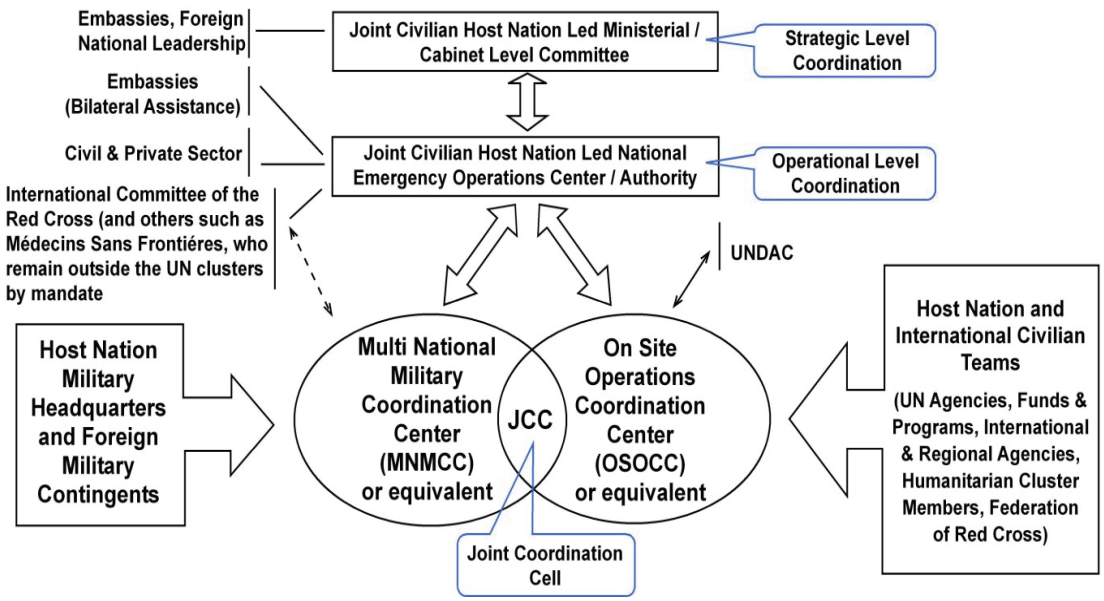

Figure 3. Recommended Model for Coordination Further Developed from Chart in Book: Nepali Army in the Gorkha Earthquake of 2015: Lessons Learned

Finally, there is much the international community can take away from a study of the global response to the 2015 Gorkha Earthquake in Nepal. On one hand, it is reassuring in its affirmation of the immense collective goodwill that rises to the fore, across political and geographic boundaries, when parts of the world face devastation of such magnitude. On the other hand, it equally exposes the inadequacies of the current mechanism for international coordination in such operations, drawing as it does, to some extent from an intervention-based mindset. Of its many takeaways, the most prominent may be the lessons it holds for the UN and for the International Community, of the requirement to further develop a more nuanced model of coordination when assisting sovereign states with a functional, if degraded, government, while retaining a flexible mindset to suit the unique context of each disaster and response. As the hosts are usually best poised to shoulder the burden of initial responses and coordination, efforts to enhance the capacity of vulnerable nations prior to disasters are worthwhile investments. Equally, the generally limited period that international contingents tend to deploy for, warrants efforts to minimize the gaps created by their own withdrawal. Efforts towards such an approach will undoubtedly result in a more stable environment in the host nation by the time the internationals withdraw. More importantly, the synergy achieved will help save more lives, which is what the international response, at its core, is meant to be all about. .

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