Pakistan Earthquake: A Review of the Civil-Military Dimensions of the International Response

April 2006
1) Methodology and scope:

At the request of US Central Command and the Office of the US Defense Representative to Pakistan, the Center of Excellence in Disaster Management and Humanitarian Assistance (COE) sent a 3-member field team to observe the Pakistan-led “Earthquake 8/10: Learning from Pakistan’s Experience” seminar held in Islamabad on 17-18 March 2006. The COE team conducted targeted follow-up interviews during the period of 20-23 March with a cross-section of civilian and military officials from Pakistan and the United States as well as representatives from the United Nations and other responding organizations.

This review is intended to supplement the comprehensive collection of lessons learned currently being collated by the Combined Disaster Assistance Center Pakistan (CDAC-PAK) with the aim of making observations on identified trends and providing recommendations for future civil-military coordination involving an international response. It is not intended to be a comprehensive review of the UN portion of the response, nor will it focus specifically on internal civil-military relations within any specific nation, unless this aspect of civil-military coordination is shown to have a direct impact on coordination of international assistance. Findings and recommendations contained in this report are intended to assist decision-makers and practitioners in improving overall performance and effectiveness in future civil-military responses.

2) Overview:

The confirmed death toll from the 7.6-magnitude earthquake centered near Muzaffarabad, the capital of Pakistan-controlled Kashmir, on 8 October 2005 stands at over 75,000. More than 79,000 people were reported injured and an estimated 3.5 million were displaced, with approximately 2.5 million in temporary camps. (COE SEAU 30 March) The Pakistani and international response to the disaster was hampered by several challenging circumstances: the vast size of the affected area – equivalent to the size of Belgium (OCHA Sitrep 36); the rugged terrain and harsh weather conditions; and the degradation or destruction of infrastructure critical to the expeditious movement of affected populations, aid workers, soldiers, and humanitarian supplies.

The Pakistani military played a central and effective role in the coordination of the relief effort, despite significant logistical challenges and the absence of an effective, pre-existing federal disaster management structure or coordinating agency. The Pakistani military deployed some 60,000 troops to support the Operation Lifeline response (Pak Mil presentation on 18 Mar) and filled key leadership positions in the Pakistani Federal Relief Commission (FRC) established in the earthquake’s aftermath.

In addition to domestic military forces, at least 19 other nations contributed troops to the relief effort. The US military deployed approximately 1,200 service members and 24 helicopters (Defenselink) and operated expressly in support of the Pakistan military. The US military support was a unique capability due to its global positioning, and organic logistics assets. (The unusually long deployment of up to six months for US forces conducting disaster response is also of note, necessitated by the threat of the pending winter and national interest). The NATO Response Force (NRF) established
an air bridge and deployed over 1,200 soldiers from 17 NATO countries (NATO). Multiple nations provided military medical and/or engineering support capabilities, including Australia, the United States, and the NATO alliance.

The importance of military-to-military relationships cannot be overstated. The supported/supporting relationship created a positive environment for mentorship and capacity building. Such effective military-to-military coordination creates a better environment for improved civil-military coordination. In addition, the willingness on the part of the FRC leadership to adapt to changing circumstances and institute prompt decision making was widely recognized and appreciated.

The UN adopted a “Cluster Approach” to coordination, implemented for the first time since it was recommended in the August 2005 Humanitarian Response Review. While widely criticized as ineffective, particularly during the early days of the response effort, it developed to become an important organizing mechanism in support of the nascent FRC. Regular meetings allowed for the raising of issues that could wait for the appropriate forum, yet the high-level direct contacts were also established and maintained to troubleshoot urgent problems. While there were two non-governmental organizations (NGO) forums in existence, the FRC indicated it relied greatly on the UN for interface with NGOs whose registered numbers increased four-fold from 34 to more than 140.

The UN established humanitarian field hubs in the affected area, each of which was initially supported by UN Disaster Assessment and Coordination (UNDAC) Teams. Clusters were also running at this level, and they became more effective with the eventual endorsement from the FRC level. Each hub had differing civil-military requirements based on the presence of international militaries.

The international humanitarian community, while not monolithic in approach or methodology, typically does draw distinction during coordination efforts between domestic and international military forces. Interaction with each may vary greatly depending on the circumstance. The Inter Agency Standing Committee (IASC) – the primary mechanism for humanitarian coordination at the strategic level – has issued guidelines and guidance on interaction with military forces for humanitarian organizations under a range of circumstances, from natural disasters (known as the “1994 Oslo Guidelines”) to specific complex emergencies. In light of recent large-scale natural disasters such as the December 2004 Indian Ocean Tsunami and the October 2005 South Asia earthquake, the UN has stated its intention to reexamine the Oslo Guidelines to make them scalable and adaptable to situations of natural disasters occurring in areas of conflict.

Given the Pakistani military’s central and effective role in the earthquake response, the extensive presence of international military forces, and the influx of large numbers of humanitarian organizations, civil-military coordination became an essential function at multiple levels of the operation and in all sectors of the response.

3) Key Findings:
The overarching methods, techniques and tools to enhance planning and task division that are adopted or endorsed for international civil-military coordination can vary from operation to operation, though coordination will typically center on key functional areas. COE findings and recommendations will focus on the mechanisms and each of the central functional areas of coordination according to the following outline:

a. **Coordination Methods, Techniques and Tools**

b. **Communication and Information Management**

c. **Logistics, Engineering and Transport**

d. **Security and Safety**

e. **Medical**

a. **Coordination Methods, Techniques and Tools**

“The tsunami has set a precedent and it is now very likely that military forces will be significantly involved in future humanitarian operations. It is therefore important to establish better communication channels and coordination procedures between military and humanitarian partners.”

*Forced Migration Review, Special Issue, July 2005, page 7*

While there was much that went well, including the placement of liaisons at key responding agencies, civil-military coordination was not without challenge. Some successful techniques or approaches employed in other international relief efforts were effectively re-adopted in this response. Significant challenges still remained, many of which are experienced time and again in international emergency response – like the fact that there were too many coordination meetings. As always, personalities play a key role in the effectiveness of any coordination.

**Observation 1:** Preparation for civil-military operations: Many responders in both military and civilian entities were inadequately prepared for and reluctant to work together, having little or no direct coordination experience and/or bringing biases from bad experiences in other operations.

**Recommendation 1:** Mainstream civil-military education and training programs within both communities in order to reach broader target audiences, not just civil-military functional specialists.

**Observation 2:** The placement/exchange of liaisons as early as possible is essential to establishing effective civil-military coordination. The utilization and placement of knowledgeable personnel at key nodes – like the placement of one of the two the UNDAC trained military officers from the FRC with the UN Joint Logistics Center (UNJLC) – is critical. Such effective interface should ideally be replicated at all levels (i.e. the multi-level Tsunami approach).

**Recommendation 2:** Major stakeholders/responders should deploy trained personnel or personnel familiar with civil-military issues at the
onset of the response to establish and maintain effective systems of civil-military coordination at all levels.

Existing programs such as UNDAC training, the International Search and Rescue Advisory Group (INSARAG) training, the UN Civil-Military Coordination (CMCoord) course and other multinational exercises and courses could be exploited to foster broader civil-military coordination and response capabilities.

If commanders do not have enough people to fill required liaison functions, it is recommended that they consider using Subject Matter Experts (SMEs) from regional centers or other entities.

**Observation 3:** It is important that expectations about capabilities be managed on both sides. Assumptions by the military that they will ‘fall in’ on an existing UN structure may not always hold true. Likewise, expectations by civilians about the level and types of support they may receive from military forces may fall short due to mission statements, legal constraints, and competing operational priorities.

The USAID/OFDA Disaster Assistance Response Team (DART) leader and CDAC-PAK commander met early in the crisis which enabled the commander to have a more in-depth understanding of the role of the DART. Though taking the time to educate counterparts early on could be considered time-consuming during the midst of a crisis, it is a good practice that should be sustained and even expanded to include other key stakeholders.

**Recommendation 3:** Conduct immediate high-level sit-downs with decision makers from key stakeholders “on the ground” in order to understand fully each others’ capabilities and constraints.

**Observation 4:** Another good example of ‘just in time’ training was conducted by the UN with high-level leadership in the FRC on the Sphere Standards, giving them an overview of internationally accepted minimum standards in disaster response.

**Recommendation 4:** Training on Sphere Standards should be made available to the host nation, as well as other responders as necessary. Training and awareness about internationally accepted guidelines and protocols such as Guidelines on the Use of Military and Civil Defence Assets in Disaster Relief also known as “Oslo Guidelines” would also be helpful.

**Observation 5:** The continuity of personnel is critical to maintaining key institutional relationships, which depend greatly on personal relationships and therefore personalities. While both communities – military and civilian – usually have significant turnover of personnel following the immediate emergency phase, both the Pakistan and US militaries were consistent in their liaison approach,
keeping the same faces in key positions throughout the operation. This led to a greater degree of trust. Civilian agencies, on the other hand, had a high degree of turnover, particularly in the early phases of the response.

**Recommendation 5:** Mechanisms for the extended deployment (beyond 3-4 weeks) of individuals performing civil-military coordination should be considered to minimize the effect of turnover of personnel on operations. At a minimum, departing civil-military coordination staff should have overlapping time with their replacements on post.

**Observation 6:** There were key mechanisms eventually established for coordinating various aspects of the response, including but not limited to: the Strategic Planning Group within the FRC for longer-range planning; the Clusters, for coordinating among ‘sectors’ or ‘functions’; and the Air Operations Center (AOC) for aviation tasking coordination. Though there was clearly frustration over the speed at which these mechanisms became functional, their formation had the input of a large number of actors and led to greater fidelity in planning and improved task division among civilian and military actors.

While no Civil-Military Operations Center (CMOC) was established, liaisons and other venues within the FRC, CDAC-PAK and to a lesser extent the NATO structure filled these functions in support of a military commander’s mission.

**Recommendation 6:** There is useful doctrine in the US Joint Publications covering civil-military operations that could use updating based on recent operations. Still, Commanders should remain flexible and open to alternate solutions in such dynamic situations that an international disaster response presents.

**Observation 7:** The Pakistan Earthquake Rehabilitation and Reconstruction Agency (ERRA) was established early on in the operation as a focal point for the transition from relief to recovery. Though not the primary focus of responders during the initial phases of the emergency, the early development of strategies for transition between phases of the operation and collaborative indicators to support them are important tools to assist national authorities manage transition and an important basis for international partners to coordinate exit strategies.

**Recommendation 7:** Designated agencies for transition to recovery should be appointed as early as possible. To the extent possible, liaisons with the international community should remain the same to ensure continuity of operations, as was the case with the FRC to ERRA transition.

b. **Communication and Information Management**

“The humanitarian field urgently needs to agree and adopt a framework for assessments and for monitoring implementation to move forward in this area.”
Assessing, Analyzing and Addressing Immediate Humanitarian Needs:
The biggest challenge noted early on was the lack of a clear, common situational understanding of the humanitarian needs and outstanding requirements. “Assessment fatigue” was common among affected populations as many organizations were conducting assessments in parallel and there was no coordinated, systematic data collection/management system in place. This led to inefficient use of resources and an excess of aid resources arriving in more accessible areas while insufficient amounts reached areas that were less accessible or cut off.

The National Plan of Action issued by the government on 1 November 2005 and the subsequent cluster planning initiatives around it were an important milestone towards the development of a common humanitarian picture. Still, multiple assessment data discrepancies and conflicting information regarding the total number of “affectees” and their outstanding requirements continued.

It is recognized among international humanitarian assistance practitioners that prioritization of need and the resources required to meet those needs rests with the host government. While this took some time to take effect, the problem was alleviated to a large degree once the “one window” conceptual approach of the FRC was completely understood by all stakeholders and became operational.

Recommendation 8: At the onset of disaster, clear definition from the host government to donors and other responding organizations on what is needed, and more importantly what is NOT needed, will not only avoid a backlog at main staging points, but also restrict movement of relief supplies (locally and/or internationally) to appropriate materials required when limited logistic assets are available. Greater participation of local government and civil society entities will enhance this process.

Recommendation 9: A planning meeting was held in mid-November between the Disaster Assistance Response Team (DART) and US military and points were analyzed and interim operational figures agreed upon. This was an important internal (i.e. US-to-US) civil-military coordination activity that affected implementing partners and such coordination should be considered early on.

Recommendation 10: Donor coordination in support of the host nation is critical. The FRC-sponsored donor mapping exercise with USAID, EU and UK Department for International Development (DFID) was an excellent example of efforts to agree on an appropriate division of labor, avoid duplication of effort and identify geographical areas that were not being reached. This mapping exercise should happen as early as possible.

Methods and Systems of data collection and sharing:
While there were public, private and international partnerships to support the Pakistan government’s data collection efforts on the needs and requirements, there was no standardization of data collection and reporting. The Pakistan operation marked only the second time the UN Humanitarian Information Centre has been deployed in support of a rapid-onset natural disaster.

Systems were incompatible, like the FalconView software used by the US military and ArcView, the software used by USAID. Likewise, Pakistan was heavily reliant on fax communication while others relied mostly on e-mail.

Cell phones and commercial e-mail systems were the primary means of communication. Due to firewalls, CDAC-PAK personnel had difficulty accessing “.pk” sites, which is where much civilian information was being posted.

Chance encounters and personal initiatives between civilian and military actors led to valuable exchanges of information that could have happened much earlier in the operation if such contact had been institutionalized rather than ad hoc.

The national media found themselves in uncharted water, but adapted strategies of balancing objective reporting with responsibilities to provide the public with important relevant information.

**Recommendation 11:** Standardization of data collection with agreed formats and reporting procedures should be established as early as possible in order to facilitate analysis of the needs and gaps in assistance.

**Recommendation 12:** National databases could be expanded to include mapping and damage assessment capability.

**Recommendation 13:** A joint assessment or jointly accepted assessment among US government agencies, in a shared format, should be automatic in natural disaster assessment situations in which the US Department of Defense is deployed. This prioritization should be pre-scripted as part of the military warning order and DART cable.

**Recommendation 14:** The military must be able to access critical unclassified sites.

**Recommendation 15:** Coordinated public information campaigns involving all stakeholders should be conducted to keep affected populations informed of assistance strategies and medium- to long-term plans of action.

c. **Logistics, Engineering and Transport**

As could be expected, the disaster response and flow of materials placed a large burden on Pakistan’s existing logistic and transportation capacity. Every mode of transportation was brought into play: human porters, mules, all sizes of trucks,
ships, trains, helicopters and airplanes. The required surge capacity, dictated by the magnitude of the disaster response, required a multi-modal and multi-faceted approach. Failure to keep the logistics and transportation system operating at a vastly increased pace, would (and in some cases did) create a gridlock situation at transportation hubs and ports, with non-essential cargo blocking critical supplies. With its organic logistics capacity, which is greater than even the largest players in the humanitarian community possess, the military was critical to supporting the relief logistics effort. Public/private partnerships were helpful, but the military logistic component was a critical element.

The damage to or destruction of critical infrastructure needed for expeditious movement of affected populations, aid workers, soldiers, and humanitarian supplies further complicated the situation. A strong engineering capacity was needed to quickly repair or develop the infrastructure needed to keep the relief and supply chain functioning.

While the physical problems associated with handling, tracking, and transporting the vast quantity of supplies continued to place a burden on the logistics pipeline, the FRC identified the multi-faceted problems with the logistics pipeline. The FRC quickly dealt with any legal or procedural delays by relaxing import requirements and restrictions as well as relaxing visa requirements for foreign relief workers. These initial steps, and follow-on steps to ensure expeditious handling of people and supplies, were critical to improving the speed and efficiency of the logistics and transportation pipeline.

**Observation 8:** Knowing what is needed, where it is needed, and what is being delivered is a problem that continues to plague all relief efforts and particularly large ones involving international responders. In-transit visibility of relief supplies was lacking. As a result, high-priority supplies could not be identified and processed for expedited handling and distribution.

**Recommendation 16:** Developing common assessment tools and databases, as addressed in previous sections of this report, would help alleviate the problem of matching requirements to resources. Additional education of donors and public/private partnerships could also help to alleviate the problem of in-transit visibility. Responding organizations, logisticians, or transportation agents should be requested to provide detailed shipping manifests to a central point of control in advance of shipment arrivals.

**Recommendation 17:** Logistics problems can be greatly reduced by acquiring services and supplies as close to where they are needed as possible. Procuring relief supplies and services locally also ensures the supplies are appropriate for the climate, culture, lifestyle, and are compatible with existing systems and environmental conditions. The injection of funds and subsequent jobs helps develop the local economy and speeds up the recovery process.
Observation 9: Specific requirements were not always matched to the supplies delivered. The logistic burden and waste of delivering unneeded resources placed an unnecessary burden on the logistics and transportation system.

Recommendation 18: As stated above, better assessment mechanisms and databases can help to more adequately match needs to resources. A public information campaign and education program can help alleviate the tendency of some agencies and organizations to “push” supplies instead of responding to valid requests based on objective assessment.

Observation 10: Destruction of existing infrastructure or lack of existing infrastructure required rapid development of engineering “fixes” or logistic “work arounds”. Since so much of the existing road system was damaged or destroyed, air transport became a major piece of the logistics puzzle. With limited airfields available for fixed-wing operations, the majority of the airlift role fell on helicopters. Further complicating the air logistics problems were the high altitude and mountainous terrain, lack of suitable landing sites, and initial shortage of forward operating/refueling locations.

Recommendation 19: Heavy engineering equipment is not suitable for all disasters/emergencies. Any disaster response must take into account need for light-weight engineering equipment with which military responders are not typically equipped. Light-weight equipment is easier to airlift to confined spaces. Public-private partnership could help address this specialized need.

Recommendation 20: Though air support is necessary in many cases, flying of all relief supplies is neither cost-effective nor possible. Coordination, consolidation, integration and prioritization of transportation operations and tasking must be established at the onset of a disaster/emergency to ensure optimized use of transportation assets – whether ground, air or sea – and to maximize their impact.

Recommendation 21: Forward operating/refueling bases near the affected area must be established expeditiously and open to all humanitarian actors to maximize the efficiency of transportation assets.

Recommendation 22: Due to the mountainous terrain and restricted landing sites, sling loading of supplies from forward operating bases is an efficient and effective method of delivery. Logistics support aircraft, either military or contracted, should be prepared, with equipment and training, to conduct sling operations if the nature of the disaster so warrants.

d. Security and Safety

Despite the legal protection afforded by the Geneva Conventions, the 1994 Convention on the Safety of UN and Associated Personnel and Article 8 of the
International Criminal Court, worldwide attacks on humanitarian workers have increased dramatically in the last decade. Since 1992, more than 200 UN civilian staff members have lost their lives as a result of malicious acts, while 255 have been taken hostage or kidnapped. Such incidents and others, including rape and sexual assault, armed robbery and harassment, extend beyond the UN system, affecting also the Red Cross Movement and many other humanitarian non-governmental organizations. According to the International Humanitarian Law and other international treaties, in cases in which there is a functioning host nation, it is responsible for the overall safety and security of the humanitarian aid workers operating within its borders.

**Observation 11:** Amid security concerns for the safety of international humanitarian workers in the sizable quake-affected area along the Line-of-Control (LoC) where Kashmiri separatists have been traditionally active, the Government of Pakistan initially required escorted movements of humanitarian aid workers. However, following consultation with the international humanitarian actors, GOP/FRC quickly removed the requirement but offered it as a service on demand. This significantly influenced the speed of the response as it allowed humanitarian actors to move freely to assess and to set up operations in affected areas without bureaucratic intervention. Government’s decision also won trust of international humanitarian aid workers that government was open to their suggestions and was not trying to hide anything but was in fact trying to address potential security concerns. This positive lesson should be captured and considered for other humanitarian emergencies.

**Recommendation 23:** Host government from the onset of a disaster/emergency must openly interact and communicate with the foreign humanitarian actors to ensure well-intended actions on part of the government do not conflict with the provision of vital humanitarian assistance to the affected population.

**Lack of Urban Search and Rescue (SAR) teams**

Well developed SAR capabilities of First Responders can significantly reduce the loss of life and serious disabilities following a natural disaster. While the effectiveness of outside/foreign SAR teams is arguable, the effectiveness of the role of well trained local first responders is undeniable.

**Observation 12:** Lack of SAR expertise in the country in the aftermath of the 8 October earthquake was principally the result of no indigenous capacity on the ground. Prior to the devastating earthquake, only two individuals in the country had any training in SAR. By 11 October (three days following the disaster) more than 15 international search and rescue teams had arrived in the affected area; however, due to the difficult terrain and the time required to arrive at search sites, the success of these teams was limited at best.
Recommendation 24: Pakistan's newly formed National Disaster Management Authority (NDMA) would be well served to make Urban SAR part of a comprehensive approach towards disaster management and response. A combination of civilian and military first responders, including civil engineers and medical personnel, should be trained through internationally recognized SAR training programs. NDMA could build upon this training to institute a domestic SAR training program to train large numbers of personnel.

e. **Medical**

Due to the nature and magnitude of the disaster, the medical response requirements were enormous and widespread. The medical community responded in an outstanding fashion and was able to take a proactive approach and prevent the anticipated second and third waves of fatalities. The medical response came from a combination of medical NGOs, domestic capacity from outside the affected region, international organizations and a substantial foreign and domestic military response. Given the nature of the disaster and the affected population, there was a higher need for specialties than available in the normal cross section of medical responders – such as trauma specialists, orthopedics, pediatrics, and obstetrics and gynecology.

Given the cultural issues, there was also a high demand for female medical practitioners and supplies/equipment for treating women. It was reported that when female medical personnel and separate facilities were not available, women would often not seek necessary treatment.

Observation 13: The medical infrastructure was decimated in the region. Without outside support, medical care would have been very limited to nonexistent. The ability of medical responders, both military and civilian, to move in with self-contained and self-sustaining capabilities was critical to the success of the medical response. The anticipated second and third wave of casualties was prevented as a result of the well coordinated team efforts by the civilian, military, national and international medical and public health actors on the ground.

Recommendation 25: The distribution of health services needs to be a coordinated effort. The host nation’s Ministry of Health should take the lead in coordinating the placement of medical support facilities. Medical services were redundant in some areas and absent in others. Close coordination would best match the medical needs with the capacities.

Recommendation 26: With the increasing role of military to respond to large-scale humanitarian emergencies, militaries must maintain medical expertise in "Family Practice" that differ from expertise needed during combat support roles.
Recommendation 27: Medical response to a disaster/emergency must take into account local, cultural and religious preferences to receive medical care. Deployment of medical personnel in areas where gender preferences for treatment are well documented must ensure these sensitivities are reasonably addressed by having capable female health professionals with appropriate specialized skills.

Recommendation 28: Medical modules provided for such relief operations must be fully self-contained and scalable as an affected region may offer very diminished or no capacity to support these modules.

4) Summary and Way Ahead

In 2002, the United Nations Development Programme (UNDP) assisted the Government of Pakistan in undertaking a thorough review of national disaster management. This led directly to the formulation of an integrated and multi-sectoral programme entitled “Strengthening Pakistan’s Disaster Management Capacity at National and Local Levels”. While not implemented prior to the earthquake, it serves as a useful guide for future establishment of a permanent national disaster management authority.

The need to ‘civilianize’ this permanent national disaster management authority has been recognized. However, the military will continue to play an important role in disaster management due to their logistic capability and manpower, particularly in a rapid onset emergency. This level of military involvement in the direction of relief aid is clearly uncomfortable for many humanitarian organizations, creating an angst that can lead to operational difficulties.

Therefore, it is important that any capacity building for the new Pakistan Disaster Management Authority take into consideration the need for cross training of civilian and military response mechanisms. In that light, any training provided, military or civilian, should routinely include participants from the other community.

To further enhance the interoperability and cooperation between the military and humanitarian responders, it is recommended that military forces include additional training in humanitarian operations; including the role of international organizations, non-governmental organizations, and host governments. The better each actor understands the perspectives, roles, and operating culture of other responders, the more effective humanitarian operations will become.

There are many opportunities, both civilian and military, for technical training, support, and cooperation; particularly in the areas of data collection and management, logistics, emergency health care, search and rescue, construction and engineering practices, and humanitarian assistance best practices. The Pakistan earthquake serves as an example of how, in the face of disaster, despair, and overwhelming need over a large area, communities, nations, and organizations can come together for the common good.
References and links:

COE SEAU 30 March.  http://coe-dmha.org/Pakistan/SAEU033006.htm


IASC.  http://www.humanitarianinfo.org/iasc/

Guidelines and guidance on interaction with military forces.


Sphere Standards.  http://www.sphereproject.org/

Guidelines on the Use of Military and Civil Defence Assets in Disaster Relief.