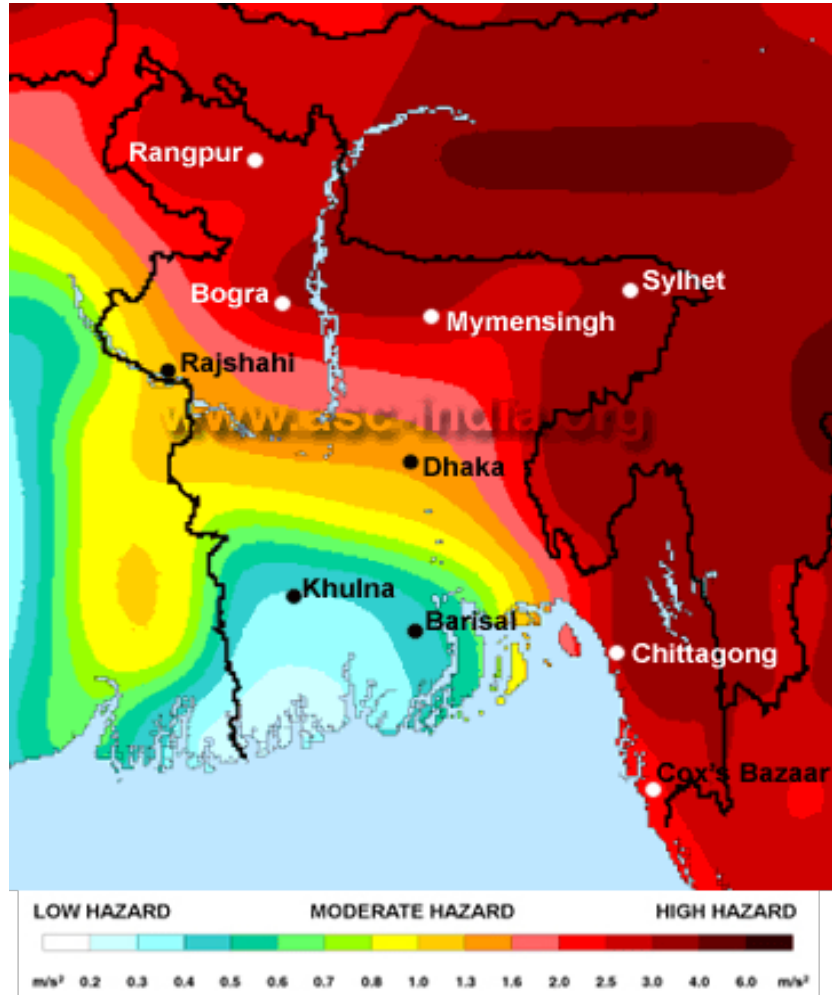


BLUF - Implications for PACOM

- Dhaka, a megacity approaching 20 million people and lying in a seismically active region, remains highly, and increasingly, vulnerable to a major earthquake.
- One of UNOCHA's five priority countries in the Indo-Asia-Pacific, Bangladesh is the 2nd most disaster-prone country in Asia, due to a combination of risk, vulnerability and lack of coping capacity.
- The Government of Bangladesh estimates 76,000 buildings will likely collapse in a Magnitude 7+ quake.
- Bangladesh requested U.S. assistance in 1991 following Cyclone Marian (Operation Sea Angel) and 2007, following Cyclone Sidr (Operation Sea Angel II).
- Operation Sahayogi Haat, USPACOM's response to the magnitude 7.8 Nepal earthquake (April 2015), demonstrates how U.S. military forces might respond to another devastating earthquake in South Asia.
- DoD assets should be deployed with liaison officers:
 - To determine priorities in conjunction with lead federal agency USAID/OFDA, and
 - To explain available capabilities and limitations to the host nation, UN and NGO partners.



Seismic risk:

Location: Bangladesh lies at the junction of the Indian, Eurasian and Burma tectonic plates.

History: Seven quakes, magnitude 6+ in last 100 years

Active subduction: Researchers believe strain has been building for 400+ years and could culminate in a magnitude 9.0 temblor, rivalling the largest known modern quakes (Nature Geoscience, 2015).

Fast Facts

- **Area:** 130,000 sq km (approx. the size of Iowa)
- **Total population:** 156 million (July 2016)
 - **Population density of Dhaka:** 45,000 per sq. km (highest in the world, twice that of Manila)

Dhaka: political and economic heart of the country

Monsoon / cyclone season: April to December (with peaks in May and November)

Chittagong: major seaport in SE Bangladesh

CFE-DM's DM Reference Handbook provides basic country information, in addition to a detailed breakdown of the GoB's DM structure, legal framework, and roles and responsibilities.



Rana Plaza Collapse (April 2013; 1,129 fatalities, 2,500+ injuries)

Key findings: CFE-DM Bangladesh DM Assessment

- GoB decision-making processes are inadequate for rapid-onset / no-notice disasters.
- Bangladesh lacks an integrated, urban-based, catastrophic disaster response plan.
- Domestic civil-military coordination remains problematic, plagued by lack of trust and capacity.

Major Actors in a Disaster Response:

- Ministry of Disaster Management and Relief (MoDMR), Armed Forces Division (AFD), Fire Services & Civil Defense
- IOs: United Nations agencies, IFRC, World Bank
- International NGOs: CARE, World Vision, Save the Children
- Host nation NGOs: BRAC, Islamic Relief
- Bilateral donors: USA, UK, European Commission
- Regional organizations: ASEAN, SAARC, BIMSTEC

USARPAC's Disaster Response Exercise and Exchange (DREE) remains the preeminent disaster response engagement with the AFD and MoDMR. Last conducted October 2017 in Dhaka and Mymensingh, the exercise demonstrated ongoing civil-military coordination challenges.



Metropolitan Dhaka



Challenges:

- Political: polarized political climate, corruption, terrorism
- Economic: middle income country yet burdened by widespread poverty
- Infrastructural: rapid urbanization; poorly enforced building codes; narrow streets; low volume SPODs and APODs
- Climatic: Increasingly vulnerable to the effects of climate change

Strengths:

- Historical experience with cyclones
- Strong volunteer system
- Eight INSARAG External Classification (IEC) teams within Asia-Pacific region
- 2.5 hr flight time from Utapao, Thailand

Sources:

- CFE-DM's Bangladesh Disaster Management Reference Handbook (2017) <https://www.cfe-dmha.org/DMHA-Resources/Disaster-Management-Reference-Handbooks>
- Humanitarian Civil-Military Coordination in Emergencies: Towards a Predictable Model, pgs. 19-40 on Bangladesh https://docs.unocha.org/sites/dms/ROAP/Civil%20Military%20Coordination/images/RCG_05042017_Final_electronic.pdf
- CFE-DM Disaster Management Analysis: <https://www.cfe-dmha.org/Publications/Reports>
- USPACOM Sahayogi Haat AAR: <https://www.cfe-dmha.org/Publications/Reports/Nepal-EQ-JAAR>
- Locked and loading megathrust linked to active subduction beneath the Indo-Burman Ranges <http://www.nature.com/ngen/journal/vaop/ncurrent/full/ngen2760.html?foxtrotcallback=true>
- U.S. Army Strategic Studies Group. 22 March 2014. Engagements with the Deputy Chief of Mission, United States Embassy, Bangladesh <https://www.army.mil/e2/c/downloads/351235.pdf>

