The nexus of Soft Power, Theater Security Cooperation & Engineering Education

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Soft Power

- **Prevent, Deter, Win**
  - 3D (Defense, Diplomacy, Development)
  - "Whole of Government" approach
  - Phase zero
  - Effects based
  - Why?

- **Water & Environmental Security**
  - Food, health, energy nexus

- **HA/DR (Humanitarian Assistance/Disaster Relief)**
  - Common ground
  - DOD unique capabilities

- **Asia Pacific focus**
  - Sustainability (i.e., water)
  - Climate challenges (e.g., sea rise on Island Nations, coastal protection, flood risk, glacier melt, etc)
  - Natural vulnerabilities (e.g., tsunami, earthquakes, hurricanes, etc)
  - Basin Development (e.g., Mekong)
Theater Security Cooperation
“Tool Box”

- Humanitarian Assistance (HA) Projects

- International Capacity Development
  - Technical/SME assistance in Water (food & energy nexus) & Environmental Security, Master Planning

- Disaster Risk Management
  - Disaster Response Exercises & Exchanges (DREE) & Disaster Management Exchanges (DME)

- Engineering & construction management
Theater Security Cooperation Efforts

- Bangladesh
- Lao PDR
- Vietnam
- Cambodia
- Indonesia
- Sri Lanka (w/ USAID)
- Mongolia
- PRC (China)
- Nepal
- India
- Maldives
- Taiwan
- Vietnam
- Cambodia
- Philippines

~175+ HA projects completed/under construction
~ Annual $10-15M HA
~$40M for USAID in Bangladesh
~$150M in India
~DREEs/DMEs/SMEEs/HA workshops

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Humanitarian Assistance Projects - Clinics

Lao PDR

Attapeu Medical Clinic

Vietnam

Binh Lu Medical Clinic
Humanitarian Assistance Projects - Schools

**Vietnam**

- **Ky Son Primary School**
  - Before image showing the old state of the school.

**Lao PDR**

- **Boulapha Primary School**
  - Images showing the school before and after renovation.
Humanitarian Assistance Projects - Schools

Cambodia
- Rokarpopram Primary School

Sri Lanka
- Pulipanjakal School Repairs
Humanitarian Assistance Projects - Shelters & Emergency Ops Centers

Bangladesh

Typical before

Cyclone Shelter & School

Vietnam

Tam Ky Flood Management Operations Center
Humanitarian Assistance Projects - Improved Roads & Bridges

Philippines

Khvet Farm Road (3 Km) with Drainage Culverts (approx 1m fill)

Cambodia

Provide farmers road access during rainy season

Bangladesh

2000 people daily use, school access~ 2 km around when it collapsed

06-08 Three Southern Philippines Road Repair Contracts in Conflict Areas

New bridges at Asalot Ward & Kalapara Upizilla & Barisal Districts

4 New Bridges (50m x 4m)
East Timor

- No direct source of water for entire village
- Potable water primarily from carrying water jugs about 1-2 miles up mountain from a natural spring
- Provided 12 community water taps & toilets,

12 Community Distribution Taps

Overnight Storage tanks

Community Toilets

Before
MONGOLIA

Five Hills Training Center

- Barracks and Dining facility
- Medical Clinic and Gym
- Utilities upgrade
- HQ Bldg Renovation

Facilities

Ribbon Cutting Ceremony of Classroom #3 & CPX FAC

Medical Clinic

Dining Facility

Classrooms

Command Post Exercise Room
Mongolia

- GIS and Hydrologic & Hydraulic modeling Workshops with USAID & HEC for ~2.8 km Selbe River embankment FC improvements

Nepal

- Seismic Vulnerability & Inspection Workshop
- Airfield & bridge seismic evaluation & assessment
- Airfield runway physical assessment
Disaster Risk Management
Disaster Response Exercise and Exchanges (DREEs) and Disaster Management Exchanges (DMEs)

• DREEs
  ➢ Bangladesh
  ➢ Indonesia
  ➢ Nepal
  ➢ Vietnam (w/LMC*)

• Disaster Management Exchanges
  ➢ Peoples Republic of China
  ➢ Taiwan

Typical Scenarios:
- Earthquakes
- Flooding
- Tsunamis
- Pandemic

*LMC = Lower Mekong Countries (i.e., Thailand, Cambodia, Lao, Burma, Vietnam)
Technical Assistance- Lower Mekong Initiative (LMI)

- DOS initiative
  - Mekong River Commission-Mississippi River Commission Sister partnership
  - MRC-USACE 5 yr Collaboration Plan
    - Technical workshops
    - Technical collaborations
    - SME exchanges
Engineering Education

- Ability to connect the dots (outside your functional area)
- Knowledge versus data points
  - Understanding vs “Google” searches
- Verbal and writing skills
  - Ability to communicate complexity into simple terms what is the problem, potential course of actions (pros & cons), and the recommended solutions to decision makers.
- Capstone courses (putting it all together)
- Pentathelete
  - Technical expert, diplomat, facilitator, communicator, visionary
Summary

- Engineering skills/competencies vital for soft power
  - Technical expertise (glue) to Connect the dots
    - 3-D (Defense, Diplomacy, Development)
    - “Whole of government” approach
  - Effects based (watch out for unintended consequences)

- Capacity development
  - Engineering skills!
  - Water, food, health, energy ……nexus
  - Sustainable solutions: life-cycle management
  - “Green” facilities: environmentally sensitive ->compliant
  - It’s about people!

- Engineering education
  - Balance sound technical skills with soft skills
  - Global perspective (move from strategic to tactical and back)
  - Pentatathlete (good at many skills)
Questions
Connecting the “dots”

- National Security goals
- Regional goals
- Culture
- Religion
- Socio-economics
- Gender equality
- Resilience
- Design criteria
- Risk management
- Water security (food, energy, health nexus)
- Contracting
- Human trafficking
- Country goals
- Environment
- Climate change
- Environment
- Climate change
- Region goals