

Sustainable Support to Stressed Populations

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Transformative Innovation for **D**evelopment and
Emergency **S**upport

www.star-tides.net

Bottom Line

Leverage Distributed Talent!

Collaborate!

Sustain through Private Sector!

What

Knowledge-sharing about potential solutions

Support decision makers
& those working in
the field

Research project at Center for Technology
and National Security Policy (CTNSP),
National Defense University, DoD



Who



Leverages a Global Network of
Distributed Talent

Public-Private, Whole of Government,
Trans-national

American Red Cross

Engineers Without Borders

National Defense University

Nanyang Technological University
(Singapore)

InSTEDD

Johns Hopkins University

Hexayurt Project (Netherlands)

San Diego State University

US Marine Corps

Akvo (Netherlands)

NIUSR

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Infrastructures

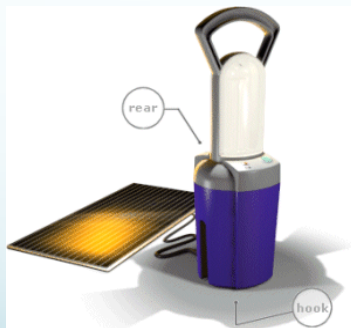


Situational Awareness

Information & Communications Technology (ICT)



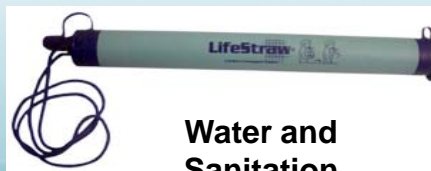
Power



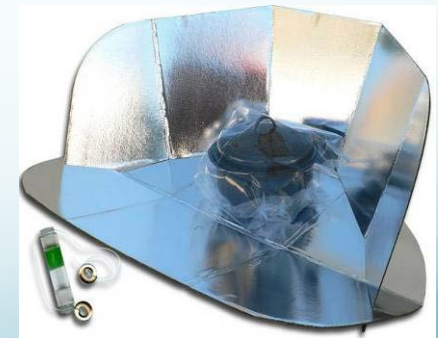
**Heating/Lighting/
Cooling**



Shelter



**Water and
Sanitation**



**Integrated
Cooking**

When



Post-Disaster

Post-War

Impoverished

Short Term (disasters) or Long Term (refugees)



Where



Domestic or foreign, military involved or not



Why



To meet needs of local populations
Solutions useful to and sustainable by them



In their worlds,
not ours

How

TIDES

Radical inclusion
Open info sharing



Insights



Gathering, sharing & evaluating
info about **Capabilities** alone are
not enough

Also must:

1

TIDES

Develop social networks and build trust



Turn policy and doctrine into effective field operating procedures



Understand Legal and Regulatory Constraints

Can you get it through customs?

Can you leave it behind?

Are there export controls?

Understand resourcing

Identify possible funding sources

Govt stockpiles and contracts

Non-govt stockpiles and contracts

Commercial supply chains

Empowered civilians

5

TIDES

Train

Exercise

Educate

lessons learned, not lessons (re)observed

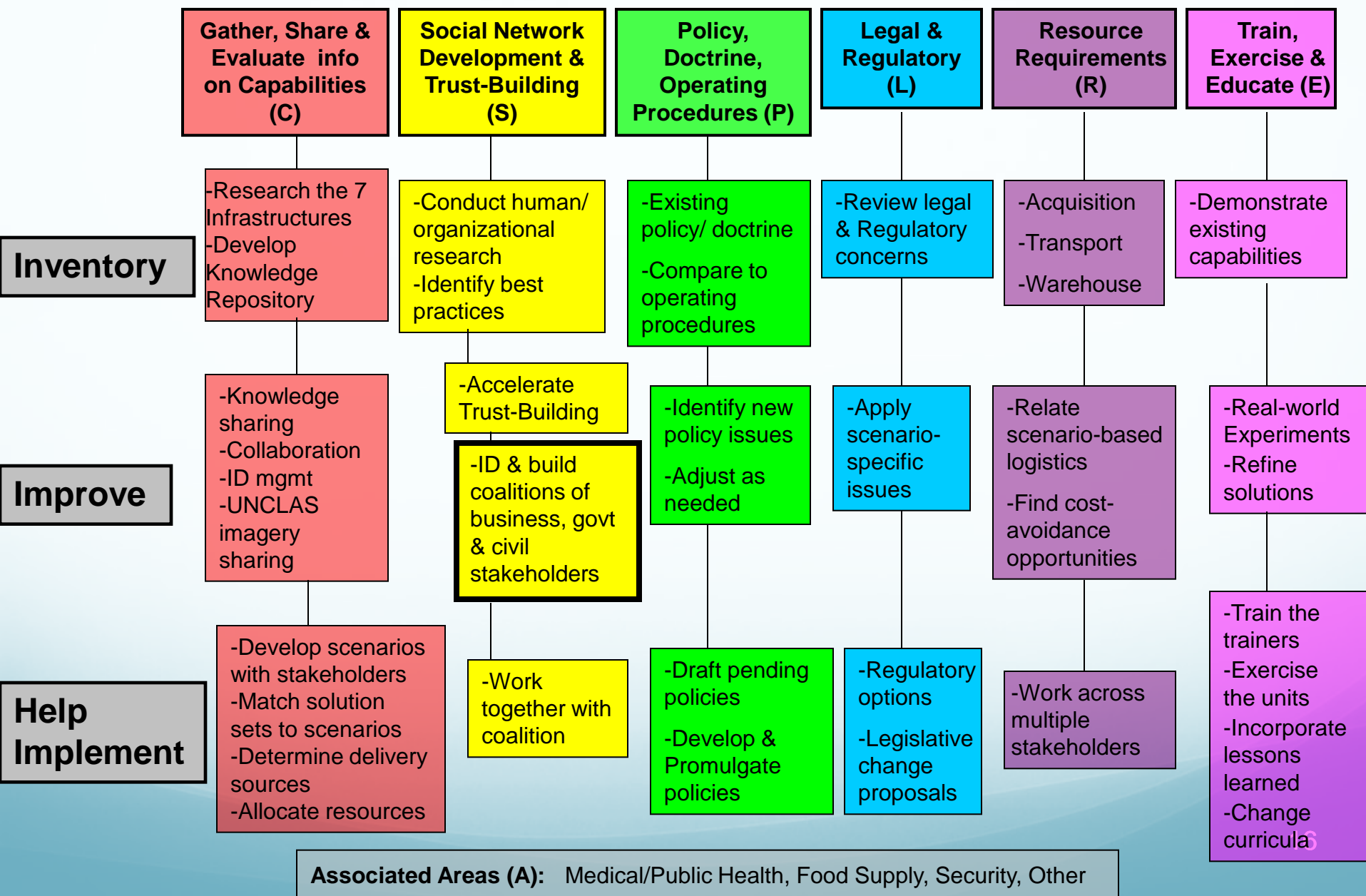


STRONG ANGEL III
INTEGRATED DISASTER RESPONSE DEMONSTRATION



Integrated Research Areas

(TIDES doesn't need to do all this internally)



TIDES Integrated Research
also supports Rapid Fielding
and Real World Activities

Agreements link TIDES Research to Support to Rapid Fielding



Integrated
Research
Areas
(slide 16)



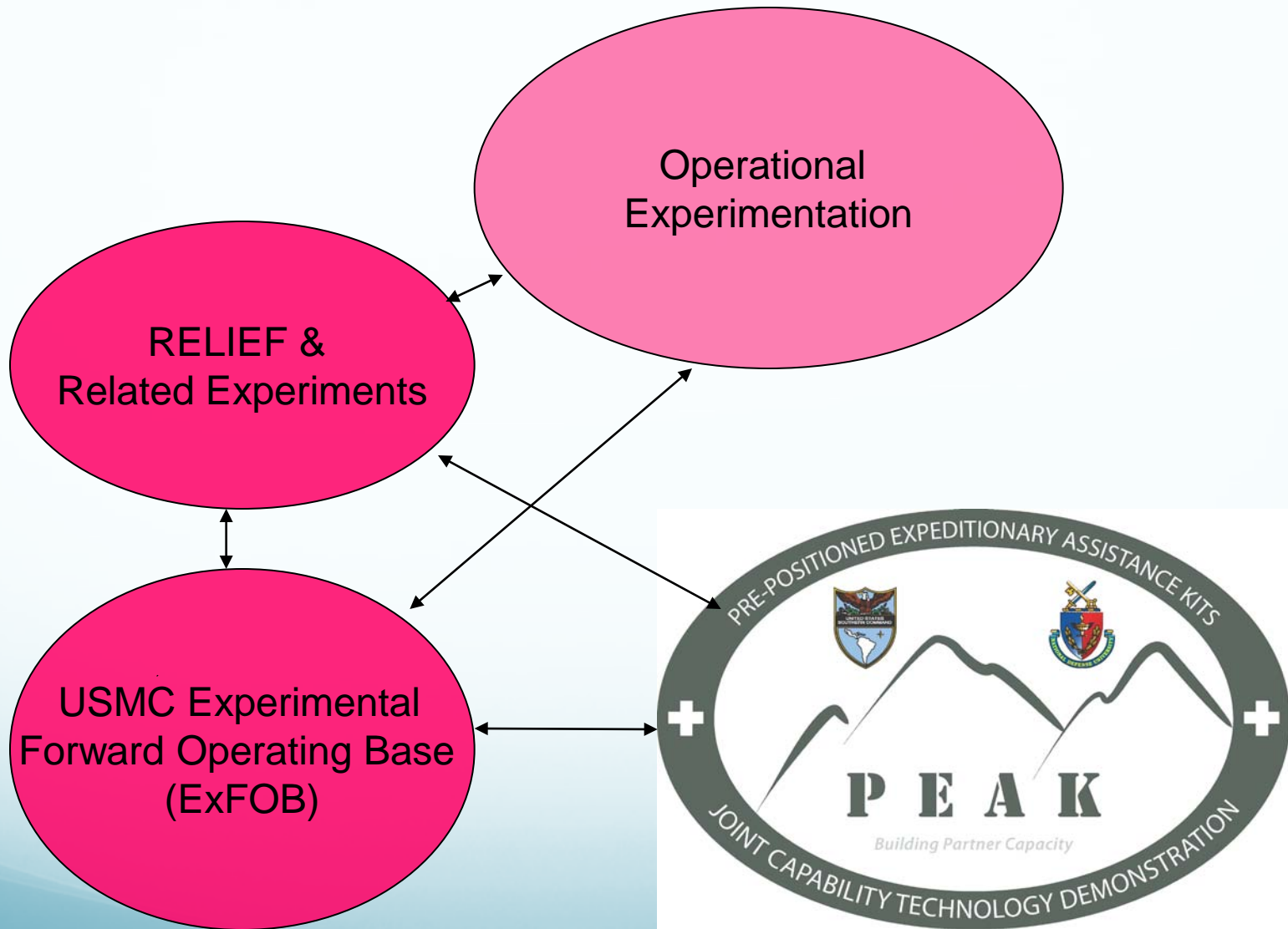
Letters of Agreement
Memoranda of Agreement
Informal Understandings



Rapid Fielding
(slide 19)

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Support to Rapid Fielding



Operational Experimentation

Feb 09 – Solar, wind, hybrid power for water purification

Aug 09 – Geospatial (GIS) mash-up, with rapid updates: gov't, business, academic, NGO, PVO participants. Supported Afghan election monitoring.

Nov 2009

Expanded GIS & UAV integration

2010 Plans

Add water purification & power, continue GIS



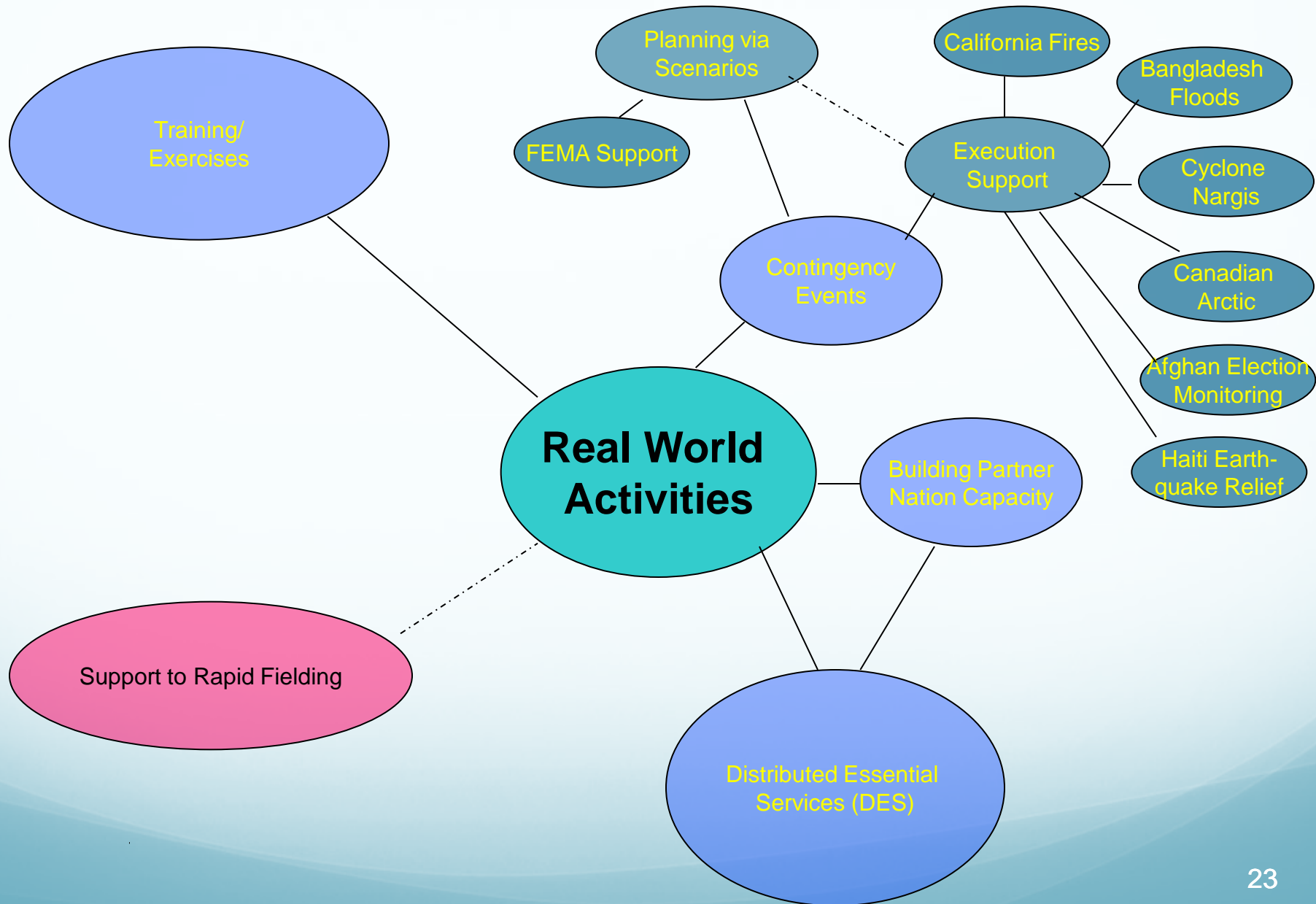
Prepositioned Expeditionary Assistance Kits (PEAK)

- PEAK is a Joint Capabilities Technology Demonstration (JCTD) project that began in March 2010
 - Sponsored by USSOUTHCOM
 - Goal is to help build partner nation capacity by
 - Delivering kits with water purification, power generation and tools to gather and share situational awareness
 - For various scenarios (support to peacekeeping, law enforcement, HADR, etc.)
 - Together with partner nations
 - Spiral 1 (water) by Jun 2010, Spiral 2 (with power) by Mar 2011, Spiral 3 (with integrated ICT) by Dec 2011
- TIDES supports PEAK with research and info sharing, but TIDES is not part of PEAK

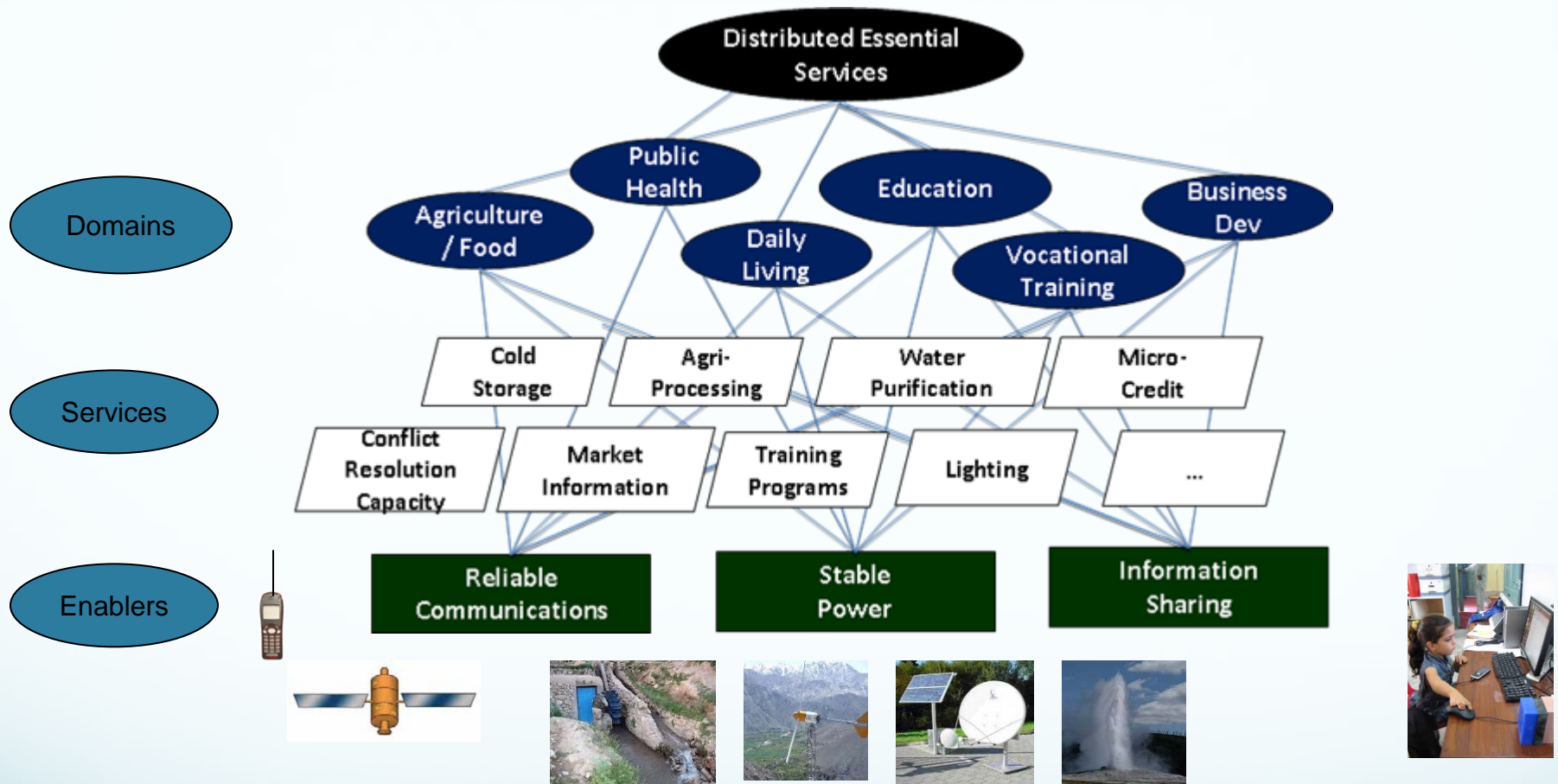
Scenario Planning Templates can Link TIDES Research to Support to Real World Activities



Support to Real World Activities



Distributed Essential Services



- Leverage reliable communications and stable power
- Provide valued services, sustainable by local populations
- Support with training, monitoring and reach-back. Link local & national levels
- Emphasize “quick-wins,” design approaches for re-use elsewhere

Building Partner Nation Capacity

Through US & partner nation
military-military
cooperation

Services based on
situational awareness,
comms, power, water

Enhance Preparedness,
Resilience, Endurance

**Applicable to many
regions**



Civilian Knowledge Sharing Collaboration and Haiti

Technology Community Support to Operation Unified Response (and future HADR efforts)

- Extraordinary, global effort stood up quickly
- Procedures developed led to dramatic improvements in public-private, whole of government, trans-national performance
- Can apply to other stressed environments
- Needs to be sustained

Technology Community Support to Operation Unified Response (and future HADR efforts)-2

- Chronology
 - Earthquake at 1653 local on Jan 12
 - TIDES asked network for integrated SitReps at 2145
 - Met with USSOUTHCOM reps in Miami on Jan 14
 - Open source engagement strategy
 - USSOUTHCOM designated POCs
 - Used APAN platform (All Partners Access Network)
<http://community.apan.org/>
 - Tech Community SitReps began on Jan 15
- TIDES helped catalyze knowledge sharing

Technology Community Support to Operation Unified Response (and future HADR efforts)-3

Excerpt from InSTEDD's Technology Community SitRep

- **Great Aggregators (among websites)**
 - Listed Top 6-8 Websites and Situational Awareness Tools
 - Sahana
 - Ushahidi
 - Open Street Maps (OSM)
 - US SOUTHCOM online civ/mil coordination
 - SMS--Text 4636 on Digicel
- **Lessons Learned: Updated daily**
- **People Finder Update:** <http://haiticrisis.appspot.com>
- **Health, News, Mapping**

Technology Community Support to Operation Unified Response (and future HADR efforts)-4

- Unprecedented imagery sharing
- Many exceptional “crowdsourced” efforts
 - 24x7 OpCen at Fletcher School near Boston— Distributed translation, knowledge sharing & support
 - USCG launched MedEvac helicopters off of data from Ushahidi
 - SMS texting links to Search & Rescue

Technology Community Support to Operation Unified Response (and future HADR efforts)-5

- Lessons that should be learned (1)
 - Demand information-sharing, collaboration, and reach-back support.
 - Comms, lift and power are critical enablers of all else that happens
 - Ensure that information sharing policies actually are implemented
 - Risk management reviews must be realistic
 - All sides designate POCs and structure early

Technology Community Support to Operation Unified Response (and future HADR efforts)-6

- Lessons that should be learned (2)
 - Evolve a suitable collaborative platform
 - Large amounts of structured data in open data schema
 - Build social networks systematically, exercise them frequently, and sustain them
 - Among multiple communities
 - Get the story out—media willing to help
 - Apply lessons to other environments-Sustain

Bottom Line

Leverage Distributed Talent!

Collaborate!

Sustain through Private Sector!

Come Join Us!



<http://star-tides.net>

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