

Intra DoD, Infrastructure and Irregular Warfare

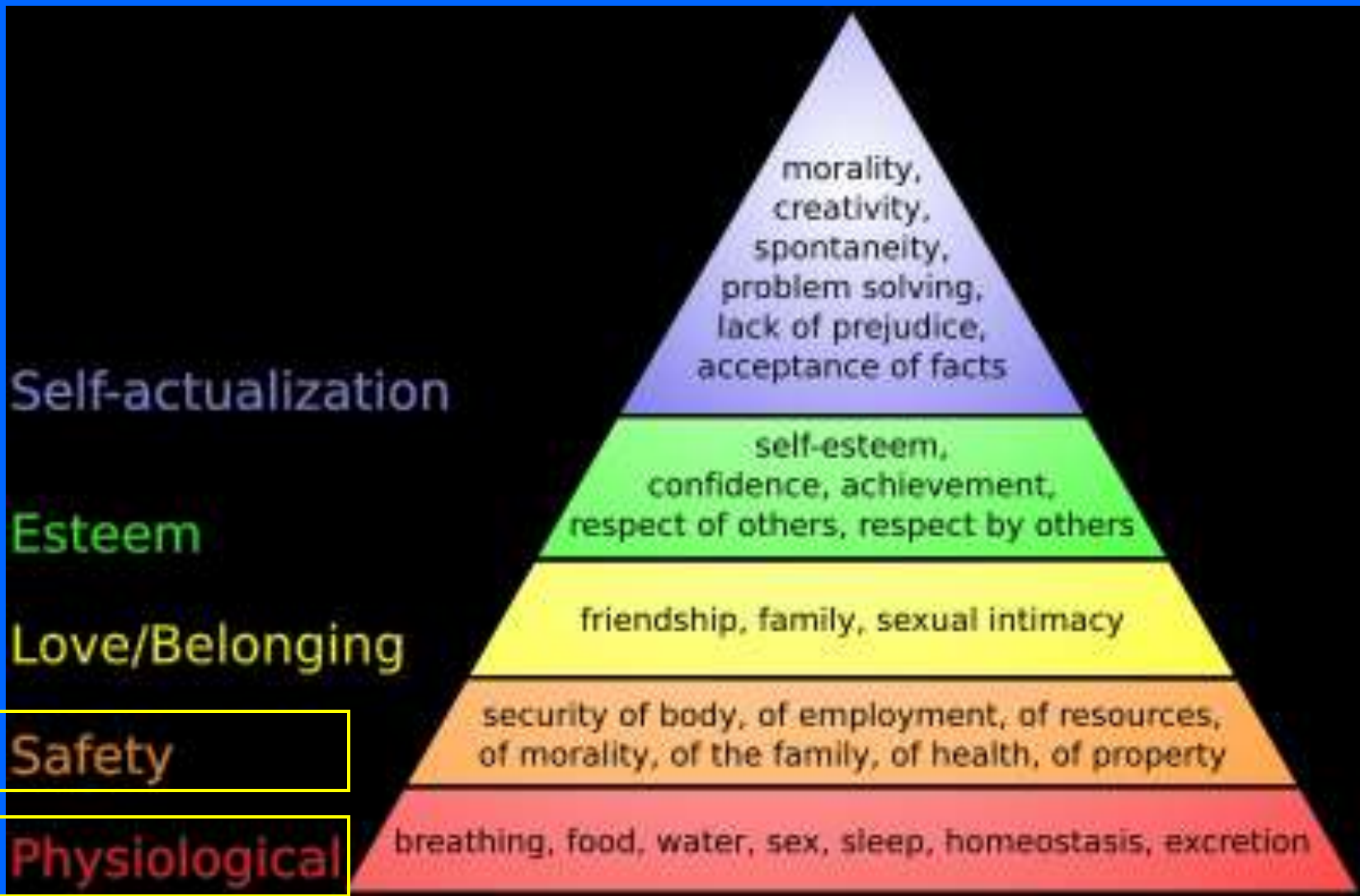
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Definitions

- **Infrastructure**

- refers to the basic physical and organizational structures needed for the operation of a **society**,
- or the services and facilities necessary for an **economy** to function.

Maslow Pyramid



Physiological Needs

- Physiological needs include:
 - Breathing
 - Water
 - Sleep
 - Food
 - Sex
 - Clothing
 - Shelter

Safety and Security

- Security of
 - Body
 - Property
 - Employment
 - Resources
 - Morality
 - Family
 - Health

Types of Infrastructure

- Transportation
- Energy
- Water
- Communications
- Waste Management
- Geophysical/Structural
- Other

Infrastructure Improvements

- Pre 1700
 - Mainly Roads/Canals
 - Seaports
- 1700-1870
 - Add Telegraph
- 1870-1920
 - Add Telephone
 - Add Electricity/Energy
 - Add Water Distribution
- 1920 - 1940
 - Add Sewer
- 1940 +
 - Technological Improvements

J- PUB 3-57

Civil Military Operations

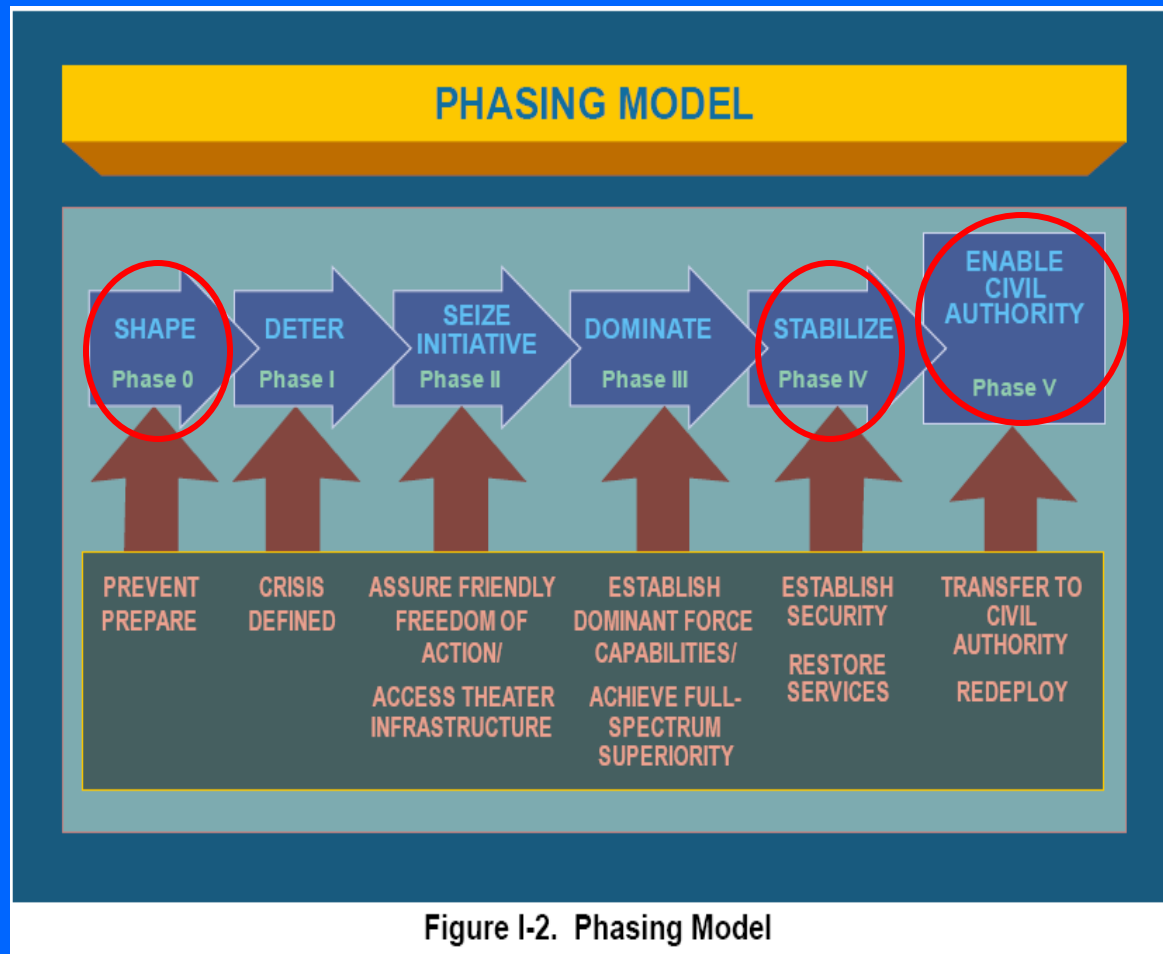


Figure I-2. Phasing Model

DoD Directive

- 3000.5 – 16 SEP 09
- Stability Operations
 - 4.a.3 Lead stability operations activities to establish civil security and civil control, restore essential services, **repair and protect critical infrastructure**, and deliver humanitarian assistance until such time as it is feasible to transition lead responsibility to other U.S. Government agencies, foreign governments and security forces, or international governmental organizations.

DoD Directive 3000.5

- 4.b.2. Government agencies and foreign governments and security forces to ensure that, when directed, the Department can:
 - (1) Establish civil security and civil control.
 - (2) Restore or provide essential services.
 - (3) Repair critical infrastructure.
 - (4) Provide humanitarian assistance.

DoD Directive 3000.5

- Integrated civilian and military efforts are essential to the conduct of successful stability operations.
- 4.c.3 Continue to support the development, implementation, and operations of civil-military teams and related efforts aimed at unity of effort in rebuilding basic infrastructure; developing local governance structures; fostering security, economic stability, and development; and building indigenous capacity for such tasks.

DoD Directive 3000.5

- **11.b.1.a** Develop and maintain scalable capabilities and capacities to establish civil security and civil control, restore essential services, **repair critical infrastructure**, and provide humanitarian relief across the range of military activities.

Spending on Infrastructure

- In the United States, public spending on infrastructure has varied between **2.3%** and **3.6%** of GDP since 1950.
- In other first world countries, spending on infrastructure varies between **2%** to **5%** of GDP
- In third world countries spending on infrastructure is between **.5%** and **2%** of GDP, depending upon location and health of country.

Phases of Construction

- Study.....PLANNING – A/E Firms
- Engineering
- Funding Authorization
- Bidding
- Award
- Construction
- Completion

Conflicting Priorities

- Needs (Time and expertise) are competing against urgency of the mission
- Who to use?
 - Military
 - Intra DoD, Government, MCC/USAID/CRC
 - DoD civilian contractors
 - NGO/Others

Others

- Public
- Private
- Profit
- Non-Profit
- NGO

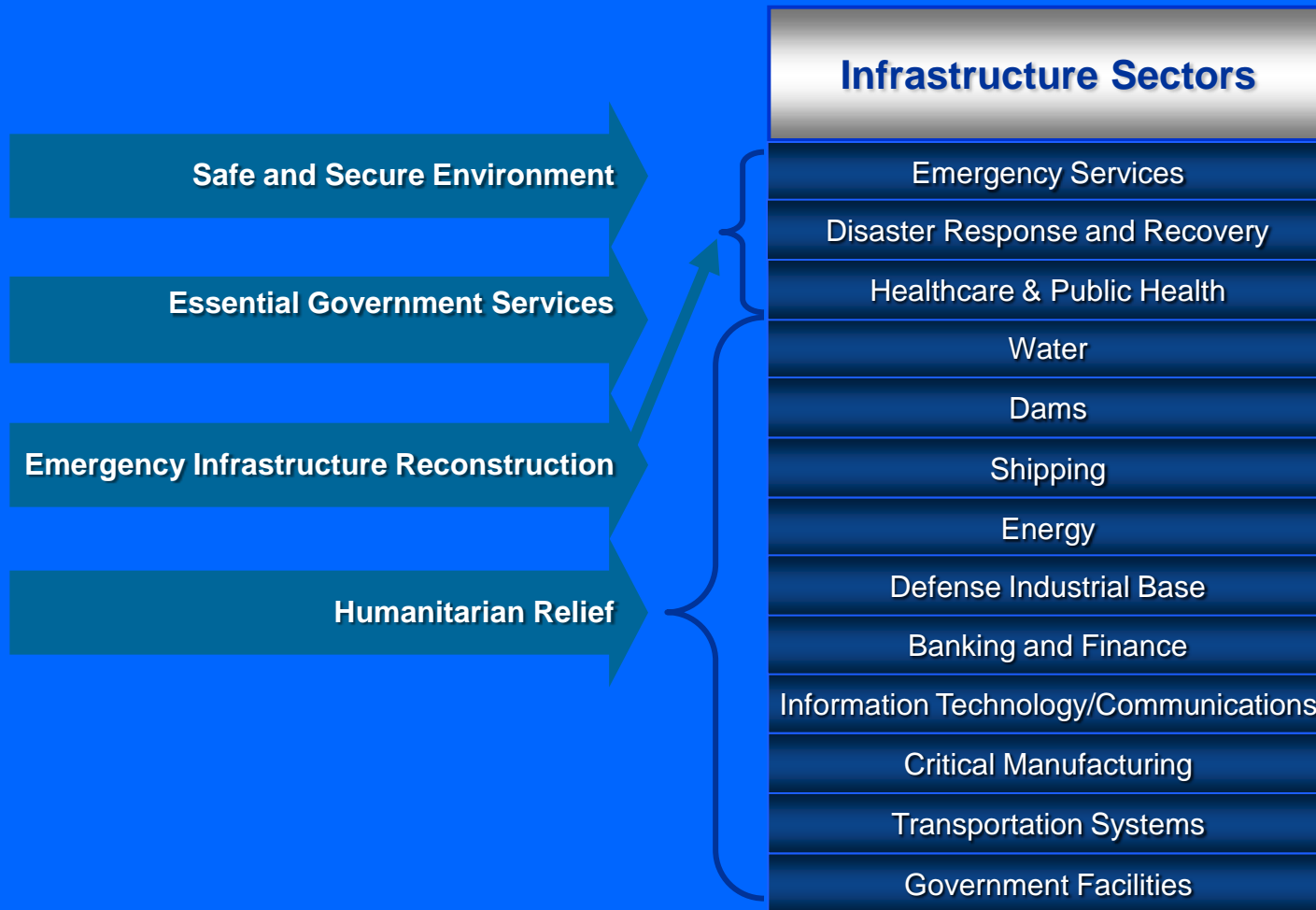
Reachback Support

- **USACE/NAVFAC** have outstanding reachback support, not only organically but with civilian contractors.
- In conjunction with 3000.5, utilization of civilian capacity and capabilities can be a force multiplier for not only CA but continuing mission of support for infrastructure.

Cost vs. Benefits

- Civilian Costs may be higher than organic capabilities, but may be better positioned for expert response
- Up to the commander on site as to which methodology to choose
 - Time vs. Cost,
 - Strategic Voice
 - Expertise

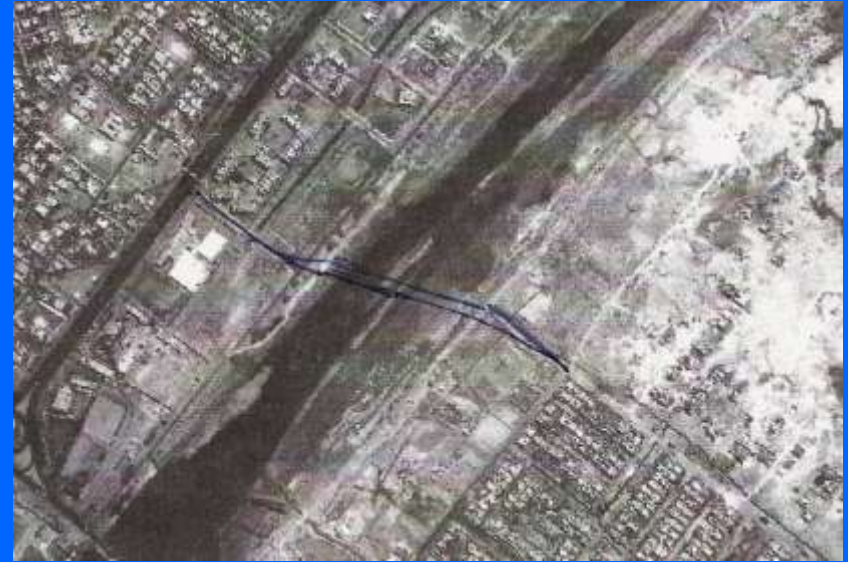
Mapping Needs





Ramadi Bridge

- Budget \$7M
- 300 m bridge over Warrar Canal
- 500 m approach road
- Team = Cape Environmental / Aman & Whitney / DG of Roads & Bridges / Local Contractors



Questions?

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