George Mason University

Center for Resilient & Sustainable Communities (C-RASC)

Dr. Kathryn B. Laskey

Director

Professor, Systems Engineering and Operations Research
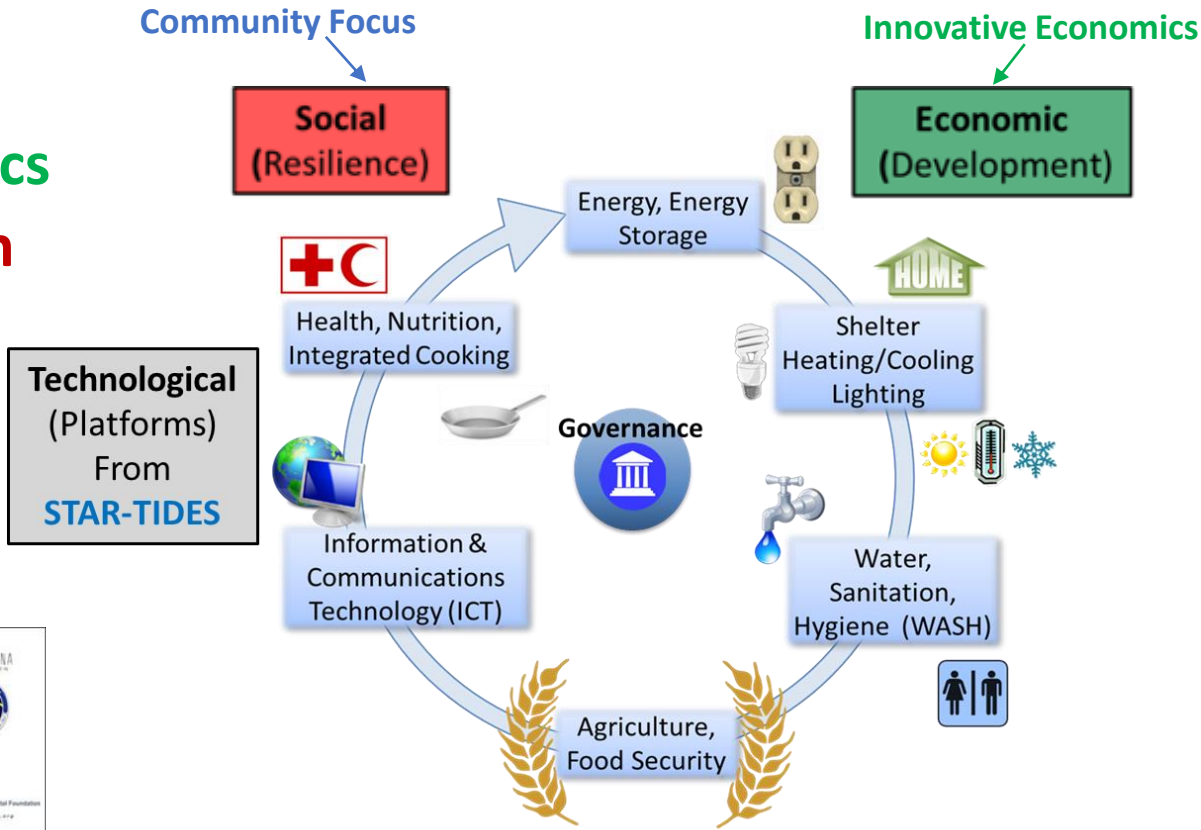
C-RASC Approaches

Build Sustainable Resilience by LISTENING to community needs

Encouraging two-way LEARNING

Developing LASTING capabilities

- **Promote Entrepreneurship and Business Development**
- **Reduce Pressures for Migration & Marginalization**
- **Improve Disaster Resilience**
- **Strengthen Critical Infrastructures**

Elements:

- **Community Focus**
- **Knowledge Sharing**
- **Innovative Economics**
- **Platform Integration**
- **Research and Teaching**

Knowledge Sharing

via STAR-TIDES network

Trans-Disciplinary Research and Teaching are Key

Community Focus

Innovative Economics

Keys to Success: Narrative; Systems Thinking; Shared Knowledge; Resources; Education; Logistics; Digital Enabling Technologies

Stability/Security ⟷ Sustainability

LISTENING, LEARNING, LASTING

Region ↔ Community

REGION-LEVEL*

1. ID Regional Resilience Needs
2. Localize to Communities

COMMUNITY-LEVEL

3. Develop Local Solutions
4. Integrate Platforms, Deliver Capabilities
5. Adjust & Iterate

Local Project Name

Broad Partnerships

- **Within University:**
  - **College of Science**
  - **School of Business**
  - **Volgenau School of Engineering**
  - **College of Health and Human Services**
  - **Schar School of Policy and Government**
  - **Carter School of Peace and Conflict Resolution**

- **Outside partners**

Collaborative Opportunities

- Narrative & Storytelling
- Critical Infrastructure Protection
- Conflict Analysis & Resolution
- Business & Economics
- Geospatial Info Systems
- Transport and Logistics
- Entrepreneurship
- Cybersecurity
- Public Policy
- Sociology
- Public Health
- Education
- Systems Thinking
- Climate Science
- Specific Technologies and Engineering Disciplines

Real World Engagements

- **Complex Adaptive Threats** (with Virginia Commonwealth Cyber Initiative)
- **Ethiopian Subsistence Irrigation Project**
- **Appalachia Advancing** (with Shepherd University)
- **Puerto Rico Science & Technology Research Trust** (with STAR-TIDES Latin America core group**)**
- **Rural Broadband** (with People-Centered Internet)
- **Japan STAR-TIDES Network**
- **15th STAR-TIDES Capability Demo Oct 18-20@GMU**

The goal is to "Make hope possible, rather than despair convincing"— Raymond Wilson

Governance and institution-building will be key

Must understand what **dignity, justice and fairness** mean in whatever culture is at the center of a particular project—technical solutions alone are never enough