

Sandia Global Engagement

Middle East and North Africa



Amir Mohagheghi

October 2013

Presentation Outline

- National Security Drivers
- Regional Security Challenges
- Examples of Current Programs
- Criteria for Project Development

National Security Drivers Reduce the WMD Threat

Presidential Initiatives:

- **Speech on nuclear security, Prague**
 - *Four year plan to secure nuclear materials*
 - *Secure borders and interdict illicit trafficking*
 - *WMD proliferation and Zero nukes*
 - *Iran Nuclear Proliferation*
- **Cairo speech, Egypt**
 - *S&T Engagement with the Developing World*



USG National Strategic Plans:

- **Nuclear Posture Review 2010**
 - *Preventing nuclear proliferation and terrorism*
 - *Enhance regional security architectures*
 - *Lead international efforts to bolster the NP regime*
- **National Security Strategy 2010**
 - *Reverse the Spread of Nuclear and Biological Weapons and Secure Nuclear Materials*
 - *Advance Peace, Security, and Opportunity in the Greater Middle East*
 - *Invest in the Capacity of Strong and Capable Partners*
 - *Secure Cyberspace*
- **NNSA Strategic Plan 2011**
 - *Secure Vulnerable Nuclear Materials*
 - *Centers of Nuclear Security Excellence*



- **Arab Spring – Major impact on strategic calculations**

- Tunisia, Egypt, Libya – Major Changes
- Morocco, Jordan – Incremental
- Syria, Yemen, Lebanon – Civil War
- GCC States – Stable?
- Iran – Sanctions Working?
- Iraq – Democracy or Dictatorship?
- Israel – Less Secure?
- Turkey – A positive example?

- **Stabilization of Afghanistan**

- **Israeli Arab Conflict**

- **Terrorism and Failed/Failing States**

- **Resource Management**

- Energy
- Water
- Critical Infrastructure



Examples of MENA Projects

- Middle East Scientific Institute for Security (MESIS)
 - Borders, Energy, Environmental Security
- S&T Engagement
 - Iraq S&T Engagement
 - Radiation Measurements Cross Calibration (RMCC) Project
 - Middle East Radiological Early Warning System
 - Egypt – Rad Waste Management COE
- Infrastructure Development for Safe, Secure, and Safeguarded Nuclear Energy
 - Gulf Nuclear Energy Infrastructure Institute (GNEII)
 - Bilateral Capacity Building Cooperation
- Policy Dialogue and Studies
 - WMD Free Zone in the Middle East



GNEII Graduates, October 2012



ERDS Technical Visitors



RMCC Workshops

Examples of MENA Projects

- **Technical Capacity Building**
 - Biological and Chemical Threat Reduction Engagement (DOS and DOD)
 - Radiological Detection Systems at Border Crossings and Ports (NNSA)
 - Border Security and Consequence Management (DOD)
- **Nuclear Security Engagement (CTR/PNS)**
 - Focus is on expertise
 - Integrate scientists/engineers into the international community
- **Visiting Scholars**
 - A Middle East WMD Free Zone Analytical Model
- **Technical Studies and Analysis**
 - Integrated Framework for Nuclear Safety, Security, and Safeguards



A Strategy for Regional Approaches

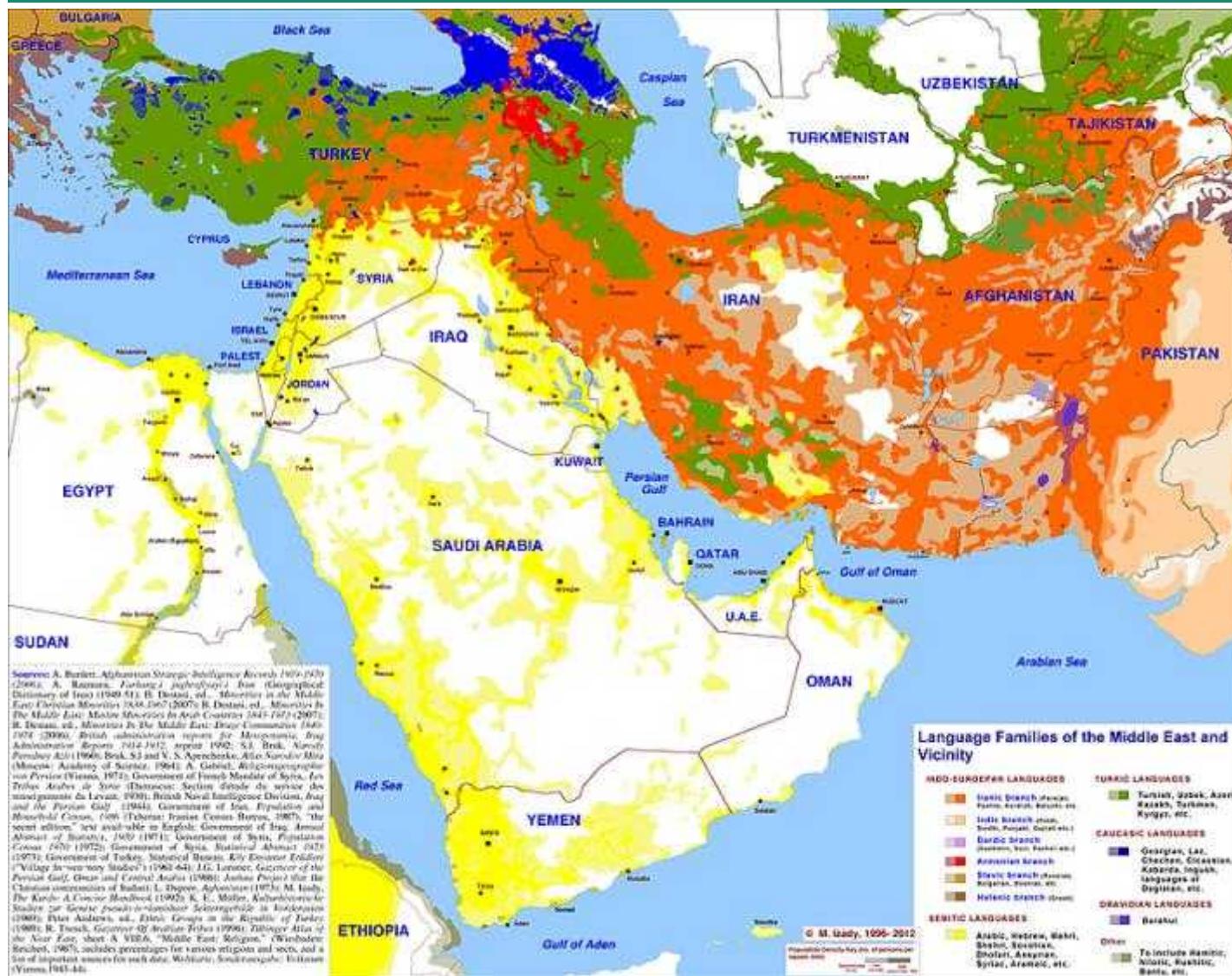
- Understand context
- Focus on topics of common interest
- Build on ongoing activities and relationships
- Pursue practical projects that leverage Sandia strengths
- Criteria to guide project selection:
 - USG sponsor
 - Relevance of country or region to resolving U.S. national security challenges
 - Technical capabilities (existing or potential) of the country
 - What is Sandia's value added role?

Understating Context – MENA: A Region Only In Name

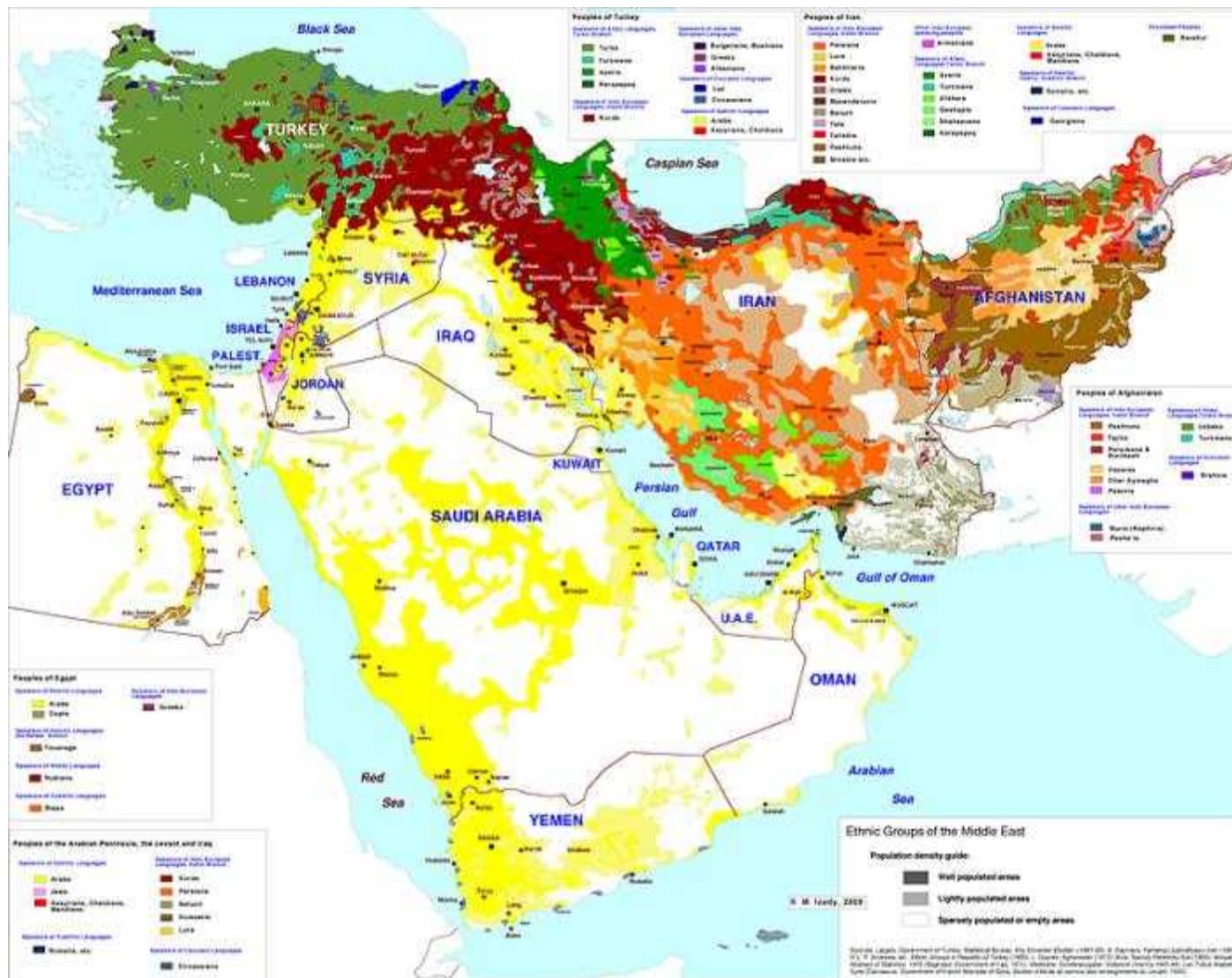
Northern Africa and the Middle East



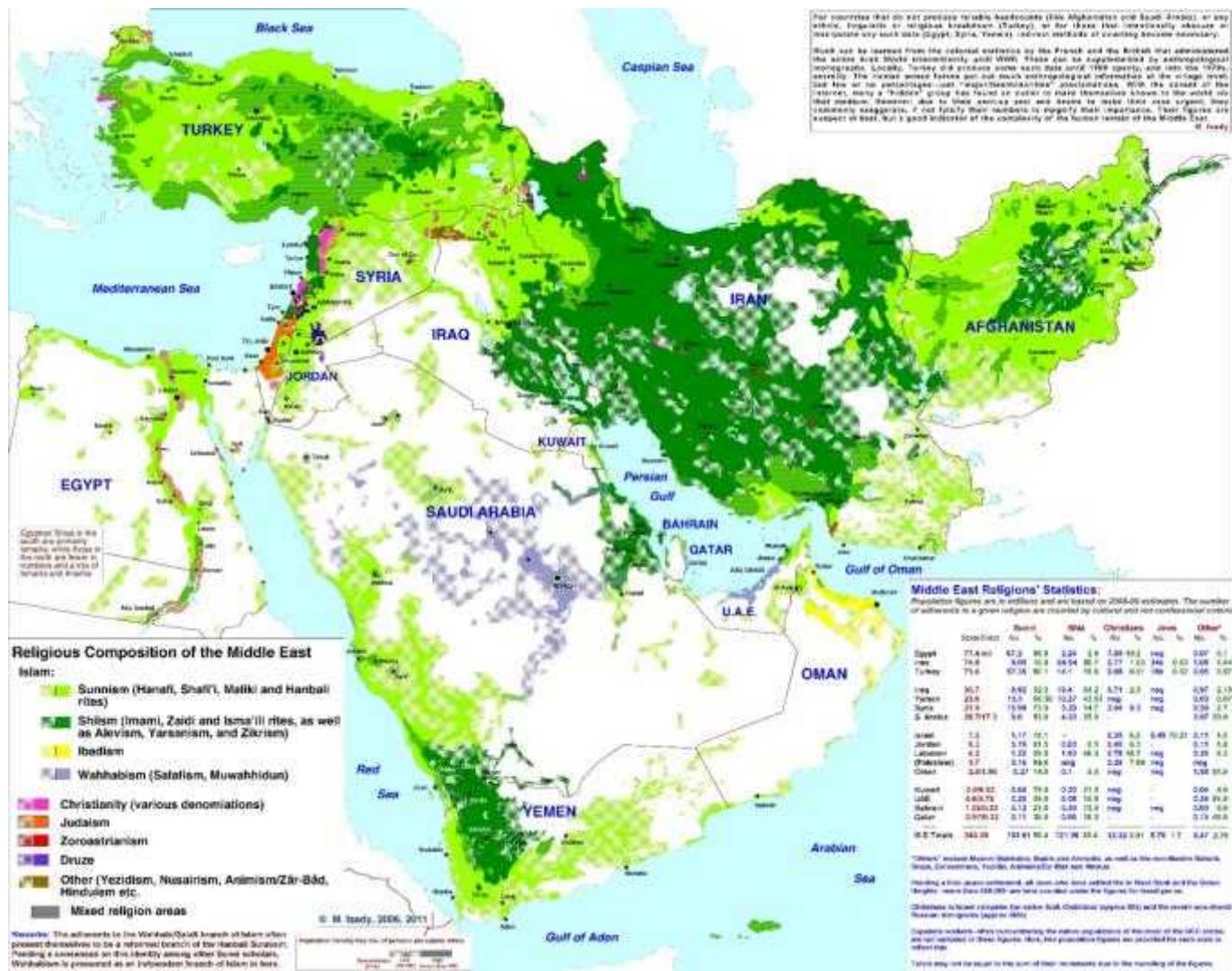
Middle East: Language Families



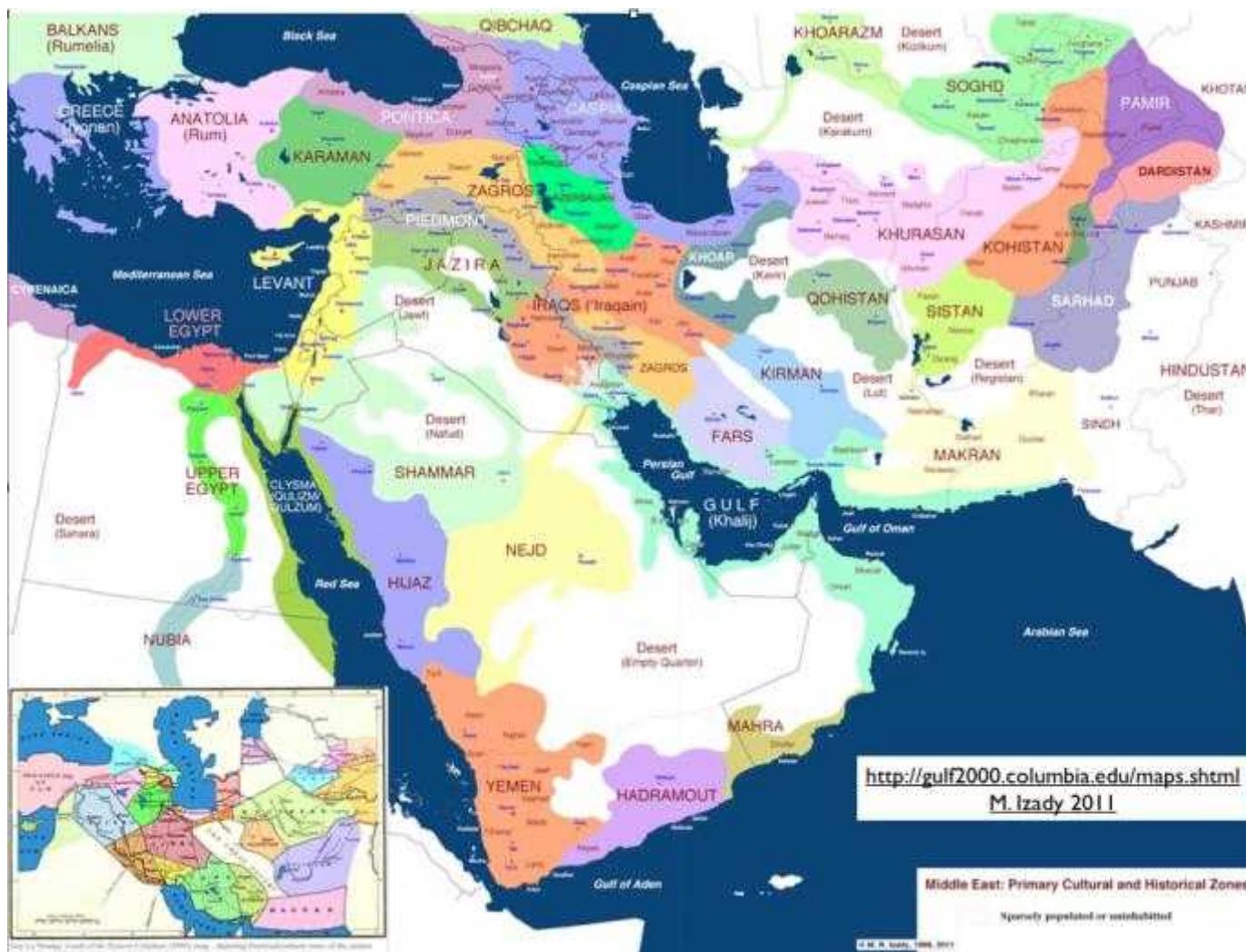
Middle East: Ethnic Groups



Middle East: Religions



Middle East: Cultural and Historical Zones



Understanding context: A Middle East Example

U.S. Concerns

Arab World

- WMD proliferation
- Support for terrorism
- Potential to cut off oil
- Non-democratic governments
- Non-recognition of Israel

Israel

- Expansion of settlements
- Unilateral military action
- Achieving regional nonproliferation / security

Arab Concerns

U.S.

- Policies favor Israel
- Support for corrupt Arab governments
- Military presence / threat
- Nonproliferation agenda seen as hypocritical

Israel

- Occupation of West Bank, Gaza, Golan Heights
- Israeli/Palestinian conflict
- Military superiority
- Access to water resources
- National boundaries

Israeli Concerns

Arab World

- Support for terrorism
- WMD proliferation
- National boundaries
- Non-recognition of Israel's right to exist
- Access to water resources

U.S.

- Pressure to restrict military operations
- Pressure to restrict settlements

Adding Iran, Iraq, and other countries complicates things further

Topics of common interest

Arab interests

- Border security / management
 - Smuggling
 - Counter-terrorism
 - Trade
- Public health
- Environmental security
 - Water
 - Desertification
- Nonproliferation
 - WMDFZ in Middle East: focus on Israel
- Consequence Management
 - Nuclear, chemical, biological
- Maritime security

U.S. Interests

- Counter terrorism
 - Biological
 - Explosives
 - Radiological
- Nonproliferation
 - Iran
 - Arab countries

We need effective regional partners.

Israeli interests

- Counter terrorism
 - Biological
 - Explosives
 - Radiological
- Nonproliferation
 - Iran
 - Arab countries
- Border management
 - Security
 - Trade
- Water security
 - Quantity
 - Quality
- Public health

Practical NNSA Topics for Regional Engagement

Nonproliferation

- Analyze technical requirements of potential regional agreements
- Develop technical tools for implementing agreements
 - Radiation monitoring
 - ❖ Meteorological monitoring
 - ❖ Seismic monitoring
 - ❖ Water monitoring
 - ❖ Disease surveillance
 - Material security
- Training on capabilities for implementing agreements
 - Export control training
 - Physical security – design-basis threat training
 - On-site-inspection training
 - Treaty verification

Counter-Terrorism

- Analyze technical requirements for effective partnerships
- Develop common approaches to border security
 - Explosives detection
 - Nuclear material detection
 - Information sharing / coordination
 - Customs inspections
 - Export control
- Enhance cooperation on consequence management
 - ❖ Meteorological monitoring
 - ❖ Water monitoring
 - ❖ Disease surveillance
 - Radiation monitoring

❖ *Dual-use topics that also address regional “soft security” concerns*

Thank you for your time