



**James Martin Center for
Nonproliferation Studies**

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2016 CTR Evaluation Study Results and Observations

May 2017

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Metrics Objective

To identify and track advances in biological, chemical, and nuclear security and security culture in ISN/CTR partner countries

CTR Metrics Tool

- Three surveys operating at three levels of analysis to provide assessment of country progression over time
- 250 sources used to develop peer-reviewed set of 54 standards and 270 cross-discipline questions utilizing common terminology across all three disciplines
 - Assessment areas: Policy and International Agreement Adoption; Risk Assessment; Regulatory Framework; MPC&A; Personnel Reliability; Information Security; Personnel Certification; Security Culture; Criminalization; Managerial Responsibilities
- The *national level* metrics measure a country's level of security and security culture and the frameworks by which security measures are regulated
- The *professional societies* metrics examine self-sufficiency and promotion of security and security culture
- The *institutional level* metrics capture data on the security and security culture of partner sites through interviews with program officers and implementers
- Results combine numerical and narrative data

Scope of Effort (2015-2016)

Scope of Open Source Data Collection

	Baseline Questions	Countries	Data Points
Total Chemical Baseline Questions	75	29	2,175
Total Biological Baseline Questions	75	29	2,175
Total Nuclear Baseline Questions	80	29	2,320
Total # of Data Points	6,670		

Scope of Interview Data Collection

	# of Institutions	# of Interviews
Total Chemical Institutions	17	47
Total Biological Institutions	49	110
Total Nuclear Institutions	19	55
Total # of Institutions	85	211
Total # of Professional Societies	24	66
Total # of Interviews	=277	
Total # of Questions	≈ 41,200	

Scope of Effort

- Previously evaluated countries (12): Afghanistan, Algeria, Egypt, Indonesia, Iraq, Jordan, Libya, Morocco, the Philippines, Saudi Arabia, South Africa, Yemen
- Newly added countries (17): Bangladesh, Brazil, Guinea, India, Kenya, Lebanon, Liberia, Malaysia, Mali, Nigeria, Pakistan, Sierra Leone, Somalia, Tunisia, Turkey, the United Arab Emirates, Ukraine
- Total countries in evaluation study: 29

Conclusions

Steady progress observed in advancement of security and security culture in the previously evaluated twelve partner countries

- National level: 8/12 improved scores; 4/12 remained constant
- Institutional level: In all but two countries, the institution score within the biological, chemical, or nuclear domain increased from the previously assessed year
- Combined: 5/12 improved; 5/12 decreased; 2/12 remained constant

New countries preformed, on average, on par with previously evaluated countries

- National level: Average: 38%; 9/17 higher than previously evaluated national-level scores this year
- Institutional level: New countries only outperformed previous countries on average in the chemical discipline (new 48%, previous 36%); Biological: 43%/46%; Nuclear: 52%/65%
- Combined: 11/17 new countries scored higher than the previous 12 Combined average

Numerical and descriptive ratings scale with associated performance indicators

Numerical Rating	Descriptive Rating	Associated Descriptors
0	No Activity	<ul style="list-style-type: none"> No discernible activity observed by implementers or researchers, visually or from discussions No apparent interest or familiarity with security concepts
1	Starting from Scratch	<ul style="list-style-type: none"> Training provided is institution's introduction to security Unclear if training is converted into practice Some modest, sporadic activity Nothing in writing No investment of resources
2	Substandard	<ul style="list-style-type: none"> Activity is: 1) not well coordinated; 2) not comprehensive; 3) ad hoc; 4) dependent on 1 or 2 individuals Little, if anything written At least one or two of examples of relevant capacities or activities Organization has adopted/is preparing to adopt some security measures Little, if any, investment of resources
3	Fair	<ul style="list-style-type: none"> Rudimentary training and personnel screening programs established Basic written policies, SOPs Some coordination, planning across multiple departments Preliminary signs of a security culture starting to take root Investment of in-kind resources Progress likely to last if personnel change occurs
4	Noteworthy	<ul style="list-style-type: none"> Comprehensive written policies, SOPs Training and personnel screening well established Most facets of security and security culture addressed across most departments Line item security and security culture budget Internal testing systems for performance, breaches Evidence of culture of reporting, security culture improvement
5	World Class	<ul style="list-style-type: none"> Fully institutionalized and self-sustaining All facets of security and security culture thoroughly addressed Repeated examples of: 1) continuing improvement; 2) innovation; 3) sharing of best practices Independent audits/certifications