Implementing Resolution 1540: Assessing Progress in National Nuclear Controls

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Tracking Progress

- Examines 92 countries that currently have or are seeking nuclear power programs or research reactors
  - NWS
  - NSG members
  - “States of proliferation concern”
  - Developed and developing states

- Relies on the assessments in the 1540 matrices approved by the committee

- Identifies key gaps in implementation

- Compares 2010 progress with 2006 study
# 1540 Matrices

## What the Matrices Tell Us
- An overview of laws and authorities pertaining to WMD proliferation
- Whether those laws and authorities are relevant to specific 1540 provisions
- Lacunae in WMD controls

## What the Matrices Do Not Tell Us
- Whether provisions are fully implemented
- The effectiveness of the laws/authorities in place
- When laws/authorities are strengthened
- Compliance
# Implementation Quintiles

<table>
<thead>
<tr>
<th>0-20%: 12 States</th>
<th>41-60%: 8 States</th>
<th>81-100%: 28 States</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPRK, Ecuador, Iran, Kuwait, Libya, Morocco, Nigeria, Saudi Arabia, Senegal, Sudan, Thailand, Yemen</td>
<td>Azerbaijan, Colombia, Georgia, Jordan, Peru, Serbia, Singapore, Sri Lanka</td>
<td>Australia, Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, India, Ireland, Italy, Japan, Latvia, Lithuania, Netherlands, New Zealand, Norway, Pakistan, Poland, ROK, Romania, Slovakia, Slovenia, South Africa, Switzerland, UK, US</td>
</tr>
<tr>
<td>21-40%: 13 States</td>
<td>61-80%: 22 States</td>
<td></td>
</tr>
<tr>
<td>Algeria, Bangladesh, Chile, Egypt, Ghana, Iraq, Kenya, Mongolia, Myanmar, Namibia, Syria, Tunisia, Uganda</td>
<td>Albania, Argentina, Armenia, Belarus, Brazil, Canada, Cuba, Czech Republic, DR Congo, Greece, Hungary, Israel, Kazakhstan, Mexico, Portugal, Russia, Spain, Sweden, Turkey, Ukraine, UAE, Venezuela</td>
<td></td>
</tr>
</tbody>
</table>

This table categorizes countries into five quintiles based on a specific metric, with each quintile containing a predetermined number of states.
### Average Implementation %

<table>
<thead>
<tr>
<th>Category</th>
<th>Legal Framework</th>
<th>Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminalization</td>
<td>54.8%</td>
<td>60.5%</td>
</tr>
<tr>
<td>Accounting &amp; Security</td>
<td>74.3%</td>
<td>61.8%</td>
</tr>
<tr>
<td>Border &amp; Export Controls</td>
<td>60.0%</td>
<td>55.1%</td>
</tr>
<tr>
<td>Overall</td>
<td>62.8%</td>
<td>57.7%</td>
</tr>
</tbody>
</table>
Key Implementation Gaps

- **Criminalization**
  - Stockpile/store 57%
  - Develop 51%
  - Means of delivery 42%

- **Accounting /Security**
  - Reliability check of personnel 51%
  - Means of delivery 30%

- **Border & Export Controls**
  - Licensing of deemed exports 28%
  - Control of providing funds 30%
  - Control of providing transport services 22%
  - Extraterritorial applicability 29%
  - Means of delivery 51%
The Missile Gap

- UNSCR 1540 is the first legally binding international instrument addressing WMD delivery systems

- “specifically designed for such use” = nuclear capable or nuclear designated?

- Are some states “Not Applicable?”

- Traditional delivery systems unlikely to be used by non-state actors for nuclear terrorism

- Greater risk of illicit trafficking in goods and technology
The Enforcement Gap

- Discrepancy between legal framework and enforcement mechanisms appears to be closing since 2005

- Matrices do not assess how a state uses its laws and authorities to prevent or respond to violations
  - Civil/criminal penalties imposed
  - Licenses issued/denied
  - Safety and security reviews conducted