

# Lawrence Livermore National Laboratory

## Proliferation Pathways: The Case of India



Neil Joeck

Senior Fellow

Center for Global Security Research

# Outline

- What did India do?
- Why states proliferate
- Does India fit the model?
- Getting India inside the regime
- Conclusion



# What was India's pathway?

- The science era: pre-1964
  - Part of the club
- Proving their independence: 1964-1974
  - Can't get no respect
- Coming to terms with Pakistan: 1974-1990
  - Kicking the ladder down
- New strategic thinking: 1990-1998
  - Getting real
- The military era: 1998-2008
  - It's harder than it looks



# Incentives (from Tertrais)

- Threat perceptions
- Political motivations
  - Domestic
  - International
- Financial means
- Existing nuclear installations
- Existing nuclear experience and know-how
- Current civilian nuclear projects



# Disincentives (from Tertrais)

- Foreign protection
- Degree of IAEA controls
- Economic openness and liberalization
- Regional integration
- Dependence on US assistance



# How does India fit with this model?

- Weak state
  - Having the will
  - Accepting the norms
  - Having the means
- Rogue
  - Generally accepted norms
- Non-state actors



# Procurement networks (from Russell)

- Illicit procurement networks start out supporting state efforts
- Use of allies/nationals abroad; social networks matter
- Use of front companies, or seeking struggling companies
- Personalities matter in terms of technical expertise and management
- Use of logistics in-place: networks are able to use these to transport easily
- Taking advantage of loose state control
- Access to expertise, internally and externally



# Procurement networks (cont.)

- Common indicators include:
  - Procurement of dual-use items
  - Known entities or affiliations with suspected proliferants
  - Relevant companies in trouble, possibly looking for new clients
  - Possible firings or loss of employment at relevant companies



# Getting India inside the regime

- Horizontal gaps
  - Significant expertise
  - NSG
- Vertical gaps
  - New opportunities
- Evolutionary gaps
  - Thorium
  - FBRs
- Enforcement gaps
  - Two scientists
  - Enhanced cooperation



# Conclusion

- India had its own pathway
- Motivations not very different
- The model is incomplete
- Changing the nonproliferation game



# QUESTIONS?

---

