

Identification of Effective Practices Next Steps

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United Nations Security Council Resolution 1540 (2004):
Identification of Implementation Practices by Examining UNSCR
1540 (2004) after a Decade of its Existence

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Export Control Regimes

■ Informal Arrangements: legally not binding on Member States

- Wassenaar Arrangement (*Munitions list*)
- Zangger Committee (*Trigger list items*)
- Nuclear Suppliers Group (*Trigger list and Dual-use items*)
- Australia Group (*Chemical and biological items*) and
- Missile Technology Control Regime (MTCR)

■ Formal Instruments: Legally binding on Member States

➤ **Multilateral / Bilateral arrangements /agreements**

- Chemical Weapons Convention (CWC)29th April 1997
- Biological Weapons Convention (BWC)... 26th March 1975
- Nuclear Nonproliferation Treaty (NPT)
- Agreements under IAEA.....e.g. INFCIRC/754 (2009) ..ISSA
- IGAs

➤ **United Nations Security Council Resolutions:**

➤ **UNSCR 1540 (2004)**

➤ **Unilateral Regimes:**

- National legislations and related regulations

UN Security Council Resolution 1540

■ Background of the Resolution

- Growing concern that non-State actors may acquire and use WMDs
- Terrorist attack of 9/11 (sept 11, 2001)
- Revelations about proliferation of nuclear weapon technology by a global network headed by A. Q. Khan

■ Responding to the above concerns UNSC adopted a Resolution 1540 in April 2004

- Resolution emphasises the importance of export controls as a nonproliferation tool
- Main concerns: Non-state actors

■ Adopted under Chapter VII of UN Charter

■ Legally binding on all UN members

UNSCR 1540 (2004)

- Addresses the proliferation of WMD as a global threat to international peace and security.
- Broad based Resolution but is the strongest and one of the few international instruments mandating all States to implement national export controls.
- Establishes binding obligations on all States to take a series of steps to prevent the proliferation of WMD, their means of delivery and related materials.
- Deals with all kinds of WMD (nuclear, chemical, biological weapons) and their means of delivery, as well as “related materials
- Each State to decide how to implement UNSCR 1540.
- Subsequently, UNSC resolutions 1673 (2006), 1810 (2008), 1977 (2011), were also adopted under Chapter VII of the UN Charter

UNSCR - 1540

UNSCR-1540 obligates all States to:

- Refrain from providing any support to non-State actors in acquiring, manufacturing, possessing, developing, transporting, transferring or using WMD and their means of delivery (OP 1)
- Adopt and enforce laws that prohibit any non-State actor from acquiring, manufacturing, possessing, developing, transporting, transferring or using WMD and their means of delivery (OP 2)
- Take and enforce effective measures to establish domestic controls to prevent proliferation of WMD and their means of delivery (OP 3)
 - Accounting and security
 - Physical protection measures
 - Border control measures
 - Export, transit, transshipment and retransfer controls
- Effective national export control lists (OP 6)
- Work with their industries and public to inform them of these obligations (OP 8)

UNSCR 1540 Prohibitions: Non-support clause

“All States shall refrain from providing any form of support to non-State actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons [WMD] and their means of delivery.” (Op. Para 1)

- Non-State actors, terrorist groups or smuggling networks pose an increasingly potent proliferation danger. There is likelihood that extremists could acquire WMD or WMD-related knowledge and components. This is one of the most serious concerns / threats to global peace and security.

GOI position:

- *"preventing access to WMD and their means of delivery to non-State actors is a matter of national policy for the Government of India"*
- *India is a State Party to 14 international conventions on counter-terrorism*
- *The Unlawful Activities (Prevention) Amendment Act, 2008.*

UNSCR 1540 Prohibitions: National legislation

“All States, in accordance with their national procedures, shall adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer, or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them.” (Op.para.2)

Appropriate Indian laws

- The Weapons of Mass Destruction and Their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005
- The Atomic Energy Act, 1962
- The Foreign Trade (Development and Regulation) Amendment Act, 2010
- The Customs Act, 1962
- The Explosive Substances Act, 1908
- The Narcotic Drug and Psychotropic Substances Act, 1985
- The Environment Protection Act, 1986
- The Unlawful Activities (Prevention) Amendment Act, 2008.

EXPORT-IMPORT REGULATIONS

Atomic Energy Act, 1962

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graph TD; A[Atomic Energy Act, 1962] --> B[Control List Notification]; A --> C[Rules]; A --> D[Guidelines];
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Control List Notification:

1. Prescribed substances, Prescribed equipment and Technology, 2006 (Category '0' items)

Rules:

1. Atomic Energy (Working of Mines, Minerals and Handling of Prescribed Substances) Rules, 1984
2. Atomic Energy (Radiation Protection) Rules, 2004

Order:

Prescribed equipment (Control of Export) Order, 1995

Guidelines:

1. Guidelines for Nuclear Transfers (Exports), 2006
2. Guidelines for Implementation of arrangements for cooperation concerning peaceful uses of atomic energy with other Countries, 2010

The Weapons of Mass Destruction and Their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005

- An integrated and over-arching legislation
- Builds on the existing framework of legal and administrative controls

Core objectives:

- To prohibit unlawful activities in relation to WMD and their delivery systems
- To regulate export, transfer, re-transfer, transshipment or transit of any item related to 'Relevant activity'-
 - (i.e. development, production, handling, operation, maintenance, storage or dissemination of nuclear, biological or chemical weapons; or
 - development, production, handling, operation, maintenance, storage or dissemination of missiles specially designed for delivery of such weapons)
- To prohibit direct or indirect transfer of materials, equipment and technologies related to 'relevant activity' to non-state actors and terrorists
- Catch-all controls
- Control over transfer of technology

FTDR Act and Foreign Trade Policy

■ FT (DR) Amendment Act, 2010

- Foreign Trade Policy
- Handbook of Procedures Volume-I & II
- ITC(HS) Classifications of Export & Import Items
 - Schedule 1 - Import Policy
 - Schedule 2 - **Export Policy (SCOMET list)**

■ Foreign Trade Policy

- **Export / import of** all items, materials, equipment, goods and technology as set out in UNSC documents S/2006/814, S/2006/815 and S/2006/853, **to / from, DPRK is prohibited:**
- **Export /import of following items, to / from, Iran is prohibited:**
 - All items which could contribute to Iran's enrichment-related, reprocessing or heavy water related activities, or to development of nuclear weapon delivery systems and **listed in INFCIRC / 254 / Rev 8 / Part I** in document S/2006/814,
 - Items listed in S/2006/815

Important Provisions

Types of Controls exercised: **Prohibition**
 Licencing
 Catch-all provision

Prohibition	<ul style="list-style-type: none">• Unlawful manufacturing, acquisition, possession, development, transport of nuclear weapons or nuc. explosive devices• Unlawful transfer of: nuclear weapons, nuclear explosive devices or control over such devices• Transfer of any notified item (mat., equipt., & tech.) related to relevant activity to non-state actors or terrorists	WMD Act, AE Act
Licencing Requirements	<ul style="list-style-type: none">• Export of SCOMET items	FTDR Act
Export prohibited without licence	<ul style="list-style-type: none">• Export of prescribed substances, prescribed equipment & related technology (Category '0' items), except under a licence	AE Act

Important Provisions

Catch-all provision	<ul style="list-style-type: none">• Prohibition on transfer of any item (mat., equipt., & tech.) knowing that such item will be used for WMD purposes• Any material / equipment (not on control list) intended to be used in atomic energy --- licence required	WMD Act, FTDR Act AE Act
Control over Technology	<ul style="list-style-type: none">• Prohibition on transfer of technology of an item whose export is prohibited• Control over transfer of Technology• Restriction on disclosure of information	WMD Act, FTDR Act, AE Act,
Brokering	<ul style="list-style-type: none">• No person shall knowingly facilitate transaction which, is prohibited	WMD Act, FTDR Act

UNSCR - 1540

- All States shall take and enforce effective measures to establish domestic controls to prevent the proliferation of nuclear, chemical, or biological weapons, their means of delivery, including by establishing appropriate controls over related materials and to this end shall:” (Op. para. 3)
 - a) Develop and maintain appropriate effective measures to account for and secure such items in production, use, storage or transport;
 - b) Develop and maintain appropriate effective physical protection measures;
 - c) Develop and maintain appropriate effective border controls and law enforcement efforts to detect, deter, prevent and combat ... the illicit trafficking and brokering in such items...”
 - d) Establish, develop, review and maintain appropriate effective national export and trans-shipment controls over such items, including appropriate laws and regulations to control export, transit, trans-shipment and re-export and controls on providing funds and servicesthat would contribute to proliferation, as well as establishing end-user controls; and establishing and enforcing appropriate criminal or civil penalties for violations of such export control laws and regulations;

GOI – OP 3 related provisions

■ Material accounting, physical protection, security

Nuclear security, which aims to secure nuclear materials from terrorists, is a prerequisite for all nuclear activities which will also support effective implementation of UNSCR/1540.

- Nuclear Materials Accounting Cell (NUMAC) in DAE is responsible for State System of Accounting and Control of Nuclear. Materials,
- Comprehensive measures are in place for physical protection and security of nuclear installations
- India is a State party to CPPNM
- Safeguards Agreement with IAEA
- Party to International Convention for the Suppression of Acts of Nuclear Terrorism.

■ Border controls / enforcement

■ Export controls

National Control List of GOI

Special Chemicals, Organisms, Materials & Equipment (SCOMET)

- **Category 0** Nuclear materials, nuclear-related other materials, equipment & technology
- **Category 1** Toxic chemical agents and other chemicals
- **Category 2** Micro-organisms, toxins
- **Category 3** Materials, Materials Processing Equipment and related technologies
- **Category 4** Nuclear-related other equipment and technology, not controlled under Category 0
- **Category 5** Aerospace systems, equipment, including production and test equipment, & related technology.
- **Category 6** [RESERVED]
- **Category 7** Electronics, computers, & inf. tech. including information security

Nuclear and Nuclear related items

Category 0 Nuclear materials, nuclear-related other materials, equipment & technology

- 0A Prescribed Substances
 - » 0A1 Source Material
 - » 0A2 Special Fissionable Material
 - » 0A3 Other Materials
 - 0B Prescribed Equipment
 - 0C Technology
- } Trigger List
- } Trigger List + Dual-use

Category 3 Materials, Materials Processing Equipment and related technologies

- » 3A1 Special materials
- » 3A4 High explosives
- » 3A503 Tech. related to prodn. or use of items in 3A.

Category 4 Nuclear-related other equipment and technology, not controlled under Category 0

- 4A Equipment, assemblies, components including test and production equipment
- 4B Equipment, assemblies, components including test and measurement equipment usable in development of nuclear explosive devices
- 4C Technology

} Dual-use

Technology Transfer Controls in India

■ A E Act:

Provides Restriction on disclosure of information relating to –

- SM, SFM and prescribed equipment
- plants for the treatment and production of SM & SFM, isotope separation facilities; reactors; other nuclear facilities and technological work related to above activities.
- Control over transfer of technology related to pre. substances or pre. Equipment (**Nuclear Transfer Guidelines**)

■ The WMD Act

Prohibition on transfer of technology of an item whose export is prohibited.

■ FTDR Act

- SCOMET List and Guidelines

Internal Compliance

■ Personal Security:

- pre-employment screening (police verification),
- confidentiality undertaking at the time of employment (application of Official Secrets Act)
- security checks at entry and exit points,
- multi-layer access control system

■ Non-disclosure agreements wherever applicable

■ Restriction on disclosure of information pertaining to controlled items,

■ Visitors (foreign / national): limited access in DAE premises

■ Technology transfer control measures

■ Foreign Travel: Undertaken only after permission, deputation report requirement

Guidelines for Nuclear Transfers (Exports)

- Prohibition of export for development of nuclear explosives
- Physical protection (CPPNM), IAEA Safeguards
- Special controls on sensitive exports, and on export of enrichment facilities, equipment and technology
- Controls on supplied or derived material usable for nuclear weapons or other nuclear explosive devices
- Controls on retransfer,
- Export permitted only against export licence

Relevant factors taken into consideration -

- IAEA safeguards agreement in recipient State,
- Whether the item is appropriate for stated end-use and stated end-use is appropriate for end-user
- whether the recipient state complies with its international obligations in the field of nuclear related activities
- Whether the end-user has been engaged in clandestine or illegal procurement activities

Conditions for Transfers

- End-use, end-user statement; end-use locations; retransfer conditions; assurance stating proposed transfer will not be used in the production, development or use in nuclear explosive device.

Import Regulations

- Well established export control mechanism.
- Now we have established an import control mechanism.
- Concluded NCAs with many countries which provide for transfer of nuclear items, and related information and technology. These transfers will be subject to certain assurances –
 - peaceful use assurance
 - Application of IAEA Safeguards
 - Provision of adequate physical protection
 - Re-transfer condition
- Notified “Guidelines for Implementation of Arrangements for Cooperation concerning peaceful uses of atomic energy with other countries, 2010”
- These guidelines mandate –
 - Requirement of authorisation
 - Reporting requirement of transfers
 - Recognition and verification of transfer, and
 - Compliance with the provisions of the Guidelines.

Nuclear Activities: Other Legal Provisions

Nuclear Industry Reserved for Public Sector

- Schedule 1 of DIPP notification (S.O. 477 (E) of 1991 as amended by S. O. 2630 (E) dated 19.10. 2010

■ Atomic Energy

- 1) Production, separation or enrichment of special fissionable material
- 2) Production of Heavy Water, Tritium, Radium-226, Enriched Boron, and Alpha emitting radio-nuclides.
- 3) Operation of following facilities –
 - Uranium and plutonium conversion facilities
 - Fuel fabrication facilities
 - Enrichment facilities
 - Nuclear reactors
 - Reprocessing facilities
 - Spent fuel and radioactive waste management facilities

PENAL PROVISIONS

■ WMD Act 2005:

- Graded punishment ranging from fiscal penalty to imprisonment (up to life imprisonment)

■ AE Act 1962

- Contravention of provisions attract punishment with imprisonment (up to five years, or with fine, or both)

■ FTDR (amendment) Act 2010:

- Violation of export licence conditions attracts fiscal penalty as well as imprisonment.

■ Customs Act, 1962:

- Criminal liability under this Act for violations of FTDR Act, 1992 exists which carries punishment of imprisonment or fine, or both.

Summary: Effective Practices

- Strongly worded policy, stringent legislation, appropriate control list or membership of Regime /Treaty are not enough -
 - **Need to cultivate a responsible export control culture**
- Industry awareness, engagement and compliance are pre-requisites for success of any export control system
- Responsible export attitude must be cultivated and encouraged through Government efforts -
 - Better understanding of the laws
 - Training to industry, entities, R&D Institutions and also relevant academia through workshops and seminars
 - Training to government officials engaged in licencing, reviewing, and enforcement
 - Guidance on national export control lists and regulations
 - Awareness on International commitments and agreements
 - Internal compliance plan must for all entities

Summary: Effective Practices

**Adequate
national legislation**

**Education,
Awareness,
outreach, training
and compliance**

**Ability to detect and
prevent illicit shipments**



THANK YOU

Subsequent Related Resolutions

-- Highlights --

■ Resolution 1673 (2006)

- *Invites* the 1540 Committee to explore with States and international, regional and subregional organizations experience-sharing and lessons learned in the areas covered by resolution 1540 (2004), and the availability of programs which might facilitate the implementation of resolution 1540 (2004)

■ Resolution 1810 (2008)

- *Encourages* all States to prepare on a voluntary basis summary action plans, with the assistance of the 1540 Committee as appropriate...

■ Resolution 1977 (2011)

- *Urges* States and relevant international, regional and subregional organizations to inform the Committee as appropriate of areas in which they are able to provide assistance; and calls upon States and such organizations, if they have not done so previously, to provide the 1540 Committee with a point of contact for assistance...
- *Urges* the 1540 Committee to continue...facilitating technical assistance for implementation of resolution 1540 (2004), in particular by... matching offers and requests for assistance, through such means as visits to States, at the invitation of the State concerned, assistance templates, action plans or other information submitted to the 1540 Committee
- *Decides* that the 1540 Committee will conduct a comprehensive review on the status of implementation of resolution 1540 (2004), both after five years and prior to the renewal of its mandate... the first review should be held before December 2016
- *Requests* the 1540 Committee, with the support of the group of experts, to identify effective practices, templates and guidance, with a view to develop a compilation, as well as to consider preparing a technical reference guide about resolution 1540 (2004), to be used by States on a voluntary basis in implementing resolution 1540 (2004), and in that regard, *encourages* the 1540 Committee, at its discretion, to draw also on relevant expertise, including, civil society and the private sector, with, as appropriate, their State's consent

Best Practice Guides; All Operationally Based

- 1 NUCLEAR SECURITY FOR SCIENTISTS AND ENGINEERS
- 2 LEARNING FROM OPERATING EXPERIENCE
- 3 HUMAN RELIABILITY
- 4 EFFECTIVE SECURITY REGULATION AND IMPLEMENTATION
- 5 TRACKING TRANSPORT OF NUCLEAR MATERIAL
- 6 SECURITY OF HIGH ACTIVITY RADIOACTIVE SOURCES
- 7 MAKING SECURITY EFFICIENT
- 8 MODELLING AND SIMULATION IN NUCLEAR SECURITY
- 9 WORKING EFFECTIVELY WITH EXTERNAL RESPONSE FORCES
- 10 GUARD FORCE TRAINING AND MOTIVATION
- 11 SECURITY EXERCISES
- 12 MATERIAL CONTROL AND ACCOUNTANCY IN SUPPORT OF NUCLEAR SECURITY

Best Practice Guides; All Operationally Based

- 13 NUCLEAR SECURITY CULTURE
- 14 SECURITY EQUIPMENT MAINTENANCE
- 15 MANAGING INTERNAL THREATS
- 16 THREAT ASSESSMENT
- 17 SECURITY GOVERNANCE
- 18 ACCOUNTABILITY AND LIABILITY FOR NUCLEAR SECURITY INCIDENTS
- 19 INTEGRATED APPROACH TO NUCLEAR SAFETY AND SECURITY
- 20 SECURITY BY DESIGN
- 21 MANAGEMENT AND DEPLOYMENT OF ARMED GUARD FORCES
- 22 NUCLEAR SECURITY GUARD SELECTION AND RECRUITMENT
- 23 SECURITY OF WELL LOGGING RADIOACTIVE SOURCES
- 24 SECURITY OF IT & IC SYSTEMS AT NUCLEAR FACILITIES
- 25 COMMUNICATING NUCLEAR SECURITY INFORMATION

Main features of UNSCR 1540

- Para 1: General commitment - Not to support non-State actors on WMD relevant activity
- Para 2: Adopt and enforce appropriate effective laws to prohibit non-State actors from carrying out WMD relevant activity
- Para 3: Take and enforce effective domestic controls -
 - a) Effective measures for nuclear material accounting and security
 - b) Appropriate effective physical protection
 - c) Effective border controls
 - d) Appropriate effective national export controls
- Para 6: Effective national export control list
- Para 7: Offer assistance to the States lacking legal and regulatory infrastructure
- Para 8(a)
- Para 8(d): develop appropriate ways to work with industry and public
- Para 9: To promote dialogue and cooperation on non-proliferation
- Para 10: To take cooperative action to prevent illicit trafficking in WMD items

Guidelines for Licensing: SCOMET

- **General Criteria for evaluation of licence applications**
 - National Security considerations
 - Foreign Policy goals and objectives
 - Objectives of global non-proliferation
 - International obligations pursuant to treaties and conventions to which India is a State Party

- **The Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005**

- **Other Criteria / Parameters**
 - Credentials of end-user
 - Credibility of stated end-use
 - Chain of transmission
 - Assessed risk of diversion to terrorists
 - Capabilities of the recipient State
 - Export control measures instituted by the recipient State
 - Applicability of multilateral agreements to which India is a party
 - Appropriate IAEA safeguards arrangements in the recipient State