

Locating India within the Global
Non-Proliferation Architecture:
**Prospects, Challenges and
Opportunities**



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Preface

India has been steadfast in its commitment to non-proliferation: to not engage in the proliferation of weapons of mass destruction and their delivery systems to other states and non-state actors. Its relationship with international non-proliferation regimes, however, has not been without challenges, including with the export control regimes designed to serve the same objectives. Over the last decade, this relationship has changed dramatically. From once being a target of these mechanisms, India is now becoming an active participant. This improvement has been a result of better understanding between India and the international non-proliferation community on the country's role in the global cause. The global non-proliferation community has come to realise that it stands to gain by having in its fold a responsible power with advanced technologies such as India.

This has allowed them to make an exception and welcome India into the global non-proliferation architecture, even though New Delhi is not a signatory to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Many NPT member-states have underscored India's adherence to NPT principles as being more important than its formal status. At the same time, India's approach to the existing global non-proliferation mechanisms also changed in response to the willingness of other states to acknowledge its contribution and unique status.

As India's relationship with the international non-proliferation architecture evolved, so, too, has the global dialogue on India's membership to the four export control regimes – the Nuclear Suppliers Group (NSG), Missile Technology Control Regime (MTCR), Australia Group (AG), and Wassenaar Arrangement (WA). India became a member of the MTCR in June 2016. Its membership application to the NSG is under consideration and it is also preparing to apply for membership to AG and WA.

Based on the objectives of the four export control regimes, this monograph examines the technical requirements for membership and how India fares against them. Though India is now a member of the MTCR, in the interest of comprehensiveness, this monograph also covers MTCR's objectives, functionalities and membership requirements.

Given that these regimes function on the principle of consensus, it remains equally important to understand the political aspects of membership debates in order to grasp why a membership application may or may not be accepted. Decision-making on membership is not only technical; it is also a political process. This leads to larger questions on the objectives of these regimes and understanding them, therefore, becomes vital. This is particularly important in the case of NSG and its relationship with the NPT. Therefore, this monograph also presents an assessment of the ongoing political debates over India's membership application to the NSG, AG and WA, benefitting from the political debate on India's bid to join the MTCR. Finally, building upon the assessment conducted in this monograph, a set of recommendations has been laid out for the consideration of the Indian government, participating governments of the four export control regimes, and the international non-proliferation community.

This monograph is based on findings from primary research, including a study of the guidelines and control lists of the four export control regimes, and India's control list and legislations which form part of its national export control system; interactions with officials from the Government of India; interactions with officials from participating governments of the four export control regimes, including Austria, the Netherlands, Norway, Switzerland and the US; and with national and international non-proliferation and export control experts. Secondary sources such as academic papers and periodicals were also used.

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Abbreviations

AG	Australia Group
BTWC	Biological and Toxin Weapons Convention
CBW	Chemical and Biological Weapons
CPPNM	Convention on the Physical Protection of Nuclear Material
CTBT	Comprehensive (Nuclear) Test Ban Treaty
CWC	Chemical Weapons Convention
DAE	Department of Atomic Energy (India)
DGFT	Directorate General of Foreign Trade (India)
DoS	Department of Space (India)
DRDE	Defence Research and Development Establishment (India)
DRDO	Defence Research and Development Organisation (India)
EU	European Union
FMCT	Fissile Material Cut-off Treaty
FTDR	Foreign Trade (Development and Regulations) Act, 1992 (India)
HCoC	Hague Code of Conduct against Ballistic Missile Proliferation
IAEA	International Atomic Energy Agency
IGMDP	Integrated Guided Missile Development Programme (India)
IMWG	Inter-Ministerial Working Group (India)
INFCIRC	Information Circular (of the IAEA)
ISRO	Indian Space Research Organisation
L&T	Larsen and Toubro
MEA	Ministry of External Affairs (India)
MoD	Ministry of Defence (India)
MTCR	Missile Technology Control Regime

NACWC	National Authority of the Chemical Weapons Convention
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers Group
NSRA	Nuclear Safety Regulatory Authority
SCO	Shanghai Cooperation Organization
SCOMET	Special Chemicals, Organisms, Materials, Equipment and Technology List
SMET	Special Materials, Equipment and Technology List
START	Strategic Arms Reduction Treaty
UNSC	United Nations Security Council
US	United States of America
WA	Wassenaar Arrangement
WMD	Weapons of Mass Destruction



Introduction

India has been seeking to join the four export control regimes – Nuclear Suppliers Group (NSG), Missile Technology Control Regime (MTCR), Australia Group (AG) and Wassenaar Arrangement (WA) – with the objective of integrating itself with the global non-proliferation architecture. These regimes are informal mechanisms wherein participating governments, more commonly referred to as members, coordinate their national export controls in order to ensure that no supply of sensitive items contributes to the proliferation of weapons of mass destruction (WMD) and that transfers of strategic items are not used for any destabilising purpose.

India made a formal application for membership to the MTCR in June 2015 and to the NSG in May 2016. Its membership to the MTCR was approved in June 2016. India's bid to the NSG seat is under consideration and likely to be addressed by the NSG in a time-bound manner. India is yet to make a formal membership application to the AG and WA.

NSG coordinates export controls on items which can be used to build nuclear weapons directly, listed in its Trigger List, and indirectly, in its Dual-Use List. MTCR coordinates export controls on items, listed in its Annex, which can be used in the development of systems to deliver WMD. AG maintains Common Control Lists that include items which can be used to develop chemical and biological weapons. WA, meanwhile, coordinates controls on exports of munitions and dual-use items and technology. Coordination of export controls and their implementation by members of these regimes are voluntary. These regimes function on consensus and are voluntary associations that do not have any mechanism to ensure compliance by their members to the export control guidelines issued by them.

India has since the 1950s acknowledged the need to control exports of sensitive items, the unchecked transfer of which can be destabilising to the international order. While India set up export controls on various categories of these items separately, it was in the 1990s that it decided to merge all its export control policies and practices, bringing them in line with international best practices. Simultaneously, the US government, as one of the key founding members of these regimes, recognised India's role in their strengthening. Aiming to integrate India into the global non-proliferation architecture, Washington initiated civil nuclear cooperation with New Delhi which led to the altering of global rules of engagement on nuclear commerce with the latter. This was captured in the waiver that India received from NSG in 2008, in particular on sections 4 (a), 4 (b) and 4 (c) of the NSG guidelines – granted only to nuclear weapon states under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

Having accomplished the first stage of India's integration into the global non-proliferation architecture, both India and the US identified New Delhi's accession to the four export control regimes as the next logical step. India's interest in becoming member to these export control regimes is multi-faceted. To begin with, membership to these regimes would capture India as a “like-minded” partner on the agenda of non-proliferation. It would allow New Delhi to proactively contribute to global efforts on managing threats of proliferation of WMDs. Meanwhile, by joining these regimes, India will be in a better position to negotiate trade of sensitive items from supplier countries which will be its fellow members.

India's entry into these export control regimes will be significant for the global non-proliferation architecture for a couple of reasons. First, given that India has in the past been one of the targets of these regimes, in particular the NSG and MTCR, India's accession would reflect a major change in both India's and these regimes' approach to each other. With India becoming the 35th member of the MTCR, it consolidates and formalises India's position as a responsible power with advanced missile capabilities. Second, if India gets into the NSG, it will be the only member of the Group that is a non-signatory to the NPT.

There are technical parameters which India will be required to meet in order to join these regimes. These include harmonisation of its national export control list with the lists issued by these regimes, as well as adherence to their

guidelines through its national export control system, among others. Apart from these technical requirements, there exist political challenges to India's entry, addressing which will be important in facilitating India's accession. Much of these political challenges emerge, especially with the case of India's membership to the NSG, from the fact that India is not a signatory to the NPT. An assessment of the relationship between the NPT and the NSG is important in addressing these political challenges. Also relevant would be to weigh the implications and benefits of India's inclusion in these regimes.

In this context, it is important to highlight the various steps that New Delhi has already taken so far. As part of the US-India nuclear deal, India undertook separation of its nuclear facilities, placed its civil nuclear facilities under IAEA safeguards, ratified Additional Protocol to its Safeguards Agreement with the IAEA, tightened the domestic export control measures, and reviewed and updated its Special Chemicals, Organisms, Materials, Equipment and Technology (SCOMET) list to harmonise with those of the export control regimes. Additionally, India joined the Hague Code of Conduct (HCoC) against Ballistic Missile Proliferation, which went on to substantiate and strengthen India's membership application to MTCR, but could also, at a broader level, create a positive momentum as member countries consider India's inclusion into the other three regimes.

This monograph makes an assessment of the prospects of India's inclusion to the export control regimes. It begins by analysing the technical parameters for membership and whether or not India meets them. This includes an examination of India's domestic export control system – both control list and legal framework. The next chapter delves into the political debates on India's membership to the four export control regimes. This takes into consideration the objections to India's accession that are being raised by some members of these regimes. The monograph closes by laying out a set of recommendations for the Indian government and the member countries of these regimes on both technical and political factors assessed, consideration of which could facilitate India's entry into the export control regimes.



Technical Requirements for Membership

The four export control regimes – Nuclear Suppliers Group (NSG), Missile Technology Control Regime (MTCR), Australia Group (AG), and the Wassenaar Arrangement (WA) – have all had the objective of controlling horizontal proliferation of items which, if left unchecked, could destabilise the international system. The mandate and scope of export controls of all these four bodies have been different.

Table 1: Export Control Regimes: A Snapshot

	NSG	MTCR	AG	WA
Year of Inception	1974	1987	1985	1995
Items Controlled	Items required in the making of a nuclear weapon under the Trigger List and the Dual-Use List	Items used in the development of systems which can be used to deliver WMDs	Items used as or in the making of chemical and biological weapons	Munitions and dual-use items and technology
Number of Members as of June 01, 2016	48	35	42	41

Given the varying scope of each of these groups, they have developed and continue to update their respective lists of items on which their members coordinate export controls. However, there are certain overlaps between their lists, details of which are described in this chapter. In order to assess the prospects of India's entry into these groups, this chapter examines the degree of harmony between India's national export control list, called the Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) List, and that of each of the four export control regimes.

Even as the scopes of these regimes differ, they issue guidelines for their members that recommend similar ways to meet their respective objectives. Most important of these guidelines is having a legally based and rigorously enforced national export control system. In order to assess India's status on adherence to the guidelines of these regimes, the following section of the chapter studies India's national export control system, presenting a brief of all pertinent legislations and assessing the level of their enforcement.

Finally, these four export control regimes either consider factors or have set up criteria to admit new members. This chapter discusses these factors and criteria and examines the prospects of India gaining entry into the regimes.

1. Export Control Lists and SCOMET

Origins of India's SCOMET List

India's first formal list of strategic items on which export controls were to be applied was called the Special Materials, Equipment and Technology (SMET) list. The Government of India had set up a small group on strategic export controls. While identification of items by the group, which would be placed in this list, began in 1993, it was only on 1 April 1995 that the list was announced and a license regime on these items was enforced.² Meanwhile, the Department of Atomic Energy (DAE) was working to prepare a list of equipment and substances which would be subject to export licensing by the Department. This list was issued publicly and the DAE licensing was enforced from 1 April 1995. By January 1993, New Delhi had also signed the Chemical Weapons Convention (CWC), thereby undertaking a commitment to notify dual-use chemicals from the three schedules annexed to the CWC. To fulfil its commitment, the Directorate General of Foreign Trade (DGFT), India issued a public notice on 31 March 1993 that included a list of dual-use chemicals, whose exports were either prohibited or permitted under the license regime.

In order to assess the effectiveness of the then existing national export control system, a second group on strategic export controls was set up in 1999. To further enhance the system, the group made certain recommendations which the DGFT then incorporated, among them the decision to establish a list of Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) List. The SCOMET List was issued by the DGFT through a notification dated 1 April 2000 in Appendix 3 to Schedule-2 of the Indian Trade Classification (Harmonised System) (ITC (HS)) Classification of Export and Import Items, 2009-14.³ The export of items in this list was either prohibited or permitted under the license regime. SCOMET List includes eight categories:

Table 2: SCOMET List Categories

Category 0	Nuclear material, nuclear-related other materials, equipment and technology
Category 1	Toxic chemical agents and other chemicals
Category 2	Micro-organisms, toxins
Category 3	Material, materials processing equipment, and related technologies
Category 4	Nuclear-related other equipment, assemblies and components, test and production equipment, and related technology, not controlled under Category 0
Category 5	Aerospace systems, equipment including production and test equipment, related technology and specially designed components and accessories thereof
Category 6	[Reserved]
Category 7	Electronics, computers, and information technology including information security

Over the years, India has updated its SCOMET List to bring it in harmony with the export control lists issued by each of the four export control regimes, an assessment of which follows.

NSG Control Lists

NSG has issued two sets of guidelines, the first of which is for nuclear transfers, published by the IAEA in 1978 as document INFCIRC/254 Part 1. The list of items on which this set of guidelines is applicable is called the Trigger List and it includes “nuclear material; nuclear reactors and equipment therefor; non-nuclear material for reactors; plant and equipment for the reprocessing, enrichment and conversion of nuclear material and for fuel fabrication and heavy water production; and technology associated with each of the above.”

Following India's peaceful nuclear explosion, called the Smiling Buddha, of 1974, the original seven members of the Group decided to set up guidelines which would ensure that nuclear cooperation for peaceful purposes does not lead to nuclear weapons proliferation. The Trigger List issued in 1978 therefore included all items which were directly required for the establishment and operation of nuclear facilities.

However, following the discovery of Iraq's clandestine nuclear activities in the early 1990s, it was realised that there were certain dual-use items that were primarily used for non-nuclear purposes, but they could also be used for developing a nuclear weapon. To address proliferation through acquisition of these dual-use items, NSG issued the second set of guidelines for nuclear-related dual-use equipment, materials, software and related technology. This list was first published by the IAEA in 1992 as document INFCIRC/254 Part 2. The list of items on which this set of guidelines applies is called

the Dual-Use List and it includes “industrial equipment; materials; uranium isotope separation equipment and components; heavy water production equipment; test and measurement equipment for the development of nuclear explosive devices; and components for nuclear devices.”

MTCR Annex

While NSG was established to cover the shortcomings of the NPT in controlling exports of nuclear items, it was recognised that neither NPT nor NSG addressed concerns on proliferation of missile systems which could deliver nuclear weapons. In an attempt to address this gap, MTCR was set up. MTCR Annex has two tiers of items labelled under Category I and II. Category I items include “...complete rocket and unmanned aerial vehicle systems (including ballistic missiles, space launch vehicles, sounding rockets, cruise missiles, target drones, and reconnaissance drones), capable of delivering a payload of at least 500 kg to a range of at least 300 km, their major complete subsystems (such as rocket stages, engines, guidance sets, and re-entry vehicles), and related software and technology, as well as specially designed production facilities for these items.”⁴

Category II, meanwhile, includes dual-use items which have potential usage in the construction of or as sub-components to the items placed under Category I.⁵ Some of the broad set of items from Category II include propulsion components, propellants, structural materials, communications equipment, and avionics equipment.⁶

“Strong presumption of denial” is applied under the MTCR guidelines on export of items listed under Category I. Exceptions to this strong presumption of denial are given on “rare occasions”, where the recipient state is required to provide a statement on end use, which has to understandably be peaceful. The state must also give binding assurance that “the item will only be used for purposes stated.” The exporting state, meanwhile, must “assume the responsibility for taking all steps necessary to ensure that the item is put only to its stated end-use.”⁷ Items falling under Category II can be exported if the export is deemed to not contribute to a “project of concern.”⁸ In determining if a project is of concern or not, MTCR members consider factors such as “the status of the recipient state's missile and space programmes, probability of the export contributing to the missile development programme, and the stated end-use of the item being exported.”⁹

Like under NSG, the inclusion of dual-use items in its Annex diminishes MTCR's ability to differentiate between exports for peaceful purposes and those for the acquisition of missile systems. For instance, the technology and equipment involved in the construction of a space launch vehicle are similar to those needed for an inter-continental ballistic missile. Hurewitz captures this difficulty in differentiation,

noting that “[t]he dual-use nature of space launch technology ensures that virtually all national space launch vehicle programs may be found to contribute to nuclear weapons delivery systems.”¹⁰ In the same vein, Richard H. Speier notes that “[MTCR] makes no exceptions for so-called peaceful vehicles, alleged to be for military purposes other than weapons delivery, or vehicles sought by nations which do not currently have nuclear weapons programs.”¹¹ End-user licenses are therefore again relied upon to confirm that export does not contribute to proliferation of delivery systems that could deliver weapons of mass destruction. There have been, however, instances when transfers have been undertaken without issuance of required license or when recipients have been found violating the end-user license. For instance, during 2002-2006, Parthasarathy Sudarshan, President of Cirrus Electronics LLC (Cirrus) and Mythili Gopal, from Simpsonville, South Carolina, were involved in the illegal transfers of “US microprocessors and electronic components for space launch vehicles and ballistic missile programmes to the Vikram Sarabhai Space Centre (VSSC) and Bharat Dynamics, Ltd. (BDL), two Indian government entities involved in rocket and missile production, without the required licenses.”¹²

AG Common Control Lists

Similar to the NSG vis-a-vis nuclear weapons, the AG was set up in 1985 to harmonise members' national export controls to ensure that exports of chemicals and biological agents, and related equipment, technologies and know-how, do not contribute to the development of chemical or biological weapons. As the Group was established in 1985 following the use of chemical weapons in the Iran-Iraq war, its initial mandate was to limit chemical weapons-related exports. Later, in 1990, AG would expand its scope to include biological weapons-related exports. Items whose exports are controlled as per AG's guidelines are listed in five categories: Chemical Weapons Precursors; Dual-Use Chemical Manufacturing Facilities and Equipment and Related Technology and Software; Dual-Use Biological Equipment and Related Technology and Software; Human and Animal Pathogens and Toxins; and Plant Pathogens.

One of the objectives of the AG has been to assist its members in meeting their obligations under the CWC – Article 1 (a) and (d), and the Biological and Toxin Weapons Convention (BTWC) – Article I and III. All members of AG are parties to the CWC and the BTWC. The scope of the control lists of the AG, however, is beyond that of the CWC and the BTWC. For instance, since AG's objective is to restrict the supply of chemical weapons precursors to a small number of nations of concern, its lists do not include the toxin chemicals but instead the precursors and technologies and equipment used for their development. Consequently, many reactants, which have major industrial utility and which are not included in CWC, are placed in the control lists of AG.

WA Control Lists

The Wassenaar Arrangement was set up in 1995 to control exports of conventional arms and munitions, and dual-use items used in the production of WMD. Soon thereafter, members of the WA decided to expand the scope by including encryption software and related technology into its control lists.

WA maintains two main lists of items on which its guidelines for export control apply –the list of dual-use goods and technology, and the munitions list. Items placed in the list of dual-use goods and technology, formally labelled the “General Technology, General Software and General Information Security” list, are sub-divided under nine categories: Special Materials and Related Equipment; Materials Processing; Electronics; Computers; Telecommunications (Part 1 of Category 5) and Information Security (Part 2 of Category 5); Sensors and Lasers; Navigation and Avionics; Marine; and Aerospace and Propulsion. These items are further assigned labels based on their sensitivity and are categorised as either “sensitive” or “very sensitive.”¹³

The Munitions List has 22 sub-lists of items of (in)direct military utility, including and not limited to: small arms and weapons; ammunitions; bombs; explosives; rockets; missiles; chemical and biological toxic agents; riot control agents; radioactive material; energetic materials and their precursors; armoured and armed vehicles or carriers; vessels of war; aircraft; and UAVs. Some of the items placed under the WA controls lists also fall in the control lists of the other export control regimes like MTCR and NSG.¹⁴

In December 2013, WA brought surveillance and intelligence gathering “intrusion software” under its control lists.¹⁵ This was meant to restrict the ability of oppressive regimes in spying desktops and remote devices of their political opponents and activists, which otherwise resulted in violations of human rights, as demonstrated in the case of DaVinci system, developed by Hacking Team of Italy, and FinFisher, developed by Gamma Group of the UK.¹⁶ This introduction has, nonetheless, created much confusion as many of the penetration-testing software, which are used by cyber security professionals to detect and resolve system vulnerabilities, may also fall under the WA control lists. There has thus been the demand to replace the term “intrusion” with “exfiltration” in the definitions so as to allow differentiation between tools used to test systems and the ones to siphon data and intelligence.¹⁷

SCOMET List Harmonisation

As the US and India began negotiations for an agreement on civil nuclear cooperation, India committed itself to work towards harmonising its policies with the guidelines of the NSG and the MTCR. The 18 July 2005 joint statement by the then US President George W Bush and Indian Prime Minister Manmohan Singh had noted that India

would ensure that “the necessary steps have been taken to secure nuclear materials and technology through comprehensive export control legislation and through harmonization and adherence to Missile Technology Control Regime (MTCR) and Nuclear Suppliers Group (NSG) guidelines.”¹⁸

As has been noted earlier, the larger objective has been to enhance India's ability in strengthening the global non-proliferation architecture. Harmonising SCOMET List with NSG control lists and the MTCR Annex formed part of New Delhi's initial set of commitments. From 2005 till 2008, when India received the NSG waiver from the condition of full-scope safeguards and was allowed to participate in global nuclear commerce, India updated the SCOMET list multiple times.¹⁹ On 5 September 2008, the then Foreign Minister, Pranab Mukherjee “reinforced” India's commitment made in the 18 July 2005 joint statement, stating that “India has taken the necessary steps to secure nuclear materials and technology through comprehensive export control legislation and through harmonisation and committing to adhere to the MTCR and the NSG guidelines.”²⁰ India informed the MTCR point of contact in Paris on 9 September 2008 of its adherence to the guidelines of the regime.²¹ Meanwhile, the US President notified the US Congress that, as per the requirements under Section 104(b)6(B) of the Hyde Act of 2006, India had harmonised its export controls to the guidelines stipulated by the NSG and the MTCR.²²

Having met the initial set of commitments, India expressed its interest in joining the four export control regimes, for which it received support from the US administration, articulated in the joint statement issued by US President Barack Obama and then Indian Prime Minister Manmohan Singh in 2010. To facilitate India's entry into the four export control regimes, it became important to harmonise SCOMET List with the control lists issued by these regimes. While India had completely aligned its SCOMET list with the NSG control lists and continued updating it to keep it in sync with NSG control lists' own updates, there still remained certain gaps vis-a-vis the MTCR annex. These gaps essentially related to “minor non-standardization of item descriptions.”²³ The DGFT issued Notification No. 37 (RE-2012)/2009-2014 on 14 March 2013, the annex to which included the amendments to Category 3 and 5 of the SCOMET List that deal with items from MTCR Annex. The SCOMET updates were acknowledged by the US as vital in facilitating India's entry into the MTCR.²⁴ To incorporate the updates made by MTCR in its Annex in October 2014, the DGFT issued Notification No. 116 (RE-2013)/2009-2014²⁵ on 13 March 2015 that further amended the SCOMET List.²⁶ An official from the US Department of State's International Security and Nonproliferation Bureau affirmed that India's SCOMET List update of March 2015 covered all amendments made in the MTCR Annex following the plenary meeting of October 2014.²⁷ Further, the DGFT issued the latest set of amendments made in the SCOMET List on 29 April 2016.²⁸ The updates were made under Category 0, 3 and 4 which are of relevance to the NSG, AG and WA.

With regard to the AG, it is important to note that as signatory to the CWC and the BTWC, New Delhi has fulfilled its commitments made under the two conventions. However, given that AG's control lists go beyond those of the two conventions, there are certain items which have not yet been listed by India in the SCOMET List. For instance, as of 29 April 2016, when India introduced the latest set of amendments to the SCOMET List, the List did not include toxic gas monitoring systems and their dedicated detecting components mentioned in AG's control list of dual-use chemical manufacturing facilities and equipment and related technology and software. Furthermore, 25 chemical weapons precursors have not yet been brought under the SCOMET List, including Methylphosphonyl Difluoride, 3-Hydroxy-1-Methylpiperidine, 3-Quinuclidinol, 2-Chloroethanol, Dimethylamine and Potassium Fluoride.²⁹ Similarly, on items related to biological weapons, the SCOMET List does not include P3 or P4 containment facilities (equivalent to BSL3 or BSL4 labs), fermenters, centrifugal separators, cross flow filtration equipment, freeze-drying equipment, aerosol inhalation chambers, and spraying/flogging systems.³⁰

Given the wide industrial usage of these precursors, their inclusion in the SCOMET List may affect concerned businesses in the short term.³¹ But the Indian government has made it clear that it seeks to be a responsible stakeholder in the global non-proliferation architecture and will take all necessary steps to continue restricting proliferation, in this case, of chemical weapons. It is therefore a matter of *when*, and not *if*, these precursors get added to the SCOMET List.

Simultaneously, albeit with less vigour, India has begun efforts to bring its national export controls to the standards of the WA. For instance, in August 2015, India announced a list of 16 categories of defence equipment on which its domestic export controls would be applicable.³² Though it is a positive start, there remain a few issues. As noted earlier, one of the issues with the WA control lists is that many of its items are also included in the NSG control lists and the MTCR Annex. To deal with this overlap, the European Union Dual-Use Control List, for instance, places all WA dual-use items in its list first and those that overlap with the lists of the NSG and MTCR are not repeated. Remaining NSG and MTCR items are placed as 200-series and 100-series, respectively, in the EU dual-use control list. In India's case, however, given that it has already brought items from NSG control lists and the MTCR Annex into the SCOMET List, it will have to identify non-overlapping items from the WA control lists and place them in a separate category.

Another challenge would be with regard to the inclusion of "intrusion software", which was placed under category 4.A.5 of the General Technology, General Software and General Information Security list of the WA in December 2013. Assessment of the updates in WA control lists with regard to intrusion software reveals that the update does not restrict the export of intrusion software per se, but the controls are to be

applied on the command and delivery systems that implant or correspond with the intrusion software. The Department of Commerce of the US interpreted this WA control lists update as that while “the exploit codes, which are used to implant malicious tools including intrusion software in vulnerable systems, would be controlled, the exploits themselves would not be.”³³ Interpretation of this particular update of the WA control lists has, consequently, been a subject of heated debate worldwide. In India as well, subject experts have argued that the update is counter-productive.³⁴ As India begins harmonising the SCOMET List with the WA control lists, it will be important for New Delhi to define the intrusion software in a way that does not bring defensive and vulnerability-testing software under export controls.

2. Legal Framework for Export Controls

Legislations

India's national export control system is based on a sound legal framework and is being enforced stringently. The numerous legislations pertaining to export control include the Foreign Trade (Development and Regulations) Act of 1992 and its 2010 amendment; Atomic Energy Act of 1962; Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act of 2005; Chemical Weapons Convention Act of 2000 and its 2010 amendment; Customs Act of 1962; Environment Protection Act of 1986; Narcotic Drugs and Psychotropic Substances Act of 1985; and Arms Act of 1959 and the Arms Rule of 1962.

The Atomic Energy Act of 1962, a key legislation, provides “for the development, control and use of atomic energy for the welfare of the people of India and for other peaceful purposes and for matters connected there with.” This Act enables the Department of Atomic Energy to control exports of nuclear goods, technology and services. Another crucial legislation is the Foreign Trade (Development and Regulations) (FTDR) Act of 1992 and its 2010 amendment,³⁵ whose objective is to facilitate general imports and exports. Under the 1992 version, the licensing regime imposed by this Act applied on limited items. The 2010 amendment expanded the scope of the Act by widening “the ambit of dual-use controls.”³⁶ There is also the Chemical Weapons Convention Act of 2000, which imposes controls on export of all sensitive chemicals. Through this Act and its 2010 amendment, India has implemented its commitments under the CWC.

The most recently introduced legislation in the Indian national export control system is the Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act of 2005, more commonly known as the WMD Act.³⁷ This Act was passed to implement India's obligations to the UNSC Resolution 1540,³⁸ the

objective of which is to prevent proliferation of sensitive technologies which may end up getting used for the development of WMD by non-state actors. As noted in a speech by former Foreign Secretary Ranjan Mathai at the National Export Control Seminar on 18 April 2012, “WMD Act of 2005 incorporated into national legislation key international standards in export controls, covering technology transfers, end-user or “catch-all” controls, brokering, transshipment and transit controls.”³⁹

To enforce export controls, India has passed the Customs Act of 1962. This Act gives the Customs Department the authority to enforce export controls at India's international borders. Section 113 of the Customs Act gives the Department officials the authority to confiscate goods from the SCOMET List that are being exported in violation of the provisions of FTDR Act, CWC Act and WMD Act.

License Regime and Enforcement

The DGFT is the nodal agency that coordinates implementation of export controls and issuance of licenses for export of items from the SCOMET List. This is done with the coordination of various government agencies including the Ministry of External Affairs (MEA), Ministry of Defence (MoD), Defence Research and Development Organisation (DRDO), Department of Space (DoS), Indian Space Research Organisation (ISRO), Department of Atomic Energy (DAE), National Authority of the Chemical Weapons Convention (NACWC), Department of Chemicals and Petrochemicals, Department of Biotechnology, as well as intelligence agencies.⁴⁰

A license application submitted by the exporter is first forwarded to the concerned government agency. After the concerned agency issues a no-objection certificate (NOC), the application is sent to the Inter-Ministerial Working Group (IMWG), whose core group is composed of representatives from the MEA, DGFT, DRDO, DAE, DoS, and Department of Customs. The decision of the IMWG, which is consensus-based, is issued as an export license which will carry specific conditions for the prospective exporter to fulfil, including an end-user certificate. This must certify that “the item will be used only for stated purpose and that such use will not be changed, nor items modified or replicated without consent of Government of India; neither the items nor replicas nor derivatives thereof will be re-transferred without consent of Government of India; and end-user shall facilitate such verifications as are required by Government of India.”⁴¹ If IMWG fails to reach a consensus on a particular export license application, the case is referred to a “higher-level committee” for a final decision.

This licensing mechanism applies on items from all categories of the SCOMET List with the only exception of Category 0 (nuclear items). All export license applications for Category 0 items are submitted directly to the DAE, which in turn issues NOC and

export license after considering factors like the exporter's track-record and end-user information provided by the exporter.

As explained earlier, Indian Customs is responsible for the enforcement of export controls, under the mandate given by the Customs Act of 1962. Section 113 of the Act gives Customs officials the authority to confiscate goods if they are being exported in violation of export control provisions applicable to the SCOMET List items through the legislations discussed above. Moreover, an exporter found to be violating India's export controls is slapped a penalty as per the provisions under Section 114 of the Customs Act. Customs officials are stationed at all exit points of the country. In order to ensure effective enforcement of export controls, the Indian Customs Department has created a Risk Management System, which is "an IT driven system with the primary objective to strike an optimal balance between facilitation and enforcement and to promote a culture of self compliance in customs clearances."⁴²

3. Factors and Criteria for Membership

The four export control regimes have defined parameters based on which they make decisions on admitting new members. Of these four, NSG and MTCR have defined *factors* which members of these groups consider in making their decision on including new members, whereas AG and WA have defined *criteria* for membership.

Factors defined by NSG, set forth in its procedural arrangement, are "the ability to supply items (including items in transit) covered by the Annexes to Parts 1 and 2 of the NSG Guidelines"; "adherence to the Guidelines and action in accordance with them"; "enforcement of a legally based domestic export control system which gives effect to the commitment to act in accordance with the Guidelines"; "adherence to one or more of the NPT, the Treaties of Pelindaba, Rarotonga, Tlatelolco, Bangkok, Semipalatinsk or an equivalent international nuclear non-proliferation agreement, and full compliance with the obligations of such agreement(s)"; and "support of international efforts towards non-proliferation of weapons of mass destruction and of their delivery vehicles."⁴³

Meanwhile, MTCR members consider factors such as "whether a prospective new member would strengthen international non-proliferation efforts, demonstrates a sustained and sustainable commitment to non-proliferation, has a legally based effective export control system that puts into effect the MTCR Guidelines and procedures, and administers and enforces such controls effectively."⁴⁴

The AG, on the other hand, has defined criteria for membership. These criteria include, but are not limited to: "A commitment to prevent the spread of CBW

proliferation, including being a party, in good standing, to the Biological and Toxins Weapons Convention and the Chemical Weapons Convention; Being a manufacturer, exporter or trans shipper of AG controlled items; Adopting and implementing the AG Guidelines for Transfers of Sensitive Chemical or Biological Items; Implementing an effective export control system which provides national controls for all items on the AG common control lists and is supported by adequate licensing and enforcement regimes; Creating legal penalties and sanctions for contravention of controls and being willing to enforce them; Creating relevant channels for the exchange of information including: accepting the confidentiality of the information exchange; Creating liaison channels for expert discussions; Creating a denial notification system protecting commercial confidentiality; and Agreeing to participate in the AG in a way that will strengthen the effectiveness of the AG in preventing CBW proliferation.”⁴⁵

Similar to the AG, the eligibility of a country to become a member to the WA is based on criteria including: “whether it is a producer/exporter of arms or industrial equipment respectively”; “whether it has taken the WA Control lists as a reference in its national export controls”; “its non-proliferation policies and appropriate national policies, including adherence to non-proliferation policies, control lists and, where applicable, guidelines of the Nuclear Suppliers Group, the Zangger Committee, the Missile Technology Control Regime and the Australia Group, and through adherence to the Nuclear Non-Proliferation Treaty, the Biological and Toxicological Weapons Convention, the Chemical Weapons Convention and (where applicable) START I, including the Lisbon Protocol”; and “its adherence to fully effective export controls.”⁴⁶

Irrespective of whether admission is based on consideration of factors or of criteria, all of the four export control regimes follow the principle of consensus. All members must agree on admitting a new member; this is, essentially, a political decision, though informed by specific factors and criteria. As the analysis in the following chapter shows, there are numerous external factors that also affect the political decisions of these regimes in admitting new members.

Table 3 outlines the factors/criteria that are considered by the four export control regimes in admitting a new member. The language has been simplified to facilitate assessment.

Table 3: Parameters for Membership to Export Control Regimes

Sl. No.	NSG	MTCR	AG	WA
	Factors	Factors	Criteria	Criteria
1	Ability to produce/export items controlled by the body	Ability to produce/export items controlled by the body	Ability to produce/export items controlled by the body	Ability to produce/export items controlled by the body
2	Adhere to the guidelines issued by the body	Adhere to the guidelines issued by the body	Adhere to the guidelines issued by the body	Adhere to the guidelines issued by the body
3	Legally based and enforced domestic export control system	Legally based and enforced domestic export control system	Legally based and enforced domestic export control system	Legally based and enforced domestic export control system
4	Support international efforts on non-proliferation of WMD and their delivery systems	Support international efforts on non-proliferation of WMD and their delivery systems	Support international efforts on non-proliferation of WMD and their delivery systems	Support international efforts on non-proliferation of WMD and their delivery systems
5	Adherence to, in good standing, the NPT or the treaties of Pelindaba, Rarotonga, Tlatelolco, Bangkok, Semipalatinsk	-	Adherence to, in good standing, the BTWC and CWC	(where applicable) Adherence to NSG, Zangger Committee, MTCR, AG, NPT, BTWC and CWC

Four parameters remain common, whether stated as factors, in the case of NSG and MTCR, or criteria, as with AG and WA. First of them is the ability to produce and/or export items controlled by each of these regimes. As far as production and supply of items controlled by the NSG is concerned, India has already made it clear that it intends to rise in the global supply chains of nuclear and related items. As noted by Srikumar Banerjee in his address to the 55th General Conference of the IAEA on 21 September 2011, India “has rich experience in the entire gamut of activities related to nuclear power plants, which places it in a position to export reactors, equipment and components, as well as services, to the global nuclear energy market.” Items pertinent to the NSG that India could export include “all technologies and infrastructure

relevant to small and medium sized [Pressurised Heavy Water Reactors] PHWRs of 220 MWe, 540 MWe and 700 MWe capacities.”

Similarly, it has been well established that India possesses the capabilities for the indigenous production of missile systems and their components. The country has a strong space programme, run by the Indian Space Research Organisation (ISRO), and has the ability to launch satellites into outer space. Meanwhile, its missile programme has been a success, in particular the Integrated Guided Missile Development Programme (IGMDP) operated by the DRDO. India has produced ballistic missiles of short-ranges, under the series *Prithvi*, and long-ranges, under the series *Agni*, surface-to-air missiles *Akash* and *Trishul*, and cruise missiles as well. A recent example of India's interest in becoming a missile supplier is the DRDO's decision to transfer technology to develop “a reusable subsonic aerial target system,” called *Lakshya*, to private-sector defence manufacturer Larsen and Toubro (L&T).⁴⁷ India's Ministry of Defence has given the nod for L&T to sell these missiles to foreign militaries, after they receive clearance from it.

As far as items controlled by AG are concerned, India is an established exporter of many of the chemicals and a producer of biological agents (for defensive purposes) covered by the Group. The country's chemical industry is, in fact, a major sector of the economy that includes trade in dual-use chemicals.⁴⁸ Many chemicals, including from the precursor list of the AG, fall within India's chemical trade. For instance, the Triveni Chemical Group sells several chemicals including Pinacolyl Alcohol and Saxitoxin.⁴⁹ Meanwhile, India boasts an expansive and advanced dual-use pharmaceutical industry that involves many of the items placed in the Common Control Lists of the AG, with specific regard to biological weapons.⁵⁰ In order to address concerns regarding the threat of biological attacks, India has set up the Defence Research and Development Establishment (DRDE) under the DRDO, based in Gwalior, Madhya Pradesh.⁵¹ DRDE conducts studies in “toxicology, biochemical pharmacology, and the development of antibodies against several bacterial and viral agents,” to counter threats of diseases like anthrax, brucellosis, cholera, plague, smallpox, viral haemorrhage fever, and botulism.⁵² With regard to the WA, considering that many of the items controlled by the Arrangement also fall within the MTCR and NSG's lists, India, as supplier of items covered by the latter two becomes a producer/exporter of the items covered by WA as well. This includes items from both the munitions lists and the dual-use lists.

The second parameter shared in common by the four export control groups is the need for adherence to the guidelines issued by each of the bodies. As has been examined in the previous sections, India has already adhered to the export control guidelines on items controlled under the NSG and the MTCR. However, with respect to the AG and the WA, there remain certain items that have not yet been included in the SCOMET

List, like 25 chemical weapons precursors and intrusion software. Therefore, India has yet to fully adhere to the export control guidelines issued by AG and WA on their items.

The third common parameter is having a legally based and enforced export control system that puts into effect the guidelines of these regimes. As examined in the previous section, India has in place an effective export control system which has a legal basis and is being rigorously implemented. Given that certain items from the Common Control Lists of the AG and the control lists of the WA remain outside the SCOMET List, the domestic export controls of India do not apply on these items. However, the framework for implementation of export controls on them is in place and it is a matter of when these missing items get included in the SCOMET List that India will have met both the second and the third parameters vis-à-vis the AG and the WA.

On the fourth parameter, India's support to international efforts on nuclear non-proliferation has been well recognised. India has signed and ratified BTWC and CWC. It has also ratified the Vienna Convention on the Physical Protection of Nuclear Material (CPPNM), including the amendment of 2005.⁵³ New Delhi has further fulfilled its obligations under the UNSC Resolution 1540 through its WMD Act of 2005.⁵⁴

In a 2011 food-for-thought paper on India's NSG membership prospects, for instance, the US government noted that one of the most important factors in consideration of a new member is its support for international efforts on nuclear non-proliferation and that the US government's assessment on the same allows it to call India a "like-minded" partner.⁵⁵ Recently, at the final Nuclear Security Summit held in Washington DC from 31 March to 1 April 2016, Prime Minister Narendra Modi expressed India's commitment to undertake certain steps that will further enhance the level of nuclear security in the country and help strengthen international standards on the related fronts. For instance, India has signed onto the IAEA's INFCIRC/869, which institutionalises "an effective and sustainable international nuclear security regime, based on national commitments and action plans to strengthen the effectiveness of nuclear security measures in general." While signing onto INFCIRC/869 will certainly assist New Delhi in meeting the intent of IAEA's nuclear security recommendations, it is also being viewed as a measure that will strengthen nuclear security internationally.⁵⁶

The final parameters are those of adherence to international treaties and conventions related to the mandate of each of the export control bodies, respectively. In the case of NSG, the parameter here refers to the "adherence to one or more of the NPT, the Treaties of Pelindaba, Rarotonga, Tlatelolco, Bangkok, Semipalatinsk or an equivalent international nuclear non-proliferation agreement, and full compliance with the obligations of such agreement(s)." India has not signed the NPT and thus does not

meet this parameter. It must be noted here, however, that though India does not meet this parameter, it is not required to meet every parameter because the NSG Procedural Arrangement notes them as *factors for consideration*. As has been succinctly captured by certain members of the Group, these factors should not be looked upon as *mandatory* criteria. Thus, if the required consensus is built, then India may be brought into the Group, irrespective of whether it meets all parameters. There have been attempts by some members of the nuclear non-proliferation community to convert these factors into mandatory criteria, which brings to fore questions on NSG's mandate, objectives and its relationship to the NPT. These and other related political issues are examined in the next chapter.

As with the AG, the parameter requires India to be “party, in good standing, to the Biological and Toxins Weapons Convention and the Chemical Weapons Convention.” India ratified BTWC on 15 July 1974 and has since fulfilled all its commitments under the convention. It signed the CWC in 1993 and ratified the convention in 1996. Fulfilling its commitments under CWC, India declared its chemical weapons stockpile in 1997 and by 2009 it completed the destruction of the entire stockpile, becoming only the third country to do so.⁵⁷

The final parameter listed in the table under WA, though a criteria, acts more as a factor for consideration given the use of “where applicable” in the language. Against this parameter, India fares well. It is an adherent to the guidelines of the NSG and now a member of the MTCR. It has signed and ratified the BTWC, and CWC. With regard to the NPT and the Zangger Committee, the parameter begins with the caveat, “where applicable”, and since India is not a signatory to the NPT, this part of the parameter need not be applicable on India. Of critical importance, too, is the fact that the reference to the NPT under this parameter is strictly regarding “adherence” to the Treaty and there is no reference to an applicant being “party” to it. This is crucial, as it encourages consideration of applicants that adhere to the principles of the NPT, without necessarily requiring them to be signatories to the Treaty –a profile that represents India's good standing in this regard.



The Politics of Membership

1. Basis for India's Membership

India formally began its journey in the domain of export controls in the 1990s, after signing the CWC in 1992. It must be highlighted here that controls on strategic items were separately implemented under the mandate of various legislations described in the previous chapter. Even as different legislations were instituted, India began consolidating these measures under one roof only since the 1990s.

At the same time, India's approach to the global non-proliferation architecture, of which export control regimes have been part, began evolving. The most notable shift was in the nuclear realm. For instance, in 2000, the then Minister for External Affairs, Jaswant Singh, while addressing the Parliament on NPT Review Conference, established India's open support to the NPT.⁵⁸ He noted that though India could not join the Treaty, it would continue to adhere to the principles enshrined in the Treaty as a nuclear weapons state and that it would extend its support to the Treaty in the objectives of nuclear non-proliferation. This was a significant pronouncement, given that for decades, India was vocal about its dissatisfaction with the NPT.

Another critical factor which furthered India's integration with the global non-proliferation architecture was the growing strategic convergence between India and the US. Talks on the "Next Steps in Strategic Partnership" in 2003-04⁵⁹ laid the ground for civil nuclear cooperation between the two democracies. A condition which the US President was required to fulfil under the Hyde Act, 2006 – formalising the civil nuclear agreement – was to ensure that India harmonises its export controls with the guidelines of the NSG and the MTCR.⁶⁰

Thus, the first step in India's integration with the global non-proliferation architecture was completed in 2008 when India received the waiver from NSG on the condition of full-scope safeguards for engaging in global nuclear commerce. These exemptions were

made on sections 4(a), (b) and (c) of the NSG guidelines, which are applicable on all non-nuclear weapons states.⁶¹ In return, India was required to separate its civilian nuclear facilities and put them under IAEA safeguards – an understanding that also applies to nuclear weapon states of the NPT.

Having fulfilled its commitments for the NSG waiver, India gaining entry into the four export control regimes – NSG, MTCR, AG and WA – was identified as the next step in India's integration process. This objective was noted in the India-US joint statement issued during US President Barack Obama's visit to New Delhi in November 2010.⁶²

While India has made significant progress in bringing its national export controls at par with the guidelines issued by the four export control regimes, gaining membership into them continues to remain a challenge for New Delhi. The NSG will possibly be the most difficult for several reasons. For one, the presumed NSG-NPT relationship may make it difficult for India. The fact that the NSG was formed in response to India's 1974 peaceful nuclear explosion is also used as argument by those opposed to India's inclusion. Although obtaining entry into the WA and the AG might be easier for India politically, New Delhi, however, seeks clarity on the prospects of its inclusion into NSG prior to it applying for membership to WA and the AG. Despite the political challenges confronting India's prospective entry into the NSG, New Delhi continues to view its membership to the export control regimes in an incremental manner.

Being aware of the political challenges to its membership to the multilateral export control regimes, New Delhi has been reaching out to the members of these regimes with an objective of assuaging their apprehensions. The target of these outreach efforts from both the political leadership and the bureaucracy has been the few specific members of these regimes that remain opposed to welcoming India. Given the sensitivity involved, the agenda is to establish a more nuanced approach to the case of India's membership to these export control regimes. This was the aim, for instance, of President Pranab Mukherjee's 2015 visit to Sweden and Foreign Secretary S Jaishankar's visit to Switzerland in the same year.⁶³ The Prime Minister's visit to Ireland in September 2015 had the same purpose. According to media reports, India's accession to the NSG dominated these state-level discussions. Visits such as these have been useful in creating an understanding that although India remains outside the NPT, it continues to be supportive of the objectives of non-proliferation.

Meanwhile, China continues to oppose India's entry into the NSG – a position derived from political factors which are not related to the non-proliferation objectives which the Group is designed to serve. India, nonetheless, is making efforts to convince China; testament to this is that India's NSG membership was a key item on the agenda of President Pranab Mukherjee's visit to China in May 2016.⁶⁴ There were further efforts by Prime Minister Modi on the sidelines of the Shanghai Cooperation

Organization (SCO) meeting in June 2016 to engage with China on India's entry ambitions into the NSG.

2. US Role in India's Integration

The influence played by the US in these multilateral export control regimes is undeniable. After all, it has had an important role in their establishment. Consequently, the US government carries a major role in India's integration process; its political clout can potentially see India through as a member. There have been a couple of major factors that particularly motivated the US government to ink the civil nuclear deal with India and negotiate the India-specific waiver with NSG members. First was the anticipation of multiple business opportunities within India that would open up for the US civil nuclear industry. Indeed, commercial gain was one of the most important factors in generating domestic political momentum for civil nuclear cooperation with India. There was a realisation that as India's economy grows, so will its demand for energy, to meet which, reliance on nuclear energy would expand significantly. That in turn would open up a huge market for the American civil nuclear industry. The second factor was that of facilitating strategic partnership between India and the US. Over the last two decades, New Delhi and Washington's strategic interests have aligned well, especially in the Asia-Pacific where uncertainty over the implications of China's growing power has raised concerns in both the capitals. From that perspective, the civil nuclear cooperation agreement between India and the US was an indication of the strides the two democracies were taking in strengthening their partnership and furthering their common strategic interests. These factors provided strong impetus for the US government to pursue both the civil nuclear deal and the subsequent NSG waiver.

The US government has continued its support for the next stage of India's integration with the global non-proliferation architecture. In all the joint-statements issued by India and the US since 2010, including in 2011, 2012, 2013, 2014 and 2015, the US government has acknowledged India's efforts towards strengthening the global non-proliferation architecture and has noted that India is ready to be member of the NSG. However, interviews conducted by the authors revealed a sense of pragmatism among serving and former officials of the US Department of State: they are of the view that securing India's membership into these regimes, in particular the NSG, will not be as easy as it was for the US to facilitate the NSG waiver in 2008. This is especially because some of the members of these regimes remain "upset" over the pressure that the US had exerted on them in 2008.

Nevertheless, as the key founding member of these export control regimes, the US retains significant political clout which can help push India's accession. India could

motivate the US government in this process by providing the incentives which drove the US efforts up until 2008. While the two have established strong partnership and continue to make progress on strategic issues, there is room for opening up business opportunities in the civil nuclear sector in India. Issues over liability and the resultant lack of progress in finalising civil nuclear deals have been cited in the US as a reason for the inconsistent levels of American diplomatic energy invested in securing India's entry into the NSG since 2008. The resolution of issues over liability, coupled with active engagement with the US civil nuclear entities, could motivate the US government to pursue India's membership into the export control regimes with greater vigour.

3. Political Challenges

The India-US nuclear agreement of July 2005 serves as a solid foundation, both political and technical, for India's integration into the global export control regime. The clean waiver that was provided to India at the NSG had opened doors for New Delhi, though several hurdles stand in the way, which are explained in the following sections. A few states in particular are unhappy about the US pressure for the 2008 waiver and thus are quite uncomfortable to make yet another exemption for India and facilitate its entry into the NSG. A couple of countries were even more forthright in stating that the 2008 waiver was granted to India, not in recognition of the political reality of accepting India as a nuclear weapons state but for New Delhi to meet its growing energy demands.⁶⁵ These political realities, as well as other pressing bilateral issues, will feed into the member countries' decision on India's membership.

As explained in the previous chapter, these export control regimes function on the principle of consensus. Thus, it could be the case that even if a prospective membership applicant fares well on all factors for consideration with NSG or meets all criteria for membership to AG and the WA, any of the members could block the entry of that applicant because of some other bilateral political issue. This is because apart from factors or criteria, which are derived from the principles and objectives of these regimes, there are external, political factors which have demonstrably influenced membership decisions in these regimes. Before substantiating this argument, however, it is important to analyse the political issues over factors or criteria defined by these regimes on which India does not fare well.

NPT and Non-Proliferation

The only concern flagged over India's entry into the four export control regimes is the fact that India is not party to the NPT. While it is only the NSG that appears to have any relationship with the NPT at all, given that 30 members of the NSG are also members

of other regimes, they tend to look at these regimes with a single broad understanding. Thus, the NPT factor could feature as a *political* factor in their membership decisions. Nevertheless, it must be highlighted that the NPT factor did not figure at all in the determination of India's bid for a seat in the MTCR, and its eventual accession.

While there is near-total endorsement of India's membership among the big powers including the US, UK, France and Russia, this is not good enough. Some of the member countries continue to harbour concerns over India's inclusion in the NSG without it being party to the NPT. These include a few countries from Europe such as Austria, the Netherlands, Switzerland and Norway.

Interviews conducted with government officials and the strategic community from these countries revealed three primary concerns. The main issue was with regard to India's non-NPT signatory status. They argued that "since it is the Group which is upholding the Treaty, including a country that is not party to the NPT into the Group may weaken the Treaty."⁶⁶ The second concern was that if India is to be admitted into the NSG without it being party to the NPT, then New Delhi must undertake additional commitments like signing the Comprehensive Test Ban Treaty (CTBT), pushing the negotiations for the Fissile Material Cutoff Treaty (FMCT), and actively pursuing nuclear disarmament. Thirdly and consequently, these governments raised objections to US President Obama's assurance to India of bringing it into nuclear clubs such as NSG without any additional commitments or conditions. They stressed that NSG runs on consensus and the US government cannot singlehandedly assure India's membership. This objection was built upon their disgruntlement with the US for the pressure it exerted on them for the waiver in 2008.

An assessment of these arguments and objections is a must if this gridlock over India's accession to the NSG and other export control regimes is to be broken down. The concern over India's entry into the Group being detrimental to the Treaty raises questions on the relationship between the Group and the Treaty. Unfortunately, there has been no real debate on this issue, especially with the governments of the Netherlands, Austria and Ireland. Interestingly, France, one of the seven founding members of the NSG, was not an NPT signatory until August 1992. Article III.2 of the Treaty already provides the mandate for export controls of nuclear and related sensitive items. The Zangger Committee was then set up in 1971 with the responsibility to prepare a Trigger List of items whose exports were to be controlled, and to issue guidelines for such exports. In essence, NPT already had the provision and mechanism for export controls. The need for the NSG arose from NPT's shortcomings on memberships, which was quite limited in the 1970s. The case of France succinctly illustrates the argument since it was not a party to the NPT until two decades after the treaty entered into force. Though NPT membership has expanded remarkably since, there are still states outside the NPT which have the ability to supply nuclear and

related items. The NSG is thus uniquely placed in the non-proliferation architecture to keep a check on export-related activities of countries which are not covered by Article III.2 of the NPT and the Zangger Committee.

On the contrary, the argument to keep the NSG membership limited to NPT signatories is flawed. It has been noted that the NSG and the Zangger Committee's export control guidelines differ in nature and scope. But if the prime objective is to retain primacy of the NPT over all nuclear non-proliferation activities, then the NSG mandate would be better delivered through the Zangger Committee, with the Group then dissolved. This would ensure that the entire mandate of controlling exports of nuclear and related items would be managed through the NPT process.

This, however, would not be in the interest of the global non-proliferation community as these export controls would not be applicable on countries outside the Treaty. The argument to keep NSG membership restricted to NPT parties is weak, given that the very idea of setting up the NSG was to go beyond NPT in controlling exports of supplier countries which were not obliged to abide by the guidelines issued by the Zangger Committee.

The other arguments against India's NSG entry are even less convincing. New Delhi has been supportive of negotiations for FMCT based on the Shannon Mandate, which has been blocked by Pakistan. India has also continued to call for nuclear disarmament and a Nuclear Weapons Convention. Even on CTBT, India's basic objection was from the fact that CTBT was another tool of non-proliferation and did not contribute to moving towards global nuclear disarmament. Nevertheless, should the CTBT gain some traction and come up for signature, India may find it in its interest to consider signing the treaty. This is particularly because since 1996, when CTBT opened for signature, a lot has changed in both India's non-proliferation objectives and its national-security imperatives. The fact that India now seeks to support the existing non-proliferation architecture and is a declared nuclear weapons state, makes it timely and important to reassess New Delhi's stand towards CTBT.

The positions of many of these countries evolved prior to and during the Seoul plenary of the NSG held in June 2016. Based on proceedings of the Seoul plenary, these countries can now be grouped in two categories.⁶⁷ First is the group of countries that seeks to include India into the NSG first and, based on India's nuclear record, establish criteria. This group includes Brazil, Mexico and Switzerland. Of these countries, Mexico and Switzerland have gone on record about their support for India during the recent visit of the Indian Prime Minister to these countries.⁶⁸ Meanwhile, based on interactions with officials associated with the NSG plenary, it has come out clear that Brazil, too, is in favour of India's inclusion in the NSG. The second group of countries,

for their part, articulated the need to announce the criteria first and then declare acceptance of India as a member to the NSG in an almost parallel decision. This group includes New Zealand and Ireland.

Though South Africa oscillated between these two groups of countries in its understanding of the order of decision to be taken (on India's membership and criteria), its support to India's membership has been categorical, a point that was reiterated during Prime Minister Modi's visit to South Africa in July 2016.⁶⁹ Meanwhile, Turkey is taking a neutral stand, which in effect means that it does not oppose India's inclusion in the NSG. Except for these countries and China, the remaining 40 members of the NSG are in favour of India's immediate accession to the NSG.

There are key takeaways from the Seoul plenary of the NSG. One, China is categorically opposed to India's entry into the NSG. (A fuller assessment of Beijing's position is made in the following section). Two, the remaining holdouts unanimously favoured India's inclusion in the NSG, although there were procedural differences as to whether the criteria or a decision on India's membership should come first. Three, the criteria that all the holdouts agreed to work upon was essentially of adherence to the principles of and obligations under the NPT and not of NPT signatory status per se. These members also acknowledged that no other country, except India, met these criteria. Four, the US resolve to push for India's inclusion into the NSG is even greater in the face of the Seoul plenary. Had the US not made the pitch at all, it would have been a different story. But given that the Obama administration has invested significant political and diplomatic capital on India's accession, it would want to see it through before the new administration takes office in early 2017. Five, the fallout of the NSG plenary was a reflection of the US-China power struggle is a misplaced notion. There have also been speculations that it is India's closeness to the US that has angered China and shaped Beijing's position at the Seoul plenary. Nevertheless, China's position is not new and, in fact, is merely a continuation of its longstanding policy of blocking India's emergence as a peer. While the US' support for India's inclusion was strong and evident, there were other key players who also did the heavy-lifting for India. Even Russia, which currently enjoys good relations with China, was supportive of India's NSG membership bid. Most importantly, the Indian leadership, including Prime Minister Modi himself, who met Chinese President Xi Jinping and made a personal plea, has been doing much of the outreach in seeking the kind of support that India received at the Seoul plenary. This shows that China's stand at the Seoul plenary was just about India than the larger power play.⁷⁰

It must also be highlighted that countries like the Netherlands and Switzerland, which were apprehensive of India's inclusion in the NSG without additional commitments, have also developed a more nuanced approach. India's outreach with these countries has clearly impacted upon their position which now stands in favour of India's

inclusion without any additional commitments.⁷¹ Norway, too—which earlier had reservations—is now in full support of India's bid. Norwegian Foreign Minister Borge Brende, who travelled to India in November 2015, endorsed India's candidature and underlined the fact that there was “broad consensus for Indian membership ... but regrettably no consensus yet.” A statement from the Ministry of External Affairs issued at that time also said Minister Brende confirmed Norway's support for India's entry into the NSG. Still, many European countries argue that while India's membership to these regimes would be welcome, there are prerequisite steps for New Delhi to take.

Other Political Issues

As argued earlier in this section, unrelated bilateral political motivations appear to bear influence on membership decisions of the parties to these regimes. In the Indian context itself, two cases in the last year alone can provide a succinct illustration.

The first was with regard to India's membership application to the MTCR which was reportedly blocked by Italy during the October 2015 annual plenary of the Regime. The bilateral political dispute between India and Italy over the case of two Italian marines figured as the reason behind Italy's decision. Italy was not required to justify its stand and its representative at the plenary had merely noted that Rome needed more time to take a decision on India's membership application. Media reports prior to the plenary had noted that Italy was expecting India “to go easy on the marines issue in lieu of support for MTCR membership.”⁷²

The second is China's approach to India's membership application to the NSG. Though Beijing claims to be concerned over the ramifications for the NPT if a non-NPT-signatory is admitted to the Group, it is its quest to block India's membership due to external political issues which is driving Beijing's approach. Further worsening India's prospects of joining NSG, Beijing has tagged the case of India's membership to that of Pakistan's. It argues that if a non-NPT-signatory is to be granted membership, then the same could also apply on other such states – the direct reference is to its ally, Pakistan. Having poor non-proliferation credentials, Pakistan is unlikely to obtain the agreement of other NSG members, thus giving China reason to block India's membership. It is ironic that China would justify its objection to India's inclusion into NSG as a “principled” decision, even at the recently concluded NSG plenary at Seoul, given that Beijing itself has repeatedly flouted the NSG guidelines through its supplies of nuclear reactors to Pakistan. For instance, in 2009 China signed agreements to construct two additional reactors—Chashma 3 and 4, justifying it as grand fathering the old agreement, under which Chashma 1 and 2 were constructed.⁷³ Then in 2013, China agreed to build two nuclear reactors in Karachi, offering no explanation for violating NSG guidelines.⁷⁴ Clearly, China's position is not driven with a view to uphold non-proliferation objectives or even the sanctity of NPT, but part of a larger

strategy of containing India within South Asia.⁷⁵ The fact that China was highly vocal in opposing India's case in the run up to the June 2016 plenary made it difficult for Beijing to backtrack from its stated position. Nevertheless, there have been speculations that China is trying to seek a deal, though it remains unclear at what price for New Delhi.

There have been other similar incidents over membership to these export control regimes, where unrelated political factors and interests have driven membership decisions. For instance, a leaked cable published by the *Telegraph* over Latvia's quest for entry into the MTCR had noted that "Russia is lobbying for Kazakhstan's acceptance into the Australia Group, and that there had been talk about a trade – E.U. support for Kazakhstan in return for Russian support for remaining E.U. countries joining the MTCR."⁷⁶

Thus, it can be concluded that as long as these bodies function on the basis of consensus, any of their members can block the entry of an applicant on an unrelated political issue without having to justify its decision. In the case of Italy blocking India's accession, interactions with officials from the Indian and US governments revealed that nobody was expecting Italy to stand and take such a position, as India had met all technical requirements and fared well on the prerequisite factors established by the Regime.

This raises questions on how "like-minded" the existing members of these regimes are on non-proliferation objectives. If these regimes are to maintain and strengthen their credibility, then their members should prioritise the non-proliferation objectives that are the pillars of these export control regimes. In India's case, therefore, an assessment of how these non-proliferation regimes may gain in their actual non-proliferation remits by admitting India into their fold will be vital in shaping political understanding over New Delhi's membership applications.

4. Implications of India's Accession

Both India and the global non-proliferation regime stand to gain from India's membership. As India grows in its influence and its capacity to export advanced sensitive technology expands, it is in the interest of these regimes to bring India within the tent. And India, too, stands to benefit. Most importantly, from New Delhi's perspective, it will reflect greater recognition of India as a responsible partner of the global non-proliferation architecture. India's objections to the NPT regime reflected not so much an objection to its principles as much as India's place in it. India's political dithering in the 1960s prevented it from testing and joining the treaty as a nuclear weapon state. But India's national-security concerns prevented it from signing on as a

Non-Nuclear Weapon State. It was this contradiction that led to India's anomalous status in the regime, not any objection to the idea of non-proliferation itself. India's record on non-proliferation – better than most NWS – bears this out. By being a member of these regimes, it will also be able to more effectively contribute to the cause of non-proliferation. For instance, India could add to the process of identifying sensitive items whose exports could lead to proliferation of WMD and be a threat to global peace. It will further be able to recognise entities, exports to which could, again, destabilise global order.

A second benefit will be with regard to the access that New Delhi would gain to items controlled by these regimes. A caveat, however, is that membership, by itself, does not guarantee access to all items controlled by these regimes. As noted in the case of MTCR, the regime does not differentiate between exports to partners and those to non-partners. Entry into these regimes would only enhance the probability of India getting access to some of the items controlled, based on the reflection of India as a responsible power, which has a like-minded approach on non-proliferation issues. Any probable transfer to India and exemptions from the guidelines of these regimes would be subject to a prospective supplier's final decision based on whether that transfer to India would be stabilising or not.

On the other hand, India would impose on itself restrictions over its exports of sensitive items. It already continues to do so, even without subjecting itself formally to the regime rules, and albeit without any benefits. As India grows as an exporter in the global supply chains of strategic goods, it may find it in its interest to supply certain items that fall in the ambit of these regimes for strategic reasons. One recent example has been the call for India to supply Brahmos missiles to Vietnam. Though for now India has chosen not to, it may proceed with such transfers if New Delhi is convinced that they will not pose a threat to international security and thus be viewed as a project of concern.

It is here that it becomes important to assess what these regimes would gain by including India into their fold. After staying outside these regimes for a few decades, New Delhi is willing to subject its understanding of “projects of concern” to the perspectives of partners of the global non-proliferation architecture. Without India gaining entry into these regimes, it could still pursue exports which it does not find destabilising but that may or may not be in the interest of the regimes. Given India's growing status as an influential power with advanced technologies, accession of India into these regimes will strengthen the credibility of these mechanisms. Since the export control regimes also stand to benefit from India's inclusion, members of these regimes must weigh these benefits over their political considerations. In the absence of such an approach, these regimes stand to jeopardise their own credibility.

Conclusions

India has maintained a strong anti-proliferationist stand despite not being a signatory to the NPT. It has lived by the two key principles that are enshrined in the treaty – not to transfer nuclear weapons technology or know-how to countries which do not possess them, and to further the cause of nuclear disarmament. Indeed, on both these counts, India scores far better than even countries that are signatories to the NPT. The fact that India did have the opportunity to proliferate in the past and it chose not to do so is a testament to this Indian commitment, and it is this impressive track record that has aided New Delhi in finally getting the India-specific waiver at the NSG in 2008.

Despite India's strong interests in, and adherence to the cause of non-proliferation, New Delhi's role in actively tackling proliferation cases such as those involving North Korea and Iran has been limited because it remains outside the tent. But given India's record on non-proliferation and also the potential for New Delhi to emerge as a major supplier of advanced nuclear and other sensitive technologies, it should be in the interest of the regime to embrace India. At the same time, India also has interests in joining these clubs because even as it is already compliant with the rules and regulations of these regimes, to formally become part of them could strengthen New Delhi's credibility in the area of global governance.

Several conclusions can be drawn from this study. The first major conclusion is that India has a fairly robust domestic export control system which is legally based and is rigorously implemented. India has made continuous effort to review and update its SCOMET List to keep it in harmony with the NSG Trigger and Dual-Use lists and the MTCR Annex. With regard to AG and WA, India is still to harmonise the SCOMET List with their respective control lists. In the case of AG, there remain some chemical weapons precursors which are still not included in the SCOMET List. Given their heavy industrial utility, chemical industry lobbies have raised objections to their inclusion into the scope of export controls. Meanwhile, on the WA control lists, the

challenge for India will be to separate the items which are already covered in the SCOMET List, through its harmonisation with NSG and MTCR control lists. Another, equally important challenge would be to define “intrusion software” before it is added to the SCOMET List as that would have serious implications for many defensive penetration tools used for vulnerability assessments. However, New Delhi has made it clear that it would completely align its domestic export controls with those of the regimes. It has been the recognition of political challenges to India's entry into NSG which has driven New Delhi to prioritise its accession into the NSG. It is only a matter of time before India harmonises its SCOMET List to meet the technical requirements for membership to AG and WA.

A second major conclusion is regarding the NPT relationship with the NSG. Contrary to popular perception, being party to the NPT is not a prerequisite for gaining membership into the NSG. As far as the NSG is concerned, the Group remains closely associated with the Treaty owing to an overlap of their end-goal of nuclear non-proliferation. While being signatory to the NPT is certainly noted as one of the factors considered for the inclusion of a new member, it is not mandatory. For the other three groups such as the MTCR, AG and WA, NPT is not related at all, if one were to go by the technical requirements. Nevertheless, given the overlap in the membership in these clubs (30 countries are common across the four regimes), countries could be unduly influenced by India's prospective NSG membership and its relationship to the NPT. However, it must be flagged that NPT did not figure at all as MTCR considered and approved India as a participating government.

The third conclusion is that in all these issues, the US' role is critical. Having played a central role in the establishment of the multilateral export control regimes, the US continues to retain significant political clout within these regimes to influence decisions in one way or another. Unless the US makes a serious political investment, it is going to be difficult for India to gain membership into these regimes. The US has to be able to work with some of the troublesome countries in Europe as well as China in conveying a more nuanced approach about India's non-proliferation credentials. Given that these regimes work on the principle of consensus, it is not good enough for India that a majority of countries support India's candidature; every single country counts.

A fourth major conclusion is that India must strengthen its outreach efforts in conveying a better and clearer sense of its export control policies and practices. While reaching out to participating governments of these regimes is important, it must also be recognised that much of the political challenges and opposition to India's accession are raised by non-proliferation civil society actors. Given the influence these actors have had in the decision-making of participating governments, it is vital that India makes efforts to effectively engage with them to create a nuanced understanding on the implications and benefits of India's accession.

The last major conclusion is that India attaches great importance to integrate itself with the global non-proliferation architecture, including its accession into the major technology export control regimes. Accordingly, it has taken several steps, in addition to the mandated technical requirements, that would improve the atmospherics around India's candidature. India recently joining the Hague Code of Conduct against Ballistic Missile Proliferation (HCoC) is a case in point. While India's adherence to HCoC has possibly created an impact on MTCR's decision to include India, it is also likely to improve India's overall non-proliferation credentials, thereby strengthening the case for its inclusion into the other three regimes. On the other hand, it should be in the interests of these regimes to bring India into their fold, as it would allow them to keep a tab on India's supplies of sensitive items they control. India has begun establishing itself as a potential major supplier of strategic goods and technology and it aims to rise in the global supply chain of these items. India already adheres to the guidelines of these regimes and will continue to do so even after gaining membership. However, if it stays outside, the members of the regimes will not have any say in determining whether India's future supplies are "projects of concern" or not. Thus, these regimes stand to gain by including India as a member.



Recommendations

Based on the primary and secondary research conducted by the authors and drawing from the major conclusions laid out in the previous chapter, a set of recommendations has been arrived at. These are directed at the Indian government, the participating governments of the four export control regimes, and the international non-proliferation community.

1. In meeting technical parameters to be able to join AG and WA, the Indian government should proceed with harmonisation of the SCOMET List with the Common Control Lists of the AG and control lists of the WA. As mentioned previously, it is a matter of time before India proceeds in this harmonisation process.
2. Soon after meeting the technical parameters mentioned in the previous point, New Delhi must apply for membership to AG and WA. As has been noted, it was India's concern over the political challenges to its inclusion into NSG and MTCR which drove New Delhi to prioritise them over AG and WA. Now that India has applied for membership to NSG and has joined MTCR, it will be important to pitch in its membership application to the remaining two regimes as well. As flagged earlier, 30 countries are members to all four export control regimes. Though these regimes have their own stand-alone objectives, a majority of members tend to look at them in a single overarching framework on non-proliferation. Now that India is in the MTCR, New Delhi's ability to canvas for greater support for its entry to other regimes from within this club is clearly enhanced. Gaining entry into AG and WA is likely to further strengthen the political understanding of India as a like-minded partner on non-proliferation issues among the leadership in these 30 common countries.
3. Critical for the Indian government, participating governments of the regimes, in particular of the NSG, and the international non-proliferation community

will be to assess the relationship of NSG and NPT. Both the Treaty and the Group have the same objective of nuclear non-proliferation. To that end, the natural understanding which members of the Group have is that the two must support each other. While currently all members of the NSG are signatories to the NPT, a founding member of the Group – France – was not a signatory to the Treaty for nearly two decades following the Group's inception. A related point to consider is that NPT in itself has the provision for regulating exports of its signatories under Article III.2 and the Zangger Committee established in 1971 has since been maintaining and updating both Trigger List and Guidelines. Thus, if NPT already have had the provision to implement export control on its parties then the need to establish NSG and thereby the objective of the Group must be questioned. The analysis presented in Chapter III and the Conclusion of this monograph should inform the debate on the relationship between NPT and NSG.

4. The US government, as key founder of these export control regimes, continues to retain significant political clout in their decision-making. While it has continued to remain supportive of India's inclusion into the export control regimes, New Delhi can provide incentives to Washington to further motivate the latter into pursuing its case for integration into the non-proliferation architecture. India and the US have made remarkable progress in strengthening their strategic partnership in the last decade. American civil nuclear enterprises, however, have gained little business opportunity in India, the prospect of which had driven them to lobby hard for civil nuclear cooperation between the US and India. If the Indian government is able to resolve the ambiguity around its liability provisions and if it actively engages with civil nuclear entities from the US, offering them mutually beneficial business opportunities, then it would certainly motivate the US government to push for India's inclusion into the four export control regimes with greater vigour.
5. The government of India will benefit by actively engaging with members of the export control regimes, in particular those who have remained unsure of the implications of India's inclusion into these regimes. It has been reaching out actively in the recent times, but engaging further with participating governments of these regimes, particularly those that have had reservations or questions on India's inclusion, could strengthen its prospects of gaining membership. Continuous engagement with all members of these regimes on non-proliferation issues will also signal how serious New Delhi is in its commitment to the norms and principles of non-proliferation.

6. Signing CTBT is often raised by aforementioned members of these regimes, in particular NSG, as a step which India could take in order to strengthen its case for membership. The governments of India and the US, on the other hand, have taken the position that India will not take on additional commitments in order to gain membership. The best solution to this issue could be for the Indian government to reconsider its position vis-a-vis CTBT. Indeed, it has been two decades since the CTBT opened for signature. India had then decided to not sign the treaty for two reasons. First, the treaty was a stand-alone non-proliferation tool and it was not conceived in a larger framework with the end goal of nuclear disarmament. Second and consequently, it did not take into consideration India's national security which had to be the priority for New Delhi. However, in the last two decades, India has conducted nuclear tests and declared itself as a nuclear weapons state. It now has a nuclear doctrine which it could use to successfully deter nuclear threats from its neighbour which is a recognised nuclear weapons state. Its position on the existing nuclear non-proliferation architecture has changed, too. From once calling to replace NPT with a Nuclear Weapons Convention, it now has extended its support to the NPT and its objectives, while simultaneously calling to move towards global nuclear disarmament. The time, therefore, is ripe for India to re-examine its position on CTBT. Even if it chooses not to sign the treaty, it could support it by becoming an observer. It could also get access to enormous data generated from the monitoring stations of the CTBTO by allowing the latter to set up few in the country. The recommendation thus is to review its position on CTBT.
7. There is a need to acknowledge that external political factors affect membership decisions in these export control regimes. Numerous examples have been cited in this monograph to that end. Considering the same, New Delhi may find it in its interest to explore external political and economic avenues through which it could use to influence the decision of the members of these regimes on its accession.
8. Though slightly unrelated, India must make progress in clearing the Nuclear Safety Regulatory Authority (NSRA) Bill and strengthening its nuclear security practices further. It must also highlight its nuclear security practices to the global nuclear community in order to change the perception around India.
9. Also of particular consequence is the manner in which the different ministries/departments of government of India coordinate their efforts on the subject of India's membership into the four export control regimes. While items from the SCOMET List fall under the purview of different ministries such as the Ministry of Commerce and the Ministry of Defence, the external interface on India's membership is coordinated by the Ministry of External

Affairs. This calls for greater engagement between all the ministries involved so as to have a unified position that takes into consideration various implications of membership into these regimes.

10. Finally, members of these regimes must take into consideration what they are to gain by allowing India to join them. India already adheres to the guidelines issued by these regimes. But any decision taken by New Delhi to supply sensitive items is subject to its interpretation of whether or not that supply is detrimental to international stability. By including India into their fold, members of these regimes would have the ability to monitor India's supplies and influence New Delhi's perceptions on the implication of those supplies.

Annexure 1



Information Circular

INFCIRC/254/Rev.12/Part 1/Add. 1

INFCIRC/254/Rev.9/Part 2/Add.1

Date: 9 May 2016

General Distribution

Original: English

Communication Received from the Permanent Mission of India to the International Atomic Energy Agency Regarding Guidelines for the Export of Nuclear Material, Equipment and Technology and the Guidelines for Transfers of Nuclearrelated Dualuse Equipment, Materials, Software and Related Technology

1. The Director General has received a note verbale dated 9 May 2016 from the Permanent Mission of India to the International Atomic Energy Agency providing information of India's adherence to, and decision to act in accordance with, the June 2015 versions of the "Guidelines for Nuclear Transfers" including its Annexes (INFCIRC/254, Part 1) and the "Guidelines

for Transfers of Nuclear-Related Dual Use Equipment, Materials, Software, and Related Technology" including its Annex (INFCIRC/254, Part 2).

2. In light of the request expressed in the note verbale, the text of the note verbale is attached hereto. The attachments referred to in the note verbale, which contain an explanatory note titled "India's Adherence to the Nuclear Suppliers Group Guidelines" as well as the current applicable Indian legislation and regulations concerning India's national export control system in accordance with the aforementioned Guidelines, are available electronically on the Agency's official web site (www.iaea.org).

भारत का स्थायी मिशन
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No.Vien/110/8/2016

May 9, 2016

The Permanent Mission of India to the International Atomic Energy Agency (IAEA) presents its compliments to the Director General of the IAEA and has the honour to refer to the letter dated 8 September 2008 of Foreign Secretary, Government of India addressed to the then Director General IAEA conveying India's adherence to the Guidelines and Annexes of the Nuclear Suppliers Group (NSG). A copy of the letter is enclosed with this Note.

India has thereafter updated its export control system from time to time in support of global non-proliferation objectives and to adhere to the NSG Guidelines as per its commitment noted in the NSG document titled "Statement on Civil Nuclear Cooperation with India" which was circulated by the Agency as INFCIRC/734 (Corrected).

India would like to convey its decision to continue to act in accordance with the NSG Guidelines contained in the following documents:

- (xi) The June 2015 version of the document titled "Guidelines for Nuclear Transfers" including its Annexes as reflected on the NSG website and expected to be circulated as INFCIRC/254/Rev. 13/Part 1; and
- (ii) The June 2015 version of the document titled "Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software, and Related Technology" including its Annex as reflected on the NSG website and expected to be circulated as INFCIRC/254/Rev.10/Part 2.

In adopting this decision, the Government of India confirms that, while promoting the country's economic and industrial development, it considers it necessary to

prevent the proliferation of nuclear weapons or other explosive nuclear devices or their diversion to acts of nuclear terrorism, and is aware of the need to separate the issue of non-proliferation or non-diversion assurances from that of commercial competition.

This decision represents a significant contribution to the development of international agreements under which nuclear energy can be developed for the purpose of meeting global energy requirements and, at the same time, counteracting the dangers of nuclear proliferation.

India requests that the Director General of the IAEA circulate to all Member States the text of this Note as well as its attachments that include an explanatory note titled "India's Adherence to the Nuclear Suppliers Group Guidelines" as well as the current applicable Indian legislation and regulations concerning India's national export control system, which are in accordance with the aforementioned Guidelines and the requirements of the NSG.

The Permanent Mission of India to the IAEA avails itself of this opportunity of reiterating to the Director General of the Agency the assurances of its highest consideration.

Vienna, 9 May 2016

The Director General
International Atomic Energy Agency (IAEA)
Vienna



India's Adherence to the Nuclear Suppliers Group Guidelines

1. India adheres to the Guidelines and Annexes of the Nuclear Suppliers Group (NSG). This was formally conveyed to Director General IAEA vide a letter dated 8 September 2008. India's commitment to this effect is also contained in the NSG document titled "Statement on Civil Nuclear Cooperation with India" which was circulated by the IAEA as INFCIRC/734 (Corrected).
2. India's law based export control system has been updated from time to time in support of global non-proliferation objectives and in respect of NSG Guidelines. India would like to further demonstrate its like-mindedness with the objectives of the NSG by implementing export controls that are inter-alia at par with the standards set out in the current NSG Guidelines namely:
 - (i) The June 2015 version of the document titled "Guidelines for Nuclear Transfers" including its Annexes as reflected on the NSG website and expected to be circulated as INFCIRC/254/Rev.13/Part 1; and
 - (ii) The June 2015 version of the document titled "Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software, and Related Technology" including its Annex as reflected on the NSG website and expected to be circulated as INFCIRC/254/Rev.10/Part 2.
3. To this effect, Guidelines for Nuclear Transfers (Exports) issued under the Atomic Energy Act 1962 were updated on 28 April 2016 to reflect the Guidelines in the current NSG Part 1 document. Further, the relevant provisions of the Foreign Trade Policy and the Handbook of Procedures issued under the Foreign Trade (Development and Regulation) Act 1992 mirror the Guidelines in the current NSG Part 2 document.
4. The Schedule of Prescribed Substances, Prescribed Equipment and Technology issued under the Atomic Energy Act, 1962 was updated on 28 April 2016. It is now harmonized with the Annexes to the current NSG Part 1 document (Trigger List).
5. Similarly, the list of Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) issued under the Foreign Trade (Development and Regulation) Act 1992 was updated most recently on 29 April 2016. Category 0 of SCOMET is now harmonized with the Annexes to the current NSG Part 1 document while Categories 3 and 4 thereto are now harmonized with the Annex to the current NSG Part 2 document (Dual Use List).

6. Further, the Agreement between the Government of India and the IAEA for the Application of Safeguards to Civilian Nuclear Facilities and the Protocol Additional to this Agreement has been notified by the Agency as INFCIRC/754 and INFCIRC/754/Adc1 .6 respectively.
7. With these updates, India would like to reaffirm its adherence to the NSG Guidelines and readiness to further support international efforts to prevent the proliferation of weapons of mass destruction and their delivery systems. The current applicable Indian legislation and regulations concerning the national export control system and incidental activities is listed below:
- (i) The Weapons of Mass Destruction and their Delivery Systems (Prohibits on of Unlawful Activities) Act, 2005;
 - (ii) The Atomic Energy Act, 1962 (*re/evnt provisions*);
 - (iii) The Schedule of Prescribed Substances, Prescribed Equipment and Technology issued on 28 April 2016 under the Atomic Energy Act, 1962;
 - (iv) Guidelines for Nuclear Transfers (Exports) issued on 28 April 2016 under the Atomic Energy Act, 1962;
 - (v) Guidelines for Implementation of Arrangement for Cooperation Concerning Peaceful Uses of Atomic Energy with Other Countries, 2010;
 - (vi) Atomic Energy (Radiation Protection) Rules, 2004;
 - (vii) The Foreign Trade (Development and Regulation) Act, 1992 (*relevant provisions*) and The Foreign Trade (Development and Regulation) Amendment Act, 2010;
 - (viii) Foreign Trade Policy issued under the Foreign Trade (Development and Regulation) Act, 1992 (*relevant provisions*),
 - (ix) Handbook of Procedures issued under the Foreign Trade (Development and Regulation) Act, 1992 (*relevant provisions*),
 - (x) List of Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) issued vide notification dated 14 March 2013 and amendments thereto issued vide notifications dated 03 July 2013, 13 March 2015 and 29 April 2016 under the Foreign Trade (Development and Regulation) Act 1992;
 - (xi) The Customs Act, 1962 (*relevant provisions*)



Annexure 2



Information Circular

INFCIRC/734 (Corrected)

Date: 19 September 2008

General Distribution

Original: English

Communication dated 10 September 2008 received from the Permanent Mission of Germany to the Agency regarding a "Statement on Civil Nuclear Cooperation with India"

The Agency has received a communication dated 10 September 2008 from the Permanent Mission of Germany, forwarding a letter from the Chairman of the Nuclear Suppliers Group (NSG) to the Director General attached to which was a "Statement on Civil Nuclear Cooperation with India" adopted by the NSG.

As requested in the communication, the attachment is herewith circulated for information.

Statement on Civil Nuclear Cooperation with India

1. At the Extraordinary Plenary Meeting on 6 September 2008, the Participating Governments of Nuclear Suppliers Group decided that they:
 - a. Desire to contribute to the effectiveness and integrity of the global non-Proliferation regime, and to the widest possible implementation of the provisions and objectives of the Treaty on the Non-Proliferation of Nuclear Weapons;
 - b. Seek to avert the further spread of nuclear weapons;
 - c. Wish to pursue mechanisms to affect positively the non-proliferation commitments and actions of all states;
 - d. Seek to promote fundamental principles of safeguards and export controls for nuclei transfers for peaceful purposes; and
 - e. Note the energy needs of India.

2. Participating Governments have taken note of steps that India has voluntarily taken with respect to the following commitments and actions.
 - a. Deciding to separate civilian nuclear facilities in a phased manner and to file a declaration regarding its civilian nuclear facilities with the IAEA, in accordance with its Separation Plan (circulated as INFCIRC/731);
 - b. Concluding negotiations with the IAEA and obtaining approval by the Board of Governors on 1 August 2008 for an "Agreement between the Government of India and the IAEA for the Application of Safeguards to Civilian Nuclear Facilities," in accordance with IAEA principles, and practices (including IAEA Board of Governors Document GOV/1621);
 - c. Committing to sign and adhere to an Additional Protocol with respect to India's civil nuclear facilities;
 - d. Refraining from transfer of enrichment and reprocessing technologies to states that do not have them and supporting international efforts to limit their spread;
 - e. Instituting a national export control system capable of effectively controlling transfers of multi laterally controlled nuclear and nuclear-related material, equipment and technology;
 - f. Harmonizing its export control lists and guidelines with those of the Nuclear Suppliers Group and committing to adhere to the Nuclear Suppliers Group Guidelines; and
 - g. Continuing its unilateral moratorium on nuclear testing, and its readiness to work with others towards the conclusion of a multilateral Fissile Material Cutoff Treaty.

3. Based on the commitments and actions mentioned above, as reiterated by India on September 5, 2008, and without prejudice to national positions thereon,

Participating Governments have adopted and will implement the following policy on civil nuclear cooperation by Participating Governments with the IAEA-safeguarded Indian civil nuclear program:

- a. Notwithstanding paragraphs 4(a), 4 (b) and 4 (c) of INFCIRC/254/Rev .9/Part I, Participating Governments may transfer trigger list items and/or related technology) to India for peaceful purposes and for use in IAEA safeguarded civil nuclear facilities, provided that the transfer satisfies all other provisions of INFCIRC/254/Part I, as revised, and provided that transfers of sensitive exports remain subject to paragraphs 6 and 7 of the Guidelines.
 - b. Notwithstanding paragraphs 4(a) and 4(b) of INFCIRC/254/Rev.7/ Part 2, Participating Governments may transfer nuclear-related dual—use equipment, materials, software, and related technology to India for peaceful purposes and for use in IAEA safeguarded civil nuclear facilities, provided that the transfer satisfies all other provisions of INFCT RC/254/Part 2, as revised.
 - c. At each Plenary, Participating Governments shall notify each other of approved transfers to India of Annexe A and B items listed in INFCIRC/254/Part I, as revised. Participating Governments are also invited to exchange information, including about their own bilateral agreements with India.
 - d. With a view to intensification of dialogue and cooperation with India, the Chairman is requested to confer and consult with India and keep the Plenary informed of these consultations,
 - e. Participating Governments will maintain contact and consult through regular channels, including the Consultative Group and Plenary, for the propose of considering matters connected with the implementation of all aspects of this Statement taking into account relevant international commitments or bilateral agreements with India. In the event that one or more Participating Governments consider that circumstances have arisen which require consultations, Participating Governments will meet, and then act in accordance with Paragraph 16 of the Guidelines.
4. In order to facilitate India's adherence to INFCIRC/254/Parts 1 and 2 and to remain current in its implementation of the Guidelines, the NSG Chair is requested to consult with India regarding changes to and implementation of

the Guidelines and inform the Plenary of the outcome of the dialogue with India. Consultations with India regarding proposed amendments will facilitate their effective implementation by India.

5. Upon request by Participating Governments, the Chairman is requested to submit this Statement to the IAEA Director General with a request that it be circulated to all Member States.

Endnotes:

1. Thirty countries are members of all the four regimes which is a significant majority. These include Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Korea, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and United States.
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