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Pakistan's Nuclear Security, Non-proliferation & Export Controls Paradigm: An overview

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ABSTRACT

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From combating terrorism to securing its nuclear arsenals, Pakistan has always tried to fulfill its international commitments and obligation as a prudent nuclear state. With a systematized command and control mechanism in place, Pakistan has taken multiple concrete steps to prove its obligation to global peace and security in general and disarmament, nuclear non-proliferation and strategic export controls in particular. This paper aims to highlight some of tangible actions taken by Pakistan to guarantee the safety and security of its nuclear program with particular focus on the introduction and implementation of strategic Export Control mechanism in Pakistan pursuant to UNSC resolution 1540. The purpose is to establish the fact that Pakistan's commitment to WMD non-proliferation, disarmament is at par with international standards and requirements along with a strong safety and security mechanism of its nuclear installation. A fact needs to be acknowledged more by international non-proliferation community. Furthermore, this study underscores Pakistan's ongoing efforts to align its nuclear security measures with evolving global norms, showcasing its proactive stance in countering emerging threats. By maintaining stringent regulatory frameworks and engaging in international cooperation, Pakistan continues to demonstrate its dedication to upholding global non-proliferation objectives. Additionally, Pakistan's robust participation in international forums and its adherence to global treaties further cement its position as a responsible nuclear state.

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1.0 Introduction

A global or international issue is usually defined in terms of its wide-reaching effect beyond the geographical, racial, ethnical, gender or ideological discrimination. Issues like poverty, climate change and epidemic of the magnitude of Covid-19 seems nearest to these criteria of a global issue. World witnessed the actual use of Weapons of Mass destruction (WMDs) which means chemical, biological and nuclear weapons, in two world wars and the level of lethality and destruction carried by these unconventional weapons. Since second half of 20th century issue of WMD proliferation especially of nuclear weapons emerged as a priority security agenda of global implication. The placement of the issue of WMD proliferation alongside the issues likes poverty, human rights, gender discrimination and climate change, is among priority international security challenges. Moreover, disarmament including WMDs, conventional weapons, landmines and small weapons are considered issue of WMD proliferation particularly of nuclear weapons assumed a renewed attention with addition of threat perception of falling nuclear weapons in the hands of non-state entities and extremists, since shocking events of September-eleven. One major source of WMD proliferation is availability of dual-use goods and services. Dual-use goods are generally those items or commodities that can be used for civilian as well as military applications. As it is extremely difficult to ban or restrict those items, products and technologies which have civilian or commercial usage, the only way to ensure their any mis-use or illicit use including WMDs is regulating their exports and ensuring guarantees by end-user that the product or technology being exported will only be used for peaceful purposes. To achieve the export regulations of sensitive goods, countries usually pass certain set of rules and regulations that regulates or control export of certain good and technologies, these set of regulations are commonly called as '*Export Controls*'.

Though the history of putting controls on commodities for certain reasons is quite old yet in context of recent history, the Coordinating Committee for Multilateral Export Controls (CoCom) was created in 1948, may be illustrated as initial concrete step towards formalized structure of multilateral export controls on products of dual-use. A multilateral export control regime is an informal group of seller countries having similar agendas or called as like-minded group, which seek to follow certain common rules and lists of products or items to ensure regulation of those items to stop their use in any instance of spread of weapons of mass destruction and their delivery vehicles (Viski,2018). Currently, four major multilateral export control regimes include;

1. The Wassenaar Arrangement (WA), aims to regulate arms of conventional nature and dual-use items.
2. The Nuclear Suppliers Group (NSG), look after export controls for products or technologies which may use in making a nuclear weapon.
3. The Australia Group (AG), regime for control of chemical and biological technology which can be used for weapon purposes.
4. Missile Technology Control Regime, this regime layout rules for control of rockets and missiles related technologies or any aerial technology capable of carrying WMDs.

One most effective tool to restrict proliferation of WMDs is considered as export controls of dual-use commodities; put in place through guidelines and items list of these regimes. Mostly developed states with high-end technologies were the founding members of these regimes, however over the period of time many suppliers as well as recipient states also became member of these regimes. For instance, NSG, an export control regime to prevent spread of nuclear weapon, established with seven founding member countries in 1974 namely; Canada, West Germany, France, Japan, Soviet Union, UK and USA. Now it has 48 member countries (De Luca, n.d.).

Pakistan first tested its nuclear device in May 1998, as retort to Indian nuclear test thus declaring itself as a nuclear weapon state (SIPRI,2019). Pakistan has played an instrumental role in fighting a combat against global terrorism in line with spirit of achieving global peace and security. Nevertheless, there is a general sentiment that from combating terrorism to security of its nuclear assets, Pakistan's sacrifices and achievement are being downplayed by international community and global patterners in fighting against terrorism. The fact that Pakistan is a country which sacrificed the most in every possible human aspect including human losses, collateral damages, mass displacement, demographic implications, socio-economic turmoil and most important the physiological trauma which headed to radical fragmentation of society, remains underestimated and less-acknowledged by international community. With regard to safeguard of its nuclear arsenals, Pakistan has to face accusations ranging from taking over its nukes by some non-state fanatics to transfer of its nuclear weapon capability to other Islamic states for financial gains or religious affinities etc. (Sabat,2013). Needless to say, that Pakistan has in place a very organized, well instituted, legal command and control systems ensuring that security and safety of its nuclear arsenals is impregnable. Pakistan as a sensible nuclear state always adhered to its national and international commitments with regard to safety obligations and security arrangements of its nuclear arsenals. Not only to the binding commitments, Pakistan voluntarily adhered to many non-binding guidelines just to establish its resolve to the objective of nuclear non-proliferation and disarmament.

This paper aims to highlight some of concrete and tangible steps enacted by Pakistan to guarantee the safeguard of its nuclear program with particular focus on the creation and implementation of strategic Export Control mechanism in Pakistan pursuant to UNSC resolution 1540.

1.1 Research Questions

- What is Pakistan position on issue of nuclear security and WMD nonproliferation keeping into consideration national objective and international obligations?
- What kind of legislative and institutional framework work Pakistan has implemented to ensure nuclear security and nuclear nonproliferation?
- What concrete steps have been taken to enforce export controls measures in the country?

2.0Literature Review

2.1 Nonproliferation and Export Controls in Academic Discourse

Since end of cold war, the efforts of disarmament and nonproliferation gained a sharp attention by peace scholars and policymakers alike. From perspective of human rights to

environmental hazardous caused by radiological emissions to proponents of global zero calling for overall disarmament of nuclear weapons, the issue of WMD proliferation made its way to scholarly discourse, writer belonging to diversified disciplines made valuable contributions to the cause to WMD proliferation. The current review of literature endeavored to highlight some of significant work related to the nonproliferation and more recently export controls. Much scholarly attention was given to understand the causes and underlaying motivations of nuclear proliferation by the states. Realist school of thought so far is considered to best explain proliferation trends based on state insecurities owing to anarchical world order or selfish human motives. Today's realist family includes 'classical realism' as represented by the writings of Thucydides, and the 'realism of human nature' identified in the writings of Morgenthau, best illustrated in *Politics among Nations*.

There is also 'neo-realism' or 'structural realism', as exemplified by the writings of Kenneth Waltz in *Theory of International Politics* the 'offensive realism' promoted by John Mearsheimer's academic contribution in form of *The Tragedy of Great Power Politics*, and a school of neoclassical realism. Each of these variants has contributed or extended the reach of realist school in its own particular way. Each still shares some of the core beliefs of that school. These beliefs include a conviction that the state is a primary actor; that its survival is the basic national interest; and that a strong defense through the maximizing of power is the best mean to guarantee the ultimate aim of state survival. On nuclear proliferation there exists a significant scholarly literature that is especially important for understanding the theoretical framework of trends and behaviors. These works are important for formulating a sound theoretical foundation for analyses of why states proliferate, are refrain from proliferation. Scott D. Sagan, in his scholarly publication, "*Why Do A States Build Nuclear Weapons? Three Models in Search of a Bomb,* presents three alternate theoretical frameworks, which he calls three models for understanding the proliferation phenomena of nuclear proliferation.

Export Control is more like an applied side of nonproliferation. Though diverse range of literature is available on why states seek nuclear weapon along with causes and consequences of proliferation trends, yet little academic literature exists on the topic. Of the existing academic contributions, the work of Cupitt, Grillot & Murayama, *The Determinants of Nonproliferation Export Controls: A Membership-Fee Explanation*, presents an excellent investigation of factors which compel states to enforce export control regulations. The significance of dual-use technology and necessity of export controls is further illustrated in empirical study by Kroenig and Fuhrmann in *nuclear weapons and Coercive Diplomacy*. Umair Hafeez Ghori in his publication *Export Restrictions and Export Controls* provides a holistic explanation and analysis of long debated issue of export controls against export restrictions under legal framework of World Trade Organization (WTO). Another valuable addition is presented by Theory and Practice of export Control, edited by Dai Tamada and Philippe Achillesa, the book uniquely focuses on both theoretical and practical issues of export control combining both theoretical and practical discourse. Despite many other valuable scholarly contributions on the topic of export controls, there is still a wide gap exists in the academic research owing to multiple reasons, few include dynamic nature of topic, sensitive nature of information, diversity of states in terms of resources on enforcement side (Tibor,2001).

2.1 Why Do States Enact Export Controls: A Theoretical Explanation

Since the nuclear weapons were first used to end the World War-II, in 1945, the world has come to realize their immense destructive power. Consequently, predictions were made about the rapid proliferation of this deadly weapon as a tool of power maximization to ensure state survival (Council for a Livable World, 2012). Nuclear proliferation did occur, yet at a much slower pace than early predictions. The number of nuclear weapons states (NWS) only comprised the five powers; the US, United Kingdom, Russia, China, and France as recognized by the NPT in 1968. This number increased with addition of Israel, India, Pakistan and North Korean till 2006. Since then, this number remained constant. Of the four additional countries, India, Israel and Pakistan refused to signed NPT, and North Korea abandoned the treaty before its nuclear tests. As the nuclear proliferation picked pace, efforts to contain this menace also gained momentum. After Nuclear Non-Proliferation Treaty (NPT), numerous other efforts were made in this regard. These included; treaties, conventions, and stringent export control laws. These efforts aimed to strengthen the NPT regime. Besides achieving non-proliferation, these efforts also aimed to prevent an intentional or accidental acquisition of nuclear devices to non-state actors ("UNSC Resolution 1540(2004),"2007). Students of International Relations advanced a range of theoretical explanations as to why any state might seek to acquire nuclear weapons. Even so, the rational for possessing a nuclear weapon rest on a combination of several underlying security and political incentives. Those concerning the security issue rest on the realists' belief in superior power, the assumption that nuclear weapons could be used for deterrence, coercion, and as a weapon of last resort. As for political incentives, these could include enhancing a regime's domestic status; a state's international prestige and the associated leverage, and serve as an affirmation of both authority and influence. This review is followed by a more extensive analysis of the multiple theoretical perspectives frequently considered useful for explaining and understanding the nuclear decision-making of the nuclear-weapons states, be they aspiring, potential or de facto. These theoretical perspectives included traditional balance-of-power model, the logic of which is based on the structural realists' presumption of the omnipresence of security dilemmas.

The cases of nuclear proliferation could be viewed from neo-realist paradigm but it hardly explained cases of nuclear anomalies. The anomalies included; slow pace of nuclear proliferation, cases of de-nuclearization, or states preferred to remain non-nuclear by choice. States adherence to non-proliferation treaties, agreements and protocols along with implementation of non-proliferation tools like implementation of export control regulations also presents a deviation from neo-realist logic of power struggle in anarchical world order. Put simply, the realist's structural constraints provided an inadequate explanation of (non)proliferation puzzle, and the variations in proliferation trends.

An alternative explanation is advanced by the neoliberal institutionalists who focused on the role of institutions as sources of cooperation. Resorting to liberal institutional approach seems the most viable theoretical framework explaining states willingness to adopt and implement effective export control mechanism to ensure WMD proliferation. Like realism, liberalism is a mainstream theory of international politics. The core beliefs of liberals are based on the individual

and economic freedom. Internationalism and institutionalism emerged as key variants of liberal concepts in the liberal schools of thought in Internal Relations theoretical discourse challenging realists' Liberal institutionalism argues that to achieve economic growth and global peace, states should act like societies and follow certain principles of common interests. Contrary to neo-realism, neo-liberalism stresses the utility of cooperative behavior by states in pursuit of mutual gains (Baylis,2011). From Institutionalist view point, a state as the result of a rational cost-benefit calculation chooses to participate in international regimes and play by the rules, since doing so will likely benefit its security, economy, and so on (Potter & Mukhatzhanova,2010). As per neo-liberal explanation states tend adhere to export control rules & regulations when as rational actors they estimate the cost and benefits and realize that benefits of implementing export controls (in terms of strengthen the international reputation to abide by the rules, market reach, and possibility of secure technology transfer) offset the costs (Cupitt , Grillot & Murawam, 2001). Government with a "sense of community" as per institutionalists logic, show an interest in behaving as a respectable and responsible community member regarding following the export control rules and have tendency to ensure a compatible structure in place (Bertsch et al.,1998).

3.0 Methodology

A mixed method approach including both quantitative and qualitative analysis is employed for this research. To better evaluate the nature and concept of the issue a descriptive methodology has been used that helped in understanding the root causes of WMD proliferation trends. To answer the specific research questions posed, an interpretative analysis was used to analyze the current situation and to comprehend the security relationship between the issue of WMD nonproliferation and its implementing tool in form of export controls.

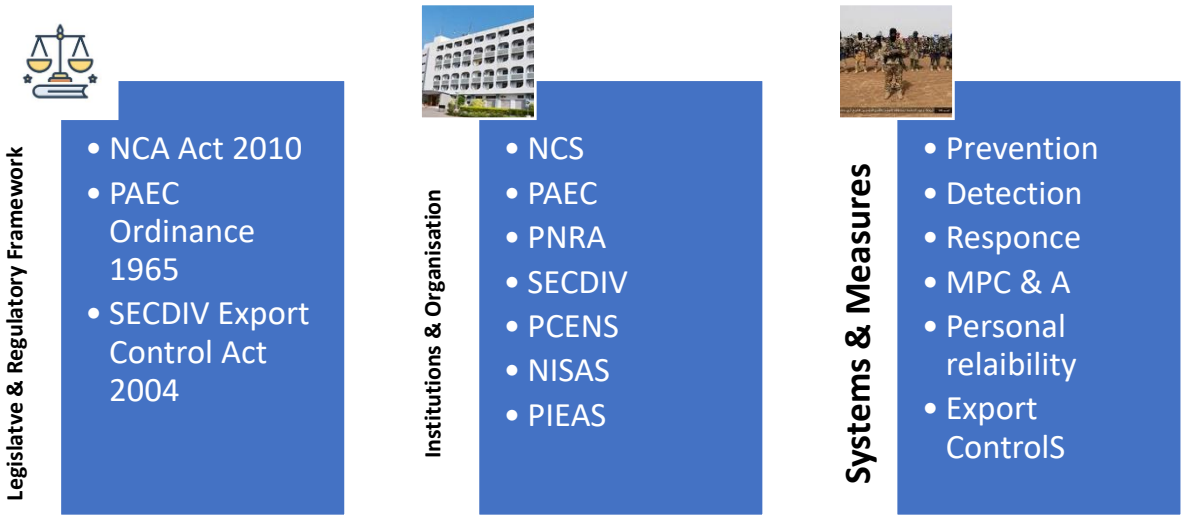
Both primary and secondary sources have been used in this research. The primary sources include official documents, among which are government press releases, hand-outs, policy statements, speeches, and so on. Such documents are particularly helpful in analyzing a state's official position on any particular issue. As for the secondary sources, these include books, articles, journals, newspapers and other relevant material that were deemed useful for this study. In this regard internet and web resources have been explored extensively. The purpose for using these multiple sources is to achieve a clear understanding of the topic under study, and to include a diversity of opinions so as to comprehend the entire scope of the nonproliferation of weapons of mass destruction and export controls as its enforcement tool.

4.0 Findings and Results

4.1 Pakistan's Commitment to Nuclear Safety and Security

Treaty of Non- Proliferation of nuclear weapons (NPT) is a global non-proliferation legal framework, established with the prime objective of containing and as ultimate goal eliminating nuclear weapons from the world. From the onset, however, dividing the world into nuclear *haves* and *haves not* remains one of the major structural constraints of NPT. This power disparity was endeavored to get balance by the articles IV and VI, which state that possession of nuclear energy for civilian or peaceful objectives as 'inalienable right' of the non-nuclear weapon state countries and disarmament with regard to states having nuclear weapons, as eventual goal of treaty (Nuclear Threat Initiative,2022). Its almost universal memberships can be presented as evidence of its

admission by most of the states around the world, irrespective of geographical diversity. Pakistan besides India and Israel never signed NPT for their own obvious reasons mainly defined in terms of national security imperatives as explained by neo-realist structural framework. Pakistan's acquisition of nuclear weapons makes a classic example of power imbalance in presence of an adversary present next door and many times larger in military might both conventional and non-conventional. Needless to mention blood-stained bitter partition history, three full scale wars, geographical amputation in form of East Pakistan, multiple small-scale military offensives, and endless incidences of internal destabilization by adversary's secret agencies. All these security challenges remain a reality-check to defense forces of Pakistan, responsible to ensure state security and survival from any external enemy. Despite all internal and external challenges, Pakistan as a respectful member of global community continues to play a leading role for international peace and security. Pakistan despite a non-signatory of NPT has established an inclusive and active national nuclear safeguard regime, ranging from nuclear and radioactive materials, to related facilities as per spirit of article III of NPT which obligates NNWS to accept safeguard as put-forth by International Atomic Energy Agency (IAEA) on all nuclear materials on their lands or under their possession. Such activities are regularly revision and updating as per national obligations, the guideline document of International Atomic Energy Agency (IAEA) and as per best international practices. Figure below indicates three pillars of Pakistan's nuclear security regime as projected by Ministry of Foreign Affairs' official document titled "Pakistan's Nuclear Security Regime" (INFCIRC/932,2021).



Source: MFA Document Pakistan's *Nuclear Security Regime*

Pakistan has so far taken many steps to fulfill its resolve of ensuring safeguards of its nuclear installations and related resources, few of them as officially illustrated and documented in national report are following; (Pakistan, MFA,2020).

- Pakistan joined the "Nuclear Security Contact Group", in 2019 by adhering principles of the Group.

- Nuclear Regulatory Authority of Pakistan (PNRA), enacted the Regulations on Physical Protection of Nuclear Material and Nuclear Installations. The regulations are based on requirements under the Convention of the Physical Protection of Nuclear Material and Nuclear facilities (PNRA, PAK/925,2019).
- The PNRA has also enacted the "Regulations on Security of Radioactive Sources" which are in accordance with the Code of Conduct of IAEA, on the Safety and Security of Radioactive Sources, and subscribed to its additional Guidance on the Import and Export of Radioactive Sources (PNRA, PAK/926,2018).
- The PNRA has also established the Regulations on Radiation Protection on scrap or recycled items which will have level of radiation higher than natural level (PNRA, PAK/904,2020).
- The cooperation program of IAEA and PNRA is actively working to upgrade and improve the nuclear protection related infrastructure at the national level.

Needless to mention that step mentioned above constitutes only few glimpses of the complete nuclear security landscape of Pakistan. Pakistan's nuclear security regimes has reached to that level of maturity that its nuclear safety officials are providing trainings on implementing a robust nuclear safety framework to many other countries. Officials from PNRA, PAEC and other nuclear safety institutions are being deputed to IAEA, OPCW and many other international non-proliferation institutions and are performing nuclear security services in line with global best practices.

4.2 Strategic Export Controls Framework in Pakistan

Dual-use nature of technology and products make the probability of their misuse or illegal trade quite high, particularly given the similar nature of technologies being used in civilian sector as well as for non-civilian use. To contain use of such dual-use items and technologies, many control regimes were created generally by the producers or exporters of these items. Export controls donate to those set of procedures, mechanism and guidelines which are created to contain or regulate the export of such goods, software and technology. The system of export control regimes constitutes a major component of WMD non- proliferation paradigm. Depending on the nature of use in weapons of mass destruction either few items or technologies are totally controlled or restricted or their export is regulated by defined parameters or thresholds, unanimously agreed upon by the member of these regimes.

There are four important multilateral export-control regimes (MECR) namely; the Nuclear Suppliers Group (NSG), Australia Group (AG), Missile Technology Control Regime (MTCR) and Wassenaar Arrangement. These regimes are voluntary, non-binding arrangements, initiated and established by like-minded suppliers' countries who agreed to put some agreed upon controls on certain military and dual-use technologies. These arrangements have no binding force as in case of UN sponsored treaties like NPT or other Chemical and Biological related conventions. NSG controls nuclear related technologies, AG put controls on chemical and biological related technologies having potential of use in WMDs. MTCR pertains to control with regard to space launch vehicles (SLVs), missiles, or any such airborne vehicles able of delivering such weapons.

Wassenaar arrangement (WA) puts control on transfer of conventional weapons and related dual-use technologies.

Pakistan's implementation of a robust export control mechanism is coincided with UNSC resolution 1540 in 2004. UNSC resolution passed in 2004 call for all member states to "*restrict from aiding in any form of support to non-state entities that help in any way (develop, acquire, manufacture, possess, transport, transfer or use) nuclear, chemical or biological weapons and their delivery systems, in particular for terrorist activities*" ("UNSC Resolution 1540(2004),"2007). As the resolution is passed under chapter seven of UNSC, it necessitates all member countries to make countrywide legislation to

adopt and enforce export control laws and regulations to avoid the spread of weapons mass destruction and their delivery devices, to non-State entities or terrorists.

4.3 Pakistan's Adherence to UNSC Resolution 1540

Soon after 1540 resolution passed in 2004, Pakistan as member of United Nations and in undertaking of its pledge to disarmament and non-proliferation, has introduced a inclusive statutory, organizational and supervisory export control mechanisms in line with guiding principles of UNSC resolution 1540. To fulfill the legislative requirement, an Act called "Export Control on Goods. Technologies, Material and Equipment related to Nuclear and Biological Weapons and their Delivery Systems Act – 2004" was passed by the National Assembly of Pakistan on 14 September 2004. It is pertinent to mention that ground work on the export control legislation started much earlier than 2004 which implies that work on export control framework started much earlier than UNSC adopted its resolution in 28th April 2004. The Act provides a legal base to the government of Pakistan and its enforcement agencies to toughen regulations over exports of sensitive items and technologies of dual-use, related to Nuclear and Biological Weapons and their delivery systems. The Act covers controls over export, re-export, transit, and transshipment of dual use goods, technologies, material and equipment. Detailed lists of items, technologies, materials and tools related to weapons of mass destruction and their delivery systems (commonly called national control list) focus of regulatory regulations were published in 2005 (SECDIV Control Lists,2005). Pakistan occasionally reviews and revises National Control List. Since the initial notification in 2005, the National Control List revised and updated four-time by an inter-ministerial joint working group.

The lists were harmonized with the lists of international regimes, such as the NSG and MTCR.

Under Export Control Act and National Control lists following measures were taken by government of Pakistan to ensure implementation of the 2004 Act in its true spirit;

- A division called "Strategic Export Control Division" (SECDIV) was established in 2007 under Ministry of Foreign Affairs to govern and implement export controls framework.
- SECDIV is the sole licensing Authority for any sensitive dual-use item or product enlisted in control lists. It also has jurisdiction over any such non-listed item which is not included in control lists but can be product of concern to be used in WMD under "catch-all" clause of the Act. It also coordinates enforcement of the Act (SECDIV, n.d.).

- A Board established for Oversight to monitor the implementation of Export Control Act 2004(SRO 693(I)/2007).
- SECDIV soon after its inception framed extensive Export Control (Licensing and Enforcement) Rules as result of extensive interagency coordination and collaboration with all stakeholders (SRO 450(l)/2009). These rules were notified in 2009 and lay out mechanism for licensing and enforcement of Export Control Act.
- In parallel to framing of rules and regulation, to encourage obedience of the Act, SECDIV regularly undertook people-to-people engagements and awareness raising events. Commodity Identification Training (CIT) program is regularly carried for training and capacity building law enforcement forces.
- To guarantee active execution of the export control Act and its guidelines, a detailed document called "Internal Compliance Programme (ICP) Guidelines" was formulated and notified in December 3, 2014. The purpose of the ICP guidelines is to ensure self-regulation to achieve an overall effectiveness of the country's export control system. Through these ICP guidelines, relevant entities are urged to establish enforceable prohibitions against individuals or entities involved in assisting others in acquiring any kind of technology or material used in developing WMDs or their delivery systems. The guidelines aims to assist all relevant entities involved in export chain in evolving an effective system of self-regulation by establishing an effective export compliance program within the organization (*SRO 2(24)/2013-SECDIV(P*).
- A detailed policy guideline document on Strategic Export Controls was formulated and issued on May 25, 2016. This policy guideline document further elaborates following non-proliferation and export control elements, few include non- proliferation principles, strategic export management system, guidelines for export, factors for examining an export applications and details of documents required with export license application (SRO442(I)/2016).
- An inter-ministerial Licensing Review Committee (LRC) for review of license applications was constituted and notified in 2018. The purpose of the review committee is to assess or review or evaluate license applications received to SECDIV and which SECDIV considers to refer to the review committee for the institutional input of the committee in terms of approval or denial of the license application (SRO,412(l)/2018).
- An interagency committee called Coordination, Review and Monitoring (CRM) Committee was established and notified in August 28, 2018 through SRO 1067(I)/2018. The committee was constituted in pursuance to international obligation of UNSC, relating to prevention, suppression and disruption of proliferation of WMDs and its financing (SRO 1067(I)/2018).

Besides formulation of an extensive export control framework in form of policy guidelines and requisite licensing documents, Strategic Export Control Division conducts regular targeted engagement with academia, research organizations, the business circles and people from all strata of life. The aim is to advance consciousness and knowledge with regard to national export control

laws. The Division also arrange workshops, in coordination with the Higher Education Commission, particularly for academia. Pakistan supports the mission of Security Council resolution 1540 and filed reports in 2004, 2005, 2008, 2009 and 2017 on the implementation of the resolution. In addition, Pakistan keeps on submitting national reports in 2009 in this regard. This sixth report submitted by Pakistan, apprise about all additional measures undertook since 2017, to fulfill the required obligations.

5.0 Discussion and Conclusion

Trade of dual-use strategic commodities involves a wide range of actors hence term "nuclear black market" is used to refer to such kind of illegitimate and lethal business. These actors include most important the exporters, importers, end-user, transit entities, transshipment entities, illegal border or shipment channels etc. Nevertheless, strategic export control laws and regulations put foremost responsibility on the exporting entity. Unlike developed western states having reasonable understanding of the concepts of WMD non-proliferation and strategic export control at institutional, administrative, academic and public level, unfortunately, for developing states of South like Pakistan, these terminologies and concepts are not very familiar with general masses or even common law enforcement officials, for certain obvious reasons. Capacity issues in terms of far-furlong border areas with meager utilities and logistics and non-provision of hi- tech and state-of-the art equipment to interdict any such highly sensitive material are few of many other constrain. In presence of these challenges, any genuine effort made by developing states to realize the objectives of arms control and non-proliferation must be acknowledged and given due consideration, such acknowledgement and recognition is vital for further strengthening of non-proliferation efforts.

The actions and steps outlined above are a manifestation of the commitment and contribution of Pakistan to global non-proliferation goals. Pakistan has always supported a region free of nuclear weapons and entirely comply the enforcement of export regulations to avoid misuse of such items for any ultra-virus activities. Keeping in mind security and threat considerations of the country, it is assumed that decisions like NSG wavier to its neighboring nuclear state, more on basis of political than technical reasons, generate a feeling of discouragement and discrimination with regard to efforts of arm controls and non-proliferation in the region.in parallel, there is a need to uphold a balance between technological controls for proliferation concerns at one hand and economic and technological needs of the country at the other, particular belonging to Global South.

Tamknat Fatima Jabbar: Problem Identification and Theoretical Framework

Conflict of Interests/Disclosures

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