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# UNIT 20 NUCLEAR PROLIFERATION

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## 20.1 INTRODUCTION

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The spread of nuclear weapons has been considered a grave threat to the security of the world at large. The debate is not so much about the use of nuclear technology, for the uses of nuclear technology in the development process of any nation has been well accepted. The debate is on the peaceful vs. the military uses of this technology. This debate has complicated over the years as this technology has been acknowledged as being 'dual use' technology and as such it would be difficult to differentiate from the end use for which the technology is pursued. Yet, the debate on the proliferation of nuclear weapons has dominated the writings on international security. The central concerns have been the horizontal and not vertical proliferation of these weapons.

Policies of nuclear proliferation present interplay of two sets of issues: one is the technical and political set of issues and the other relates to the capability and intent of the countries concerned. The technical element in non-proliferation seeks to either deny the critical technical assets to a country that seeks to embark on a nuclear programme or to make these assets available under a safeguard system. This places restraint on the possible use of nuclear technology for

weapons production and ensures that the technology that is transferred or acquired remains for civilian (or confines to) use only. The political component of the system operates at two levels: one that seeks to create an international pressure on the countries to desist from going nuclear and two, provide various incentives and disincentives to countries in the form of economic and other ways to dissuade them from going nuclear. The political component adds on to the technical component in providing a 'political' rationale for not going nuclear.

The capability of a state to go nuclear is dependent on the technical component. The development of nuclear technology and infrastructure that is capable of producing a nuclear weapon is a technical dimension of the problem of proliferation. A nuclear capable state may be technically ripe for nuclear proliferation, but it would be the political intention of exercising the choice to go in for a nuclear weapon that would determine nuclear proliferation. In fact, with the spread of nuclear technology and availability of nuclear material, the decision on whether or not to acquire nuclear weapons would be a political one.

The incentives to produce a nuclear weapon may be listed as follows:

- a) Increased international status: This is a psychological aspect of perceiving to have crossed the 'threshold' and become a 'great power'.
- b) Domestic political requirements or political pressures: These pressures may be visible in both democratic and authoritarian systems of government.
- c) Increased strategic autonomy.
- d) A strategic hedge against military and political uncertainty, especially about the reliability of allies.
- e) Possession of a weapon of last resort.
- f) Bargain or leverage over the developed nations.

The disincentives that may discourage nations from going in for nuclear weapons include:

- a) Resource diversion to nuclear programme may lead to a loss of opportunity to pursue other pressing economic and social priorities.
- b) Adverse national and international public opinion that would reflect on the 'status' of the nation.
- c) Disruption of established or conventional security guarantees provided by some of the great powers.
- d) Infeasibility of developing the required technology and consequently the corresponding nuclear strategy.
- e) Fear of an adverse international reaction that would have an impact on the trade and other relations of the country.

Nuclear weapons programmes usually require a long lead time for countries that have no nuclear infrastructure. Any nation seeking to manufacture nuclear weapons must develop an appropriate source of fissile material. This is a major technical barrier. The core of a nuclear

bomb is made up of highly enriched uranium or plutonium. Fifteen to twenty-five kilograms of highly enriched uranium or five to eight kilograms of plutonium are generally considered the necessary minimum for the core of a multi-kiloton atomic bomb.

A nation seeking to manufacture nuclear weapons must have a source of this fissile material. There are three main approaches that nations take to overcome this barrier: One is by developing nuclear facilities dedicated for the purpose of weapons development. The second is the development of a civilian nuclear programme that is free of safeguards and the subsequent acquisition of sensitive technologies for the development of a nuclear bomb. In case of safeguarded facilities the option may be of diversion of material from civilian facilities. The third option is theft of the raw material or the weapon itself.

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## **20.2 EVOLUTION OF NON-PROLIFERATION POLICY**

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Nuclear non-proliferation policy has emerged through four main stages:

- i) The post-war phase that was characterised by secrecy and efforts to retain monopolistic control on part of the United States as the sole nuclear weapons power in the world.
- ii) The ‘liberal’ policy ushered in by president Eisenhower through the ‘Atoms for Peace’ programme announced in the United Nations in 1953.
- iii) The policy of controls through safeguards came to be sponsored by the nuclear weapon powers to contain the spread of nuclear weapons across the world. This came to be enshrined in the Nuclear Non-proliferation Treaty (NPT) in 1968 and subsequent efforts like the Comprehensive Test Ban Treaty (CTBT) of 1996.
- iv) The reactive phase on part of the nuclear weapon powers in the post Indian nuclear test of 1974 and subsequent testing by India and Pakistan in 1998. This phase saw the creation of the Nuclear Suppliers Club and such other legislation like the Nuclear Non-proliferation Act (1978) of the United States. It also saw the debate shift from technical to political discourse on the utility of nuclear weapons and the impositions of various sanctions against the new nuclear weapon states.

### **20.2.1 US Monopoly**

The main aim of the Anglo-Saxon partners during the Second World War was to win the race to build a nuclear weapon before Nazi Germany. The Soviet Union had been kept out of this nuclear cooperation. The United States, Canada and Britain signed the Quebec agreement in 1943 under which they decided not to communicate any information to third parties without mutual consent. Following the detonation of the first atomic bomb in Hiroshima, they adopted a comprehensive non-proliferation policy towards the rest of the world. There was an agreement not to disclose the practical applications of atomic energy before effective, enforceable safeguards against misuse could be put in place.

The first meeting of the United Nations Atomic Energy Commission received two reports that sought to link the development of commercial nuclear policy and nuclear weapons. The Baruch Plan (1946) proposed the establishment of an International Atomic Development Authority (IADA) to regulate and control all aspects of the development and use of atomic energy. The proposed IADA was to have complete regulatory authority over all nuclear activities that were potentially dangerous to world security and was to have statutory power to control, license and

inspect all other nuclear facilities. The second was the Acheson-Lilienthal Report (1946) that too realised that the current American monopoly over nuclear weapons technology would end sooner or later and that it would be necessary to install mechanisms to control the spread of this technology and the weapons that may follow. It recognised that nations with commercial nuclear technological capability may eventually launch into weapons production and hence proposed the creation of a strong international authority to regulate the commercial development of nuclear energy.

The failure to get either of the proposals adopted led the United States to enact the Atomic Energy Act of 1946 (Public law 585). Under this law the American government obtained title to all nuclear facilities in which fissionable nuclear materials could be manufactured and became the sole proprietor of all fissionable material. The Act classified as secret all information relating to the utilisation of fissionable material for generation of commercial nuclear power and prohibited any sharing of data with other countries. The Canadians and the British viewed this new American policy with suspicion. The British, who had to shift their nuclear research programme to the United States during the Second World War, were upset over the American decision of prohibiting nuclear cooperation with other countries. The British embarked on their own general purpose nuclear programme that eventually came to focus on weapons programme due to political and security consideration. The Canadians who had eschewed the weapons programme did decide to cash in on their technological expertise and the raw material resources that they possessed.

The Soviet Union entered the nuclear field with its first explosion in 1949. The British exploded their first bomb in 1952. The French distrust of the professed American and British commitment to provide it with a security umbrella, defeat in Vietnam and the feeling of economic vulnerability in the post-Suez crisis eventually led them to go in for a nuclear programme that had both, commercial and security considerations. The French entered the nuclear club in 1960. The Chinese entry in 1964 brought in an entirely new dimension to the debate on proliferation, that of a poor Third World country gaining a new status.

The interest in nuclear technology that nations around the world showed in the 1960s came to be based on these two considerations: national security and commercial uses of nuclear technology. This, then, was to become the key issue of anti-proliferation strategy: nuclear powers simply concentrated on denying nuclear technology to non-nuclear powers rather than finding out the 'motivations' behind a nation's interest in acquiring the technology. The efforts by nuclear states to promote institutional mechanisms to limit the spread of nuclear weapons were perceived by the non-nuclear states as self serving attempts to protect the political and/or economic interests of the nuclear powers.

### **20.2.2 Atoms for Peace**

The gradual lessening of international tensions following the death of Stalin and the realisation on the part of the Americans of an end of their nuclear monopoly led to changes in American policy. In 1953 president Eisenhower enunciated his 'Atoms for Peace' programme before the United Nations. Under this proposal the United States, Soviet Union and other countries were to contribute fissile material to an International Atomic Energy Agency (IAEA) which would be responsible for storage and security of this material. The IAEA would then be responsible for providing electrical energy to the world at large. The US Atomic Energy Act was amended to allow for the implementation of this new liberal policy. It took a little time for the political rhetoric to get translated into concrete policy. By 1955 the programme got under way. That year the Argonne Laboratory opened its School of Nuclear Science and Engineering staffed by a

group of scientists from twenty different countries; extensive declassification of papers was undertaken; the first United Nations Conference on Peaceful Uses of Atomic Energy was held in Geneva and the US had negotiated agreements with at least twenty seven nations for nuclear cooperation.

### **20.2.3 Safeguards**

The impetus of the 'Atoms for Peace' programme did not last long. The IAEA came to be established in 1957. The Agency's role in inspection and verification was the key to the idea of 'safeguards' system. The IAEA's function is to seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world and to ensure that assistance provided is not used to further any military purpose. The IAEA safeguards system was based on four main elements: (i) review of the design of nuclear facilities; (ii) specification of a system of records and accounts; (iii) specification of a system of reports and (iv) inspection of safeguarded facilities to verify compliance with the agreements. The IAEA safeguard system is not concerned with the physical protection of nuclear material, or with organisation to anticipate and prevent attempts at diversion to recover stolen or diverted material.

The logic of safeguards that formed the essential thrust of the nuclear policy was the essential ingredient of the problem of control over proliferation. The first level of control comes through detection of diversion of nuclear material from civilian facilities to military use. This is done through series of agreements between the supplier countries and the end users of the nuclear material defining what constitutes 'peaceful uses'. The second level is that of a response to the detection of diversion of nuclear material. Institution of sanctions and recourse to political measures to bring pressure on the country are some of the means to tackle the problem. The third level is laying down restrictions on the supply of nuclear and related material. Supplier agreements are made to ensure that material is not supplied to countries suspect of a weapons programme.

The evolution of international safeguards went through two distinct phases. The first was the pre NPT phase wherein the focus had been on individual countries. The second was ushered in by the NPT that made safeguards a universal norm.

### **20.2.4 Nuclear Non-proliferation Treaty**

The entry of China into the nuclear club transformed the debate on nuclear issues from an East-West Cold War issue that was to be considered mainly by the developed world into a global concern. The earlier focus had mostly been on weapons systems, strategic parity and corresponding geostrategic considerations. Now the focus shifted to the problem of diversion of material from peaceful uses to weapons use. While this concern was expressed in the context of the discussions on the NPT, it was only after the 1974 Indian test that such a direct linkage came to be acknowledged as a reality. The acute concern for control over proliferation and possible safeguards finally led to the creation of the Nuclear Non-proliferation Treaty. The chief motivation of its sponsors, the USA, Great Britain and USSR, was to prevent the further proliferation of nuclear weapons.

The treaty divides the signatories into two categories: those who possess the nuclear bomb (those who possessed it prior to 1 January 1967) and those who did not. It commits the non-weapon states to inspection of their holdings of nuclear materials. The NPT commits them to negotiate safeguard agreements with the IAEA. These safeguards, however, are not binding on the weapon states. In exchange of the commitment by the non-weapon states to refrain from

producing or acquiring nuclear weapons the weapon states agreed to the following: (i) not to transfer nuclear weapons or other nuclear weapon devices and not to assist non-weapon states to acquire such weapons or devices; (ii) to seek discontinuance of all (underground) nuclear tests as a corollary to the 1953 Partial Test Ban Treaty; (iii) to refrain from the threat or the use of force in compliance of the UN Charter; (iv) to develop research production and use of nuclear energy for peaceful purposes and help the developing countries in this regard; (v) to make available to all states the potential benefits from and peaceful uses of nuclear explosions; and (vi) pursue negotiations to end the nuclear arms race and move towards nuclear disarmament.

The NPT became the first step to the construction of an effective international regime designed to halt the proliferation of nuclear weapons. There had been a consensus on the part of the Americans and the Soviets that unfettered proliferation of nuclear weapons would destabilise the international order. This view had not been shared by France and China, who were suspicious of the US-Soviet control over the nuclear weapons. Both the countries did not sign the NPT at the time of its creation.

The non-nuclear weapon states were also critical of the treaty. They perceived this to be a discriminatory treaty. Their main points of criticism were: (i) The asymmetric nature of the treaty provisions that imposed safeguards only on the non-weapons states; (ii) the preservation of commercial interests of the weapon states by providing them the right to explore peaceful uses programme; (iii) the vagueness of the commitments on part of the weapon states; and (iv) the failure to address legitimate security concerns of the non-weapon states.

Until the signing of the NPT the debate about safeguards had been structured within technological parameters and frameworks. The unbalanced nature of the Treaty obligations under the NPT and the universality of its approach resulted in the shift of the debate from the technical to the political arena. Unlike the earlier era, the NPT system of safeguards came to be perceived as an infringement on the political sovereignty of the State. Eventually it was the Indian test of 1974 that refocused international attention to the linkage between peaceful uses and weapons production.

The NPT had provided for periodic review conferences. In 1995 the conference decided to extend the Treaty indefinitely.

## **20.2.5 Suppliers Group**

In 1970, shortly after NPT came into force, a number of countries had entered into consultations about procedures and standards to be applied to the export of nuclear fuel and materials. This group chaired by Claude Zangger, were members of the NPT or were suppliers of nuclear materials. Following the Indian test, several countries informed the IAEA of their intention to enforce the IAEA safeguards on their nuclear exports. This memorandum included a 'trigger list' of materials and items and was to become the first major agreement on the supply list of nuclear materials. Two major issues were discussed: Under what conditions, technology and equipment for enrichment and reprocessing be transferred to non-weapon states; and whether transfers are made to states unwilling to submit to full scope IAEA safeguards.

The Nuclear Suppliers Guidelines of the so called London Club, that eventually emerged included the following: One, nuclear export recipients pledge not to use the transferred material for nuclear explosives of any kind. Two, transfer of sensitive nuclear technology was to come under this safeguards system. However, such a transfer could take place with extreme restraint in



case the facilities were using only low enriched uranium.

In due course, the entire concept of suppliers group came to have a new meaning with the restrictions being placed on transfer of dual use technologies under several regimes instituted for that purpose. In 1987 seven missile technology exporters agreed to establish identical export guidelines to cover the sale of nuclear capable ballistic missiles. This agreement is known as the Missile Technology Control Regime (MTCR). It aims at limiting the risks of nuclear proliferation by controlling the transfer of technology which could contribute to nuclear weapons delivery. In 1992, the Nuclear Suppliers Group in a meeting at Warsaw adopted the Guidelines for Transfers of Nuclear Related Dual Use Equipment, Material and Related Technology.

The Third World in general has been critical of the restrictive measures placed by these guidelines. They have argued that after having accepted the NPT they should have access to nuclear technology for peaceful uses. The Weapon states however point out that even under the NPT system the transfer of technology is not unrestricted and as such would have to be placed under safeguards. These restraints appear to have slowed down the pace of nuclear related developments in the Third World and have also put a restraint on the missile programmes of some of the countries.

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## **20.3 NUCLEAR WEAPONS EXPLOSIONS**

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The question of nuclear weapons explosions has been on the international agenda ever since the 1954 Indian proposal that called for a stand still on testing. This has been one of the means of implementing the non-proliferation agenda. The main treaties that have been concluded in the context of nuclear explosions are:

1. The 1963 Partial Test Ban Treaty
2. The 1974 Threshold Test Ban Treaty
3. The 1976 Peaceful Nuclear Explosions Treaty
4. The 1996 Comprehensive Test Ban Treaty.

The Partial Test Ban Treaty is a multilateral treaty which prohibits any nuclear explosion (including those intended for non-military purposes) in the atmosphere, outer space or under water or in any environment if the explosion would cause radioactive debris in any country. The Threshold Test Ban Treaty is a treaty between the United States and the Soviet Union in which the parties undertook to prohibit, prevent and not carry out any underground nuclear weapon test having a yield exceeding 150 kilotons. The Peaceful Nuclear Explosions Treaty was also a US-USSR bilateral agreement that sought to regulate the explosions which could be conducted outside the nuclear weapons test sites and which may therefore be considered as for peaceful purposes. Both the latter two treaties were, in a sense, additions to the Partial Test Ban Treaty that sought to cover the loopholes of the first.

The Comprehensive Test Ban Treaty (CTBT) was looked at as the most important means to tackle both, horizontal and vertical proliferation. It was claimed that, by banning all explosions, the CTBT would have (a) constrained the development and qualitative improvement of nuclear weapons; (b) end the development of advanced new types of nuclear weapons; (c) contributed to the process of nuclear proliferation and the process of nuclear disarmament; and (d) strengthened international peace and security.

The negotiations on the CTBT in the Conference on Disarmament got bogged down on two contentious issues—that of the scope of the treaty and the verification arrangements. The issue of scope came into discussion because while the CTBT sought to outlaw all nuclear testing (including Peaceful Nuclear tests), some kind of weapon designing could continue, based on sub-critical tests and laboratory simulation. The problems raised in this context related to the defining of the concept ‘comprehensive’. The continuation of laboratory level testing provided an opportunity to the weapon powers to retain their weapons stockpile and also ensure that it is in workable condition by testing them in the laboratory. The differences over verification focused on the agency that was to monitor the implementation. The concern expressed was that if it were a national agency it would constitute an intrusion on the sovereignty of a country, besides the attendant biases of the country. After an indefinite extension given to the NPT in 1995, India linked the signing of the CTBT with a time bound global disarmament programme. Indian view was that the NPT had failed to tackle the question of global nuclear disarmament and the CTBT with its implicit limitations on its scope also did not proceed in the direction of the goal of disarmament. India maintained that the five nuclear weapon powers agree on a timetable for total removal of nuclear weapons as a precondition to its acceptance. The Conference on Disarmament concluded without taking any decision and then the CTBT proposal was placed in the United Nations General Assembly as a Resolution. This was eventually passed in 1996 as a UN resolution.

The acrimonious debates that took place on the CTBT illustrate the dilemma about nuclear proliferation. The key issue was the fear that the nuclear weapons powers sought to maintain a status quo on the number of nuclear weapon states. They were seen as states that sought to deny the non-weapon states their legitimate aspirations that were linked either to their security concerns or their efforts at exploring nuclear energy for peaceful purposes. This position was especially articulated by the threshold states like India. The eventual nuclear testing by India and Pakistan in 1998 and their entry into the nuclear club (though it has not been formally recognised by the original weapon states) was an assertion of this position. The discussions have begun on the Fissile Material Cutoff Treaty (FMCT) as the possible next step to non-proliferation. The reactions on the part of the non-weapon states are likely to be as sharp as those in case of the CTBT.

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## **20.4 NUCLEAR ARMS LIMITATION**

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An important dimension of the discussion on nuclear proliferation is the understanding of the perception and policies of the nuclear weapon powers, especially the US and the USSR. What have been their nuclear strategies? What have they done to reduce the nuclear tensions amongst themselves? Answers to these questions will provide an insight into the approaches that they take towards the countries that aspire to become weapon powers and are seen as a threat to world peace by the established nuclear weapon powers. Nuclear doctrines define the role of nuclear weapons in both deterring and waging nuclear war. These doctrines have evolved with changes in technology and have been affected by the changing political and security environment. It is therefore necessary to look at the key doctrines and the important agreements that came to be made in the context of these doctrines.

### **20.4.1 Nuclear Doctrines**

The United States believed that the vague threats of the use of nuclear weapons forced North Korea and China to the negotiation table in the Korean War. The policy of deterrence evolved in the 1950s was a security doctrine of the United States. The US declared the intention to



retaliate instantly by means and places of its own choosing. It articulated the policy as nuclear deterrence by threat of 'massive' retaliation in 1954. Deterrence is the core of nuclear strategy. Deterrence is often conceptualised as a function of capability and will. Its key function is to keep peace and prevent war. In fact, it has been argued that the key function of the military establishment in the nuclear age is not to win wars but to avert them. Credible deterrence is possible only when the contending parties have a retaliatory (second strike) capability. The American policy evolved since the 1950s keeping in mind the Soviet threat. Soviet nuclear doctrine had also argued along the lines of developing a deterrent capability.

#### **20.4.2 The ABM Treaty**

In 1969 the US and USSR initiated bilateral negotiations on possible restrictions on their strategic nuclear arsenals. One agreement concluded in the first phase of the Strategic Arms Limitation Talks (SALT I) was the treaty on Limitation of Anti-Ballistic Missile Systems (ABM Treaty). The ABM Treaty (1972) prohibits the deployment of anti-ballistic missile systems for the defence of the territories of the United States or the Soviet Union. The treaty had provided for two specific areas where ABM systems can be deployed in the country, eventually, this was reduced to one area. The treaty prohibits the development, testing and deployment of mobile ABM systems and components, including those that are sea based, air based, land based or space based. Although the ABM Treaty had constrained the countries on ABM deployment, they continued their missile defence technology programmes. The Soviets tried to get around the treaty by constructing radar for ballistic missile detection and tracking in Siberia under the guise of space tracking. The US launched an ABM programme called the Strategic Defence Initiative in 1983 to provide a shield to protect the US from possible Soviet attacks.

#### **20.4.3 SALT Agreement**

The first SALT agreement on limiting offensive strategic arms was signed and came into force at the Moscow Summit of 1972 that finalised the ABM treaty. This agreement set limits on the number of strategic ballistic launchers of the US and USSR for a period of five years pending a comprehensive agreement. After the completion of five years the two countries agreed to continue to observe the provisions of the Interim Agreement of 1972 and also specified some more specific limitations on ICBMs and SLBMs. In subsequent negotiations the US and USSR adopted a new framework that permitted a long-term agreement on limits below the overall ceiling decided earlier. They set short term goals for more contentious issues and agreed to more far reaching goals to be achieved in the next phase of SALT agreements. This arrangement was to become the structure of the SALT II agreement signed in 1979. SALT II was not ratified due to the deterioration of the international situation following the Soviet intervention in Afghanistan.

#### **20.4.4 INF Treaty**

The SALT agreements limited only the long range ground and sea based ballistic missiles. Both, the US and USSR continued to develop and deploy intermediate and shorter range missiles. By early 1980s the two countries initiated negotiations on this area. The main issue raised in the course of negotiations on the Intermediate Range Nuclear Forces (INF) concerned the types of delivery vehicles to be covered by the limitations, the geographic coverage of such limitations, the involvement of third countries and the stringency of verification measures. The INF treaty came to be signed in 1987 covering the intermediate range missiles and shorter-range missiles. This was applicable to all the American and Soviet missiles in Europe and Asia, but excluded

British and French armaments. The INF eliminated only a small fraction of nuclear delivery vehicles, yet the treaty is significant as it successfully eliminated an entire category of missile systems.

### **20.4.5 START Agreements**

In 1991, after almost a decade of negotiations the US and USSR concluded a treaty on Reduction and Limitation of Strategic Offensive Arms, subsequently called the START I Treaty (Strategic Arms Reduction Talks) The treaty provides deep cuts into the arsenals of the two powers but unlike the INF does not provide for the elimination of any specific category of weapons systems. This treaty was followed by the START II agreement in 1993. It has been maintained that these agreements further reduce the risk of nuclear war because of the political impact of the dramatic cuts in the nuclear inventory of the superpowers. At one level it represents a cessation of a nuclear arms race between the US and Russia yet at another it retains nuclear forces with both that far exceed the levels which are deemed sufficient by advocates of a minimum nuclear deterrence.

Two points need to be made about the approaches of the US and the USSR about their position on nuclear arms limitation:

1. The central concerns that prompted the two countries to undertake series of negotiations on limiting and reducing their nuclear arsenals was the fear of a nuclear war that would be detrimental to the world at large. The core of these concerns was structured within the conceptual framework of deterrence that was the underlining principle of security for both the countries. These countries had thus built their security policies around centrality of nuclear weapons and would therefore have no incentive to move towards nuclear disarmament.
2. From a Third World perspective, therefore, the nuclear weapon states took a status quoist position on the world order based on capability of a nation state determined by its nuclear status. If the Third World countries wanted a space in the decision making apparatus of the world, they realised that they would have to get that space through a demonstration of a nuclear power capability.

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## **20.5 DEVELOPING COUNTRIES**

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### **20.5.1 Denuclearised Zones**

The idea of establishing nuclear weapon free zones in populated areas of the world, as opposed to areas like the Antarctic, was conceived with a view to extend the purview of nuclear non-proliferation and ensure that new states do not go in for nuclear weapons. The motive was to remove the regional security pressures for the countries to opt for nuclear weapons. The NPT had encouraged the creation of such zones. These zones had another asset-they not only prevented the countries of the region from going nuclear, they also proscribed the entry of weapons in the area. While the former was met with a fair amount of success, it was always difficult to implement the latter objective.

Some of the prominent arrangements include the following:

- i) Treaty of Tlatelolco (1967) covering the Latin American region.

- ii) Treaty of Rarotonga (1985) covering the South Pacific region
- iii) Declaration on the Denuclearisation of the Korean Peninsula (1992). South Korea had been a member of the NPT since 1975, while the North Koreans joined the NPT in 1985. In 1992 the two Koreas signed this agreement with an aim to eliminate the danger of nuclear war. However after North Korea withdrew from the NPT in 1993 this agreement has come into jeopardy.

## 20.5.2 India and Pakistan

The debates during the CTBT negotiations had identified India, Pakistan and Israel (the P-3) as threshold powers that had the capability to produce a nuclear bomb. Some of the other countries of concern included Iraq and North Korea. South Africa, a country long identified as a capable power had joined the NPT just prior to the transition to a non-*apartheid* route, hence was taken off the list of countries to be concerned about. Following the Gulf War of 1991, the question of Iraq's compliance with the NPT has become a matter of grave concern for the nuclear powers. The efforts made to send a team of IAEA inspectors to verify the Iraqi compliance has met with resistance and the issue has now become a major international controversy. North Korea has also been put under severe pressure by the United States to ensure that it does not proceed with its nuclear weapons and missile development programmes. There is very little public debate on the Israeli position about nuclear weapons. Of these countries, India and Pakistan conducted nuclear tests in 1998 and declared themselves as nuclear weapon powers thus raising the debate on nuclear proliferation to a very different level.

The nuclear tests conducted by India and Pakistan had generated a great deal of debate on the rationale and implications of these actions taken by both the governments. Much of the debate focused on the security considerations of this action, the regional threat dimensions, internal political compulsions and the problem of proliferation. At one level these tests constitute a symbolism of the Third World defiance that seeks to challenge the post-Cold War order in international relations; at another they present a challenge to the policies of international nuclear non-proliferation.

Over the years the issue of nuclear and related technologies like space and electronics had come to symbolise the core of the developed world's *status quoist* agenda. The NPT regime with its multifarious dimensions like the Nuclear Suppliers group, MTCR, FMCT, etc. had sought to place the P-5 (Nuclear Powers) in a monopolistic managerial framework. The problem was compounded by the restraints placed on 'dual use' technologies. The key threats to national security as articulated by the technologically advanced countries of the developing world came to focus on these restraints of the G-7 regime. The first symbolic defiance of this restraint came in the form of the 1974 nuclear test at Pokhran. The 1974 test had a limited agenda. It presented its revisionist defiance in terms of technological competence of a Third World country. The international situation of the 1970s did not merit a demonstration of weapons capability. The labeling of the test as peaceful and the creation of resultant ambiguity in nuclear policy satisfied the technological and political requirements of an anti-*status quoist* approach.

The May 1998 tests represent this defiant independence at an age where the nuclear regime had become more stringent over the years. The indefinite extension of the NPT, the Comprehensive Test Ban Treaty, the Wassenaar Arrangement on export controls for dual use technologies and the Fissile Material Cut-off Treaty, represented the new era of global management. Given the thrust of the global agenda on the nuclear and related issues, the Third World defiance of this new order was bound to manifest in the area of nuclear technologies. The Iraqi and Korean efforts represent one kind of defiance. Their efforts were 'managed' and

a crisis (or threat) to the world order as perceived by the Developed World was averted. The Israeli method of quietly building a nuclear capability under the American umbrella represents another approach. The Indian demonstration of its independence came as a follow up to the earlier efforts of 1974.

The Indian nuclear tests of May 1998 thus came to represent a demonstration of capabilities-technological and political. Technological capabilities were in the context of the denial of access to advanced technologies that India experienced over the years. The political capability represents the demonstration of political will of the elite to take on the G-7 regime. It is this reassertion of the ability to take independent decisions in face of anticipated sanctions that makes the nuclear test a symbol of a resurgent Third World. It is at that level that both, the Indian and Pakistani tests, demonstrate a commonality of approaches.

The problem of nuclear proliferation, it needs to be reiterated, did not start with the Indian test of 1974. It arose with the first atomic bomb dropped over Japan in 1945. The problem became complicated when the US monopoly of nuclear technology ended in the years that followed. The shifts in US policies and that of the other weapon states since have been aimed at keeping the number of nuclear weapon states within limits. In the 1960s the acuteness of this problem was recognised when an underdeveloped Third World country, China, entered the exclusive club of nuclear powers. The year 1968 therefore marks the first institutional step in the fight for exclusivity. The NPT regime created in 1968 has continued to retain its hold through the new Century. It has refused to acknowledge the two new states India and Pakistan as nuclear weapon states under the ambit of the NPT definition.

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## **20.6 NUCLEAR NON-PROLIFERATION TODAY**

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The international nuclear non-proliferation regime has been subjected to severe stresses over the past decade. The Indian and Pakistani tests have been identified as major setbacks to the efforts at non-proliferation. Many had believed that the norm of nuclear non-proliferation had become almost universally accepted. No state had openly joined the nuclear club in several decades. The membership of the NPT had grown and it had now become a permanent agreement. The South Asian states had not been considered as 'rogue' states by the international community. One was a flourishing democracy, the other an old ally of the United States. These countries not only declared themselves nuclear, but also they asserted their aim of integrating these weapons into their military doctrines. This open nuclearisation was complicated by the situation in Iraq and North Korea.

If avoiding the spread of nuclear weapons is an objective of the weapon states, they have failed to implement their share of the responsibility. If at the end of the Cold War both the US and Russia had undertaken to reduce their own nuclear arsenal with vigour and a sense of purpose, this may have conveyed a more positive message for non-proliferation. Further, both Washington and Moscow need to devalue the nuclear weapons by downgrading their role in their own security policies. Until 2000 the Russians had embraced nuclear weapons in their military doctrine to compensate for the seriously weakened states of its conventional forces. The US continues to expand the rationale of its nuclear posture. NATO's strategic concept asserts that the alliance views nuclear weapons as necessary for the indefinite future. From a non-proliferation point of view these claims are problematic.

The nuclear weapon states would have to consider the uses of security guarantees as a means for non-proliferation. It has been argued that the United States may have to take up the issue of such guarantees more seriously. Several of the proliferation trouble spots like Iraq, North