CONCLUSION

What does this study have to say about our understanding of how the five nuclear powers achieved a consensus on a comprehensive test ban? Over four decades the CTBT negotiations ran through several phases. Each phase had its own dynamics and were conducted at different levels: initially, the negotiations were bilateral, between the US and Soviet Union, later they were trilateral involving the US, Britain, and Soviet Union and finally they were involving several non-nuclear powers including the non-aligned states.

The initial trigger for a test ban came in 1954 after the US thermonuclear test caused radioactive contamination. Talks to achieve a test ban began in 1958. These talks resulted in the signing of the Partial Test Ban Treaty (PTBT) in 1963. This was the first phase of negotiations. However, as we have seen, the issue of verification and on-site inspection was used by domestic pressure groups and the scientific community against any conclusion of a test ban. Had there not been the Cuban missile crisis in 1962, the Partial Test Ban would never have been realised. The negotiations to achieve a partial ban was initiated by personal diplomacy between the US President John F. Kennedy and the Soviet General Secretary Nikita Khrushchev. Even then, to achieve a PTBT in the face of domestically-opposed pressure groups in both the US and the Soviet Union- depended on the carrying out of a series of nuclear tests. As
noted in the Appendix, both US and the Soviet Union conducted a total of 171 tests in 1962, which remains the highest number in any year till date since the advent of nuclear weapons. In a sense, this was compensation for the PTBT deal.

While the initial objective of a comprehensive test ban was shelved in favour of a partial ban, the CTBT remained high on the arms control agenda and indeed paved the way for the succeeding phases: 1963-1976, 1977-1980, and 1980 and beyond. But Cold War conditions and US-Soviet hostility did not allow either the US or Soviet government to override domestic pressures against the treaty. Issues like verification, stockpile-degradation and US-Soviet weapon asymmetries arising out of it, and weapons safety were further impediments to a test ban.

Momentum towards a test ban, however, continued due to the pressure from various non-nuclear factors. As we have seen, these negotiations went through the Eighteen Nations Disarmament Commission (ENDC), the Conference of the Committee on Disarmament (CCD) and successive multilateral bodies in which several non-nuclear weapons states like Canada, India, Mexico and Sweden played crucial roles. Indeed, it was after Sweden's initiative, in 1976, that the CCD established an AdHoc Group of Scientific Experts to explore the technical feasibility and the structure of a verification regime.

Since then, this Group of Experts has been working on the seismological
problems at the CD. Indeed, it was this GSE which provided the technical expertise during the 1994-96 CTBT talks on which the current verification regime is built. Since 1982, the Conference on Disarmament established a subsidiary AdHoc Committee at least four times, in 1982, 1983, 1990 and 1991, to exclusively discuss the issue of a test ban. As these AdHoc Committees had non-negotiating mandates, they could not commence negotiations on a treaty. Moreover, the United Nations General Assembly also continued to exert a pressure on the nuclear powers by adopting annual resolution in favour of a test ban. Thus an intermittent process towards a CTBT continued was on, although the treaty was not negotiated due to the recalcitrance of the nuclear weapon powers.

The end of the Cold War provided renewed vigour to the test ban process. Indeed, the momentum was generated by the commencement of the Partial Test Ban Treaty Amendment Conference in 1991. During this conference, the non aligned states Indonesia, Mexico, Peru, Sri Lanka, Venezuela and Yugoslavia initiated an unsuccessful attempt to amend the Partial Test Ban Treaty into a comprehensive one. At the same time, there was growing concern within the United States vis-à-vis the potential proliferation threats posed by the Soviet collapse. The conditions, therefore, were propitious to renew negotiations for a test ban. This was coupled by the dynamic leadership of the US President Bill Clinton, who managed to convince the other nuclear powers on the need for a test ban. Subsequently, the August 1993 resolution was adopted which called upon the CD to reestablish its
AdHoc Committee to negotiate the treaty. This marked the beginning of the fourth and the final phase of negotiations.

The fourth phase, however, had three stages that ran through three consecutive years: 1994, 1995, 1996. Although the five nuclear powers had sponsored the resolution and had begun to negotiate, none of them had a very clear idea of what the treaty would be like. Indeed, it would not be an exaggeration to say that Britain, France and China, at this stage were under impression that agreement on the treaty would not be reached, as had happened in the past. Also, these three had joined the negotiations, but had created enough hurdles in the way of treaty. For instance, on the issue of linkage between the CTBT and the NPT extension, Britain, France and China had coalesced over the demand that the CTBT should follow the NPT extension, which was scheduled for 1995.

Also, as the three major issues, namely scope, verification and entry-into-force, form the core of any arms control treaty, this phase also was a search for the feasibility of an agreement. By the end of the first phase of negotiations, there was no breakthrough on the issue of scope nor was there any technical progress on verification. As far as scope is concerned, the nuclear powers were divided on the issue of "activities not prohibited" by the treaty. The United States at this stage wanted the exemption of tests upto 1.8-kg energy yield while Britain was looking for a 40-50 kg threshold exemption. Russia had proposed a text, which listed only prohibited environments and China wanted the Peaceful Nuclear Explosion (PNEs) to be exempted from the
treaty's scope. Moreover, the US had proposed the right of countries to opt out of the treaty after ten years. Britain and France wanted safety tests to be exempted.

Also by the end of the first phase, there was no technical agreement on the structure of the verification regime. The Group of Scientific Experts (GSE) was scheduled to conduct the technical tests for the proposed International Monitoring Station in the month of January 1995. In the absence of a baseline on scope, the verification regime could not be finalised. And due to the lack of agreement on monitoring techniques, it could not be properly determined what tests could be verifiably prohibited. In this sense, 1994 was merely a phase for the search for general principles.

To give the negotiations momentum, at the beginning of 1995, the second phase of negotiations, the US came up with a concession by dropping its earlier proposed "easy exit" clause by which the nuclear powers could opt out of the treaty after ten years. This was, however, secured by the Clinton administration after a deal with the Department of Energy and the Joint Chief of Staffs. Britain and France got a clear signal as a result regarding the US desire to conclude a treaty. They also now offered concessions, and dropped their demand to exempt "safety tests" from the treaty on the eve of the NPT Review and Extension Conference. This was done so as to demonstrate their keenness for the indefinite extension of NPT. However, by this time, both Britain and France had decided to seek compensation for supporting a test ban. Britain was engaged in bargaining with the US to let it conduct nuclear
tests, as it used the US test sites. France had already taken a decision to conduct explosions, which it did between September 1995 and January 1996. Moreover, it also did a bilateral deal with the US to obtain American simulation facilities that could help it maintain its weapons reliability in the future.

While it was relatively easy for the US to bring in Britain and France and even Russia into the treaty regime, it was hard to win over China. China was crucial because it was an irredentist nuclear power. During the confidential meeting, it had proposed that the treaty either ban all low-yield tests including HNEs or exempt much higher yields up to 500 tons energy release. Moreover, it had also called for exempting peaceful nuclear explosions from the treaty. This Chinese demand had left very few options for the US. Either the American had to go down on scope, or they had to take the threshold level much higher, as was desired by China. The question was how high should this threshold be? In this scenario, the US decided to go down to a “zero-yield” option. However, this US decision was taken after careful cost-benefit calculations and enormous domestic compensation. This included a massive funding for the US Stockpile Stewardship programme which would help the US to maintain and modernise its “enduring stockpile”. Thus by August 1995, the US, Britain, and France had gone down to a “true zero yield”. Although Britain had committed itself to zero yield scope, it failed to get anything from the US. As a result, it created problems later on with the Russians, who were unhappy with the US “zero yield” decision. Although Moscow agreed to the zero-yield
decision later, it exploited other issues like on-site inspections and the entry-into-force issue in bargaining with the US.

By the end of the second phase, at the end of 1995, the US and Britain as also France had accepted zero-yield. Moreover they had also indicated that there would be no going back on the issue. Also, by this time, there was a technical compromise on an International Monitoring System (IMS). Only issues of a political nature, for instance, on-site inspections, remained contentious.

The final phase, beginning in January 1996, witnessed hard negotiating on the issue of on-site inspections and entry-into-force. During this phase, Russia and China accepted the zero yield decision. China, by this time, had conducted several nuclear explosions and hence dropped its demand for exempting peaceful nuclear explosions. Indeed, it is now thought that China was trying to delay the negotiations to facilitate these explosions. But Russia, Britain and China remained adamant entry-into-force conditions, which called for ratification by all the nuclear powers and the threshold states. By this time, India had expressed its unwillingness to sign the treaty. Therefore, these three powers were using India as a bogey to bargain with the US and, in fact, sabotaged the treaty conclusion. The US zero yield decision was probably the major reason behind their delaying tactics. For the US, it was only the five nuclear powers that mattered for the EIF. Therefore, it accepted their entry-into-force conditions and also later conceded to China on the issue of on-site inspections.
During the three phases in 1994-1996, various proposals and counter proposals came before the AdHoc Committee. Several proposals were mooted by the non nuclear weapon states, which also had an interest in the treaty from a disarmament perspective. Iran, India and Indonesia proposed their own definition of nuclear explosions to see that there remained no loopholes which might jeopardize the intent of the treaty. However, none of these proposals found their way into the final treaty. During the final phase, in 1996, Jaap Ramaker was the Chairman of the AdHoc Committee. It appears that he was more inclined to get agreement amongst the five nuclear powers rather than achieve a 'true' disarmament treaty.

Having achieved an agreement amongst the nuclear powers, despite India's veto, the treaty was finally taken to the UN General Assembly through a procedural camouflage. This was unprecedented and, indeed, undermined the sanctity of the Conference on Disarmament where decisions are taken by consensus. Bargaining, compromise, trade-offs, reciprocity and indeed concessions, all these were vital in reaching an agreement, but it was precisely this that provided criticism has within the United States, thereby jeopardising the treaty's ratification in Washington. In October 1999, the U.S. Senate rejected the treaty. It remains hard to predict if and when the Senate will change its mind. The treaty is languishing and may have been fatally hurt by the Senate's action. China also has not ratified, nor have India and Pakistan. The quest for a CTBT is therefore not over.