

**CTBT: SYNERGIES WITH SCIENCE
1996 - 2006 AND BEYOND**

By

Mr. Nobuaki Tanaka
Under-Secretary-General for Disarmament Affairs
United Nations



Vienna, 31 August 2006

Excellencies,

Distinguished participants,

It is a special pleasure and honour for me to address this scientific symposium on the “CTBT: Synergies with Science, 1996-2006 and Beyond”. I would like to commend the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO PrepCom) for convening this important event, which provides an opportunity both to take stock of the last ten years and also to look ahead.

In a recent address in Tokyo, the United Nations Secretary-General, Mr. Kofi Annan, expressed the view that the world now finds itself at a crossroads—with one path leading to new progress in reducing and eliminating threats of nuclear weapon proliferation and terrorism, and the other path taking us toward a world where these threats are rapidly growing , and he said that the international community seemed to be sleepwalking – not by conscious choice, but rather through miscalculation, sterile debate, and paralysis of the very multilateral mechanisms that were created for confidence-building and conflict resolution.

Indeed, since the end of the Cold War, the context of global security issues has changed dramatically, giving rise to new issues while also refocusing attention on old problems. The threat of terrorism and the catastrophic effects from the possible use of nuclear, biological, or chemical weapons have triggered anxiety worldwide. The global, clandestine nuclear black

market operated undetected for years, pointing to the need for renewed efforts for non-proliferation. Libya's pursuit of weapons of mass destruction was stymied and dismantled – a welcome development, while the DPRK nuclear issue remains at an impasse and the developments regarding Iran's nuclear program add to international concerns.

Yet when I attended the 61st memorial service of Hiroshima at the beginning of this month, I was painfully reminded of the calamity and tragedy of an atomic bomb explosion. Many survivors recounted their stories still in tears and agony. People who perished instantaneously were in sense fortunate ones. Tens of thousands were burnt alive jumping into the river seeking drinking water. Tens of thousands were also burnt with radiations, limp with lost hairs, waiting for death. More than a half century has past since then and yet every year people keep dying of radioactive after-effect. This I believe is the ground zero reality one tends to forget in discussing nuclear armament as well as disarmament. Without a sincere reflection of possible human tragedy that nuclear arsenals would bring upon people, we cannot talk about nuclear disarmament. Without a high moral standard and a clear conscience, we should not talk about nuclear scientific advances that may have huge impacts on the way people could survive. The conscience expressed by Dr. Oppenheimer and others at the inception of the atomic age reflected such a moral standard and should not be forgotten.

This is precisely the background against which we argue for the importance of nuclear test ban. Already a decade has past since the conclusion of the CTBT. Though it has been one of mixed success and failure in the disarmament and non-proliferation fields, we should derive immense

satisfaction from the fact that ten years after its signing ceremony in New York, we have in the CTBT an international norm against -- and an effective de facto ban on -- nuclear testing. The global moratorium is being upheld. No country could defy the international community and test without facing a barrage of criticism.

This moratorium has been supplemented by the near completion of the International Monitoring System (IMIS). In fact, the IMS is an important confidence-building measure and adds credibility to the moratorium of nuclear test ban. Coupled together, in a way, CTBT has already had its legitimacy without formal status.

We certainly should not, however, indulge in complacency as we still face considerable political challenges. We must re-double our efforts to increase the number of ratifications by States listed in Annex II. And I welcome the recent accession of Vietnam. At the same time, the responsibilities of Nuclear Weapon States are immense. In this regards, the political hurdles are significant and still need to be overcome.

But as I mentioned, we should not detract attention from the impressive scientific achievements that have already been made in advancing the goals of the Treaty. The CTBTO PrepCom has drawn upon these achievements and built the most sophisticated and comprehensive nuclear testing verification system possible.

The historical foundation for this progress was laid nearly 60 years ago, when the Soviet Union's first atomic test on 29 August 1949 was detected through airborne sampling by the United States -- sampling that enabled

President Truman to inform the American public three weeks later that he had the “evidence that... an atomic explosion had occurred in the U.S.S.R.” Ten years later, in 1958 and 1959, American and Soviet scientists met to discuss the technical issues raised by a potential ban on all nuclear tests. Today, the International Monitoring System (IMS), firmly rests on international cooperation comprising facilities for seismological, hydro acoustic, infrasound and radionuclide monitoring, including certified laboratories and the support of the International Data Centre.

Science is and will remain a dominant factor shaping the world and our daily lives. While being able to bring grave peril and the threat of the extinction of human life, science has also brought tremendous benefits and improvements in the quality of life. The promise of new technologies and the harnessing of existing capabilities are pivotal to the continued advancement of humanity and the sustainability of our planet. We have an individual and collective responsibility to promote these beneficial applications in all spheres.

This symposium will build upon the measures adopted at the successful outcome of the fourth Conference on Facilitating the Entry into Force of the CTBT, specifically to continue promoting understanding of the treaty and demonstrating the benefits of the civil and scientific applications of the verification technologies, inter alia, in such areas as the environment, earth science and technology, tsunami warning systems and possibly other disaster alert systems.

The Preamble of the CTBT reminds us that an end to nuclear testing is “a meaningful step in the realization of a systematic process to achieve nuclear

disarmament” – a goal also reflected in the NPT and in several other multilateral treaties.

The world must therefore continue its efforts to consolidate the progress already achieved on the CTBT, to guard against any backsliding, to demonstrate the benefits of the civil and scientific applications of the verification technologies, and to prepare ourselves for further efforts on nuclear disarmament and non-proliferation. While the achievement of these goals will depend heavily upon science, it should also be accompanied by a high moral standard that would reflect the human tragedy of the ground zero of atomic age.