

In this context, I would like to mention the following. For one thing, it is important that basic political agreement exists to form the ground for any disarmament arrangements. On the other hand, there should be a scientific and technical approach in putting such agreements into reality. These two elements must have a complete understanding of each other. It is possible, in the absence of such understanding, that the political circles and the technological circles may be speaking two different languages, and this is an assured way to confuse the situation. I recall, in the case of IAEA safeguards, that there were occasions in which scientists, in the absence of full comprehension of the basic political requirements, gave replies such as "What is required is technically possible in principle, if certain conditions are met". The political side ignored the conditions and only accepted "It is possible in principle". In fact, among these conditions were such items as "if the continuous presence of inspectors is possible", or "if determination of diversion can be accepted at an 80 per cent confidence level", or "if a certain amount of material per annum can be left unaccounted for as an accumulation of measurement errors". You can see that these conditions which are related to the political objective of the arrangements certainly required serious consideration.

A number of statements have been made in this or other forums to the effect, for instance, that there are no more technical problems remaining with regard to verification of a nuclear-test ban. Some have even insisted that all the underground nuclear explosions can be detected and identified. I have had the opportunity to talk with some of the authors whose writings in this respect have been extensively quoted in this forum as well. I have been told by these very authors that the system of seismic detection they base their arguments on is not what is currently available and existing in the world. They have to be upgraded into a better network incorporating more advances in seismology, including a considerable number of so-called black boxes in the countries concerned. Furthermore, their argument is based on the assumption that geological conditions around the test sites as well as the mode of dissemination of seismic signals through the geological formation between the site of the explosion and seismic stations are known in detail. Of course, I am not an expert on the subject and the reports of the Ad Hoc Group of Scientific Experts give a description of some of these problems, while I believe that the upcoming seismic data exchange experiments will help clarify these points. I have merely mentioned this case to point out again the importance of satisfactory dialogue between the political and the scientific communities.

The example of IAEA seems to me to indicate another very important point. It was extremely convenient, and indeed fortunate, in the case of the NPT that an international organization was already in existence whose Statute specified the safeguards for the purpose of preventing diversion from peaceful to military purposes as its main function. Although not on the scale of today, the institutional arrangements to gather and apply necessary technology at the international level were already functioning. As the distinguished delegates are aware, this enabled the NPT merely to refer, in its Article 3, to the application of these arrangements. In spite of that, the parties to the Treaty had to spend more than a year in a conference to reorganize the system, establish the technological requirements, determine rights and duties of inspectors, agree on the methodology for determination of diversion possibilities, and to agree on the sharing of financial burdens.

This lesson indicates to me that we have to bear in mind, by the time we are at the actual stages of determining verification of a prohibition of nuclear testing or chemical weapons, as the case may be, that we have to get on, as the necessary first steps, with the job of establishing such international verification organs. Of course, by saying this, I do not mean to insist that the arrangements under the NPT are the best or even the most desirable formula in the case of other disarmament agreements. It is nevertheless important that within the negotiation process in the Conference on Disarmament, all due