

FINAL RECORD OF THE SIX HUNDRED AND SEVENTY-EIGHTH MEETING

held at the Palais des Nations, Geneva
on Tuesday, 5 August 1975, at 10.30 a.m.

Chairman:

Mr. E. Wyzner

(Poland)

PRESENT AT THE TABLE

<u>Argentina:</u>	Mr. V.E. BERASATEGUI
<u>Brazil:</u>	Mr. M.T. da SILVA
<u>Bulgaria:</u>	Mr. R. NIKOLOV Mr. B. GRINBERG
<u>Burma:</u>	U NYUNT MAUNG SHEIN
<u>Canada:</u>	Mr. A.D. ROWE Mr. P.E. McRAE Mr. R.S. EATON
<u>Czechoslovakia:</u>	Mr. V. SOJAK
<u>Egypt:</u>	Mr. A. OSMAN Mr. N. ELARABY Mr. S. ABOU-ALI
<u>Ethiopia:</u>	Mr. G. DEMISSIE
<u>German Democratic Republic:</u>	Mr. G. HERDER Mr. M. GRACZYNSKI Mr. B. RONSCH Mr. M. SCHNEIDER
<u>Germany, Federal Republic of:</u>	Mr. G.J. SCHLAICH Mr. K. HANNESSCHLAGER
<u>Hungary:</u>	Mr. D. MEISZTER Mr. I. KORMENDY
<u>India:</u>	Mr. B.C. MISHRA Mr. P.R. SOOD

Iran:

Mr. M. FARTASH
Mr. H. AMERI
Miss C. TAHMASSEB
Mr. D. CHILATY

Italy:

Mr. N. DI BERNARDO
Mr. G. VALDEVIT
Mr. A. BIZZARINI
Mr. A. PIETROMARCHI

Japan:

Mr. M. NISIBORI
Mr. A. YATABE
Mr. T. KAZUHARA
Mr. H. OKA

Mexico:

Mr. A. GARCIA ROBLES
Miss A. CABRERA
Mr. M.A. CACERES

Mongolia:

Mr. M. DUGERSUREN

Morocco:

Mr. S. RAHHALI

Netherlands:

Mr. C.A. van der KLAAUW
Mr. A.J. MEERBURG

Nigeria:

Mr. M. SAMAKI

Pakistan:

Mr. K. SALEEM

Peru:

Mr. C. ALZAMORA
Mr. L. CHAVEZ-GODOY
Mr. G. CHAUNY

Poland:

Mr. E. WYZNER
Mr. S. TOPA
Mr. A. CZERKAWSKI

Romania:

Mr. G. TINCA
Mr. C. IVASCU

Sweden:

Mr. G. HAMILTON
Mr. U. REINIUS
Mr. U. ERICSSON
Mr. G. BERG

Union of Soviet Socialist
Republics:

Mr. A.A. ROSHCIN
Mr. Y.K. NAZARKIN
Mr. N.V. PESTEREV
Mr. L.N. ANISIMOV
Mr. E.L. ALEXANDROV
Mr. I.I. BURTSEV

United Kingdom:

Mr. M. ALLEN
Mr. J.G. TAYLOR
Mr. A. WHITE
Mr. C. McCOLL
Mr. D. COATES

United States of America:

Mr. J. MARTIN, Jr.
Mr. W. GIVAN
Mr. S. COTTMAN
Mr. D. THOMPSON
Mr. W. GRAYSON

Yugoslavia:

Mr. M. MIHAJLOVIC

Zaire:

Mr. LUKABU-K'HABOUJI

Acting Representative of the
Secretary-General:

Mr. R. BJORNERSTEDT

Communique of the meeting

The Conference of the Committee on Disarmament today held its 678th plenary meeting in the Palais des Nations, Geneva, under the chairmanship of H.E. Ambassador E. Wyzner, representative of Poland.

Statements were made by the representatives of the German Democratic Republic, Canada and Iran.

The delegation of Canada submitted a document entitled "A suggested preliminary approach to considering the possibility of concluding a convention on the prohibition of environmental modification for military or other hostile purposes" (CCD/463).

The next meeting of the Conference will be held on Thursday, 7 August 1975, at 10.30 a.m.

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Mr. HERDER (German Democratic Republic): Yesterday, the Committee started its informal meetings with experts on the problem of prohibiting action to influence the environment and climate for military and other hostile purposes, incompatible with the maintenance of international security, human well-being and health. I would like to welcome all experts from different countries who take part in the deliberation of this important item. We expect tangible results already from this summer session.

There can be no doubt about the importance and urgency of the task before us. Going beyond the specific subject involved, a convention prohibiting the misuse of the environment for military purposes would have a favourable effect on the continued improvement of the international situation and on the strengthening of confidence among States, would further the process of détente and would add to international security — an objective we all share.

A convention of this kind would be an important element within the system of measures of arms limitation and disarmament. What matters, in the final analysis, is to prevent the arms race at the earliest possible stage from spreading to new unconventional means of warfare.

In discussing the problems involved, the Committee can lean on the broad approval shown for the Soviet initiative at the twenty-ninth session of the United Nations General Assembly. In our view the Committee's activities are also encouraged by the exchange of opinions that has been going on between the USSR and the United States of America since their joint statement of 3 July 1974. Let me also recall that as early as at the spring session of this Committee many countries made statements in favour of prohibiting the misuse of the environment and climate for military purposes. To sum up, the comments so far made justify giving this question high priority during this summer session. Our optimism regarding the conclusion of an international convention on the prohibition of the use of the environment for military purposes is based, not least, on the successes the Committee on Disarmament has attained, for instance, in drawing up the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction.

(Mr. Herder, German Democratic Republic)

The two conventions have common basic features. The consequences of the use of biological and of environmental weapons are equally incalculable and their final impact on mankind is not foreseeable. It is hard to keep track of the effects of either weapon and there is no way of keeping them within exact territorial confines. They may even hit the country of origin itself. Both types of weapons imperil the foundations of existence of the human race. Their use threatens the breakdown of the complex ecological systems on land and in the ocean. It is generally accepted that the tolerances of the parameters determining the equilibrium of the natural environment may be small. To overstep them may, irrespective of the will of man, lead to the slow but irresistible emergence of a new quality of nature with devastating consequences.

So far the long-term results of manipulations of the natural environment have in most cases eluded scientific perception and the possibility of meaningful rectification.

On these grounds the early conclusion of the proposed convention is in the interests of both strengthening international security and preserving the environment and habitat of man.

It is clearly the task of the Conference of the Committee on Disarmament to cover another stretch of the road to general and complete disarmament by banishing environmental weapons from military arsenals. On the other hand, my delegation subscribes to the view that questions of peaceful co-operation with regard to measures for the protection and preservation of the environment should be dealt with in the framework of the United Nations Environment Programme.

No doubt, the scope of scientific and technological research and development work on the control and preservation of the natural environment and the climate will grow still wider in the future, and so will the scope of active influences on both. Man will have to discover hitherto unknown laws governing the interplay of the various environmental parameters, their evolution and stability, so as to be able to control and harness them for improving human living conditions.

(Mr. Herder, German Democratic Republic)

Also in connexion with the Convention, a number of questions of a scientific and technological nature will have to be solved.

Our delegation does not object to the consideration of such questions and also agrees to enlisting the services of experts. We would, however, caution against overrating scientific and technological considerations. All practical experiences indicate that as a result of such overrating, one can easily lose sight of the main purpose. This may cause unnecessary delay. The point is rather that a basic agreement prohibiting the misuse of the human environment should be reached as soon as possible. We agree with what the representative of the Mongolian People's Republic appropriately said at the last spring session:

"... we consider that our work in this area should be so organized that we are not carried away by excessive enthusiasm for expert studies, to the detriment of the timely implementation of the mandate from the General Assembly to proceed as soon as possible to achieving agreement on the text of a convention on the matter." (CCD/PV.661, p.20)

The information and reports available on militarily motivated environmental modifications show what huge destructive forces threatening all mankind could be let loose in the future. But, this is not a problem for the future alone. The possibilities enumerated in the Soviet draft convention of actively influencing the earth's lithosphere, hydrosphere and atmosphere for hostile purposes are topical problems already now.

At the twenty-ninth session of the United Nations General Assembly the Soviet delegation in the First Committee clearly illustrated the concrete dangers threatened by environmental warfare. Allow me to quote as follows:

"Influencing the environment, particularly the geophysical environment, for military purposes constitutes a serious threat to life on earth.

A particular danger of geophysical warfare consists in the fact that the aggressor can secretly, without declaring war, for many years use some of the above-mentioned methods against its intended victim." (A/C.1 PV.1998, p.13)

(Mr. Herder, German Democratic Republic)

In this connexion I would like to draw attention to some aspects of the use of the environment and the climate for military purposes which are of deep concern to my delegation and, I am sure, to many others as well.

It is technically feasible already today to utilize meteorological knowledge for military purposes and thus to cause large-scale modifications of the weather and climate.

But by far not all of the laws governing the processes in the atmosphere are known at present. Nor will we know exactly in the foreseeable future what effects any interference will have on the complex system of the atmosphere, of the water cycle and of the organic world.

It is scientifically established, for example, that destruction of large forests, be it by floods, fires or defoliants, leads to large-scale modifications of the atmospheric cycle. Or to give another example: films of specific agents covering large stretches of the sea not only cause pollution but also disturb the gaseous interchange between the surface of the water and the atmosphere. This in turn directly affects the carbon dioxide content of the air which largely determines air temperatures.

Hence, there is a great danger that the elements of the climate, especially temperature and the amount of precipitation, might gravely change not only in the area where environmental weapons are used, but also in remote areas which would cause harm to all mankind.

The present draft convention mentions not only meteorological means of actively influencing the environment but also geophysical means. I am thinking of the artificial triggering of earthquakes and the accompanying tsunami. Such long periodic ocean waves may have devastating effects on human settlements in coastal areas. Tsunami cross the Pacific in about 24 hours. After the earthquake in Chile on 23 May 1960 they took a toll of 61 lives in Hawaii and 119 in Japan. In 1896, the tsunami of a single earthquake killed almost 30,000 people in Japan. It is certainly not an impossible scheme to set off, within fixed time intervals, relatively small explosions in certain areas of the oceans and thus unleash small tsunami. The superimposition of partial

(Mr. Herder, German Democratic Republic)

vibrations and the resonance of the water's movement which will vary with the shapes of the coastline and the sea-bed, would make it possible to focus the destructive effect on a selected area and to flood entire areas of land.

In the discussions during the twenty-ninth session of the United Nations General Assembly and at the Conference of the Committee on Disarmament the view has been put forward that it was too early to conclude a convention; that because of the lack of technical knowledge and the complex nature of the questions involved, further prior studies were required. This position was convincingly challenged by the Hungarian representative at the spring session when he said:

"The probable reason for the illusion that this is merely a problem for the future might be that research on the means of warfare in question is being undertaken only in a few very highly industrialized countries, and the international community is not fully aware of the true nature of the danger." (CCD/PV.662, p. 12)

We must not wait to work for a ban on environmental weapons until it may be too late. Our responsibility towards all mankind makes it imperative to take effective steps now so that these dreadful weapons will definitely not outgrow their present embryonic stage. Now, it is still possible to nip them in the bud. That is why I wish to point out once again that in discussing scientific and technological questions we should confine ourselves to those which are essential for basic agreement on a prohibition. Nor should any artificial obstacles be created concerning the distinction between environmental modification techniques for either civil or peaceful purposes on the one hand and military or hostile ones on the other. The draft convention itself furnishes a general criterion in this regard. For all States to live up to their responsibility in a spirit of profound humanity, they must clearly commit themselves to renunciation of the use of environmental weapons by concluding a comprehensive preventive international convention completely banning these weapons. Basic political will is the precondition for the regulation of all relevant scientific and technological aspects.

(Mr. Herder, German Democratic Republic)

On the basis of such a convention, new possibilities would arise for the peaceful utilization of environmental modification techniques and for international co-operation in this field for the benefit of mankind. The German Democratic Republic is convinced that an early positive result in the negotiations of the Conference of the Committee on Disarmament would also be conducive to the work of UNEP. It is appropriate to point here to the analogous case of the Treaty on the Non-Proliferation of Nuclear Weapons. The prohibition of the spread of nuclear weapons and its strict observance have been the prerequisites for the expansion of international co-operation in the peaceful uses of nuclear energy.

Let me quote here from the statement of the delegation of the German Democratic Republic at the third session of the Governing Council of UNEP in Nairobi on 21 April 1975:

"Any measures aimed at reducing the arms race and at the limitation of armaments promote the process of détente and favour international co-operation also in the environmental fields." ... "Resolution 3264 (XXIX) ... opens up a new field not only in the sphere of disarmament, but also in the preservation and protection of the environment."

By the way, several States at that session of the Governing Council voiced their clear support for a convention banning environmental weapons. The Soviet draft convention provides a basis of our deliberations on the prohibition of action to influence the environment and climate for military and other hostile purposes incompatible with the maintenance of international security, human well-being and health. We are aware that in the course of our deliberations on this matter there might arise further constructive ideas and suggestions which could find their reflection in the future text of a convention acceptable to all States.

An early conclusion of a convention prohibiting the misuse of the environment and climate for military and other hostile purposes would not only have favourable political consequences. Like all disarmament measures, it would also greatly facilitate the

(Mr. Herder, German Democratic Republic)

settlement of economic and social questions. Abstention from designing and developing environmental weapons would release a considerable economic potential which would help to speed up scientific, technical and social progress. There would be greater resources to raise living standards, to preserve and improve the natural environment, to open up new sources of raw materials and energy and, last but not least, to explore and control processes in the human environment which are at present beyond man's control. Seen in long terms, the prohibition to extend the arms race to the meteorological and geophysical fields will thus serve in many ways the well-being of all mankind.

Mr. ROWE (Canada): Canada supports the effort to be made by the CCD in response to General Assembly resolution 3264 (XXIX) to investigate the possibility of concluding a convention on environmental modification for military or other hostile purposes and we are grateful that the Swedish delegation has requested an expert study, within the CCD, for this purpose. May I take this opportunity to welcome formally the experts who have joined our delegations this week, and the observers from UNEP and WMO.

It is most appropriate that our first detailed consideration of this question in this committee is taking place with the assistance of experts because, in our view, it is necessary to gain a much clearer understanding of the nature and potential of environmental forces that might be modified for military ends before considering the nature and content of whatever instrument might prove to be appropriate to prohibit or control the use of such techniques. We consider this preliminary step to be the primary purpose of this meeting. We hope that the meeting will throw more light on a subject with which most of us are not yet very familiar; in effect we are engaged in an educational, exploratory exercise at this time.

To assist us in beginning to understand the dimensions of this subject we have prepared and are tabling a working paper (CCD/463) which attempts (1) very tentatively to identify various conceivable environmental modification techniques and (2) to make a very preliminary assessment of their feasibility and military potential as well as possible countermeasures and possible peaceful uses.

(Mr. Rowe, Canada)

We do not pretend that the paper contains an exhaustive list of all means of environmental modification which could conceivably be used for military or other hostile purposes. We wish to emphasize that the judgements reflected in the paper are highly preliminary and subject to further understanding of the mechanism that might be involved in each particular case. We also wish to stress that the paper has been prepared without any preconceived views on our part at this time as to whether a convention on environmental warfare is possible and, if so, what the scope and content of such a convention should be. We look forward to hearing the views of other delegations and would welcome any comments or questions they may have on our own contribution.

Mr. FARTASH (Iran): I should like to begin by extending a word of welcome to our new colleagues, Ambassadors Osman of Egypt and Berhanu of Ethiopia. I am certain that we will greatly benefit from their contributions to our discussions.

Today I should like to present the views of my Government on the question of the prohibition of chemical weapons. As this is the first opportunity that my delegation has had to speak on this important topic of our agenda, we intend to comment on the larger aspects of the subject as well as on the current issues before us. We have followed the debates in this Committee and at the United Nations over the past years. Although we recognize that a degree of progress has been made, we also realize that certain fundamental problems still prevent the breakthrough needed for agreement. Meanwhile, the development of chemical weapons has not stagnated. When the discussion of the problem of chemical and biological weapons resulted in a convention on the prohibition of biological weapons, it was rightly said that the easiest part of the problem had been tackled. Little military use had been found for these weapons as their effects tended to be unreliable and they had never been used in war.

Unfortunately, this has not been the case with chemical weapons. In the first place, chemical weapons already exist in the arsenals of certain countries. Presumably they do not have an accepted function in the military doctrine of those States, but it seems that their use has in any case been contemplated for retaliatory purposes. The late United Nations Secretary-General U Thant, in his report on this subject in 1969, stated that the agents used in the First World War were "... much less toxic than those, in particular nerve agents, which could be used today and they were dispersed by means of relatively primitive equipment as compared with what is now available, and in accordance with battlefield concepts of a relatively unsophisticated kind".

(Mr. Fartash, Iran)

We are often informed by the news media about refinements of chemical weapons, particularly of the so-called "binaries". United Nations Secretary-General Waldheim, in his message to our Committee in March of this year, warned of the advent of dangerous binary nerve gases. Most recently the projected development of a "binary bomb" was described. Binary weapons are featured as safer in munitions and for storage, because they become lethal only when two relatively harmless chemicals are mixed. In the case of the bomb, this merger might occur only shortly before the dropping of the weapon. We cannot expect the evolution of this or any other weapons system to stop by itself. We must move quickly to head off its development before we are faced with a problem as enormous as that of halting nuclear weapons development.

In a lugubrious fashion we are lucky that chemical weapons are still considered to be unconventional weapons, just as are nuclear weapons. Today, according to an eminent British authority on the subject, we are threatened by the danger that chemical weapons may be gradually assimilated and accepted as conventional weapons. However, certain factors exist which seem to retard this process. Several of these are technological, involving dependence on weather conditions or questions of the delayed effect of chemical agents as well as the possible long-term duration of their effects. Another inhibition to the use of chemical weapons is the very deep sense of revulsion felt by most informed people based on the horrifying experience of the First World War. Moreover, the Geneva Protocol of 1925 has outlawed the use of such weapons in war and this should serve also as a restraint on their development.

Before these inhibiting factors are dissipated we have a chance to reach a crucial disarmament agreement. Precisely because these weapons have not yet been integrated into established military practice we are hopeful that the vested interests which so often stand in the way of arms control accords are weaker in this case and easier to overcome. In this sense it is encouraging to note the amount of serious and fundamental work already accomplished during the negotiations over the past years. Much remains to be done, but certain milestones have already been marked.

The convention banning the production, development and stockpiling of biological weapons opened for signature in 1972 finally came into force this year and we take this as a good omen for the future. Iran signed and ratified that convention in 1973. We have already welcomed its coming into force as a very significant arms reduction agreement. Similarly, we have noted with satisfaction that the United States has become a party to the Geneva Protocol prohibiting the use in war of asphyxiating, poisonous or

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other gases and of bacteriological weapons. This, one of the oldest and most venerable of arms control agreements, is of vital importance to the banning of chemical weapons. It renders their production essentially unnecessary and should thus facilitate the task of States in divesting themselves of these arms.

A third factor of encouragement is the United States-Soviet agreement announced after the Moscow Summit of 1974 to undertake a joint initiative within the CCD to conclude as a first step a convention covering at least the most dangerous lethal chemical weapons. We have heard from the Soviet delegation that steps have been taken to implement this joint initiative and the United States delegation has assured us that contacts have continued between the two Governments. We hope that we will soon be informed that progress has been made.

Still another measure of progress is evident in the many technical papers which have been presented to our Committee on the various issues involved in our negotiation. Moreover, the informal experts meetings held in July 1974 demonstrated that on certain key issues there was a common understanding of the problems and a common approach. Beyond the Committee itself impressive independent research has been undertaken in an attempt to resolve the basic differences. The verification issue, in particular, has received considerable attention. The important volumes on the question of chemical and biological warfare published by the Stockholm International Peace Research Institute as well as the reports of the Pugwash Chemical Warfare Workshop have contributed to the search for a verification scheme which might be acceptable to all. This work is invaluable, for it may supply the needed breakthrough ideas which have so far eluded us.

To come now to the work before us, the resolution adopted unanimously by the General Assembly at its twenty-ninth session calls on our Committee to negotiate on a high-priority basis effective measures for the prohibition of the development, production and stockpiling of all chemical weapons. The resolution reaffirms our goal to reach a comprehensive ban. But, in contrast to the arms control accords we have already reached, we are not dealing with preventing the extension of the arms race into a new area. We are confronted here with the destruction of existing stocks and arresting the development of an on-going weapons programme. It will be more difficult to agree on the requirements for a complete ban than it was to agree on the prohibition of biological weapons.

(Mr. Fartash, Iran)

For these reasons the draft convention presented by the delegation of Japan to the Committee in April 1974 represents an extremely valid approach. While providing basically for a comprehensive prohibition of all chemical weapons, it allows initial agreed exceptions to the ban and the subsequent gradual enlargement of the scope of the prohibition. The existence of this draft has facilitated the discussions on chemical weapons and has helped to direct the debate on the unresolved issues. It seems to have been generally accepted as a basis of negotiation in our Committee and, as pointed out by the Swedish delegation, it greatly assisted the experts during their meetings to focus on the relevant technical problems. This document, taken together with the draft convention tabled by the socialist countries in 1972 and the working paper of the 10 non-aligned States of 1973, provides us with a solid foundation for reaching an agreement.

We have, however, as yet no agreement on most of the important substantive matters. There seems to be some general concurrence that we can approach our goal on a step-by-step basis as long as a complete ban remains a binding commitment. This attitude seems to be implicit in the joint initiative announced by the Soviet Union and the United States as well as in the reception given the Japanese draft. The idea of constructing the agreement in treaty form also seems to have gained a certain degree of acceptance. But the scope of the initial prohibition has not been determined. It is satisfying to note that, as stressed in the working paper of the non-aligned States, some destruction of stockpiles is now included among the first-step measures along with limitations on production and development. We must now decide which chemical warfare agents to ban in the initial phase and how to ensure continued negotiation which would lead to further limitations. A difference of opinion already exists on this question. To some, the determination of which chemical agents can be banned depends on the technical ability to verify their prohibition. To others, the determination appears as a political matter.

On the question of the scope of the ban the Japanese draft proposes two alternatives, the suspension of certain agents from the ban at the outset, or the establishment of a list of agents to be banned obligatorily. The first solution presents perhaps greater difficulties for the definition of the agents to be suspended, for their suspension would be decided either because they could not be effectively verified or because there was no satisfactory agreement on definition. They would undoubtedly fall into the category of dual-purpose agents. On the other hand, an

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advantage of this solution would be its more comprehensive approach. Agents not specifically suspended would be automatically banned. Thus the development of new, hitherto unknown, chemical warfare agents might be forestalled.

The second alternative presents less problems for the definition of the agents to be banned because they would be primarily single-purpose super-toxic agents, but it would have the disadvantage of seeming to justify continued development of all other chemical agents. Thus, we see the value of the suggestion put forward by the Swedish delegation to combine the two lists. In this way, even the initial stage would cover a wider range of chemical agents and a more complete framework for a comprehensive ban would thus exist. We therefore listened with interest when the distinguished representative of Japan stated that his delegation would consider the Swedish proposal.

Another basic issue connected with the determination of the scope of the prohibition is that of the criteria to be used to define different chemical agents. Some light was shed on this problem by the informal experts meetings. We have noted that on the whole there is agreement on the use of the "purpose" criterion, especially useful for the definition of the components of binary weapons whose other characteristics would not place them in the category of dangerous agents. At the same time, it has been acknowledged that the purpose criterion would not suffice in the case of a partial ban and that additional criteria would then be needed. Thus, many delegations seem to agree that the establishment of toxicity criteria will be necessary to supplement the criterion of purpose. The experts seem to have made headway towards agreement on toxicity levels. Mention has also been made of the fact that chemical agents require certain physical properties to render them effective for military use. Thus, it has been suggested that the toxicity criterion could be combined with the identification of certain physical properties essential for weapons purposes.

Valuable contributions to our search for agreed technical criteria to help establish the scope of a chemical weapons ban have been made by the working papers submitted by the Federal Republic of Germany and Sweden. The document of the Federal Republic of Germany (CCD/458) suggests a possible objective mathematical formula for determining the suitability of chemical substances for use as warfare agents. The approach is based on using toxicity as the basic criterion supplemented by carefully selected secondary criteria. We look forward to hearing the views of other experts on this potentially important proposal.

(Mr. Fartash, Iran)

The Swedish paper (CCD/461) provides us with a most useful extension of a previous model including this time the basic criteria discussed for defining chemical warfare agents and the concepts advanced for determining the scope of the prohibition. The paper correctly notes the difficulty of visualizing how the various approaches put forward relate to each other. The new Swedish model, which suggests that all the criteria presented to date can fit into a common concept, could become an indispensable aid in our negotiations.

Thus, our discussion of two central issues, the scope of the prohibition and the definition of chemical warfare agents, seems to be making headway. At least a constructive exchange of views has taken place on these questions. Further progress, however, towards agreement on a chemical-weapons ban depends on the question of verification. Once again we find ourselves between Scylla and Charybdis, between perhaps excessive requirements for international control and reliance on exclusively national control bodies. The issue differs slightly from that associated with other arms-control proposals in that both sides agree that control is necessary and that it is quite complicated. The disagreement hinges on the question of what body or bodies should exercise the control functions.

There are in fact two aspects to the verification problem: assuring compliance with obligations to cease chemical weapons production, and assuring the destruction of stockpiles. Much work has been done on the former issue and suggestions have been put forward to make verification as unintrusive as possible. It has been suggested that national monitoring of the production of certain chemical compounds could constitute the basis of the control system to check production halts as well as compliance with allowed production. In this connexion the need to standardize methods of national accounting has been stressed. Other methods such as analysis of statistical data and literature-scanning have also received attention.

Fundamental differences arise, however, over the question of international verification of the national systems, over the degree and method of outside checking of national monitoring functions and eventually the need for some form of inspection. There is no question that some form of international assurance of compliance with the provisions of a chemical-weapons ban is needed for an effective agreement.

(Mr. Fartash, Iran)

The question of verification of the destruction of chemical-weapon stockpiles presents an even more serious problem, for here some delegations insist on the need for international observation and others insist that such procedures would expose military and industrial secrets. In view of the fundamental importance of the destruction of stockpiles to the validity of a chemical-weapons ban, we would hope that this impasse would be overcome as quickly as possible.

The course of our work on this question of a chemical-weapons ban is well laid out. We look forward to hearing a report on the progress of the United States-Soviet bilateral initiative, because this question has a direct bearing on the progress we can make in the CCD. Meanwhile we should apply our efforts to achieving a consensus on the various issues which have already been clarified so that we may report a measure of agreement to the thirtieth session of the General Assembly.

The meeting rose at 11.40 a.m.

