
Working paper prepared by the Secretariat

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INTRODUCTION

1. In 1978, the General Assembly held its first special session devoted to disarmament (tenth special session) and decided that a second special session should be held at a future date. 1/ That same year, at its thirty-third regular session, the General Assembly decided to convene the second special session devoted to disarmament in 1982 (resolution 33/71 H).

2. The General Assembly, at its thirty-fifth session, in 1980, decided to establish a Preparatory Committee for the Second Special Session of the General Assembly Devoted to Disarmament composed of 78 Member States and appointed by the President of the General Assembly on the basis of equitable geographic distribution. It requested the Preparatory Committee to prepare a draft agenda for the second special session devoted to disarmament, to examine all relevant questions relating to that session and to submit its recommendations thereon to the General Assembly at its thirty-sixth session (resolution 35/47).

3. At its 3rd meeting, on 5 December 1980, the Preparatory Committee requested the Secretariat to prepare a number of factual background papers on various subjects including a summary of studies in the field of disarmament prepared by the Secretary-General, with the assistance of experts, at the request of the General Assembly. The Committee indicated that this could be done either by updating or supplementing the corresponding papers which had been prepared for the first special session devoted to disarmament or in other ways as appropriate (A/AC.206/3).

4. In response to the request of the Preparatory Committee, the Secretariat has prepared this paper which covers the studies conducted during the years 1977-1980 and constitutes a supplement to the earlier paper on the same subject prepared for the first special session devoted to disarmament, which covered the period up to and including 1976. 2/

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I. ECONOMIC AND SOCIAL CONSEQUENCES OF THE ARMS RACE AND OF MILITARY EXPENDITURES

Background

1. By resolution 3462 (XXX) of 11 December 1975, the General Assembly requested the Secretary-General to bring up to date, with the assistance of qualified experts,

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* Report of the Secretary-General contained in document A/32/88/Rev.1; also issued as United Nations publication, Sales No. E.78.IX.16.


a 1971 report on the above subject, 1/ covering the basic topics of that report and taking into account any new developments which might be considered necessary.

2. On 12 December 1977, by resolution 32/75, the General Assembly welcomed with satisfaction the updated report and expressed the hope that it would help to focus future disarmament negotiations on nuclear disarmament and on the goal of general and complete disarmament under effective international control. The Assembly decided to present the report to its 1978 special session devoted to disarmament and recommended that the conclusions of the report should be taken into account in future disarmament negotiations. The report was discussed at the special session and the Assembly, in its Final Document, stated that the Secretary-General should periodically submit reports to it on the economic and social consequences of the arms race and its extremely harmful effects on world peace and security. In keeping with that decision, the Assembly, by resolution 35/41 of 12 December 1980, requested the Secretary-General to update the 1977 report, again with the assistance of consultant experts. The new report is to be transmitted to the Assembly at its thirty-seventh session in 1982.

**1977 report of the Secretary-General**

3. In 1977, when the report on the economic and social consequences of the arms race and of military expenditures was prepared, the world was diverting annually about $350 billion to military purposes. 2/ The leading six countries in terms of military expenditure - United States, Soviet Union, China, France, United Kingdom and Federal Republic of Germany - accounted for three-fourths of this total. The Group of Consultant Experts estimated that altogether 60 million people in the world were engaged in military-related occupations, uniformed or civilian, public or private. The gigantic costs of the arms race were perhaps best illustrated by the fact that every year military activities throughout the world absorbed a volume of resources equivalent to about two-thirds of the aggregate gross national product of those countries which together comprised the poorer half of the world's population.

4. The main features stressed in the 1971 report, the experts agreed, retained their entire validity in 1977. Indeed, arsenals had been growing in size and sophistication and new types of weapons of even greater destructive power had been developed or had become operational in the meantime.

5. The arms race represented a waste of resources, a diversion of national economies away from humanitarian purposes, a hindrance to national development efforts and a threat to democratic processes. But its most important feature was that in effect it undermined national, regional and international security. It

1/ A/8469/Rev.1; also issued as United Nations publication, Sales No. E.72.IX.16.

2/ This figure is much higher in 1981 and now amounts to more than $500 billion a year.
involved the constant risk of war engaging the largest Powers, including nuclear war, and it was accompanied by an endless series of wars, at lower levels. With its economic costs and social and political effects, the arms race constituted an important obstacle to effective progress in the solution of a range of urgent problems. Exacerbated by the population explosion, the food crisis and the devastations of natural disasters and war, the problems of eradicating poverty and of improving standards of health, nutrition, education and housing had reached a state of crisis in many parts of the world.

6. Disarmament and development were by far the most urgent problems facing the world. If half the funds spent on armaments throughout the world in the period 1970-1975 had instead been invested in the civilian sector, annual economic growth rate could have been perhaps $200 billion larger. This sum was somewhat more than the aggregate gross national product of southern Asia and the mid-African region, the two larger regions of acute poverty and slow growth, with a population of over one billion people.

7. The partial measures of arms limitation achieved until 1977 had not led to arms reductions or to savings in military budgets sufficient to have measurable economic implications. While proposals for acute reductions in military budgets had been adopted by the General Assembly, they had not been implemented.

8. According to the report, the arms race between the largest Powers was by far the most precarious. It involved the greatest diversion of resources and the greatest inherent dangers, and it constituted the principal driving force of the world-wide arms race. This competition was even more intense than was suggested by the immense size and the rapid expansion of their arsenals, because it took place primarily in a qualitative rather than quantitative dimension, each new generation of weapons being more complex and more destructive than the ones replaced.

9. The proliferation of nuclear-weapon technologies was continuing at an accelerating pace. The report stated that in 1977, 20 countries had nuclear power plants in operation and another 8 were expected to have them by 1980. As far as most industrialized and many developing countries were concerned, there were no longer serious technological and economic barriers against initiating a nuclear programme, which could lead to development of a nuclear-weapons potential.

10. Developments concerning conventional weapons had also been far-reaching. Conventional weapons systems had undergone continual and rapid refinement in terms of size, speed, propulsion, fire-power and accuracy. Significant developments had taken place in a number of other fields such as radar technology, anti-submarine warfare techniques, low-altitude interceptor aircraft, laser-guided cannon and many more. All aspects of the cost of modern weapons had risen very sharply.

11. The arms race had proved increasingly difficult to confine geographically. The number of countries on all continents which were being drawn into the over-all arms buildup was increasing and had become more and more a world-wide...
phenomenon. In every major region and in the majority of countries the process of expanding and improving military forces appeared to be gathering momentum. Supersonic aircraft had become commonplace in the armouries of industrialized as well as less developed countries. In 1965, only 13 countries had supersonic aircraft. A decade later that number had risen to 41. The comprehensive character of the arms race was also reflected in its proliferation into the oceans and space.

12. By diverting vast resources away from production and growth, and by contributing to inflation and the economic crisis which had affected many countries, the arms race impeded the full development of international trade. The flow of trade and aid was distorted by interference from political and strategic considerations, resulting in the misallocation of resources on a global scale. The arms race thereby contributed to maintaining and widening the gaps between and within developed and developing countries and impeded co-operation between States, socio-economic progress, generally, and the promotion of a new international economic order.

13. The World Health Organization (WHO) programme to eradicate malaria in the world was reported as dragging on due to lack of funds. Yet its total cost over the years was only half of what is spent in a matter of days for military purposes. The eradication of some of the important communicable diseases, such as smallpox which was effectively eliminated over a 10-year period, and the implementation of other major programmes envisaged by WHO would cost trifling amounts compared to the cost of the arms race.

14. Half a billion people through the world were severely malnourished and millions more subsisted on diets that were far below minimal needs. In recent years famine had struck entire regions of the world. On a per capita basis, food production in the developing countries as a whole had been declining. Yet the poorest countries, those with per capita incomes below $200, nevertheless spent, on average, about as much for military activities as they spent on agricultural investment.

15. The effective exploitation of the food and mineral resources of the oceans, the development of new sources of energy, the monitoring of the environmental health hazards, meteorological research and forecasting, natural disaster warning and natural resource surveys were only a few of the examples of areas where skills and facilities of the types now wasted in military pursuits could be readily used for development.

Conclusions and recommendations

16. The Group of Experts presented the following conclusions and recommendations:

- The social, political, technological and industrial options of countries were affected by their participation in the arms race. Many of the major problems faced by the world community, such as problems of development, of economic imbalance and inflation, of pollution, energy and raw materials, of trade relations and technology, were aggravated by the arms race. Progress in other areas such as health, education and housing was being delayed due to lack of resources.
- Development at an acceptable rate would be hard if not impossible to reconcile with the continuation of the arms race. Research and development was one area where misdirected efforts were glaring. Vast resources, badly needed for development, were being consumed as countries made ever greater sacrifices for military purposes.

- Progress towards disarmament would release internal resources both in developed and in developing countries, and would permit their redeployment to purposes of development. It would remove some of the barriers hampering free circulation of raw materials and advanced technology and would facilitate the free choice by each country of its particular path towards development. Furthermore, progress towards disarmament would represent major savings in industrialized countries and would make possible substantial increases in development assistance.

- General and complete disarmament under effective international control must remain the ultimate goal. Negotiations on general and complete disarmament should receive greater and more urgent attention than had been the case in the past.

- Effective progress towards disarmament presupposed the elaboration of an over-all plan, a "strategy for disarmament" as it were. Such a strategy must be based on a thorough assessment of the problems involved, the forces propelling the arms race, and the experience of the past.

- All States must be engaged in the task of eliminating the sources of conflict and tension, and of moving rapidly to the adoption and implementation of disarmament measures under effective international control.

- Effective disarmament would presuppose progress in two directions simultaneously: curtailment of the qualitative arms race, and reduction of military budgets. There should be substantial reductions in the military budgets of all countries, particularly of those whose military budgets were the highest.

- Nuclear disarmament must be given the highest priority because of the intolerable threat posed by nuclear weapons. The prospect of their proliferation to new States could make disarmament vastly more difficult in the future.

- Regional disarmament and disengagement, designed to diminish the sources of tension and conflict, must be part of a comprehensive approach.

- The United Nations should fulfil its role of over-all guidance in the field of disarmament more effectively than it had been able to do in the past.
II. REDUCTION OF MILITARY BUDGETS: REPORT OF THE SECRETARY-GENERAL PREPARED WITH THE ASSISTANCE OF AN INTERGOVERNMENTAL GROUP OF BUDGETARY EXPERTS

Background

1. By resolution 31/87 of 14 December 1976, the General Assembly invited all States to communicate to the Secretary-General their comments with regard to matters covered in his 1976 report on the reduction of military budgets which dealt specifically with the measurement and international reporting of military expenditures. 1/ It also requested the Secretary-General to prepare, with the assistance of an intergovernmental group of budgetary experts, a report containing an analysis of the comments received.

2. In pursuance of the resolution, the Secretary-General appointed an intergovernmental group of budgetary experts, which submitted its report to him in 1977.

Contents of the report

3. In chapter I the report outlines the origin and background of the study of the question of reduction of military budgets as well as the objectives and contents of the report.

4. In chapter II the report analyzes the comments provided by 14 States (Australia, Byelorussian SSR, Canada, Finland, Germany, Federal Republic of, Italy, Japan, Netherlands, Spain, Sweden, United Kingdom, United States, USSR and Venezuela) under the following four main headings:

(a) Views and suggestions on the standardized reporting instrument as contained in document A/31/222/Rev.1 of 1976;

(b) Information on the military expenditure accounting practices of States;

(c) Further development of the standardized reporting system;

(d) Other views and suggestions.

5. In chapter III the report considers the further development of the reporting instrument and examines practical problems which would face budgetary experts in

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completing the recommended format and in trying to extract appropriate information from data delivered.

6. In chapter IV the report provides conclusions and recommendations of the expert Group which are set out as follows:

- In its resolutions 3093 A and B (XXVIII) of 7 December 1973, the General Assembly had set a basic aim, namely, to achieve agreement regarding the reduction of the military budgets of the States permanent members of the Security Council, as well as any other State with comparable military expenditures and to ensure that part of the resources thus released would be utilized for social and economic development, particularly of developing countries.

- An essential element for the achievement of that aim would be the availability of a satisfactory instrument for the effective reporting of military expenditures by States. Such an instrument should be characterized by consistency and comprehensiveness, thus ensuring that compliance could be verified.

- Much progress had been made in the course of the studies conducted since 1974 towards developing and refining such a reporting instrument, namely: (a) acceptable definitions of the military sector and of military expenditures had been devised; (b) an international reporting format had been constructed which balanced requirements for detail and verifiability against difficulty of reporting; and (c) the reporting format and report thereon had been submitted to States, comments had been invited and replies received had been analysed in the current report. The views of respondent States had reaffirmed the validity of the concepts of the reporting instrument contained in the 1976 report; nevertheless some degree of reservations and suggestions for modifications had been offered by some States.

- The highly successful attempt of one State (Sweden) to complete the matrix as well as indications from other States that it would be possible to supply the required data, emphasized the practicability of the proposed reporting instrument.

7. The General Assembly was shown the choices involved in completing the matrix. Where States were not at the time in a position to provide the kind of detailed data required, choices would lie between: (a) reducing the level of detail required; (b) allowing approximations for some of the cell entries; and (c) appropriately modifying the budgeting and accounting systems concerned. Although some simplification of reporting procedures might be appropriate in the early stages, reaching effective agreements to reduce military expenditures would ultimately involve the modification of the budgeting and accounting systems of States. In this connexion, the experts, on the basis of the comments received, further concluded that:

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(a) The definition of the military sector and military expenditures were appropriate;

(b) The importance of including paramilitary forces and all military assistance in the military sector had been emphasized;

(c) Reserve production facilities and civil defence were part of the military sector in principle, although certain practical problems remained to be further addressed;

(d) Whether United Nations peace-keeping forces should be included or not depended on how they were mobilized and demobilized;

(e) Where military or quasi-military organizations performed civilian activities, only the additional costs arising from those activities should be excluded from the military sector;

(f) It was necessary to examine further national practice with respect to personnel compensation, rental policy, the division between investment and repair, etc., in order to avoid discrepancies between States;

(g) Ammunition going to stockpiles should not be distinguished from ammunition for training;

(h) Some slight modifications of the subdivision of the resource cost category "construction" had been suggested;

(i) Where the proposed force group divisions did not exactly match a State's military organization, some flexibility of division should be allowed;

(j) The distinction between imported and domestically-produced procurement items was important and would require further attention.

8. Finally, the experts concluded that the testing, refinement and operational developments of the proposed reporting instrument would involve, in part, the completion of the matrix by a number of States. A body would be required to assess results and develop practical recommendations for larger-scale applications and further refinement of the instrument. Consideration should therefore be given to the composition and functions of such a body. The tasks involved might be delegated to an ad hoc panel of experienced practitioners in the field of military budgeting, under the aegis of the United Nations.

9. The operational development referred to above would preferably involve a manageably small sample of countries, although participation should be open to all States. The sample should, however, reflect as varied a group of mechanisms for establishing the relevant prices for the military sector as possible.

10. The work set in motion by General Assembly resolutions 3093 A and B (XXVIII) of 7 December 1973 had reached a decisive stage. Thus it appeared propitious to /...
attempt to move a step further. This would require operational testing and refining of the reporting instrument, which was work of a character different from that previously undertaken. Developments of the instrument would not be sufficient in itself, i.e. without an accompanying process of co-operation among States with large military expenditures, it would not be possible to accomplish the ultimate objective - the reduction of military expenditures and the freeing of significant resources for social and economic development.

III. COMPREHENSIVE NUCLEAR-TEST BAN

Introduction

1. No other question in the field of disarmament has been the subject of so much international concern, discussion, study and negotiation as that of stopping nuclear-weapon tests.

2. The complete cessation of nuclear-weapon tests is a prime objective of the United Nations in the field of disarmament. It has been considered ever since 1954, when Prime Minister Jawaharlal Nehru appealed for a "standstill agreement" in respect of nuclear explosions. It has been a separate agenda item of the General Assembly each year since 1957. The General Assembly has adopted some three dozen resolutions calling for an end to nuclear-weapon testing, far more than on any other issue of disarmament.

3. The question has been the subject of deliberations and negotiations in the Disarmament Commission and in its five-Power Sub-Committee, in the three-Power Conference on the Discontinuance of Nuclear Weapon Tests, in the Eighteen-Nation Committee on Disarmament (ENDC), in the Conference of the Committee on Disarmament (CCD) and, since 1979, in the Committee on Disarmament. Trilateral negotiations among the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America have also been proceeding since 1977, in private.

4. Despite persistent urging by non-nuclear-weapon States in every session of the General Assembly and in the negotiating bodies, and the determination expressed by the United Nations that the cessation of all nuclear-weapon testing was a matter of the "highest priority", all efforts have thus far been unsuccessful, and testing continues unabated.

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Report of the Secretary-General prepared in the Secretariat of the United Nations with the assistance of consultant experts, pursuant to General Assembly decision 34/422 of 11 December 1979: it was first issued as a document of the Committee on Disarmament (CD/86) and subsequently reissued as a document of the General Assembly (A/35/257).
5. Many avenues have been explored and great ingenuity displayed in efforts to achieve a comprehensive test ban. The proposals put forward at one time or another included various forms of suspension of testing; unilateral and agreed moratoria on testing; a "threshold" above which all underground tests would be banned with or without a moratorium; a progressive lowering of the threshold as verification techniques improved; and interim measures to reduce the number and magnitude of tests and to phase them out. A number of proposals were also considered with regard to verification. They included the use of automatic seismic stations ("black boxes"); a limited and variable number of on-site inspections; verification by challenge; a commission of scientists possibly from non-aligned countries to consider ambiguous events; and a "detection club" for the international exchange of seismic information. These efforts have produced no solution.

6. The Secretary-General of the United Nations has, over the years, emphasized the importance of a comprehensive test ban and its role in the efforts to halt the nuclear-arms race. In his message to the 1972 session of the Conference of the Committee on Disarmament, the first statement he made on the subject, he said, inter alia, that all the technical and scientific aspects of the problem had been so fully explored that only a political decision was now necessary in order to achieve final agreement; that even if a few tests could be conducted clandestinely, it was most unlikely that a series of such tests could escape detection; and that it might be questioned whether there would be much military significance to tests of such small magnitude.

7. The development of thermonuclear weapons in the early 1950s spurred demands for the cessation of all nuclear-weapon tests. There was also growing concern about the dangerous effects of radioactive fall-out from nuclear-test explosions.

8. The question of a test ban was actively discussed in the Disarmament Commission, in its London Sub-Committee meetings, from 1955 to 1957, and in the General Assembly. The Western Powers insisted that a test ban must be part of a comprehensive programme of disarmament with adequate supervision. The Soviet Union, in 1955, called for an early and separate agreement suspending or banning all tests, with essentially only national supervision or monitoring.

9. In June 1957, the USSR formally proposed agreement on the immediate cessation of all atomic and hydrogen tests, if only for a period of two or three years, as well as the establishment of an international commission to supervise the agreement and the establishment, on a basis of reciprocity, of control posts. The Western Powers maintained that any temporary suspension of tests must be linked to the cessation of production of fissionable material for weapons purposes.

10. In 1958, following a United States proposal and an exchange of letters by President Eisenhower and Chairman Khrushchev, it was agreed that a conference of experts from eight countries (Canada, Czechoslovakia, France, Poland, Romania, USSR, United Kingdom and United States) be convened to study the possibility of detecting violations of a possible agreement on the suspension of nuclear tests.

11. The Conference of Experts concluded that it was technically feasible to establish an effective control system that could detect and identify nuclear
explosions, including low-yield explosions from 1 to 5 kilotons. Some 20 to 100 earthquakes each year would be indistinguishable from underground tests of 5 kilotons and would require on-site inspection. Larger tests could be monitored by technical means set up in a world-wide network of some 160 to 170 land-based control posts and about 10 ships.

12. The USSR, the United Kingdom and the United States agreed to begin negotiations in Geneva on 31 October 1958 in an effort to reach agreement on a treaty for the discontinuance of nuclear-weapon tests on the basis of the experts' report. France stated that it would not sign a test-ban treaty unless the treaty were accompanied by other measures of disarmament. The three Powers thus established the Conference on the Discontinuance of Nuclear Weapon Tests and about the same time unilaterally decided to suspend nuclear tests. Their suspensions were continued on a voluntary basis. France conducted its first nuclear explosion in 1960.

13. The Conference on the Discontinuance of Nuclear Weapon Tests made considerable progress on many issues of substance and on the broad outlines of a control organization, although various differences remained. Because of disagreement concerning the identification of underground tests, the parties agreed that a treaty should ban all tests in the atmosphere, in outer space and under water; underground tests above a seismic threshold of 4.75 would also be banned and there would be a moratorium on all testing below that threshold for three years, subject to the institution of a programme to improve detection procedures. The USSR proposed a quota of three on-site inspections each year, but the United Kingdom and the United States proposed a sliding scale of from 12 to 20 annual on-site inspections. During 1961, political relations between the two sides deteriorated, and the Conference became deadlocked.

14. On 30 August 1961, the Soviet Union announced that it would resume testing and did so on the following day; all but one of its tests were conducted in the atmosphere. The United States and the United Kingdom proposed on 3 September that all atmospheric tests be ended without any requirement for international control. On 15 September, the United States resumed testing underground and later in the atmosphere.


16. When the Eighteen-Nation Committee on Disarmament convened in Geneva in March 1962 to consider the question of general and complete disarmament and collateral measures, it created a Sub-Committee composed of the same three nuclear Powers to consider the nuclear-test ban. Their differing positions remained. An important new development, however, had taken place. Eight non-aligned States - Brazil, Burma, Egypt, Ethiopia, India, Mexico, Nigeria and Sweden - had become members of the new multilateral negotiating body, FNDC. They stressed that a test ban was also their concern, and played an active and moderating role. In the course of 1962, they submitted a joint memorandum containing suggestions they commended to the three nuclear Powers. Subsequently, the question of cessation of tests became a subject for discussion in the Committee's plenary meetings.
17. During 1963, in the aftermath of the Cuban "missile crisis", private talks took place between the USSR and the United States on a test ban. On 10 June, it was announced that the USSR, the United Kingdom and the United States had agreed to hold talks on the cessation of nuclear tests. On 2 July, the Soviet Union stated that insistence of the United States and the United Kingdom on on-site inspections made an underground test ban impossible; the USSR was therefore prepared to sign a limited treaty banning tests in the three non-controversial environments, i.e. in the atmosphere, in outer space and under water. It also withdrew its previous demand that a partial test ban be accompanied by a moratorium on underground testing.

18. The trilateral negotiations began in Moscow on 15 July 1963 and ended on 25 July, when the text of the treaty was initialed. The Treaty was signed on 5 August by the Foreign Ministers of the three parties and was opened for signature in the capitals of each of the three "original parties" as they are called in the Treaty. The Treaty entered into force on 10 October 1963. Up to the present, 110 States have become parties to the Treaty; two nuclear-weapon States, China and France, are among those that have not adhered to the Treaty.

19. A commitment of the three original parties to pursue a comprehensive test ban is contained in the preamble and in article I of the Treaty.

20. The partial test-ban Treaty was the first international agreement of worldwide scope reached in the field of nuclear-arms limitation. In practice, the partial test-ban Treaty did not slow down the nuclear-arms race among the major nuclear Powers, except to the extent that it placed technical constraints on the underground testing of large thermonuclear weapons.

21. After the signing of the Treaty, the rate of testing, in fact, increased. Of 1,221 nuclear explosions reported to have been conducted between 1945 and 1979, 488 were carried out in the 18 years preceding the conclusion of the Treaty, and 733 in the 16 years after the signing of the Treaty. Thus, the rate of testing was, on average, 45 per year after the Treaty as compared to 27 per year before it. The three nuclear Powers parties to the partial test-ban Treaty, namely, the USSR, the United Kingdom and the United States, account for more than 90 per cent of all nuclear explosions.

22. In October 1964, China conducted its first nuclear-weapon test, thus becoming the fifth nuclear-weapon State.

**Treaty on the Non-Proliferation of Nuclear Weapons**

23. The question of a comprehensive test ban was raised in connexion with the negotiations for the non-proliferation Treaty because of the demands of the non-nuclear-weapon States that the nuclear Powers must provide some binding undertakings to make rapid substantial progress towards nuclear disarmament. The resolution of that question was regarded as one of the necessary elements of an acceptable balance of the mutual responsibilities and obligations of the nuclear-weapon and non-nuclear-weapon States. The commitment to pursue a comprehensive test ban is contained in the tenth preambular paragraph of the Treaty and, indirectly, also in article VI.
Deliberation and negotiations (1963-1979)

1. General Assembly resolutions

24. The cessation of nuclear-weapon tests, as a separate agenda item, has been debated by the General Assembly since 1957 – longer than any other disarmament question.

25. From 1958 to 1979, the General Assembly adopted 36 resolutions dealing exclusively with the cessation of nuclear-weapon tests; of these, 26 were adopted after the conclusion of the partial test-ban Treaty in August 1963. They deal with various aspects of the question. The study under review (chap. IV, paras. 54-60) provides an analysis of those resolutions.

26. In 1977, the USSR, the United Kingdom and the United States initiated trilateral negotiations on a comprehensive test ban. The General Assembly noted that fact with satisfaction and requested the Conference of the Committee on Disarmament (CCD) to take up the agreed text resulting from the tripartite negotiations, with a view to the submission of a draft treaty to the General Assembly at its special session devoted to disarmament (tenth special session). Subsequently, in 1978 and 1979, the General Assembly expressed its regret that a draft treaty had not yet been concluded and urged the three negotiating Powers to expedite their negotiations with a view to bringing them to a positive conclusion.

2. Main developments in the negotiating bodies

27. After the tripartite Conference on the Discontinuance of Nuclear Weapon Tests came to an end early in 1962, the task of seeking agreement on a comprehensive test ban fell mainly on ENDC and, later, the CCD. Every year from 1962 to 1978 the Committee considered the question of a comprehensive test ban and regularly reported to the General Assembly. In addition, special reports on the subject were submitted by the Committee in 1970, 1971, 1973 and 1974, in response to requests of the Assembly. Non-aligned members of the Committee submitted joint memoranda in 1964, 1965, 1966, 1968 and 1971 with a view to facilitating the conclusion of an agreement.

28. At the ENDC session in 1965, Sweden formally proposed international co-operation in the detection of underground explosions by the exchange of seismic data (the "detection club").

29. The following year, Sweden proposed a system of "verification by challenge" or "inspection by invitation", whereby a party to a comprehensive test ban suspected of a violation could provide information and invite inspection either on its own initiative or on request; failure to do so would entitle other parties to withdraw from the treaty.

30. In 1969, Sweden submitted a working paper in the ENDC suggesting possible provisions for a treaty of unlimited duration banning underground nuclear-weapon tests. Each party would undertake to co-operate in good faith in an effective

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international exchange of seismological data in order to facilitate the detection, identification and location of underground events, as well as to co-operate in the clarification of any unidentified seismic event. In that connexion, any party could invite inspection on its territory, in the manner prescribed by the inviting party. Any party could bring to the attention of the Security Council or the other parties to the treaty the fact that a party had failed to co-operate in the clarification of a particular event. A separate international agreement would be negotiated to regulate the question of nuclear explosions for peaceful purposes. The Swedish working paper was generally welcomed but both the USSR and the United States had reservations on the proposals for verification. Sweden revised it in 1971.

31. In 1971 and subsequent years, the CCD gave increased attention to the question of international co-operation in the exchange of seismic data. The questions were debated in plenary meetings, as well as in informal meetings with the participation of experts.

32. Over the years, both the USSR and the United States had repeatedly stated that a comprehensive solution should be found to the problem of underground testing. Then, on 3 July 1974, the USSR and the United States signed the Treaty on the Limitation of Underground Nuclear Weapon Tests, commonly referred to as the threshold test-ban Treaty. Under that Treaty, they undertook not to carry out, beginning 31 March 1976, any underground nuclear-weapon test having a yield in excess of 150 kilotons and to conduct all permitted tests solely within specified testing areas. Each party would use the national technical means of verification at its disposal and was under the obligation not to interfere with the means of verification of the other party. The parties also agreed to exchange information necessary to improve the assessments of the yields of explosions. The Treaty was not in force by 31 March 1976, the agreed cut-off date, and has not entered into force subsequently, but the parties stated that they would observe the limitation during the pre-ratification period.

33. On 28 May 1976, the two Powers signed the Treaty on Underground Nuclear Explosions for Peaceful Purposes, commonly referred to as the peaceful nuclear explosions Treaty. The Treaty regulates the explosions which may be carried out by the USSR and the United States outside their nuclear-weapon test sites and which may, therefore, be presumed to be for peaceful purposes. To ensure that explosions announced as peaceful should not provide weapon-related benefits that were not obtainable from weapon testing limited by the threshold test-ban Treaty, the new Treaty established the same yield threshold for explosions for peaceful applications as had been imposed on weapon tests by the threshold test-ban Treaty, namely, 150 kilotons. In checking compliance with the peaceful nuclear explosions Treaty, the parties would use national technical means of verification, supply each other with relevant information and, in addition, in certain specified circumstances give observers of the verifying party access to the site of the explosion.

34. The parties agreed that the peaceful nuclear explosions Treaty could not be terminated so long as the threshold test-ban Treaty was in force, since it is an essential complement to the latter.
35. In 1975, for the first time since 1962, one of the nuclear-weapon States, the USSR, proposed a draft treaty on the "complete and general prohibition of nuclear-weapon tests". The draft treaty, which was submitted to the General Assembly, provided for prohibition of unlimited duration of all nuclear-weapon tests in all environments. It further provided that all nuclear-weapon States must ratify the treaty before its entry into force. With regard to verification, the relevant provisions of the treaty were to be based on "national technical means of control" i.e., there would be no on-site inspection. They included, however, undertakings of the parties to co-operate in an international exchange of seismic data and to consult and make inquiries, as well as a procedure for lodging complaints with the Security Council in the case of a suspected violation.

36. In 1977, the USSR submitted its 1975 draft treaty to the CCD, together with an amendment (already submitted to the Assembly in 1976) providing for on-site inspections by invitation under certain conditions.

37. Subsequently, Sweden also introduced a draft treaty with possible transitional arrangements permitting the two major nuclear-weapon Powers to phase out their testing over a limited period of time. Regarding verification, the draft envisaged the establishment of a consultative committee of parties to the treaty to clarify ambiguous events. The draft also provided for the withdrawal of any party if all nuclear-weapon Powers had not adhered to it within a specific period. Sweden urged that a working group be set up at an early date to negotiate a concrete agreement on the matter.

38. In 1976, the CCD adopted a proposal to establish the Ad Hoc Group of Scientific Experts to Consider International Co-operative Measures to Detect and Identify Seismic Events. The Group held its first meeting in 1976 and is continuing its work. In 1978, the Group submitted a comprehensive report to the CCD, recommending the establishment of a global network of seismological stations and the carrying out of a practical exercise to test the proposed network. In 1979, the Ad Hoc Group submitted a second report on the subject.

39. In 1977, the USSR and the United States, after preliminary bilateral talks, informed the CCD that the United Kingdom would join with them in trilateral negotiations on a comprehensive test-ban agreement. The United States stressed that, if such agreement was reached, the Committee could then begin to play an important role in the elaboration of an appropriate international treaty.

40. The General Assembly, at its special session devoted to disarmament in 1978, recognized in its Final Document that the cessation of nuclear-weapon testing would make an important contribution to the goal of ending the qualitative improvement of nuclear weapons and the development of new types of such weapons, and of preventing the proliferation of nuclear weapons. The Assembly stated that the tripartite negotiations should be concluded urgently and that all efforts should be made by the negotiating parties to achieve an agreement which, following endorsement by the General Assembly could attract the widest possible adherence. Various views were expressed by non-nuclear-weapon States to the effect that, pending the conclusion of such a treaty, the world community would be encouraged if all the
nuclear-weapon States refrained from testing nuclear weapons. A few countries, in particular China and France, expressed reservations on some aspects of that part of the Final Document.

**Trilateral negotiations on a comprehensive test-ban**

41. The negotiations began in July 1977 for the achievement of a comprehensive test ban. Several rounds of these talks have taken place.

42. The trilateral negotiations are private, and official information in regard to them is based on the progress reports that have been provided from time to time to the multilateral negotiating body by the United Kingdom on behalf of the three negotiating parties. The study under review (chap. V, paras. 103-114) analyses the main points that have emerged from those reports and from the individual statements that have been made by the three Powers.

**Major unresolved issues**

43. The obstacles to effective negotiations among the USSR, the United Kingdom and the United States on a comprehensive test ban seemed to have been removed in 1977, when those States agreed that on-site inspection to verify compliance with the treaty might be carried out under certain circumstances, that explosions for peaceful purposes would be covered by a protocol which would be an integral part of the treaty, and that participation of all nuclear-weapon Powers would not be required for the treaty to enter into force. Nevertheless, the trilateral talks on a comprehensive test ban have not as yet succeeded in resolving a number of important issues related to verification of the treaty, its scope and duration. The study under review (chap. VI, paras. 115-150) provides a detailed analysis of the problems to be solved under each of those three headings.

**Conclusions**

44. A main objective of all efforts of the United Nations in the field of disarmament has been to halt and reverse the nuclear-arms race, to stop the production of nuclear weapons and to achieve their eventual elimination.

- In this connexion, a comprehensive test ban is regarded as the first and most urgent step towards a cessation of the nuclear-arms race, in particular, as regards its qualitative aspects.

- Over the years, enormous efforts have been invested in achieving a cessation of all nuclear-weapon tests by all States for all time. These efforts have occupied the uninterrupted attention of the States Members of the United Nations for a longer period of time than any other disarmament issue.

- The trilateral negotiations have now been going on for nearly three years, while in the Committee on Disarmament negotiations have still not commenced. In order to bring the achievement of a comprehensive test ban nearer to realization, much more intensive negotiations are essential. Verification of compliance no longer seems to be an obstacle to reaching agreement.

/...
A comprehensive test ban could serve as an important measure of non-proliferation of nuclear weapons, both vertical and horizontal.

A comprehensive test ban would have a major arms limitation impact in that it would make it difficult, if not impossible, for the nuclear-weapon States parties to the treaty to develop new designs of nuclear weapons and would also place constraints on the modification of existing weapon designs.

A comprehensive test ban would also place constraints on the further spread of nuclear weapons by preventing nuclear explosions, although a test explosion may not be absolutely essential for constructing a simple fission device.

In the view of the parties to the non-proliferation Treaty, a comprehensive test ban would reinforce the Treaty by demonstrating the awareness of the major nuclear Powers of the legal obligation under the Treaty "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date".

The arms limitation benefits of a comprehensive test ban could be enhanced, and the channels of arms competition among the great Powers further narrowed, if the comprehensive test ban were followed by restrictions on the qualitative improvement of nuclear delivery vehicles.

To achieve its purpose, the comprehensive test ban must be such as to endure. With the passage of time, even non-parties to the comprehensive test ban may feel inhibited from engaging in nuclear-weapon testing.

A permanent cessation of all nuclear-weapon tests has long been demanded by the world community and its achievement would be an event of great international importance.
IV. COMPREHENSIVE STUDY ON NUCLEAR WEAPONS

Background

1. This study of the Secretary-General was requested by the General Assembly in resolution 33/91 D of 16 December 1978 and was prepared with the assistance of qualified experts. Using published information, the study describes the arsenals of nuclear weapons possessed by the two major nuclear-weapon Powers as well as those of the other nuclear-weapon Powers - China, France and the United Kingdom - the intense technological development taking place, and the effects of the possible use of various nuclear weapons. Also covered are the various nuclear doctrines of the nuclear-weapon States, the role of nuclear weapons in international relations and the efforts towards nuclear disarmament made in the United Nations and elsewhere.

Facts on present nuclear arsenals

2. In the 12 years that have passed since the previous report of the Secretary-General was made on the subject under the aegis of the United Nations, the nuclear-arms race has continued unabated. Not a single nuclear disarmament measure has been agreed, and numerous technological and other developments - such as multiple independently targeted re-entry vehicles (MIRV), cruise missiles, mobile land-based missiles, greatly improved miniaturization of systems, much greater accuracy, and many other qualitative improvements - have substantially increased the lethality and effectiveness of nuclear weaponry.

3. In the same years, according to the study, the total number of strategic nuclear warheads has increased from 4,500 to at least 9,200 for the United States and from 1,000 to at least 6,000 for the Soviet Union.

4. Over 95 per cent of all nuclear weapons are in the hands of the two super-Powers. There is growing concern over the possible increase in the number of States that, overtly or covertly, may acquire nuclear weapons.

5. The establishment, maintenance and development of a large technically advanced nuclear force is very expensive. The study notes the estimate that the two super-Powers between them spend some $10 million a day on the procurement of nuclear warheads alone, and perhaps 10 times as much on the associated delivery systems. On the other hand, for a State contemplating the creation of a small, perhaps secret, nuclear-weapon capability, the real cost of developing nuclear weapons is now less than it was at the start of the nuclear era in 1945, due to the evolution of nuclear and other technology, electronics and chemical engineering.

* A/35/392.

1/ A/6858 entitled "Effects of the possible use of nuclear weapons and the security and economic implications for states of the acquisition and further development of these weapons"; also issued as United Nations publication Sales No. E.60.IX.I.
might have detonated a nuclear explosive device, the representative of Nigeria, on behalf of a number of countries, made a proposal at a plenary meeting of the General Assembly, that the Secretary-General be requested to conduct an immediate investigation and to report to the Assembly at the ongoing session on his findings. The proposal was adopted by consensus at the same meeting as decision 34/404.

6. In his report of 12 November 1979 (A/34/674), the Secretary-General stated that he had contacted the Governments of South Africa and the United States as well as other Member States requesting all pertinent information on the matter, and had received responses from South Africa and the United States. In its communication, South Africa stated: "The South African Government has no knowledge of any nuclear explosion having occurred in or in the vicinity of southern Africa recently." The United States stated: "The only indication it has to date that a nuclear explosion may have occurred in that region was a signal from a United States satellite of 0052 hours GMT on 22 September 1979. The United States has not been able to obtain any corroborating evidence that a nuclear explosion actually took place."

In a subsequent action during the same session, the Assembly, as stated in paragraph 107 above, adopted resolution 34/76 B requesting the Secretary-General to follow the situation closely and to prepare, with the assistance of appropriate experts, a comprehensive report of South Africa's plan and capability in the nuclear field and submit it to its 1980 regular session.

In the report of the Secretary-General following the chapter entitled "Introduction", the report contains five chapters, as follows:

II. Nuclear energy profile of South Africa

III. South Africa's nuclear-weapon capability

IV. South Africa's nuclear-weapon calculations

V. Two indications of a possible South African nuclear-weapon capability

I. set out "Conclusions" in chapter VII.

is stated in the report that there is so far no undisputed scientific presumption that there had been a nuclear explosion by South Africa in the South Atlantic area has not been substantiated; nor fully disproved.

/...
10. The experts concluded that South Africa's nuclear energies have advanced steadily since the Second World War. It is one of the greatest uranium producers in the world and until recently it has produced apprettly 16 per cent of the uranium produced by the market economy cow. Moreover, by its illegal control of Namibian uranium resources, South Africa has been able to increase its share of the international uranium market.

11. According to the experts, there is no doubt that South Africa has the technical capability to make nuclear weapons and the necessary delivery. South Africa has vast uranium resources of its own. It has safeguarded enrichment facility capable of producing weapon-grade uranium; it is building another enrichment facility with an even higher capacity.

12. The report goes on to say that the diplomatic and politicalists of South African acquisition and deployment of nuclear weapons we high, and quite possibly disastrous, if those weapons were ever used. Theless, desperate to preserve the apartheid system, South Africa's leaders eschew a rational weighing of costs and gains. Because overt acquisition of nuclear weapons would entail serious risks and costs for South Africa, leaders could prefer a strategy of latent proliferation; that is, South Africa could cover-tly stockpile nuclear weapons but stop short of openly testing and deploying them.

13. Among its other conclusions, the Group expressed the view the introduction of nuclear weapons to the African continent, and clearly in such a volatile region as southern Africa, not only would be a blow to world-wide efforts to non-proliferation but also would upset years of work to spare the African continent from the nuclear-arms race and make it a nuclear-weapon-free zone.

14. Finally, it is stated in the report that the strong concern of the world community to the possible Kalahari test site and its persistence about the 22 September event amply testify to the great concern with the world regards South Africa's capability and plans in the nuclear field.
VI. STUDY ON ALL THE ASPECTS OF REGIONAL DISARMAMENT

Background

1. In 1977, on the basis of the initiative of Belgium, the General Assembly adopted resolution 32/87 D, by which all States were invited to inform the Secretary-General of their views and suggestions concerning the regional aspects of disarmament, including measures designed to increase confidence and stability as well as means of promoting disarmament on a regional basis. Pursuant to that resolution, communications were received from 28 Governments which were transmitted by the Secretary-General to the Assembly at its 1978 special session devoted to disarmament.

2. On 16 December 1978, the General Assembly, by resolution 33/91 E, decided to ask the Secretary-General to undertake a systematic study of all aspects of regional disarmament with the assistance of a group of qualified governmental experts to be appointed by him on a balanced geographical basis.

Scope of the study

3. The report, which contains five chapters, covers the various aspects of the subject generally along the lines suggested by the General Assembly in resolution 33/91 E, that is, conditions governing the regional approach, particularly from the standpoint of security requirements; measures which, on the initiative of the States concerned, might lend themselves to a regional approach; and the link between such measures and general disarmament. Included is a survey of measures which might be conceivable in the regional context. The Group also studied past and present regional disarmament efforts, such as the various initiatives towards the creation of nuclear-weapon-free zones and the Conference on Security and Co-operation in Europe, because it felt that they contain lessons which may prove pertinent for future endeavours.

Observations of the Group of Governmental Experts

4. The Group observed in the study that the importance of a regional approach to disarmament derives mainly from the fact that for the great majority of States the need for military preparedness is primarily connected with conditions in their own region. At the same time there is a link between the conditions of security in a region and those in other regions and at the global level. Consequently, disarmament efforts in one region should be conceived in their interrelation with disarmament efforts in other regions, and with efforts to stop and reverse the over-all arms race, especially the arms race involving the leading nuclear powers. However, there is considerable scope for independent initiatives and practical action in each region.

5. Development towards greater emphasis on a regional approach to disarmament,

far from being inconsistent with global goals, enhances them. Though in no way a substitute for general and complete disarmament, the regional approach can be an effective complement to global measures and an important constituent in the step-by-step approach to global disarmament.

6. The more effectively the countries in a region can reduce tension among themselves, strengthen intraregional co-operation and eliminate mutual military competition, the better will they be able to keep the region free from external interference, and to prevent it from becoming a zone of confrontation and rivalry for outside Powers. Determined efforts to resolve regional conflicts and settle disputes by peaceful means, and steps to promote regional co-operation in various fields, can go a long way towards diminishing the scope for external interference and the occasions for confrontation at the global level, thus paving the way for appropriate regional and global disarmament measures.

7. The Group also observed that in relation to regional disarmament, a flexible approach to the concept of a "region" must be adopted. It is not possible to define in advance and in general what might constitute a suitable "region"; it stated, as that depends both on the initiative of the States concerned and, in many cases, on the type of measure envisaged. Thus, two or more neighbouring States can constitute a "region" for disarmament purposes. So can, in fact, contiguous parts of the territories of States, as in the case of a demilitarized border zone.

8. It is for the States of the region under consideration to determine the modalities of their regional approach to disarmament. A disarmament measure can emanate only from the express will of each State to whose territory and/or armed forces it applies. However, a regional disarmament measure would not be in keeping with the ultimate goal of general and complete disarmament if it did not take into account the security concerns of third States involved and of the international community as a whole.

9. It is no less important that third States should co-operate in implementing any disarmament measure agreed upon by the States of a region in the context of gradual advance towards general and complete disarmament. Such co-operation means, as a minimum, respect for the new status established by the States in question for their own region.

10. The Group also examined the question of the establishment of nuclear-weapon-free zones and pointed out that where and when the necessary conditions were met, the establishment of such zones may provide advantages which the global approach could not achieve. In particular, such zones would involve the complete absence of nuclear weapons, and therefore allow for the provision of more specific security guarantees by the nuclear-weapon States as well as for more developed arrangements regarding inspection and international transfers of nuclear materials and equipment.

11. Among its other observations, the Group stated that the cessation of the conventional arms race is a domain in which the inclusion of a regional aspect in the approach to disarmament is particularly important. The reduction of military expenditures, also in the regional context, would be an effective contribution to halting and reversing the arms race.

/...
Conclusions

12. It was the view of the Group that:

- Given the political will, there is a vast and, to a large extent, unexplored potential for progress in disarmament if the global approach is supplemented with determined and systematic efforts at the level of the different regions.

- It is clear that progress in disarmament, both nuclear and conventional, and avoidance of policies and actions leading to a deterioration of the political and security conditions at the global level would greatly facilitate agreement on effective measures in each region.

- Equally, progress in regional disarmament, the equitable solution of problems, and the just settlement of disputes at the regional level could create conditions that would promote disarmament and the relaxation of tension at the global level.

- The urgency of regional disarmament stems both from the importance of enhancing security in the different regions and from the impetus which the adoption of measures in one region can give to efforts in other regions or globally.

- Halting and reversing the nuclear-arms race and nuclear disarmament, as well as regional measures contributing to that end, assume particular importance given the threat posed by nuclear weapons.

- Conventional weapons should receive due emphasis in regional disarmament efforts since their buildup can be a serious impediment to nuclear disarmament and nuclear non-proliferation efforts. Moreover, the social and economic burden associated with the arms race is predominantly - and for most countries exclusively - related to the conventional component of the global arms race.

- A potentially useful approach would be for the States of a region to seek agreement on over-all long-term objectives in the field of disarmament, even if, at first, such objectives may lack precision and may be more an identification of problems and aims than of solutions and means.

- There may be a need for strengthening or creating mechanisms, institutions or arrangements at the regional level which would allow regional disarmament initiatives to develop, concepts and approaches to be discussed and concrete steps to be negotiated.

- It is important that governmental institutions, institutions of learning and public opinion, be encouraged to contribute to the regional disarmament efforts.
The various bodies of the United Nations system can provide valuable advice and assistance for the entire process of regional disarmament. Guarantees of one kind or another, established through the United Nations, can in some cases be vital for the effectiveness of specific regional measures.

The United Nations system can also play an important role in the promotion of an informed and engaged public opinion in favour of disarmament not only at the global level but also in its regional aspects.

VII. REDUCTION OF MILITARY BUDGETS: INTERNATIONAL REPORTING OF MILITARY EXPENDITURES*

Background

1. On numerous occasions throughout the years and particularly since 1973, pursuant to resolutions 3093 A and B (XXVIII), the General Assembly has expressed its deep concern over the continued increase in global military expenditures and its detrimental effects on international security and on economic and social development. The Assembly has also called upon the Member States of the United Nations to take concrete steps, as an important disarmament measure, to reduce military expenditures and to reallocate human and financial resources from military to economic and social development purposes.

2. At its thirtieth session, in 1975, the General Assembly adopted resolution 3463 (XXX) in pursuance of which the Secretary-General appointed a group of qualified experts, which prepared a report entitled Reduction of military budgets: measurement and international reporting of military expenditures. One of the major recommendations of the report was the implementation of an international reporting system for military expenditures.

3. At its thirty-first session, the General Assembly, after considering the report, adopted resolution 31/87 of 14 December 1976, by which, inter alia, it invited all States to communicate to the Secretary-General their comments on the proposed standardized reporting instrument, and requested the Secretary-General to prepare a report containing an analysis of those comments. The report of the Secretary-General was submitted in document A/32/194 and Add.1 (see p. ... above).

4. After considering the report, the General Assembly, on 12 December 1977, adopted resolution 32/85, by which the Secretary-General was requested to ascertain which States would be prepared to participate in a pilot test of the reporting instrument, to report thereon to the Assembly at its special session devoted to disarmament and to prepare a background report for that same session. In pursuance of the resolution, the Secretary-General submitted his report (A/S-10/6 and Add.1) to the General Assembly at its tenth special session.

* Report of the Secretary-General contained in document A/35/479.

5. At its thirty-third session, the General Assembly adopted resolution 33/67 of 14 December 1978, in which, inter alia, it requested the Secretary-General, with the assistance of an ad hoc panel of experienced practitioners in the field of military budgeting: (a) to carry out a practical test of the proposed reporting instrument; (b) to assess the results of the practical test; and (c) to develop recommendations for further refinement and implementation of the reporting instrument. The Assembly also requested that the report be submitted by the Secretary-General at its thirty-fifth session. The report, contained in document A/35/479, is summarized below.

Report of the Ad Hoc Panel on Military Budgeting

6. In pursuance of General Assembly resolution 33/67, the Secretary-General appointed an Ad Hoc Panel on Military Budgeting composed of experts from seven countries, namely Indonesia, Japan, Nigeria, Peru, Romania, Sweden and the United States of America.

7. As a prerequisite step, the Chairman of the Ad Hoc Panel, on 31 August 1979, submitted to the Secretary-General a document entitled "Proposed reporting matrix and instructions" and this document was subsequently circulated by the Secretary-General to all Member States, together with an invitation to participate on a voluntary basis in the test.

8. Fourteen Member States responded to the Secretary-General's invitation by completing the proposed reporting instrument and submitting it to him. They were: Australia, Austria, Belgium, Canada, France, Germany, Federal Republic of, Indonesia, Italy, Mexico, Netherlands, New Zealand, Norway, Sweden and the United States.

9. Although the number of replies was rather limited, the Ad Hoc Panel was gratified because answers were submitted by countries from several geographical regions with differing accounting and budgeting systems. The Panel also noted that owing to the limited number of replies received, suggestions and comments from additional States would be useful for the further refinement of the reporting instrument at a later stage. After assessing the comments from participating countries, the Panel concluded that some minor modifications of the matrix and its accompanying instructions should be made. These modifications are reflected in the revised instrument which is reproduced below.

...
Instrument for standardized international reporting of military expenditures

(Actual outlays, current prices)

Country: ..................... Fiscal year: ..................... /(day month year) / (day month year)

National currency and unit of measure: ..........................................................

(The unit of measure should not exceed one ten thousandth of the total military expenditures)
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<th>Force groups</th>
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<th>Land forces</th>
<th>Naval forces</th>
<th>Air forces</th>
<th>Other combat forces</th>
<th>Central support administration and command</th>
<th>Paramilitary forces</th>
<th>Military assistance</th>
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Problem areas in the international reporting of military expenditures

10. The report stresses that in order to allow comparisons of expenditure data presented in different national currencies, these data have to be converted to a common currency by some set of exchange rates or parities. One common method is to convert the national figures into United States dollars, using some variant of exchange rates. The kind of exchange rates most often used are the ones regularly reported to and published by the International Monetary Fund. Although a full solution to the conversion problem is not imminent, the complexity of the problem, the length of time likely to be required for a solution and the existence of the related international comparison project research, suggests that the time is at hand to initiate an international effort to resolve the problem of currency conversion as applied to military expenditures.

11. It is felt that in view of the tendency for prices to change, comparisons of military expenditures over time require appropriate price indexes for the things purchased. Indexes calculated specifically for military goods are, in most countries, generally unavailable.

12. The difficulties of intertemporal comparisons apply not only to single countries but affect comparisons among countries as well. As noted above, military price indexes would be useful for extrapolating purchasing power parities or other conversion rates that may apply to a single point in time.

13. In addition to the development of satisfactory means for conversion among currencies and adjustment for price change, a number of other questions of military expenditure measurement, comparison and limitation warrant serious attention from the international community upon the implementation of an international instrument for standardized reporting of military expenditures.

14. As repeatedly stated in relevant United Nations documents, agreements concerning reduction of military expenditures should include adequate measures of verification satisfactory to all parties concerned. Little attention has been given to this important issue thus far.

15. The use of the reporting instrument in itself would enhance prospects for effective verification of agreements due to the detail, the cross-classification of expenditures by forces and costs, and the standardized definition of categories. At the same time, a major approach to verification rests on the consistency between reported military expenditures and data on other aspects of a national economy. Thus, converting data from national to international accounts introduces a new difficulty in this approach, unless the relationship between the standard and national accounting systems is clarified.

16. Approaches to verification of agreements that might warrant further examination include: the relationship between expenditure and related economic information and information obtained by national technical means; the notion of a graduated ladder of increasing disclosure; and the potential of various types of national accounting systems and of calculations based on the use of input-output tables, particularly if specially designed to serve the purpose of verification.