



**General Assembly**

Distr.  
GENERAL

A/44/487  
18 September 1989  
ENGLISH  
ORIGINAL: ENGLISH/RUSSIAN/  
SPANISH

Forty-fourth session  
Item 65 of the provisional agenda\*

Scientific and technological developments and their impact  
on international security

Report of the Secretary-General

CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
I. INTRODUCTION .....	1	2
II. ACTION TAKEN BY THE SECRETARY-GENERAL .....	2 - 4	2
III. INFORMATION RECEIVED FROM GOVERNMENTS .....		3
Finland .....		3
Germany, Federal Republic of .....		4
Ghana .....		4
Mexico .....		5
Union of Soviet Socialist Republics .....		5

\* A/44/150.

## I. INTRODUCTION

1. On 7 December 1988, the General Assembly adopted resolution 43/77 A entitled "Scientific and technological developments and their impact on international security", the operative part of which reads as follows:

"The General Assembly,

"...

"1. Requests the Secretary-General to follow future scientific and technological developments, especially those which have potential military applications, and to evaluate their impact on international security, with the assistance of qualified consultant experts, as appropriate, and to submit a report to the General Assembly at its forty-fifth session;

"2. Invites Member States to establish panels at the national level to monitor and evaluate such developments and disseminate the assessments provided by the Secretary-General;

"3. Also invites all Member States to communicate to the Secretary-General their views and proposals as well as the evaluations of the national panels;

"4. Requests the Secretary-General to submit to the General Assembly at its forty-fourth session a report on the implementation of the present resolution;

"..."

## II. ACTION TAKEN BY THE SECRETARY-GENERAL

2. Pursuant to paragraph 1 of General Assembly resolution 43/77 A, a consultative meeting was held at United Nations Headquarters on 31 May 1989 to assist the Secretary-General in identifying the broad areas of scientific and technological developments relevant to the purposes of the resolution.

3. Qualified consultants will be invited by the Secretary-General to prepare individual assessments in their specific areas of expertise covering the following broad fields: information technology, biotechnology, materials technology, space technology and nuclear technology. These assessments will be discussed by a wider group of experts and the outcome will be included in the Secretary-General's report to the General Assembly at its forty-fifth session.

4. In a note verbale of 8 February 1989, the Secretary-General drew the attention of the Member States to paragraphs 2 and 3 of the resolution. To date, the Secretary-General has received replies from Finland, the Federal Republic of Germany, Ghana, Mexico and the Union of Soviet Socialist Republics which are

/...

contained in section III of the present report. Any further replies will be issued as addenda to the present document.

### III. INFORMATION RECEIVED FROM GOVERNMENTS

#### FINLAND

[Original: English]

[28 July 1989]

1. In Finland there exists no national panel whose sole task is to monitor and evaluate scientific and technological developments and their impact on international security. However, the Advisory Board for Disarmament at the Ministry for Foreign Affairs, established in the early 1970s, is entrusted, among other things, with the task of promoting relevant research and of suggesting ways to apply their results for the purposes of disarmament. There are also other institutions with wide expert and political representation that deal with issues brought up in General Assembly resolution 43/77 A. Thus, the Government of Finland does not consider it necessary to establish a new panel at the national level for this purpose.

2. With reference to paragraph 3 of the said resolution, the Government of Finland, after having consulted the Advisory Board for Disarmament, would like to state the following:

It is obvious that scientific and technological development in the field of armament will continue. Its future course is difficult, almost impossible, to foresee even in the medium term. In the field of nuclear technology, both relevant techniques, that is, fusion and fission, are already applied to arms production. Thus, although more flexible nuclear weapons may be developed, a completely new type of nuclear weapon seems improbable. Chemical weapons may experience rapid development. However, the destructive capacity of existing weapons and nerve gases is already so high that no major technical inventions are probable in this field. The destructive effects of biological weapons appear slowly and their use involves risks that are far from controllable. That is why biological weapons lack direct military significance. However, future developments in the field of gene technology presently represent an unknown factor.

The Government of Finland considers it urgent that the achievements of scientific and technological research be used in a positive way for the common benefit and well-being of mankind. International efforts for arms limitation and unequivocal commitment to disarmament by all States is indispensable in the reallocation of resources and in the redirection of the fruits of scientific and technological development. In the field of arms production, attention should be placed on non-provocative, defensive arms systems and the elimination of such side-effects of arms that are random and directed at civilians. The development of comprehensive and reliable verification

procedures at the national and international levels represents a challenging task that effectively serves the commonly agreed purposes of international security.

GERMANY, FEDERAL REPUBLIC OF

[Original: English]

[27 July 1989]

1. General Assembly resolution 43/77 A entitled "Scientific and technological developments and their impact on international security" correctly emphasizes the importance of dealing with the qualitative aspects of arms control. The Government of the Federal Republic of Germany shares the view that a merely quantitative approach to arms control and disarmament is insufficient.
2. The resolution goes on to caution against the negative impact on security and disarmament that technological progress will have if applied to military purposes. The Government of the Federal Republic of Germany finds it hard to follow the reasoning that technological advances in themselves are negative in terms of arms control and disarmament.
3. In fact, technology as such is neutral. It is certainly true that improvements in the capabilities of weapons - including such systems that are of particular relevance for defensive purposes - require scientific research and development. But it is equally true that advanced technology can, and does, assist arms control and disarmament efforts; examples would be advanced satellite technology for verification, or sophisticated analysing equipment for monitoring compliance with a ban on chemical weapons.
4. Thus, the task of halting the arms race is not solved by banning technology altogether, or banning its military application, since technology may even promote arms control and disarmament. The real issue is in the field of political decision-making.

GHANA

[Original: English]

[16 June 1989]

Ghana voted positively for General Assembly resolution 43/77 A of 7 December 1988 because of its general objectives. As a developing country, however, Ghana has no programmes for converting scientific and technological developments for military purposes. The goal of the Government of Ghana is, and continues to be, the harnessing of its national resources, including the results of any scientific and technological developments, for the social and economic advancement of its people.

**MEXICO**

[Original: Spanish]

[19 May 1989]

1. Mexico has traditionally taken a keen interest in matters relating to world peace and disarmament; for that reason, it has striven to ensure that all advances in science and technology are used to the good of mankind, as a means of assuring its existence, not to attain more critical levels of mass destruction.
2. Nevertheless, Mexico notes with concern that such encouragement as has been given to scientific research has been in the field of weapons development instead of being channelled towards medical research, improvements in agricultural output or educational support, among other items necessary to people's development.
3. Disarmament has been described within the United Nations as a process consisting in reducing the strength of armed forces and the associated expenditure; to attain this objective, Mexico believes it is necessary to go to the root of the problem and not use scientific and technological advances in the arms race, since any refinement to military arsenals represents a risk to international security.
4. Investigators in new fields of research should ensure that their work is used to benefit mankind, avoiding making improvements to weapons at all costs. In this context, Mexico is of the view that any scientific or technological advance should be pursued with caution, and its use in military applications should be condemned. Hence it also believes that outer space should be used for the good of the international community and not as a strategic defence system which self-evidently cannot be certain of attaining its objectives. Likewise, nuclear tests for the purpose of refining nuclear weapons should be halted once and for all.
5. Finally, Mexico urges the international community, first to get down to serious discussions of the qualitative aspect of the arms race and, second, to take cognizance of the fact that scientific and technological advances used for military purposes adversely affect international security and constitute a severe setback to previous disarmament efforts.

**UNION OF SOVIET SOCIALIST REPUBLICS**

[Original: Russian]

[23 August 1989]

1. In the opinion of the Soviet Union, the task of checking the arms race and turning the incipient process of real disarmament into something permanent serves to indicate the importance of immediate moves by the world community to impose controls on the use of scientific and technical advances to military ends. Science and technology should be used to the full in the service of peace, confidence-building and the creation of a new model of security.

2. At the third special session of the General Assembly devoted to disarmament, the Soviet Union argued for a systematic evaluation of scientific and technological advances with a view to the timely preparation of recommendations on preventing the use of new technology in weapons manufacture. Initially, this should apply to laser, genetic and electromagnetic research. The Soviet proposal to ban the creation of non-nuclear weapons based on new physical principles, but similar in their destructive capabilities to nuclear or other weapons of mass destruction, remains valid.

3. Specific initiatives in this direction are being put forward by many countries and by large numbers of scientists, politicians and public figures. The USSR is favourably disposed to the suggestion by members of the Non-Aligned Movement to halt and prohibit the use of scientific and technological advance in the development and manufacture of new generations and types of weapons of mass destruction and new types and systems of conventional weapons. It supported the proposal by India and other countries for the creation under the authority of the Secretary-General of a panel to evaluate and forecast military applications of new technology.

4. The Soviet Union hailed as a major step the adoption at the forty-third session of the General Assembly of resolution 43/77 A, "Scientific and technological developments and their impact on international security", which called for the establishment of national panels to monitor scientific and technological developments with potential military applications.

5. The Permanent Mission of the USSR to the United Nations is authorized to announce that, in accordance with this recommendation, the Soviet Union has established a national expert panel to evaluate and forecast military applications of scientific and technological advances; the panel will study the effects of such advances on international security, periodically bringing its findings to the attention of the Secretary-General of the United Nations and disseminating the Secretary-General's evaluations within the USSR. The panel, which includes eminent Soviet scientists, will work in close contact with the Committee of Soviet Scientists for Peace and against the Nuclear Threat headed by R. Z. Sagdeev.

6. It is believed by the Soviet Union that this move will help to foster fruitful collaboration under United Nations auspices in the imposition of restrictions on the manufacture of ever more destructive and dangerous weapons and weapon systems, and a shift from pointless and dangerous military rivalry to the strengthening of peace and international security on a comprehensive basis.

-----