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REPORT TO THE SECRETARY-GENERAL OF THE UNITED NATIONS
RELATING TO RECOMMENDATIONS MADE BY THE CONFERENCE
OF NON-NUCLEAR-WEAPON STATES

Note by the Director General

1. In Resolution 2605 A (XXIV) the General Assembly of the United Nations invited the Agency to report to the Secretary-General on further action taken by it in connection with recommendations contained in resolutions adopted by the Conference of Non-Nuclear-Weapon States in September 1968.
2. The report which was consequently prepared was approved by the Board of Governors last June, when the Board requested the Director General to make the text available to the General Conference. It is accordingly attached hereto.

INTRODUCTION

1. In 1969 the Agency submitted a report [1] to the Secretary-General regarding the action it had taken on the recommendations contained in certain resolutions adopted by the Conference of Non-Nuclear-Weapon States (CNNWS).
2. In Resolution 2605 A (XXIV) the General Assembly invited the Agency to report to the Secretary-General on further action taken by it on these recommendations. The present report is designed to meet that request. It should be read in conjunction with the main part of this year's comprehensive annual report of the Agency to the General Assembly, which covers the same period and the same subjects in considerably greater detail.
3. Because of this identity of period and topic, and since most of the relevant recommendations of CNNWS are similar to the Agency's own programme objectives (e. g. simplification of safeguards, full exchange of nuclear information, promotion of the use of nuclear explosives for peaceful purposes), the present report inevitably repeats, in somewhat different presentation, the information already communicated to the General Assembly in the annual report. The Agency wishes to draw the General Assembly's attention to this extensive duplication and expresses the hope that this will be borne in mind should proposals be considered for further special reports.
4. The most significant development for the Agency during the period covered by this report was the entry into force on 5 March 1970 of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). The Agency is not only directly affected by the provisions of Article III of NPT which require non-nuclear-weapon States Parties to conclude safeguards agreements with the Agency, but also by Articles IV and V which contain important commitments regarding the increased international exchange of information, equipment and materials for the peaceful uses of atomic energy, as well as to ensure that non-nuclear-weapon States have access to the benefits of the peaceful applications of nuclear explosives. The initial work that the Agency has done to prepare itself for the assumption of safeguards responsibilities in connection with NPT was described in paragraphs 18-41 of the first report.[1] In February 1970 the Board of Governors of the Agency discussed the steps it should take so as to enable the Agency to carry out its safeguards responsibilities in the light of NPT. In April 1970 the Board decided to establish a Safeguards Committee (1970) on which any Member State may be represented if it so desires.[2] The Committee will advise the Board on the Agency's safeguards responsibilities in relation to NPT, and in particular on the content of the agreements that will be required in connection with the Treaty.
5. With regard to Articles IV and V of NPT, it may be noted that:
 - (a) For the first time in many years there has been a sizable increase in the resources available to the Agency to meet requests for technical assistance under the regular programme. The number of projects that the Agency is executing for the United Nations Development Programme (Special Fund and Technical Assistance components) (UNDP(SF) and UNDP(TA)) is also slowly increasing as Governments of developing countries give a higher priority to nuclear energy projects; and
 - (b) The first international meeting on the peaceful applications of nuclear explosives was held at the Agency's Headquarters in March 1970. It attracted wide interest and inaugurated a significant world-wide exchange of information which will be taken further in a series of more specialized meetings.

[1] United Nations document A/7677, Annex.

[2] See para. 8 below.

6. The present report will be brought to the attention of the Agency's General Conference at its fourteenth (1970) regular session at the same time as the draft of the Agency's annual report to the General Assembly. Relevant action taken by the General Conference will again be described in the supplement to the Agency's annual report. The General Assembly's attention is also drawn to a separate special report that the Agency is submitting pursuant to General Assembly Resolution 2605 B (XXIV) on the progress of the Agency's further studies and activities connected with nuclear explosions for peaceful purposes under appropriate international control.[3]

AGENCY SAFEGUARDS

7. During the year further progress has been made in improving and simplifying the Agency's safeguards procedures to be applied, thus meeting the objectives recommended by CNNWS and set out in NPT.

8. The Safeguards Committee (1970) began to meet on 12 June with the participation of some 50 Member States. Its most urgent task is to make every effort to provide the Board during the month of July with an initial report containing advice on agreements, the negotiation of which is required to begin within 180 days of the original entry into force of NPT. The Committee was also requested to discuss the problem of safeguards financing at the earliest possible moment after it had commenced its work.

9. A safeguards systems analysis is being carried out by the Secretariat which is intended to clarify the relationships between the efficacy of safeguards, manpower requirements, costs, frequency and intensity of inspections, and to identify and avoid redundancies in the safeguards operations; in other words, to show quantitatively how and when the safeguards effort of the Agency should be deployed with maximum effectiveness in deterring diversion at minimum cost. The analysis is therefore of fundamental importance to the long-term planning of safeguards activities. An integral test programme on safeguards procedures has been designed to collect information and experience necessary for the further elaboration of detailed procedures. "Integral testing" is the full-scale application of safeguards to materials in a facility during a significant period of time, for testing purposes.

10. The groups of consultants mentioned in last year's report [4] have completed their studies of the impact of NPT on the Agency's safeguards work and of the manner in which the Agency should apply safeguards to the entire range of nuclear activities of a country, so as to ensure that the safeguards are effective, economical and widely acceptable. The consultants' reports, as well as the recommendations of two important international panel meetings, have enabled the Agency to finalize the programme for its systems analysis referred to above, and have provided overall guidance for the safeguards programme.

11. With valuable help from institutes in Member States, considerable work has been done on developing instruments and devices to facilitate and reduce the cost of safeguards and increase their credibility. The Agency and the institutes concerned are testing prototypes under plant conditions. Safeguards equipment should, if possible, be portable or at least movable, and to develop it the Agency is investigating means of identifying and measuring special nuclear materials at various stages of their use in the fuel cycle.

Co-operation with regional bodies

12. The first General Conference of the Agency for the Prohibition of Nuclear Weapons in Latin America, which met in Mexico City from 2-9 September 1969, recommended that the parties to the Tlatelolco Treaty should start negotiations with the Agency as soon as possible

[3] GC(XIV)/INF/121.

[4] United Nations document A/7677, Annex, para. 22.

for the application of safeguards pursuant to Article 13 of that Treaty and asked the Agency to elaborate a model agreement. In doing so account will have to be taken of the broad international responsibilities that the Agency will have under NPT and the fact that many States Parties to the Tlatelolco Treaty are also Parties to NPT; hence this task is to be undertaken in parallel with the preparations under NPT.

NUCLEAR INFORMATION

13. CNNWS called upon the Agency "to continue its utmost efforts for compilation and dissemination of public information concerning the peaceful uses of nuclear energy". Last year's report gave an account of the manner in which this task was being carried out. The Agency's expanding library services and its scientific conference and publications programmes were described. Reference was made to the fact that in 1970 a computer-based International Nuclear Information System (INIS) would be brought into operation. [5] INIS began operation in April-May 1970.

14. By 30 June, 35 countries, including 18 developing countries and four international and regional organizations had committed themselves to participate by providing "input" to INIS. This input consists of descriptions, abstracts and in some cases full texts of all new publications on nuclear [6] subjects, issued in the country or region or by the organization concerned. Each month the Agency merges the input received and distributes to participants a master file of descriptions both on magnetic tape and in an announcement bulletin. Abstracts and full texts are also merged into a master file and distributed on microfiches. In the first three months, a total of 926 nuclear publications were described.

15. CNNWS also asked the Agency "... to study appropriate international arrangements to facilitate the exchange of scientific and technical information which has commercial or industrial value and is not publicly available" In last year's report the Agency stated that it intended to consult various Member States and international bodies to see whether new mechanisms might be created for the transfer of such information.

16. The Director General subsequently consulted those Member States and the regional organizations that were most likely to have an interest in the matter, particularly Member States in which large nuclear programmes may have led to the accumulation of industrial information under commercial protection. In certain cases the Member States in turn consulted representatives of private corporations. The problem of access to non-patented, but commercially valuable technical information is not by any means confined to the nuclear industry. The information in question is often of great economic value. The Agency's consultations have shown that no workable and acceptable scheme for dealing with this matter by intergovernmental action is likely to emerge. It can probably best be tackled either bilaterally or within the framework of close regional arrangements.

17. The nuclear-weapon States were also invited by CNNWS to advise the Agency "as to the possibility of their declassifying scientific and technical information as soon as there is no longer any reason for its classification on national security grounds". While no specific advice on this matter has been received, it will be seen from the separate report on peaceful nuclear explosions [3] that the Agency's programme of meetings in relation to peaceful uses of nuclear explosives appears to have encouraged the dissemination of information on an important new subject. Moreover, the Fourth International Conference on the Peaceful Uses of Atomic Energy, to be held by the United Nations in Geneva in September 1971, and for which the Agency will bear scientific responsibility, will provide a further stimulus to the process of declassification and an important opportunity for exchanging such information.

[5] Ibid., paras 44-63.

[6] The term "nuclear" has been given a limited meaning initially so as to keep the subject scope small, at least during the early stages of INIS.

THE USE OF NUCLEAR EXPLOSIVES FOR PEACEFUL PURPOSES

18. Pursuant to General Assembly Resolution 2605 B (XXIV) a separate report on this subject is being submitted to the Secretary-General by the Agency.[3]

FINANCE FOR NUCLEAR ENERGY ACTIVITIES

Financing of major nuclear projects

19. In Resolution GC(XIII)/RES/256 the Agency's General Conference requested the Director General to make a comprehensive study of the likely capital and foreign exchange requirements for nuclear energy projects in developing countries during the next decade and of ways and means to secure financing for them.

20. In June the Board approved the first part of this study for submission to the General Conference and urged Governments to make additional information available to the Director General to enable him to complete it. As this document is also being submitted to the Secretary-General, a detailed report is not included here. It may briefly be noted, however, that on the basis of information so far available, developing countries expect to install 20 000 to 25 000 MW(e) of nuclear capacity between 1970 and 1980 requiring foreign exchange resources of three to four billion dollars. Between 1980 and 1985 an additional 25 000 to 35 000 MW(e) is expected to be commissioned with probable foreign currency requirements of from four to six billion dollars.

The Agency's regular programme of technical assistance

21. Since the Agency's first report to the Secretary-General, two significant trends have developed in this programme, which is financed from voluntary contributions of cash to the Agency's General Fund.[7] The first development is that in 1970 more Member States than ever before are expected to pledge such voluntary contributions, and that more of these pledges will be equal to or larger than the percentage share that the States concerned pay to the Agency's assessed Regular Budget. In particular, the United States will raise its voluntary contribution to the percentage level of its assessed contribution, i. e. by approximately \$150 000. It may be recalled that in 1969 the voluntary contribution of the Union of Soviet Socialist Republics to the General Fund was increased from 100 000 to 150 000 roubles, and there were also significant increases in the contributions from Belgium, Brazil, Hungary, Japan, Poland, Spain, Thailand and the United Kingdom.

22. The net effect of these developments is that voluntary contributions are expected in 1970 to reach 83.4% of the \$2 million target, a considerably higher percentage than ever before. The trend is analysed in Table A below.

[7] The Agency's Statute provides that all voluntary contributions of cash should be paid into a General Fund, which is then used to finance the Operational Programme.

Table A

Voluntary contributions

| Year | Established target (in millions of dollars) | Cash contributions pledged to the General Fund | | | | |
|--------------------|---|--|----------------------|--------------|----------------------------|--------------------------------|
| | | Amount \$ | Percentage of target | Shortfall \$ | Number of Members pledging | Percentage of Members pledging |
| 1959 | 1.5 | 1 183 044 | 78.9 | 316 956 | 41 of 70 | 58.6 |
| 1960 | 1.5 | 996 103 | 66.4 | 503 897 | 36 of 74 | 48.6 |
| 1961 | 1.8 | 1 261 200 | 70.1 | 538 800 | 37 of 77 | 48.1 |
| 1962 | 2.0 | 1 380 470 | 69.0 | 619 530 | 44 of 80 | 55.0 |
| 1963 | 2.0 | 1 437 394 | 71.9 | 562 606 | 40 of 85 | 47.1 |
| 1964 | 2.0 | 1 374 447 | 68.7 | 625 533 | 42 of 89 | 47.2 |
| 1965 | 2.0 | 1 330 589 | 66.5 | 669 411 | 55 of 94 | 58.5 |
| 1966 | 2.0 | 1 277 416 | 63.9 | 722 584 | 61 of 96 | 63.5 |
| 1967 | 2.0 | 1 431 823 | 71.6 | 568 177 | 62 of 98 | 63.3 |
| 1968 | 2.0 | 1 368 680 | 68.4 | 631 320 | 63 of 99 | 63.6 |
| 1969 | 2.0 | 1 492 819 | 74.6 | 507 181 | 67 of 102 | 65.7 |
| 1970 ^{a/} | 2.0 | 1 623 033 | 81.1 | 376 976 | 70 of 103 | 67.9 |
| 1970 ^{b/} | 2.0 | 1 672 933 | 83.6 | 330 067 | 74 of 103 | 71.8 |

a/ As at 30 June 1970.

b/ Expected total as at 31 December 1970.

23. As a result of this encouraging development it is expected that the General Conference will raise the target from \$2 million, at which level it stood from 1962-70, to \$2.5 million in 1971.

24. The United States has also pledged to increase its contributions in kind (equipment grants, "cost-free" fellowships and experts, financial assistance to training courses and study tours) to the technical assistance programme to an estimated value of \$750 000 in 1970 compared with \$400 000 in 1969. There have also been significant increases in contributions in kind by Denmark, France, the Federal Republic of Germany, India, Mexico, the Netherlands, Spain and Sweden.

25. A further encouraging development has been the conclusion of an agreement in January 1970 with the Government of Sweden for co-operation in providing assistance to developing countries. It is expected that funds for selected nuclear projects will be made available by the Swedish International Development Authority from 1970 onwards, thereby significantly augmenting the resources available for aid to a number of countries. The Agency is exploring the possibility of similar arrangements with other technically advanced countries.

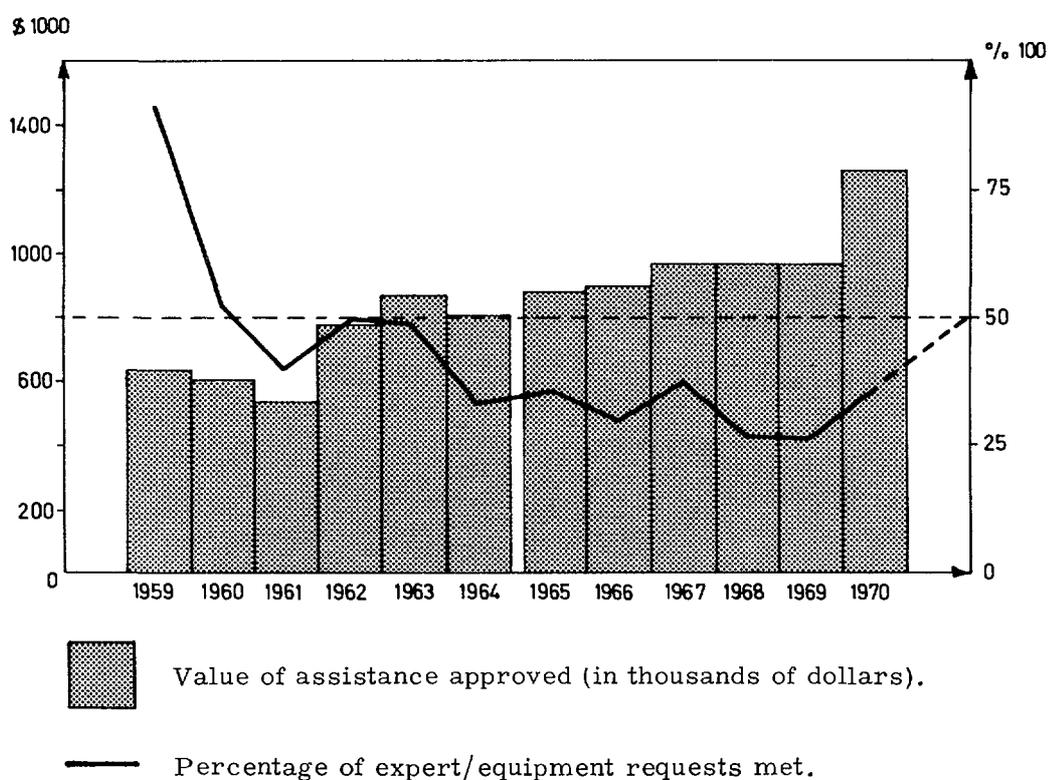
26. The second development, reflected in Table B and the chart below, has been a change in the balance of the regular technical assistance programme, which has enabled the Agency to meet a larger proportion of the requests it receives for experts and equipment. This change was made possible by reducing the share of available funds allocated to the training part of the programme, which, in turn, will be compensated for by the value of the fellowships made available to the Agency cost-free by Member States.

Table B

Technical assistance (experts and equipment) approved compared with requests

| Year | Value of requests received \$ | Value of assistance approved \$ | Percentage of requests met |
|------|----------------------------------|------------------------------------|----------------------------|
| 1959 | 690 000 | 619 400 | 89.6 |
| 1960 | 1 150 000 | 599 200 | 52.1 |
| 1961 | 1 277 600 | 513 100 | 40.4 |
| 1962 | 1 530 000 | 757 600 | 49.5 |
| 1963 | 1 750 000 | 857 800 | 48.9 |
| 1964 | 2 400 000 | 804 600 | 33.3 |
| 1965 | 2 500 000 | 874 000 | 35.0 |
| 1966 | 3 000 000 | 901 600 | 30.0 |
| 1967 | 2 600 000 | 975 000 | 37.5 |
| 1968 | 3 600 000 | 977 000 | 27.1 |
| 1969 | 3 700 000 | 977 000 | 26.4 |
| 1970 | 3 400 000 | 1 250 000 | 36.8 |

The Agency's regular programme of technical assistance: 1959-1970



27. Despite this improvement it seems likely that in 1970 about one third of the total membership of the Agency will still not pledge any voluntary contributions, and that five Member States that pay relatively large shares of the Regular Budget will pledge an aggregate amount that will be about \$270 000 below the amount they would have pledged if they had been prepared to pay the same share to the General Fund. The position as forecast at the end of 1970 is shown in the table below.

Table C

Estimated pledges of voluntary contributions for 1970
(Actual as of 30 June 1970, plus four Member States
which normally pledge during the year)

| Number of Member States | Rate at which pledge for 1970 has been made | Assessment ratio % | Required by assessment ratio \$ | Amount pledged \$ | Shortfall or (surplus) \$ |
|-------------------------|---|----------------------|---------------------------------|-------------------|---------------------------|
| 23 | In excess of assessment ratio | 15.50 | 310 000 | 342 649 | (32 649) |
| 42 | At assessment ratio | 52.44 | 1 048 800 | 1 048 800 | - |
| 4 | Below assessment ratio by \$7500 or less (\$400 to \$7500) | 1.43 | 28 600 | 18 600 | 10 000 |
| 5 | Below assessment ratio by \$13 000 or more (\$13 000 to \$98 333) | 26.59 | 531 800 | 262 884 | 268 916 |
| 74 | Sub-total | 95.96 | 1 919 200 | 1 672 933 | 246 267 |
| 29 | No pledges anticipated for 1970 | 4.19 | 83 800 | - | 83 800 |
| 103 | | 100.15 ^{a/} | 2 003 000 | 1 672 933 | 330 067 |

a/ Percentage exceeds 100% because one State became a Member of the Agency after the assessment ratio had been established.

It will be seen that 65 Member States (63.1% of the membership) are expected to make voluntary contributions that will be at least as large as their proportionate share of the Agency's Regular Budget. This compares with 47 States (46.1% of the membership) in 1969.

UNDP(SF) projects

28. The situation at 30 June 1970 as compared with that at 30 June 1969 is shown below:

| | <u>30 June 1970</u> | <u>30 June 1969</u> |
|--|---------------------|---------------------|
| Number of UNDP(SF) projects being executed by the Agency (including projects approved but not yet started) | 4 | 2 |
| Total cost of such projects: | | |
| UNDP contribution | \$3 188 360 | \$2 379 160 |
| Government contribution | \$4 361 080 | \$3 653 280 |

FUND OF SPECIAL FISSIONABLE MATERIALS

29. In its report [8] the Agency informed the General Assembly of the status of the Agency's existing fund of special fissionable materials, and reported that additional supplies of such materials can be expected to be available to Member States, through the Agency, on the same terms and conditions as they are available on a bilateral basis. The Agency also informed the General Assembly of the action taken by the Agency's General Conference in September 1969 on this subject.[9]

30. It may be added that during the thirteenth (1969) regular session of the General Conference the delegation of Mexico indicated that if a decision were taken in favour of a nuclear power station to be installed in Mexico the Government intended to conclude a contract with the Agency for the supply of nuclear fuel for a 600-MW(e) power reactor; this would be the first supply through the Agency of fuel for a nuclear power station. Preliminary consultations are proceeding with the Mexican authorities in this connection. On 27 November 1969 the Agency concluded an agreement with Finland and the United States of America covering the supply of special fissionable materials over a five-year period - the longest period so far covered by an Agency supply agreement - for a 250-kW research reactor.

COMPOSITION OF THE BOARD OF GOVERNORS

31. It will be recalled that at the end of September 1968 the Agency's General Conference requested the Board of Governors to review those provisions of the Statute which lay down how the Board is to be constituted and to function. It was at that time that CNNWS recommended that representation on the Board be broadened. The General Assembly has already been apprised of the various steps that the Board consequently took in the ensuing years, leading up to a further request by the General Conference that the Board should make every effort to present a draft amendment of the relevant statutory provisions - that is, those contained in Article VI - in time for consideration by the Conference in September 1970.[10]

32. The Board's Ad Hoc Committee of the Whole which is dealing with the matter held a further meeting early in December 1969, two meetings in February 1970 and another meeting early in June 1970. Over this period it had before it a total of eight suggestions for changing the Board's composition, several of which were modified versions of suggestions first made last year.

33. Subsequently, three formal proposals for amendment of the Statute were communicated to the Director General under Article XVIII.A thereof. The Board began their consideration at its meetings in June this year, deciding to meet again on 7 July with a view to the formulation of observations upon each of them, as required under Article XVIII.C. (i). Before the end of June two more such proposals were received by the Director General, and it is foreseen that in July the Board will give its attention to them also.

[8] United Nations document A/7677/Add. 2.

[9] United Nations document A/7637/Add. 1.

[10] United Nations document A/7677, Annex, paras 112-115; A/7677/Add. 2, part III(2); and A/7637/Add.1.