THE PROVISION OF TECHNICAL ASSISTANCE BY THE AGENCY WITH SPECIAL REFERENCE TO 1980

Report by the Director General

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PREFACE

Following its usual practice, the Board of Governors has requested the communication to the General Conference of the material it used in reviewing the provision of technical assistance by the Agency, with special reference to 1980; this material is accordingly reproduced in the present document. The review was carried out pursuant to paragraph 19 of the Revised Guiding Principles and General Operating Rules to Govern the Provision of Technical Assistance by the Agency[1].

The use of the resources placed at the Agency's disposal, in the form of voluntary contributions, gifts in kind, multi-bilateral funds and UNDP funds for the provision of technical assistance, is reviewed in this document.

The three principal elements of the technical assistance provided are expert services, equipment and fellowships. The main objectives of the assistance are to promote the transfer of skills and knowledge relating to the peaceful uses of atomic energy, to support the efforts made by recipient countries to carry out their atomic energy activities more efficiently and safely, and to ensure that the knowledge acquired can continue to be applied after the provision of assistance by the Agency has been completed. The achievement of the latter objective, however, depends largely on the ability of Governments to make adequate facilities available and to recruit and retain the requisite number of qualified staff.

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[1] INFCIRC/267.

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LIST OF ABBREVIATIONS

Agency	International Atomic Energy Agency
EURATOM-BCMN	Bureau Central de Mesures Nucléaires (Central Office of Nuclear Measurements), EURATOM
IAEA	International Atomic Energy Agency
IANEC	Inter-American Nuclear Energy Commission of the Organization of American States
IBRD	International Bank for Reconstruction and Development
JINR	Joint Institute for Nuclear Research
SIDA	Swedish International Development Authority
UN-DNRE	Division of Natural Resources and Energy, United Nations
UNDP	United Nations Development Programme
WHO	World Health Organization

Byelorussian SSR	Byelorussian Soviet Socialist Republic
Dem. Kampuchea	Democratic Kampuchea
Dem. P.R. Korea	Democratic People's Republic of Korea
German D.R.	German Democratic Republic
Germany, F.R.	Federal Republic of Germany
Korea, R.	Republic of Korea
Libyan A.J.	Libyan Arab Jamahiriya
St. Kitts	St. Kitts-Nevis-Anguilla
Syrian A.R.	Syrian Arab Republic
Ukrainian SSR	Ukrainian Soviet Socialist Republic
USSR	Union of Soviet Socialist Republics
U.A. Emirates	United Arab Emirates
UK	United Kingdom of Great Britain and Northern Ireland
U.R. Cameroon	United Republic of Cameroon
U.R. Tanzania	United Republic of Tanzania
USA	United States of America

NOTES

All sums of money are expressed in United States dollars.

The technical assistance described in this report is classified under the following ten fields of activity:

Code	Field of activity
0	General atomic energy development
1	Nuclear physics
2	Nuclear chemistry
3	Prospecting, mining and processing of nuclear materials
4	Nuclear engineering and technology
5	Application of isotopes and radiation in agriculture
6	Application of isotopes and radiation in medicine
7	Application of isotopes and radiation in biology
8	Application of isotopes and radiation in industry and hydrology
9	Safety in nuclear energy

Part I. GENERAL OBSERVATIONS

1. The annual growth rate in total resources available to the Agency to finance its technical assistance activities, which had dropped to 14.5% in 1979, was 27% in 1980, as these resources increased from $17 077 000 to $21 735 000. The sharpest growth occurred in UNDP resources (+ 45%), followed by in-kind contributions (+ 30%), the Agency's Technical Assistance Fund (+ 20%), and extrabudgetary contributions (+ 21%). The respective shares of each of these remained fairly stable and Agency funds (voluntary contributions plus miscellaneous income) continue to constitute about half of the total available resources.

2. During 1980 the total amount of technical assistance provided increased by just over 20% to $18 750 600. The growth rate is nearly identical to that observed in 1979. A sharp increase was registered in programme delivery from UNDP funds (+ 45%), as in the UNDP funds themselves, whereas the increase in technical assistance provided from the Agency's funds was 9.7%, slightly above the growth rate in 1979.

3. The actual number of expert man-months delivered was nearly the same as for the preceding year; that is, the sharp decrease noted in 1979 did not continue. Expert assignments are steadily decreasing in duration; to deliver the same number of man-months in 1980 as in 1969 involved more than twice the number of assignments.

4. As the growth rate of resources was higher than that of programme delivery, the earmarkings (that is to say, the value of the technical assistance still to be delivered at the end of the year from the Agency's Technical Assistance Fund) increased to $7 811 000. However, it would be incorrect to assume that the increase of 40% was due solely to a lower implementation rate. Of the total earmarkings of $7 811 000, an amount of $4 573 400 relates to expert services still to be provided. Of this amount, $952 000 represents an increase caused by the recalculation of the outstanding expert man-months at the end of 1980 at the higher pro forma cost figure which has to be applied in 1981.

5. While the increase in earmarkings leaves no doubt that the implementation rate is still too low, it does not mean that programme delivery is becoming slower. The decrease in "old" projects observed in 1979, for the first time in four years, continued in 1980, so that of the outstanding assistance only 21% is in respect of approvals dating back more than two years.

6. A major success in 1980 was the increase in the programming of non-convertible currencies. The surplus in these currencies declined from $2 127 000 in 1978 to $1 462 000 in 1979 and to only $541 000 in 1980. It may now be assumed that no such surpluses will remain at the end of 1981 and that, thanks to the co-operation of all concerned, the Agency will henceforth be able to utilize all its resources fully.

7. Disregarding the recalculation of the outstanding man-months at the end of 1980 at the higher man-month cost applicable in 1981, as explained in paragraph 4 above, the deficit in convertible currencies would have been balanced by the existing surplus in non-convertible currencies. However, as it is now, the revised, higher earmarkings in respect of the expert component have caused an overall deficit or overprogramming of $661 000.

8. The introduction of a conservative degree of overprogramming, up to 10% of anticipated resources, will be considered when the proposed regular programme

for 1982 is being prepared, as this would permit quicker and more efficient use of available resources. Also, overprogramming to this limited extent would obviate unnecessary restrictions in the programming of next year's resources when current-year deficits do not constitute a threat to the liquidity of the regular programme.

9. Extrabudgetary contributions remain an indispensable part of the Agency's resources. Whereas in 1979 only 34% of the footnote-a/ projects could be made operational through such contributions, the percentage increased to 57% for the 1980 programme.

10. While projects involving experts and/or equipment receive particular attention in the Board, training programmes constitute nearly one third of the Agency's technical assistance activities and only 4% of the backlog in assistance to be provided from the Agency's Technical Assistance Fund relates to these training activities.

11. Utilization of the reserve fund established in 1980 remained below the maximum ceiling authorized by the Board, but this new mechanism has proven a valuable tool in meeting urgent requests. As many of these requests were prompted by problems arising during local planning and work programme formulation exercises, the approved assistance will also have a positive influence on future activities in the countries involved.

12. The - as yet limited - experience with evaluation efforts started in 1980 has shown that the most practicable and immediate steps towards more systematic evaluation must be the sharper definition of the objectives a project is designed to meet and a clearer identification of the problem it is intended to solve. These steps are being taken.

13. Some new figures and tables have been introduced in this report and some modifications in the presentation of a number of figures, tables and annexes have been made for the sake of clarity and consistency. All data on fellowships and training in the figures and tables refer to training actually carried out in the field during the current year, rather than to awards made, as was the case in the past. Since quite a few Type II awards are not utilized, the revised presentation conveys a more accurate picture of the actual assistance provided in this area.

14. For the first time, the utilization, by region, of the two major types of currency is shown (Figure 5C). Types of currency received as resources for the Technical Assistance Fund are also shown in Table 1. As requested in the Board, Figure 7 shows annual expenditure and implementation rates in respect of the Agency's Technical Assistance Fund for the period 1971-80.

15. In 1980 additional extrabudgetary contributions were made for ongoing regular programme projects for the first time. Information regarding the projects involved is given in Annex VIII. Annex IX shows approvals against the reserve fund, while "Changes to approved projects", formerly in Annex VIII, are now to be found in Annex X.

16. This report follows the format introduced in 1979. However, it is felt that major redesigning may be feasible and desirable. It is the intention of the Secretariat to reflect its ideas in this respect in a questionnaire that will be circulated to Member States before the end of 1981. It is hoped that, on the basis of the responses received, a report can be developed which comes somewhat closer to the ideal of providing all necessary information in a minimum number of pages.

Part II. DEVELOPMENT OF THE AGENCY'S TECHNICAL ASSISTANCE ACTIVITIES

A. THE AGENCY'S REGULAR PROGRAMME

1. Programme implementation in 1980

17. With an increase of $1 745 000 or 19.8% over the previous year's level, voluntary contributions and miscellaneous income passed the $10 million mark for the first time in 1980. The income of the Technical Assistance Fund, $10 548 000, constituted (as in 1979) about half of the total technical assistance resources available to the Agency from all sources (see Figure 1A and Table 1).

18. A total of 349 project proposals, to an estimated value of $17 million, had been received from Member States. Thorough appraisal of these requests and individual consultations with the Member States involved resulted in the presentation to the Board of a consolidated programme totalling $6.62 million and consisting of 148 projects for which financing was expected to be available. In addition, 62 projects valued at $2.63 million for which no immediate financing was available were included in the footnote-a/ category of the programme. Thanks to additional contributions, 57% of the assistance foreseen in this category - namely, 38 projects totalling $1 508 370 - had been made operational by the end of 1980.

19. The volume of assistance actually provided from the Technical Assistance Fund rose by $689 800, or 9.7%, to $7 813 700. The volume of commitments entered into for assistance still to be delivered, the so-called "assistance on the way" represented by unliquidated obligations, rose by $1 537 400, 29.2%, to $6 807 100.

20. Although this growth is not negligible, either in absolute terms or (compared to 1979) in percentage terms, delivery rates will have to be increased considerably if they are to keep in line with the much faster growth in resources.

21. This is particularly evident from the increase in earmarkings, which had reached $7 811 000 by the end of 1980. However, as explained in paragraph 24 below, $952 000 of this amount was due solely to the recalculation of the expert man-months still to be delivered at the end of 1980 at the higher pro forma man-month cost figure applicable in 1981. While concentrated efforts have to be made to reduce the backlog, it should be emphasized that the earmarkings reflect the gap between a growth of resources and a growth in delivery. Contrary to the situation prior to 1979, the growing backlog does not signify that it is taking longer to deliver the programme: implementation of current-year projects amounted to 32% in 1980 (31% in 1979); this means that, of the total earmarkings of $7 811 000 at the end of 1980, only 21% related to assistance approved more than two years previously and 21% to assistance approved in 1979, while almost 59% related to projects approved for the current year. By comparison, 25% of the backlog at end of 1979 related to projects approved more than two years previously, 25% to the previous year and 50% to current-year projects. The desired reversal of the trend towards slower implementation, discussed in paragraph 16 of last year's report, has therefore indeed taken place.[2]

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[2] GC(XXIV)/INF/191.

22. Of the total funds earmarked for assistance still to be delivered, 58.5% related to expert services. This is a lower share than in 1979, but it is in this sector that prompt implementation remains most difficult to achieve. After the very sharp decline in delivery in 1979, to 814 man-months, the delivery rate nearly stabilized; of the 806 man-months delivered last year, 249 related to UNDP-assisted projects and 557 to other Agency programmes.

23. The average duration of expert assignments declined from 4.3 man-months in 1969 to 2 man-months in 1980. This is due in part to the fact that an expert can often make his services available only for short periods, so that he has to undertake two or more assignments in connection with a single project. However, in a growing number of cases Governments find that this type of arrangement best suits their needs: the initial assignment often serves to help national institutes set up specific workplans, and the remaining man-months are used for follow-up visits to advise on the implementation of recommended actions. This enhances the self-reliance of national counterparts by restricting inputs of external expertise to the most crucial phases of a project. While this is often the most effective way for a recipient country to utilize external expertise, it is not necessarily the least expensive way, since the more frequent air travel involved obviously has an impact on the average cost figure per expert man-month. It also means that the administrative actions required to deliver a given number of man-months were far more numerous in 1980 than in 1969.

24. By the end of last year, 952 man-months of expert services had still to be delivered from the Agency's Technical Assistance Fund. Since they had to be re-costed at the higher pro forma figure of $4800 per man-month applicable in 1981, this necessary administrative exercise alone meant that the earmarkings - the backlog of technical assistance still to be delivered - increased by $952 000. Thus, the backlog in the expert component increased by 29% in financial terms, whereas the real backlog (man-months still to be delivered) rose by only 2%, from 931 to 952 man-months. The number of man-months of expert services outstanding at 31 December 1980, including those to be financed from extrabudgetary resources, was 1092. The largest single part - namely, 211 man-months or 19% - related to projects in agriculture, one of the two fields in which most expertise was actually provided in 1980 (183 man-months). A total of 208 man-months remained to be provided in nuclear safety. These two fields, therefore, account together for nearly 39% of the backlog in expert services.

2. The status and composition of cash resources

25. The measures introduced in 1978 to redress the imbalance between the types of currency available and the types of currency needed to meet commitments for approved projects continue to be successful. As shown in the table below, the surplus in non-convertible currencies, which had already decreased by 31% (from $2 127 000 to $1 462 000) during 1979, was further reduced (by 43%); it stood at $542 000 at the end of 1980.

26. The system whereby the types of available resources are taken into consideration when determining the project commitments that can be made now allows the Agency to programme its resources fully. It is expected, therefore, that by the end of 1981 no significant surplus in non-convertible currencies will exist any longer. Commitments in non-convertible currencies are basically for equipment procurement, where fewer cancellations occur and delays in delivery are less protracted than in the expert component. For these reasons, caution will have to be exercised in order to avoid overprogramming in these currencies.

Comparison of available cash resources and programme commitments
as at 31 December 1979 and 1980
(in thousands of dollars)

	Total resources		Convertible currencies		Non-convertible currencies[a]	
	1979	1980	1979	1980	1979	1980
Available cash resources	9 997	12 734	6 418	8 267	3 579	4 467
Less: Programme commitments[b]						
unliquidated obligations	4 204	5 584	2 849	3 270	1 355	2 314
earmarkings	5 585	7 811	4 823	6 200	762	1 611
Sub-total	9 789	13 395	7 672	9 470	2 117	3 925
Surplus:						
can be funded, or	208	-	-	-	1 462	542
Deficit:						
cannot be funded	-	(661)	(1 254)	(1 203)	-	-

[a] In this report the term "non-convertible currencies" refers to the currencies of Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania and the USSR.

[b] Does not include unliquidated obligations and earmarkings for future-year components of multi-year projects.

27. With the decrease in the surplus of non-convertible currencies, a corresponding decrease in the deficit of convertible currencies took place during the year. However, as seen in the above table, the year-end deficit in convertible currencies was only slightly below that for 1979. This is due solely to the fact that the earmarkings for expert man-months still to be delivered had to be recalculated at the higher pro forma cost of $4800 per man-month. The average actual cost per man-month during the year made it clear that this figure would have to be the minimum used in arriving at a realistic estimate of outstanding commitments. This development was foreseen in paragraph 24 of the report for 1979.

28. For the above reasons, the deficit at the end of the year was $661 000. In many organizations dealing with technical assistance, "overprogramming" is deliberate. Since implementation delays are unavoidable, overprogramming is used as a tool to ensure a high degree of utilization of the cumulative resources actually available in a given year.

29. While the present "deficit" does not represent such deliberate overprogramming, valid arguments exist for considering such an approach in the Agency's technical assistance programme. In view of the annual transfer of resources available from prior years in unliquidated obligations and unobligated balances, conservative overprogramming would not be contrary to prudent financial management.

30. Following discussion in the Board of Governors, where support was expressed for the introduction of a conservative degree of overprogramming (see paragraph 8 above), the Secretariat will consider the use of a 10% "flexibility margin" in estimating the anticipated resources for the 1982 regular programme.

31. It is emphasized that the amount of the present deficit, seen in the light of total earmarkings and average annual expenditures, does not pose a threat to the liquidity of the programme.

3. Other developments

32. In its decision of 5 March 1980, the Board of Governors approved the establishment of a reserve fund of $250 000 for 1980 to enable the Agency to respond to urgent technical assistance needs not foreseen by Member States at the time of the formulation of the annual programme. In Annex IX a summary is given of the approvals made against this fund.

33. Of the total amount allotted, only one third was for equipment, mainly to replace essential radioisotope laboratory items lost in a fire. In other cases, small equipment items were urgently needed to complete installations or replace faulty ones so that ongoing work could continue.

34. Two thirds of the approvals (11 projects) were for urgently needed advisory services. In four cases, Agency missions or experts found that ongoing work or the formulation of future plans had reached the stage where the provision of external advisory inputs should not be delayed till the next programming cycle. In three cases, Governments facing planning decisions requested the Agency to provide advisory services. In three other cases, Governments decided to initiate or continue in 1981 an activity that related to projects terminating in 1980, so that "bridging" operations were needed to ensure efficient programme preparation or continuity. In another case, the nature of the required services was "trouble shooting" in solving a serious mechanical problem.

35. The reserve fund, in enabling the Agency to take prompt action on urgent requests from Member States, can at the same time be used to finance the provision of advice during crucial stages in Government planning and programme formulation.

36. The reserve fund is an integral part of the Agency's Technical Assistance Fund. It is not a separate entity for which additional funds have been made available, but an authorization to the Secretariat to enter into financial commitments within the guidelines and financial ceiling set by the Board of Governors. To make these commitments possible, an amount equal to this ceiling is left unprogrammed at the beginning of the year. As it is an integral part of the Technical Assistance Fund, any unliquidated obligations and earmarkings against the reserve fund are incorporated under the corresponding headings of the table "Comparison of available cash resources and programme commitments" in paragraph 26 above. Consequently, any portion uncommitted at the end of the year is part of the total available resources of the Technical Assistance Fund and therefore automatically incorporated under the heading "Available cash resources" in that table.

37. Although the Secretariat did not exercise the approval authority to the limit in 1980, the ceiling of $250 000 for approvals under the reserve fund was also sought for 1981. The experience gained in the initial year of operating the reserve fund was too limited to justify a recommendation for a change in the present ceiling. However, any future recommendations will be based on the level of utilization in preceding years.

38. The close links that have been established between Member States where Agency technical assistance activities take place and the Agency staff members involved have resulted in the Secretariat's having considerable knowledge about the status of nuclear science and technology in each recipient country. This knowledge is continuously updated through personal contacts with national authorities, scientists and project staff, through working visits and through reports prepared after each expert assignment. While the Secretariat is accordingly well aware of the results of assistance provided by the Agency, the first attempts at a more specific evaluation of past activities were made (in three countries) only in 1980. These were made on an ad hoc basis, in conjunction with other work done during staff members' visits to the countries in question, but they did provide guidance for more systematic efforts.

39. It has become evident that, in the absence of comprehensive project documents such as those used for UNDP projects, it is important that requests for assistance contain a clear statement of the problem and a precise formulation of the objectives for which the assistance is sought. As the new, computerized project information system requires a more exact formulation of objectives, progress is being made in this area, which will facilitate future evaluation.

40. The vast number of past activities which could be evaluated will necessitate the development of acceptable sampling techniques, for resource constraints mean that evaluations will have to be carried out within the framework of routine visits by staff members and the itineraries for such visits are determined by factors that may not be directly related to the evaluation of past activities.

41. It would seem, therefore, that the major thrust of the Agency's efforts to achieve more systematic evaluation should go towards designing new projects in such a manner that, upon completion, a prompt assessment of effectiveness and impact can be carried out as an integral and concluding part of the Agency's involvement in the project. This would guarantee that many projects too small to make a formal evaluation exercise meaningful are still subject to a final assessment.

42. Although the exact objectives of the Agency's evaluation efforts are themselves still being debated and the system will have to evolve gradually, the Secretariat intends to submit a report on the start of its evaluation activities to the Technical Assistance Committee this year. In this report, requirements for information on past activities will have to be balanced with the degree of confidentiality which the Member States where evaluations have been carried out have a right to expect.

43. The concept of multi-year projects, introduced in 1979, has continued to prove its validity, particularly in respect of the utilization of non-convertible currency resources, for it has enabled donors of such currencies to take future project equipment requirements into account in their production planning.

44. In some cases, the inclusion of multi-year projects in the Agency's regular programme has made it possible to integrate Agency inputs fully with large-scale UNDP activities. Without these inputs, UNDP projects might sometimes be late in achieving their objectives. At the same time, the Agency inputs, finding an appropriate framework, have a much greater effect than they would in isolation.

45. Despite the advantages that the multi-year projects offer to recipient countries, there was a decline in requests for longer-term activities to be initiated in 1981, except in the case of countries where multidisciplinary Agency missions had been fielded. This would indicate that such missions can

offer valuable assistance to Governments in the longer-term planning of their programmes and of the external inputs needed to carry them out.

46. The Agency stands ready to implement a greater number of regional and inter-regional projects. Efforts will continue to suggest to Member States subjects suitable for such projects, but for the assistance to be truly responsive to needs the initiative should be taken primarily by Member States.

B. ASSISTANCE PROVIDED FROM EXTRABUDGETARY FUNDS AND THROUGH ASSISTANCE IN KIND

1. Extrabudgetary funds

47. The resources made available to the Agency in this category rose by 21%, from $2 199 000 in 1979 to $2 665 700 in 1980. There were substantial increases in the contributions made by the Federal Republic of Germany and Sweden, but the largest single contributor continued to be the United States (43.5%). The following donors contributed extrabudgetary funds for the 1980 programme:

USA	$1 160 700
Sweden	938 600
Germany, F.R.	488 200
Belgium	70 200
Finland	8 000

48. The above figures relate only to the 1980 programme. In addition, $38 000 was received for projects approved under earlier programmes ($30 000 from the United States, $4000 from Australia and $4000 from IANEC). Contributions totalling $43 800 were also received for assistance to be provided in 1981 ($35 000 from the United States, $8000 from the Federal Republic of Germany and $800 from Sweden).

49. There was a slight increase in the technical assistance provided from extra-budgetary resources, from $2 379 700 to $2 415 800. The majority of the special contributions became available only late in the year, too late to enable implementation to increase at the same rate as income. Annex I gives information for 1980.

50. Within the framework of technical co-operation among developing countries (TCDC), Chile provided the means for the Agency to finance two nuclear medicine fellowships, to the value of $10 000, for trainees from Paraguay.

2. Assistance in kind

51. Resources in kind accounted for 12% of the new resources made available for technical assistance in 1980. Their value rose by 30%, from $2 015 000 to $2 628 000.

52. Once again, most (94.4%) were used in support of the Agency's training programmes. Half of the fellowship training provided in 1980 was made possible through assistance in kind. Annex I gives details of the assistance in kind provided by donor countries in 1980. It can be seen that 11 of the 27 donor countries were also recipients; their TCDC efforts totalled $352 300, about one seventh of all such assistance provided in 1980.

C. ASSISTANCE PROVIDED FROM UNDP FUNDS

1. Programme implementation

53. UNDP funds accounted for 27% of the new resources made available to the Agency in 1980 for technical co-operation activities.

54. For the third year in succession, expenditures on behalf of UNDP rose steeply. The value of the technical assistance delivered from UNDP funds ($5 893 400) was 45% higher in 1980 than in 1979, constituting 31% of the total technical assistance provided.

55. During the year, 36 projects were under implementation; their budgets totalled $22.9 million, of which $11.3 million had been implemented prior to 1980. Four projects were approved and 13 completed.

56. The level of approvals and expenditures for UNDP-financed assistance has developed most satisfactorily over the past three years. However, the amount of unliquidated obligations was nearly a million dollars less at the end of 1980 than at the end of 1979, and fewer projects were approved in 1980 than in 1979. It is likely that, as a consequence, expenditure levels will decline in 1981. In this connection, it should be emphasized that the level of activities carried out from UNDP funds is subject to fluctuations beyond the control of the Agency: no fixed share of UNDP resources is made available to any agency or for any specific field of activity; UNDP allocates its anticipated resources to individual countries and regions on the basis of "Indicative Planning Figures" (IPFs) for a five-year period and countries draw up their country programmes within the limits of the national IPFs; country programmes reflect the priorities that countries themselves assign to the different fields in which they seek UNDP support; the "Agency's share" of the total activities financed by UNDP is, therefore, determined by the number of projects in the Agency's field of competence which have been given a sufficiently high priority by national planning authorities to be included in their UNDP country programmes. This means that, even if a project has the highest priority of the substantive ministry or the atomic energy commission or equivalent body, it may not be included in the UNDP country programme by the national planning authorities (or by the ministry designated by the Government as the central co-ordinating body vis-à-vis UNDP) unless these authorities agree that the project also has a high priority at the national level.

2. Other developments

57. The results of the 1980 pledging conference for UNDP were not as good as expected. This has led to heavy pressures on financial planning ceilings, especially for interregional and regional programmes. Against this background, it is particularly encouraging that UNDP indicated that the $386 000 approved

as preparatory assistance for the first part of a project concerned with the industrial application of isotopes and radiation technology in Asia and the Pacific region, which started in August 1980, would be increased to $885 000 to ensure its continuation until the main part of the project can be launched in 1982.

58. Several project proposals were prepared for submission to the Interim Fund for Science and Technology for Development. It should be stressed that the Fund will consider only proposals which have been submitted to it by Governments through the national planning authorities designated in each country as the channel of communication with UNDP (see also paragraph 56). An Agency proposal has therefore to be routed from the atomic energy commission to the national planning authorities and, with their support, through the UNDP resident representative to the Fund. At the end of 1980, a positive decision by the Fund on proposals for two projects in the Agency's field of competence was expected. It is hoped that approvals for other projects of interest to the Agency will follow, but the modest resources of the Fund will soon be fully committed.

59. UNDP agreed to support, from its small "Reserve Fund" for TCDC activities, an Agency-organized workshop on Rift Valley fever (Nairobi, May 1981). This is the first time that an Agency-sponsored activity has been financed from this source. It is hoped that the workshop will be instrumental in establishing co-ordinated research efforts by African scientists to combat Rift Valley fever.

60. In its contacts with UNDP resident representatives, the Agency repeatedly draws attention to the possibilities which exist for Member States to receive technical assistance under the Agency's regular programme. UNDP resident representatives sometimes indicate that national planning authorities are insufficiently aware of these possibilities. In the past, attempts at integrating Agency inputs with UNDP activities and national plans often met with difficulty. The annual nature of the Agency's programme made forward planning in conjunction with longer-term UNDP and national planning cycles problematic. In addition, the total amount of assistance that could be approved annually for a given country was usually too small to be of interest to national planning authorities. Now that it is possible for countries to submit requests for multi-year projects to the Agency, most impediments to the better co-ordination of Agency with UNDP assistance and to the closer integration of Agency projects into national development plans have been removed. Accordingly, UNDP resident representatives have been asked to keep in mind the possibilities the Agency's regular programme offers when discussing UNDP country programmes with Governments.

61. UNDP assistance in connection with the fielding of Agency programming missions continued in 1980. A total of $15 000 was made available by UNDP, making it possible to send missions of this kind to Thailand and Venezuela.

Part III. ANALYSIS OF THE ASSISTANCE PROVIDED

62. Although the information contained in Figures 1A through 7 is largely self-explanatory, some comments on each are given below.

Figure 1A, Available resources

63. "Agency funds" represent income to the Technical Assistance Fund (Operating Fund II) and consist of voluntary contributions by Member States ($9 976 000) and

miscellaneous income ($572 000). "Extrabudgetary funds" are given in total here; the breakdown by donor is given in paragraph 47. "Assistance in kind" constitutes the cumulative value of cost-free and partly cost-free expert services, some equipment grants, contributions for training courses, Type II fellowship stipends and funds for scientific visits. It should be noted that all monetary values appearing under the heading "in kind" are based on estimates. (The format of this figure has been modified somewhat to give a better overview of the development of the various resources at the Agency's disposal).

64. "UNDP funds" reflect the amount actually spent in carrying out UNDP-assisted projects. As new UNDP projects may be approved at any time during the year and frequent changes and rephasings of project budgets occur, there would be little sense in estimating the resources theoretically available from UNDP for a given year. However, the funds actually spent plus the unliquidated obligations of $2 068 600 (shown in Part IV, Table 4), totalling $7 962 000, give a clearer picture of the total UNDP resources that were available to the Agency in 1980.

65. Not included in the resources shown in Figure 1A are the "Funds in trust" made available to the Agency by countries to meet the cost of the provision of assistance for themselves. Such arrangements existed with seven developing countries in 1980, involving expenditures totalling $101 100 (see Annex I.B).

66. A significant additional resource not reflected in the statistical data is the value represented by the lecturers and facilities made available by the Governments which hosted regional and interregional training courses (see Annex II). Although the value of the assistance rendered by Governments in preparing and hosting these courses is difficult to quantify, it is clear that without this support the training course programme could not have been carried out successfully. Special recognition is due in this respect to the Governments of France, the Federal Republic of Germany and the United States of America for the support provided in connection with the training courses conducted on nuclear power project topics.

Figure 1B, Utilization of resources

67. This figure refers to the distribution of assistance actually provided in 1980. It includes the provision of assistance approved in prior years but does not include unliquidated obligations. It can be seen that the three major fields in which the Agency provided technical assistance (agriculture, nuclear technology and nuclear materials) absorbed 54% of all such aid in 1980. Figure 1B also shows the distribution among the three basic components through which technical assistance is provided: experts, equipment and fellowships. The decreasing share of the total assistance furnished in the form of expert services is clearly apparent.

Figures 2A and 2B, Distribution of expert services

68. The data also include Agency staff members and representatives of other international organizations who served as lecturers and experts in 1980; they are shown by nationality in Figure 2B.

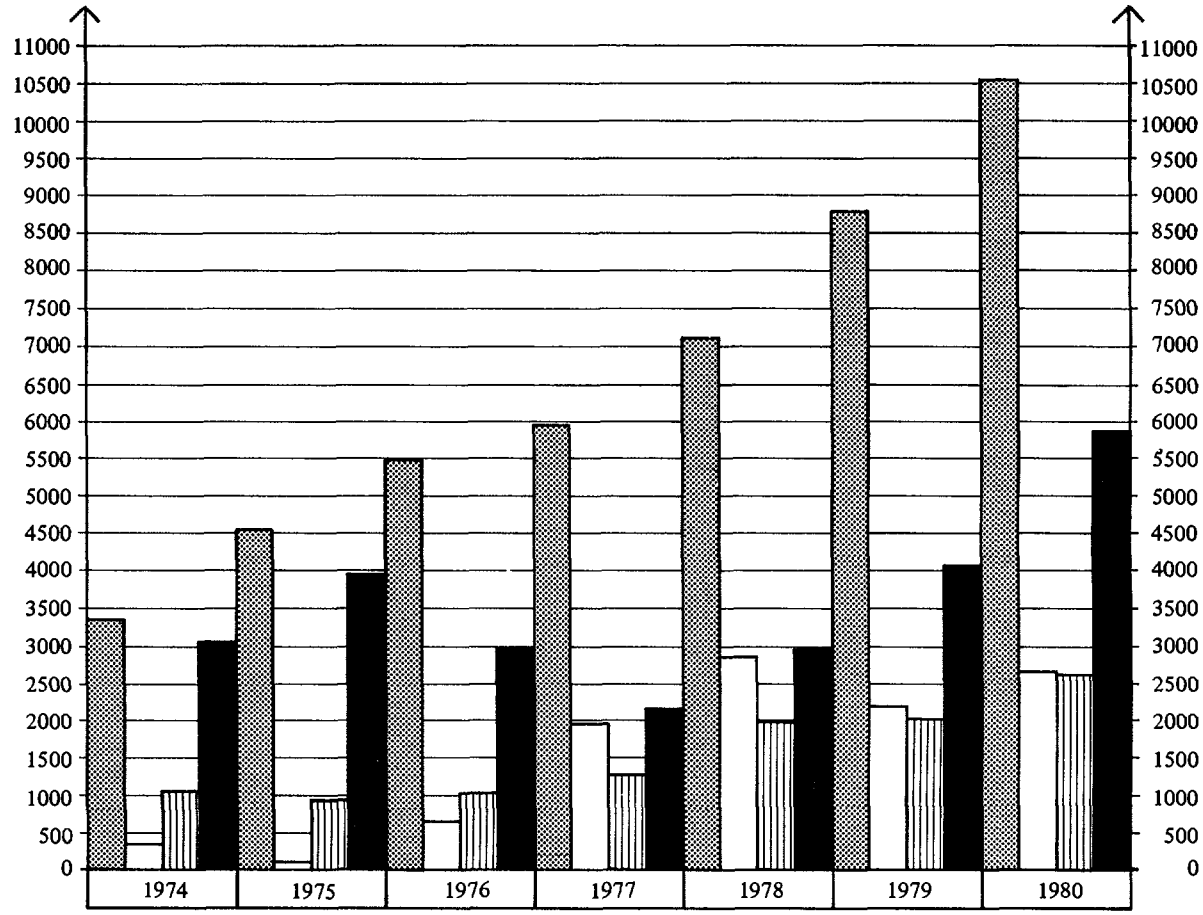
69. It should be noted that, although there was a slight increase in the number of assignments (535 in 1979 and 566 in 1980) and in the number of experts (442 in 1979 and 457 in 1980), the total man-months served was not quite as high as in 1979; thus the average length of assignment is continuing to decrease.

Figures 3A and 3B, Distribution of equipment

70. Previously it was attempted in Figure 3B to match data on equipment expenditures with data on orders placed in individual countries of procurement. Since,

FIGURE 1A

RESOURCES AVAILABLE FOR
AGENCY TECHNICAL ASSISTANCE PROGRAMMES: 1974–1980
(in thousands of dollars)



	1974	1975	1976	1977	1978	1979	1980
Agency funds	3348	4539	5492	5962	7121	8803	10548
Extrabudgetary funds	367	110	648	1966	2853	2199	2666
Assistance in kind	1078	942	1021	1284	1987	2015	2628
UNDP	3082	3942	3002	2144	2954	4060	5893
TOTAL	7875	9533	10163	11356	14915	17077	21735

Agency funds Extrabudegtary funds Assistance in kind UNDP funds

FIGURE 1B

UTILIZATION OF RESOURCES: 1979, 1980 and 1971–1980
(in thousands of dollars)

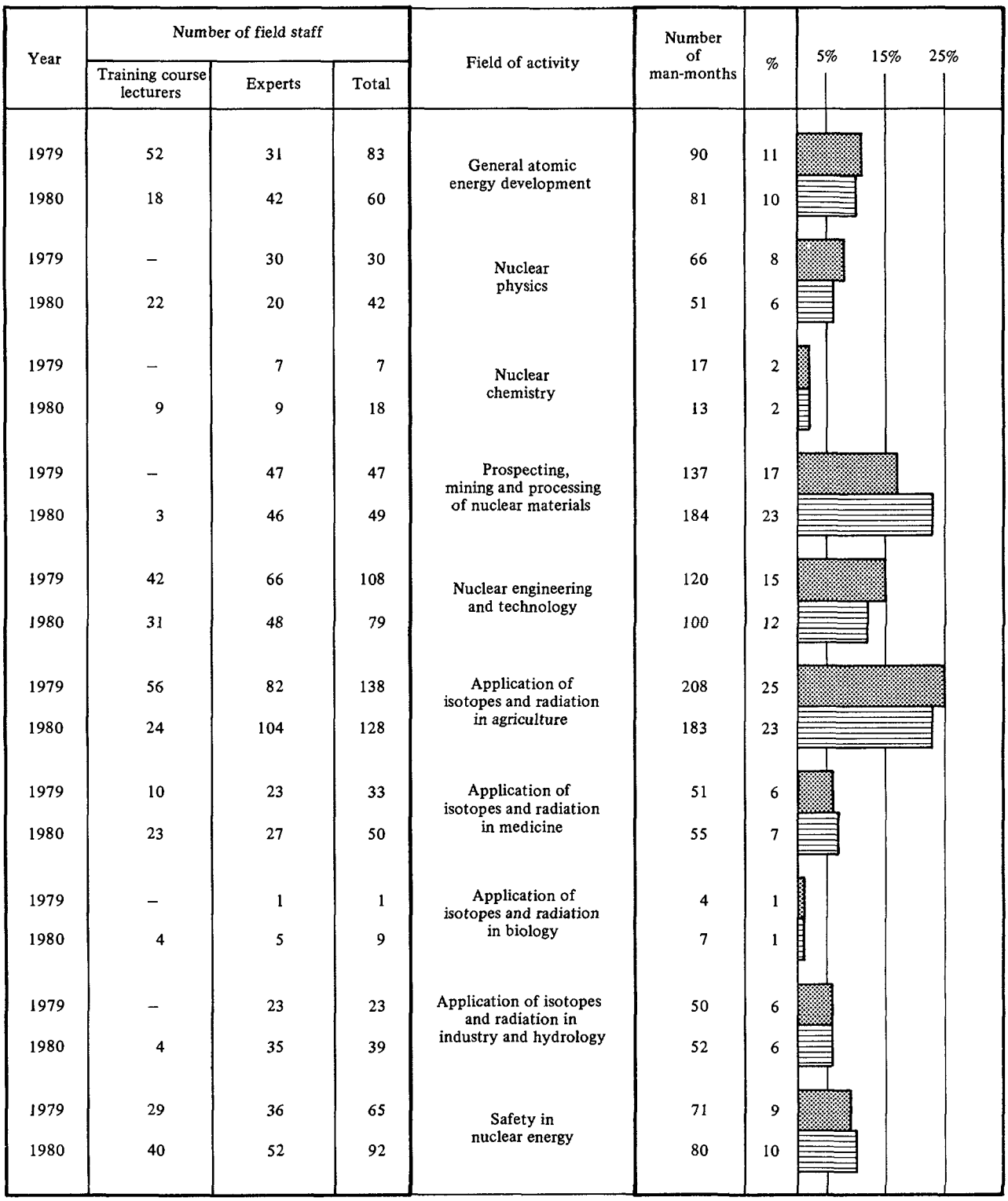
FIELD OF ACTIVITY	Year	Experts	Equipment	Fellowships	Share of total programme	
		$	$	$	$	%
General atomic energy development	1979	473.9	1 298.8	363.7	2 136.4	13.7
	1980	469.4	873.8	333.2	1 676.4	8.9
Nuclear physics	1979	265.3	700.5	358.8	1 324.6	8.5
	1980	246.5	813.4	443.9	1 503.8	8.0
Nuclear chemistry	1979	62.5	301.4	292.4	656.3	4.2
	1980	61.6	155.2	356.0	572.8	3.0
Prospecting, mining and processing of nuclear materials	1979	619.1	933.2	182.7	1 735.0	11.2
	1980	1 067.5	1 404.6	410.8	2 882.9	15.4
Nuclear engineering and technology	1979	660.3	958.8	1 233.9	2 853.0	18.3
	1980	735.7	1 315.1	1 548.4	3 599.2	19.2
Application of isotopes and radiation in: Agriculture	1979	922.6	1 332.1	1 374.1	3 628.8	23.3
	1980	919.9	1 697.6	1 036.1	3 653.6	19.5
Medicine	1979	212.1	453.4	411.0	1 076.5	6.9
	1980	300.2	649.2	688.6	1 638.0	8.7
Biology	1979	14.1	198.5	87.9	300.5	1.9
	1980	24.2	13.1	124.2	161.5	0.9
Industry and Hydrology	1979	317.6	341.8	164.5	823.9	5.3
	1980	327.9	1 086.5	231.6	1 646.0	8.8
Safety in nuclear energy	1979	414.0	229.8	399.2	1 043.0	6.7
	1980	453.0	155.1	808.3	1 416.4	7.6
Total assistance	1979	3 961.5	6 748.3	4 868.2	15 578.0	100.0
	1980	4 605.9	8 163.6	5 981.1	18 750.6	100.0
Ten-year total	1971-1980	29 119.5	37 962.5	29 126.8	96 208.8	100.0

Distribution of assistance by type			
Type	1979	1980	1971–1980
Experts	25.5%	24.6%	30.3%
Equipment	43.2%	43.5%	39.4%
Fellowships	31.3%	31.9%	30.3%
Total	100.0%	100.0%	100.0%

FIGURE 2A

DISTRIBUTION OF EXPERT SERVICES BY FIELD OF ACTIVITY: 1979 and 1980

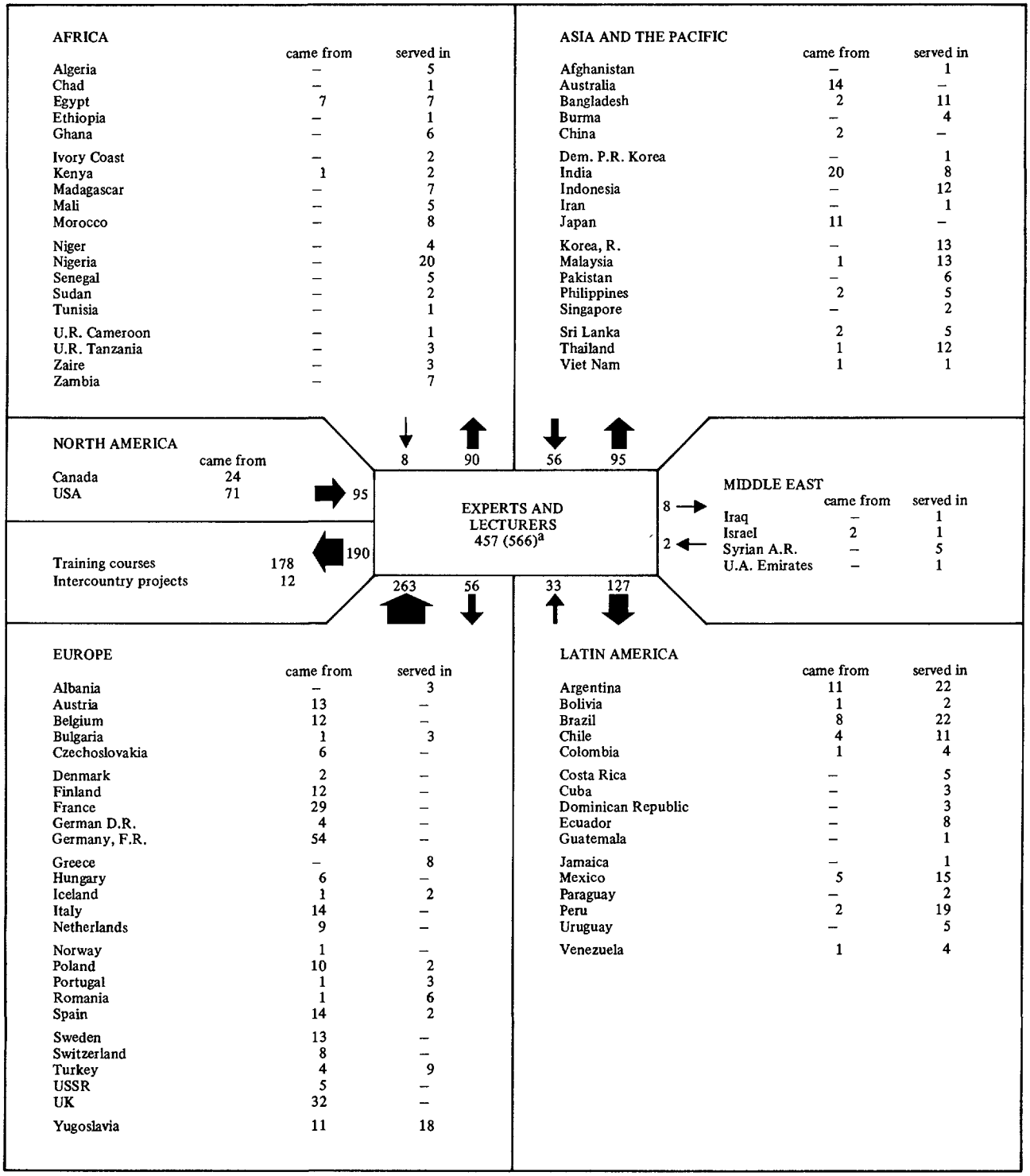
Year	Number of field staff			Field of activity	Number of man-months	%
	Training course lecturers	Experts	Total			
1979	52	31	83	General atomic energy development	90	11
1980	18	42	60		81	10
1979	–	30	30	Nuclear physics	66	8
1980	22	20	42		51	6
1979	–	7	7	Nuclear chemistry	17	2
1980	9	9	18		13	2
1979	–	47	47	Prospecting, mining and processing of nuclear materials	137	17
1980	3	46	49		184	23
1979	42	66	108	Nuclear engineering and technology	120	15
1980	31	48	79		100	12
1979	56	82	138	Application of isotopes and radiation in agriculture	208	25
1980	24	104	128		183	23
1979	10	23	33	Application of isotopes and radiation in medicine	51	6
1980	23	27	50		55	7
1979	–	1	1	Application of isotopes and radiation in biology	4	1
1980	4	5	9		7	1
1979	–	23	23	Application of isotopes and radiation in industry and hydrology	50	6
1980	4	35	39		52	6
1979	29	36	65	Safety in nuclear energy	71	9
1980	40	52	92		80	10



Note: The figures in the columns above, on the right-hand side, indicate the number of man-months and the corresponding percentage share, by field of activity, of the total man-months of expert services provided.

FIGURE 2B

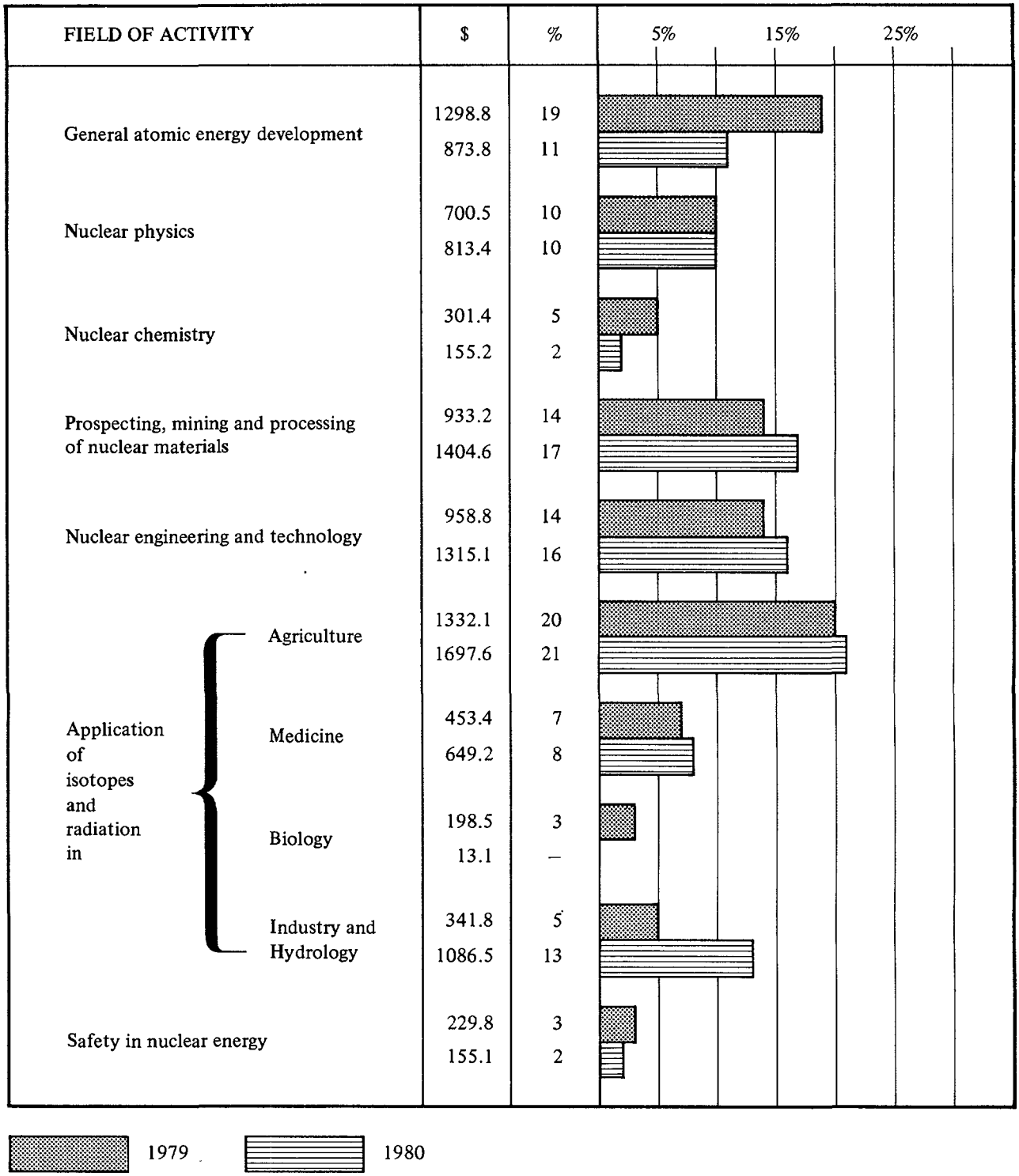
DISTRIBUTION OF EXPERT SERVICES BY REGION: 1980



a The difference between the number of assignments (566) and the actual number of experts (457) is due to the fact that a number of experts served in more than one country.

FIGURE 3A

DISTRIBUTION OF EQUIPMENT BY FIELD OF ACTIVITY: 1979 and 1980
(in thousands of dollars)

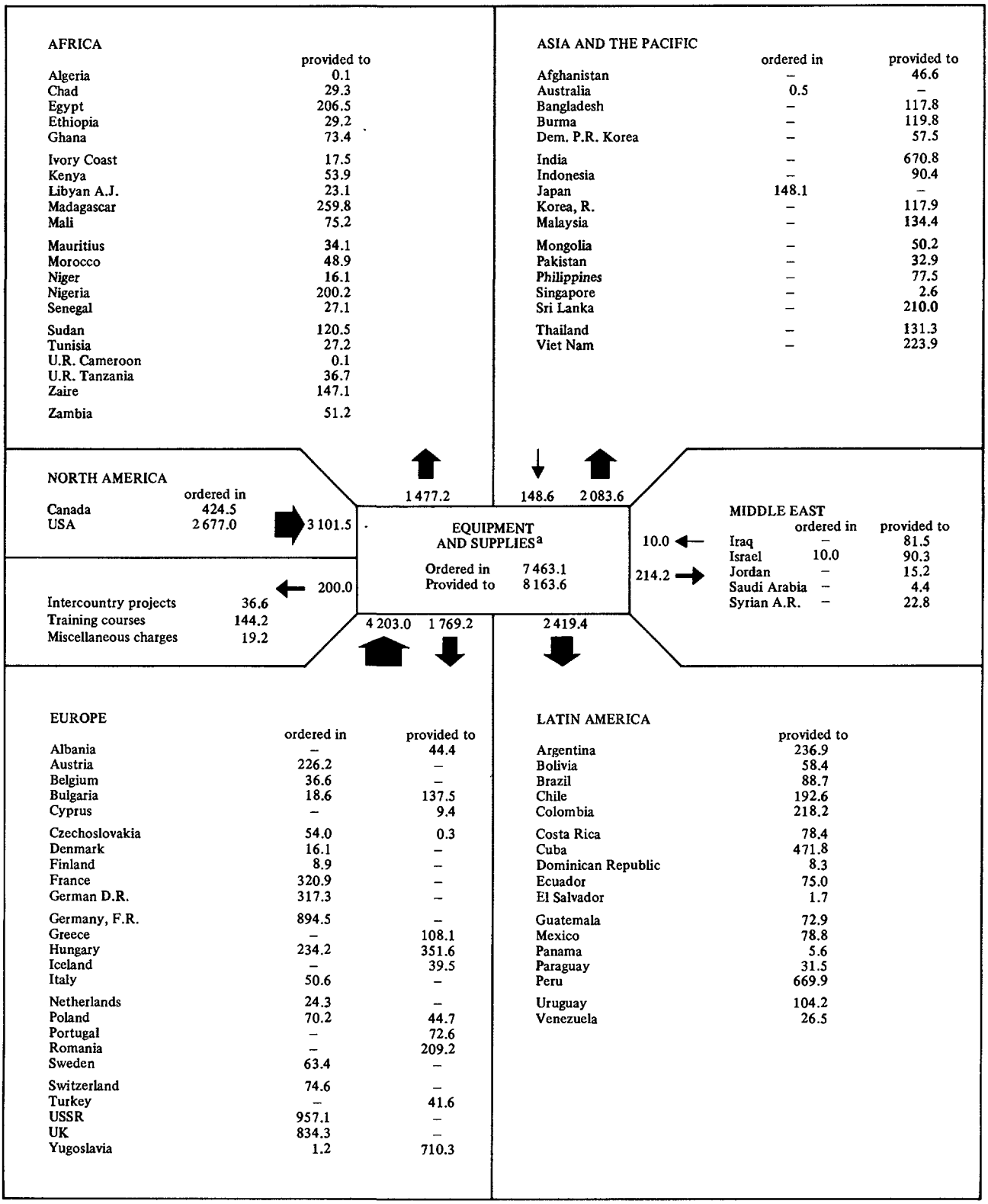


Note: The figures in the second and third columns of the chart indicate the value (in thousands of dollars) of equipment and the corresponding percentage share, by field of activity, of the total equipment provided.

FIGURE 3B

DISTRIBUTION OF EQUIPMENT BY REGION: 1980

(in thousands of dollars)

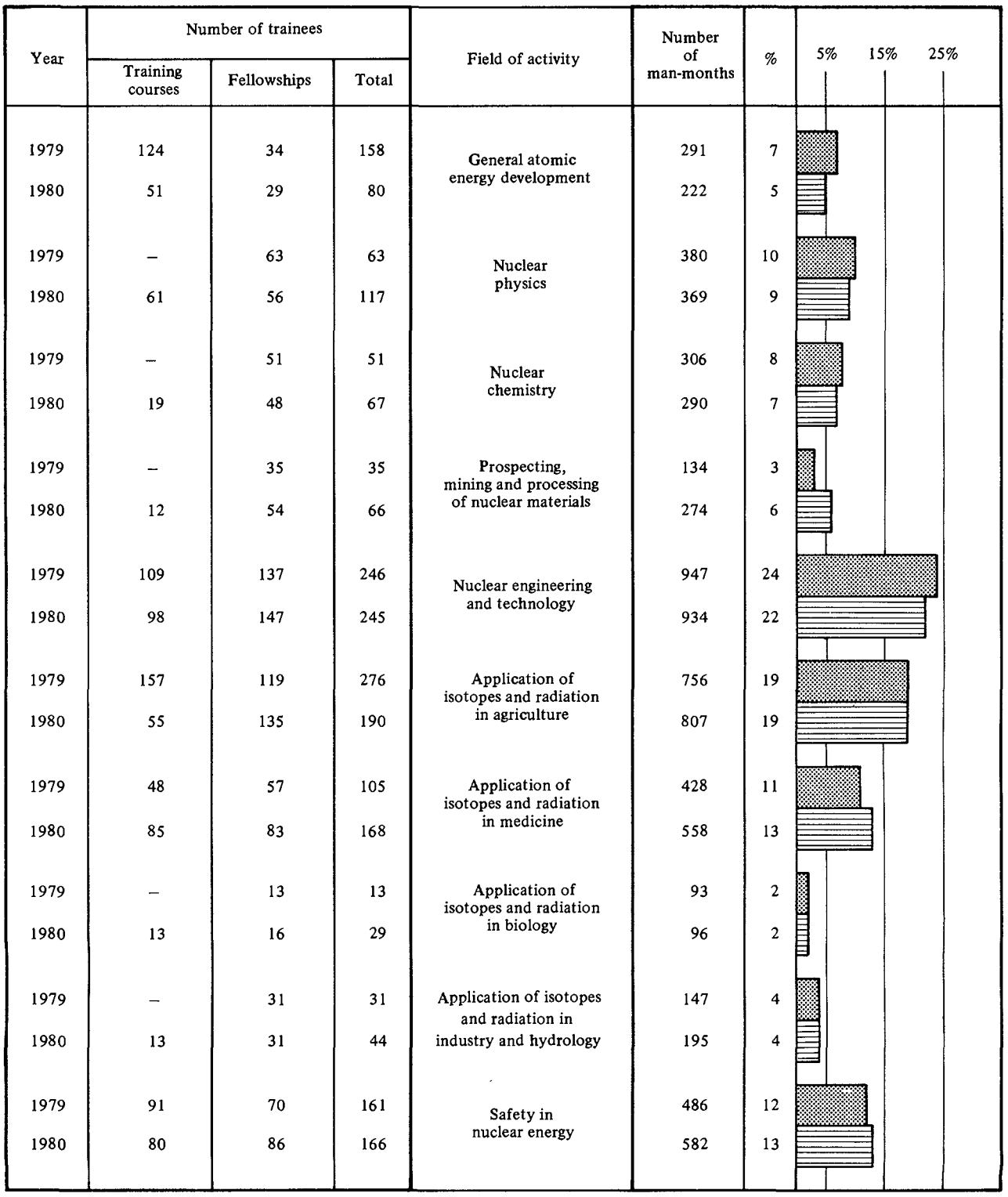


[a] The difference between the value of the equipment ordered ($7 463 100) and of the equipment provided ($8 163 600) is due to the fact that some of the equipment was ordered in 1979 but was delivered and paid for in 1980.

FIGURE 4A

DISTRIBUTION OF TRAINEES BY FIELD OF ACTIVITY: 1979 and 1980

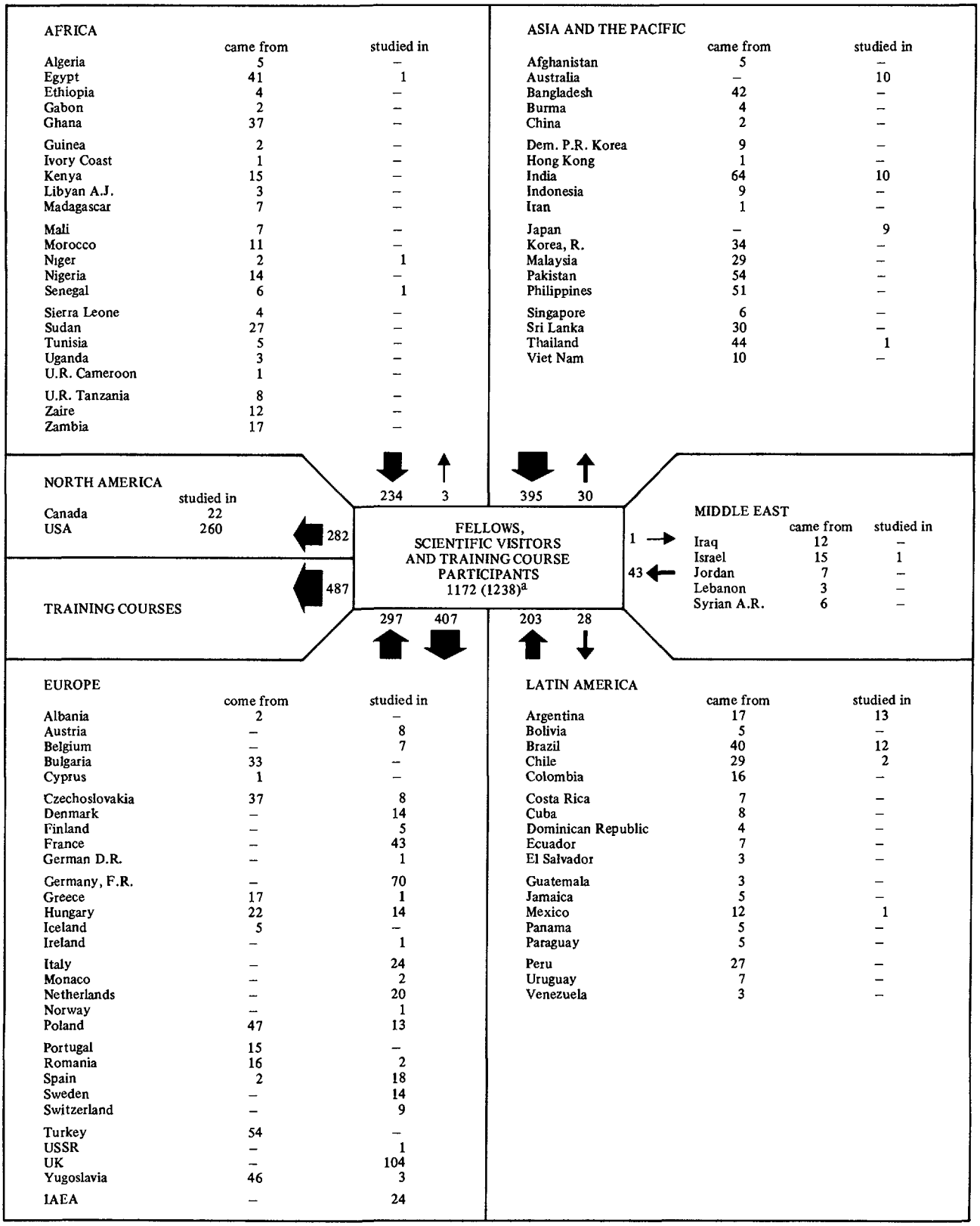
Year	Number of trainees			Field of activity	Number of man-months	%
	Training courses	Fellowships	Total			
1979	124	34	158	General atomic energy development	291	7
1980	51	29	80		222	5
1979	–	63	63	Nuclear physics	380	10
1980	61	56	117		369	9
1979	–	51	51	Nuclear chemistry	306	8
1980	19	48	67		290	7
1979	–	35	35	Prospecting, mining and processing of nuclear materials	134	3
1980	12	54	66		274	6
1979	109	137	246	Nuclear engineering and technology	947	24
1980	98	147	245		934	22
1979	157	119	276	Application of isotopes and radiation in agriculture	756	19
1980	55	135	190		807	19
1979	48	57	105	Application of isotopes and radiation in medicine	428	11
1980	85	83	168		558	13
1979	–	13	13	Application of isotopes and radiation in biology	93	2
1980	13	16	29		96	2
1979	–	31	31	Application of isotopes and radiation in industry and hydrology	147	4
1980	13	31	44		195	4
1979	91	70	161	Safety in nuclear energy	486	12
1980	80	86	166		582	13



Note: The figures in the columns above, on the right-hand side, indicate the number of man-months and the corresponding percentage share, by field of activity, of the total man-months of training received.

FIGURE 4B

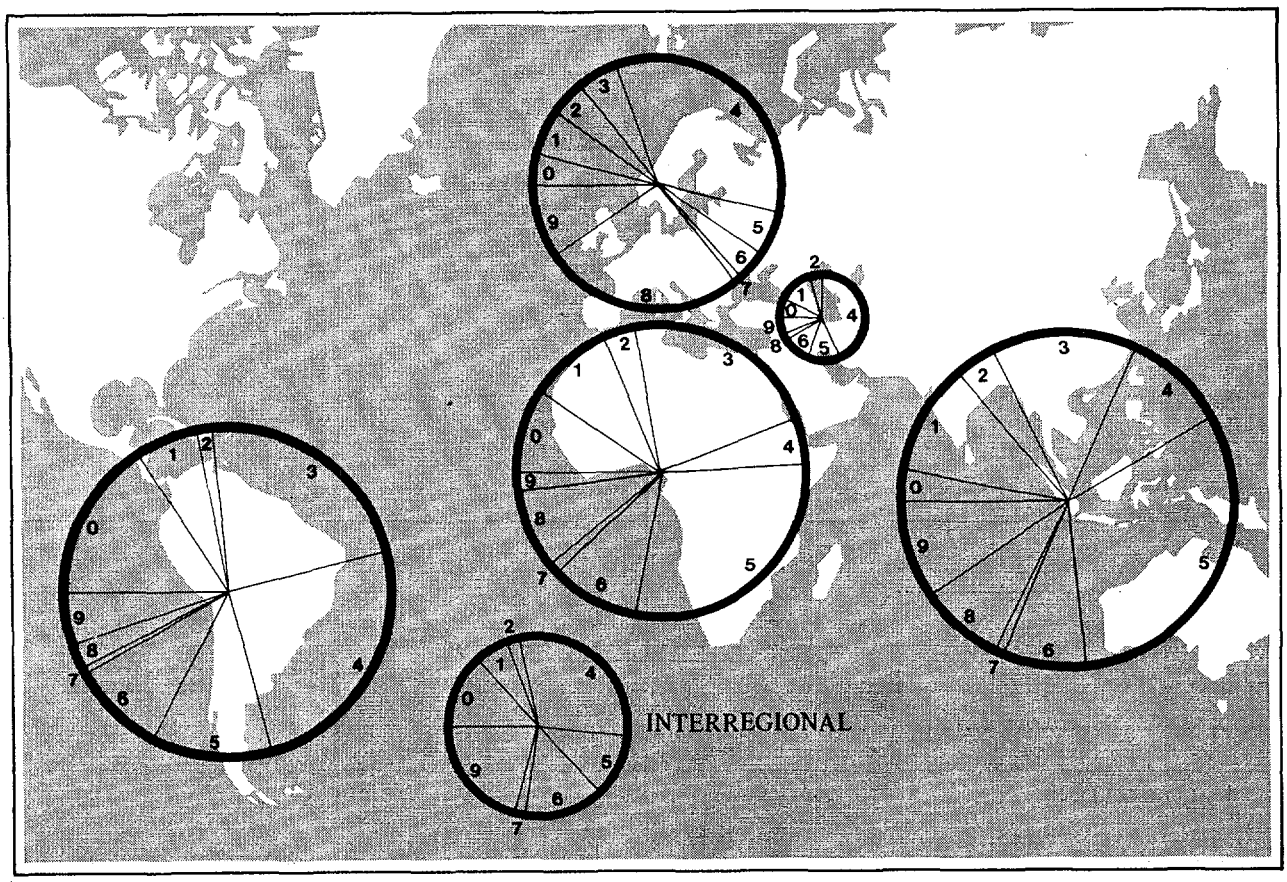
DISTRIBUTION OF TRAINEES BY REGION: 1980



a The difference between the number of trainees (1172) and the number of places of study (1238) is due to the fact that a number of fellows, study tour participants and scientific visitors went to more than one place of study.

FIGURE 5A

DISTRIBUTION OF TECHNICAL ASSISTANCE BY FIELD AND REGION: 1980[a]



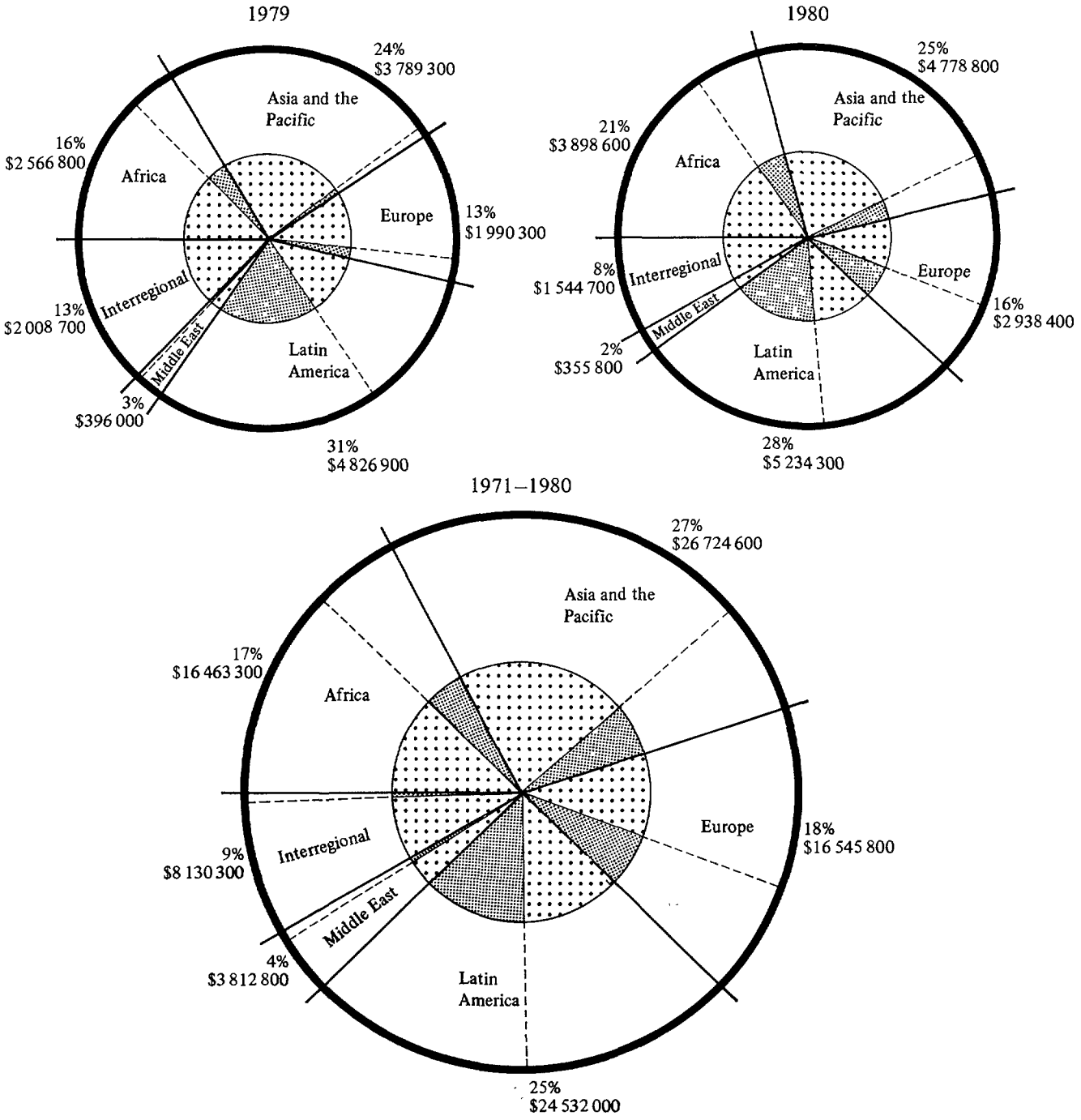
SUMMARY

Field of activity	Africa %	Asia and the Pacific %	Europe %	Latin America %	Middle East %	Inter-regional %	All regions %
0 – General atomic energy development	9	3	4	16	7	13	9
1 – Nuclear physics	9	11	6	6	14	6	8
2 – Nuclear chemistry	4	4	4	1	5	2	3
3 – Prospecting, mining and processing of nuclear materials	22	14	5	23	–	–	15
4 – Nuclear engineering and technology	5	10	35	25	43	30	19
Application of isotopes and radiation in: 5 – Agriculture	29	32	6	12	12	12	19
6 – Medicine	10	8	4	9	11	14	9
7 – Biology	1	1	1	–	–	2	1
8 – Industry and Hydrology	9	8	26	3	2	–	9
9 – Safety in nuclear energy	2	9	9	5	6	21	8
	100%	100%	100%	100%	100%	100%	100%

[a] For each region, the relative monetary value of the technical assistance provided by the Agency is denoted by the size of the circle superimposed over the region on the map. The size of the segments in each circle indicates the share of total assistance given in the various fields of activity.

FIGURE 5B

DISTRIBUTION OF TECHNICAL ASSISTANCE BY REGION AND SOURCE
(1979, 1980 and 1971–1980)



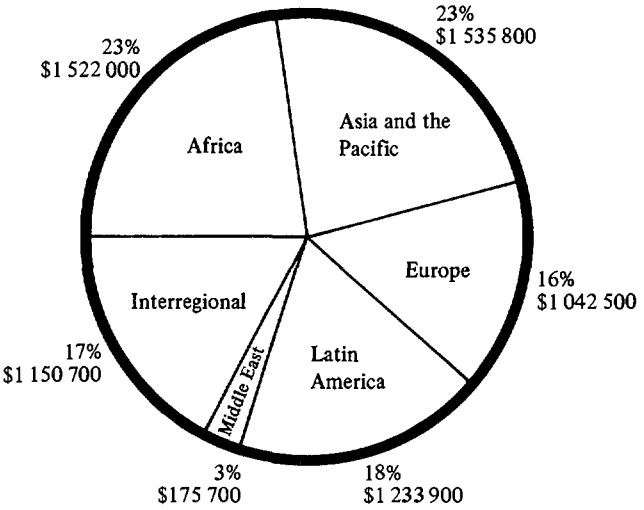
Distribution of technical assistance by source:

	1979	1980	1971-1980
Agency resources	73.9%	68.6%	67.7%
UNDP	26.1%	31.4%	32.3%

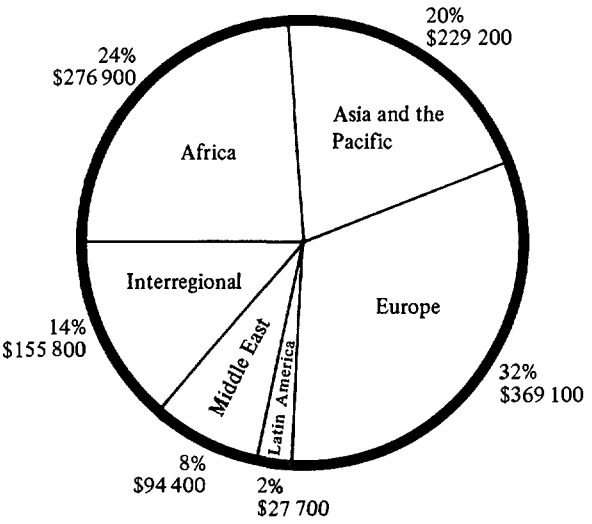
FIGURE 5C

DISTRIBUTION OF THE AID PROVIDED FROM THE TECHNICAL ASSISTANCE FUND, BY TYPE OF CURRENCY AND REGION: 1980

IN CONVERTIBLE CURRENCY:
$6 660 600



IN NON-COVERTIBLE CURRENCY:
$1 153 100



TOTAL:
$7 813 700

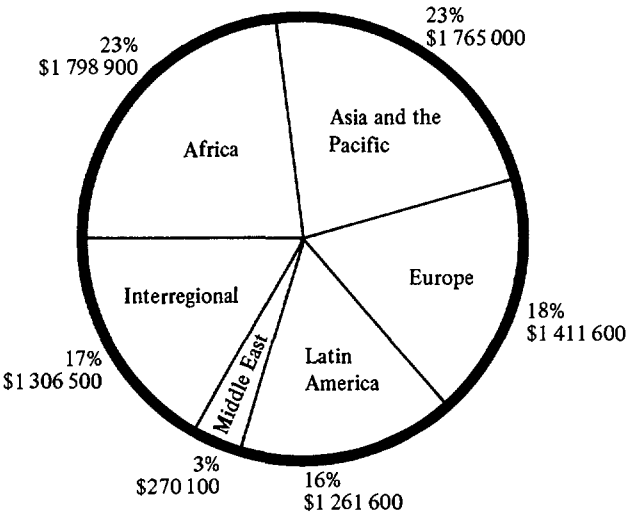
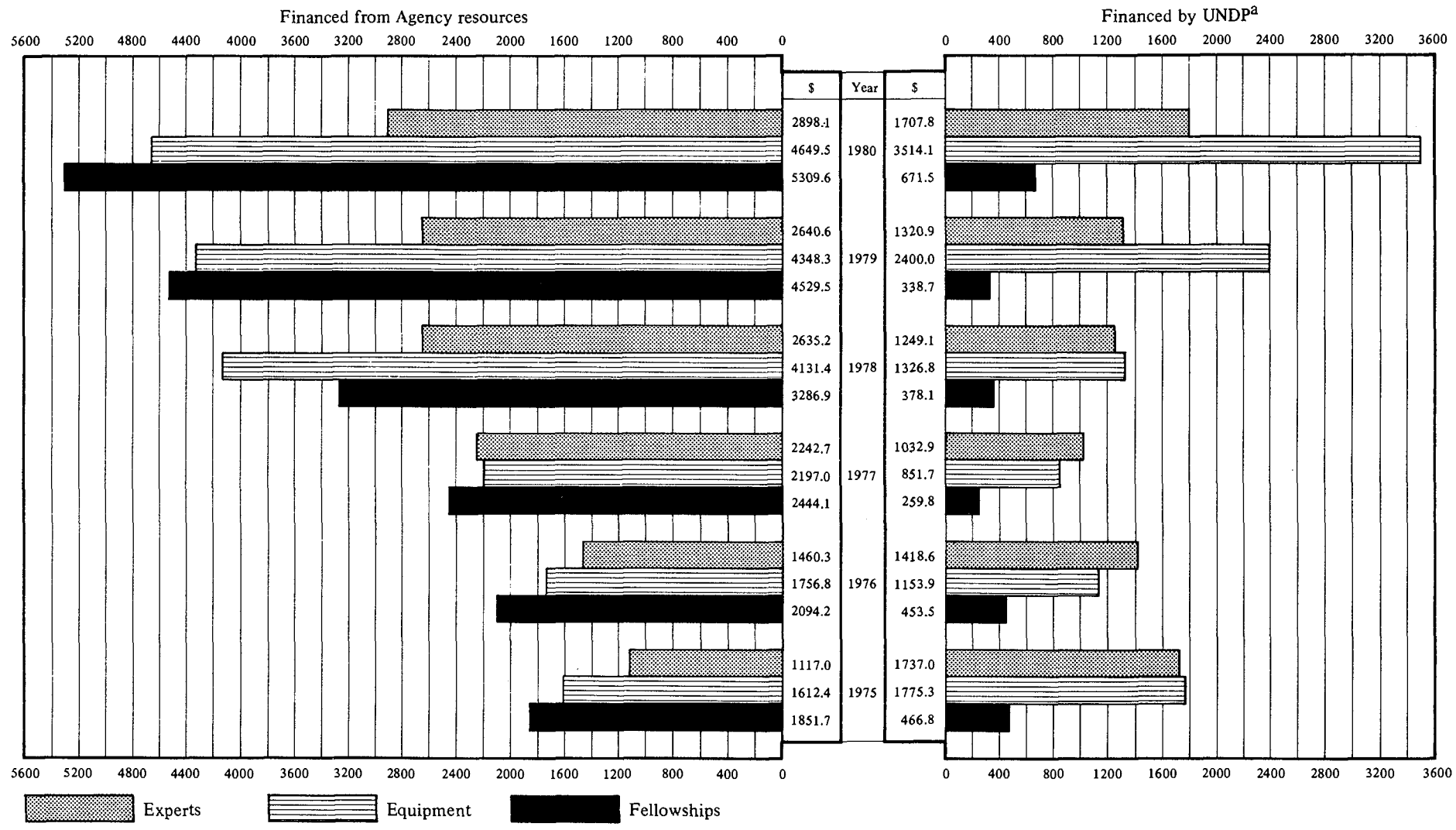


FIGURE 6

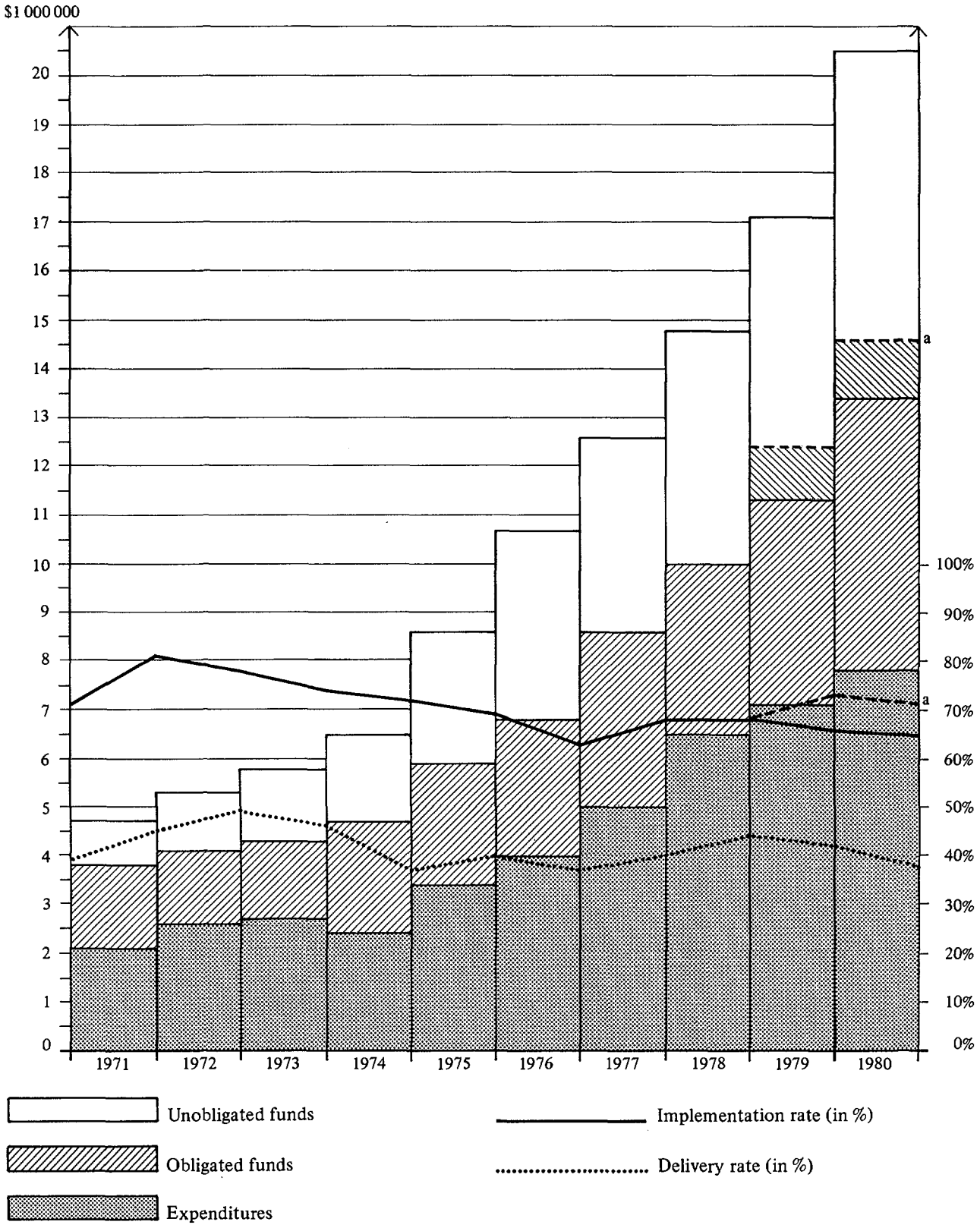
TRENDS IN THE TECHNICAL CO-OPERATION ACTIVITIES OF THE AGENCY
(in thousands of dollars)



[a] Includes the value of assistance in kind made available for UNDP-assisted projects 1975–1976.

FIGURE 7

STATUS OF IMPLEMENTATION OF THE REGULAR PROGRAMME: 1971–1980
(as at 31 December of each year)



[a] The broken line takes into account obligations incurred in respect of future-year components of multi-year projects.

in the Agency's system, data on countries of procurement are linked to obligations incurred and not to actual payments, proratings based on incurred obligations were applied in the past to expenditures to arrive at the "procured in" country totals. In some cases this has had a distorting effect on the amounts shown for individual countries of procurement. Table 3B now shows the equipment ordered in 1980 in individual countries. The "provided to" data, as in earlier reports, reflect the exact total of equipment expenditures for recipient countries.

Figures 4A and 4B, Distribution of trainees

71. These figures also include participants in training courses whose cost of attendance was met by the Agency. As mentioned in paragraph 13 above, the data on trainees are now based on the number of persons who actually received training during the year, rather than on awards. Accordingly, the data shown for 1979 are the same in this and last year's report only in respect of training course participants. The number of trainees rose from 1139 in 1979 to 1172 in 1980 and the number of man-months of training from 3968 to 4328.

72. To permit a comparison of the nominations and awards for fellowships in 1979 and 1980 and of all training awards made during these two years, a table is given below. It will be seen that, except for UNDP, the number of awards declined in respect of all categories of training: the decline was approximately 7% for fellowship awards, 35% for scientific visit awards and 8% for participation in training courses and study tours. The most significant change was the decline in Agency fellowship awards (from 416 awards, representing 3531 man-months, in 1979 to 366 awards, representing 3185 man-months, in 1980). During the same period, the number of UNDP-financed awards rose from 40 (representing 175 man-months) to 58 (representing 216 man-months). For many years there has been a two-year cycle in the number of fellowship awards, an increase in the number of awards one year being followed by a decrease the next year. In 1979 more awards were made than ever before, and a decrease in 1980 from 1979 was therefore to be expected. Over the years, however, there has been a slight long-run increase in the number of awards.

Fellowship awards		1979	1980
Nominations received		626	600
Effective awards [3]:	Agency	416	366
	UNDP	40	58
Percentage of nominations which led to effective awards		72.8%	70.7%
Intercountry programme awards			
Scientific visits		54	35
Training courses and study tours		529	487
Total awards		1039	946

[3] Total number of awards less withdrawals after granting of the award as at 31 December 1979 and 31 December 1980.

73. The percentage of nominations which led to effective fellowship awards in 1980, namely 70.7%, is somewhat below the ten-year average. Disregarding the nominations received for UNDP-financed awards, nearly one out of three candidates failed to receive a fellowship award. This was largely due to the fact that the average duration of awards rose slightly (from 8.5 man-months in 1979 to 8.7 in 1980) and that the cost of awards increased much more than the pool of resources for such training. For example, in Table B in Annex IV it can be seen that 195 Type II awards (1776 man-months) were made in 1980; the corresponding figure for 1979 was 215 (1873 man-months). In addition, numerous candidates were not selected because they were under- or over-qualified for the training requested, their knowledge of the foreign language in which the training abroad would have been given was not satisfactory, the training requested was not related to the peaceful application of nuclear energy, or their nominations were withdrawn.

Figures 5A and 5B, Distribution by region

74. These figures summarize the regional distribution of the assistance provided in 1980. "Agency resources" in Figure 5B include all expenditures met from Agency funds, extrabudgetary funds and assistance in kind.

Figure 5C, Distribution by currency type and region

75. This new figure illustrates (for the Technical Assistance Fund only) the regional distribution of the assistance provided in 1980 from convertible currency, non-convertible currency and both.

Figure 6, Trends in technical co-operation activities

76. The figure shows the comparative expenditures during the past six years for experts, equipment and fellowships financed from UNDP and Agency resources. "Agency resources" include all non-UNDP funds.

Figure 7, Implementation of the regular programme

77. This new figure shows, year for year, the total resources available to the Technical Assistance Fund, the expenditures, the level of unliquidated obligations and the unobligated balance as at 31 December. A heavy dotted line indicates what fraction of the available resources was spent ("delivery rate") and a heavy solid line denotes the fraction committed ("implementation rate") during the year.

Part IV. S T A T I S T I C A L T A B L E S

A. INTRODUCTORY NOTES

1. Resources

78. Figure 1A and Table 1 show the resources made available for approved field programmes of technical assistance and thus do not include UNDP or SIDA overhead cost allocations. Voluntary contributions are shown in columns (1a) and (1b) by type of currency (Table 1). To give a more accurate picture of the value of the assistance in kind made available by donors, the data in Table 1 reflect the estimated value of the assistance provided rather than that of the offers; the estimated value of the assistance in kind provided during a given year is shown in column (1e). In the "Extrabudgetary funds" column in Table 1, the amounts shown reflect the funds made available for projects by programme year; they thus agree with the amounts shown in Table 5B but are subject to change when new funds are received for activities initiated during earlier programme years and when the resources made available are adjusted (for example, when SIDA overhead cost allocations are deducted).

79. All monetary values appearing under the heading "In kind" are estimated in accordance with the following guidelines:

(a) Experts. The value of the services of each cost-free expert is estimated on the basis of the average salary of an equivalent expert engaged by the Agency and the applicable daily subsistence allowance as established by UNDP, plus the cost of a round-trip air ticket; analogous criteria are used in estimating the value of the services of cost-free and partly cost-free lecturers;

(b) Equipment. The value of equipment is estimated on the basis of information received from the donor Government; and

(c) Training. As from 1978, the value of Type II fellowships has been estimated, for the man-months of training actually provided, on the basis of pro forma rates established for "average" and "above average" cost countries.

These values and the totals in which they are included must therefore be regarded as approximations.

2. Assistance provided

80. The financial statistics given in Tables 4, 5A, 5B and 7 relate, in the first instance, to actual cash payments against 1980 and prior years' obligations (shown according to the year(s) in which the cash payments were made) plus the total value of the assistance in kind (shown according to the year(s) in which it was provided). Thus, the balance of funds - for example, obligated but not spent in 1980 - is not included in the financial data relating to the assistance provided, but is shown separately in column 9 (see, for example, the entries in Table 7); the total cumulative balance of funds obligated in 1980 and prior years, but not yet spent as at 31 December 1980, is given at the bottom of this column in Tables 4 and 7.

81. Assistance in kind has been separated into two parts. The first part consists of assistance which has been provided - for example, fellowship training already provided - expressed in terms of estimated cash expenditures. The second part is

made up of assistance which is in the process of being provided - for example, fellowship training not yet completed - which is equivalent to unliquidated obligations (see column 10 in Table 4). The provision of expert services and equipment in kind has been shown in the same way.

82. As the Agency exercises no financial control over assistance provided in kind, delay is occasionally experienced in receiving information on equipment deliveries, interruptions in fellowship training, etc.

3. Types of assistance

83. (a) Experts. When not shown separately, the assignments of lecturers are included under the heading "Experts". With regard to Table 6A, it should be noted that the assignments of experts and lecturers involved in other than country programmes are not subdivided by region but included under the heading "Intercountry projects" or "Training courses".

(b) Equipment. As can best be seen in Table 7, the total assistance provided under this heading is the sum of the amounts disbursed for equipment and supplies in respect of country and other programmes; and

(c) Training. In Table 3, where trainees are classified by place of study, columns relating to training courses and scientific visits are also given in order to reflect more accurately the valuable contribution made by host countries. The UNDP and Agency fellows shown in Tables 3 and 6B constitute the total number of such award holders that received training in 1980. Table 6B, introduced in 1980 as a refinement of old Table 6, also includes scientific visitors and training course participants classified by nationality. Furthermore, in the financial summaries (Tables 7 and 8) the expenditure on intercountry projects and training courses is shown as assistance not to individual countries but to these "sections" by region. None of the tables includes any reference to local participants in training courses (see Annex II).

4. Miscellaneous items

84. (a) Intercountry projects. In the broadest sense, this heading covers expenditure on regional projects for which expert services only were provided (for example, by regional advisers) and on regional and interregional projects for which experts and equipment, with or without training activities, were provided (for example, demonstration projects).

(b) Subcontract activities and funds-in-trust arrangements. The statistical tables do not include data relating to services provided by the Agency under subcontracts to other organizations, or in respect of projects carried out for developing countries and financed by them under funds-in-trust arrangements (see Annex I.B).

(c) Figures and percentages. Due to the rounding-off of monetary amounts to the nearer hundred or thousand dollars, the totals indicated in various places may differ slightly. In preparing figures and tables, percentages have also been rounded off.

B. TECHNICAL ASSISTANCE RESOURCES

Table 1

Available resources: 1971-1980
(in thousands of dollars)

Year	Agency					Sub-totals		TOTAL
	Voluntary contributions		Other sources					
	Convertible currency (1a)	Non-convertible currency (1b)	Miscellaneous income (1c)	Extrabudgetary funds (1d)	In kind[a] (1e)	Agency (1)	UNDP (2)	(1) + (2) (3)
1971	1 751	322	152	218	922	3 365	1 839	5 204
1972	2 122	363	150	60	779	3 474	2 072	5 546
1973	2 290	557	278	267	1 039	4 431	1 964	6 395
1974	2 424	661	263	367	1 078	4 793	3 082	7 875
1975	3 205	1 014	320	110	942	5 591	3 942	9 533
1976	3 982	1 080	430	648	1 021	7 161	3 002	10 163
1977	4 307	1 142	513	1 966	1 284	9 212	2 144	11 356
1978	5 089	1 362	670	2 853	1 987	11 961	2 954	14 915
1979	6 449	1 614	740	2 199	2 015	13 017	4 060	17 077
1980	7 894	2 082	572	2 666	2 628	15 842	5 893	21 735
1971-1980	39 513	10 197	4 088	11 354	13 695	78 847	30 952	109 799

[a] Estimated; see Introductory Notes, paras 78 and 79.

Table 2

Funds for the Agency's regular programme of technical assistance: 1971-1980
(in thousands of dollars)

Item	1971-76	1977	1978	1979	1980	1971-80
Target for voluntary contributions to the General Fund	21 500	6 000	7 000	8 500	10 500	53 500
Share of target budgeted for technical assistance[a]	21 437	6 000	7 000	8 500	10 500	53 437
Amount pledged	19 771	5 449	6 451	8 063	9 976	49 710
Actually made available for technical assistance, by programme year[b]	21 364	5 962	7 121	8 803	10 548	53 798

[a] Until 1972 a share of the funds from voluntary contributions was used to support other operational programme activities of the Agency.

[b] The funds from voluntary contributions are supplemented by miscellaneous income accruing to the General Fund and to Operating Fund II (Technical Assistance Fund), which explains why the amount actually made available for technical assistance exceeded the amount pledged and, in some years (1973-1975 and 1978-1980), the target itself.

Table 3

Experts (classified by place of origin) and trainees in the field (classified by place of study): 1980

Place of origin of experts or place of study of trainees	Experts			Trainees					
				UNDP		Agency			TOTAL
	UNDP	Agency	TOTAL	Fellows	Training course participants	Fellows	Training course participants	Scientific visitors	
Argentina	1	8	9	5	-	8	-	-	13
Australia	4	9	13	1	12	9	-	-	22
Austria	1	5	6	1	-	2	12	5	20
Bangladesh	-	1	1	-	-	-	-	-	-
Belgium	-	8	8	-	-	6	-	1	7
Brazil	-	6	6	2	-	10	-	-	12
Canada	6	16	22	2	-	19	-	1	22
Chile	1	2	3	-	-	2	-	-	2
China	-	1	1	-	-	-	-	-	-
Colombia	-	1	1	-	-	-	-	-	-
Czechoslovakia	-	3	3	2	-	6	32	-	40
Denmark	-	-	-	2	-	10	-	2	14
Egypt	-	5	5	-	-	1	15	-	16
Finland	-	12	12	1	-	3	-	1	5
France	6	22	28	5	-	35	50	3	93
German D.R.	-	4	4	-	-	1	34	-	35
Germany, F.R.	8	35	43	19	-	41	63	10	133
Ghana	-	-	-	-	-	-	15	-	15
Greece	-	-	-	-	-	1	-	-	1
Hungary	-	6	6	1	-	10	-	3	14
India	5	14	19	-	-	10	-	-	10
Ireland	-	-	-	-	-	1	15	-	16
Israel	-	2	2	-	-	1	-	-	1
Italy	2	7	9	2	-	20	46	2	70
Japan	7	3	10	1	-	7	-	1	9
Malaysia	1	-	1	-	-	-	-	-	-
Mexico	-	4	4	-	-	1	-	-	1
Monaco	-	-	-	-	-	2	-	-	2
Netherlands	1	5	6	2	-	14	-	4	20
Niger	-	-	-	-	-	-	-	1	1
Norway	-	-	-	-	-	1	-	-	1
Peru	-	1	1	-	-	-	-	-	-
Philippines	-	1	1	-	-	-	-	-	-
Poland	2	7	9	1	-	11	21	1	34
Portugal	-	1	1	-	-	-	-	-	-
Romania	-	1	1	-	-	2	13	-	15
Senegal	-	-	-	-	-	1	-	-	1
Singapore	-	-	-	-	13	-	-	-	13
Spain	3	11	14	8	-	9	-	1	18
Sri Lanka	1	1	2	-	-	-	-	-	-
Sweden	2	9	11	1	-	9	-	4	14
Switzerland	-	7	7	-	-	5	-	4	9
Thailand	-	-	-	-	-	-	-	1	1
Turkey	-	4	4	-	-	-	-	-	-
USSR	-	1	1	-	-	1	58	-	59
UK	9	17	26	8	-	88	15	8	119
USA	5	49	54	17	-	233	122	10	382
Venezuela	-	-	-	-	-	-	11	-	11
Yugoslavia	3	6	9	1	-	-	-	2	3
IAEA	8	79	87	5	-	15	-	4	24
Other international organizations	-	7	7	-	-	-	-	-	-
TOTAL	76	381	457	87	25	595	522	69	1298[a]

[a] The difference between the number of trainees (1172) and the number of places of study (1298) is due to the fact that a number of fellows, study tour participants and scientific visitors went to more than one place of study.

C. DISTRIBUTION OF TECHNICAL ASSISTANCE

Table 4
Types of technical assistance: 1971-1980
(in thousands of dollars)

TYPE	Experts		Equipment		Fellowships		Scientific visits		Training courses		Intercountry projects		Sub-contracts		TOTAL		Assistance outstanding at 31 December 1980		TOTAL (8) + (9) + (10)
																	Unliquidated obligations	In kind balance[a/]	
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)	(10)	(11)
	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	%	$	$	$
1971-1976																			
UNDP funds	6 220.4	39.1	5 322.9	33.5	1 601.9	10.1	-	-	1 038.4	6.5	157.0	1.0	1 559.9	9.8	15 900.5	100.0	-	-	15 900.5
Agency funds	5 822.8	34.0	5 740.5	33.5	3 503.7	20.4	374.8	2.2	1 665.6	9.7	40.5	0.2	-	-	17 147.9	100.0	-	-	17 147.9
Assistance in kind[a/]	228.2	3.3	1 701.0	25.0	4 251.7	62.6	-	-	603.3	8.9	11.9	0.2	-	-	6 796.1	100.0	-	-	6 796.1
TOTAL	12 271.4	30.8	12 764.4	32.0	9 357.3	23.5	374.8	1.0	3 307.3	8.3	209.4	0.5	1 559.9	3.9	39 844.5	100.0	-	-	39 844.5
1977																			
UNDP funds	1 005.5	46.9	720.6	33.6	237.8	11.1	-	-	22.0	1.0	-	-	158.5	7.4	2 144.4	100.0	-	-	2 144.4
Agency funds	1 841.4	36.8	1 656.6	33.2	675.8	13.5	114.5	2.3	708.8	14.2	-	-	-	-	4 997.1	100.0	-	-	4 997.1
Extrabudgetary funds	107.2	17.8	149.3	24.8	118.7	19.7	0.2	0.0	227.0	37.7	-	-	-	-	602.4	100.0	-	-	602.4
Assistance in kind[a/]	16.9	1.3	273.9	21.3	924.6	72.0	3.4	0.3	65.5	5.1	-	-	-	-	1 284.3	100.0	-	-	1 284.3
TOTAL	2 971.0	32.9	2 800.4	31.0	1 956.9	21.7	118.1	1.3	1 023.3	11.3	-	-	158.5	1.8	9 028.2	100.0	-	-	9 028.2
1978																			
UNDP funds	1 182.5	40.0	1 268.6	43.0	341.7	11.6	-	-	36.5	1.2	-	-	124.7	4.2	2 954.0	100.0	-	-	2 954.0
Agency funds	1 862.9	28.5	2 978.5	45.6	704.8	10.8	101.9	1.6	787.3	12.1	92.1	1.4	-	-	6 527.5	100.0	-	-	6 527.5
Extrabudgetary funds	236.1	15.3	998.5	64.9	135.3	8.8	4.6	0.3	164.7	10.7	-	-	-	-	1 539.2	100.0	-	-	1 539.2
Assistance in kind[a/]	22.0	1.1	51.4	2.6	1 685.4	84.8	7.3	0.4	220.7	11.1	-	-	-	-	1 986.8	100.0	-	-	1 986.8
TOTAL	3 303.5	25.4	5 297.0	40.7	2 867.2	22.0	113.8	0.9	1 209.2	9.3	92.1	0.7	124.7	1.0	13 007.5	100.0	-	-	13 007.5
1979																			
UNDP funds	1 286.0	31.7	1 808.9	44.6	306.8	7.5	-	-	47.4	1.2	4.9	0.1	605.6	14.9	4 059.6	100.0	-	-	4 059.6
Agency funds	1 782.8	25.0	2 726.5	38.3	823.3	11.5	125.0	1.8	1 618.8	22.7	47.5	0.7	-	-	7 123.9	100.0	-	-	7 123.9
Extrabudgetary funds	337.5	14.2	1 411.6	59.3	339.9	14.3	3.1	0.1	259.0	10.9	-	-	28.6	1.2	2 379.7	100.0	-	-	2 379.7
Assistance in kind[a/]	67.7	3.4	24.8	1.2	1 687.5	83.7	5.5	0.3	229.3	11.4	-	-	-	-	2 014.8	100.0	-	-	2 014.8
TOTAL	3 474.0	22.3	5 971.8	38.3	3 157.5	20.3	133.6	0.9	2 154.5	13.8	52.4	0.3	634.2	4.1	15 578.0	100.0	-	-	15 578.0
1980																			
UNDP funds	1 574.4	26.7	3 089.8	52.4	608.2	10.3	-	-	104.8	1.8	102.3	1.8	413.9	7.0	5 893.4	100.0	2 068.6	-	7 962.0
Agency funds	1 999.1	25.6	3 070.1	39.3	1 295.8	16.6	103.1	1.3	1 327.9	17.0	17.7	0.2	-	-	7 813.7	100.0	6 807.1	-	14 620.8
Extrabudgetary funds	429.8	17.8	1 377.8	57.0	416.3	17.2	14.3	0.6	170.2	7.1	7.4	0.3	-	-	2 415.8	100.0	1 051.3	-	3 467.1
Assistance in kind[a/]	88.0	3.3	59.6	2.3	2 358.6	89.8	2.3	0.1	119.2	4.5	-	-	-	-	2 627.7	100.0	-	1 042.8	3 670.5
TOTAL	4 091.3	21.8	7 597.3	40.5	4 678.9	25.0	119.7	0.6	1 722.1	9.2	127.4	0.7	413.9	2.2	18 750.6	100.0	9 927.0	1 042.8	29 720.4
1971-1980																			
UNDP funds	11 268.8	36.4	12 210.8	39.5	3 096.4	10.0	-	-	1 249.1	4.0	264.2	0.9	2 862.6	9.2	30 951.9	100.0	2 068.6	-	33 020.5
Agency funds	13 309.0	30.5	16 172.2	37.1	7 003.4	16.1	819.3	1.9	6 108.4	14.0	197.8	0.4	-	-	43 610.1	100.0	6 807.1	-	50 417.2
Extrabudgetary funds	1 110.6	16.0	3 937.2	56.8	1 010.2	14.6	22.2	0.3	820.9	11.8	7.4	0.1	28.6	0.4	6 937.1	100.0	1 051.3	-	7 988.4
Assistance in kind[a/]	422.8	2.9	2 110.7	14.3	10 907.8	74.2	18.5	0.1	1 238.0	8.4	11.9	0.1	-	-	14 709.7	100.0	-	1 042.8	15 752.5
GRAND TOTAL	26 111.2	27.1	34 430.9	35.8	22 017.8	22.9	860.0	0.9	9 416.4	9.8	481.3	0.5	2 891.2	3.0	96 208.8	100.0	9 927.0	1 042.8	107 178.6

a/ Estimated; see Introductory Notes, paras 81 and 82.

Table 5A

Status of monetary resources and expenditures for the Agency's regular programme of technical assistance as at 31 December 1980
(in thousands of dollars)

Programme year	Monetary resources made available	Year of expenditure											Total expenditures 1958-1980	Unliquidated obligations	Earmarkings	Programme savings (deficit)
		1958-1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980				
1958-1970	15 006	12 460	1 219	579	161	24	25	3	1	-	-	-	14 472	-	-	534
1971	2 225	-	905	1 144	364	82	32	22	31	-	-	-	2 580	-	-	(355)
1972	2 635	-	-	833	1 193	458	167	70	38	2	-	1	2 762	-	-	(127)
1973	3 125	-	-	-	958	1 114	616	229	102	45	11	4	3 079	-	2	44
1974	3 348	-	-	-	-	735	1 373	657	287	93	47	24	3 216	50	134	(52)
1975	4 539	-	-	-	-	-	1 211	1 474	850	359	100	66	4 060	65	130	284
1976	5 492	-	-	-	-	-	-	1 500	1 917	1 141	356	111	5 025	298	199	(30)
1977	5 962	-	-	-	-	-	-	-	1 771	2 292	1 237	315	5 615	52	296	(1)
1978	7 121	-	-	-	-	-	-	-	-	2 595	2 655	775	6 025	214	912	(30)
1979	8 803	-	-	-	-	-	-	-	-	-	2 718	3 135	5 853	1 483	1 580	(113)
1980	10 548	-	-	-	-	-	-	-	-	-	-	3 383[a/]	3 383	3 422	4 558	(815)
TOTAL	68 804	12 460	2 124	2 556	2 676	2 413	3 424	3 955	4 997	6 527	7 124	7 814	56 070	5 584[b/]	7 811[c/]	(661)

a/ Includes $5000 preparatory expenditure for a 1981 training course.

b/ Does not include unliquidated obligations totalling $1 223 000 for future-year components of multi-year projects.

c/ The difference between the total earmarkings of $7 811 000 and the unobligated balance of $5 927 000 in respect of Operating Fund II (see Statement III. A of the Agency's Accounts for 1980), namely $1 884 000, is the sum of $1 223 000 mentioned in footnote b/ above plus $661 000, which is the cumulative programme deficit as at 31 December 1980.

Table 5B

Status of extrabudgetary funds and expenditures for the Agency's technical assistance activities as at 31 December 1980
(in thousands of dollars)

Programme year	Extrabudgetary funds made available	Year of expenditure											Total expenditures 1958-80	Unliquidated obligations	Unobligated balance
		1958-1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980			
1958-1970	208	139	43	26	-	-	-	-	-	-	-	-	208	-	-
1971	218	-	17	49	9	21	18	9	22	5	5	2	157	9	52
1972	60	-	-	11	25	7	-	-	-	-	-	-	43	-	17
1973	267	-	-	-	53	79	96	4	19	-	-	-	251	-	16
1974	367	-	-	-	-	63	102	173	12	19	-	-	369	-	(2)
1975	110	-	-	-	-	-	37	10	59	-	-	-	106	-	4
1976	648	-	-	-	-	-	-	162	197	197	71	1	628	-	20
1977	1 966	-	-	-	-	-	-	-	293	911	505	99	1 808	27	131
1978	2 853	-	-	-	-	-	-	-	-	408	1 324	1 040	2 772	34	47
1979	2 199	-	-	-	-	-	-	-	-	-	475	948	1 423	362	414
1980	2 666[a/]	-	-	-	-	-	-	-	-	-	-	326	326	586[b/]	1 754
TOTAL	11 562	139	60	86	87	170	253	358	602	1 540	2 380	2 416	8 091	1 018	2 453

a/ Does not include funds totalling $103 782 in respect of technical assistance activities programmed for 1981, namely $60 000 from Denmark, $8000 from the Federal Republic of Germany, $782 from Sweden and $35 000 from the USA.

b/ Does not include obligations totalling $32 699 which were incurred in 1980 in preparation for training courses scheduled to be held in 1981.

Table 6A

Recipients of expert services: 1980

RECIPIENT	Number of expert assignments, classified by location of duty station					
	UNDP		Agency		TOTAL	
	(1)	(2)	(1)	(2)	(1)	(2)
Afghanistan	-	-	1	12.0	1	12.0
Albania	-	-	3	3.0	3	3.0
Algeria	-	-	5	3.5	5	3.5
Argentina	7	33.0	15	20.0	22	53.0
Bangladesh	-	-	11	15.0	11	15.0
Bolivia	-	-	2	0.5	2	0.5
Brazil	8	36.0	14	31.0	22	67.0
Bulgaria	3	3.0	-	-	3	3.0
Burma	-	-	4	2.5	4	2.5
Chad	1	6.0	-	-	1	6.0
Chile	6	27.0	5	10.0	11	37.0
Colombia	3	17.5	1	1.0	4	18.5
Costa Rica	-	-	5	4.5	5	4.5
Cuba	-	-	3	5.0	3	5.0
Dem. P.R. Korea	-	-	1	0.5	1	0.5
Dominican Republic	-	-	3	3.0	3	3.0
Ecuador	-	-	8	12.5	8	12.5
Egypt	-	-	7	5.5	7	5.5
Ethiopia	1	6.0	-	-	1	6.0
Ghana	-	-	6	5.5	6	5.5
Greece	3	13.5	5	2.5	8	16.0
Guatemala	-	-	1	0.5	1	0.5
Iceland	-	-	2	0.5	2	0.5
India	-	-	8	7.0	8	7.0
Indonesia	-	-	12	12.0	12	12.0
Iran	-	-	1	1.0	1	1.0
Iraq	-	-	1	0.5	1	0.5
Israel	-	-	1	0.5	1	0.5
Ivory Coast	-	-	2	0.5	2	0.5
Jamaica	-	-	1	0.5	1	0.5
Kenya	-	-	2	23.5	2	23.5
Korea, R.	-	-	13	14.5	13	14.5
Madagascar	5	39.0	2	10.5	7	49.5
Malaysia	-	-	13	10.5	13	10.5
Mali	-	-	5	7.0	5	7.0
Mexico	-	-	15	33.5	15	33.5
Morocco	3	7.5	5	19.5	8	27.0
Niger	-	-	4	3.5	4	3.5
Nigeria	5	17.0	15	55.0	20	72.0
Pakistan	-	-	6	4.5	6	4.5

RECIPIENT	Number of expert assignments, classified by location of duty station					
	UNDP		Agency		TOTAL	
	(1)	(2)	(1)	(2)	(1)	(2)
Paraguay	-	-	2	1.0	2	1.0
Peru	6	19.0	13	16.5	19	35.5
Philippines	-	-	5	22.0	5	22.0
Poland	-	-	2	1.5	2	1.5
Portugal	-	-	3	2.0	3	2.0
Romania	5	2.5	1	1.0	6	3.5
Senegal	-	-	5	5.0	5	5.0
Singapore	-	-	2	1.5	2	1.5
Spain	-	-	2	16.5	2	16.5
Sri Lanka	2	3.5	3	1.5	5	5.0
Sudan	-	-	2	1.5	2	1.5
Syrian A.R.	-	-	5	3.0	5	3.0
Thailand	-	-	12	13.0	12	13.0
Tunisia	-	-	1	12.0	1	12.0
Turkey	-	-	9	6.0	9	6.0
U.A. Emirates	-	-	1	2.0	1	2.0
U.R. Cameroon	-	-	1	0.5	1	0.5
U.R. Tanzania	-	-	3	7.5	3	7.5
Uruguay	-	-	5	10.0	5	10.0
Venezuela	-	-	4	6.0	4	6.0
Viet Nam	-	-	1	0.5	1	0.5
Yugoslavia	4	3.0	14	9.5	18	12.5
Zaire	1	1.0	2	4.0	3	5.0
Zambia	-	-	7	18.0	7	18.0
Sub-total	63	234.5	313	504.5	376	739.0
Intercountry projects	11	8.5	1	1.0	12	9.5
Training courses	16	6.0	162	51.5	178	57.5
Sub-total	27	14.5	163	52.5	190	67.0
GRAND TOTAL	90	249.0	476	557.0	566	806.0

(1) Number of expert assignments.
(2) Number of man-months served.

TABLE 6B

Recipients of training abroad: 1980

RECIPIENT	UNDP				Agency						TOTAL	
	Fellows		Training Course participants		Fellows		Scientific visitors		Training Course participants			
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Afghanistan	-	-	-	-	5	29	-	-	-	-	5	29.0
Albania	-	-	-	-	2	6	-	-	-	-	2	6.0
Algeria	-	-	-	-	1	6	-	-	4	5	5	11.0
Argentina	2	6	-	-	7	38	1	0.5	7	9	17	53.5
Bangladesh	-	-	1	1	35	201	3	2.5	3	5	42	209.5
Bolivia	-	-	-	-	2	13	-	-	3	7	5	20.0
Brazil	11	49	-	-	1	9	6	4.5	22	31	40	93.5
Bulgaria	8	23	-	-	12	86	1	0.5	12	14	33	123.5
Burma	-	-	-	-	1	2	-	-	3	2	4	4.0
Chile	7	46	-	-	18	79	-	-	4	6	29	131.0
China	-	-	-	-	-	-	-	-	2	2	2	2.0
Colombia	1	6	-	-	9	56	-	-	6	9	16	71.0
Costa Rica	-	-	-	-	3	26	-	-	4	6	7	32.0
Cuba	2	5	-	-	4	13	-	-	2	3	8	21.0
Cyprus	-	-	-	-	-	-	-	-	1	1	1	1.0
Czechoslovakia	-	-	-	-	11	65	1	0.5	25	38	37	103.5
Dem. P.R. Korea	-	-	-	-	7	16	-	-	2	4	9	20.0
Dominican Republic	-	-	-	-	1	2	-	-	3	6	4	8.0
Ecuador	-	-	-	-	3	27	-	-	4	7	7	34.0
Egypt	-	-	-	-	19	111	1	0.5	21	31	41	142.5
El Salvador	-	-	-	-	3	20	-	-	-	-	3	20.0
Ethiopia	2	9	-	-	1	12	-	-	1	1	4	22.0
Gabon	-	-	-	-	-	-	-	-	2	2	2	2.0
Ghana	-	-	-	-	33	246	-	-	4	5	37	251.0
Greece	1	1	-	-	7	42	1	0.5	8	15	17	58.5
Guatemala	-	-	-	-	-	-	-	-	3	4	3	4.0
Guinea	-	-	-	-	-	-	-	-	2	5	2	5.0
Hong Kong	-	-	-	-	1	3	-	-	-	-	1	3.0
Hungary	-	-	-	-	11	67	4	2.5	7	9	22	78.5
Iceland	-	-	-	-	2	6	-	-	3	6	5	12.0
India	-	-	2	1	43	214	-	-	19	23	64	238.0
Indonesia	-	-	2	1	1	3	2	1.0	4	5	9	10.0
Iran	-	-	-	-	1	9	-	-	-	-	1	9.0
Iraq	-	-	-	-	4	17	-	-	8	12	12	29.0
Israel	-	-	-	-	6	37	1	0.5	8	12	15	49.5
Ivory Coast	-	-	-	-	-	-	-	-	1	1	1	1.0
Jamaica	-	-	-	-	-	-	-	-	5	9	5	9.0
Jordan	-	-	-	-	5	20	-	-	2	3	7	23.0
Kenya	-	-	-	-	10	52	-	-	5	9	15	61.0
Korea, R.	-	-	2	2	17	107	2	0.5	13	22	34	131.5
Lebanon	-	-	-	-	1	12	-	-	2	3	3	15.0
Libyan A.J.	-	-	-	-	3	12	-	-	-	-	3	12.0
Madagascar	1	2	-	-	4	16	-	-	2	2	7	20.0
Malaysia	-	-	4	3	17	117	-	-	8	12	29	132.0
Mali	-	-	-	-	5	25	-	-	2	3	7	28.0
Mexico	-	-	-	-	-	-	-	-	12	20	12	20.0
Morocco	-	-	-	-	4	9	-	-	7	9	11	18.0
Niger	-	-	-	-	1	9	-	-	1	1	2	10.0
Nigeria	1	8	-	-	7	36	-	-	6	5	14	49.0
Pakistan	-	-	2	1	39	277	1	0.5	12	18	54	296.5
Panama	-	-	-	-	3	24	-	-	2	3	5	27.0
Paraguay	-	-	-	-	2	3	1	1.0	2	3	5	7.0
Peru	11	52	-	-	9	81	-	-	7	9	27	142.0
Philippines	4	12	3	3	31	179	-	-	13	24	51	218.0

RECIPIENT	UNDP				Agency						TOTAL	
	Fellows		Training course participants		Fellows		Scientific visitors		Training course participants			
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Poland	-	-	-	-	25	142	1	0.5	21	33	47	175.5
Portugal	-	-	-	-	3	7	-	-	12	18	15	25.0
Romania	5	7	-	-	1	9	-	-	10	16	16	32.0
Senegal	-	-	-	-	4	27	-	-	2	2	6	29.0
Sierra Leone	-	-	-	-	2	16	-	-	2	3	4	19.0
Singapore	-	-	-	-	-	-	2	1.5	4	8	6	9.5
Spain	-	-	-	-	-	-	-	-	2	3	2	3.0
Sri Lanka	1	3	3	2	18	114	1	0.5	7	12	30	131.5
Sudan	-	-	-	-	18	105	2	3.0	7	9	27	117.0
Syrian A.R.	-	-	-	-	-	-	-	-	6	9	6	9.0
Thailand	-	-	4	3	24	118	1	0.5	15	23	44	144.5
Tunisia	-	-	-	-	2	6	1	0.5	2	2	5	8.5
Turkey	-	-	-	-	28	165	1	1.0	25	42	54	208.0
Uganda	-	-	-	-	1	6	-	-	2	4	3	10.0
U.R. Cameroon	-	-	-	-	-	-	-	-	1	1	1	1.0
U.R. Tanzania	-	-	-	-	6	19	-	-	2	4	8	23.0
Uruguay	-	-	-	-	4	20	1	0.5	2	4	7	24.5
Venezuela	-	-	-	-	1	2	-	-	2	3	3	5.0
Viet Nam	-	-	2	2	-	-	-	-	8	14	10	16.0
Yugoslavia	11	4	-	-	14	73	-	-	21	32	46	109.0
Zaire	2	9	-	-	5	26	-	-	5	7	12	42.0
Zambia	-	-	-	-	12	49	-	-	5	10	17	59.0
TOTAL	70	242	25	19	580	3 344	35	23.5	462	700	1 172	4 328.5

(1) Number of trainees. (2) Number of man-months of training received.

Table 7

Financial summary: 1980
(in thousands of dollars)

RECIPIENT	Assistance provided, by type				Assistance provided, by source						Unliquidated obligations 31 Dec. 1980	TOTAL (8) + (9)
	Experts	Equipment	Fellowships	TOTAL	UNDP	Convertible currency	Non-convertible currency	Extra-budgetary funds	In kind[a/]	TOTAL		
	(1)	(2)	(3)	(4)	(5)	(6a)	(6b)	(6c)	(7)	(8)	(9)	(10)
Afghanistan	50.4	46.6	25.8	122.8	-	72.2	40.3	-	10.3	122.8	29.0	151.8
Albania	13.1	44.4	6.9	64.4	-	58.4	-	-	6.0	64.4	15.7	80.1
Algeria	20.0	0.1	8.4	28.5	-	20.1	-	-	8.4	28.5	91.4	119.9
Argentina	444.5	236.9	77.3	758.7	542.9	167.7	-	14.5	33.6	758.7	324.0	1 082.7
Bangladesh	38.8	92.8	205.6	337.2	18.7	150.5	6.8	29.4	131.8	337.2	57.2	394.4
Bolivia	5.9	58.4	18.7	83.0	-	21.0	-	43.3	18.7	83.0	147.8	230.8
Brazil	320.4	88.7	340.0	749.1	604.7	136.0	-	-	8.4	749.1	335.4	1 084.5
Bulgaria	13.6	137.5	133.7	284.8	144.7	108.2	-	-	31.9	284.8	214.1	498.9
Burma	10.9	119.8	7.0	137.7	-	82.5	37.2	-	18.0	137.7	12.1	149.8
Chad	58.3	29.3	-	87.6	87.6	-	-	-	-	87.6	-	87.6
Chile	302.3	192.6	149.6	644.5	471.4	116.2	0.6	-	56.3	644.5	305.8	950.3
Colombia	116.5	218.2	67.6	402.3	334.0	32.8	-	-	35.5	402.3	27.2	429.5
Costa Rica	38.8	78.4	27.5	144.7	-	70.1	-	56.4	18.2	144.7	3.7	148.4
Cuba	29.9	471.8	18.6	520.3	407.8	99.3	-	-	13.2	520.3	1 688.4	2 208.7
Cyprus	-	9.4	-	9.4	-	9.4	-	-	-	9.4	46.0	55.4
Czechoslovakia	-	0.3	69.5	69.8	-	39.5	0.3	1.8	28.2	69.8	129.0	198.8
Dem. P.R. Korea	3.2	57.5	15.7	76.4	-	60.7	-	-	15.7	76.4	59.1	135.5
Dominican Republic	13.0	8.3	3.9	25.2	-	20.2	1.1	3.9	-	25.2	1.6	26.8
Ecuador	52.6	75.0	32.8	160.4	-	125.5	-	2.1	32.8	160.4	11.9	172.3
Egypt	20.1	206.5	121.1	347.7	80.3	58.5	97.3	14.1	97.5	347.7	535.8	883.5
El Salvador	0.9	1.7	24.7	27.3	-	2.6	-	-	24.7	27.3	11.4	38.7
Ethiopia	17.5	29.2	19.8	66.5	59.5	7.0	-	-	-	66.5	31.0	97.5
Ghana	30.3	73.4	300.6	404.3	0.1	131.3	16.0	32.2	224.7	404.3	180.9	585.2
Greece	85.5	108.1	50.5	244.1	84.6	81.1	6.1	50.6	21.7	244.1	42.6	286.7
Guatemala	4.5	72.9	0.1	77.5	-	13.6	26.0	36.1	1.8	77.5	0.5	78.0
Hong Kong	-	-	2.1	2.1	-	2.1	-	-	-	2.1	4.2	6.3
Hungary	-	351.6	88.6	440.2	-	76.0	351.6	-	12.6	440.2	773.8	1 214.0
Iceland	2.5	39.5	8.7	50.7	-	44.6	-	-	6.1	50.7	21.8	72.5
India	0.9	268.7	162.3	431.9	262.6	35.4	-	0.1	133.8	431.9	55.4	487.3
Indonesia	60.4	90.4	10.4	161.2	0.3	92.6	-	66.8	1.5	161.2	101.9	263.1
Iran	5.2	-	7.5	12.7	-	12.7	-	-	-	12.7	3.2	15.9
Iraq	2.1	81.5	21.2	104.8	-	14.5	76.8	-	13.5	104.8	20.6	125.4
Israel	1.5	90.3	55.0	146.8	-	99.1	-	-	47.7	146.8	55.1	201.9
Ivory Coast	25.2	17.5	-	42.7	-	42.7	-	-	-	42.7	9.9	52.6
Jamaica	5.7	-	-	5.7	-	5.7	-	-	-	5.7	-	5.7
Jordan	0.2	15.2	19.6	35.0	-	25.7	0.6	3.2	5.5	35.0	112.3	147.3
Kenya	114.2	53.9	84.7	252.8	-	186.9	-	56.4	9.5	252.8	84.9	337.7
Korea, R.	94.9	117.9	140.2	353.0	-	46.1	-	180.2	126.7	353.0	57.5	410.5
Lebanon	-	-	12.4	12.4	-	-	-	12.4	-	12.4	4.0	16.4
Libyan A.J.	-	23.1	16.5	39.6	-	26.5	5.4	-	7.7	39.6	1.3	40.9
Madagascar	293.6	259.8	24.4	577.8	464.8	60.8	36.5	0.3	15.4	577.8	55.9	633.7
Malaysia	65.9	134.4	150.2	350.5	-	160.0	-	81.9	108.6	350.5	73.5	424.0
Mali	38.8	75.2	30.3	144.3	-	116.1	-	28.2	-	144.3	25.2	169.5
Mauritius	-	34.1	-	34.1	-	2.1	32.0	-	-	34.1	3.0	37.1
Mexico	158.9	78.8	1.0	238.7	-	163.3	-	66.5	8.9	238.7	45.8	284.5
Mongolia	4.2	50.2	-	54.4	-	53.3	1.1	-	-	54.4	20.1	74.5
Morocco	145.2	48.9	11.9	206.0	39.0	157.7	5.8	-	3.5	206.0	37.3	243.3
Niger	14.3	16.1	13.1	43.5	-	29.4	1.0	-	13.1	43.5	2.8	46.3
Nigeria	159.1	95.2	57.4	311.7	199.0	58.5	-	4.2	50.0	311.7	67.5	379.2
Pakistan	13.4	32.9	344.8	391.1	-	145.6	-	18.1	227.4	391.1	293.6	684.7
Panama	-	5.6	33.4	39.0	-	-	-	5.6	33.4	39.0	12.6	51.6
Paraguay	5.7	31.5	6.3	43.5	-	20.3	-	20.0	3.2	43.5	18.0	61.5
Peru	192.6	669.9	180.8	1 043.3	700.5	115.1	-	138.0	89.7	1 043.3	280.4	1 323.7
Philippines	96.9	77.5	258.7	433.1	20.0	155.0	-	64.0	194.1	433.1	34.8	467.9
Poland	4.6	44.7	134.1	183.4	-	157.8	-	-	25.6	183.4	177.5	360.9
Portugal	11.2	72.6	12.3	96.1	-	90.7	-	-	5.4	96.1	1.7	97.8
Romania	52.9	209.2	17.0	279.1	233.2	25.8	11.1	-	9.0	279.1	279.0	558.1
Saudi Arabia	-	4.4	-	4.4	-	4.4	-	-	-	4.4	1.2	5.6
Senegal	21.2	27.1	37.5	85.8	-	63.9	4.1	6.5	11.3	85.8	12.0	97.8
Sierra Leone	-	-	18.6	18.6	-	3.0	-	10.5	5.1	18.6	11.2	29.8

RECIPIENT	Assistance provided, by type				Assistance provided, by source						Unliquidated obligations 31 Dec. 1980	TOTAL (8) + (9)
	Experts	Equipment	Fellowships	TOTAL	UNDP	Convertible currency	Non-convertible currency	Extra-budgetary funds	In kind a/	TOTAL		
	(1)	(2)	(3)	(4)	(5)	(6a)	(6b)	(6c)	(7)	(8)	(9)	(10)
Singapore	8.6	2.6	3.1	14.3	-	14.3	-	-	-	14.3	30.1	44.4
Spain	52.2	-	-	52.2	-	52.2	-	-	-	52.2	2.1	54.3
Sri Lanka	30.1	210.0	139.2	379.3	136.4	115.9	35.5	39.4	52.1	379.3	188.1	567.4
Sudan	6.0	120.5	130.3	256.8	0.4	153.3	47.5	20.0	35.6	256.8	55.4	312.2
Syrian A.R.	16.1	22.8	-	38.9	3.4	18.5	17.0	-	-	38.9	0.7	39.6
Thailand	82.3	131.3	155.0	368.6	-	209.0	-	62.2	97.4	368.6	75.2	443.8
Tunisia	60.2	27.2	12.2	99.6	-	73.8	6.3	10.5	9.0	99.6	58.9	158.5
Turkey	39.5	41.6	224.5	305.6	8.7	145.8	-	6.9	144.2	305.6	172.1	477.7
Uganda	-	-	8.5	8.5	-	-	-	-	8.5	8.5	20.5	29.0
U.A. Emirates	12.5	-	-	12.5	-	12.5	-	-	-	12.5	0.1	12.6
U.R. Cameroon	(0.2)	0.1	-	(0.1)	-	(0.2)	-	0.1	-	(0.1)	32.4	32.3
U.R. Tanzania	29.8	36.7	33.3	99.8	-	88.2	-	-	11.6	99.8	86.9	186.7
Uruguay	60.6	104.2	28.0	192.8	-	91.0	-	82.2	19.6	192.8	57.8	250.6
Venezuela	19.4	26.5	4.4	50.3	-	27.6	-	22.7	-	50.3	75.3	125.6
Viet Nam	3.1	223.9	1.2	228.2	-	119.9	108.3	-	-	228.2	120.5	348.7
Yugoslavia	53.7	710.3	91.1	855.1	701.2	149.5	-	2.5	1.9	855.1	220.1	1 075.2
Zaire	17.4	147.1	41.0	205.5	80.5	40.8	25.0	26.3	32.9	205.5	136.2	341.7
Zambia	83.5	51.2	47.9	182.6	-	161.1	-	2.7	18.8	182.6	43.8	226.4
Sub-total	3 857.1	7 431.5	4 606.1	15 894.7	5 686.3	5 451.0	997.3	1 322.8	2 437.3	15 894.7	8 436.8	24 331.5
Intercountry projects												
Asia and the Pacific	73.5	18.6	10.2	102.3	102.3	-	-	-	-	102.3	30.1	132.4
Interregional	7.1	18.0	-	25.1	-	14.8	2.9	7.4	-	25.1	0.4	25.5
Training courses												
Africa	24.4	19.1	28.0	71.5	35.6	35.9	-	-	-	71.5	8.1	79.6
Asia and the Pacific	29.6	7.0	71.0	107.6	69.2	1.9	-	31.7	4.8	107.6	1.9	109.5
Latin America	15.4	8.4	0.2	24.0	-	1.9	-	16.7	5.4	24.0	107.5	131.5
Interregional	336.2	109.7	1 073.1	1 519.0	-	1 135.3	152.9	121.8	109.0	1 519.0	1 028.9	2 547.9
Sub-total	486.2	180.8	1 182.5	1 849.5	207.1	1 189.8	155.8	177.6	119.2	1 844.7	1 176.9	3 026.4
SIDA large-scale assistance												
Bangladesh	53.0	25.0	47.4	125.4	-	-	-	125.4	-	125.4	41.1	166.5
India	35.7	402.1	145.1	582.9	-	-	-	582.9	-	582.9	169.3	752.2
Other multi-bilateral assistance												
Nigeria	173.3	105.0	-	278.3	-	-	-	207.1	71.2	278.3	94.5	372.8
Miscellaneous	0.6	19.2	-	19.8	-	19.8	-	-	-	19.8	8.4	28.2
GRAND TOTAL	4 605.9	8 163.6	5 981.1	18 750.6	5 893.4	6 660.6	1 153.1	2 415.8	2 627.7	18 750.6	9 927.0	28 677.6

a/ Assistance in kind can only be estimated, see Introductory Notes, paras 81 and 82.

Table 8

Financial summary: 1958-1980
(in thousands of dollars)

RECIPIENT	Assistance provided, by type				Assistance provided, by source				
	Experts	Equipment	Fellowships	TOTAL	UNDP	Agency funds	Extra-budgetary funds[a]	In kind[b]	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6a)	(6b)	(7)	(8)
Afghanistan	311.9	222.8	117.2	651.9	92.9	477.2	-	81.8	651.9
Albania	49.6	388.2	42.3	480.1	117.5	342.1	-	20.5	480.1
Algeria	48.2	24.5	83.5	156.2	21.7	116.0	-	18.5	156.2
Argentina	2 176.2	1 126.7	1 074.1	4 377.0	2 275.5	1 555.1	17.5	528.9	4 377.0
Austria	62.0	13.8	120.7	196.5	-	132.6	-	63.9	196.5
Bangladesh	151.7	405.2	708.3	1 265.2	55.7	691.6	51.3	466.6	1 265.2
Bolivia	261.2	394.1	176.4	831.7	153.4	457.2	105.2	115.9	831.7
Brazil	2 950.7	2 635.6	1 344.7	6 931.0	4 871.4	1 583.0	-	476.6	6 931.0
Bulgaria	61.9	640.5	856.0	1 558.4	315.0	898.2	-	345.2	1 558.4
Burma	633.0	571.6	193.5	1 398.1	537.0	764.1	-	97.0	1 398.1
Chad	116.3	30.6	-	146.9	146.9	-	-	-	146.9
Chile	1 985.5	1 522.3	988.5	4 496.3	3 272.0	889.5	-	334.8	4 496.3
China	229.7	166.2	554.9	950.8	281.5	307.7	-	361.6	950.8
Colombia	575.0	1 062.4	379.5	2 016.9	1 041.7	534.3	-	440.9	2 016.9
Costa Rica	283.6	398.7	102.4	784.7	-	496.8	159.1	128.8	784.7
Cuba	219.6	1 078.2	116.1	1 413.9	470.4	842.0	21.3	80.2	1 413.9
Cyprus	71.7	152.7	43.3	267.7	24.1	195.4	-	48.2	267.7
Czechoslovakia	-	0.6	717.4	718.0	6.2	372.4	4.2	335.2	718.0
Dem. P.R. Korea	4.3	139.2	28.3	171.8	-	143.5	-	28.3	171.8
Dominican Republic	13.0	8.3	6.7	28.0	-	21.3	3.9	2.8	28.0
Ecuador	311.4	316.4	127.8	755.6	35.5	483.6	82.4	154.1	755.6
Egypt	517.2	1 506.9	1 405.7	3 429.8	1 002.2	1 458.9	24.7	944.0	3 429.8
El Salvador	55.6	72.6	47.0	175.2	14.1	46.3	20.4	94.4	175.2
Ethiopia	276.8	130.1	85.1	492.0	233.2	225.5	-	33.3	492.0
Gabon	3.7	-	-	3.7	-	3.7	-	-	3.7
Ghana	390.7	611.3	1 078.8	2 080.8	247.2	914.7	173.1	745.8	2 080.8
Greece	1 637.4	575.6	892.8	3 105.8	1 475.6	966.9	123.4	539.9	3 105.8
Guatemala	92.7	201.2	47.9	341.8	56.2	154.7	44.1	86.8	341.8
Haiti	0.9	-	-	0.9	-	0.9	-	-	0.9
Hong Kong	59.9	102.5	22.7	185.1	-	176.1	-	9.0	185.1
Hungary	86.5	2 015.7	912.7	3 014.9	622.7	2 120.2	-	272.0	3 014.9
Iceland	43.9	258.8	52.2	354.9	-	285.7	-	69.2	354.9
India	817.5	2 352.8	2 096.0	5 266.3	2 900.3	1 225.6	29.8	1 110.6	5 266.3
Indonesia	1 005.1	772.2	782.9	2 560.2	486.9	1 397.3	141.7	534.3	2 560.2
Iran	644.2	72.0	446.6	1 162.8	455.4	441.0	2.4	264.0	1 162.8
Iraq	380.3	801.0	667.1	1 848.4	242.5	1 233.6	12.1	360.2	1 848.4
Israel	249.8	741.8	403.0	1 394.6	170.9	831.9	-	391.8	1 394.6
Ivory Coast	147.3	109.4	11.0	267.7	73.4	170.4	23.9	-	267.7
Jamaica	118.0	105.6	24.0	247.6	10.4	166.4	-	70.8	247.6
Jordan	261.0	253.6	148.6	663.2	89.3	419.1	87.8	67.0	663.2
Kenya	250.8	246.2	160.9	657.9	33.2	429.2	105.2	90.3	657.9
Korea, R.	931.0	861.9	1 452.3	3 245.2	566.8	1 294.6	331.1	1 052.7	3 245.2
Kuwait	12.0	-	3.9	15.9	-	15.9	-	-	15.9
Lebanon	247.8	140.7	93.0	481.5	139.3	291.3	27.7	23.2	481.5
Liberia	115.2	29.0	-	144.2	60.2	27.7	-	56.3	144.2
Libyan A.J.	88.3	153.8	71.9	314.0	-	272.4	-	41.6	314.0
Madagascar	438.8	463.9	50.8	953.5	540.9	377.7	19.5	15.4	953.5
Malaysia	382.7	481.4	408.4	1 272.5	1.6	679.2	268.3	323.4	1 272.5
Mali	307.0	192.5	53.4	552.9	13.4	488.7	32.3	18.5	552.9
Mauritius	5.8	39.5	3.8	49.1	-	45.3	3.8	-	49.1
Mexico	1 185.9	465.7	323.2	1 974.8	419.3	1 172.8	178.7	204.0	1 974.8
Mongolia	62.1	361.7	17.2	441.0	-	423.8	10.6	6.6	441.0
Morocco	1 007.1	682.8	201.0	1 890.9	884.3	770.4	66.6	169.6	1 890.9
Nicaragua	26.5	7.6	20.1	54.2	-	54.2	-	-	54.2
Niger	25.1	52.6	14.5	92.2	-	77.7	-	14.5	92.2
Nigeria	828.6	370.8	296.4	1 495.8	741.8	461.9	72.5	219.6	1 495.8
Niue	7.8	6.9	-	14.7	14.7	-	-	-	14.7
Pakistan	1 377.8	1 487.8	1 832.7	4 698.3	1 842.0	1 772.0	37.5	1 046.8	4 698.3
Panama	70.3	18.3	96.3	184.9	4.1	87.9	5.6	87.3	184.9
Paraguay	56.1	110.2	45.5	211.8	-	95.5	94.1	22.2	211.8

RECIPIENT	Assistance provided, by type				Assistance provided, by source				
	Experts	Equipment	Fellowships	TOTAL	UNDP	Agency funds	Extra-budgetary funds[a/]	In kind[b/]	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6a)	(6b)	(7)	(8)
Peru	1 085.4	1 367.1	432.7	2 885.2	1 459.8	856.0	201.4	368.0	2 885.2
Philippines	956.9	1 263.2	1 834.5	4 054.6	1 008.1	1 340.3	355.2	1 351.0	4 054.6
Poland	44.5	415.4	1 270.0	1 729.9	199.7	1 073.2	-	457.0	1 729.9
Portugal	100.8	233.3	80.5	414.6	-	288.5	61.2	64.9	414.6
Romania	587.0	1 954.3	687.5	3 228.8	1 799.4	1 183.3	39.3	206.8	3 228.8
St. Kitts	-	-	8.5	8.5	-	-	8.5	-	8.5
Saudi Arabia	28.1	7.3	12.8	48.2	-	41.2	-	7.0	48.2
Senegal	189.5	316.8	111.8	618.1	86.5	384.5	100.7	46.4	618.1
Sierra Leone	212.3	53.4	56.9	322.6	174.5	61.8	12.4	73.9	322.6
Singapore	137.5	314.5	51.6	503.6	-	450.8	-	52.8	503.6
Somalia	6.3	-	-	6.3	6.3	-	-	-	6.3
Spain	204.4	-	65.0	269.4	-	246.3	-	23.1	269.4
Sri Lanka	459.1	787.0	576.1	1 822.2	297.1	1 108.4	142.2	274.5	1 822.2
Sudan	411.2	488.9	554.2	1 454.3	296.7	941.5	57.0	159.1	1 454.3
Syrian A. R.	145.7	235.6	233.6	614.9	229.6	311.0	4.5	69.8	614.9
Thailand	1 040.0	757.4	1 501.1	3 298.5	545.5	1 502.6	228.9	1 021.5	3 298.5
Tunisia	410.9	220.7	161.5	793.1	141.2	566.2	10.5	75.2	793.1
Turkey	1 276.3	970.2	1 496.1	3 742.6	1 628.7	1 126.4	20.9	966.6	3 742.6
Uganda	260.8	198.8	41.8	501.4	131.0	354.8	-	15.6	501.4
U. A. Emirates	12.5	-	-	12.5	-	12.5	-	-	12.5
U. R. Cameroon	297.7	120.3	44.2	462.2	297.3	135.7	22.4	6.8	462.2
U. R. Tanzania	94.5	113.6	38.5	246.6	9.6	223.0	2.4	11.6	246.6
Uruguay	347.5	680.0	164.2	1 191.7	173.6	650.2	147.1	220.8	1 191.7
Venezuela	346.5	122.9	225.2	694.6	130.7	358.8	22.7	182.4	694.6
Viet Nam	79.7	397.8	142.8	620.3	31.4	433.7	-	155.2	620.3
Yugoslavia	587.1	2 091.1	1 192.6	3 870.8	2 344.2	1 051.9	126.3	348.4	3 870.8
Zaire	334.7	342.1	285.4	962.2	97.5	616.2	55.1	193.4	962.2
Zambia	433.6	200.1	127.6	761.3	152.5	527.4	5.8	75.6	761.3
Other countries[c/]	159.7	48.7	780.3	988.7	116.1	446.2	-	426.4	988.7
Sub-total	34 981.9	41 855.5	34 228.0	111 065.4	38 417.3	48 673.1	4 006.3	19 968.7	111 065.4
Interregional projects and training courses									
Africa	148.5	96.5	126.8	371.8	325.3	41.6	-	4.9	371.8
Asia and the Pacific	701.9	171.0	492.5	1 365.4	865.2	320.6	64.9	114.7	1 365.4
Europe	21.0	18.6	17.3	56.9	56.9	-	-	-	56.9
Latin America	811.9	785.5	229.2	1 826.6	1 458.2	154.5	126.0	87.9	1 826.6
Middle East	5.8	1.2	5.3	12.3	12.3	-	-	-	12.3
Interregional	2 246.5	855.9	6 768.3	9 870.7	1 441.0	6 647.9	637.4	1 144.4	9 870.7
Sub-total	3 930.8	1 928.7	7 639.4	13 498.9	4 158.9	7 164.6	828.3	1 347.1	13 498.9
SIDA large-scale assistance									
Bangladesh	330.4	423.6	173.1	927.1	-	-	575.1	352.0	927.1
India	64.2	762.4	207.0	1 033.6	-	-	1 033.6	-	1 033.6
Other multi-bilateral assistance									
Nigeria	318.7	277.1	-	595.8	-	-	493.8	102.0	595.8
Miscellaneous	149.3	100.5	5.4	255.2	23.2	232.0	-	-	255.2
GRAND TOTAL	39 780.1	45 347.8	42 252.9	127 380.8	42 599.4	56 069.7	6 937.1	21 774.6	127 380.8

a/ The assistance provided from extrabudgetary funds prior to 1977 is included under assistance in kind.

b/ Assistance in kind can only be estimated; see Introductory Notes, paras 81 and 82.

c/ Includes the following countries which have not received technical assistance during the last ten or more years: Democratic Kampuchea, Denmark, Finland, France, Federal Republic of Germany, Italy, Japan, Monaco, Netherlands, New Zealand, Norway, South Africa, Sweden, Switzerland, the United States and Zimbabwe.

A N N E X I

UTILIZATION OF SPECIAL CONTRIBUTIONS

A. Value of technical assistance provided from extrabudgetary and in-kind contributions
(in thousands of dollars)

DONOR	Assistance provided, by source										TOTAL
	Extrabudgetary funds					In kind donations					
	Experts	Equipment	Fellowships	Other training	Sub-total	Experts	Equipment	Fellowships	Other training	Sub-total	
Argentina	-	19.7	-	-	19.7	5.0	-	16.5	4.1	25.6	45.3
Australia	7.2	17.2	-	-	24.4	-	-	-	3.4	3.4	27.8
Austria	-	-	-	-	-	-	-	1.1	1.8	2.9	2.9
Belgium	10.4	59.5	-	-	69.9	-	-	30.6	.3	30.9	100.8
Brazil	-	-	-	-	-	-	-	73.7	1.8	75.5	75.5
Canada	8.4	25.7	-	-	34.1	2.1	-	-	5.5	7.6	41.7
Chile	-	-	-	-	-	-	-	-	3.6	3.6	3.6
Czechoslovakia	-	-	-	-	-	-	-	18.4	-	18.4	18.4
Denmark	-	-	-	-	-	-	-	36.4	.8	37.2	37.2
Finland	-	-	-	-	-	-	-	-	2.4	2.4	2.4
France	-	-	-	-	-	9.0	21.6	100.0	17.6	148.2	148.2
German D.R.	-	-	-	-	-	-	-	-	1.3	1.3	1.3
Germany, F.R.	148.6	151.2	-	-	299.8	7.2	-	39.6	17.1	63.9	363.7
Hungary	-	-	-	-	-	-	-	29.1	.9	30.0	30.0
India	-	-	-	-	-	1.0	18.0	38.0	6.8	63.8	63.8
Israel	-	-	-	-	-	-	-	6.4	-	6.4	6.4
Italy	-	-	-	-	-	-	-	97.0	.8	97.8	97.8
Japan	3.2	-	-	-	3.2	-	-	45.0	2.0	47.0	50.2
Mexico	-	-	-	-	-	-	-	5.9	1.9	7.8	7.8
Netherlands	-	-	-	-	-	-	-	41.8	1.7	43.5	43.5
Poland	-	-	-	-	-	-	-	36.0	10.5	46.5	46.5
Romania	-	-	-	-	-	-	-	14.6	-	14.6	14.6
Spain	-	-	-	-	-	-	-	57.6	2.5	60.1	60.1
Sweden	88.6	427.2	428.8	144.3	1 088.9	-	-	-	.9	.9	1 089.8
Switzerland	-	-	-	-	-	-	-	-	.8	.8	.8
USSR	-	-	1.8	-	1.8	-	-	-	-	-	1.8
UK	-	-	-	-	-	50.1	20.0	80.2	4.7	155.0	155.0
USA	163.4	684.8	-	21.9	870.1	13.6	-	1 593.0	10.2	1 616.8	2 486.9
Sub-total	429.8	1 385.3	430.6	166.2	2 411.9	88.0	59.6	2 360.9	103.4	2 611.9	5 023.8
Organizations:											
EURATOM-BCMN	-	-	-	-	-	-	-	-	1.6	1.6	1.6
IANEC	-	-	-	3.9	3.9	-	-	-	-	-	3.9
IBRD	-	-	-	-	-	-	-	-	2.1	2.1	2.1
WHO	-	-	-	-	-	-	-	-	6.2	6.2	6.2
UN-DNRE	-	-	-	-	-	-	-	-	5.9	5.9	5.9
Sub-total	-	-	-	3.9	3.9	-	-	-	15.8	15.8	19.7
GRAND TOTAL	429.8	1 385.3	430.6	170.1	2 415.8	88.0	59.6	2 360.9	119.2	2 627.7	5 043.5

B. Assistance provided from funds made available by Member States to finance assistance for themselves
(in thousands of dollars)

Source of funds	Project title and code	Assistance provided		
		Experts	Equipment	TOTAL
Brazil	Raw materials prospection BRA/3/005	45.9	-	45.9
Dem. P.R. Korea	Fast neutron activation analysis DRK/1/002	-	3.0	3.0
Ecuador	Uranium prospection ECU/3/004	-	16.9	16.9
Madagascar	Nuclear raw materials prospection MAG/3/003	-	(.8)	(.8)
Nigeria	Nuclear physics NIR/1/003	-	9.8	9.8
Sudan	Isotopes in animal science SUD/5/007	-	17.2	17.2
Uruguay	Uranium prospection URU/3/007	-	5.6	5.6
	Central radioisotope service URU/4/005	-	3.5	3.5
TOTAL		45.9	55.2	101.1

ANNEX II

TRAINING COURSES AND STUDY TOURS: 1980

Project title and code	Place and dates	Source of funds	Participation[a] (1)	(2)	(3)	Amount allotted[b]
Interregional training course on electric system expansion planning INT/0/021	Argonne, Illinois, USA 14 January to 14 March	Agency	22	2	-	60 000(CC)
Interregional advanced training course on applications of nuclear theory to nuclear data calculations for theoretical physics INT/1/016	Trieste, Italy 28 January to 22 February	Agency	46	31	3	60 000(CC)
Interregional training course on environmental impact analysis for nuclear power plants INT/9/024	Argonne, Illinois, USA 17 March to 24 April	Agency	23	1	-	39 600(CC)
Interregional training course on the use of isotope and radiation techniques in studies of soil/plant relationships INT/5/069	Seibersdorf, Austria 31 March to 6 June	SIDA	12	-	-	70 000(CC)
Interregional training course on the design, use and maintenance of nuclear and other medical equipment INT/6/022	London, UK 14 April to 25 July	Agency	15	-	-	130 000(CC)
Interregional training course on radioimmunoassay procedures INT/6/021	Berlin, German Democratic Republic and Poznan, Poland 27 April to 31 May	Agency	21	-	-	45 000(CC) 52 000(NCC)
Interregional training course on the role of nuclear energy within a national energy plan INT/0/022	Saclay, France 12 May to 27 June	Agency	29	1	-	60 000(CC)
Interregional training course and study tour on the use of nuclear techniques in the study and control of parasitic diseases of humans INT/6/020	Bethesda, Atlanta, Philadelphia and New York City, USA 26 May to 23 June	Agency	21	-	-	80 000(CC)
Interregional training course on inspection of nuclear power plant construction INT/4/050	Argonne, Illinois, USA 9 June to 8 August	Agency	31	-	-	59 400(CC)
Regional training course on the use of nuclear techniques in the mineral industry RAS/3/004	Sydney and other places in Australia 23 June to 25 July	UNDP	12	-	-	60 000(CC)
Interregional training course on nuclear electronics INT/4/049	Dublin, Ireland 23 June to 19 September	Agency	15	1	-	120 000(CC)
Regional training course on nuclear analytical methods and their application RAF/1/002	Acora, Ghana 30 June to 1 August	Agency and UNDP	15	-	3	40 000(CC) 39 000(CC)
Interregional training course on the preparation and control of radiopharmaceuticals INT/2/002	Hradec Králové, Czechoslovakia 25 August to 12 September	Agency	19	-	-	27 000(CC) 25 000(NCC)
Interregional training course on nuclear fuel cycle management INT/4/051	Saclay, France 1 to 26 September	Agency	21	1	-	40 000(CC)
Interregional training course on the application of nuclear techniques in agriculture INT/5/068	Moscow and other places in the Soviet Union 1 September to 30 November	Agency	17	-	-	8 000(CC) 200 000(NCC)
Interregional training course on safety analysis review INT/9/026	Karlsruhe, Federal Republic of Germany 3 September to 15 October	Agency	32	-	-	75 000(CC)
Interregional training course on regulation of nuclear power plants INT/9/025	Argonne, Illinois, USA 22 September to 20 November	Agency	25	1	-	80 000(CC)

Project title and code	Place and dates	Source of funds	Participation[a]			Amount allotted[b]
			(1)	(2)	(3)	
Regional training course on advanced non-destructive testing practices RAS/8/008	Singapore 29 September to 10 October	UNDP	13	-	-	50 000(CC)
Study tour on the use of stable isotopes in medicine, biology and agriculture INT/7/008	Czechoslovakia, German Democratic Republic, Romania and USSR 2 October to 2 November	Agency	13	-	-	5 000(CC) 105 000(NCC)
Interregional training course and study tour on the application of isotope and radiation techniques in medicine INT/6/023	Moscow and other places in the Soviet Union 4 October to 30 November	Agency	28	-	-	10 000(CC) 216 000(NCC)
Interregional training course on quality assurance INT/4/052	Karlsruhe, Federal Republic of Germany 27 October to 10 December	Agency	31	1	-	70 000(CC)
Interregional training course on nuclear techniques for chemical residue and pollution problems INT/5/072	Cairo, Egypt 1 to 29 November	SIDA	15	-	4	66 000(CC)
Regional training course on the use of induced mutations in plant breeding RLA/5/012	Maracaibo, Venezuela 3 November to 5 December	SIDA	11	2	3	64 000(CC)

[a] The figures under (1) denote the number of award holders whose cost of participation was met out of project funds; those under (2) denote the number of participants who attended at the expense of the Government, or of another organization or programme; and those under (3) denote the number of local participants. No stipends or international travel costs are payable out of project funds in respect of participants shown under (2) and (3).

[b] The amounts (in US dollars) do not include expenditures by host Governments in respect of local lecturers, or expenditures for laboratory, lecture room and other facilities.

ANNEX III

FORMAL REPORTS SUBMITTED TO RECIPIENT COUNTRY GOVERNMENTS[a]

A. Experts' final reports

Reference number	Name of expert	Subject	Country of assignment
1561	Luck, J.H.	Mass spectrometry	Argentina
1562	Tys, J.	Improvement in the X-ray analysis system[b]	Morocco
1563	Gonzalez, R.O.	Dosimetry and calibration[c]	Uruguay
1564	Overman, R.T.	Use of radioisotopes in medicine	Malaysia
1565	Quittner, P.	Neutron activation analysis	Mongolia
1566	Florkowski, T.	Isotope hydrology	Jordan
1567	Hahn, L.	Nuclear materials prospection	Malaysia
1568	Walker, W.M.	Nuclear raw materials prospection (technology of up-grading ilmenite)	Bangladesh
1569	Abu Bakr, A.R. Dargie, J. Dolnicar, J. Gonfiantini, R. Yuan, H.C.	Programming mission to Kenya	Kenya
1571	Spurny, Z.	Medical radiophysics	Cuba
1572	Boeck, H.	Nuclear training centre	Turkey
1573	Kuzay, T.M.	Further review of the safety issues on the 600 MW(e) ASEA-ATOM nuclear power plant for Turkey	Turkey
1574	Markoczy, G. Prantl, G.	Nuclear power safety	Turkey
1575	Pahor, J.	The training of nuclear technicians in Sudan	Sudan
1577	Ketcheson, J.W.	The use of radioisotopes in agriculture at the national agricultural laboratories, Nairobi	Kenya
1579	Colard, J.F.C.	Nuclear energy centre planning[b]	Algeria
1580	Gonen, Y.G.	Radiological protection	Brazil
1581	Dederichs, P.H.	Study of transport phenomena	Argentina
1582	Saint-Lebe, L.R.	Food irradiation[b]	Algeria
1583	Obermayer, J.	Mediterranean fruit fly control	Mexico
1585	Faust, C.G.H.	Stable isotope enrichment and analysis	Egypt
1586	Darab, K.	Use of radioisotopes in agriculture	Greece
1587	Lanzl, L.H.	Secondary standards dosimetry laboratory	Thailand

Reference number	Name of expert	Subject	Country of assignment
1589	Lassmann, K.	Development of calculation codes for simulation	Argentina
1590	Watters, R.A.	Geochemical prospection	Sri Lanka
1592	Krieger, R.I.	Pesticide residues	Korea, R.
1594	Stupnicki, R.	Radioimmunoassay	Cuba
1595	Martin, R.D.	Nuclear power plant safety analysis	Brazil
1596	Launonen, H.T.	Nuclear power safety - computation related to safety analysis	Turkey
1597	Niemann, E.G.	Use of radioisotopes in agriculture	Korea, R.
1598	Bock-Werthmann, W.	Reactor utilization and application of nuclear techniques	Ghana
1599	Tait, G.W.C.	Environmental protection	Malaysia
1602	Marcilese, N.A.	Use of radioisotopes in animal science[c]	Costa Rica
1603	Evans, D.A.	Agricultural research and development: Tissue culture	Brazil
1604	Drimmie, R.J.	Isotopes in hydrology	Chile
1605	Fernandez Gonzalez, J.	Use of radioisotopes in agriculture[c]	Uruguay
1606	L'Annunziata, M.F.	Isotopes in animal science	Costa Rica
1607	L'Annunziata, M.F.	Radioisotopes in agriculture	Panama
1608	L'Annunziata, M.F.	Radioisotopes in agriculture	Uruguay
1609	Duncan, J.L.	Development of radiation-attenuated vaccines	Brazil
1610	Erickson, J.J.	Scintigraphy	Uruguay
1611	Laaksonen, J.T.	Nuclear power safety	Turkey
1613	Nykaenen, J.E.	Nuclear power safety	Turkey
1615	Gembicki, M.	Nuclear medicine advisory mission	Philippines
1616	Niewiadomski, T.	Environmental pollution	Mongolia
1619	Drexler, G.G. Girzikowsky, R.	Secondary standards dosimetry laboratory	Indonesia
1621	Drexler, G.G. Girzikowsky, R.	Secondary standards dosimetry laboratory	Malaysia
1622	Drexler, G.G. Girzikowsky, R.	Secondary standards dosimetry laboratory	Thailand
1624	Danfors, L.E.	Use of radioisotopes in agriculture	Korea, R.
1626	Espinasse, P.	Use of radioisotopes in medicine[b]	Senegal
1628	Gaul, H.P.K.	Use of radioisotopes in agriculture	Malaysia
1629	Lindborg, U.L.	Secondary standards dosimetry laboratory	Indonesia

Reference number	Name of expert	Subject	Country of assignment
1630	Gembicki, M.	Nuclear medicine advisory mission	Indonesia
1631	Feldberg, S.W.	Nuclear analytical methods	Argentina
1633	Von Werder, K.	Nuclear medicine	Thailand
1634	Knapp, P.J.	Radiation protection	Korea, R.
1635	Haule, K.T.	Nuclear power safety	Turkey
1637	Nehemias, J.V.	Nuclear power plant safety evaluation/ radiation protection	Mexico
1638	Kessel, W.E.	Computer services	Chile
1639	Wright, H.A.	Safety mission for the Laguna Verde nuclear power plant	Mexico
1640	Stamm'ler, R.J.J.	Reactor physics	Argentina
1641	Vercoe, J.E.	Applications of radioisotopes in animal science[b]	Senegal
1642	Truong, B.	Study of the relationship between phosphorus and soil moisture uptake using phosphorus-32[b]	Ivory Coast
1643	Rudén, B.I.	Dosimetry laboratory	Ecuador
1644	Belcher, E.H.	Radioisotopes in biology	Cuba
1646	Barrada, Y.A.H.	Radioisotopes in agriculture	U.R. Tanzania
1648	Troughton, J.H.	Agricultural research and development	Brazil
1649	Zuppi, G.M.	Radioisotopes in hydrology	Niger
1650	Ahmed, J.	Radiological protection	Niger
1652	Blewitt, T.H.	Radiation damage	Argentina
1653	Bates, R.G.	Reactor water chemistry	Argentina
1654	Bates, R.G.	Radiolysis in aqueous solutions	Argentina
1656	Thomas, G.	Metallography of heat-treated steels	Argentina
1657	Ghoos, L.H.	Secondary standards dosimetry laboratory	Thailand
1658	Lorentz, J.K.W.	Environmental radioactivity	Thailand
1659	Deme, S.	Environmental radioactivity	Dem. P.R. Korea
1661	Bojarsky, E.	Reactor engineering	Indonesia
1662	Vachaud, G.	Study of cultivation systems for rain-fed rice[b]	Ivory Coast
1663	Dargie, J.D.	Radioisotopes in animal science	Egypt
1665	Narasinga Rao, N.S.	Reactor research centre	Malaysia
1666	Kimlova, I.	Nuclear medicine	Thailand
1667	Wild, R.K.	Nuclear physics	Romania
1668	Ghose, A.M.	Neutron physics/chemistry	Burma

Reference number	Name of expert	Subject	Country of assignment
1669	Keski-Rahkonen,O.K.	X-ray fluorescence analysis	Albania
1671	Vogl, R.F.	Establishment of a non-destructive testing laboratory at the Inchas Nuclear Research Centre	Egypt
1674	Charanza, O.	Radiopharmacy[c]	Cuba
1675	Murthy, S.T.	Research reactor centre	Malaysia
1677	West, P.J.	Radioactive waste management and environmental protection	Korea, R.
1679	Fardeau, J.C.	Nuclear techniques in agriculture	Albania
1680	Matijevic, E.	Chemistry of reactor systems	Argentina
1681	Vidmar, M.	Radiation protection	Peru
1683	Fritz, P.	Environmental isotope laboratory	Chile
1684	Beall, R.A.	Zirconium alloys	Argentina
1686	Faanhof, A.	Applied radiochemistry	Jamaica
1687	Server, W.L.	Irradiation embrittlement	Argentina
1688	LaBrecque, G.	Studies on the resting behaviours and dispersal of Glossina morsitans	Zambia
1689	Hassan, M.A.	Pesticide residues	Costa Rica
1690	Chen, S.S.	Structural behaviour of fuel elements	Argentina
1691	Hussein, H.A.M.	Prospection for and development of uranium resources in Mali[b]	Mali
1692	Bock-Werthmann, W.	Nuclear energy centre[b]	Algeria
1694	Kempton, T.J. Leng, R.A. Nolan, J.V. Rowe, J.B.	Isotopes in animal science - low production in cattle on tropical feeds: Role of protozoa	Dominican Republic
1695	Lemarchand-Beraud, T.	Computer gamma camera studies	Bolivia
1696	Lemarchand-Beraud, T.	Radioimmunoassay	Ecuador
1697	Lemarchand-Beraud, T.	Nuclear medicine	Peru
1698	Alcala, F.	Nuclear research centre[c]	Uruguay
1699	Jeftic, L. Kuzmic, M. Policastro. A.J.	Nuclear power plant thermal release	Yugoslavia
1700	Celebi, M.	Nuclear power safety	Turkey
1701	Monsecour, M.R.	Uranium analysis laboratory[b]	Mali
1702	Csikai, G.	Neutron generator laboratory	Peru
1703	Blinc, R.	Radiation effects in ferroelectric materials	Brazil
1705	Matolin, M.	Aerial radiometric survey[b]	Morocco

Reference number	Name of expert	Subject	Country of assignment
1706	Zolnai, L.	Training in the use of computer-based data-acquisition system	Nigeria
1707	Crespi, M.B.A.	Nuclear science education[c]	Ecuador
1708	Leclou, A.E.	Welding and quality control[c]	Mexico
1709	Robertson, H.A.	Application of radioisotopes in animal science	Sudan
1710	Calori, F. Charpentier, J.P. Covarrubias, A.	Utilization of nuclear energy in Algeria[b]	Algeria
1711	Zettwoog, P.	Radioecology	Yugoslavia
1712	Grimbert, A.	Uranium prospection[b]	Portugal
1713	Hulman, L.G.	Nuclear power safety	Yugoslavia
1714	Chakrabarti, C.L.	Optical spectroscopy	Argentina
1715	Vauclin, M.M.	Mission to the agricultural research centre in Bambey[b]	Senegal
1716	Bursey, R.J.	Nuclear power safety	Yugoslavia
1717	Montestruque Boggio, S.	Molecule labelling	Ecuador
1718	Erjavec, M.	Introduction of medical radioisotope scanning at the University of Ghana Medical School	Ghana
1720	Csik, B.J.	Nuclear power programme	Portugal
1721	Jadhav, J.G.	Raw materials prospection	Zambia
1722	Dincer, T.M.	Use of isotopes in hydrology	U.R. Tanzania
1723	Cavin, G.E. Cohen, Y.I. Mellado, L.B. Patton, P. Williamson, D.L.	Mediterranean fruit fly control	Mexico
1724	Kosowicz, J.S.	Radiopharmaceuticals	Greece
1725	Valentinuzzi, O.	Uranium geochemistry[c]	Peru
1726	Sebastianelli, J.A.	Use of radioisotopes in agriculture[c]	Peru
1729	Nauman, J.A.	Use of radioisotopes in medicine	Bangladesh
1731	Pillai, K.C.	Environmental radioactivity	Philippines
1732	Tsien, K.C.	Radiation protection	Singapore
1733	Drost, W.	Use of radioisotopes in hydrology	Sri Lanka
1734	Ericson, L.E.	Reactor safety studies	Iraq
1735	Boyd, A.W.	Secondary standards dosimetry laboratory	Venezuela
1736	Celebi, M.	Nuclear power safety	Turkey

B. Terminal reports on projects assisted by UNDP[d]

Recipient country	Project title	Project Manager/ Chief Technical Adviser
Argentina	National Centre for Non-destructive Testing and Quality Control	C.K. Beswick

C. Technical reports emanating from UNDP- or SIDA-assisted projects[d]

Recipient country	Project title	Topic	Technical report number
Argentina	Nuclear engineering	Curriculum development	3
Bangladesh	Development of the Institute of Nuclear Agriculture	Plant pathology	9
		Use of insecticides	10
		Plant pathology	11
		Plant breeding	12
Brazil	Development of agricultural production through the application of nuclear technology	Entomology	2
India	Strengthening of nuclear research in agriculture	Animal nutrition	3

a The reports are available in English unless otherwise indicated. No data have been included in respect of reports whose distribution is restricted to the recipient Government or when no notification has been received that reports submitted in connection with UNDP-financed assistance have been de-restricted.

b Available in French only.

c Available in Spanish only.

d In 1980, 28 technical/terminal reports were submitted to Governments; of these only eight had been de-restricted at the time of this report's compilation.

ANNEX IV

VOLUNTARY CONTRIBUTIONS AND COST-FREE FELLOWSHIPS FOR THE 1980 REGULAR PROGRAMME

1. As requested by the Technical Assistance Committee of the Board of Governors, information is given in Table A below in respect of the pledges of voluntary contributions of Member States to the General Fund for 1980.

Table A

Voluntary contributions pledged and paid to the General Fund for 1980 as at 31 December 1980

Member State	1980 Base rate %	Share of $10.5 million target for voluntary contributions for 1980 using the base rate[a]	Pledged $	Paid $
(1)	(2)	(3)	(4)	(5)
Afghanistan	0.01	1 050	-	-
Albania	0.01	1 050	-	-
Algeria	0.11	11 550	-	-
Argentina	0.90	94 500	94 500	94 500
Australia	1.65	173 250	173 250	173 250
Austria	0.68	71 400	71 400	71 400
Bangladesh	0.04	4 200	3 125	-
Belgium	1.15	120 750	122 807	-
Bolivia	0.01	1 050	-	-
Brazil	1.11	116 550	116 000	116 000
Bulgaria	0.15	15 750	15 750	15 750
Burma	0.01	1 050	-	-
Byelorussian SSR	0.44	46 200	37 994	37 994
Canada	3.25	341 250	341 250	341 250
Chile	0.10	10 500	21 000	21 000
Colombia	0.12	12 600	-	-
Costa Rica	0.02	2 100	-	-
Cuba	0.12	12 600	-	-
Cyprus	0.01	1 050	1 050	1 050
Czechoslovakia	0.90	94 500	28 736	28 736
Dem. Kampuchea	0.01	1 050	-	-
Dem. P.R. Korea	0.05	5 250	5 250	5 250
Denmark	0.68	71 400	71 400	71 400
Dominican Republic	0.02	2 100	-	-
Ecuador	0.02	2 100	2 500	-
Egypt	0.09	9 450	7 143	7 143
El Salvador	0.01	1 050	-	-
Ethiopia	0.01	1 050	-	-
Finland	0.47	49 350	49 350	49 350
France	6.22	653 100	450 000	450 000

Member State	1980 Base rate %	Share of $10.5 million target for voluntary contributions for 1980 using the base rate[a]	Pledged $	Paid $
(1)	(2)	(3)	(4)	(5)
Gabon	0.01	1 050	-	-
German D.R.	1.42	149 100	147 222	147 222
Germany, F.R.	8.23	864 150	864 150	864 150
Ghana	0.02	2 100	2 100	-
Greece	0.37	38 850	38 850	38 850
Guatemala	0.02	2 100	150	150
Haiti	0.01	1 050	-	-
Holy See	0.01	1 050	-	-
Hungary	0.35	36 750	49 237	49 237
Iceland	0.02	2 100	-	-
India	0.73	76 650	76 650	76 650
Indonesia	0.15	15 750	15 750	15 750
Iran	0.43	45 150	-	-
Iraq	0.09	9 450	9 450	9 450
Ireland	0.16	16 800	16 800	16 800
Israel	0.25	26 250	18 200	18 200
Italy	3.61	379 050	333 333	333 333
Ivory Coast	0.02	2 100	-	-
Jamaica	0.02	2 100	-	-
Japan	9.23	969 150	969 150	969 150
Jordan	0.01	1 050	-	-
Kenya	0.01	1 050	-	-
Korea, R.	0.14	14 700	14 700	14 700
Kuwait	0.16	16 800	16 800	16 800
Lebanon	0.03	3 150	-	-
Liberia	0.01	1 050	-	-
Libyan A.J.	0.17	17 850	70 000	70 000
Liechtenstein	0.01	1 050	1 050	1 050
Luxembourg	0.04	4 200	-	-
Madagascar	0.01	1 050	-	-
Malaysia	0.10	10 500	10 500	10 500
Mali	0.01	1 050	-	-
Mauritius	0.01	1 050	-	-
Mexico	0.84	88 200	_[b]	_[b]
Monaco	0.01	1 050	1 050	1 050
Mongolia	0.01	1 050	1 050	1 050
Morocco	0.05	5 250	5 250	5 250
Netherlands	1.52	159 600	159 600	159 600
New Zealand	0.28	29 400	-	-
Nicaragua	0.01	1 050	-	-
Niger	0.01	1 050	1 050	1 050
Nigeria	0.14	14 700	15 000	15 000
Norway	0.48	50 400	50 400	50 400
Pakistan	0.07	7 350	7 350	7 350
Panama	0.02	2 100	-	-

Member State	1980 Base rate %	Share of $10.5 million target for voluntary contributions for 1980 using the base rate[a]	Pledged $	Paid $
(1)	(2)	(3)	(4)	(5)
Paraguay	0.01	1 050	-	-
Peru	0.06	6 300	-	-
Philippines	0.11	11 550	11 000	11 000
Poland	1.48	155 400	135 542	135 542
Portugal	0.20	21 000	21 000	21 000
Qatar	0.02	2 100	2 100	2 100
Romania	0.26	27 300	27 300	12 285
Saudi Arabia	0.25	26 250	70 000	70 000
Senegal	0.01	1 050	-	-
Sierra Leone	0.01	1 050	-	-
Singapore	0.09	9 450	1 800	1 800
South Africa	0.45	47 250	-	-
Spain	1.63	171 150	30 000	28 000
Sri Lanka	0.02	2 100	-[b]	-[b]
Sudan	0.01	1 050	1 050	-
Sweden	1.32	138 600	138 600	138 600
Switzerland	1.03	108 150	108 150	108 150
Syrian A.R.	0.02	2 100	-	-
Thailand	0.11	11 550	11 550	11 550
Tunisia	0.02	2 100	1 300	1 300
Turkey	0.32	33 600	33 600	32 381
Uganda	0.01	1 050	-	-
Ukrainian SSR	1.63	171 150	156 250	156 250
USSR	12.39	1 300 950	1 484 375	1 484 375
U.A. Emirates	0.07	7 350	7 350	7 350
UK	4.83	507 150	507 150	507 150
U.R. Cameroon	0.01	1 050	-	-
U.R. Tanzania	0.01	1 050	1 000	1 000
USA	25.00	2 625 000	2 625 000	2 625 000
Uruguay	0.04	4 200	4 200	4 200
Venezuela	0.42	44 100	44 100	44 100
Viet Nam	0.03	3 150	-	-
Yugoslavia	0.42	44 100	44 100	44 100
Zaire	0.02	2 100	-[b]	-[b]
Zambia	0.02	2 100	2 100	2 100
TOTAL	100.00	10 500 000	9 975 964	9 826 148

[a] As recommended in General Conference resolutions GC(V)/RES/100 and GC(XV)/RES/286.

[b] An amount identical to that shown in column (3) was pledged and paid early in 1981.

2. The value of Type II fellowships provided through the Agency in 1980 is included in Annex I.A. Many of the fellowships reflected in the statistics in Annex I.A were awarded prior to 1980.

3. A list of fellowships made available to the Agency cost free for 1980 is given in Table B; some of the Type II fellowships awarded were carried over from previous years. (Table B does not include the man-months represented by Type II fellowship extensions of less than six months each that were approved in 1980 in respect of awards originally made under the fellowship programme for 1979 or a previous year.)

Table B

Cost-free fellowships offered or awarded

Donor	Number of fellowships			
	Available		Awarded	
	(1)	(2)	(3)	(4)
I. MEMBER STATES				
Argentina	6	72	4	22
Austria	a	-	1	1
Belgium	10	60	2	15
Brazil	10	120	5	43
Bulgaria	2	12	-	-
Czechoslovakia	9[b]	-	-	-
Denmark	5	60	5	48
France	-	90	12	102
Germany, F.R.	-	105	9	95
Hungary	4	-	8	44
India	10	-	6	57
Israel	-	45	1	6
Italy	25	200	13	110
Japan	5	45	2	21
Mexico	2	24	1	12
Netherlands	8	-	6	46
Pakistan	6	-	-	-
Philippines	3	-	-	-
Poland	10	-	5	52
Romania	10	-	6	50
Spain	5	60	4	23
Thailand	2	-	-	-
United Kingdom	a	-	5	62
United States of America	a	-	99	955
Yugoslavia	-	22	1	12

Donor	Number of fellowships			
	Available		Awarded	
	(1)	(2)	(3)	(4)
II. REGIONAL ORGANIZATIONS				
JINR/Dubna	3	36	-	-

(1) Number of awards offered.

(2) Number of man-months offered.

(3) Number of awards less rejections and withdrawals.

(4) Total number of man-months awarded.

[a] Awards made on the basis of available funds.

[b] Includes five long-term awards for up to 60 man-months; in Table B in last year's report five such awards were shown as totalling 60 man-months, but should have been reported as totalling 300 man-months.

A N N E X V

PROJECTS UNDER IMPLEMENTATION FOR UNDP
(in thousands of dollars)

Project code number and title		Amount approved	Approved budgets				
			Prior to 1980	1980[a]	1981	1982	1983
Argentina							
ARG/71/537	National Centre for Non-destructive Testing and Quality Control	1026	1007	19	-	-	-
ARG/78/020	Nuclear engineering	1306	432	527	347	-	-
Bangladesh							
BGD/77/008	Exploration for uranium and thorium	68	57	11	-	-	-
Brazil							
BRA/76/003	Nuclear manpower qualification and training	2652	1801	474	342	35	-
BRA/78/006	Development of agriculture through the application of nuclear technology - Phase II	674	145	371	158	-	-
Bulgaria							
BUL/77/013	Development of a centre for the application of isotopes	450	175	151	124	-	-
Chad							
CHD/79/001	Prospection for nuclear materials	171	64	107	-	-	-
Chile							
CHI/74/005	Uranium prospection	1154	1112	42	-	-	-
CHI/76/008	Nuclear power plant	961	875	86	-	-	-
CHI/79/001	Uranium prospection - Phase II	596	115	263	218	-	-
Colombia							
COL/76/031	Prospection of radioactive minerals	1520	653	288	418	161	-
Cuba							
CUB/77/001	Introduction of nuclear techniques into the national economy	2034	527	479	360	668	-
Egypt							
EGY/73/037	National Centre for Radiation Technology	598	599	(1)	-	-	-
EGY/78/011	National Centre for Radiation Technology - Phase II	643	45	6	409	183	-
Ethiopia							
ETH/78/005	Application of nuclear techniques	399	129	57	213	-	-
Ghana							
GHA/74/004	Training in the use of nuclear techniques	80	63	17	-	-	-
Greece							
GRE/79/004	Exploration for uranium in Central and Eastern Macedonia and Thrace	205	28	116	61	-	-
India							
IND/75/035	Geochemical investigations for uranium, thorium and associated atomic minerals	297	261	36	-	-	-
Indonesia							
INS/78/075	Radiation processing for industries	20	13	-	7	-	-
Madagascar							
MAG/77/012	Uranium prospection and evaluation	1424	152	387	607	278	-

Project code number and title		Amount approved	Approved budgets				
			Prior to 1980	1980[a]	1981	1982	1983
Morocco							
MOR/73/019	Training and research in applied nuclear physics at the Faculty of Sciences, Rabat	696	637	42	17	-	-
Nigeria							
NIR/72/005	Use of nuclear techniques in animal production	586	183	278	125	-	-
NIR/72/044	Insecticidal investigation for tsetse fly eradication	277	265	12	-	-	-
Peru							
PER/76/002	Nuclear energy	2442	1214	519	709	-	-
Philippines							
PHI/75/003	Training and consultancy in nuclear power plant safety analysis, engineering and public information	166	98	46	22	-	-
Romania							
ROM/76/023	Development of nuclear technology - Phase II	653	330	220	103	-	-
Sri Lanka							
SRL/77/014	Radioactive tracer techniques for the study of coastal sedimentology	177	140	37	-	-	-
Syrian Arab Republic							
SYR/72/019	Use of radioisotopes in animal science	49	47	2	-	-	-
Turkey							
TUR/74/053	Utilization of isotopes in hydrology	108	105	3	-	-	-
Yugoslavia							
YUG/78/007	Industrial application of high energy ionizing radiation	166	7	131	28	-	-
YUG/78/008	Establishment of uranium analysis laboratory at Zirovski Vrh Mine, Slovenia	80	-	65	15	-	-
YUG/79/006	Ecological laboratory with a mobil unit	53	-	46	7	-	-
Zaire							
ZAI/76/004	Strengthening of infrastructure - Centre régional d'études nucléaires - Regional Centre for Nuclear Studies (CREN), Kinshasa	712	73	368	271	-	-
Africa							
RAF/80/030	Training course on nuclear analytical techniques and their application	39	-	39	-	-	-
Asia and the Pacific							
RAS/79/061	Support for regional co-operation in the industrial application of isotopes and radiation technology	386	14	180	192	-	-
RAS/79/095	Training course on the use of nuclear techniques in the mineral industry	60	-	60	-	-	-

[a] The carry-over of the unimplemented provisions into 1981 and future years has been requested.

ANNEX VI

REGULAR PROGRAMME PROJECTS COMPLETED OR CANCELLED DURING 1980

A. Completed projects

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Afghanistan	Nuclear science AFG/1/003	1976, 1977, 1978	24.5	79 000
Albania	X-ray fluorescence analysis ALB/2/004	1978	1	45 000
	Radioisotopes in agriculture ALB/5/002	1979	1	76 000
Algeria	Nuclear power studies ALG/0/005	1980	1.5	-
Argentina	Reactor physics ARG/1/021	1978	6	-
	Neutron radiography ARG/1/022	1979	3	-
	Optical spectroscopy ARG/2/006	1978	2	-
	Reactor water chemistry ARG/4/062	1978	1	-
	Irradiation embrittlement ARG/4/065	1978	1	-
	Radiation damage ARG/4/066	1978	1	-
	Study of transport phenomena ARG/4/067	1978	1.5	-
	Thermodynamics of nuclear materials ARG/4/068	1978	2	-
	Primary circuit chemistry ARG/4/070	1979	1.5	-
	Fuel element behaviour ARG/4/071	1979	1	-

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Argentina	Primary circuits contamination ARG/4/073	1979	1.5	-
Bangladesh	Food irradiation BGD/5/004	1977 1979	3.5	40 000
	Radioisotopes in agriculture BGD/5/006	1977	-	21 000
	Nuclear medicine BGD/6/004	1977	2	-
Bolivia	Radiochemical analysis BOL/2/007	1979 1980	-	33 000
	Computer gamma camera studies BOL/6/009	1978	2	22 000
Brazil	Fuel elements BRA/4/022	1974	4	-
	Radiation effects in materials BRA/4/024	1975	9	-
	Quality assurance BRA/4/025	1977 1979	1	-
	Nuclear medicine BRA/6/005	1976	3	43 000
Bulgaria	Nuclear techniques in agriculture BUL/5/007	1978	-	31 000
	Radioisotopes in hydrology BUL/8/007	1979	-	38 000
	Radiation protection BUL/9/005	1979	-	28 000
Burma	Neutron physics/chemistry BUR/1/008	1976 1978	0.5	69 000
	Radioisotopes in medicine BUR/6/008	1976	-	18 000

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Chile	Computer services CHI/4/003	1976	2.5	-
Cuba	Radiopharmacy CUB/4/004	1974	6	20 000
	Radioimmunoassay CUB/6/004	1977	2	8 000
	Medical radiophysics CUB/6/005	1977	6	25 000
	Borehole logging CUB/8/003	1975	2.5	49 000
Dominican Republic	Radioisotopes in animal science DOM/5/002	1979 1980	3	8 000
Ecuador	Activation analysis ECU/2/002	1975	1.5	41 000
	Molecule labelling ECU/2/006	1979	3	9 000
	Uranium prospection ECU/3/004	1979 1980	9	79 000
Egypt	Use of nitrogen fertilizers EGY/5/007	1980	-	29 000
	Radioisotopes in animal science EGY/5/008	1980	0.5	-
	Non-destructive testing EGY/8/005	1979	1	25 000
El Salvador	Radiation protection ELS/9/002	1978	1.5	20 000
Ghana	Reactor utilization GHA/4/004	1976, 1977, 1978	12	123 000
	Reactor utilization and nuclear techniques applications GHA/4/005	1978	2	36 000

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Ghana	Radioisotopes in agriculture GHA/5/007	1980	1	-
Greece	Isotopes in agriculture GRE/5/011	1980	-	7 000
	Hospital physics GRE/6/005	1979	1	-
	Radioisotopes in hydrology GRE/8/005	1979	0.5	26 000
	Environmental radioactivity GRE/9/009	1979	-	25 000
Guatemala	Nuclear electronics GUA/4/002	1977	-	9 000
	Nuclear medicine GUA/6/005	1979	-	38 000
Iceland	Radioisotopes in animal nutrition ICE/5/002	1975, 1978, 1979	2.5	82 000
Indonesia	Materials research INS/1/006	1977	6	24 000
	Nuclear magnetic resonance INS/1/007	1977	4	26 000
	X-ray fluorescence INS/2/006	1978	3	35 000
	Radiochemistry INS/2/007	1978	3	11 000
	Nuclear metallurgy INS/4/009	1975	2	-
	Irradiation studies using the King furnace INS/4/013	1978	2.5	6 000
	Reactor engineering INS/4/014	1979	1	-
	Reactor electronics INS/4/016	1979	-	16 000

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Indonesia	Mutation breeding INS/5/013	1977	7	15 000
	Fish irradiation preservation INS/5/015	1978 1980	1	12 000
	Radioisotopes in animal science INS/5/016	1978 1980	1.5	57 000
Iran	Dosimetry IRA/1/005	1977	0.5	-
	Waste management IRA/9/005	1977	1	-
Iraq	Research reactor upgrading IRQ/4/007	1979	-	134 000
	Radionuclides analysis IRQ/6/006	1978	-	26 000
Israel	Dosimetry ISR/1/008	1977	2	17 000
Ivory Coast	Radioisotopes in agriculture IVC/5/006	1977	5.5	20 000
Kenya	Radioisotopes in agriculture KEN/5/006	1973, 1975 1976	18	40 000
Korea, R.	Uranium ore separation ROK/3/003	1979	-	33 000
	Safety analysis review training course ROK/4/008	1977	4.5	-
	Radioisotopes in agriculture ROK/5/013	1976	7	18 000
	Nuclear power plant safety ROK/9/005	1975	12	-
	Radiation protection ROK/9/010	1978	12	-

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Malaysia	Nuclear power planning MAL/0/005	1977	7	-
	Nuclear materials prospection MAL/3/002	1979	1	22 000
	Radioisotopes in medicine MAL/6/005	1976	3	22 000
	Environmental protection MAL/9/002	1978 1979	3	77 000
Mali	Uranium analysis laboratory MLI/3/002	1979 1980	2.5	46 000
	Nuclear raw materials MLI/3/003	1979	3	4 000
Mexico	Reactor fuel elements MEX/4/028	1976	5	-
	Medfly control MEX/5/008	1978, 1979, 1980	22.5	89 000
	Welding and quality control MEX/8/010	1978	3	-
	Nuclear power plant safety MEX/9/014	1975	6	-
	Power reactor safety MEX/9/018	1977, 1979, 1980	36.5	-
	Evaluation of safety analysis report MEX/9/019	1978	2	-
Mongolia	Neutron activation analysis MON/2/003	1977	4.5	70 000
	Environmental pollution MON/7/003	1978	4	112 000
Morocco	Raw materials analysis MOR/3/003	1975	4.5	42 000
Niger	Radiation protection NER/9/003	1980	0.5	-

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Pakistan	Non-destructive testing PAK/4/018	1978 1980	-	23 000
	Radioisotopes in hydrology PAK/8/004	1979	1	7 000
	Reactor safety PAK/9/002	1976	1.5	-
Paraguay	Nuclear raw materials PAR/3/003	1978	0.5	-
	Radioimmunoassay PAR/6/003	1978	4	56 000
Peru	Uranium geochemistry PER/3/009	1980	1	
	X-ray diffraction PER/8/003	1975 1978	0.5	2 000
	Radiological protection PER/9/007	1978 1979	9	76 000
Philippines	Soybean nitrogen fixation PHI/5/013	1978 1979	3	25 000
	Food irradiation PHI/5/014	1979	-	13 000
	Radioisotopes in medicine PHI/6/008	1978	3	12 000
	Radioisotopes in medicine PHI/6/009	1979	-	23 000
	Radioactive waste management PHI/9/009	1979	-	22 000
Poland	X-ray fluorescence analysis POL/2/005	1980	-	21 000
	Nuclear electronics POL/4/002	1976	1	34 000
Portugal	Radioisotope production POR/4/009	1980	-	30 000

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Romania	Non-destructive testing ROM/8/006	1980	-	11 000
Senegal	Animal science SEN/5/013	1980	0.5	-
Singapore	Maintenance of nuclear instruments SIN/4/003	1979	-	21 000
	Radiation protection (shielding calculations) SIN/9/009	1980	1	-
Sri Lanka	Neutron physics training SRL/1/002	1977 1978	12	44 000
	Geochemical prospection SRL/3/003	1978 1979	7	44 000
	Nuclear engineering training SRL/4/005	1977	2	-
	Radioisotopes in agriculture SRL/5/010	1978	2.5	25 000
	Radioisotopes in animal science SRL/5/011	1978	1	-
	Radioisotopes in agriculture SRL/5/012	1979	-	22 000
	Pest control SRL/5/014	1980	0.5	-
	Radioisotopes in hydrology SRL/8/006	1979	1	-
Sudan	Radioisotopes in technical training SUD/0/005	1979	1.5	4 000
	Radioisotopes in animal science SUD/5/010	1977 1980	5.5	25 000
	Nuclear medicine SUD/6/010	1980	-	2 000

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment ($)
Syrian A.R.	Radioisotopes in animal science SYR/5/008	1979	2.5	-
Thailand	Nuclear science programming THA/0/002	1980	1.5	-
	Secondary standards dosimetry laboratory THA/1/003	1977 1979	7.5	76 000
	Nuclear technology training THA/4/007	1980	1	-
	Radioisotopes in agriculture THA/5/019	1977	1	64 000
Tunisia	Radioisotopes in industry TUN/8/006	1978	12	24 000
Turkey	Nuclear training centre TUR/4/012	1975 1979	6	5 000
U.R. Tanzania	Radioisotopes in agriculture URT/5/003	1980	0.5	-
	Radioisotopes in hydrology URT/8/003	1979 1980	13	22 000
Uruguay	Research reactor centre URU/0/003	1978	12	6 000
Zambia	Nuclear physics ZAM/0/003	1977	12	13 000
	Neutron activation laboratory ZAM/1/002	1979	0.5	2 000
	Tsetse fly control ZAM/5/006	1980	0.5	-

B. Cancelled projects

Member State	Project title and code	Year of approval	Assistance approved	
			Experts (man-months)	Equipment ($)
Chile	Thermohydraulics CHI/4/005	1977	2	-
Egypt	Plasma physics EGY/1/010	1975	6	60 000
Greece	Neutron activation analysis GRE/2/014	1979	1	-
India	Nuclear power plant water chemistry IND/4/011	1979	3	-
Malaysia	Radioisotopes in industry MAL/8/002	1979	1	-
Venezuela	Industrial applications VEN/8/005	1977	6	-

ANNEX VII

FOOTNOTE-a/ PROJECTS MADE OPERATIONAL DURING 1980

Recipient	Project title and code	Experts		Equipment	
		Man-months	Source[a]	$	Source[a]
Bangladesh	X-ray fluorescence BGD/2/006	2	TAF	37 000	USA
	Food preservation BGD/5/008	-	-	21 000	USA
Bolivia	Uranium prospection BOL/3/009	-	-	38 000	USA
Brazil	Equilibrium uranium ores and geological materials BRA/3/008	-	-	16 000	GFR
	Irradiated UO_2 nuclear fuel BRA/3/009	3	TAF	-	-
	Radiopharmaceuticals BRA/6/006	6	GFR	51 000	GFR
Chile	Chemical analysis laboratory CHI/2/007	1	ARG	-	-
	Reactor noise study CHI/4/009	2	TAF	-	-
	Nuclear techniques in metallurgy CHI/8/011	1	ARG	-	-
Ecuador	Nuclear techniques in animal science ECU/5/005	-	-	20 500	USA
Egypt	Accelerator modernization and use EGY/0/005	3	GFR	45 000	GFR
Indonesia	Labelled compounds INS/2/009	-	-	25 000	USA
	Uranium ore processing INS/3/007	6	TAF	67 000	USA

Recipient	Project title and code	Experts		Equipment	
		Man-months	Source[a]	$	Source[a]
Israel	Nuclear techniques in fisheries research [b] ISR/7/005	3	TAF	-	-
Kenya	Development of vaccine for bilharzia KEN/7/002	1	TAF	25 000	USA
Korea, R.	Radioisotopes in agriculture ROK/5/018	6	GFR	83 070	GFR
	Nuclear power plant safety ROK/9/016	6	USA	51 000	USA
Malaysia	Nuclear physics MAL/1/004	-	-	25 000	FRA
	Uranium exploration MAL/3/003	4	USA	35 000	USA
	Nuclear medicine MAL/6/009	-	-	35 000	USA
Mexico	Nuclear power safety MEX/9/021	12	USA	-	-
Mali	Mutation breeding MLI/5/005	6	TAF	-	-
Paraguay	Atomic energy planning PAR/0/002	2	ARG	-	-
Peru	Nuclear science training PER/0/009	3	USA	40 000	USA
	Labelled compounds PER/6/006	3	TAF	31 000	USA
Philippines	Radiation sterilization facility PHI/8/010	1	TAF	35 000	USA
Portugal	Radiochemistry POR/2/006	-	-	80 000	USA

Recipient	Project title and code	Experts		Equipment	
		Man-months	Source[a]	$	Source[a]
Sri Lanka	Neutron physics laboratory SRL/1/003	6	TAF	30 000	USA
	Nuclear electronics SRL/4/006	3	USA	40 000	USA
Sudan	Pesticide residues SUD/5/012	3	USA	40 000	USA
Thailand	Plant mutation breeding THA/5/024	-	-	45 000	USA
	Radioimmunoassay THA/6/013	3	USA	39 000	USA
Tunisia	Nuclear raw materials TUN/3/010	-	-	25 000	USA
Turkey	Nuclear materials management TUR/0/004	-	-	25 000	USA
	Nuclear techniques in agriculture TUR/5/009	-	-	50 000	USA
Uruguay	Nuclear medicine URU/6/011	-	-	50 000	USA
Venezuela	Radioisotopes in agriculture VEN/5/007	-	-	43 000	USA
Yugoslavia	Radioecological model YUG/9/012	-	-	25 000	GFR
Zaire	Application of nuclear methods in mineralogy ZAI/8/004	1	TAF	28 000	USA

[a] Explanation of abbreviations: ARG = Argentina, FRA = France, GFR = Federal Republic of Germany, TAF = Technical Assistance Fund, USA = United States of America.

[b] Project approved under the 1979 programme; all others were approved under the 1980 programme.

A N N E X V I I I

ADDITIONAL EXTRABUDGETARY CONTRIBUTIONS FOR ON-GOING REGULAR PROGRAMME PROJECTS

Recipient	Project title and code	Experts		Equipment	
		Man-months	Donor[a]	$	Donor[a]
Indonesia	Labelled compounds INS/2/009	-	-	26 000	GFR
Malaysia	Uranium exploration MAL/3/003	2	GFR	10 000	GFR
Peru	Nuclear research centre PER/0/008	2	FIN	-	-
Tunisia	Radioisotopes in industry TUN/8/007	-	-	48 500	GFR
Interregional project	Secondary standards dosimetry laboratories INT/1/014	-	-	20 000	GFR
TOTAL		4		104 500	

[a]Explanation of abbreviations: GFR = Federal Republic of Germany, FIN = Finland.

A N N E X I X

APPROVALS AGAINST THE RESERVE FUND IN 1980

Recipient	Project title and code	Experts m/m	Equipment $	Total $
A. New projects				
Chile	Nuclear regulatory services CHI/0/006	2	-	8 400
Colombia	Nuclear science training COL/0/003	2	-	8 400
Mexico	Nuclear manpower training MEX/0/004	1	-	4 200
Niger	Radiation protection NER/9/003	0.5	-	2 100
Pakistan	Establishment of derived working limits laboratory PAK/9/003	1	-	4 200
Paraguay	Isotope investigation of the Pilcomayo River Basin PAR/8/002	2	13 000	21 400
Peru	Radioisotope laboratory PER/4/006	-	25 000	25 000
Sudan	Nuclear medicine SUD/6/010	-	2 400	2 400
Thailand	Radioisotope production facility THA/4/003	1	-	4 200
Venezuela	Seconary standards dosimetry laboratory VEN/1/003	1	-	4 200
Sub-total		10.5	40 400	84 500
B. Supplementary assistance to existing projects				
Greece	Reactor safety GRE/9/008	5	-	21 000
Indonesia	Labelled compounds INS/2/008	2	-	8 400
Morocco	Nuclear raw materials MOR/3/005	3	-	12 600
Viet Nam	Nuclear physics teaching VIE/1/004	-	6 000	6 000
Sub-total		10	6 000	48 000
TOTAL		20.5	46 400	132 500

A N N E X X

CHANGES TO APPROVED PROJECTS

Recipient	Project title and code	Existing approval 1 January 1980		Project changes in 1980	
		Experts (man-months/days)	Equipment ($)	Experts[a] (man-months/days)	Equipment ($)
Algeria	Nuclear power studies ALG/0/005	1	-	0/15	-
Bolivia	Radiochemical analysis BOL/2/007	-	30 500	-	3 700
	Computer gamma camera studies BOL/6/009	3	18 500	-	1 000
	Radiopharmaceuticals BOL/6/010	3	20 000 -	-	2 000 55 000 NCC[b]
Bulgaria	Microbiology BUL/7/002	-	180 000	-	2 000
	Radiation protection BUL/9/005	-	30 000	-	(2 000)
Chile	Neutron diffraction CHI/1/010	12	20 000 -	-	(1 000) 1 000 NCC
Costa Rica	Radioisotopes in animal science COS/5/004	33/15	68 250	-	800
	Nuclear medicine COS/6/007	1	82 000 50 000 FIT[c]	1	-
Cuba	Nuclear science laboratory CUB/1/002	2	140 000 -	-	(62 650)[d] 50 000 NCC[e]
	Moessbauer effect in metallurgy CUB/4/005	6	46 000	(4)	-
	Nuclear electronics CUB/4/006	2	30 000 -	-	16 800 20 000 NCC
	Food irradiation CUB/5/004	-	1 000 800 000 NCC	-	- 100 000 NCC
	Nuclear techniques in the utilization of fertilizers and water CUB/5/005	-	55 000 NCC	-	5 000 NCC
Czechoslovakia	Food irradiation facility CZE/4/002	-	1 000 900 000 NCC	-	- (100 000) NCC
Dem. P.R. Korea	Fast neutron activation analysis DRK/1/002	3	235 000	-	3 040 FIT
Dominican Republic	Radioisotopes in animal science DOM/5/002	6	24 000	(3)	(9 000)
Ecuador	Uranium prospection ECU/3/004	3 3 FIT	11 000 49 600 FIT	6 (3)FIT	(9 400) 28 400 FIT
	Radioimmunoassay ECU/6/004	4	36 000	0/8	-
Egypt	Radioisotopes in agriculture EGY/5/006	6	21 000 NCC	-	20 000 NCC
	Use of nitrogen fertilizers EGY/5/007	-	27 000	-	2 300

Recipient	Project title and code	Existing approval 1 January 1980		Project changes in 1980	
		Experts (man-months/days)	Equipment ($)	Experts[a] (man-months/days)	Equipment ($)
Ghana	Secondary standards dosimetry laboratory GHA/1/007	3	20 000	(1)	3 000
	Reactor utilization GHA/4/004	18	100 000	(6)	20 000
	Radioisotopes in medicine GHA/6/006	6	13 000 -	(3)	19 200 18 000 NCC
Greece	Neutron moisture meter GRE/5/012	1	10 000	-	(5 500)
	Radioisotopes in hydrology GRE/8/005	1	27 000	-	(1 077)
	Reactor safety GRE/9/008	9/5	-	5	-
Guatemala	Nuclear electronics GUA/4/002	3	10 500	(3)	-
Hungary	Cyclotron laboratory HUN/4/004	-	1 000 1 377 000 NCC	-	- 7 600 NCC
Iceland	Radioisotopes in animal nutrition ICE/5/002	5	82 500	(2)	(600)
	Radioisotopes in agriculture ICE/5/003	4	36 000	-	9 000
Indonesia	Labelled compounds INS/2/008	1	-	2	-
	Labelled compounds INS/2/009	-	25 000	-	26 000
	Nuclear electronics INS/4/012	3	15 000	(1)	-
	Fish irradiation preservation INS/5/015	1	11 500	-	1 000
	Radioisotopes in animal science INS/5/016	1	56 000 -	-	- 1 000 NCC
	Radioisotopes in poultry nutrition INS/5/017	6	19 000	1	-
Iran	Dosimetry IRA/1/005	14	-	(13/7)	-
	Quality control of radioisotopes IRA/2/002	3	-	1	5 000
	Waste management IRA/9/005	6	-	(4/25)	-
Israel	Nuclear power reactor siting ISR/9/003	3	10 500	(2/22)	(5 500)
Kenya	Nuclear science laboratory KEN/0/003	12	80 000 -	-	- 15 000 NCC
Korea, R.	Uranium ore separation ROK/3/003	-	35 000	-	(1 000)
	Radioisotopes in animal nutrition ROK/5/017	3	64 000	-	8 000
Libyan A.J.	Radioisotopes in agriculture LIB/5/002	2	68 482 3 300 NCC	-	- 5 700 NCC

Recipient	Project title and code	Existing approval 1 January 1980		Project changes in 1980	
		Experts (man-months/days)	Equipment ($)	Experts[a] (man-months/days)	Equipment ($)
Madagascar	Nuclear physics MAG/1/004	6	-	(2)	8 400
Malaysia	Nuclear power planning MAL/0/005	14	-	(7)	-
	Nuclear power planning MAL/0/006	5	-	7	-
	Neutron physics MAL/1/002	3	60 000	-	2 400
	Uranium exploration MAL/3/003	4	35 000	2	10 000
	Nuclear medicine services MAL/6/007	6	125 000	-	5 000
Mali	Uranium analysis laboratory MLI/3/002	6	34 500	(3)	11 400
	Radioisotopes in agriculture MLI/5/004	12	32 000	-	3 000
	Radioisotopes in hydrology MLI/8/002	6	30 000	-	5 400
Mauritius	Nuclear techniques in agriculture MAR/5/003	2	- 35 000 NCC	-	2 000 -
Mexico	Medfly control MEX/5/008	24	80 400	(1)	8 500
	Medfly control MEX/5/009	30	100 000	(5)	19 000
	Power reactor safety MEX/9/018	36	-	1	-
Mongolia	Application of nuclear technology MON/0/002	9	185 000 -	-	(2 000) 2 000 NCC
	Radiation biophysics MON/7/002	-	10 000 82 000 NCC	-	- 8 000 NCC
Morocco	Nuclear raw materials MOR/3/005	28	58 000	4	9 000
Niger	Radioisotope laboratory NER/0/003	12	20 000	-	2 300
Pakistan	Non-destructive testing PAK/4/018	-	20 000	-	2 500
	Reactor safety PAK/9/002	4	-	(1)	-
Panama	Nuclear medicine PAN/6/004	6	10 000	(2)	7 600
Paraguay	Radioimmunoassay PAR/6/003	4	54 000	-	1 000
Peru	Nuclear science training PER/0/005	8	4 000	-	20 900
	Nuclear research centre PER/0/007	10	20 000	(7)	26 600
	Nuclear research centre PER/0/008	-	57 000 18 000 NCC	2	- -

Recipient	Project title and code	Existing approval 1 January 1980		Project changes in 1980	
		Experts (man-months/days)	Equipment ($)	Experts[a] (man-months/days)	Equipment ($)
Peru	Radioisotope laboratory PER/4/006	-	25 000 [f]	-	35 700
	Radioisotopes in agriculture PER/5/009	11	18 000	(4)	2 100
	X-ray diffraction PER/8/003	6	26 000	(5/15)	(23 657)
	Radiological protection PER/9/007	14	76 500	(5)	-
Philippines	Radioisotopes in medicine PHI/6/008	3	18 500	-	(6 400)
	Nuclear power plant safety PHI/9/006	18	-	6	-
Poland	Waste management POL/9/005	12	-	(10/13)	-
Senegal	Radioisotopes in agriculture SEN/5/011	11	99 500	(3)	11 400
Spain	Reactor engineering SPA/4/002	36	-	5	-
Sri Lanka	Nuclear engineering training SRL/4/005	12	-	(9/24)	-
	Radioisotopes in animal science SRL/5/011	2	-	(1)	-
	Radioisotopes in animal science SRL/5/013	3	60 000	1	2 000
	Fertilizer-use efficiency SRL/5/015	2	38 000 NCC	-	3 500 NCC
	Nuclear medicine SRL/6/009	2	30 000 -	3	5 400 12 000 NCC
Sudan	Radioisotopes in animal science SUD/5/007	12	26 500 82 200 FIT	-	11 000
	Radioisotopes in animal science SUD/5/010	6	20 900	-	3 250
Syrian A.R.	Radioisotopes in agriculture SYR/5/007	-	3 500 6 500 NCC	-	1 450 11 650 NCC
Thailand	Nuclear raw materials prospection THA/3/003	6	25 000	(6)	38 300 [g]
	Radioisotopes in animal science THA/5/020	7	52 000	(4)	15 000
Tunisia	Nuclear raw materials TUN/3/009	12	17 500	3	-
	Radioisotopes in industry TUN/8/007	12	10 000 30 000 NCC	-	48 500 -
Turkey	Nuclear techniques in animal science TUR/5/008	9	69 000	(2)	7 600
U.R. Tanzania	Nuclear physics URT/1/003	6	18 000	(2)	7 600
	Radioisotopes in agriculture URT/5/002	6	35 000	-	8 800
	Radioisotopes in hydrology URT/8/003	12	20 000	1	2 300

Recipient	Project title and code	Existing approval 1 January 1980		Project changes in 1980	
		Experts (man-months/days)	Equipment ($)	Experts[a] (man-months/days)	Equipment ($)
Uruguay	Uranium prospection URU/3/007	5	2 500	-	5 591 FIT
	Central radioisotope service URU/4/005	6	41 000 8 089 FIT	-	2 000
	Radioisotopes in agriculture URU/5/010	4	-	(2)	8 400
	Dosimetry service URU/6/006	4	25 000	-	1 500
Venezuela	Research reactor operation VEN/4/006	12	-	(8)	30 400
	Plant breeding VEN/5/005	24/21	20 000	-	16 500
	Radioisotopes in industry VEN/8/006	12	-	(4)	-
Viet Nam	Nuclear physics VIE/1/003	2	35 000 -	-	- 2 000 NCC
	Nuclear physics teaching VIE/1/004	2	25 000 60 000 NCC	-	6 000 -
	Plant mutation breeding VIE/5/008	2	85 500 65 200 NCC	-	4 000 16 400 NCC
	Radioisotopes in medicine VIE/6/009	3	20 000 10 000 NCC	-	(7 000) 15 500 NCC
Yugoslavia	Research reactor modernization YUG/4/013	2	65 000	-	10 000
Zaire	Computing facility ZAI/0/004	2	31 000	(1)	6 200
	Neutron activation ZAI/2/007	12	18 000	-	3 000
	Radioisotopes in industry and food preservation ZAI/8/002	6	12 000	(2)	-
Zambia	Radioisotopes in agriculture ZAM/5/004	6	16 000	4	-
Interregional	Secondary standards dosimetry laboratories INT/1/014	16	40 000 -	-	- 3 000 NCC
		766/11 3 FIT -	3 706 532 189 889 FIT 3 501 000 NCC	(85/23) (3) FIT -	419 416 37 031 FIT 272 350 NCC
TOTAL		769/11	7 397 421	(88/23)	728 797

[a] Numbers in parentheses denote reductions - for example: (0/15) = minus 15 man-days and (4) = minus four man-months.

[b] NCC denotes selected non-convertible currencies.

[c] FIT denotes funds-in-trust, that is, assistance provided from funds made available by Member States to finance assistance for themselves.

[d] Includes a substantial decrease against a future-year component.

[e] Project change against a future-year component.

[f] Approved in 1980 under the Reserve Fund.

[g] For a sub-contract component of the project.