

THE AGENCY'S TECHNICAL CO-OPERATION ACTIVITIES IN 1984

Report by the Director General

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P R E F A C E

Following its usual practice, the Board of Governors has requested the communication to the General Conference of the material it used in reviewing the Agency's technical co-operation activities in 1984; 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/}

^{1/} INFCIRC/267.

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LIST OF ABBREVIATIONS

Agency	International Atomic Energy Agency
CC	Convertible currency
CEC	Commission of the European Communities
FAO	Food and Agriculture Organization of the United Nations
IAEA	International Atomic Energy Agency
IBRD	International Bank for Reconstruction and Development (World Bank)
NCC	Non-convertible currency
NENF	Division of Nuclear Fuel Cycle
NENP	Division of Nuclear Power
NENS	Division of Nuclear Safety
RCA	Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology
RIAL	Agency's Laboratories
RIFA	Joint FAO/IAEA Division of Isotope and Radiation Applications of Atomic Energy for Food and Agricultural Development
RILS	Division of Life Sciences
RIRL	Division of Research and Laboratories
SIDA	Swedish International Development Authority
TACF	Technical Assistance and Co-operation Fund
UN/TCD	Department of Technical Co-operation for Development, United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFSSTD	United Nations Financing System for Science and Technology for Development
UNIDO	United Nations Industrial Development Organization
WHO	World Health Organization
WMO	World Meteorological 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
Iran, I.R.	Islamic Republic of Iran
Korea, R.	Republic of Korea
Libyan A.J.	Libyan Arab Jamahiriya
St. Christopher	St. Christopher-Nevis
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. Tanzania	United Republic of Tanzania
USA	United States of America

Note: All sums of money are expressed in US dollars and have been rounded off to the nearest hundred or thousands dollars in most instances. Percentages have also been rounded off in statistical tables and figures.

GLOSSARY OF TERMS AND CONCEPTS

Additional income - the sum of interest and other income, assessed programme costs and exchange gains or losses with regard to the TACF.

Adjusted programme - the total value of all technical co-operation activities approved for a given calendar year plus all approved assistance brought forward from previous years but not yet implemented.

Backstopping - technical support provided for technical co-operation activities.

Current-year implementation - new obligations incurred in a calendar year against the current programme year.

Delivery - the actual assistance provided to Member States, e.g. experts in the field, expert man-months served, fellows trained and equipment provided.

Disbursements - actual cash outlays for goods provided and services rendered.

Dynamic programming - the process whereby funds released through rephasing and reprogramming are used to meet requirements of developing Member States through the implementation of approved projects for which funds would otherwise not be available; it serves to keep project planning realistic.

Earmarkings - amounts allotted for funding approved assistance awaiting implementation.

Extrabudgetary funds - funds provided by Member States for financing specific projects or activities. These funds are separate from voluntary contributions to the Technical Assistance and Co-operation Fund.

Financial year - the year in which a financial transaction takes place. In the Agency, the financial year and calendar year are identical.

Funds in trust - funds received from Member States to finance assistance for themselves.

Future-year implementation - new obligations incurred in a calendar year against future years.

Implementation - the volume of funds obligated (new obligations) in a given period.

Implementation rate - a ratio obtained by dividing implementation by the adjusted programme (expressed as a percentage).

New obligations - the sum of disbursements and unliquidated obligations less unliquidated obligations carried over from the previous year.

Non-project assistance - the provision of assistance through technical co-operation activities, such as individual training, that are not part of specific projects.

Programme year - the year for which an activity is planned.

Project assistance - the provision of experts, equipment and training within the framework of individual projects.

Regular Programme - the total value of project and non-project assistance approved in a given year, excluding UNDP and Special Programme assistance.

Rephasing - a temporary release of funds approved for inputs which were planned for a given programme year and which cannot be implemented as scheduled. Rephasing does not change total inputs approved for a project; rather, it serves to keep project planning realistic.

Reprogramming - a permanent release of funds approved for inputs which were planned for current or past years and which are no longer required. Reprogramming reduces the amounts previously approved for a project and enables new activities to be financed.

Reserve Fund - an amount set aside by the Board each year for financing assistance of an urgent nature requested after the Board has approved the Regular Programme for the year in question.

Special Programme - projects identified jointly by donor and recipient Member States and executed by the Agency utilizing extrabudgetary cash and in-kind contributions especially made for this purpose.

UNDP Programme - projects executed by the Agency on behalf of UNDP and its associated funds, including UNFSSTD.

Unliquidated obligations - obligations incurred for which no cash outlays have yet been made.

Unobligated balance - total funds available less disbursements and less unliquidated obligations against the current year.

Unused balance - total funds available less disbursements and less all unliquidated obligations against the current year and future years.

PART I. SUMMARY AND KEY POINTS

1. The year 1984 can be described as one during which efforts were made to increase momentum in the development co-operation between the Agency and its Member States while continuing to improve the quality of the technical assistance rendered. For the first time, the adjusted programme exceeded \$50 million. During the year, changes were introduced in the administration of the programme in line with recommendations endorsed by the Board in 1983 at the end of its first technical co-operation policy review.

2. In 1984, when the new technical co-operation policies were applied, there were three principal aims. First, the flow of Technical Assistance and Co-operation Fund resources was to be improved; by decreasing accumulated unobligated balances, an optimum level of resource utilization was to be attained by 1986. Second, procedures for the procurement of goods and services were to be streamlined in order to permit substantial increases in programme delivery. Third, systematic project evaluation was to lead to a number of specific actions that would increase the effectiveness of the Agency's development assistance.

3. With regard to the first aim, implementation increased by 44% over the 1983 level, passing the \$30 million mark in October and reaching \$36.6 million by the end of the year. Of this amount, \$31.8 million related to the implementation of activities programmed for 1984. Therefore, an increase in total resources of only 4% was accompanied by an increase in current-year implementation of 34%. As a result, the upward trend in the unobligated balance was checked, and earmarkings against the TACF actually decreased. The implementation rate against the TACF rose from 58% in 1983 to 65% in 1984, reaching the level that had been set as a target. If this performance can be maintained in 1985, it will be possible to reach the optimum level of TACF resource utilization one year earlier than originally expected.

4. As regards the second aim, streamlined procedures introduced in 1984 made it possible to achieve substantial increases in the implementation of the expert and training components. In 1984, almost 2700 individuals were involved in the programme, as experts, lecturers, fellows, scientific visitors and training course participants. This represents an increase of about one third over 1983.

5. Regarding the third aim, the Technical Co-operation Evaluation Unit introduced an interim project implementation reporting system in 1984 which relies on national counterparts to report regularly on the progress of their projects; in this way, the Secretariat is alerted to implementation problems as they arise. Approximately 65% of all on-going projects had been covered by this system by the end of 1984. Also, 55 mid-or end-of-project evaluations were completed and three "major process" evaluations were initiated.

6. Of the total resources available in 1984 (\$36 million), the TACF again represented the largest source of funds (\$22.2 million). Whereas the Fund's share of total resources was 56% in 1983, the 1984 share was 62%. The 1984 share of extrabudgetary funds was 25%; this compares with 27% in 1983. The shares of in-kind and UNDP resources together accounted for approximately 13% of total 1984 resources; as compared with the 1983 levels, in-kind and UNDP resources decreased by 5% and 31% respectively.

7. Extrabudgetary resources available in 1984 declined slightly from the 1983 level. Nevertheless, at \$9.1 million, the volume was still more than twice that of 1982. Also, \$1.3 million were received in respect of future years. By the end of the year, about 62% of the funds needed for all footnote-a/ projects approved for 1984 had been secured. A total of 40 footnote-a/ projects were made operational in 1984.

8. In addition to implementation proper, disbursements are used as an indicator of work accomplished. Total disbursements from all sources amounted to \$32 581 500 in 1984 as against \$26 615 400 one year earlier; this represents an increase of 22%. As predicted in the report for 1983, disbursements from extrabudgetary funds increased significantly, by 90%, over the 1983 level.

9. Implementation of the expert component, which had for many years been a source of concern, increased notably over the 1983 level. The number of assignments undertaken during 1984 (1530) was 39% higher than during the previous year. The number of man-months delivered (1550) increased even more sharply (52%). An important development in 1984 was the increase in the share of developing-country nationals serving on Agency-assisted projects. About 46% of all persons who undertook project assignments in 1984 were from developing countries.

10. During 1984, 702 persons were undergoing fellowship training. An increase of 89% was recorded in the number of persons who undertook scientific visits during 1984. In all, 850 persons participated in Agency-sponsored training courses in 1984, which is 30% higher than the figure for 1983. There was little change in the distribution of training by field of activity, reactor technology and nuclear safety together accounting for the largest share of training (41%), followed by agriculture (19%) and medicine (13%).

11. At \$16.6 million, equipment continued to account for approximately half of all disbursements in 1984; the volume delivered was 13% higher than in the previous year. Approximately 20% more purchase orders were processed in 1984 than in 1983.

12. As regards the overall emphasis of the programme, agriculture showed a large increase in 1984, reaching 24%. The shares of nuclear engineering and technology and of nuclear safety remained practically the same, and disbursements in the field of nuclear raw materials declined further.

13. In 1984, 108 staff members of the Agency's "technical-substantive" Departments provided support to 770 on-going projects as technical officers. Agency staff undertook a total of 378 assignments, which is 25% of the total for 1984.

14. Work on the technical co-operation computer system continued during the year, information on UNDP-financed projects being added to the system and considerable improvements being made to the programs dealing with expert recruitment. For the purpose of monitoring and analysing data related to new assistance requests, a "project pipeline system" was designed and made operational for use on microcomputers. The system facilitates the preparation of documentation for the Technical Assistance and Co-operation Committee.

15. A Joint Inspection Unit (JIU) study of Agency technical co-operation, which began in 1983, was completed in 1984. In its report, the JIU concluded that Agency assistance was indeed valuable to Member States and that project implementation proceeded in most instances without delay. The Technical Assistance and Co-operation Committee and the Board assessed the JIU's report, endorsing most of the recommendations put forward.

16. A management review of technical co-operation was completed in 1984 by an independent consultant. As a result, a number of actions are planned that should help the Secretariat to cope more effectively with increasing responsibilities in the coming years.

PART II. REVIEW OF THE AGENCY'S
TECHNICAL CO-OPERATION
ACTIVITIES

A. ACTIVITIES IN SUPPORT OF LEAST
DEVELOPED COUNTRIES

17. This section of the report, which highlights specific aspects of the Agency's technical co-operation programme, focuses this year on Agency technical co-operation with Least Developed Countries (LDCs).

18. It has long been recognized that a wide range of development levels is to be found in developing countries. Special concern for countries at the lower end of the development scale first surfaced in connection with the second session of the United Nations Conference on Trade and Development (UNCTAD II), which was held in New Delhi in 1968. Three years later, the General Assembly of the United Nations drew up the first list of LDCs; it originally comprised 25 States. Several changes have since occurred; at present, 36 countries are recognized as being LDCs, and another four are treated as if they were LDCs. Almost three quarters of all LDCs are in Africa.

19. In establishing the list of LDCs, the General Assembly applies three basic economic and social criteria:

- (a) Low income (in 1984, a gross domestic product - GDP - per capita and annum of \$350 or less);
- (b) Low literacy rate (20% or less of the "reading age" population); and
- (c) Small share of manufactured goods in total production (10% or less of the GDP).

These criteria are supplemented by 12 "common characteristics" such as large shares of the population engaged in non-monetary subsistence agriculture, low school enrolment rates, malnutrition, drinking water shortages and lacking capability for the exploitation of existing resources.

20. These characteristics aside, however, LDCs by no means constitute a homogeneous group. Whereas the utilization of nuclear techniques is either not feasible or not a priority concern for many LDCs, nuclear techniques are of significant potential benefit to some. At all events, only 12 LDCs - less than one third of the total - are Member States of the Agency, accounting for about 9% of the total Agency membership.

21. During the last four years, Agency assistance^{1/} to LDCs has increased notably, as shown in the following table (figures in thousands of dollars).

Member State	1981	1982	1983	1984
Afghanistan	38.7	33.6	157.2	28.3
Bangladesh	239.3	414.6	473.2	596.0
Ethiopia	24.1	23.8	63.4	110.4
Haiti	-	-	-	-
Mali	86.1	174.2	185.9	201.2
Nicaragua ^{2/}	-	-	-	13.2
Niger	41.7	35.5	145.0	152.8
Senegal ^{2/}	-	-	65.4	182.4
Sierra Leone ^{3/}	-	-	98.0	80.6
Sudan	227.3	206.2	176.2	297.2
Uganda	6.3	36.0	46.6	35.9
U.R. Tanzania	199.8	164.8	157.5	233.4
Total	863.3	1 088.7	1 568.4	1 931.4

During the period 1981-84, assistance to LDCs increased at a rate of 31% a year.

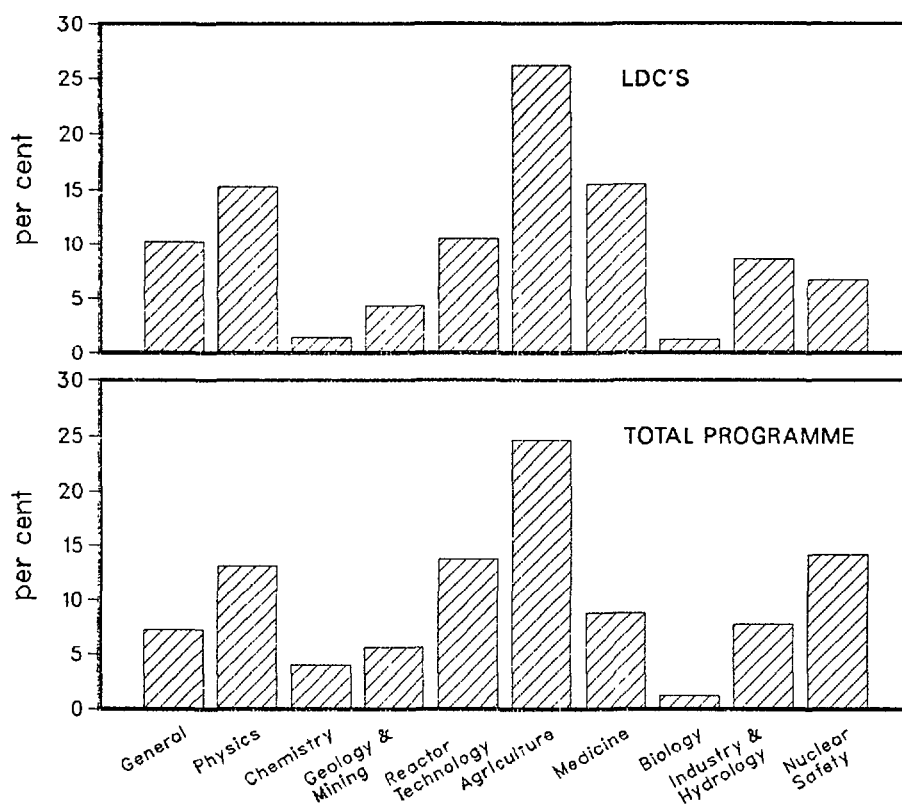
22. As might be expected, priority fields of activity for LDCs are different from those which are characteristic of the overall programme. Whereas agriculture, which ranked first in the programme as a whole during 1981-84, was also first for LDCs, other high priorities for LDCs were nuclear applications in the health sector, basic physics, nuclear engineering and technology, and nuclear applications planning. This contrasts with the distribution of total assistance during the same period, in which nuclear safety, nuclear engineering and technology, and nuclear physics ranked second, third and fourth respectively. This is illustrated in the following figure.

^{1/} Figures exclude assistance financed by UNDP and gifts in kind.

^{2/} As this country was recognized as an "as if" LDC (see para. 18 above) with effect from 1983, assistance provided prior to that year is not included in this table.

^{3/} As this country was recognized as an LDC with effect from 1983, assistance provided prior to that year is not included in this table.

DISTRIBUTION OF DISBURSEMENTS BY FIELD OF ACTIVITY



23. With regard to the type of assistance furnished to LDCs during the last four years, the share of assistance in the form of equipment was lower than average, whereas that of the fellowship component was relatively high.

Component	LDC share of programme (%)	Total programme (%)
Experts	22.2	25.1
Equipment	54.8	61.0
Fellowships	23.0	13.9

24. In addition to project-related training, nationals from LDCs have received individual awards under the fellowship and scientific visits programme and participated in Agency-sponsored training courses. A breakdown of training provided to LDC nationals is given in the following table.

Year	Fellowships	Scientific visitors	Training course participants	Total
1981	60	4	22	86
1982	59	5	29	93
1983	67	7	35	109
1984	82	4	48	134

25. Increasing involvement of LDCs in the Agency's technical co-operation programme is also reflected in the fact that these countries have started to play a role as suppliers of services to other developing countries. During the period 1981-84, experts from LDCs undertook 12 project assignments, and LDCs hosted three training courses and accommodated 45 trainees from other developing countries.

Year	Expert assignments	Training courses hosted	Trainees accommodated
1981	-	-	1
1982	3	-	-
1983	6	1	15
1984	3	2	29
Total	12	3	45

26. Efforts have been made to intensify technical co-operation with LDCs along the lines followed by other organizations within the United Nations system. In the Agency, the following measures have been or are being adopted:

- (a) Assessed programme costs: Developing countries are expected to pay, in the form of assessed programme costs, 8% of the value of the Regular Programme assistance delivered each year. LDCs are exempt from these payments.
- (b) Pre-project assistance: Inadequate project planning is, to a large extent, responsible for the imprecise formulation and the small number of requests received from LDCs. The issue of project planning was examined by the Board during the 1983 Technical Co-operation Policy Review, it being felt that LDCs could benefit from pre-project assistance. Such assistance helps Member States to identify priority problems and to translate perceived needs into appropriate development co-operation actions. It not only serves to define the respective roles and inputs of governments and the Agency, but also offers an opportunity for joint planning aimed at increasing the local capability for project formulation and design. Two pre-project missions to LDCs were approved in 1984, one to Ethiopia and one to Haiti. In the case of Ethiopia, the assistance centred on the design of a two-year project aimed at enhancing biological nitrogen fixation by crop plants, thus minimizing the need for the application of nitrogenous fertilizers. A total of \$21 000 was approved for this project under the Regular Programme for 1985. In the case of Haiti, plans have been made for a project design mission in connection with the establishment of a radioimmunoassay laboratory. It is expected that a project in this area will be proposed for inclusion in the Regular Programme for 1986. In the coming years, pre-project

assistance to LDCs will be expanded. Also, persons from LDCs will be given special consideration for participation in the Evaluation Unit's courses on project identification, design and evaluation.

- (c) Technical co-operation programming: In addition to the planning of individual projects, greater attention will be focused on LDCs in connection with the planning of technical co-operation over a longer (say, three- to five-year) term. Such planning exercises involve a systematic review of the potential impact of nuclear techniques on a country's development. In line with a recommendation made in the recent JIU report on Agency technical co-operation, country-level programming is being encouraged. In this connection, one or two LDCs will be included in each year's programming exercises conducted at the country level.
- (d) Intercountry co-operation: There are a number of problems common to LDCs, whether Agency Member States or not, that can be solved through the use of nuclear techniques. The following goals, set forth in the "Substantial New Programme of Action for the 1980s for the Least Developed Countries" (SNPA), which was adopted by the United Nations Conference on the Least Developed Countries in September 1981, have a specific bearing on the Agency's activities:
- Increased agricultural productivity;
 - Improved irrigation and water resource management;
 - Improved meteorological and ecological data collection and analysis;
 - Improved nutrition and preservation of foodstuffs;
 - Improved health care, particularly in rural areas;
 - Increased supplies of drinking water; and
 - Conscious utilization of technology for social and economic development.

Nuclear techniques can contribute to the attainment of these goals. As they are shared by many LDCs, they could be the object of sub-regional, regional or interregional projects. To this end, efforts will be made to include in each annual programme intercountry projects that take the special needs of LDCs into account.

B. RESOURCES: \$35 901 000

27. The total resources available to the Agency for technical co-operation activities in 1984 amounted to roughly \$36 million, an increase of 4% over the 1983 level. Whereas the Technical Assistance and Co-operation Fund showed an increase as

compared with 1983, extrabudgetary, in-kind and UNDP resources declined. The Technical Assistance and Co-operation Fund and extrabudgetary funds together accounted for 87% of total 1984 resources (1983: 83%). At \$9.06 million, extrabudgetary resources declined by 3.5% from the 1983 level; UNDP resources decreased by 31% and in-kind assistance by 4.9%.

28. The performance of individual funds in 1984 is discussed in more detail below.

1. Technical Assistance and Co-operation Fund: \$22 232 000

29. Resources for the Technical Assistance and Co-operation Fund rose by about \$3 million. The increase in the Fund's resources over the past three years is shown in the following table.

Programme year	TACF resources (\$)	Annual increase (%)
1982	16 003 000	23.5
1983	19 241 000	20.2
1984	22 232 000	15.5

Whereas contributions in convertible currencies rose by a significant amount (21.5%), those in non-convertible currencies increased by only 2.2%. Additional income declined by 8%. The share of the Technical Assistance and Co-operation Fund in total resources was roughly 62% in 1984, which is 6% higher than the 1983 figure.

30. The 1984 target for voluntary contributions to the Technical Assistance and Co-operation Fund was set at \$22.5 million. By 31 December 1984, a total of \$20 732 803 had been pledged, which is 92.1% of the target (1983: 92.7%). Total resources available to the Fund fell short of the target by \$271 781 in spite of the receipt of \$1.5 million in additional income. Forty-five Member States (1983: 48) had not pledged a voluntary contribution by 31 December. Although their combined calculated share of the 1984 target was only 3.1%, these countries represent more than 40% of the Agency's membership. Moreover, 14 countries pledged amounts smaller than their calculated shares; this shortfall amounted to \$1 326 201, or 5.9% of the 1984 target.

31. The decline in additional income in 1984 can be attributed to a number of factors. There was a slight decline in the receipt of assessed programme costs; in addition, there was a significant exchange loss due to the devaluation of currencies against the United States dollar, which was relatively strong in 1984. A breakdown of the additional income received in the last three years is given in the following table (in thousands of dollars).

Year	Interest and other income	Assessed programme costs	Exchange gain (loss)	Total
1982	1134	408	(440)	1102
1983	1045	632	(52)	1625
1984	1236	612	(353)	1495

32. For the 1984 Regular Programme, Member States had submitted 440 requests for technical assistance in the form of experts and equipment. Of these, 53 requests valued at \$3.4 million were met through incorporation into previously approved projects or through consolidation with other requests; 60 requests with an estimated value of \$10.8 million had to be rejected on technical grounds. The remaining 327 projects, which were approved by the Board, required resources totalling \$22.5 million for the provision of experts and equipment in 1984. Financing from the Technical Assistance and Co-operation Fund was available for the implementation of 261 projects valued at \$17.3 million - 76.9% of the total approved programme. This meant that 66 technically sound project proposals had to be placed in the footnote-a/ category as the \$5.2 million required to implement them were not immediately available. Of these, 35 projects (representing 62% of the required funds) had been made operational by the end of 1984, mainly through the utilization of extrabudgetary resources received for this purpose. As at 31 December 1984, there were 42 projects for which funds still needed to be found. A summary is given in the following table.

Programme year	Number of projects requiring financing	Amount required (\$)
1982	1	78 800
1983	10	1 088 600
1984	31	1 964 740
Total	42	3 132 140

2. Extrabudgetary funds: \$9 062 000

33. Extrabudgetary resources made available to the technical co-operation programme declined somewhat from the 1983 level. The following table summarizes extrabudgetary resources for the programme years 1982-84.

Programme year	Extrabudgetary resources (\$)	Annual change (%)
1982	4 413 000	+25.0
1983	9 394 000	+112.9
1984	9 062 000	-3.5

Of the \$9.1 million pledged for 1984, almost \$2.9 million were made available in 1983 as it was originally expected that these funds would be needed early in 1984. In addition to this \$9.1 million, extrabudgetary contributions amounting to \$1.3 million were received for future programme years. A very satisfactory funding level was maintained in 1984.

34. In 1984, Italy was by far the largest single contributor of extrabudgetary resources, providing 62% of the total, followed by the United States of America (15%) and the Union of Soviet Socialist Republics (7%). The origin of the extrabudgetary resources received for 1984 is indicated in the following table.

Source	Resources for 1984 programme year received in prior years (\$)	New resources for 1984 programme year (\$)	Total for 1984 programme year (\$)	Resources for future years made available in 1984 (\$)
Italy	2 870 600	2 751 000	5 621 600	1 090 000
USA	-	1 400 000	1 400 000	-
USSR	-	602 701	602 701	212 800
Germany, F.R.	2 804	412 102	414 906	-
Japan	-	276 320	276 320	-
United Kingdom	-	233 800	233 800	-
Austria	-	205 128	205 128	-
Finland	-	72 500	72 500	-
Sweden	-	59 261	59 261	-
France	-	33 600	33 600	-
WMO	-	10 500	10 500	-
Funds in trust	-	131 738	131 738	-
Total	2 873 404	6 188 650	9 062 054	1 302 800

35. As was the case in 1983, the largest portion of extrabudgetary contributions in 1984 was made available for projects in the Special Programme (roughly 62%). The total number of such projects was five, including one initiated in 1984.

36. Extrabudgetary contributions made in respect of footnote-a/ projects totalled \$2 708 000, with seven countries providing these funds; also, additional TACF resources became available as a result of rephasing. The total funds utilized to make footnote-a/ projects operational were at about the same level as in 1983. A three-year comparison of footnote-a/ project funding is given in the following table.

At year-end	Approved footnote-a/ projects (\$)	Footnote-a/ projects made operational (\$)	Share of footnote-a/ projects made operational (%)
1982	3 952 000	2 837 800	71.8
1983	5 125 400	3 351 870	65.4
1984	5 187 000	3 222 260	62.1

37. The funds-in-trust amount of \$131 738 given in the table following paragraph 34 represents extrabudgetary resources received from three countries: \$100 000 from the Syrian Arab Republic for the acquisition of equipment, \$26 818 from the Islamic Republic of Iran for training engineers in quality assurance and \$4 920 from Brazil for miscellaneous equipment needed for an agricultural project at Piracicaba.

38. In addition to the extrabudgetary resources already mentioned, contributions were made by Japan in 1984 for co-ordinated research contracts under the RCA, which are not regarded as technical co-operation activities. The extrabudgetary funds made available during the period 1982-84 for such RCA activities are shown in the following table.

Year	Australia		Japan		Total (\$)
	Isotope applications in hydrology and sedimentology (\$)	Food irradiation (\$)	Medical applications (\$)		
1982	63 092	74 763			137 855
1983	53 571	-	30 000		83 571
1984	-	-	105 000		105 000
Total	116 663	74 763	135 000		326 426

During 1984, a second phase of the RCA food irradiation project was approved. Australia has pledged support for this activity starting in 1985.

3. Assistance in kind: \$2 066 000

39. The value of in-kind assistance, the largest portion (83.6%) of which was in the form of support for Agency training activities, decreased again in 1984.

Year	In-kind resources (\$)	Annual change (%)	In-kind share of total resources (%)
1982	2 493 000	-10.6	9.1
1983	2 172 000	-12.9	6.3
1984	2 066 000	-4.9	5.8

40. It was again not possible to obtain full information on the in-kind project inputs provided by donor countries; accordingly, the picture given in this report is not complete.

41. An additional resource not reflected in the statistical data is the value of lecturers and facilities made available by the governments of countries where regional and interregional training courses were held (see Annex II). The number of training courses held in developing Member States has increased steadily in recent years, as shown in the following table.

Year	Total number of training courses	Training courses held in developing Member States
1982	36	17
1983	35	17
1984	51	31

With more than half of all training courses held in developing countries, the number of cost-free lecturers and the value of facilities provided by such countries reached a significant level in 1984. Without the assistance of the countries hosting Agency courses, it would not have been possible to conduct as many training activities.

4. UNDP: \$2 541 000

42. Resources made available within the framework of UNDP-supported projects decreased further in 1984.

Year	UNDP resources (\$)	UNDP share of total Agency resources (%)
1982	4 631 000	16.8
1983	3 706 000	10.7
1984	2 541 000	7.1

As pointed out in several previous technical co-operation reports, the Agency exercises no control over the amount of UNDP resources made available to it, nor does UNDP itself determine shares for individual executing agencies. It is the government of each recipient country that establishes priorities within the framework of its "country programme" and decides how the available UNDP funds will be used to assist its development activities.

43. Although UNDP's 1984 pledging conference again yielded a moderate increase in resources, UNDP has not yet found it possible to increase programming beyond the present level of 55% of individual country indicative planning figures for the period 1982-86. Nevertheless, four new UNDP projects were approved during 1984 for execution by the Agency.

44. UNDP reimburses the Agency for administrative overhead costs at a rate of 13% of the cost of the assistance delivered. Overheads received in 1984 amounted to \$292 336. In addition, overheads totalling \$25 798 were received from UNFSSD. In accordance with established practice, this money was credited to the Agency's Regular Budget as miscellaneous income. In addition, the Agency is entitled to request from UNDP "support cost flexibility", which amounted to \$202 386 for 1984 (1983: \$330 000).

C. UTILIZATION OF RESOURCES - ASSISTANCE PROVIDED: \$32 581 500

1. Trends in programme implementation

45. Before the assistance provided in 1984 under each of the major fund categories is discussed, a few trends that apply generally to all funds should be mentioned.

46. The total volume of programme disbursements during the period 1982-84 is given in the following table.

Year	Programme disbursements (\$)	Annual increase (%)
1982	23 005 700	9.8
1983	26 615 400	15.7
1984	32 581 500	22.4

47. Two factors contributed to the 22.4% increase in 1984. First, disbursements from extrabudgetary resources increased to almost 90% over the 1983 level. This was expected, however, as an unusually high proportion of extrabudgetary funds for 1983 activities became available only in the last quarter of 1983, implementation therefore shifting by necessity into 1984. Secondly, owing to the dynamic programming of TACF resources, \$1 714 500 were released during the year and used to finance activities which could otherwise not have been initiated (see Annex XI).

48. Implementation of the expert component was for many years a source of special concern. Simplified procedures for the recruitment of experts and consultants were introduced in 1983, however, and began showing their effect in 1984. Having passed the 1000 mark in 1983, the number of project assignments reached 1530 in 1984; this represents an increase of 39.2%. At 1550, the number of man-months delivered rose even more sharply (51.9%) than the number of assignments. The average assignment duration was again about one month. Local professional project staff ("national experts") undertook 121 assignments during the year. This is an important development, and Table 3A has been modified to reflect the contribution of national experts. Another development noted in the last few reports was that Agency technical staff had been accounting for some 30% of all assignments in recent years. This was not the case in 1984, when Agency staff undertook slightly less than 25% of all assignments. Nevertheless, the number of assignments carried out by staff members rose, despite budgetary constraints and increased divisional workloads. Special efforts were made by the Secretariat to increase the number of experts recruited from developing countries. Of the 1017 individuals who undertook project assignments in 1984, 466 were nationals of developing countries. This represents 46% of the total; the corresponding figure for 1983 was 40%.

49. Training also increased in 1984. There were 702 fellows undergoing training during the year, which is 14.7% more than in 1983. The number of Agency-sponsored scientific visitors in 1984 (123) was 89.2% higher than the corresponding number in 1983 (65). This marked increase is largely due to the Secretariat's streamlining of administrative procedures for handling scientific visits. The number of training course participants increased to 850, a figure some 30% higher than in the previous year. In all, 1675 scientists and technicians from developing countries received training during 1984. The developing countries themselves made facilities available for some 35% of all Agency training provided in 1984. The distribution of training among fields of study remained essentially the same as in 1983: reactor technology together with nuclear safety continued to account for the highest share (41%); other prominent fields were agriculture (19%) and medicine (13%).

50. Disbursements on project equipment, which reached \$14.7 million in 1983, rose to \$16.6 million in 1984, an increase of 13%. Equipment procurement has become increasingly complex in recent years. There are still a few large contracts being issued each year that require a major negotiation effort, and, at the same time, the number of purchase orders for small items has risen rapidly. Whereas 2485 purchase orders were processed in 1983, the number in 1984 was 2970, representing an increase of 20%. In 1984, equipment again accounted for about half of all disbursements.

51. The following table gives a breakdown of technical co-operation disbursements by component.

Component	Share of total disbursements (in %)	
	1983	1984
Experts	20.8	21.1
Equipment	49.5	49.1
Training	24.5	25.4
Subcontracts	4.6	3.8
Miscellaneous	0.6	0.6
Total	100.0	100.0

52. As regards the overall emphasis of the programme, which is determined by requesting Member States, agriculture - for the first time in several years - showed a sizable increase, largely attributable to extrabudgetary projects in this sector. The shares of nuclear engineering and technology and of nuclear safety remained practically the same. Disbursements in the field of nuclear raw materials continued to decline, accounting for only 4.2% of the total in 1984; this compares with 15.7% in 1980.

2. Technical Assistance and Co-operation Fund: \$20 124 000

53. In 1984, disbursements against the TACF again increased at a higher rate than the new resources available to the Fund. This had the salutary effect of reducing the unobligated balance.

Year	Disbursements from TACF (\$)	Annual increase in disbursements (%)	Annual increase in resources (%)
1982	13 450 800	28.9	23.5
1983	16 736 100	24.4	20.2
1984	20 124 000	20.2	15.5

54. Unused TACF balances are shown each year in the income and expenditure statement contained in the Agency's accounts. The unliquidated obligations mentioned in the statement include amounts obligated for goods and services to be

provided only in future years ("future-year obligations"). As future-year obligations are intended to be met from future-year income, only current-year obligations are considered in determining the strategy for optimum TACF utilization. Thus, in the following paragraphs the "unused balance" is calculated taking all unliquidated obligations into account; by contrast, the "unobligated balance" is calculated taking only unliquidated obligations in respect of the current year into account. There is a level of unobligated balances that should be maintained in order to ensure the financial integrity of the TACF. At present, 20-25% of the available resources are taken as a target for the year-end unobligated balance in respect of the Fund. The following table shows the status of unobligated balances for the period 1982-84.

Year	Total available resources (\$)	Unused balance at year-end (\$)	Unobligated balance at year-end (\$)	Unobligated balance as per cent of available resources (%)
1982	31 306 392	6 756 763	9 042 606	28.9
1983	37 131 228	8 907 250	11 374 918	30.6
1984	42 627 138	5 222 425	10 811 786	25.4

55. Since 1977, there has been concern about the increasing volume of unobligated balances. Measures were introduced in 1979 to permit fuller utilization of non-convertible currencies, which had formerly constituted a large part of the unobligated balance. A limited degree of deliberate overprogramming was introduced in 1981 to enable the Secretariat to manage the Fund more effectively. The matter was studied again in 1983, as part of the Board's technical co-operation policy review, and dynamic programming was introduced as a further resource management tool in 1984. If the results achieved in 1984 can be taken as indicative, a set of tools is now available to ensure that resource utilization is commensurate with the funds at hand.

56. Traditionally, cash disbursements have been used in the Agency's annual reports on technical co-operation activities as an indicator of the work accomplished. In order to permit the comparability of figures over time, Tables 7 and 8 in Part III of the report continue to reflect this practice. Over the last few years, however, it has become clear that it is also necessary, in the interest of rational fund management, to monitor new obligations, as they are legally binding on the Agency and will in time lead to cash disbursements. The difference between the two indicators is one of time; while cash disbursements provide an indication of implementation after the fact, newly incurred obligations reflect implementation at the time of its occurrence. The following table shows the performance of the Technical Assistance and Co-operation Fund during the period 1982-84, with both disbursements and new obligations as indicators.

Year	Disbursements (\$)	Annual increase (%)	New obligations (\$)	Annual increase (%)
1982	13 450 800	28.9	14 996 492	13.8
1983	16 736 100	24.4	17 125 187	14.2
1984	20 124 000	20.2	25 916 844	51.3

57. The sum of newly incurred obligations in a year, which includes both disbursements and unliquidated obligations, is a better indicator of implementation action during a given period than cash disbursements only. Therefore, total new obligations are taken to represent "implementation" and the comparison of total new obligations with the adjusted programme "on the books" is taken to represent the "implementation rate".^{4/} To arrive at meaningful figures, total new obligations are divided into those incurred in respect of the current year's programme and those for future years. For purposes of resource management, a 65-70% range is taken as a target for the annual rate of implementation of the current year's programme. The following table shows the year-end situation for the period 1982-84.

Year	Adjusted programme (\$)	Implementation (\$)	Implementation rate (%)
1982	22 226 692	13 180 679	59.3
1983	27 107 465	15 687 881	57.9
1984	33 344 604	21 670 547	65.0

58. In 1984, implementation against the TACF reached the target range. In monitoring the performance of the Fund using this target range, the level of new obligations for future years also needs to be taken into account. Should future-year obligations continue to rise, the implementation rate target may have to be lowered. The following table shows the development of future-year obligations during the period 1982-84.

^{4/} See in this connection the report for 1983 - document GC(XXVIII)/INF/219 - paragraph 54.

Year	Adjusted future-year programme (\$)	Implementation during year (\$)	Annual change (%)
1982	10 508 971	1 815 813	+30.7
1983	13 941 465	1 437 306	-20.9
1984	20 530 021	4 246 297	+195.5

59. The difference between the adjusted programme and implementation is referred to as "earmarkings" (amounts allotted for the funding of approved assistance that is awaiting implementation). The levels of earmarkings were a source of concern because they appeared to be higher than was necessary in order to safeguard the liquidity of the TACF and because they were increasing from year to year. In 1984, for the first time in many years, earmarkings actually decreased.

Year	Earmarkings (\$)	Annual increase or decrease (%)
1982	9 046 000	23.9
1983	11 829 000	30.8
1984	11 674 000	-1.3

60. As regards the composition of earmarkings at year-end, expert services still to be delivered used to account for the highest share, ranging from 65% to 70% until the late 1970s. This situation has gradually changed, reflecting both efforts by the Secretariat to improve the delivery of expert services and more realistic project planning.

Year	Share of total earmarkings (%)			
	Experts	Equipment	Fellowships	Training courses
1982	60	27	6	7
1983	57	31	6	6
1984	51	44	1	4

61. As in previous reports, a comparison is given here of the cash resources available to the TACF with the programme commitments made.

1977 - 1984
Comparison of available cash resources and programme commitments
as at 31 December

(in thousands of dollars)

Year	Cash resources			Programme commitments			Balance		
	CC	NCC	Total	CC	NCC	Total	CC	NCC	Total
1977	4 799	2 814	7 613	6 155	1 482	7 637	(1 356)	1 332	(24)
1978	4 896	3 420	8 316	6 978	1 293	8 271	(2 082)	2 127	45
1979	6 418	3 579	9 997	7 672	2 117	9 789	(1 254)	1 462	208
1980	8 267	4 467	12 734	9 470	3 925	13 395	(1 203)	542	(661)
1981	11 336	3 721	15 057	11 277	3 843	15 120	59	(122)	(63)
1982	14 186	3 670	17 856	13 788	4 071	17 859	398	(401)	(3)
1983	17 044	3 351	20 395	17 407	3 442	20 849	(363)	(91)	(454)
1984	19 240	3 274	22 514	19 583	3 782	23 365	(343)	(508)	(851)

Overprogramming against the TACF amounted to \$851 000, representing 3.8% of the new resources in 1984. There was a significant increase to \$508 000 in overprogramming in respect of selected non-convertible currencies. However, on 1 January 1985, four currencies previously included in the CC category were added to the list of the NCCs used for programming purposes, and, on the basis of the expanded list, overprogramming would amount to only \$27 000. At present, the currencies of the following Member States are in the NCC category: Albania, Bulgaria, China, Cuba, Czechoslovakia, the Democratic People's Republic of Korea, the German Democratic Republic, Hungary, Poland, Romania and the USSR.

62. Since 1980, a portion of the TACF has been set aside to finance the Reserve Fund. This fund, the level of which was set at \$450 000 for 1984, enables the Agency to respond promptly to unforeseen, urgent needs and provides valuable supplements to the annual programmes of many Member States. Approvals under the Reserve Fund are shown in the following table.

Year	Approvals for new projects (\$)	Approvals for additional assistance to existing projects (\$)	Total approvals under the Reserve Fund (\$)
1982	157 100	71 300	228 400
1983	321 000	29 000	350 000
1984	276 000	44 300	320 300

3. Extrabudgetary funds: \$6 492 700

63. Disbursements from extrabudgetary funds increased by almost 90% from the 1983 level.

Year	Disbursements from extrabudgetary funds (\$)	Annual increase (%)
1982	3 235 300	18.0
1983	3 422 600	5.8
1984	6 492 700	89.7

64. A high level of disbursements from extrabudgetary funds was expected in 1984; of the \$9.4 million in extrabudgetary funds pledged for the 1983 programme year, more than \$4 million became available only shortly before the end of that year, so that a large share of 1983 extrabudgetary funds could not be utilized before 1984.

65. The largest share of extrabudgetary disbursements was for footnote-a/ projects. The situation has changed somewhat since 1983 as a result of the implementation of large Special Programme projects.

Year	Regular Programme projects (%)	Special Programme projects (%)	Fellowship and training course programmes (%)
1982	65	21	14
1983	50	40	10
1984	50	45	5

66. During the year, the implementation of several Special Programme projects continued:

- (a) Within the framework of an interregional project, applied research in the field of biomass degradation was carried out at the International Centre for Insect Physiology and Ecology in Kenya and at the Agency's Laboratory in Seibersdorf (it was found in this project that certain microorganisms have a symbiotic relationship with several species of African termites and play an important role in the degradation process);
- (b) Through a second interregional project, which is being carried out at the Kenya Trypanosomiasis Research Institute, analytical methods have been developed to determine the fate of trypanocide drugs in infected cattle;
- (c) Another Special Programme project, being implemented in Nigeria, aims to demonstrate the economic feasibility of using the sterile-insect technique in integrated tsetse fly eradication programmes;
- (d) The groundwork is being laid in a large-scale project in Egypt for an integrated pest control programme which includes the use of the sterile-insect technique and is aimed at eradicating the Mediterranean fruit fly in that country; and
- (e) Progress was made towards harmonizing the training and certification of staff engaged in non-destructive testing in Latin America within the framework of a regional project which is also receiving support from UNIDO and UNFSSTD.

Steps were taken in 1984 to secure extrabudgetary funds for two new Special Programme projects, one dealing with the collection and analysis of baseline ecological data on the Brazilian Amazon Basin utilizing nuclear techniques and the other with control of the tsetse fly in Kenya's Lambwe Valley by means of the sterile-insect technique.

4. Assistance in kind: \$2 066 100

67. Although training activities continued to account for by far the largest share of in-kind arrangements, an increase was registered in the value of expert services provided by Member States as in-kind contributions.

----- Distribution of in-kind assistance -----			
Year	Experts (%)	Equipment (%)	Training (%)
1982	3.8	0.8	95.4
1983	10.4	11.0	78.6
1984	13.8	2.6	83.6

68. Cost-free (so-called "Type II") fellowships are made available to the Agency as in-kind offers, which can take the form of fellowships, man-months of training or money from which training can be financed. The number of cost-free fellowships offered, which fell in 1983, fell further in 1984.

69. While the overall value of in-kind contributions has declined steadily in recent years, it is noteworthy that developing countries are themselves playing an increasingly active role in the provision of in-kind assistance. Thirty-two developing countries provided in-kind services or equipment to other developing countries in 1984; the corresponding number was 21 in 1983. Also, the value of services and equipment contributed in kind by developing countries rose from \$349 700 in 1983 to \$547 000 in 1984, an increase of 56%. During 1984, India alone provided in-kind assistance valued at \$122 700, moving to third place, behind the United States of America and the Federal Republic of Germany, in the list of in-kind contributors. The distribution among recipient regions was as follows: Africa, 23.6%; Asia and the Pacific, 32.2%; Europe, 14%; Latin America, 21%; and Interregional, 9.2%

5. UNDP: \$3 898 700

70. In 1984, disbursements from funds provided by UNDP decreased by \$385 500, or 9%, as compared with 1983.

Year	Disbursements from UNDP funds (\$)	UNDP share of total disbursements (%)
1982	3 826 600	16.6
1983	4 284 200	16.1
1984	3 898 700	12.0

71. A decrease of that magnitude had been expected. In 1983, disbursements rose somewhat owing to significant outlays stemming from the unliquidated obligations carried forward from 1982. Unliquidated obligations at the end of 1984 were again relatively high (\$1.4 million).

72. During 1984, a total of 23 UNDP-financed projects were under implementation (1983: 29). Ten projects were completed during the year and four new ones were approved. Also, the IAEA acted as associated agency for three UNDP projects executed by UN/TCD, UNESCO and the Government of Uruguay; disbursements of \$29 200 in 1984 in respect of these three projects are reflected in the table following paragraph 70.

73. Total obligations incurred during 1984 in respect of UNDP projects amounted to \$2.5 million; this compares with \$3.7 million in 1983. If planned expenditures set forth in the 1984 budgets of all Agency-executed UNDP projects approved by the end of the year are taken as a basis for measurement, an implementation rate of 81.8% was attained.

D. TECHNICAL SUPPORT PROVIDED TO PROJECTS AND PROGRAMMES

74. Responsibility for the quality of the technical assistance provided by the Agency lies with all Departments of the Secretariat. Staff in the Department of Technical Co-operation are responsible for the programming, detailed planning, implementation, monitoring and evaluation of technical co-operation activities, while technical officers in the "technical-substantive" Departments (particularly the Department of Research

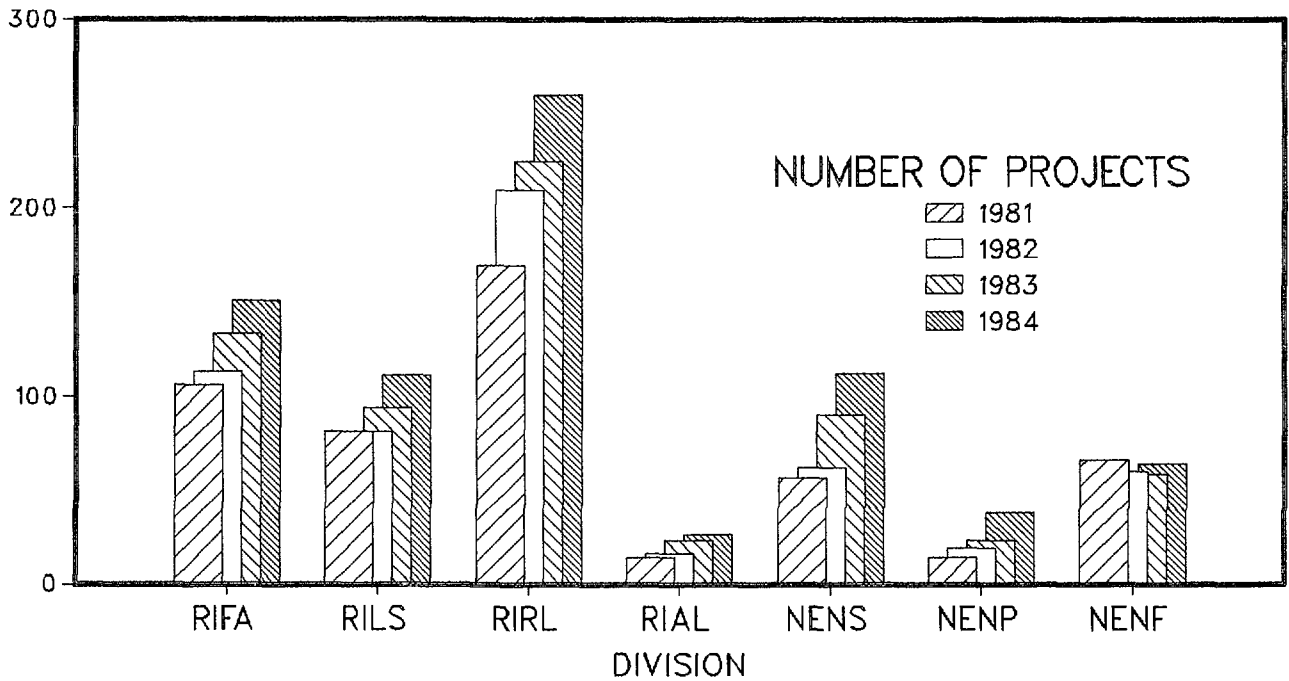
and Isotopes and the Department of Nuclear Energy and Safety) are responsible for the requisite backstopping - providing technical advice in support of projects, appraising new requests for assistance, technically evaluating fellowship and training course applications, participating in technical and programming missions, serving as lecturers for training courses, preparing and reviewing technical reports, reviewing fellowship reports and participating in evaluation activities.

75. In 1984, 108 technical officers provided support to 770 on-going projects. Two thirds of the Professional manpower available in the Department of Research and Isotopes and the Department of Nuclear Energy and Safety were involved in backstopping technical co-operation projects.

Department/Division	Number of projects	Number of technical officers
Research and Isotopes		
Joint FAO/IAEA Division	150	18
Life Sciences	111	11
Research and Laboratories	260	19
Agency's Laboratories	26	6
Sub-total	547	54
Nuclear Energy and Safety		
Nuclear Fuel Cycle	64	13
Nuclear Power	38	12
Nuclear Safety	112	18
Sub-total	214	43
Other	9	11
Total	770	108

As in previous years, the number of projects per technical officer was particularly high in the Division of Research and Laboratories, the Division of Life Sciences and the Joint FAO/IAEA Division.

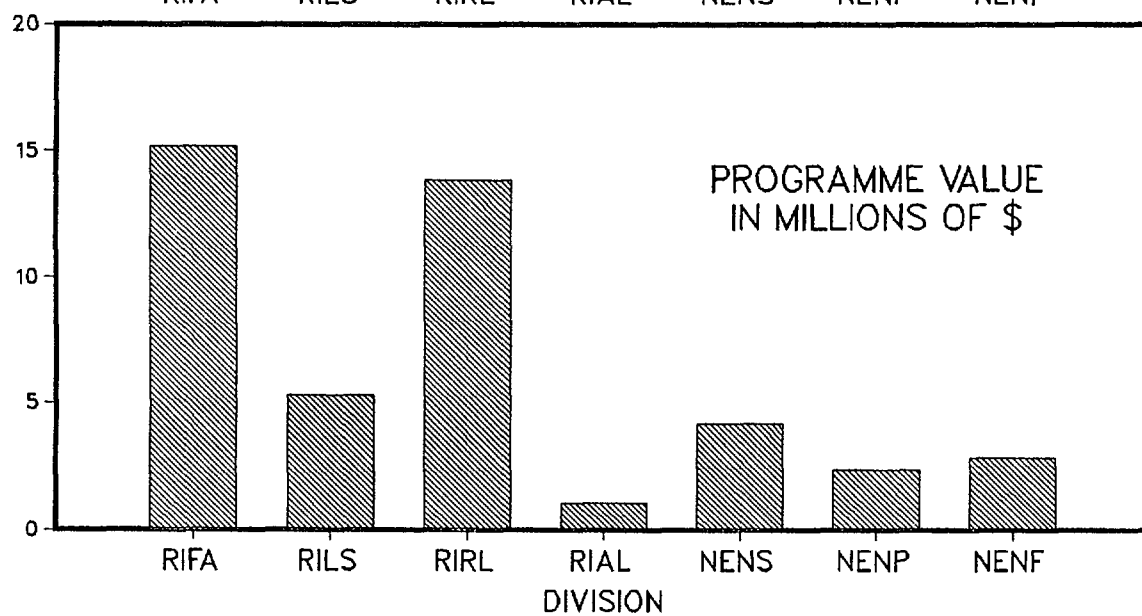
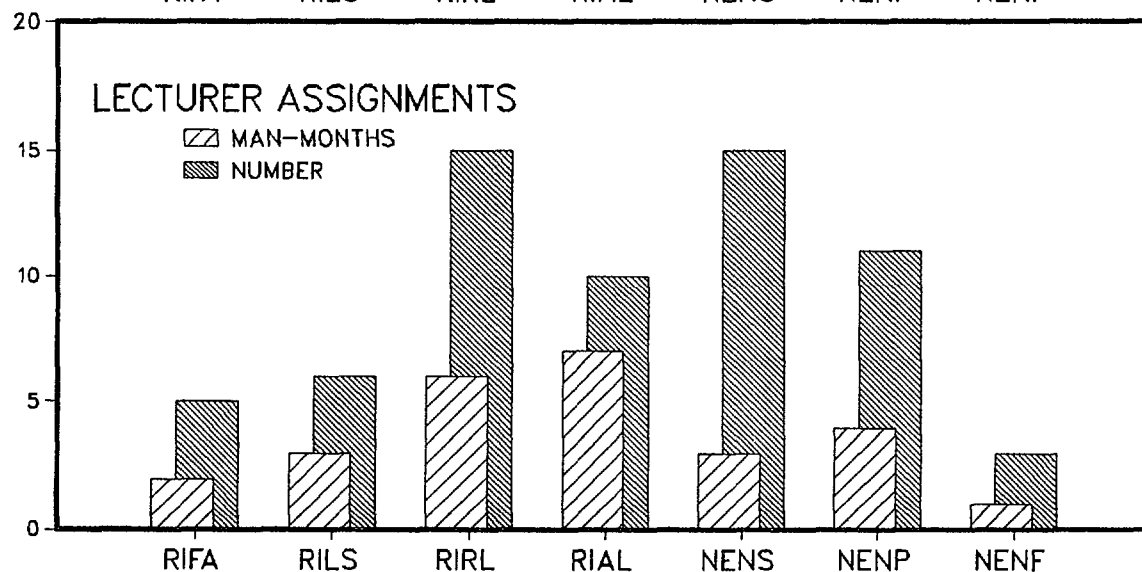
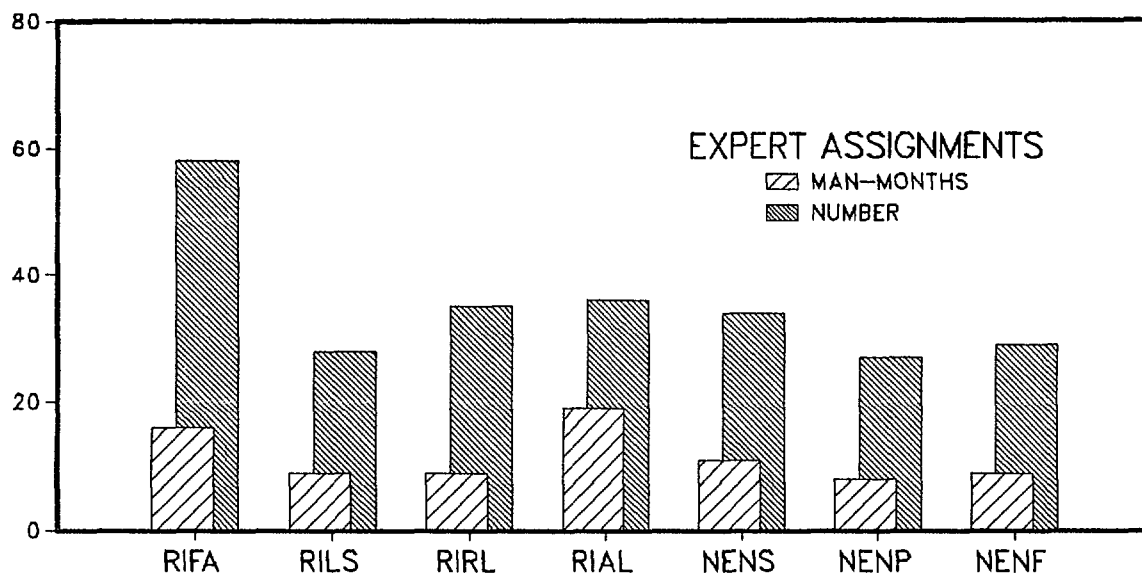
76. There has been considerable fluctuation over the years in the number of projects supported by the various Divisions in the Department of Research and Isotopes and the Department of Nuclear Energy and Safety, reflecting the changing technical assistance requirements of the Agency's Member States. The changes between 1981 and 1984 are shown in the following figure.



At the departmental level, the number of operational projects has been increasing more rapidly in the Department of Nuclear Energy and Safety than in the Department of Research and Isotopes; sharp increases in the technical co-operation activities supported by the Reactor Engineering Section (Division of Nuclear Power), the Waste Management Section (Division of Nuclear Fuel Cycle) and the Radiological Safety Section (Division of Nuclear Safety) account for this development. There were also notable increases in the support provided by the Isotope Hydrology and the Industrial Applications and Chemistry Sections (Division of Research and Laboratories) and by the Chemistry Section of the Agency's Laboratories.

77. During the year, Agency staff carried out 378 assignments (1983: 333), serving as lecturers in 85 cases (1983: 124) and as project experts in 293 cases (1983: 209). In all, 124 man-months were made available in support of technical co-operation activities; had these services been obtained from outside the Agency, this would have cost the programme an additional \$600 000. Missions by Agency staff accounted for 25% of all expert assignments, which is about 5% less than in 1982 and 1983. The support provided by staff of technical Divisions is summarized in the following bar charts.

TECHNICAL SUPPORT FOR TECHNICAL CO-OPERATION PROJECTS IN 1984



78. As mentioned earlier, technical officers also contributed to training activities by evaluating fellowship applications. In 1984, 862 applications were evaluated (1983: 725). A breakdown of fellowship evaluations by Department/Division is given in the following table.

Department/Division	Number of staff members involved	Number of applications evaluated
Research and Isotopes		
Joint FAO/IAEA Division	19	167
Life Sciences	15	125
Research and Laboratories	17	233
Agency's Laboratories	9	36
Sub-total	60	561
Nuclear Energy and Safety		
Nuclear Fuel Cycle	13	66
Nuclear Power	13	64
Nuclear Safety	25	161
Sub-total	51	291
Other	5	10
Total	116	862

79. In addition, technical officers appraised 541 project requests received from Member States for the 1985 technical co-operation programme, an increase of some 23% over the previous year.

E. EVALUATION

80. Evaluation is an important tool for the efficient and effective implementation of the technical co-operation programme in general and of individual projects in particular. The work of the Department's Evaluation Unit resulted during 1984 in the initiation of a number of actions which contributed to the overall implementation results described in this report.

81. On 1 January 1984, an interim project implementation reporting system was introduced which provides national counterparts with a structured procedure for reporting on the progress of their projects, difficulties encountered, achievements and recommendations for additional action. Besides ensuring that Agency staff receive enough

information concerning delays and difficulties to take early corrective action, the system provides the Secretariat with data on patterns of problems common to many projects and enables attention to be focused on general implementation issues. By the end of 1984, approximately 65% of all operational projects had been covered by the new reporting system; from 1985 onwards, the system will cover all on-going projects.

82. As interim implementation reporting provides feedback from national project staff directly involved in project implementation, the system is referred to as "built-in" evaluation. During its first year of operation, the system made it possible to identify several important general problems affecting project implementation and to introduce corrective actions. For example, it was found that inordinate delays were occurring in providing governments with the findings and recommendations of expert missions; a new procedure was introduced in 1984 to ensure that the reports in question are dispatched to recipient governments within one month of the conclusion of the expert assignment. It was also found that in some cases incomplete expert job descriptions caused recruitment delays and impeded effective field work; after the problem had been identified, steps were taken to ensure the preparation of more comprehensive job descriptions. In the equipment area, the failure of a number of suppliers to provide full product documentation was highlighted as causing serious project delays; steps have now been taken to ensure that, at the time they submit their bids, equipment suppliers are made aware of their obligation to supply appropriate documentation, including operating and service manuals.

83. Fifty-five mid- or end-of-project evaluations were completed in 1984. The aim of such evaluations is to obtain a concise but comprehensive picture of project performance and to draw conclusions which may also be valid for projects other than the ones under review. Fields covered by such evaluations in 1984 included secondary standards dosimetry, nuclear medicine, nuclear data, industrial applications of isotopes, radiation technology and nuclear safety.

84. Three evaluations of "major processes" which go beyond normal project activities were initiated in 1984. They covered training/demonstration courses being held as part of the large-scale IAEA/UNDP-assisted regional project on the industrial applications of isotopes and radiation technology, all group training activities undertaken within the framework of the Agency's Regular Programme during 1977-83 and questions pertaining to the delivery of project equipment.

85. In developing Agency procedures for evaluation, a priority concern has been to maintain a careful balance between the cost of evaluation and the resulting benefit to the programme. The total value of the programme and projects for which evaluations were completed in 1984 was nearly \$28 million. The cost of these evaluation activities was

\$195 500, which represents 0.54% of the total resources available for 1984. This is considerably less than the ceiling envisaged at the time the Evaluation Unit was established - namely, 1% of the available technical co-operation resources for a given year.

F. SPECIAL ISSUES

1. Technical co-operation computer system

86. As mentioned in previous reports on the Agency's technical co-operation activities, the computerized programme monitoring system is being installed in stages. By the end of 1982, frequently used data on the Regular and Special Programmes and on fellowship training had been computerized. In 1983, the system's outputs (reports for users in all Departments) were improved. In 1984, information on UNDP-financed projects was added to the system; at the same time, considerable improvements were made to the programs dealing with expert recruitment.

87. At present, the training course component is the only one that has not yet been incorporated into the system. Its incorporation is planned for 1985.

88. During 1984, a technical co-operation "project pipeline system" was designed and made operational for use on microcomputers. This system provides for data collection and analysis in connection with the annual programming exercise (information relating to all project requests received by the Secretariat is maintained). Also, the system facilitates the preparation of documentation on the annual programme submitted to the Technical Assistance and Co-operation Committee.

89. Work will start in 1985 on two new fronts. First, initial components will be developed for an on-line enquiry facility; this will permit staff involved in administering technical co-operation activities to access up-to-date information via computer terminals. Secondly, microcomputer applications will be developed in support of the work of Area Offices and of the Experts and Field Procurement Sections.

2. Study by the Joint Inspection Unit

90. In 1983, the Joint Inspection Unit (JIU) decided to include an assessment of the Agency's development aid activities in its work programme. This assessment was completed in 1984 and a report on the subject issued in August 1984.

91. The JIU study focused on the benefits derived by recipient Member States from participation in Agency technical co-operation activities. It was concluded that, on many occasions, "the Agency had played a catalytic role out of proportion to the size of its assistance. In addition, the Agency's moral support for the development of certain activities has in many cases proved decisive". The JIU also noted "that IAEA-supported projects have generally been implemented successfully and without too much delay or any major problems".^{5/}

92. Nine recommendations were made in the report. After consideration by the Technical Assistance and Co-operation Committee in December 1984 and the Board in February 1985, it was concluded that two of the recommendations had already been fully implemented, three were in the process of implementation and two further recommendations would require more study in view of their substantial financial implications; two recommendations were felt to lie outside the purview of the JIU. Also, it was noted that periodic technical co-operation policy reviews by the Board afford an appropriate vehicle for such further study.

93. There was general agreement that independent reviews such as the one undertaken by the JIU were valuable and there was wide appreciation of the JIU's work.

3. Management review in the Department of Technical Co-operation

94. A management review undertaken on the initiative of the Deputy Director General for Technical Co-operation by an independent consultant was concluded in 1984. The suitability of the existing organizational structure for administering Agency development aid was confirmed in the review. Also, it was felt that the basic approach to administrative procedures was correct and that the division of labour relating to technical co-operation permitted the Secretariat to respond appropriately to the needs of the Agency's developing Member States.

95. At the same time, it was also recognized that rapid and sustained growth in technical co-operation activities was placing growing demands on the staff of the Department. Several suggestions were made regarding measures to help the Department in coping more effectively with its increasing responsibilities. They included:

^{5/} See paragraph 95 of document JIU/REP/84/9, attached to document GOV/INF/464.

- (a) A more active role for the Agency in identifying priority areas for technical co-operation at the country and intercountry level: This would help Member States in determining priority areas for co-operation with the Agency and enhance the impact of Agency assistance on national development.
- (b) A better understanding of the complementary and mutually supportive roles of technical officers and area officers: This would improve not only project design but also the effectiveness of project implementation.
- (c) Strengthening of the role of the area officer: The area officer should serve as the Agency's country specialist and its primary link with recipient governments on technical co-operation matters.

Recommendations aimed at improving the day-to-day functioning of various units within the Department were also made.

96. As the management review coincided with the JIU study just mentioned, the Secretariat examined the two reports concurrently. The results of the Secretariat's examination are as follows:

- (a) Programming: Measures are being taken to support programming at the country level, as a joint effort with six to eight governments each year. At the same time, procedures will be established in 1985 to improve regional and interregional programming.
- (b) Appraisal of project requests: Measures are being taken to ensure more thorough request appraisal, covering both country-specific and technical aspects. The aim is to reduce difficulties in implementation.
- (c) Streamlining of procedures: Administrative procedures will be further streamlined wherever possible in those Sections of the Division of Technical Assistance and Co-operation which deal with the procurement of goods and services. This will involve, inter alia, more extensive use of office automation equipment.

97. The 1984 management study completes a series of major activities which started with a review of programme implementation (made in 1977 by a group of experts) and included the introduction of implementation reports (in 1978 - format revised in 1984), the Board's first technical co-operation policy review (in 1982-83) and the establishment of the Technical Co-operation Evaluation Unit (in 1983). Although these major activities have now been completed, there will be a continuing need for periodic exchanges of information, discussions and reviews to ensure that Agency assistance remains effective and responsive to the needs of its developing Member States.

PART III. EXPLANATORY NOTES TO STATISTICAL
FIGURES, TABLES AND ANNEXES

Figure 1A. Resources available for Agency technical co-operation
programmes: 1978-1984

98. This figure shows all resources made available to the Agency for technical co-operation activities from all funds for the programme years 1978-84.

99. Amounts given in Figure 1A for UNDP resources correspond to total claims against UNDP resources for projects implemented during each calendar year. These amounts are also used in the Agency's Accounts, reflecting UNDP's requirement to report expenditures as the sum of cash disbursements plus unliquidated obligations. UNDP funds for 1981-84 include resources made available by the UNDP-administered United Nations Financing System for Science and Technology for Development and, starting in 1984, those for projects for which the IAEA acts as associated agency.

100. It should be noted that the amounts shown in Figure 1A do not include resources made available for future years.

Figure 1B. Utilization of resources: 1983 and 1984

101. This figure shows, by component and by major field of activity, the distribution of all assistance provided in 1983 and 1984, irrespective of the source of funds.

Figure 1C. Disbursements by programme component: 1975-1984

102. The total assistance provided during the period 1975-1984 is broken down by year and type of input (training, experts and equipment), irrespective of the source of funds.

Figure 2A. Technical co-operation personnel services by field of
activity: 1983 and 1984

103. This table shows, for training course lecturers and project personnel separately, the total numbers and the percentages of man-months provided in each of the Agency's ten major fields of activity.

Figure 2B. Technical co-operation personnel services by region: 1984

104. A graphic presentation is given of (i) the origin of technical co-operation field personnel (ii) their destination and (iii) the time spent in the field, grouped by geographic region.

Figure 3A. Distribution of equipment disbursements by field of activity: 1983 and 1984

105. This figure shows the total amount of equipment provided in the ten major fields of activity and the corresponding share of the total.

Figure 3B. Distribution of equipment disbursements by region: 1984

106. Total disbursements for equipment, grouped by origin and recipient regions, are shown in this figure; individual recipient countries are shown in Table 7. "Local payments" include customs, storage and internal transport charges in cases where these were not paid by recipient countries on equipment received.

Figure 4A. Distribution of trainees by field of activity: 1983 and 1984

107. Training course participants and fellowship holders are shown separately in this table, along with the total number and the percentage of man-months of training provided in the Agency's major fields of activity.

Figure 4B. Summary data on training programmes: 1984

108. This graphic presentation shows where trainees studied, where they came from and how much training was received by their home regions. Information on the training provided to nationals of individual recipient countries is given in Tables 6B and 7.

Figure 5A. Distribution of disbursements by type and field of activity

109. In this figure, percentages (obtained by averaging over the past five years) are shown for equipment, expert services and training in the ten major fields of activity.

Figure 5B. Technical Assistance and Co-operation Fund disbursements by type of currency and region: 1984

110. This figure, which refers only to the Technical Assistance and Co-operation Fund, gives total 1984 disbursements broken down by region and for convertible and non-convertible currencies.

Figure 5C. Distribution of technical co-operation inputs by field and region: 1984

111. The pie charts indicate the relative shares of each field per region, and the table below the figure gives actual amounts.

Figure 5D. Distribution of technical co-operation disbursements by source and region: 1984

112. In this graphic presentation, disbursements from the Technical Assistance and Co-operation Fund, extrabudgetary funds, assistance in kind and from UNDP funds are shown for each region, as are total disbursements from all funds by region.

Figure 6. Utilization of the Technical Assistance and Co-operation Fund

113. The bar chart shows, over a ten-year period, the total resources available to the Technical Assistance and Co-operation Fund year by year - each year including the unobligated and unspent funds of prior years - as well as the disbursements and obligations incurred against these resources as at 31 December of each year. Obligations incurred against future years for approved multi-year projects are shown separately, reflecting the status at the end of 1984.

114. The graph below it shows, in per cent, the unobligated balance, unliquidated obligations and disbursements for the same ten-year period.

Table 1. Available resources: 1975-1984

115. This table is directly related to Figure 1A, but shows resources over a ten-year period. The Technical Assistance and Co-operation Fund is broken down by its various components. Total Agency resources (Technical Assistance and Co-operation Fund, extrabudgetary funds and assistance in kind) are shown separately from UNDP resources.

Table 2. Technical Assistance and Co-operation Fund: 1975-1984

116. The ten-year development of the target, of the amounts pledged and of the funds actually made available are shown (see Annex IV for contributions made by Member States to the Technical Assistance and Co-operation Fund for 1984). It should be noted that, in this table, voluntary contributions are shown not by the year in which they became available but for the programme year for which they are pledged. The graphic presentation following the table shows, on a logarithmic scale, actual contributions to the Technical Assistance and Co-operation Fund from 1958 to 1984. For 1985, the actual target is shown. The Indicative Planning Figure is given for 1986.

Table 3A. Project personnel by place of origin: 1984

117. This table shows the number of individuals, both international and national, who undertook technical co-operation assignments during 1984. Information on the number of assignments is also provided.

Table 3B. Trainees in the field by place of study: 1984

118. A breakdown is given for trainees (fellows, training course participants and scientific visitors) based on the place of study and the source of funds.

Table 4. Distribution of technical co-operation disbursements by type: 1980-1984

119. This financial table shows technical assistance disbursements from all funds during the last five years, broken down by programme component. It is the only table that shows (in column 10) the balance for assistance in kind. This balance represents the estimated value of man-months of training beyond the end of 1984 for fellows who had already started their studies in 1984. "Miscellaneous" refers to disbursements in all components for telex charges, health insurance, copying fees and for other minor items or services. In earlier years, such amounts were pro-rated over major programme components. Amounts appearing in previous reports under the "Inter-country projects" heading have, in the present report, been allocated to their respective components.

Table 5. Extrabudgetary funds for technical co-operation activities by donor as at 31 December 1984

120. This table shows the status of all extrabudgetary funds, including the monies received, their utilization and the balance remaining for further implementation for each donor fund.

Table 6A. Technical co-operation personnel services: 1984

121. A list is given of recipient countries showing the number of assignments undertaken and man-months provided to each country from Agency and UNDP resources. Persons not serving on country projects are shown under intercountry projects and training courses.

Table 6B. Recipients of training abroad: 1984

122. The list shows, by recipient country, the number of trainees and the total duration of their studies.

Table 7. Financial summary: 1984

123. This major table shows, by type of assistance and by source, the total technical assistance furnished to each recipient country as well as to intercountry projects and training courses. In previous years, sub-contract disbursements were small and therefore appeared under the headings of the three major programme components. As this is no longer the case, a column has been added showing sub-contract amounts.

Table 8. Financial summary: 1958-1984

124. A summary is given of all assistance provided since the beginning of the Agency's technical co-operation activities, in 1958. Sub-contract amounts (for 1984) appear under a separate heading for the first time.

Annex I. Utilization of extrabudgetary and in-kind contributions

125. Related to Table 5, this Annex shows, by donor and by type, the technical assistance disbursements made during 1984 utilizing extrabudgetary resources and, separately, contributions in kind. Sub-contracts now appear under a separate heading.

Annex II. Training courses and study tours: 1984

126. All courses organized by the Agency in 1984 are listed along with the numbers of participants and the amounts obligated. This is the only table in which local participants and participants not financed from training course resources are shown.

Annex III. Reports submitted to recipient-country governments

127. Technical co-operation project reports produced in 1984 are listed by country, with an indication of their distribution status. Of the 266 reports prepared in 1984, 144 were issued as published documents and 122 as informal mission synopses.

Annex IV. Voluntary contributions pledged and paid to the Technical Assistance and Co-operation Fund for 1984

128. Data on voluntary contributions by Member States to the Technical Assistance and Co-operation Fund are given in this table. Figures reflect the status as at 31 December 1984.

Annex V. Cost-free fellowships offered and awarded: 1984

129. Information is made available in this table on the number of cost-free fellowships offered by Member States and the number of awards.

Annex VI. Projects under implementation for UNDP

130. This table includes two projects being implemented for the United Nations Financing System for Science and Technology for Development.

Annex VII. Projects completed or cancelled during 1984

131. Part A shows projects completed during the year, along with the years of approval and the assistance provided. Part B shows cancelled projects.

Annex VIII. Footnote-a/ projects made operational or extended during 1984

132. These projects are shown with the source of the funds that made upgrading to operational status or extension possible.

Annex IX. Approvals against the Reserve Fund in 1984

133. Information is provided on Reserve Fund approvals for new and existing projects.

Annex X. Changes to approved projects

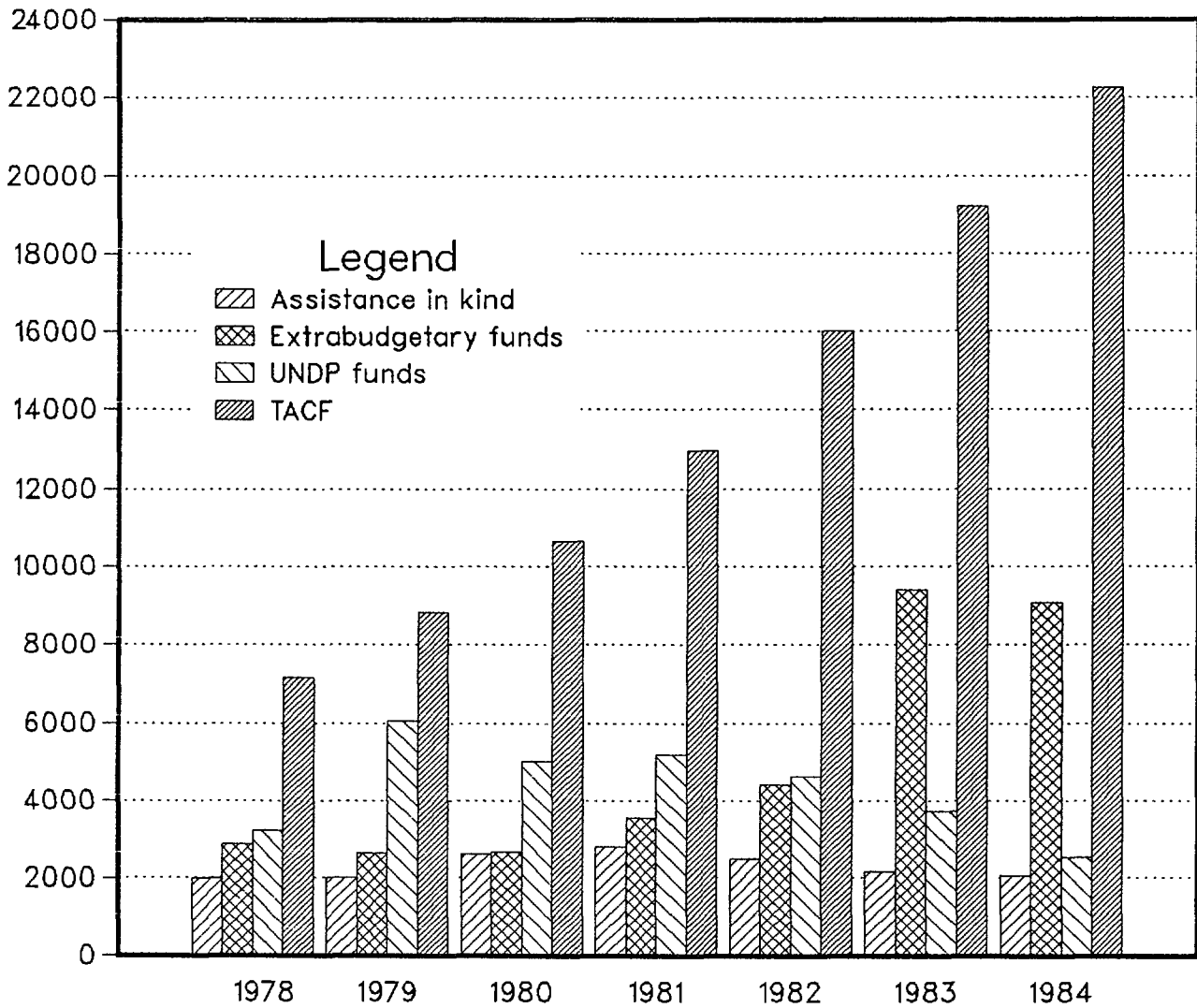
134. The Secretariat is obliged to furnish information on changes to approved projects under the provisions of the Revised Guiding Principles. While projects may undergo more than one change in the course of a year, the list shows only net changes.

Annex XI. Projects rephased during 1984

135. As a result of dynamic programming, which was approved as part of the Board's 1983 policy review, it is possible for the Secretariat to reallocate to future years project funds originally intended for use in the current year. This mechanism, known as "rephasing", may be invoked in cases where project requirements differ from those originally foreseen so as to keep project plans realistic. The funds released as a result of rephasing are used as additional inputs to other projects and for the upgrading or extension of footnote-a/ projects. The Annex shows only net changes to projects rephased in 1984.

FIGURE 1A

RESOURCES AVAILABLE FOR
AGENCY TECHNICAL CO-OPERATION PROGRAMMES, 1978 - 1984
(in thousands of dollars)



TACF	7 122	8 802	10 632	12 956	16 003	19 241	22 232
Extra- budgetary funds	2 851	2 635	2 669	3 531	4 413	9 394	9 062
Assistance in kind	1 987	2 015	2 628	2 788	2 493	2 172	2 066
UNDP	3 205	6 066	5 018	5 186	4 631	3 706	2 541
TOTAL	15 165	19 518	20 947	24 461	27 540	34 513	35 901

FIGURE 1B
UTILIZATION OF RESOURCES: 1983 and 1984
(in thousands of dollars)

Field of activity	Year	Experts	Equipment	Fellowships	Share of total programme		
		\$	\$	\$	\$	%	
General atomic energy development	1983	642.9	1 123.9	383.9	2 150.7	8.1	
	1984	857.6	1 570.0	342.9	2 770.5	8.5	
Nuclear physics	1983	381.4	1 878.0	346.2	2 605.6	9.8	
	1984	486.1	2 215.8	720.2	3 422.1	10.5	
Nuclear chemistry	1983	84.7	608.2	218.8	911.7	3.4	
	1984	114.5	271.8	234.2	620.5	1.9	
Prospecting, mining and processing of nuclear materials	1983	580.7	857.0	238.4	1 676.0	6.3	
	1984	698.4	432.5	253.2	1 384.1	4.2	
Nuclear engineering and technology	1983	763.0	2 470.3	1 143.9	4 377.3	16.5	
	1984	1 106.3	2 405.9	1 375.6	4 887.8	15.0	
Application of isotopes and radiation in	Agriculture	1983	1 609.5	2 159.9	1 213.0	4 982.4	18.7
		1984	2 038.9	4 409.5	1 456.4	7 904.8	24.3
	Medicine	1983	412.6	1 016.6	821.6	2 250.8	8.5
		1984	460.1	1 370.9	906.1	2 737.1	8.4
	Biology	1983	20.0	111.1	171.4	302.5	1.1
		1984	31.0	38.2	87.3	156.5	0.5
	Industry and Hydrology	1983	893.3	2 824.6	435.8	4 153.7	15.6
		1984	889.4	2 396.3	518.6	3 804.3	11.7
Safety in nuclear energy	1983	775.5	1 696.7	732.5	3 204.7	12.0	
	1984	1 303.6	2 111.2	1 360.2	4 775.0	14.6	
Miscellaneous ^{a/}	1984	32.4	54.3	32.1	118.8	0.4	
Total	1983	6 163.6	14 746.3	5 705.5	26 615.4	100.0	
	1984	8 018.3	17 276.4	7 286.8	32 581.5	100.0	

^{a/} Miscellaneous amounts for 1983 were pro-rated by field of activity and programme component.

FIGURE 1C
DISBURSEMENTS
BY PROGRAMME COMPONENT: 1975-1984
(in thousands of dollars)

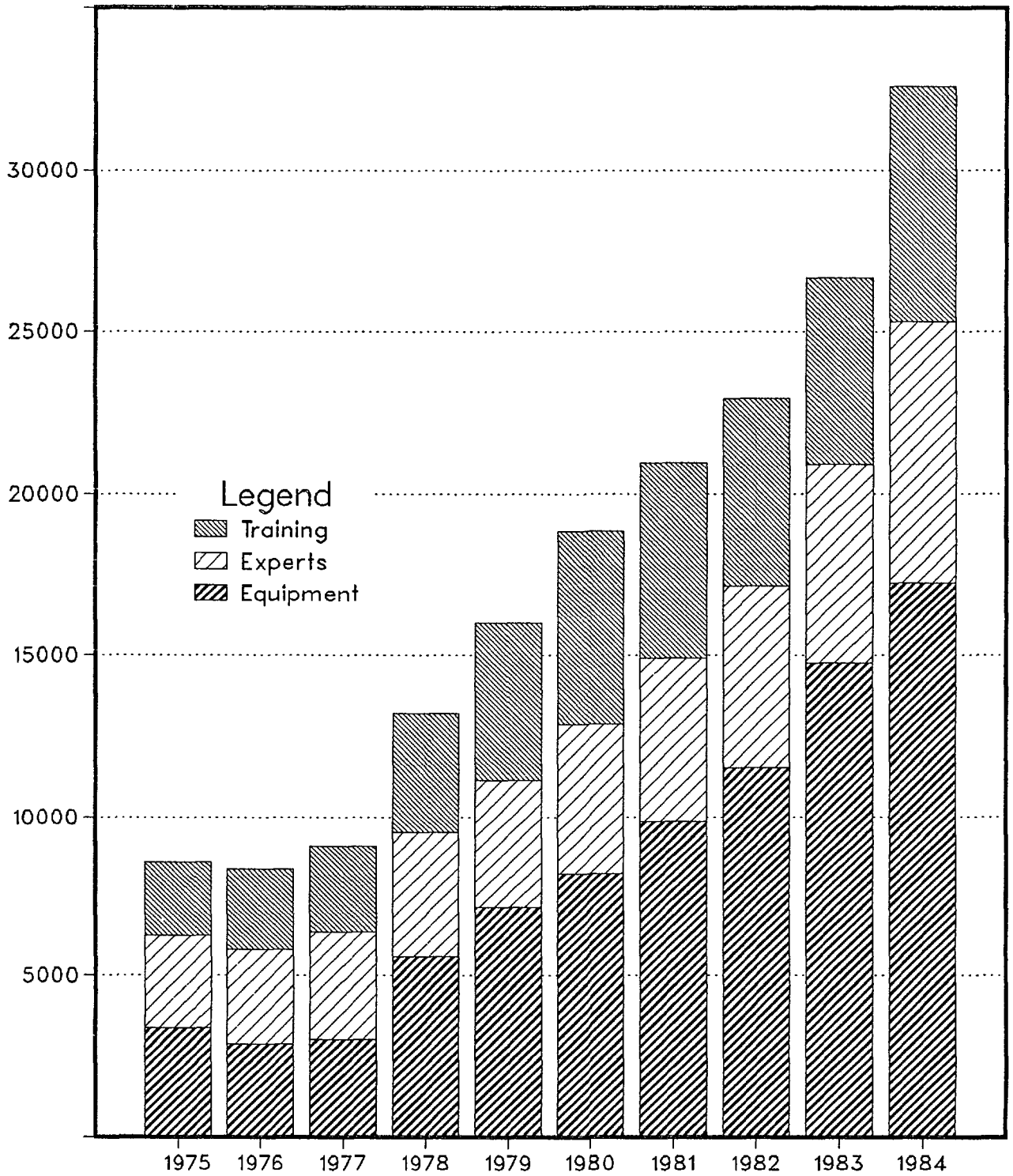


FIGURE 2A

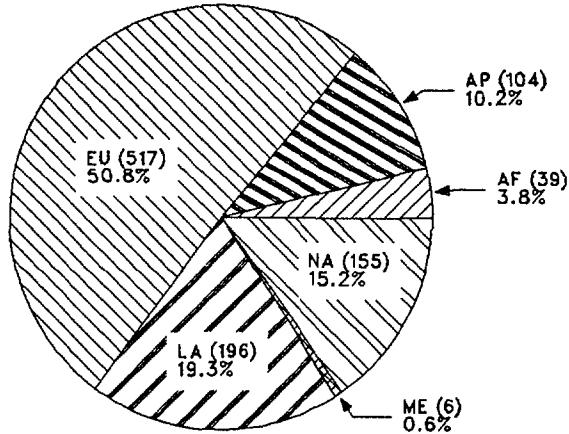
TECHNICAL CO-OPERATION PERSONNEL SERVICES BY FIELD OF ACTIVITY: 1983 AND 1984

Year	Number of assignments			Field of activity	Number of man-months	Share of total (%)
	Project personnel	Training course lecturers	Total			
1983	64	71	135	General atomic energy development	86	8
1984	162	26	188		193	12
1983	73	9	82	Nuclear physics	67	6
1984	73	34	107		89	6
1983	19	8	27	Nuclear chemistry	17	2
1984	18	-	18		20	1
1983	40	10	50	Prospecting, mining and processing of nuclear materials	88	9
1984	61	5	66		124	8
1983	123	38	161	Nuclear engineering and technology	108	11
1984	157	47	204		160	10
1983	199	57	256	Application of isotopes and radiation in agriculture	359	35
1984	242	34	276		549	35
1983	65	8	73	Application of isotopes and radiation in medicine	66	6
1984	80	15	95		75	5
1983	5	-	5	Application of isotopes and radiation in biology	2	1
1984	4	-	4		4	1
1983	151	23	174	Application of isotopes and radiation in industry and hydrology	106	10
1984	225	37	262		132	9
1983	110	26	136	Safety in nuclear energy	121	12
1984	262	48	310		204	13

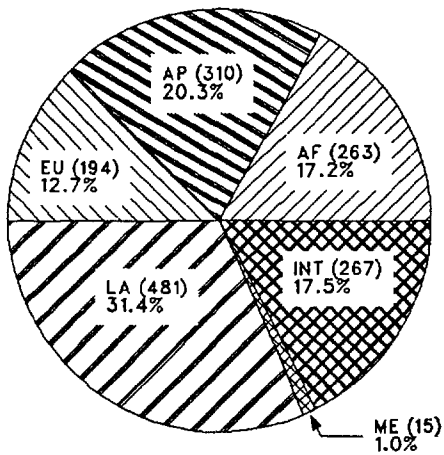
FIGURE 2B

TECHNICAL CO-OPERATION PERSONNEL SERVICES BY REGION: 1984

Where they came from:
(1017 persons)



Where they went:
(1530 assignments)



Abbreviations	
AF	= Africa
AP	= Asia and the Pacific
EU	= Europe
LA	= Latin America
ME	= Middle East
NA	= North America
INT	= Interregional Projects and Training Courses

For how long:
(1550 man-months)

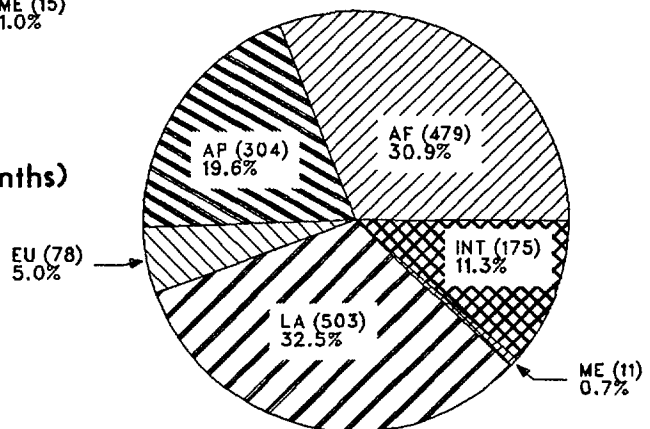


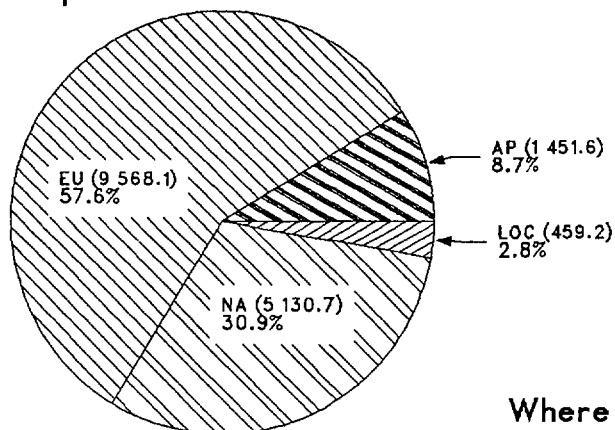
FIGURE 3A
DISTRIBUTION OF EQUIPMENT DISBURSEMENTS BY FIELD OF ACTIVITY: 1983 AND 1984
(in thousands of dollars)

Field of activity	Year	\$	Share of total (%)
General atomic energy development	1983	1 123.9	7.6
	1984	1 570.0	9.1
Nuclear physics	1983	1 878.0	12.7
	1984	2 215.8	12.8
Nuclear chemistry	1983	608.2	4.1
	1984	271.8	1.6
Prospecting, mining and processing of nuclear materials	1983	857.0	5.8
	1984	432.5	2.5
Nuclear engineering and technology	1983	2 470.3	16.8
	1984	2 405.9	13.9
Application of isotopes and radiation in	Agriculture	1983	2 159.9
		1984	4 409.5
	Medicine	1983	1 016.6
		1984	1 370.9
	Biology	1983	111.1
		1984	38.2
	Industry and Hydrology	1983	2 824.6
		1984	2 396.3
Safety in nuclear energy	1983	1 696.7	
	1984	2 111.2	
Miscellaneous	1984	54.3	0.3

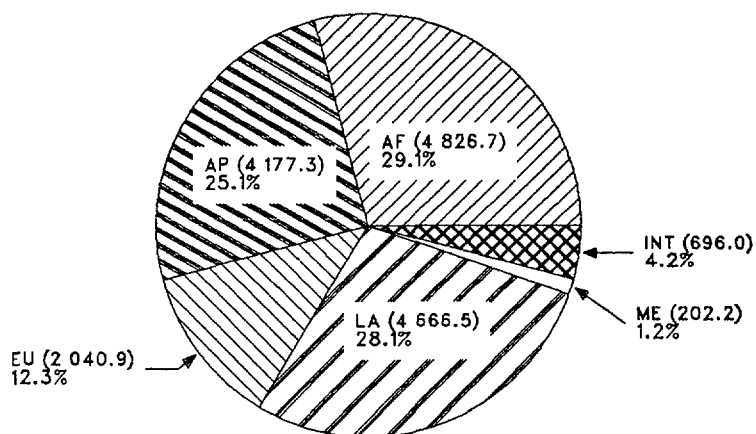
FIGURE 3B

DISTRIBUTION OF EQUIPMENT DISBURSEMENTS BY REGION: 1984
(in thousands of dollars)

Where it came from:
(16 609.6 purchased)



Where it went:
(16 609.6 delivered)



Abbreviations

- AF = Africa
- AP = Asia and the Pacific
- EU = Europe
- LA = Latin America
- ME = Middle East
- NA = North America
- INT = Interregional Projects and Training Courses
- LOC = Local Payments

Where equipment was purchased:

Australia	83.2	Germany, F. R.	1 375.0	Portugal	3.5
Austria	1 534.0	Hong Kong	17.8	Singapore	60.8
Belgium	8.6	Hungary	135.7	Spain	3.7
Bulgaria	53.3	India	121.4	Sweden	119.8
Canada	693.5	Ireland	1.8	Switzerland	264.2
Czechoslovakia	90.4	Italy	712.7	USSR	2 389.8
Denmark	54.2	Japan	1 118.8	UK	1 385.6
Finland	230.8	Malaysia	49.6	USA	4 437.2
France	434.1	Netherlands	61.9	Yugoslavia	19.3
German D. R.	499.8	Poland	189.9		

FIGURE 4A

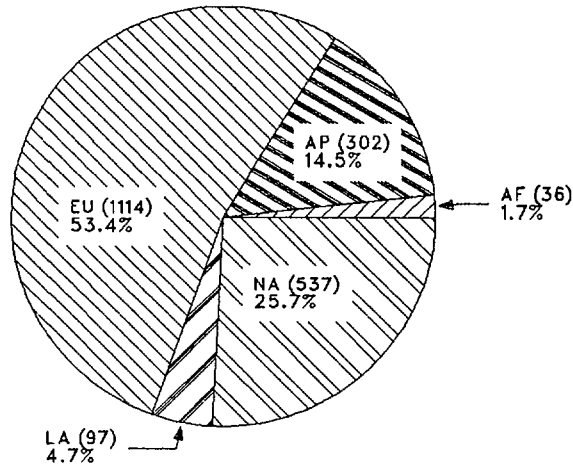
DISTRIBUTION OF TRAINEES BY FIELD OF ACTIVITY: 1983 AND 1984

Year	Number of trainees			Field of activity	Number of man-months	Share of total (%)
	Training courses	Fellowships	Total			
1983	143	18	161	General atomic energy development	257	6
1984	55	32	87		144	3
1983	27	69	96	Nuclear physics	269	7
1984	89	83	172		460	10
1983	21	36	57	Nuclear chemistry	199	5
1984	-	42	42		143	3
1983	38	38	76	Prospecting, mining and processing of nuclear materials	165	4
1984	30	42	72		138	3
1983	106	146	252	Nuclear engineering and technology	870	22
1984	162	159	321		968	21
1983	109	142	251	Application of isotopes and radiation in agriculture	762	19
1984	89	168	257		884	19
1983	54	87	141	Application of isotopes and radiation in medicine	502	12
1984	71	96	167		602	13
1983	-	24	24	Application of isotopes and radiation in biology	112	3
1984	-	18	18		70	1
1983	90	39	129	Application of isotopes and radiation in industry and hydrology	278	7
1984	175	42	217		346	7
1983	71	78	149	Safety in nuclear energy	611	15
1984	183	139	322		954	20

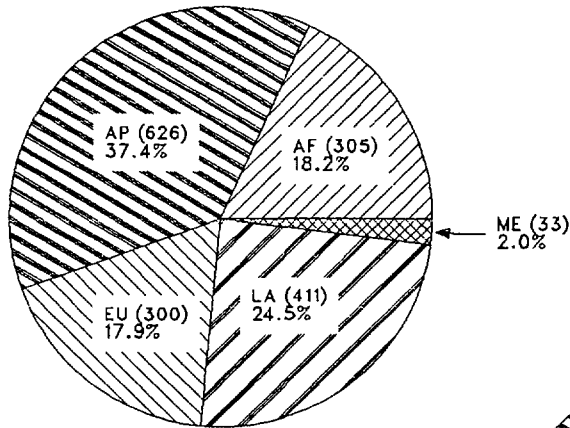
FIGURE 4B

SUMMARY DATA ON TRAINING PROGRAMMES: 1984

Where training was given:
(2086 places of study)



Where trainees came from:
(1675 persons)



Abbreviations	
AF	= Africa
AP	= Asia and the Pacific
EU	= Europe
LA	= Latin America
ME	= Middle East
NA	= North America

Amount of training received:
(4709 man-months)

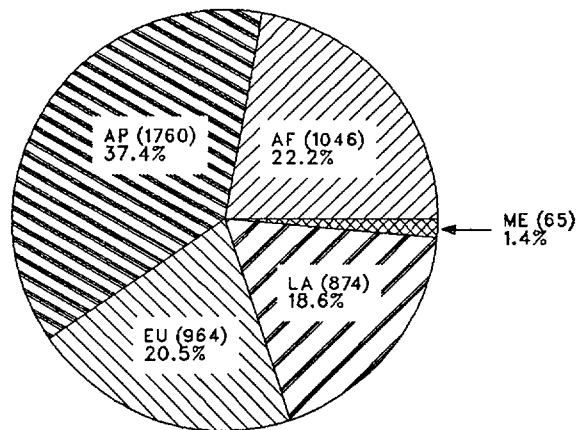


FIGURE 5A

DISTRIBUTION OF DISBURSEMENTS BY TYPE AND FIELD OF ACTIVITY
(averaged over the period 1980-1984)

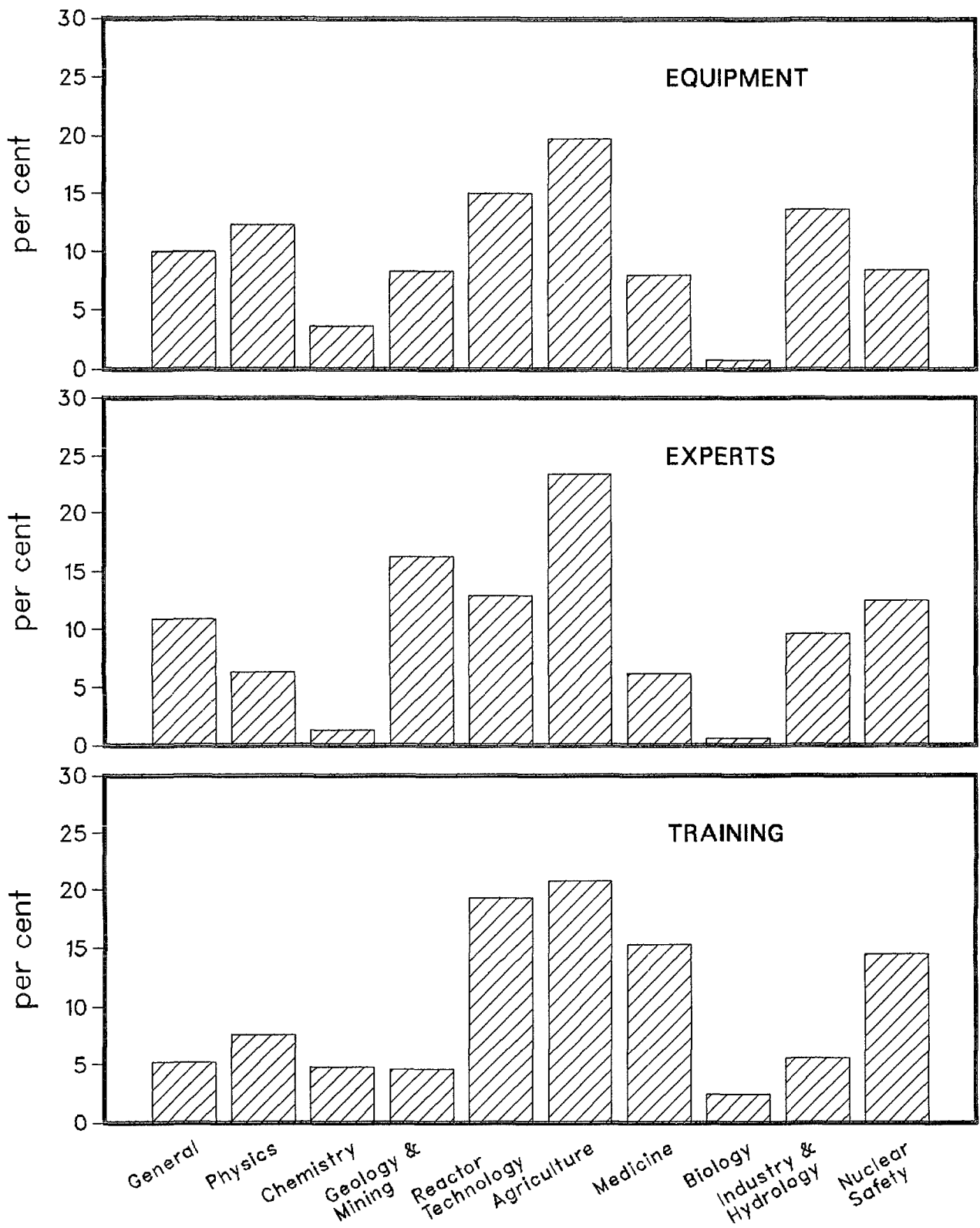
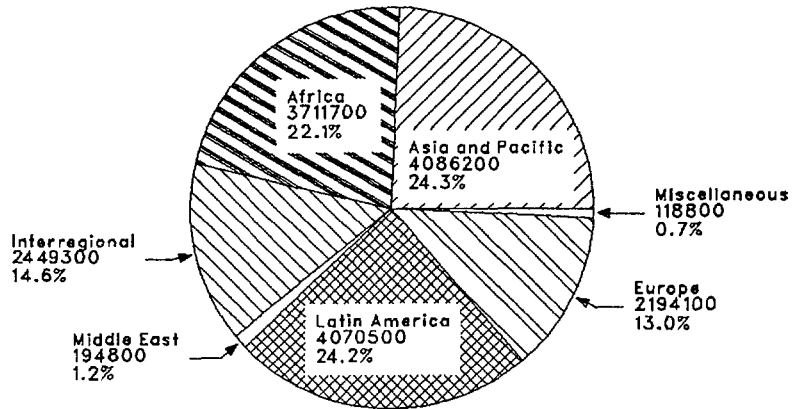


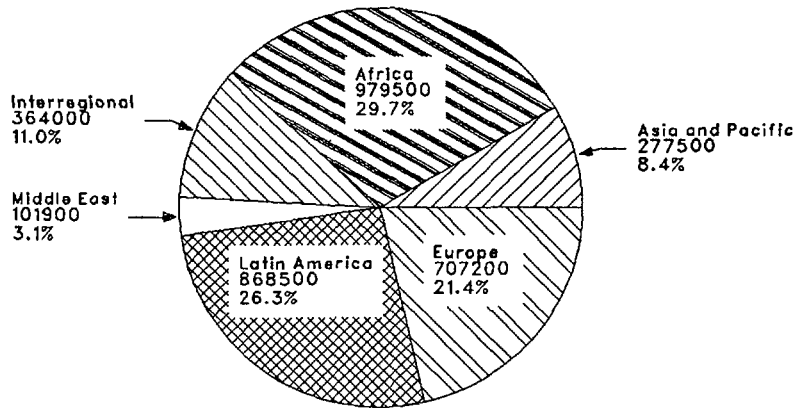
FIGURE 5B

TECHNICAL ASSISTANCE AND CO-OPERATION FUND DISBURSEMENTS
BY TYPE OF CURRENCY AND REGION: 1984

CONVERTIBLE CURRENCY
16 825 400 DOLLARS



NON-CONVERTIBLE CURRENCY
3 298 600 DOLLARS



TOTAL
20 124 000 DOLLARS

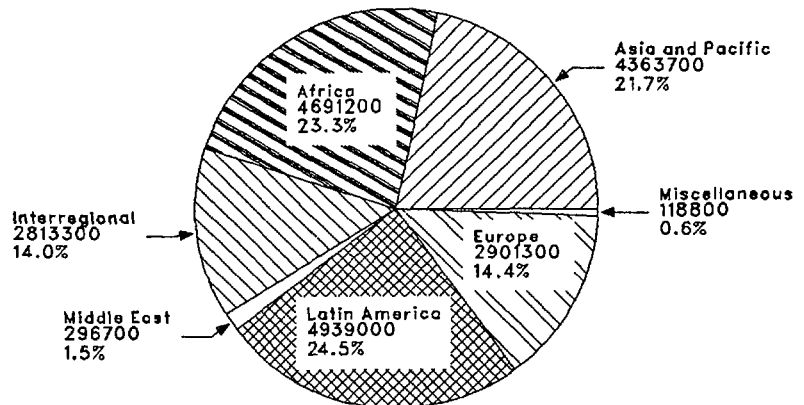
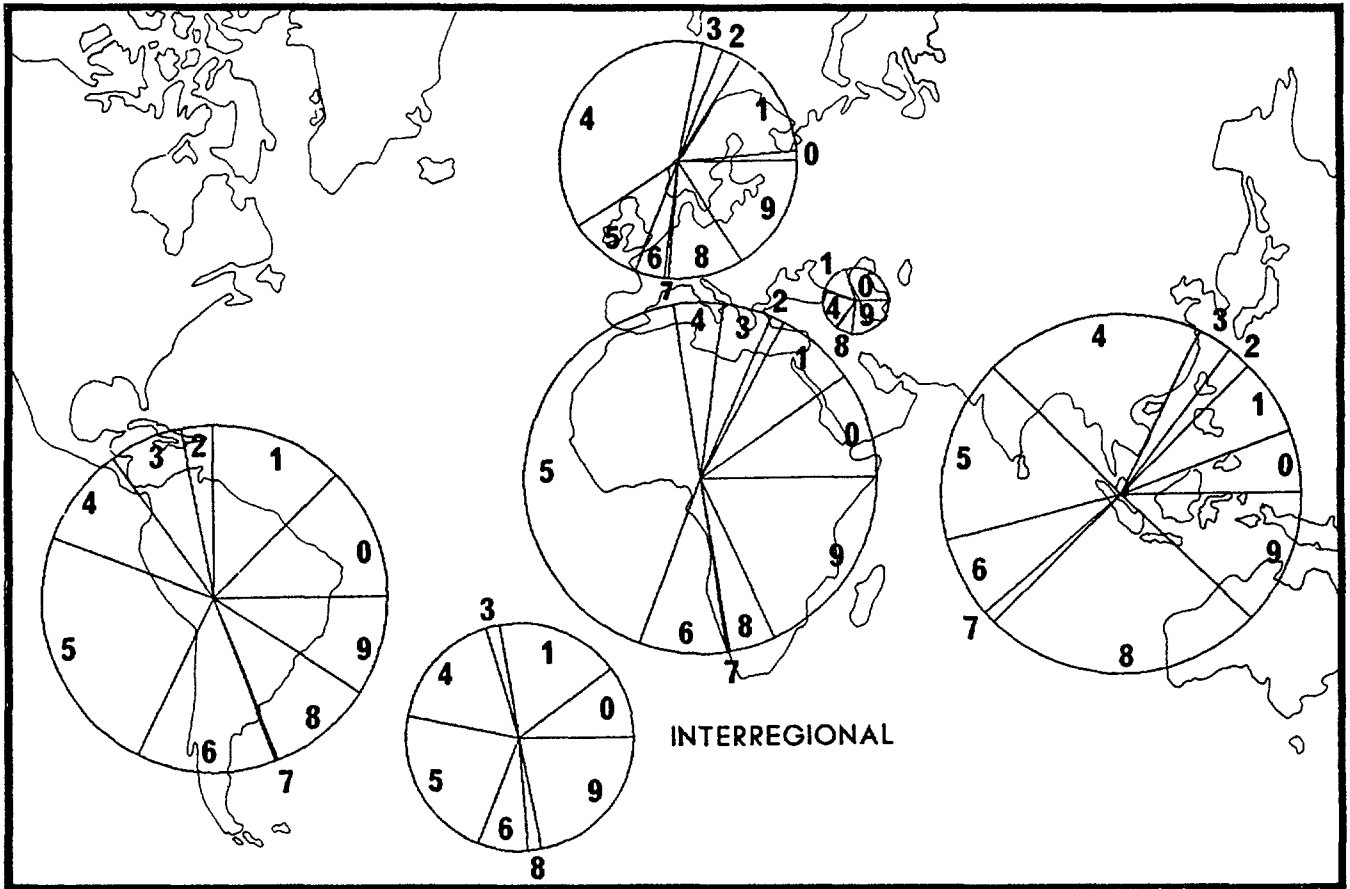


FIGURE 5C

DISTRIBUTION OF TECHNICAL CO-OPERATION INPUTS BY FIELD AND REGION: 1984



SUMMARY

(in thousands of dollars)

Field of activity	Africa \$	Asia and the Pacific \$	Europe \$	Latin America \$	Middle East \$	Inter- regional \$	All regions \$	
0 - General atomic energy development	803.6	485.9	45.5	1 001.7	87.1	346.7	2 770.5	
1 - Nuclear physics	616.2	590.6	554.6	1 004.2	44.4	612.1	3 422.1	
2 - Nuclear chemistry	102.2	184.5	99.8	234.0	-	-	620.5	
3 - Prospecting, mining and processing of nuclear materials	368.3	279.5	106.6	559.1	3.3	67.3	1 384.1	
4 - Nuclear engineering and technology	377.4	1 710.9	1 400.0	747.7	56.8	595.0	4 887.8	
Application of isotopes and radiation in	5 - Agriculture	3 451.2	1 437.1	372.1	1 878.8	2.4	763.2	7 904.8
	6 - Medicine	665.4	628.3	149.8	1 044.6	-	249.0	2 737.1
	7 - Biology	19.9	96.2	22.2	18.2	-	-	156.5
	8 - Industry and Hydrology	348.8	2 199.0	382.7	784.8	22.6	66.4	3 804.3
9 - Safety in nuclear energy	1 509.8	1 066.8	605.9	749.2	80.2	763.1	4 775.0	
Sub-total	8 262.8	8 678.8	3 739.2	8 022.3	296.8	3 462.8	32 462.7	
Miscellaneous	-	-	-	-	-	-	118.8	
GRAND TOTAL	8 262.8	8 678.8	3 739.2	8 022.3	296.8	3 462.8	32 581.5	

FIGURE 5D

DISTRIBUTION OF TECHNICAL CO-OPERATION DISBURSEMENTS
BY SOURCE AND REGION: 1984
(in thousands of dollars)

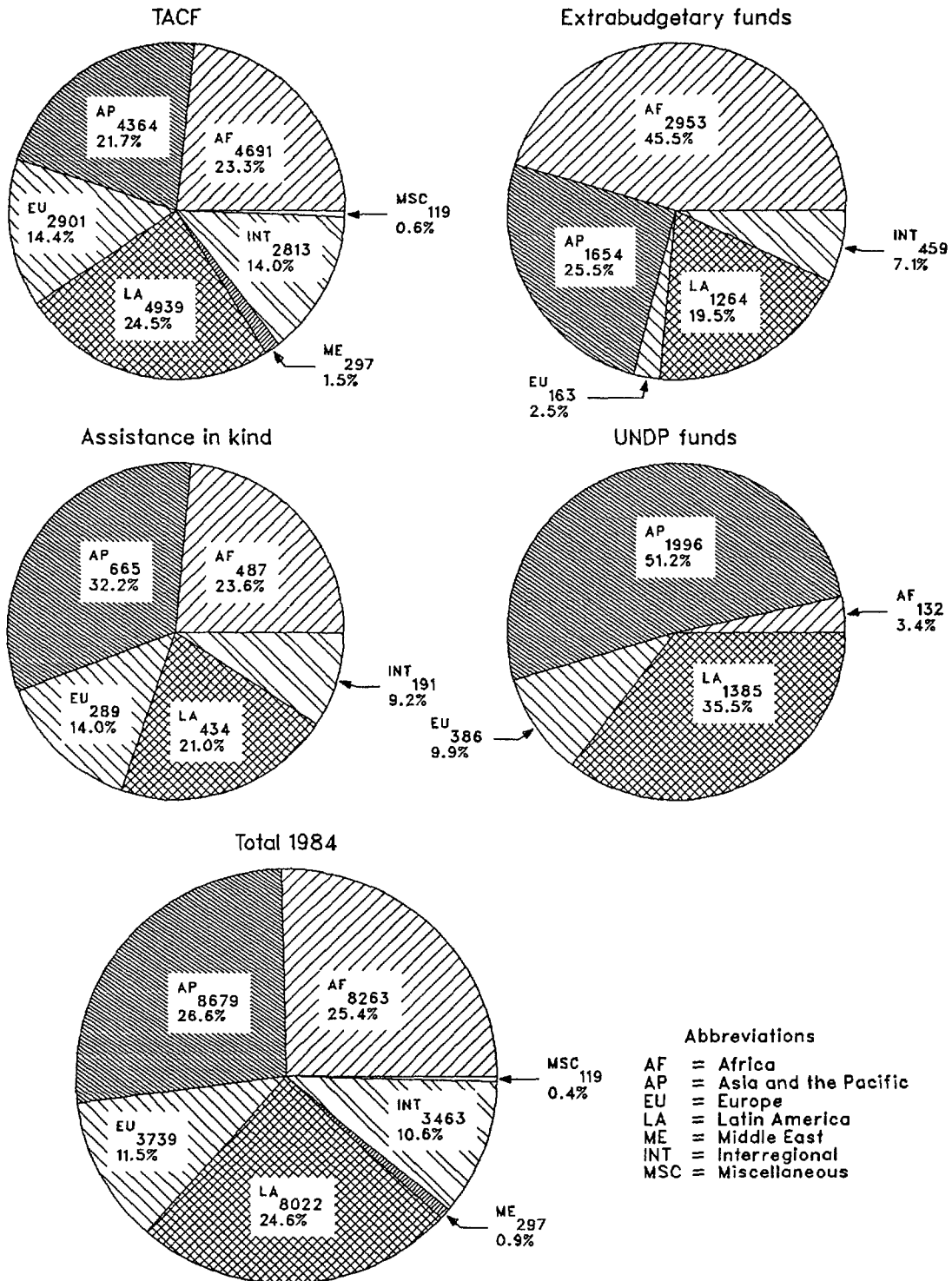


FIGURE 6

UTILIZATION OF THE TECHNICAL ASSISTANCE AND CO-OPERATION FUND
(status at year-end)

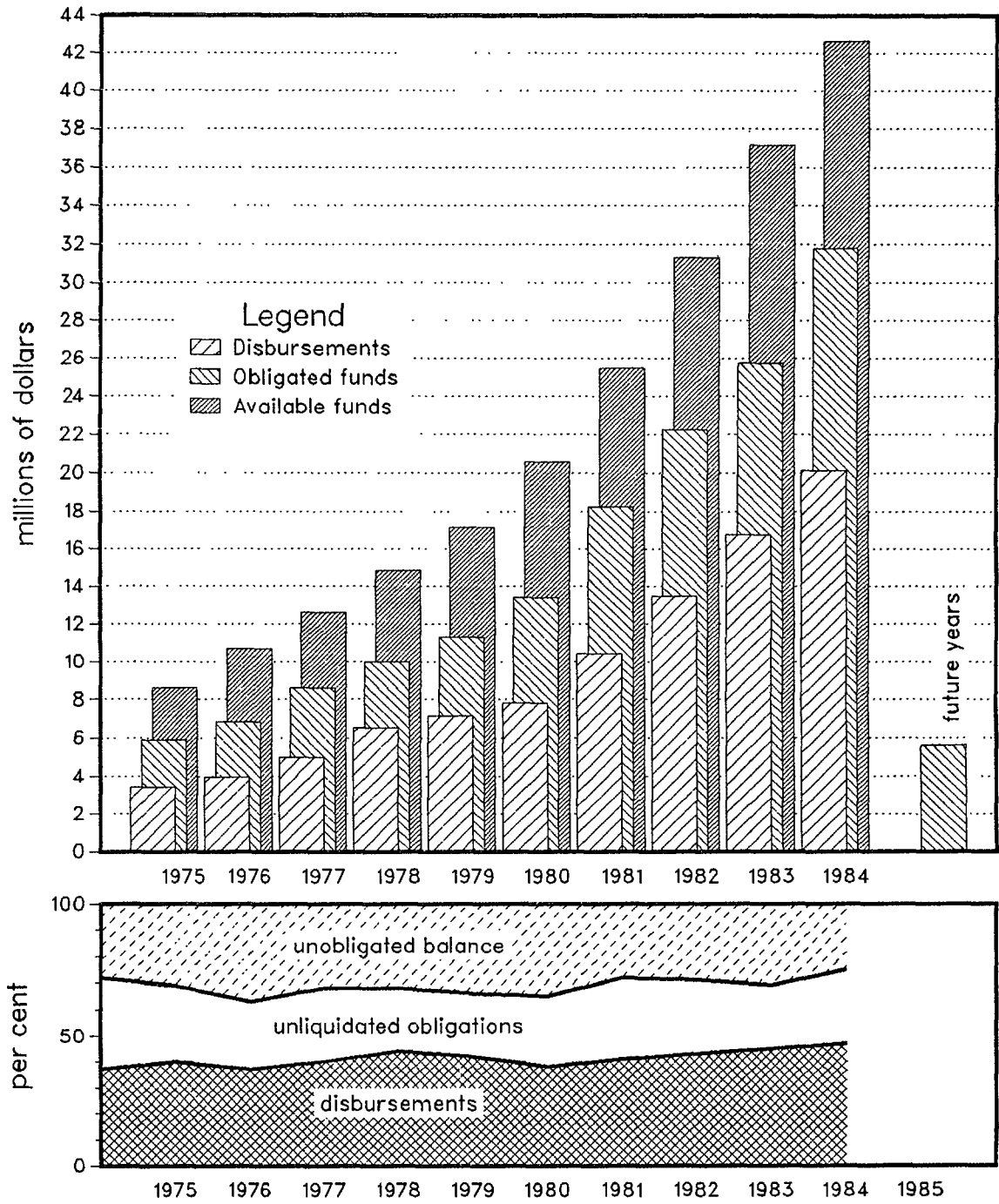


TABLE 1

AVAILABLE RESOURCES: 1975-1984
(in thousands of dollars)

Year	Technical Assistance and Co-operation Fund				Other Agency resources		Agency (1+2+3)	UNDP (5)	GRAND TOTAL (4+5) (6)
	Voluntary contributions		Additional income (1c)	Sub-total (1)	Extrabudgetary funds (2)	Assistance in kind (3)			
	Convertible currency (1a)	Non-convertible currency (1b)							
1975	3 206	1 013	320	4 539	106	942	5 587	3 942	9 529
1976	3 982	1 080	430	5 492	729	1 021	7 242	3 002	10 244
1977	4 307	1 142	513	5 962	2 147	1 284	9 393	2 836	12 229
1978	5 090	1 362	670	7 122	2 851	1 987	11 960	3 205	15 165
1979	6 448	1 614	740	8 802	2 635	2 015	13 452	6 066	19 518
1980	7 977	2 083	572	10 632	2 669	2 628	15 929	5 018	20 947
1981	9 873	2 181	902	12 956	3 531	2 788	19 275	5 186	24 461
1982	12 112	2 789	1 102	16 003	4 413	2 493	22 909	4 631	27 540
1983	14 169	3 447	1 625	19 241	9 394	2 172	30 807	3 706	34 513
1984	17 213	3 524	1 495	22 232	9 062	2 066	33 360	2 541	35 901
1975- 1984	84 377	20 235	8 369	112 981	37 537	19 396	169 914	40 133	210 047

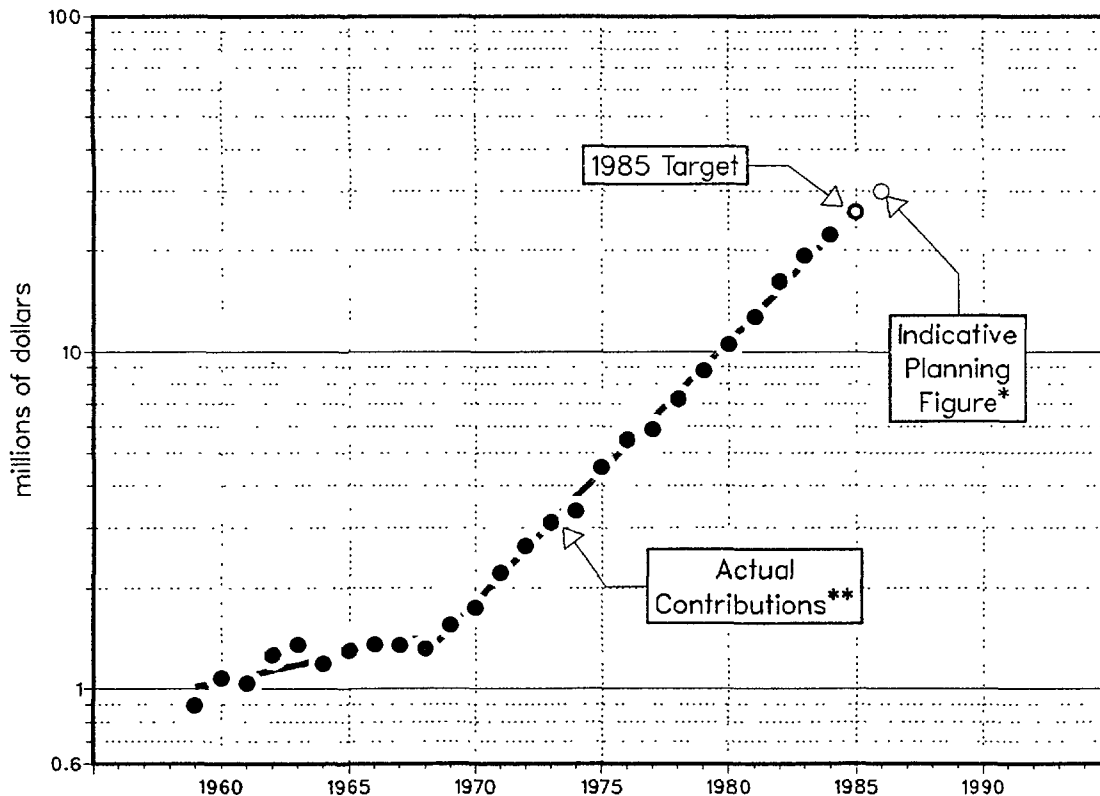
TABLE 2

TECHNICAL ASSISTANCE AND CO-OPERATION FUND: 1975-1984

Programme Year	Target for voluntary contributions to the Technical Assistance and Co-operation Fund	Amount pledged ^{a/}	Amount actually made available for technical co-operation by programme year ^{a/}
1975	4 500 000	4 219 391	4 539 759
1976	5 500 000	5 061 957	5 492 167
1977	6 000 000	5 449 466	5 962 688
1978	7 000 000	6 451 332	7 121 508
1979	8 500 000	8 062 513	8 802 221
1980	10 500 000	10 059 733	10 632 033
1981	13 000 000	12 053 611	12 955 595
1982	16 000 000	14 901 346	16 003 198
1983	19 000 000	17 619 372	19 244 903
1984	22 500 000	20 732 803	22 228 219

^{a/} These amounts include "additional income" over and above the amounts pledged. For a breakdown of additional income in 1984 see para. 31.

Technical Assistance and Co-operation Fund
Voluntary Contributions



* as approved by the Board of Governors

** including Additional Income

TABLE 3A

PROJECT PERSONNEL BY PLACE OF ORIGIN: 1984

Place of origin	Total individuals	Assignments				TOTAL
		Inter-national experts	National experts	Lecturers	Other project personnel	
Algeria	5	5	-	-	-	5
Argentina	39	37	3	5	2	47
Australia	11	8	-	5	1	14
Austria	20	21	-	2	7	30
Bangladesh	3	2	-	1	-	3
Barbados	6	2	5	-	-	7
Belgium	18	13	-	7	-	20
Bolivia	7	4	5	-	-	9
Brazil	29	27	8	3	-	38
Bulgaria	18	28	3	1	-	32
Canada	27	27	-	4	-	31
Chile	7	3	4	2	-	9
Colombia	10	4	6	1	-	11
Costa Rica	4	3	-	1	-	4
Czechoslovakia	7	8	-	2	-	10
Dominican Republic	3	2	1	-	-	3
Denmark	3	3	-	-	-	3
Ecuador	10	9	6	-	-	15
Egypt	21	5	14	-	3	22
Finland	8	8	-	1	-	9
France	47	41	-	15	-	56
German D.R.	5	5	-	1	-	6
Germany, F.R.	63	62	-	10	1	73
Ghana	2	2	-	-	-	2
Guatemala	8	4	4	-	-	8
Guyana	3	2	2	-	-	4
Hungary	31	44	5	6	-	55
India	24	23	-	7	-	30
Iraq	1	-	-	-	1	1
Israel	1	1	-	-	-	1
Italy	20	20	-	5	-	25
Jamaica	7	2	5	1	-	8
Japan	30	25	-	12	-	37
Jordan	2	-	4	-	-	4
Kenya	3	3	-	-	-	3
Korea, R.	3	3	-	-	-	3
Malaysia	5	5	-	1	-	6
Mexico	15	8	1	6	-	15
Morocco	3	3	-	-	-	3
Netherlands	5	11	-	1	-	12
New Zealand	1	1	-	-	-	1
Norway	1	3	-	-	-	3
Pakistan	3	3	-	-	-	3
Panama	1	1	-	-	-	1
Paraguay	1	1	-	-	-	1
Peru	26	10	9	5	8	32
Philippines	13	2	10	1	-	13
Poland	8	7	-	2	1	10
Portugal	2	2	-	1	-	3
Romania	2	2	-	-	-	2

Place of origin	Total individuals	Assignments				TOTAL
		Inter-national experts	National experts	Lecturers	Other project personnel	
Sao Tome and Principe	1	-	-	1	-	1
Singapore	2	-	-	2	-	2
Spain	19	22	-	5	-	27
Sri Lanka	3	7	-	2	-	9
Sudan	1	1	-	-	-	1
Sweden	15	13	-	6	-	19
Switzerland	7	8	-	2	-	10
Syrian A.R.	1	-	1	-	-	1
Taiwan	1	11	-	-	-	11
Thailand	4	4	-	2	-	6
Tunisia	1	1	-	-	-	1
Turkey	10	11	9	-	-	20
USSR	2	2	-	-	-	2
UK	47	63	-	6	-	69
USA	126	138	-	10	1	149
Uruguay	11	7	6	1	-	14
Venezuela	7	4	5	-	-	9
Yemen	1	1	-	-	-	1
Yugoslavia	24	35	5	6	-	46
Zaire	1	-	-	-	1	1
Zambia	1	1	-	-	-	1
IAEA	131	293	-	85	-	378
Other international organizations	9	-	-	9	-	9
TOTAL	1 017	1 137	121	246	26	1 530

TABLE 3B

TRAINEES IN THE FIELD BY PLACE OF STUDY: 1984

Place of study	UNDP		Agency			TOTAL
	Fellows	Training course participants	Fellows	Training course participants	Scientific visitors	
Argentina	-	-	11	16	5	32
Australia	-	-	26	7	1	34
Austria	-	-	14	-	4	18
Belgium	3	-	14	21	2	40
Bolivia	4	-	-	-	-	4
Brazil	1	-	13	20	7	41
Burkina Faso	-	-	-	-	1	1
Canada	3	-	20	28	9	60
Chile	-	-	-	-	1	1
Colombia	-	7	7	-	-	14
Czechoslovakia	-	-	9	47	-	56
Denmark	3	-	4	-	9	16
Ecuador	-	-	-	16	14	30
El Salvador	-	-	8	-	-	8
Finland	-	-	6	-	2	8
France	1	-	54	98	12	165
German D.R.	1	-	6	68	3	78
Germany, F.R.	1	-	42	80	17	140
Greece	-	-	2	-	-	2
Guatemala	-	-	-	-	1	1
Hungary	-	-	18	62	5	85
India	-	30	9	12	3	54
Indonesia	-	19	1	-	-	20
Israel	-	-	1	-	-	1
Italy	5	-	13	-	6	24
Japan	-	19	7	27	5	58
Kenya	-	-	3	-	-	3
Korea, R.	-	13	-	-	1	14
Malaysia	-	-	-	15	-	15
Mexico	-	-	11	26	5	42
Netherlands	1	-	18	-	13	32
New Zealand	-	-	1	-	-	1
Niger	-	-	-	-	1	1
Nigeria	-	-	2	-	1	3
Norway	1	-	-	-	-	1
Peru	4	10	6	14	7	41
Philippines	1	8	1	11	-	21
Poland	1	-	5	-	-	6
Romania	-	-	1	-	1	2
Senegal	-	-	1	-	-	1
Singapore	-	9	5	36	-	50
Spain	-	-	9	16	4	29
Sri Lanka	-	-	6	-	-	6
Sudan	-	-	-	15	-	15
Sweden	1	-	9	-	5	15
Switzerland	-	-	1	-	7	8
Thailand	-	18	-	11	-	29
Turkey	-	-	1	20	-	21
USSR	-	-	5	74	1	80
UK	2	-	90	15	19	126
U.R. Tanzania	-	-	-	12	-	12
USA	11	-	155	136	38	340
Uruguay	2	-	17	-	-	19
Venezuela	-	-	1	-	-	1
Yugoslavia	1	-	6	17	2	26
IAEA	1	-	57	51	22	131
Other international organizations	-	-	4	-	-	4
TOTAL	48	133	700	971	234	2 086

a/ The difference between the number of trainees (1675) and the number of places of study (2086) is due to the fact that a number of fellows, training course participants and scientific visitors went to more than one country/place.

TABLE 4

DISTRIBUTION OF TECHNICAL CO-OPERATION DISBURSEMENTS BY TYPE: 1980-1984
(in thousands of dollars)

Year and source	Experts		Equipment		Fellowships		Scientific visits		Training courses		Sub-contracts		Miscellaneous		TOTAL		Assistance outstanding as at 31 December 1984		TOTAL (8+9+10)
																	Unliquidated obligations	In-kind balance	
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)				
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	\$	
1980																			
UNDP funds	1 637.6	27.8	2 998.6	50.9	608.2	10.3	-	-	143.7	2.4	413.9	7.0	91.4	1.6	5 893.4	100.0	-	-	5 893.4
Agency funds	2 005.6	25.7	3 061.5	39.2	1 295.8	16.6	103.1	1.3	1 327.9	17.0	-	-	19.8	0.2	7 813.7	100.0	-	-	7 813.7
Extrabudgetary funds	479.0	19.2	1 419.7	56.8	416.3	16.6	14.3	0.6	170.2	6.8	-	-	-	-	2 499.5	100.0	-	-	2 499.5
Assistance in kind	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	-	-	2 627.7
TOTAL	4 210.2	22.4	7 539.4	40.0	4 678.9	24.8	119.7	0.6	1 761.0	9.3	413.9	2.3	111.2	0.6	18 834.3	100.0	-	-	18 834.3
1981																			
UNDP funds	1 692.7	33.9	2 689.4	53.9	340.8	6.8	-	-	90.5	1.8	88.9	1.8	91.4	1.8	4 993.7	100.0	-	-	4 993.7
Agency funds	2 215.3	21.2	5 003.6	48.0	1 214.0	11.6	154.0	1.5	1 813.9	17.4	-	-	35.7	0.3	10 436.5	100.0	-	-	10 436.5
Extrabudgetary funds	517.5	18.9	1 637.6	59.7	236.9	8.6	4.0	0.2	326.9	11.9	19.2	0.7	-	-	2 742.1	100.0	-	-	2 742.1
Assistance in kind	132.4	4.8	-	-	2 551.5	91.5	-	-	104.1	3.7	-	-	-	-	2 788.0	100.0	-	-	2 788.0
TOTAL	4 557.9	21.8	9 330.6	44.5	4 343.2	20.7	158.0	0.8	2 335.4	11.1	108.1	0.5	127.1	0.6	20 960.3	100.0	-	-	20 960.3
1982																			
UNDP funds	1 202.2	31.4	1 751.3	45.8	196.8	5.1	-	-	418.5	10.9	163.0	4.3	94.8	2.5	3 826.6	100.0	-	-	3 826.6
Agency funds	2 868.6	21.3	7 057.6	52.5	1 533.4	11.4	112.4	0.8	1 810.9	13.5	16.3	0.1	51.6	0.4	13 450.8	100.0	-	-	13 450.8
Extrabudgetary funds	532.0	16.4	1 988.9	61.5	177.6	5.5	6.4	0.2	335.1	10.4	195.3	6.09	-	-	3 235.3	100.0	-	-	3 235.3
Assistance in kind	95.1	3.8	20.0	0.8	2 110.8	84.7	-	-	267.1	10.7	-	-	-	-	2 493.0	100.0	-	-	2 493.0
TOTAL	4 697.9	20.4	10 817.8	47.0	4 018.6	17.5	118.8	0.5	2 831.6	12.3	374.6	1.6	146.4	0.7	23 005.7	100.0	-	-	23 005.7
1983																			
UNDP funds	882.3	20.6	1 785.4	41.7	217.2	5.1	-	-	136.8	3.2	1 167.2	27.2	95.3	2.2	4 284.2	100.0	-	-	4 284.2
Agency funds	3 186.9	19.0	9 438.4	56.4	2 139.7	12.8	149.9	0.9	1 693.5	10.1	62.7	0.4	65.0	0.4	16 736.1	100.0	-	-	16 736.1
Extrabudgetary funds	1 232.9	36.0	1 710.9	50.0	263.3	7.7	2.3	0.1	207.9	6.1	5.3	0.1	-	-	3 422.6	100.0	-	-	3 422.6
Assistance in kind	227.3	10.5	239.5	11.0	1 520.5	70.0	-	-	185.2	8.5	-	-	-	-	2 172.5	100.0	-	-	2 172.5
TOTAL	5 529.4	20.8	13 174.2	49.5	4 140.7	15.6	152.2	0.6	2 223.4	8.3	1 235.2	4.6	160.3	0.6	26 615.4	100.0	-	-	26 615.4
1984																			
UNDP funds	935.4	24.0	2 145.2	55.0	197.8	5.1	-	-	263.5	6.7	291.5	7.5	65.3	1.7	3 898.7	100.0	1 422.8	-	5 321.5
Agency funds	4 118.2	20.5	10 010.1	49.7	2 739.6	13.6	364.6	1.8	2 530.9	12.6	241.8	1.2	118.8	0.6	20 124.0	100.0	17 280.7	-	37 404.7
Extrabudgetary funds	1 538.3	23.7	3 802.5	58.6	243.4	3.7	6.0	0.1	209.9	3.2	692.6	10.7	-	-	6 492.7	100.0	3 841.3	-	10 334.0
Assistance in kind	285.4	13.8	53.0	2.6	1 491.1	72.2	-	-	236.6	11.4	-	-	-	-	2 066.1	100.0	-	650.3	2 716.4
TOTAL	6 877.3	21.1	16 010.8	49.1	4 671.9	14.3	370.6	1.1	3 240.9	10.0	1 225.9	3.8	184.1	0.6	32 581.5	100.0	22 544.8	650.3	55 776.6
1980-1984																			
UNDP funds	6 350.2	27.7	11 369.9	49.7	1 560.8	6.8	-	-	1 053.0	4.6	2 124.5	9.3	438.2	1.9	22 896.6	100.0	1 422.8	-	24 319.4
Agency funds	14 394.6	21.0	34 571.2	50.4	8 922.5	13.0	884.0	1.3	9 177.1	13.4	320.8	0.5	290.9	0.4	68 561.1	100.0	17 280.7	-	85 841.8
Extrabudgetary funds	4 299.7	23.4	10 559.6	57.4	1 337.5	7.3	33.0	0.2	1 250.0	6.8	912.4	4.9	-	-	18 392.2	100.0	3 841.3	-	22 233.5
Assistance in kind	828.2	6.8	372.1	3.0	10 032.5	82.6	2.3	0.1	912.2	7.5	-	-	-	-	12 147.3	100.0	-	650.3	12 797.6
GRAND TOTAL	25 872.7	21.2	56 872.8	46.6	21 853.3	17.9	919.3	0.7	12 392.3	10.2	3 357.7	2.8	729.1	0.6	121 997.2	100.0	22 544.8	650.3	145 192.3

TABLE 5

**EXTRABUDGETARY FUNDS FOR TECHNICAL CO-OPERATION ACTIVITIES BY DONOR
AS AT 31 DECEMBER 1984**

Donor	Funds available 1 January 1984	New funds in 1984	Total funds available	Expenditures in 1984	Unliquidated obligations at year-end	Unobligated balance
A. Funds for activities where donor is not recipient						
Austria	434 631	205 128	639 759	378 410	52 180	209 169
Belgium	69 076	-	69 076	36 879	8 910	23 287
Canada	32 200	-	32 200	10 053	7 155	14 992
Chile	10 000	-	10 000	-	3 318	6 682
Finland	118 765	72 500	191 265	105 206	50 100	35 959
France	20 000	33 600	53 600	31 570	-	22 030
Germany, F.R.	1 240 877	412 102	1 652 979	506 721	400 653	745 605
Italy	7 742 805	3 841 000 ^{b/}	11 583 805	2 883 782	1 613 500 ^{d/}	7 086 523
Japan	164 837	276 320	441 157	255 894	180 104	5 159
Saudi Arabia	12 436	-	12 436	207	-	12 229
Sweden	706 422 ^{a/}	59 261	765 683	468 871	97 350	199 462
USSR	10 000	815 501 ^{e/}	825 501	20 462	367 173 ^{e/}	437 866
UK	438 295	233 800	672 095	214 127	51 771	406 197
USA	2 816 118	1 400 000	4 216 118	1 143 723	940 400	2 131 995
WMO	20 000	10 500	30 500	30 500	-	-
Sub-total	13 836 462	7 359 712	21 196 174	6 086 405	3 772 614	11 337 155
B. Funds for activities where donor is recipient						
Brazil	(7 149)	4 920	(2 229)	5 188	-	(7 417)
Ecuador	132	-	132	-	-	132
Iran, I.R.	1 088	26 818	27 906	-	27 906	-
Libyan A.J.	67	-	67	-	-	67
Nigeria	19 039	-	19 039	10 027	-	9 012
Syria	-	100 000	100 000	-	-	100 000
Thailand	433 800	-	433 800	391 058	40 759	1 983
Sub-total	446 977	131 738	578 715	406 273	68 665	103 777
TOTAL	14 283 439	7 491 450	21 774 889	6 492 678	3 841 279	11 440 932

^{a/} Adjusted by deducting 1984 overhead costs of \$32 652.

^{b/} Includes \$1 090 000 programmed for 1985.

^{c/} Includes \$218 000 programmed for 1985.

^{d/} Includes \$81 853 against future years.

^{e/} Includes \$152 045 against future years.

TABLE 6A

TECHNICAL CO-OPERATION PERSONNEL SERVICES: 1984

Recipient	Source of funds					
	UNDP		Agency		TOTAL	
	(1)	(2)	(1)	(2)	(1)	(2)
Afghanistan	-	-	1	0.5	1	0.5
Albania	1	0.5	-	-	1	0.5
Algeria	-	-	9	4.0	9	4.0
Argentina	16	28.5	-	-	16	28.5
Bangladesh	-	-	17	9.5	17	9.5
Bolivia	-	-	8	7.0	8	7.0
Brazil	-	-	38	37.5	38	37.5
Bulgaria	-	-	7	2.0	7	2.0
Burma	-	-	2	1.0	2	1.0
Cameroon	-	-	2	3.0	2	3.0
Cape Verde	1	1.0	-	-	1	1.0
Chile	-	-	10	7.5	10	7.5
Colombia	-	-	18	12.0	18	12.0
Costa Rica	2	5.0	7	4.0	9	9.0
Cuba	-	-	5	5.0	5	5.0
Cyprus	-	-	2	0.5	2	0.5
Dem. P.R. Korea	-	-	1	1.0	1	1.0
Dominican Republic	-	-	5	8.0	5	8.0
Ecuador	3	26.0	13	7.0	16	33.0
Egypt	-	-	108	269.5	108	269.5
El Salvador	-	-	4	4.5	4	4.5
Ethiopia	-	-	2	4.0	2	4.0
Gabon	-	-	1	3.0	1	3.0
Ghana	-	-	4	3.0	4	3.0
Greece	-	-	5	3.5	5	3.5
Guatemala	-	-	7	8.0	7	8.0
Hungary	1	0.5	7	1.0	8	1.5
Iceland	-	-	1	0.5	1	0.5
India	-	-	2	0.5	2	0.5
Indonesia	11	19.0	16	23.0	27	42.0
Iran, I.R.	2	2.5	3	4.0	5	6.5
Iraq	-	-	1	0.5	1	0.5
Ivory Coast	-	-	3	3.5	3	3.5
Jamaica	-	-	4	4.0	4	4.0
Jordan	-	-	7	4.5	7	4.5
Kenya	-	-	15	13.5	15	13.5
Korea, R.	-	-	37	28.0	37	28.0
Libyan A.J.	-	-	2	7.0	2	7.0
Madagascar	1	0.5	5	10.0	6	10.5
Malawi	1	0.5	-	-	1	0.5

Recipient	Source of funds					
	UNDP		Agency		TOTAL	
	(1)	(2)	(1)	(2)	(1)	(2)
Malaysia	-	-	15	13.5	15	13.5
Mali	-	-	7	13.5	7	13.5
Mauritius	-	-	2	4.5	2	4.5
Mexico	-	-	39	45.0	39	45.0
Mongolia	-	-	3	1.0	3	1.0
Morocco	6	2.0	5	14.0	11	16.0
Nicaragua	-	-	4	2.0	4	2.0
Niger	-	-	3	13.0	3	13.0
Nigeria	-	-	17	43.0	17	43.0
Pakistan	-	-	13	19.5	13	19.5
Panama	-	-	8	19.0	8	19.0
Paraguay	-	-	7	7.0	7	7.0
Peru	18	69.0	47	81.0	65	150.0
Philippines	14	35.5	28	36.0	42	71.5
Poland	-	-	1	0.5	1	0.5
Portugal	-	-	12	2.5	12	2.5
Romania	4	3.0	3	1.0	7	4.0
Senegal	2	2.0	2	1.0	4	3.0
Sierra Leone	-	-	4	9.5	4	9.5
Singapore	-	-	4	10.5	4	10.5
Spain	-	-	1	3.0	1	3.0
Sri Lanka	-	-	13	16.0	13	16.0
Sudan	-	-	6	3.5	6	3.5
Syrian A.R.	-	-	5	5.0	5	5.0
Thailand	-	-	24	21.5	24	21.5
Tunisia	-	-	4	1.0	4	1.0
Turkey	-	-	31	15.5	31	15.5
U.A. Emirates	-	-	2	1.0	2	1.0
U.R. Tanzania	-	-	5	4.5	5	4.5
Uganda	-	-	3	0.5	3	0.5
Uruguay	3	1.5	12	12.0	15	13.5
Venezuela	-	-	12	18.0	12	18.0
Viet Nam	-	-	8	5.5	8	5.5
Yugoslavia	5	2.0	54	20.0	59	22.0
Zaire	1	1.0	6	10.0	7	11.0
Zambia	-	-	8	15.0	8	15.0
Sub-total	92	200.0	797	994.0	889	1 194.0
Intercountry projects	31	7.0	364	252.0	395	259.0
Training courses	24	7.0	222	89.5	246	96.5
Sub-total	55	14.0	586	341.5	641	355.5
GRAND TOTAL	147	214.0	1 383	1 335.5	1 530	1 549.5

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

TABLE 6B

RECIPIENTS OF TRAINING ABROAD: 1984

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)		
Albania	-	-	-	-	4	10.0	-	-	-	-	4	10.0
Algeria	-	-	-	-	1	4.5	-	-	4	6.5	5	11.0
Argentina	3	3.5	2	1.0	1	0.5	-	-	17	23.5	23	28.5
Bangladesh	-	-	6	8.0	32	172.0	1	1.0	14	16.0	53	197.0
Bolivia	1	1.0	1	0.5	11	41.0	6	3.0	6	13.0	25	58.5
Brazil	-	-	2	1.0	8	29.5	8	2.5	18	20.5	36	53.5
Bulgaria	-	-	-	-	24	129.0	3	1.5	12	15.5	39	146.0
Burma	-	-	-	-	-	-	-	-	1	1.0	1	1.0
Cameroon	-	-	-	-	-	-	-	-	2	1.5	2	1.5
Chile	-	-	2	1.0	7	30.5	-	-	19	44.0	28	75.5
China	-	-	1	1.0	6	35.0	-	-	28	39.5	35	75.5
Colombia	1	0.5	1	0.5	5	34.0	6	2.0	17	40.0	30	77.0
Costa Rica	-	-	-	-	2	1.0	1	0.5	7	7.5	10	9.0
Cuba	-	-	-	-	8	29.0	2	1.5	10	12.5	20	43.0
Cyprus	-	-	-	-	3	21.5	1	0.5	2	3.0	6	25.0
Czechoslovakia	-	-	-	-	3	15.5	1	0.5	17	26.5	21	42.5
Dem. P.R. Korea	-	-	-	-	8	69.0	-	-	4	3.5	12	72.5
Dominican Republic	-	-	-	-	3	11.5	-	-	7	9.0	10	20.5
Ecuador	4	2.5	2	1.0	7	21.0	2	0.5	9	14.5	24	39.5
Egypt	2	8.5	-	-	36	163.0	3	2.0	20	28.5	61	202.0
El Salvador	-	-	-	-	-	-	-	-	3	3.0	3	3.0
Ethiopia	-	-	-	-	6	42.5	-	-	2	1.5	8	44.0
Gabon	-	-	-	-	-	-	-	-	1	1.0	1	1.0
Ghana	-	-	-	-	12	72.0	2	1.5	12	17.0	26	90.5
Greece	-	-	-	-	3	32.0	1	0.5	5	7.5	9	40.0
Guatemala	-	-	1	0.5	7	23.5	-	-	5	12.0	13	36.0
Honduras	-	-	-	-	2	1.5	-	-	-	-	2	1.5
Hungary	1	3.0	-	-	20	110.5	6	3.5	8	14.0	35	131.0
Iceland	-	-	-	-	1	6.0	-	-	-	-	1	6.0
India	-	-	13	16.5	14	41.0	2	1.0	22	33.5	51	92.0
Indonesia	4	28.5	8	11.5	10	34.0	1	0.5	19	24.0	42	98.5
Iran, I.R.	2	8.5	-	-	12	40.5	-	-	16	24.0	30	73.0
Iraq	-	-	-	-	-	-	2	0.5	10	14.5	12	15.0
Ivory Coast	-	-	-	-	3	14.0	-	-	2	2.0	5	16.0
Jamaica	-	-	1	0.5	-	-	1	1.0	1	1.0	3	2.5
Jordan	-	-	-	-	-	-	-	-	7	9.5	7	9.5
Kenya	-	-	-	-	15	88.0	1	1.0	4	4.0	20	93.0
Korea, R.	-	-	4	7.5	16	99.5	6	2.5	21	28.0	47	137.5
Libyan A.J.	-	-	-	-	9	39.5	-	-	7	13.0	16	52.5
Madagascar	-	-	-	-	1	3.0	-	-	1	0.5	2	3.5
Malaysia	-	-	7	11.5	14	59.5	-	-	27	35.0	48	106.0
Mali	-	-	-	-	5	20.0	2	1.0	3	4.0	10	25.0
Mauritius	-	-	-	-	1	8.0	-	-	3	3.5	4	11.5
Mexico	-	-	-	-	25	132.5	8	5.0	34	47.0	67	184.5
Mongolia	-	-	-	-	1	0.5	-	-	1	3.0	2	3.5
Morocco	-	-	-	-	6	21.0	-	-	8	11.0	14	32.0
Nicaragua	-	-	-	-	2	9.0	-	-	1	1.0	3	10.0
Niger	-	-	-	-	2	16.0	-	-	3	3.5	5	19.5
Nigeria	-	-	-	-	13	85.0	1	0.5	11	15.0	25	100.5
Pakistan	-	-	7	13.0	24	107.0	8	4.5	25	37.5	64	162.0
Panama	-	-	-	-	3	14.5	2	0.5	7	7.5	12	22.5
Papua New Guinea	-	-	-	-	-	-	-	-	1	2.0	1	2.0
Paraguay	-	-	-	-	5	17.5	1	0.5	5	4.5	11	22.5
Peru	4	19.5	1	0.5	18	58.0	7	2.5	12	45.5	42	126.0
Philippines	9	52.5	6	2.0	29	127.5	2	1.5	31	49.0	77	232.5
Poland	-	-	-	-	16	88.5	2	1.5	14	18.0	32	108.0
Portugal	-	-	-	-	10	46.5	2	0.5	8	10.5	20	57.5
Romania	3	13.0	-	-	4	17.0	2	1.0	9	19.5	18	50.5
Sao Tome and Principe	-	-	-	-	-	-	-	-	1	0.5	1	0.5
Senegal	-	-	-	-	7	45.0	-	-	4	3.5	11	48.5

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)		
Sierra Leone	-	-	-	-	2	4.0	-	-	2	2.5	4	6.5
Singapore	-	-	4	2.0	2	7.5	-	-	5	4.5	11	14.0
Spain	-	-	-	-	2	12.0	-	-	6	10.0	8	22.0
Sri Lanka	-	-	6	12.0	18	105.5	2	1.5	9	10.0	35	129.0
Sudan	-	-	-	-	16	85.5	1	1.5	10	11.5	27	98.5
Syrian A.R.	-	-	-	-	3	27.5	1	0.5	10	12.5	14	40.5
Thailand	-	-	13	23.5	35	196.0	3	1.5	39	47.0	90	268.0
Tunisia	-	-	-	-	6	28.0	2	1.0	-	-	8	29.0
Turkey	-	-	-	-	25	117.0	7	4.5	29	40.0	61	161.5
Uganda	-	-	-	-	4	29.5	-	-	3	3.0	7	32.5
U.R. Tanzania	-	-	-	-	6	24.5	-	-	6	8.0	12	32.5
Uruguay	-	-	2	1.0	4	11.0	6	5.0	12	14.0	24	31.0
Venezuela	1	1.0	2	1.0	5	6.5	5	2.0	12	19.5	25	30.0
Viet Nam	-	-	-	-	16	78.0	-	-	11	16.0	27	94.0
Yugoslavia	3	1.5	-	-	21	131.0	2	2.0	20	30.0	46	164.5
Zaire	1	2.0	-	-	6	45.5	-	-	8	9.0	15	56.5
Zambia	-	-	-	-	7	30.0	1	1.0	8	8.0	16	39.0
TOTAL	39	145.5	92	117.0	663	3277.0	123	67.0	758	1102.5	1675	4709.0

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

TABLE 7

FINANCIAL SUMMARY: 1984
(in thousands of dollars)

Recipient	Assistance provided, by type					Assistance provided, by source						Unliquidated obligations as at 31 December 1984	TOTAL (11)+(12)
	Experts	Equip-ment	Fellow-ships	Sub-contracts	TOTAL	UNDP	Convertible currency	Non-convertible currency	Extra-budgetary funds	In kind	TOTAL		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		
Afghanistan	4.5	23.8	-	-	28.3	-	22.8	5.5	-	-	28.3	-	28.3
Albania	0.8	96.0	9.9	-	106.7	0.8	105.9	-	-	-	106.7	280.3	387.0
Algeria	25.8	145.3	4.2	-	175.3	-	175.3	-	-	-	175.3	99.1	274.4
Argentina	124.4	34.5	15.5	-	174.4	174.4	-	-	-	-	174.4	35.3	209.7
Bangladesh	59.9	326.4	288.7	-	675.0	-	421.8	84.5	89.7	79.0	675.0	1 471.7	2 146.7
Bolivia	35.7	82.8	53.3	-	171.8	-	141.7	2.2	16.8	11.1	171.8	83.0	254.8
Brazil	162.0	395.6	68.5	-	626.1	-	395.6	4.8	213.0	12.7	626.1	421.2	1 047.3
Bulgaria	7.2	347.0	138.9	-	493.1	-	109.7	362.7	-	20.7	493.1	818.3	1 311.4
Burma	9.2	143.7	-	-	152.9	-	145.9	7.0	-	-	152.9	139.0	291.9
Cameroon	16.5	2.6	-	-	19.1	-	19.1	-	-	-	19.1	16.3	35.4
Cape Verde	3.1	0.1	-	-	3.2	3.2	-	-	-	-	3.2	-	3.2
Chile	51.6	85.5	38.6	-	175.7	(12.7)	183.2	-	-	5.2	175.7	62.5	238.2
China	-	-	58.9	-	58.9	-	58.9	-	-	-	58.9	19.0	77.9
Colombia	66.9	109.9	48.0	-	224.8	1.9	200.2	1.6	6.5	14.6	224.8	83.0	307.8
Costa Rica	60.6	35.1	0.8	-	96.5	32.2	61.1	-	3.2	-	96.5	142.2	238.7
Cuba	28.8	946.6	53.3	-	1 028.7	352.9	208.6	447.0	-	20.2	1 028.7	161.8	1 190.5
Cyprus	0.6	82.5	40.7	-	123.8	-	90.5	-	3.1	30.2	123.8	68.4	192.2
Czechoslovakia	-	-	14.3	-	14.3	-	14.3	-	-	-	14.3	10.3	24.6
Dem. P.R. Korea	2.0	97.1	84.7	-	183.8	-	107.6	4.2	-	72.0	183.8	77.3	261.1
Dominican Republic	44.6	83.2	16.2	-	144.0	-	122.5	12.0	-	9.5	144.0	155.5	299.5
Ecuador	181.6	537.7	51.1	-	770.4	169.8	225.1	340.5	5.3	29.7	770.4	288.9	1 059.3
Egypt	613.7	2 362.1	294.1	356.0	3 625.9	35.7	264.3	932.9	2 212.7	180.3	3 625.9	2 766.1	6 392.0
El Salvador	19.7	12.1	-	-	31.8	-	31.8	-	-	-	31.8	3.8	35.6
Ethiopia	21.7	42.7	46.0	-	110.4	-	108.6	1.8	-	-	110.4	95.3	205.7
Gabon	12.2	48.6	-	-	60.8	-	60.8	-	-	-	60.8	7.6	68.4
Ghana	22.5	105.5	93.7	-	221.7	-	169.9	1.0	20.8	30.0	221.7	115.9	337.6
Greece	23.0	135.0	52.1	-	210.1	-	145.4	8.6	38.2	17.9	210.1	42.9	253.0
Guatemala	43.8	175.8	18.0	-	237.6	-	228.9	-	6.4	2.3	237.6	144.9	382.5
Hong Kong	-	1.5	-	-	1.5	-	1.5	-	-	-	1.5	1.7	3.2
Honduras	-	-	0.7	-	0.7	-	0.7	-	-	-	0.7	0.6	1.3
Hungary	4.3	151.3	124.2	-	279.8	43.0	123.3	113.5	-	-	279.8	234.7	514.5
Iceland	2.4	220.1	4.2	-	226.7	-	226.7	-	-	-	226.7	4.1	230.8
India	17.0	128.9	69.5	-	215.4	-	-	-	215.4	-	215.4	40.1	255.5
Indonesia	245.0	528.7	81.8	-	855.5	394.5	297.4	-	155.8	7.8	855.5	249.3	1 104.8
Iran, I.R.	54.5	101.8	63.8	-	220.1	122.1	88.2	-	-	9.8	220.1	491.0	711.1
Iraq	2.8	46.7	12.3	-	61.8	-	15.1	46.7	-	-	61.8	22.2	84.0
Ivory Coast	20.3	108.0	13.8	-	142.1	-	131.8	5.0	5.3	-	142.1	90.6	232.7
Jamaica	24.5	76.4	3.6	-	104.5	-	104.5	-	-	-	104.5	32.5	137.0
Jordan	16.7	44.5	4.0	-	65.2	-	65.2	-	-	-	65.2	17.9	83.1
Kenya	67.3	65.1	146.6	-	279.0	-	190.1	-	28.7	60.2	279.0	104.0	383.0
Korea, R.	275.2	106.0	190.1	-	571.3	-	349.6	-	133.3	88.4	571.3	240.1	811.4
Lebanon	-	58.2	-	-	58.2	-	3.0	55.2	-	-	58.2	0.8	59.0
Libyan A.J.	70.0	7.6	78.6	-	156.2	-	154.4	1.8	-	-	156.2	138.6	294.8
Madagascar	57.8	136.3	5.0	-	199.1	3.2	191.2	-	-	4.7	199.1	83.9	283.0
Malawi	2.4	-	-	-	2.4	2.4	-	-	-	-	2.4	3.6	6.0
Malaysia	120.2	240.6	94.2	-	455.0	-	377.7	2.4	64.2	10.7	455.0	249.8	704.8
Mali	71.6	111.0	18.6	-	201.2	-	152.9	-	48.3	-	201.2	131.4	332.6
Mauritius	10.5	29.1	5.5	-	45.1	-	45.1	-	-	-	45.1	32.9	78.0
Mexico	220.8	127.2	258.8	90.5	697.3	-	361.8	19.6	124.0	191.9	697.3	249.3	946.6
Mongolia	9.3	37.3	1.5	-	48.1	-	42.8	5.3	-	-	48.1	28.7	76.8
Morocco	79.4	64.9	30.5	-	174.6	9.5	117.4	1.1	32.7	13.9	174.6	37.5	212.1
Nicaragua	11.1	-	2.1	-	13.2	-	13.2	-	-	-	13.2	71.8	85.0
Niger	64.7	80.4	18.7	-	163.8	-	152.8	-	-	11.0	163.8	83.4	247.2
Nigeria	255.3	320.5	116.0	24.6	716.4	-	177.2	-	537.7	1.5	716.4	220.8	937.2
Pakistan	91.9	192.4	152.5	-	436.8	-	406.1	27.5	0.1	3.3	436.8	475.0	911.8
Panama	92.3	133.2	19.8	-	245.3	-	227.8	5.4	10.6	1.5	245.3	127.8	373.1
Paraguay	27.8	126.2	20.7	-	174.7	-	174.7	-	-	-	174.7	169.3	344.0
Peru	496.8	1 388.8	114.8	-	1 750.4	559.1	346.5	13.6	788.1	43.1	1 750.4	1 346.1	3 096.5
Philippines	418.3	99.4	315.6	47.9	881.2	258.8	300.3	-	205.1	117.0	881.2	391.6	1 272.8
Poland	1.6	310.6	87.7	-	399.9	-	212.0	187.9	-	-	399.9	499.7	899.6

Recipient	Assistance provided, by type					Assistance provided, by source						Unliquidated obligations as at 31 December 1984	TOTAL (11)+(12)
	Experts	Equip-ment	Fellow-ships	Sub-contracts	TOTAL	UNDP	Convertible currency	Non-convertible currency	Extra-budgetary funds	In kind	TOTAL		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		
Portugal	19.9	144.7	59.4	-	224.0	-	75.8	5.8	109.0	33.4	224.0	1 009.7	1 233.7
Romania	33.4	333.3	30.1	134.5	531.3	280.7	238.1	-	12.5	-	531.3	140.6	671.9
Senegal	28.2	178.2	43.9	-	250.3	51.6	159.6	5.1	17.7	16.3	250.3	136.9	387.2
Sierra Leone	62.8	8.9	8.9	-	80.6	-	80.1	0.5	-	-	80.6	40.3	120.9
Singapore	72.6	184.7	17.2	-	274.5	-	272.3	-	2.2	-	274.5	25.9	300.4
Spain	19.8	-	11.5	-	31.3	-	31.3	-	-	-	31.3	20.7	52.0
Sri Lanka	100.8	202.0	110.7	-	413.5	2.3	359.1	18.1	24.0	10.0	413.5	335.1	748.6
Sudan	27.2	221.6	115.7	-	364.5	-	290.1	-	7.1	67.3	364.5	324.5	689.0
Syrian A.R.	24.8	52.8	30.6	-	108.2	-	108.2	-	-	-	108.2	89.9	198.1
Thailand	138.6	651.7	300.5	3.8	1 094.6	-	389.0	82.3	488.7	134.6	1 094.6	771.6	1 866.2
Tunisia	5.5	105.1	26.1	-	136.7	-	110.6	-	22.9	3.2	136.7	52.4	189.1
Turkey	94.3	79.8	223.9	13.9	411.9	-	326.1	0.2	-	85.6	411.9	164.1	576.0
Uganda	3.4	0.9	31.6	-	35.9	-	35.9	-	-	-	35.9	41.8	77.7
United Arab Emirates	3.3	-	-	-	3.3	-	3.3	-	-	-	3.3	3.6	6.9
U.R. Tanzania	34.5	173.7	38.4	-	246.6	-	227.0	6.4	-	13.2	246.6	299.0	545.6
Uruguay	71.4	281.8	34.9	-	388.1	16.5	274.0	-	88.4	9.2	388.1	134.3	522.4
Venezuela	102.6	132.8	18.9	-	254.3	-	232.5	21.8	-	-	254.3	122.6	376.9
Viet Nam	22.9	154.3	104.7	-	281.9	-	177.6	40.9	19.7	43.7	281.9	1 009.2	1 291.1
Yugoslavia	112.6	136.7	196.9	14.9	461.1	61.8	270.2	28.5	0.2	100.4	461.1	479.4	940.5
Zaire	64.8	127.9	42.8	-	235.5	26.1	169.9	22.8	-	16.7	235.5	105.0	340.5
Zambia	98.7	205.9	51.3	-	355.9	-	269.8	1.1	18.4	66.6	355.9	155.8	511.7
Sub-total	5 616.3	14 626.7	5 042.5	686.1	25 971.6	2 589.8	12 971.0	2 934.6	5 775.8	1 700.4	25 971.6	18 942.8	44 914.4
<u>Intercountry projects</u>													
Africa	62.5	146.5	-	-	209.0	-	207.8	-	-	1.2	209.0	87.3	296.3
Asia and the Pacific	354.2	877.8	223.1	70.9	1 526.0	1 217.8	125.1	-	143.7	39.4	1 526.0	206.9	1 732.9
Europe	42.3	3.9	-	180.0	226.2	-	224.8	-	-	1.4	226.2	14.4	240.6
Latin America	347.6	68.0	7.4	75.9	498.9	91.1	338.4	-	-	69.4	498.9	658.0	1 156.9
Interregional	465.7	374.9	-	213.0	1 053.6	-	615.8	56.8	363.3	17.7	1 053.6	800.4	1 854.0
<u>Training courses</u>													
Africa	21.4	28.2	1.1	-	50.7	-	50.0	-	-	0.7	50.7	53.6	104.3
Asia and the Pacific	106.1	79.2	119.3	-	304.6	-	142.5	-	112.2	49.9	304.6	280.0	584.6
Latin America	60.3	83.3	69.3	-	212.9	-	197.7	-	1.8	13.4	212.9	105.4	318.3
Interregional	382.5	267.7	1 759.0	-	2 409.2	-	1 833.5	307.2	95.9	172.6	2 409.2	1 396.0	3 805.2
Sub-total	1 842.6	1 929.5	2 179.2	539.8	6 491.1	1 308.9	3 735.6	364.0	716.9	365.7	6 491.1	3 602.0	10 093.1
Miscellaneous	31.8	53.4	31.9	1.7	118.8	-	118.8	-	-	-	118.8	-	118.8
GRAND TOTAL	7 490.7	16 609.6	7 253.6	1 227.6	32 581.5	3 898.7	16 825.4	3 298.6	6 492.7	2 066.1	32 581.5	22 544.8	55 126.3

TABLE 8
FINANCIAL SUMMARY: 1958-1984
(in thousands of dollars)

Recipient	Assistance provided by type					Assistance provided by source				
	Experts	Equip- ment	Fellow- ships	Sub- contracts	TOTAL	UNDP	Agency funds	Extra- budgetary funds @/	In kind	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Afghanistan	378.6	410.6	120.5	-	909.7	92.9	735.0	-	81.8	909.7
Albania	72.7	772.2	76.0	-	920.9	119.2	781.2	-	20.5	920.9
Algeria	131.7	386.7	134.5	-	652.9	21.7	577.8	-	53.4	652.9
Argentina	3 049.8	1 911.2	1 125.6	-	6 086.6	3 886.0	1 647.7	17.5	535.4	6 086.6
Austria	62.0	13.8	120.7	-	196.5	-	132.6	-	63.9	196.5
Bangladesh	777.9	1 768.6	1 724.6	-	4 271.1	63.0	1 981.9	1 059.2	1 167.0	4 271.1
Bolivia	401.5	996.4	292.1	-	1 690.0	153.4	1 126.4	246.5	163.7	1 690.0
Brazil	4 246.0	3 522.9	1 744.8	-	9 513.7	5 654.6	2 559.3	617.3	682.5	9 513.7
Bulgaria	101.8	1 527.1	1 417.5	-	3 046.4	543.9	1 930.1	-	572.4	3 046.4
Burma	755.6	1 087.8	200.6	-	2 044.0	537.0	1 403.4	-	103.6	2 044.0
Cameroon	343.9	159.6	44.2	-	547.7	297.3	221.2	22.4	6.8	547.7
Cape Verde	3.1	0.1	-	-	3.2	3.2	-	-	-	3.2
Chad	116.3	30.6	-	-	146.9	146.9	-	-	-	146.9
Chile	2 426.1	2 039.6	1 134.7	-	5 600.4	3 590.0	1 642.5	-	367.9	5 600.4
China	-	-	58.9	-	58.9	-	58.9	-	-	58.9
Colombia	1 051.8	1 938.9	672.3	-	3 663.0	1 688.6	1 189.8	186.8	597.8	3 663.0
Costa Rica	403.6	611.6	161.3	-	1 176.5	32.2	727.8	234.2	182.3	1 176.5
Cuba	306.0	3 759.3	248.4	-	4 313.7	1 372.7	2 761.7	39.2	140.1	4 313.7
Cyprus	97.6	397.5	145.6	-	640.7	24.1	482.3	3.1	131.2	640.7
Czechoslovakia	-	104.8	909.2	-	1 014.0	6.2	623.3	12.9	371.6	1 014.0
Dem. P.R. Korea	20.2	860.1	360.6	-	1 240.9	-	904.9	23.9	312.1	1 240.9
Dominican Republic	88.5	263.8	37.5	-	389.8	-	370.0	3.9	15.9	389.8
Ecuador	1 028.4	1 654.6	289.0	-	2 972.0	526.9	1 947.4	196.7	301.0	2 972.0
Egypt	1 694.5	6 358.7	2 241.2	356.0	10 650.4	1 477.1	4 652.4	3 034.0	1 486.9	10 650.4
El Salvador	101.1	148.0	150.9	-	400.0	14.1	190.9	20.4	174.6	400.0
Ethiopia	379.3	316.8	239.4	-	935.5	437.5	447.2	-	50.8	935.5
Gabon	15.9	56.5	-	-	72.4	-	72.4	-	-	72.4
Ghana	475.4	996.3	1 860.5	-	3 332.2	269.0	1 491.8	310.3	1 261.1	3 332.2
Greece	1 888.3	1 186.0	1 051.4	-	4 125.7	1 561.9	1 674.6	295.4	593.8	4 125.7
Guatemala	168.7	497.2	71.5	-	737.4	56.2	528.9	57.6	94.7	737.4
Honduras	-	-	0.7	-	0.7	-	0.7	-	-	0.7
Hong Kong	59.9	106.7	26.1	-	192.7	-	183.7	-	9.0	192.7
Hungary	99.5	2 994.8	1 333.6	-	4 427.9	673.5	3 458.4	8.0	288.0	4 427.9
Iceland	66.9	501.1	145.5	-	713.5	-	588.2	-	125.3	713.5
India	1 014.9	3 786.7	2 611.2	-	7 412.8	2 920.3	1 280.7	2 049.6	1 162.2	7 412.8
Indonesia	1 662.4	1 903.4	1 131.3	-	4 697.1	1 330.2	2 180.3	489.7	696.9	4 697.1
Iran, I.R.	734.4	849.3	546.3	-	2 130.0	1 251.2	586.1	9.5	283.2	2 130.0
Iraq	388.7	965.8	763.4	-	2 117.9	242.5	1 439.3	25.0	411.1	2 117.9
Israel	257.8	819.8	438.7	-	1 516.3	170.9	900.6	18.0	426.8	1 516.3
Ivory Coast	207.9	439.3	25.9	-	673.1	73.4	570.5	29.2	-	673.1
Jamaica	174.1	344.0	27.6	-	545.7	10.4	464.5	-	70.8	545.7
Jordan	301.8	447.4	194.2	-	943.4	89.3	651.2	100.6	102.3	943.4
Kenya	570.4	647.2	550.3	-	1 767.9	33.2	1 104.9	372.9	256.9	1 767.9
Korea, R.	1 779.6	1 325.2	2 006.1	-	5 110.9	566.8	2 373.6	722.9	1 447.6	5 110.9
Kuwait	12.0	-	3.9	-	15.9	-	15.9	-	-	15.9
Lebanon	248.5	265.3	96.7	-	610.5	139.3	416.6	31.4	23.2	610.5
Liberia	115.2	29.0	-	-	144.2	60.2	27.7	-	56.3	144.2
Libyan A.J.	272.3	195.8	177.0	-	645.1	7.3	581.5	2.5	53.8	645.1
Madagascar	1 202.8	1 227.8	148.8	-	2 579.4	1 423.7	868.5	244.2	43.0	2 579.4
Malawi	2.4	-	-	-	2.4	2.4	-	-	-	2.4
Malaysia	775.7	1 258.1	715.0	-	2 748.8	1.6	1 725.8	552.2	469.2	2 748.8
Mali	464.2	590.7	193.5	-	1 248.4	13.4	1 069.4	99.0	66.6	1 248.4
Mauritius	28.0	80.6	16.7	-	125.3	-	121.5	3.8	-	125.3
Mexico	1 869.2	681.8	697.4	90.5	3 338.9	419.3	2 032.7	460.4	426.5	3 338.9
Mongolia	150.8	723.2	18.7	-	892.7	-	875.5	10.6	6.6	892.7

Recipient	Assistance provided, by type					Assistance provided, by source				
	Experts	Equip- ment	Fellow- ships	Sub- contracts	TOTAL	UNDP	Agency funds	Extra- budgetary funds ^{a/}	In kind	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Morocco	1 459.7	969.3	287.4	-	2 716.4	909.6	1 422.8	161.4	222.6	2 716.4
Nicaragua	37.6	7.6	22.2	-	67.4	-	67.4	-	-	67.4
Niger	190.3	245.2	42.7	-	478.2	-	452.7	-	25.5	478.2
Nigeria	2 342.4	1 598.9	715.4	24.6	4 681.3	980.1	938.1	2 159.4	603.7	4 681.3
Niue	7.8	6.9	-	-	14.7	14.7	-	-	-	14.7
Pakistan	1 555.1	2 359.7	2 530.9	-	6 445.7	1 842.0	3 272.4	90.6	1 240.7	6 445.7
Panama	223.1	359.5	172.9	-	755.5	4.1	615.5	21.6	114.3	755.5
Paraguay	155.5	477.0	173.9	-	806.4	-	615.1	94.1	97.2	806.4
Peru	2 524.1	4 128.9	921.2	-	7 574.2	3 523.7	1 953.4	1 495.5	601.6	7 574.2
Philippines	1 679.7	2 225.8	2 725.6	47.9	6 679.0	1 642.2	2 433.1	815.1	1 788.6	6 679.0
Poland	66.5	1 480.2	1 705.5	-	3 252.2	202.9	2 532.8	1.4	515.1	3 252.2
Portugal	176.1	755.5	224.2	-	1 155.8	-	646.7	390.1	119.0	1 155.8
Romania	698.2	3 414.8	799.8	134.5	5 047.3	2 557.7	2 210.6	51.8	227.2	5 047.3
St. Christopher	-	-	8.5	-	8.5	-	-	8.5	-	8.5
Saudi Arabia	52.3	8.6	12.8	-	73.7	-	66.7	-	7.0	73.7
Senegal	325.1	778.9	178.4	-	1 282.4	318.5	746.9	151.5	65.5	1 282.4
Sierra Leone	389.5	168.1	117.0	-	674.6	174.5	398.1	12.4	89.6	674.6
Singapore	265.6	804.7	88.5	-	1 158.8	-	1 002.7	103.3	52.8	1 158.8
Somalia	6.3	-	-	-	6.3	6.3	-	-	-	6.3
Spain	345.1	-	98.4	-	443.5	-	364.4	56.0	23.1	443.5
Sri Lanka	768.9	1 468.6	1 076.6	-	3 314.1	307.7	2 245.6	345.0	415.8	3 314.1
Sudan	545.8	1 129.8	1 014.7	-	2 690.3	296.7	1 690.9	296.7	406.0	2 690.3
Syrian A.R.	179.7	404.1	314.4	-	898.2	229.6	580.0	4.5	84.1	898.2
Thailand	1 355.3	2 194.1	2 698.7	3.8	6 251.9	545.5	2 825.4	1 143.3	1 737.7	6 251.9
Tunisia	609.2	643.8	218.4	-	1 471.4	141.2	1 016.6	229.4	84.2	1 471.4
Turkey	1 541.0	1 652.2	2 362.5	13.9	5 569.6	1 628.7	2 354.2	123.5	1 463.2	5 569.6
Uganda	264.2	199.7	189.2	-	653.1	131.0	479.6	-	42.5	653.1
U.A. Emirates	23.0	-	-	-	23.0	-	23.0	-	-	23.0
U.R. Tanzania	292.2	527.5	269.5	-	1 089.2	9.6	973.8	7.1	98.7	1 089.2
Uruguay	540.9	1 549.6	284.4	-	2 374.9	190.1	1 370.6	542.8	271.4	2 374.9
Venezuela	773.5	514.7	265.6	-	1 553.8	130.7	1 174.8	65.9	182.4	1 553.8
Viet Nam	206.8	1 705.1	506.5	-	2 418.4	31.4	2 014.3	37.8	334.9	2 418.4
Yugoslavia	897.2	3 223.6	1 739.2	14.9	5 874.9	2 878.1	2 148.9	339.8	508.1	5 874.9
Zaire	546.7	1 094.2	543.1	-	2 184.0	576.0	1 219.8	89.7	298.5	2 184.0
Zambia	806.0	922.1	449.9	-	2 178.0	152.5	1 633.7	146.3	245.5	2 178.0
Other countries ^{b/}	390.3	214.9	1 335.2	-	1 940.4	397.6	754.8	-	788.0	1 940.4
Sub-total	55 286.4	91 193.9	52 595.3	686.1	199 761.7	51 827.2	98 626.6	20 595.3	28 712.6	199 761.7
<u>Interregional projects and training courses</u>										
Africa	275.3	361.2	179.8	-	816.3	328.9	480.6	-	6.8	816.3
Asia and the Pacific	2 134.0	2 786.1	1 205.2	70.9	6 196.2	4 014.3	1 012.2	614.9	554.8	6 196.2
Europe	63.3	22.5	17.3	180.0	283.1	56.9	224.8	-	1.4	283.1
Latin America	1 571.7	1 157.9	514.7	75.9	3 320.2	1 549.3	1 291.7	263.2	216.0	3 320.2
Middle East	5.8	1.2	5.3	-	12.3	12.3	-	-	-	12.3
Interregional	4 727.9	2 848.2	12 529.7	213.0	20 318.8	1 790.5	14 678.1	2 047.6	1 802.6	20 318.8
Sub-total	8 778.0	7 177.1	14 452.0	539.8	30 946.9	7 752.2	17 687.4	2 925.7	2 581.6	30 946.9
Miscellaneous	230.4	232.3	61.9	1.7	526.3	23.2	503.1	-	-	526.3
GRAND TOTAL	64 294.8	98 603.3	67 109.2	1 227.6	231 234.9	59 602.6	116 817.1	23 521.0	31 294.2	231 234.9

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

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

ANNEX I

UTILIZATION OF EXTRABUDGETARY AND IN-KIND CONTRIBUTIONS

A. Assistance for activities where donor is not recipient
(in thousands of dollars)

Donor	Extrabudgetary						In kind					TOTAL
	Experts	Equipment	Fellowships	Other training	Sub-contracts	Sub-total	Experts	Equipment	Fellowships	Other training	Sub-total	
Countries												
Argentina	-	-	-	-	-	-	43.8	-	16.7	2.2	62.7	62.7
Australia	-	-	-	-	-	-	1.0	-	-	5.8	6.8	6.8
Austria	-	378.4	-	-	-	378.4	0.5	-	23.2	-	23.7	402.1
Barbados	-	-	-	-	-	-	0.8	-	-	-	0.8	0.8
Bangladesh	-	-	-	-	-	-	1.2	-	-	-	1.2	1.2
Belgium	8.8	28.1	-	-	-	36.9	-	-	15.1	43.2	58.3	95.2
Bolivia	-	-	-	-	-	-	1.5	-	-	-	1.5	1.5
Brazil	-	-	-	-	-	-	15.0	-	19.2	2.5	36.7	36.7
Bulgaria	-	-	-	-	-	-	-	-	-	7.8	7.8	7.8
Canada	4.5	5.5	-	-	-	10.0	10.9	-	-	7.9	18.8	28.8
Chile	-	-	-	-	-	-	1.7	-	-	1.7	3.4	3.4
Colombia	-	-	-	-	-	-	2.0	-	-	-	2.0	2.0
Costa Rica	-	-	-	-	-	-	0.7	-	-	-	0.7	0.7
Czechoslovakia	-	-	-	-	-	-	-	-	94.0	0.9	94.9	94.9
Denmark	-	-	-	-	-	-	-	-	5.4	-	5.4	5.4
Dominican Republic	-	-	-	-	-	-	0.8	-	-	-	0.8	0.8
Ecuador	-	-	-	-	-	-	8.3	-	-	-	8.3	8.3
Finland	9.7	95.5	-	-	-	105.2	0.9	-	-	1.2	2.1	107.3
France	-	31.6	-	-	-	31.6	18.2	-	51.8	12.2	82.2	113.8
Germany, F.R.	176.9	322.4	-	7.4	-	506.7	8.8	-	134.8	6.2	149.8	656.5
Guatemala	-	-	-	-	-	-	2.7	-	-	-	2.7	2.7
Guyana	-	-	-	-	-	-	0.8	-	-	-	0.8	0.8
Hungary	-	-	-	-	-	-	-	-	63.6	4.6	68.2	68.2
India	-	-	-	-	-	-	14.2	53.0	48.8	6.7	122.7	122.7
Israel	-	-	-	-	-	-	1.0	-	1.6	-	2.6	2.6
Italy	809.9	1 520.3	3.3	-	550.3	2 883.8	6.8	-	65.3	1.5	73.6	2 957.4
Jamaica	-	-	-	-	-	-	1.2	-	-	-	1.2	1.2
Japan	136.8	6.9	-	112.2	-	255.9	27.6	-	7.8	29.7	65.1	321.0
Kenya	-	-	-	-	-	-	2.6	-	-	-	2.6	2.6
Korea, R.	-	-	-	-	-	-	1.0	-	-	-	1.0	1.0
Malaysia	-	-	-	-	-	-	2.9	-	-	1.7	4.6	4.6
Mexico	-	-	-	-	-	-	13.8	-	-	2.0	15.8	15.8
Netherlands	-	-	-	-	-	-	-	-	56.0	0.3	56.3	56.3
Peru	-	-	-	-	-	-	4.4	-	-	-	4.4	4.4
Philippines	-	-	-	-	-	-	1.0	-	-	-	1.0	1.0
Poland	-	-	-	-	-	-	-	-	14.5	8.4	22.9	22.9
Romania	-	-	-	-	-	-	0.7	-	-	-	0.7	0.7
Saudi Arabia	0.2	-	-	-	-	0.2	-	-	-	-	-	0.2
Singapore	-	-	-	-	-	-	-	-	-	3.4	3.4	3.4
Spain	-	-	-	-	-	-	1.4	-	28.3	0.4	30.1	30.1
Sri Lanka	-	-	-	-	-	-	0.9	-	-	9.3	10.2	10.2
Sweden	56.1	136.3	185.7	90.8	-	468.9	3.2	-	-	3.6	6.8	475.7
Switzerland	-	-	-	-	-	-	-	-	-	2.0	2.0	2.0
Thailand	-	-	-	-	-	-	0.9	-	-	1.7	2.6	2.6
USSR	-	-	20.5	-	-	20.5	-	-	-	-	-	20.5
UK	16.7	157.5	39.9	-	-	214.1	9.9	-	89.2	3.0	102.1	316.2
USA	317.4	684.5	-	(0.5)	142.3	1 143.7	68.8	-	753.4	14.7	836.9	1 980.6
Uruguay	-	-	-	-	-	-	1.5	-	-	-	1.5	1.5
Venezuela	-	-	-	-	-	-	2.0	-	-	-	2.0	2.0
Yugoslavia	-	-	-	-	-	-	-	-	2.4	25.4	27.8	27.8
Sub-total	1 537.0	3 367.0	249.4	209.9	692.6	6 055.9	285.4	53.0	1 491.1	210.0	2 039.5	8 095.4

Donor	Extrabudgetary						in kind					TOTAL
	Experts	Equipment	Fellowships	Other training	Sub-contracts	Sub-total	Experts	Equipment	Fellowships	Other training	Sub-total	
<u>Organizations</u>												
CEC	-	-	-	-	-	-	-	-	-	0.9	0.9	0.9
FAO	-	-	-	-	-	-	-	-	-	1.5	1.5	1.5
UNDP	-	-	-	-	-	-	-	-	-	0.3	0.3	0.3
WHO	-	-	-	-	-	-	-	-	-	2.5	2.5	2.5
WMO	-	30.5	-	-	-	30.5	-	-	-	-	-	30.5
IBRD	-	-	-	-	-	-	-	-	-	21.4	21.4	21.4
Sub-total	-	30.5	-	-	-	30.5	-	-	-	26.6	26.6	57.1
GRAND TOTAL	1 537.0	3 397.5	249.4	209.9	692.6	6 086.4	285.4	53.0	1 491.1	236.6	2 066.1	8 152.5

B. Assistance for activities where donor is recipient
(in thousands of dollars)

Donor	Project title and code	Assistance provided		
		Experts	Equipment	TOTAL
Brazil	Agricultural research and development, BRA/5/009	1.3	3.9	5.2
Nigeria	Nuclear physics, NIR/1/003	-	391.1	391.1
Thailand	Radioisotope production facility, THA/4/008	-	10.0	10.0
	TOTAL	1.3	405.0	406.3

A N N E X I I

TRAINING COURSES AND STUDY TOURS: 1984

Project title and code	Place(s) and dates	Source of funds	Participation ^{a/}			Amount(s) ^{b/} obligated (\$)
			(1)	(2)	(3)	
Industrial training/demonstration workshop on radiation vulcanization of natural rubber latex, RAS/8/025	Jakarta, Indonesia 1 October 1983 - 31 March 1984	UNDP	6	-	-	34 002 (CC)
Industrial training/demonstration workshop on on-stream analysis and control of mineral concentrators employing nucleonic systems, RAS/8/022	Quezon City and Baguio City, Philippines 8 January - 31 March	Australia	11	-	-	In kind
Training course on planning, preparedness and response to radiological emergencies, INT/9/048	Argonne, Illinois, USA 13 February - 9 March	Agency	32	-	-	94 983 (CC)
Training/demonstration workshop on the use of tracer technology in industry, RAS/8/028	Bombay, India, and Singapore 1 - 30 March	UNDP	9	-	-	27 067 (CC)
Training/demonstration workshop on the use of nucleonic control systems in the paper industry, RAS/8/027	Ban Pong, Thailand, and Tokyo, Japan 12 - 30 March	UNDP Japan	11	-	-	25 306 (CC) 10 136 (CC)
Training course on safety and reliability in nuclear plant operations, INT/9/049	Argonne, Illinois, USA 19 March - 18 May	Agency	27	-	-	130 443 (CC)
Training/demonstration workshop on rubber vulcanization, RAS/8/031	Jakarta, Indonesia 1 April - 30 September	UNDP Japan	8	-	-	59 263 (CC) 10 288 (CC)
Training course on the induction and use of mutations in plant breeding, INT/5/092	Seibersdorf, Austria 3 April - 18 May	Agency	19	1	-	105 578 (CC)
Training course on radiological protection and nuclear safety, INT/9/050	Buenos Aires, Argentina 3 April - 30 November	Agency	16	-	-	126 132 (CC)
Study tour on the production, control and utilization of radioisotopes, including radiopharmaceuticals, INT/4/069	USSR, Czechoslovakia, German Democratic Republic, Hungary 15 April - 10 May	Agency	26	-	-	52 560 (CC) 45 148 (NCC)
Training course on the safety of nuclear power plants and fuel cycle installations, INT/9/053	Saclay, France 2 May - 8 June	Agency	27	-	-	75 108 (CC)
Training course on energy-dispersive X-ray fluorescence analysis, INT/1/025	Singapore 7 May - 1 June	Agency	17	-	-	90 507 (CC)
Study tour on radiation techniques in industry, INT/8/024	France, German Democratic Republic, USSR, Czechoslovakia, Hungary 7 May - 9 June	Agency	22	-	-	76 476 (CC) 56 504 (NCC)
Training course on the use of isotopes and radiation techniques in studies on soil/plant relationships, INT/5/091	Seibersdorf, Austria 22 May - 6 July	Agency SIDA	15	5	-	21 665 (CC) 91 309 (CC)
Training course on the maintenance and quality control of scintillation cameras, INT/6/030	London, UK 28 May - 29 June	Agency UK	15	-	-	57 934 (CC) 2 166 (CC)
Executive management seminar on the use of nucleonic control systems for mineral beneficiation, RAS/8/035	Manila and Baguio City, Philippines 11 - 12 June	UNDP	8	-	-	11 423 (CC)

Project title and code	Place(s) and dates	Source of funds	Participation ^{a/}			Amount(s) obligated ^{b/} (\$)
			(1)	(2)	(3)	
Training course on the use of isotopes and radiation in integrated pest management with special reference to the sterile insect technique, INT/5/087	Gainesville, Florida, USA 11 June - 3 August	Agency	20	-	-	114 536 (CC)
Training course on nuclear instrumentation, INT/4/070	Izmir, Turkey 16 July - 7 September	Agency	20	-	1	95 451 (CC)
Training course on radiochemistry and nuclear analytical techniques, RLA/1/003	Quito, Ecuador 30 July - 31 August	Agency	16	-	-	98 319 (CC)
Training course on industrial radiography (level II), RLA/8/007	Lima, Peru 19 August - 1 September	UNFSSTD	10	-	-	19 200 (CC)
Training course for radiation protection officers in regulatory bodies, INT/9/045	Berlin, German Democratic Republic 28 August - 4 October	Agency	21	-	-	36 368 (CC) 34 136 (NCC)
Training course and study tour on nuclear medicine, INT/6/029	Moscow, USSR 1 September - 31 October	Agency	27	-	-	54 934 (CC) 114 407 (NCC)
Training course on industrial radiography (level III), RLA/8/006	Bogota, Colombia 2 - 15 September	UNFSSTD	7	-	-	15 233 (CC)
Training course on the use of isotopes and radiation techniques in soil physics studies, INT/5/093	Ghent, Belgium 3 - 21 September	Agency Belgium	21	-	-	26 126 (CC) 36 537 (CC)
Training course on electric system expansion planning (WASP), INT/0/035	Argonne, Illinois, USA 4 September - 1 November	Agency IBRD	29	-	-	135 788 (CC) 21 408 (CC)
Training/demonstration workshop on radiation sterilization of medical products, RAS/8/032	Bombay, India, and Seoul, Republic of Korea 10 - 29 September	UNDP	13	-	-	31 316 (CC)
Training course on quality assurance, INT/4/067	Karlsruhe, Federal Republic of Germany 10 September - 19 October	Agency	31	3	-	90 404 (CC)
Training course on research reactor operation, INT/4/071	Budapest, Hungary 10 September - 14 December	Agency	15	-	-	47 812 (CC) 29 246 (NCC)
Advanced training course on nuclear electronics, INT/4/068	Vienna, Austria 17 September - 14 December	Agency	16	1	-	161 254 (CC)
Theoretical and practical course on nuclear reactors, RLA/4/005	Mexico City, Mexico 24 September - 5 October	Federal Republic of Germany	11	-	-	19 200 (CC)
Executive management seminar on nucleonic control systems for paper production, RAS/8/036	Bangkok and Ban Pong, Thailand 27 - 28 September	UNDP	7	-	-	11 038 (CC)
Special management training course on the use of radioisotopes in the automatic control of mineral processing operations, RAS/8/038	Adelaide, Australia 30 September - 28 October	Agency Australia	7	-	-	12 931 (CC) In kind
Training course on advanced non-destructive testing, RAS/8/029	Singapore 1 - 19 October	Agency UNDP Japan	19	-	7	42 480 (CC) 16 896 (CC) 2 266 (CC)
Training course for medical technologists in radiotherapy, RAS/6/005	Tokyo, Japan 8 October - 9 November	Agency	14	-	-	76 001 (CC)
Training course on physical protection of nuclear facilities and materials, INT/9/052	Madrid, Spain 9 - 31 October	Agency	16	-	8	42 712 (CC)

Project title and code	Place(s) and dates	Source of funds	Participation ^{a/}			Amount(s) ^{b/} obligated (\$)
			(1)	(2)	(3)	
Training/demonstration workshop on the use of nucleonic control systems in the steel industry, RAS/8/033	Bokaro Steel City, India, and Tokyo, Japan 9 - 31 October	UNDP Japan	8	-	-	18 797 (CC) 14 032 (CC)
Training course on the technology of water-cooled power reactors, INT/4/066	Argonne, Illinois, USA, and Ontario, Canada 9 October - 30 November	Agency	28	1	-	135 763 (CC)
Training course on processing of uranium - from mining to fuel element fabrication, INT/3/013	Saclay, France 15 October - 16 November	Agency	30	-	-	75 993 (CC)
Train-the-trainers course on medical radioimmunoassay, RLA/6/008	Mexico City, Mexico 17 October - 9 November	Agency	15	-	-	72 032 (CC)
Training course on radioimmunoassay methods in animal production, RLA/5/017	Lima, Peru 22 October - 16 November	Agency	14	-	-	73 448 (CC)
Training course on dosimetry, INT/1/029	Rio de Janeiro, Brazil 23 October - 16 November	Agency	20	-	4	92 560 (CC)
Training course on energy-dispersive X-ray analysis, INT/1/030	Ljubljana and Zagreb, Yugoslavia 29 October - 23 November	Agency	17	-	-	72 855 (CC)
Training course on safety analysis, INT/9/051	Karlsruhe, Federal Republic of Germany 29 October - 13 December	Agency	32	-	-	91 917 (CC)
Industrial training/demonstration workshop on radiation curing of surface coatings of wood products, RAS/8/030	Jakarta, Indonesia 1 November 1984 - 28 February 1985	UNDP Japan	5	-	2	21 752 (CC) 13 710 (CC)
Training course on the application of isotope techniques in hydrology, RAF/8/008	Arusha, U.R. Tanzania 5 - 30 November	Agency	12	-	6	103 304 (CC)
Training course on radiochemistry and analytical techniques in nuclear science, INT/1/026	Karlsruhe, Federal Republic of Germany, and Strasbourg, France 5 November - 7 December	Agency	19	-	-	88 594 (CC)
Train-the-trainers workshop on the maintenance of nuclear instruments, RAS/4/007	Kuala Lumpur, Malaysia 12 November - 7 December	Agency	15	-	-	68 492 (CC)
Workshop on IAEA technical co-operation practice and procedures, INT/0/039	Khartoum, Sudan 25 - 29 November	Agency	15	-	3	46 970 (CC)
Training seminar on industrial nucleonic instrumentation engineering, RAS/8/034	Tokyo, Japan 26 November - 14 December	Japan	13	-	-	54 424 (CC)
Workshop on IAEA technical co-operation practice and procedures, RAS/0/010	Chiang Mai, Thailand 3 - 7 December	Agency	11	-	4	30 355 (CC)
Training course on radiation protection, INT/9/062	Bombay, India 3 December 1984 - 17 May 1985	Agency	12	-	15	43 396 (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 their government, or of another organization or programme; and those under (3) denote the number of local participants. No stipends or international travel costs were paid out of project funds in respect of participants shown under (2) and (3).

^{b/} The amounts obligated (i.e. expenditures plus unliquidated obligations) do not include expenditures by host governments in respect of local lecturers, or expenditures for laboratory, lecture room and other facilities.

ANNEX III

REPORTS SUBMITTED TO RECIPIENT-COUNTRY GOVERNMENTS

RECIPIENT	SUBJECT AND PROJECT CODE	AUTHOR(S)	REFERENCE NO.	STATUS ^{a/}
ALBANIA	APPLIED NUCLEAR TECHNIQUES AND DOCUMENTATION (ALB/0/002)	BUCHTELA, KARL	IAEA-TA-2180	D
ALGERIA	MEASUREMENT OF SUSPENDED SEDIMENTS IN ALGERIAN VALLEYS (ALG/8/004)	TAZIOLI, GIULIO SERGIO	IAEA-TA-2270	R
	INSTALLATION OF THE FIRST NUCLEAR GAUGE IN BENI SLIMANE (ALG/8/004)	TAZIOLI, GIULIO SERGIO	IAEA-TA-2291	S
	MISSION TO THE CENTRE FOR THE DEVELOPMENT OF RADIATION PROTECTION AND SAFETY TECHNIQUES (CDTRS) IN ALGIERS (ALG/9/003)	CAMUS, HENRY B.	IAEA-TA-2219	D
	STAFFING OF AN INSTITUTE FOR ENVIRONMENTAL PROTECTION (ALG/9/003)	CAMUS, HENRY B.	IAEA-TA-2275	R
ARGENTINA	RESEARCH REACTOR UTILIZATION: A CONSULTANCY REPORT (ARG/4/077)	KIMURA, ITSURO	IAEA/UNDP-ARG/78/020-21	R
	THERMAL HYDRAULICS (ARG/4/077)	PAYNTER, HENRY MARTIN	IAEA/UNDP-ARG/78/020-22	R
	REPORT OF A CONSULTANCY MISSION (ARG/4/077)	ALONSO SANTOS, AGUSTIN	IAEA/UNDP-ARG/78/020-23	D
BANGLADESH	NEUTRON GENERATOR (BGD/1/005)	MARTILA, OLLI JUHANA	IAEA-TA-2257	D
	REACTOR UTILIZATION (BGD/4/006)	DESAI, CHANDRAVADAN NANUBHAI	IAEA-TA-2194	D
	DESIGN OF HOT CELLS (BGD/4/006)	BEYER, GERD-JUERGEN	IAEA-TA-2259	D
	VENTILATION AND FILTRATION IN ACTIVE BUILDING (BGD/4/006)	BHARGAVA, BANSI LAL	IAEA-TA-2246	D
	SCINTIGRAPHY (BGD/6/006)	VAN HERK, GERARD	IAEA-TA-2213	R
BURMA	REPORT OF AN ADVISORY MISSION (BUR/1/011)	HAIDER, JOHANN G.	IAEA-TA-2276	D
CAMEROON	SETTING UP OF THE LABORATORY (CMR/3/006)	LAMPROYE, MICHEL	IAEA-TA-2245	D
COLOMBIA	URANIUM PROSPECTION: CONCLUSIONS AND RECOMMENDATIONS (COL/3/004)	PREMOLI, CAMILLO	IAEA/UNDP-COL/76/031-TR	R
ECUADOR	ADDITIONAL ANALYTICAL METHODS FOR THE GEOCHEMICAL LABORATORY (ECU/3/006)	LARUMBE, FERNANDO HECTOR	IAEA/UNDP-ECU/80/002-02	R
EGYPT	CHEMISTRY OF ACTINIDE COMPOUNDS (EGY/2/003)	NAVRATIL, JAMES DALE	IAEA-TA-2262	D
	PROPOSED RESEARCH PROGRAMME (EGY/2/003)	NAVRATIL, JAMES DALE	IAEA-TA-2263	D
	MANPOWER DEVELOPMENT: SAFETY ANALYSIS REVIEW AND EVALUATION (EGY/4/018)	ROGERS, LESTER R.	IAEA-TA-2261	D
	TRAINING OF TECHNICIANS AND CRAFTSMEN FOR NUCLEAR POWER PLANTS PROJECT (EGY/4/021)	HURLEY, FREDERICK IAN	IAEA-TA-2227	D
	STUDIES ON BUFFALO REPRODUCTION USING RADIOIMMUNOASSAY TECHNIQUES (EGY/5/009)	DOBSON, HILARY VAUGHAN	IAEA-TA-2255	D
	REPRODUCTIVE BEHAVIOUR OF SHEEP (EGY/5/015)	DOBSON, HILARY VAUGHAN	IAEA-TA-2265	D
	INDUSTRIAL RADIOGRAPHY (EGY/8/006)	KRISHNAMURTHY, KRISHNASWAMY	IAEA/UNDP-EGY/78/011-02	D
GREECE	PRODUCTION OF LABELLED ORGANIC COMPOUNDS (GRE/2/016)	ABDEL-WAHAB, MOHAMED FATHY	IAEA-TA-2204	D
	REVIEW AND EVALUATION OF THE URANIUM EXPLORATION PROGRAMME OF THE GREEK ATOMIC ENERGY COMMISSION (GRE/3/006)	THAMM, JOHN KENNETH	IAEA-TA-2223	D
	ENVIRONMENTAL RADIOACTIVITY (GRE/9/011)	KOELZER, WINFRIED PHILIPP	IAEA-TA-2225	D
INDIA	ANALYTICAL CHEMISTRY: A CONSULTANCY REPORT (IND/5/011)	TJELL, JENS CHRISTIAN	IAEA/SIDA-IND/5/011-15	R
	CALORIMETRY: A CONSULTANCY REPORT (IND/5/012)	VAN ES, AREN JACOB HUIBERT	IAEA/SIDA-IND/5/012-14	D
INDONESIA	LASER INSTRUMENTATION (INS/1/008)	BHAWALKAR, DILIP DEVIDAS	IAEA-TA-2211	D
	NEUTRON SCATTERING STUDY (INS/1/012)	HURTHY, N.S. SATYA	IAEA-TA-2201	D
	ADVICE ON EXPLORATION ADITS (INS/3/008)	KHAN, HAQ NAWAZ	IAEA-TA-2253	D
	QUALITY CONTROL IN NUCLEAR FUEL FABRICATION (INS/4/017)	MUEHLING, CUENTER	IAEA-TA-2192	D
	NUCLEAR ELECTRONICS (INS/4/019)	NOAKES, JOHN EDWARD	IAEA-TA-2175	D
	RADIOISOTOPES IN POULTRY NUTRITION (INS/5/017)	SPALDING, JAMES D.	TARA-TA-2199	D
	SOIL FERTILITY (INS/5/018)	KALLFELZ, FRANCIS ANTHONY BROESHART, HANS	IAEA/UNDP-INS/78/074-02	D
IRAN, I.R.	QUALITY CONTROL OF RADIOISOTOPES (IRA/2/003)	WARASIMHAN, DANAIKENKOTTAI	IAEA-TA-2197	D
IVORY COAST	APPLIED AND BASIC RESEARCH IN X-RAY AND GAMMA SPECTROMETRY (IVC/0/003)	GUILLEAUME, GEORGES	IAEA-TA-2250	D
	OPTIMIZATION OF CULTIVATION METHODS FOR RAIN-FED RICE (IVC/5/012)	VAUCLIN, MICHEL MARCEL	IAEA-TA-2181	D
	ASSISTANCE IN THE ANALYSIS OF EXPERIMENTAL RESULTS AIMED AT DETERMINING THE BEHAVIOUR OF A RICE VARIETY UNDER DIFFERENT WATER REGIMES (IVC/5/012)	VAUCLIN, MICHEL MARCEL	IAEA-TA-2203	D
KENYA	ESTABLISHMENT OF A NUCLEAR SCIENCE LABORATORY (KEN/0/003)	KUMP, PETER	IAEA-TA-2205	D
	NITROGEN-15 AND PHOSPHORUS-32 STUDIES ON PLANT-SOIL-FERTILIZER RELATIONSHIPS (KEN/5/008)	LUNT, OWEN RAYNAL	IAEA-TA-2221	D

RECIPIENT	SUBJECT AND PROJECT CODE	AUTHOR(S)	REFERENCE NO.	STATUS
KOREA, REPUBLIC OF	QUALITY ASSURANCE ORGANIZATION OF NUCLEAR FUEL FABRICATION (ROK/9/014)	COLTON, JOHN PHILLIP	IAEA-TA-2195	R
	OPERATIONAL SAFETY - WOLSUNG NUCLEAR POWER PLANT (ROK/9/015)	SCHWARZ, GARRY RALPH	IAEA-TA-2258	D
	NUCLEAR SAFETY RESEARCH AND TRAINING (ROK/9/023)	FOEHL, JUERGEN	IAEA-TA-2212	R
	HUMAN FACTORS REVIEW OF NUCLEAR POWER PLANT CONTROL ROOMS (ROK/9/023)	SEMINARA, JOSEPH L.	IAEA-TA-2260	R
LIBYAN ARAB JAMAHIRIYA	AERIAL RADIOMETRIC SURVEYING (LIB/3/003)	PETROVIC, MILAN	IAEA-TA-2190	D
	URANIUM EXPLORATION (LIB/3/004)	PARSLOW, GEOFFREY RONALD	IAEA-TA-2220	D
	POSSIBLE CO-OPERATIVE PROGRAMMES IN AGRICULTURE (LIB/5/003)	LINDQUIST, DONALD ARTHUR PLIMMER, JACK KALININ, KIR VASILIEVICH PARKAS, JOZSEF	IAEA-TA-PH-015	S
MADAGASCAR	ESTABLISHMENT OF A BITATRON AT THE NUCLEAR PHYSICS LABORATORY AT THE FACULTY OF SCIENCES AT TANANARIVE (MAG/1/004)	AIT HADDOU, ASSOU	IAEA-TA-2185	D
	NATIONAL COURSE ON GENERAL ELECTRONICS AND NUCLEAR INSTRUMENTATION (MAG/1/004)	HAMMER, JOHANNES LAUWERS, JOANNES	IAEA-TA-2232	D
	STUDY IN ANIMAL HUSBANDRY (MAG/5/004)	CZERKAWSKI, JULIAN WLADYSLAW BSKEW, DAVID	IAEA-TA-2222	D
MALAYSIA	STUDY OUTLINE AND DATA BASE (MAL/0/007)	SKJOELDEBRAND, ROBERT MARQUES DE SOUZA, JAIR ALBO ALBISU, FRANCISCO MANI, RAGHUNATH SUBRA	IAEA-TA-2278 IAEA-TA-2290	D S
	TECHNETIUM-99M PRODUCTION FROM LOW SPECIFIC ACTIVITY MOLYBDENUM-99 (MAL/2/002)	BROESHART, HANS	IAEA-TA-2247	D
	EFFICIENT USE OF FERTILIZERS (MAL/5/010)	DORY, ALADAR B.	IAEA-TA-2284	R
	STORAGE METHODS FOR CRUDE THORIUM HYDROXIDE WET CAKE (MAL/9/003)	HEINONEN, JORMA SOMAN, SUDHAKAR DWARAKANATH		
MAURITIUS	PROJECTED IMPROVEMENT OF FACILITIES FOR NUCLEAR MEDICINE (MAR/6/002)	BELCHER, ERNEST HUGH	IAEA-TA-2217	D
MALI	NUCLEAR MEDICINE LABORATORY PROJECT (MLI/6/002)	WAHL, RICHARD	IAEA-TA-2273	D
MONGOLIA	GAMMA SPECTROMETRY (MON/1/002)	TURKIEWICZ, JAN	IAEA-TA-2182	D
	QUALITY ASSAY OF CROP PRODUCTS (MON/5/002)	YANKULOV, MERKO TRIFONOV	IAEA-TA-2215	D
MOROCCO	EXPLORATION FOR SANDSTONE-TYPE URANIUM DEPOSITS (MOR/3/005)	CARRIE, RAYMOND PAUL	IAEA-TA-2293	S
	MAINTENANCE OF ELECTRONIC INSTRUMENTS (MOR/4/005)	DE POOTER, JEAN PIERRE	IAEA-TA-2292	S
	APPLICATIONS OF RADIOISOTOPES IN AGRICULTURE (MOR/5/013)	HAMISSA, MOHAMED RIAD ALY	IAEA-TA-2271	D
NIGER	WATER MANAGEMENT IN AGRICULTURE (NER/5/003)	HARTMANN, ROGER HENRI	IAEA-TA-2243	D
	REPORT ON THE PROGRESS OF ISOTOPE-AIDED HYDROCHEMICAL AND HYDROLOGICAL STUDIES ON DISCONTINUOUS AQUIFERS AT LIPTAKO (NER/8/003)	FONTES, JEAN-CHARLES	IAEA-TA-2187	D
	PROGRESS IN STUDIES ON AQUIFERS IN THE BILMA-DJADO REGION (NER/8/003)	ZUPPI, GIAN MARIA	IAEA-TA-2198	D
NIGERIA	STUDIES ON THE DIGESTION OF AGRO-INDUSTRIAL BY-PRODUCTS FED TO RUMINANT ANIMALS (NIR/5/010)	ROWE, JAMES BABER	IAEA/UNDP-NIR/72/005-06	R
PAKISTAN	URANIUM EXPLORATION IN METAMORPHIC AND IGNEOUS TERRAIN (PAK/3/005)	SMITH, EDGAR ERNEST NORVAL	IAEA-TA-2248	R
	ULTRASONIC, RADIOGRAPHIC AND EDDY-CURRENT TECHNIQUES (PAK/4/025)	KAUPPINEN, KALLE PENTTI	IAEA-TA-2236	R
	STERILE-INSECT TECHNIQUE (PAK/5/018)	BUTI, BILLY ARTHUR	IAEA-TA-2214	R
	NATIONAL PROVISION OF RADIOIMMUNOASSAY REAGENTS (PAK/6/007)	EDWARDS, RAYMOND	IAEA-TA-2289	D
PERU	URANIUM ORE PROCESSING (PER/3/011)	CECCHETTO, ALDO MARIO	IAEA/UNDP-PER/81/004-04	R
	PROSPECTION AND EVALUATION OF NUCLEAR RAW MATERIALS (PER/3/011)	BELLUCO, ALBERTO ESTEBAN	IAEA/UNDP-PER/81/004-06	R
	MINERALOGICAL AND PETROGRAPHIC CHARACTERISTICS OF URANIUM DEPOSITS IN MACUSANI (PER/3/011)	ARRIBAS, ANTONIO	IAEA/UNDP-PER/81/004-08	R
	URANIUM PROSPECTION - ANALYTICAL CHEMISTRY (PER/3/011)	TOMELLINI, GUIDO CARLOS	IAEA/UNDP-PER/81/004-09	R
	RADIOIMMUNOASSAY (PER/5/013)	CHEERS, MECHELLE ANN CHAMBERS	IAEA/UNDP-PER/81/004-05	R
	NUCLEAR ENERGY APPLICATIONS IN AGRICULTURE (PER/5/013)	FRIED, MAURICE SIGURBJOERNSSON, BJOERN PIYASENA, RIENZIL DODWELL	IAEA/UNDP-PER/81/004-07 IAEA/UNDP-PER/81/004-10	R R
	RADIOIMMUNOASSAY (PER/6/010)			
PHILIPPINES	RADIOISOTOPE PRODUCTION (PHI/4/015)	JIMENO DE OSSO, FRANCISCO	IAEA-TA-2207	D
	ENVIRONMENTAL RADIOACTIVITY (PHI/9/007)	PILLAI, KRISHNAPILLAI C.	IAEA-TA-2209	D
	NUCLEAR RISK ASSESSMENT (PHI/9/012)	LOCHARD, JACQUES JEAN	IAEA-TA-2237	R
ROMANIA	NUCLEAR PHYSICS (ROM/1/003)	TRAUTHMAN, DIRK RAINER	IAEA-TA-2179	D
	EXCITATION AND EMISSION STUDIES OF LASER-INDUCED ACTINIDE LUMINESCENCE (ROM/1/005)	SEELBINDER, MARK BRYAN	IAEA-TA-2240	D
	GAMMA STERILIZATION FACILITY (ROM/8/010)	YUAN, HONG-CHIEW	IAEA-TA-2224	D

RECIPIENT	SUBJECT AND PROJECT CODE	AUTHOR(S)	REFERENCE NO.	STATUS ^{1/}
SENEGAL	MANPOWER DEVELOPMENT FOR ITNA'S FUTURE ELECTRONICS LABORATORY (SEN/0/003)	VANDEVYVERE, SAMUEL	IAEA/UNDP-SEN/77/005-04	R
	X-RAY AND GAMMA SPECTROMETRY (SEN/0/003)	PAIC, GUY	IAEA/UNDP-SEN/77/005-03	R
	ESTABLISHMENT OF A LABORATORY FOR MOLECULAR RADIOLABELLING (SEN/0/003)	SERVIAN, JORGE LUIS	IAEA/UNDP-SEN/77/005-05	R
	RESIDUAL EFFECT OF PHOSPHATE AND ROOTING BEHAVIOUR OF RICE AND MILLET (SEN/5/016)	TRUONG, BINH	IAEA-TA-2280	D
	USE OF ISOTOPE TECHNIQUES IN SOIL IMPROVEMENT STUDIES (SEN/5/017)	VACHAUD, GEORGES	IAEA-TA-2252	D
SIERRA LEONE	HYDROGEOLOGICAL STUDY OF THE NDIASS HORST (SEN/8/002)	DRAY, MARTIAL	IAEA-TA-2269	D
	RADIOISOTOPES IN MEDICINE AT CONNAUGHT HOSPITAL, FREETOWN (SIL/6/003)	SZYBINSKI, ZBIGNIEW	IAEA-TA-2254	D
SINGAPORE	RADIOTRACER TECHNIQUES IN SEDIMENT STUDIES (SIN/8/008)	PAYNE, BRYAN	IAEA-TA-2191	D
SRI LANKA	COURSE ON NUCLEAR POWER ENGINEERING (SRL/4/008)	PARISH, THEODORE ALLEN	IAEA-TA-2234	R
	USE OF RADIOACTIVE TRACER TECHNIQUES: PROJECT FINDINGS AND RECOMMENDATIONS (SRL/8/005)	PAYNE, BRYAN	IAEA/UNDP-SRL/77/014-TR	R
SUDAN	COMMERCIAL FEASIBILITY (SRL/8/013)	IYA, VASUDEVA KILARA	IAEA-TA-2285	S
	NEUTRON GENERATOR LABORATORY DESIGN (SUD/0/006)	CSIKAI, GYULA	IAEA-TA-2244	D
	PESTICIDE RESIDUES IN VEGETABLE CROPS AND SOIL IN THE SUDAN (SUD/5/012)	SHIMABUKURO, RICHARD HIDEO	IAEA-TA-2249	D
SYRIAN ARAB REPUBLIC	APPLICATION OF RADIOISOTOPES IN ANIMAL REPRODUCTIVE PHYSIOLOGY (SUD/5/013)	NESSAN, KHAMMO GOLIATH	IAEA-TA-2264	D
	SUPPLY OF RADIOIMMUNOASSAY REAGENTS (SUD/6/009)	EDWARDS, RAYMOND	IAEA-TA-2266	D
THAILAND	GEOCHEMICAL ANALYSIS OF URANIUM (SYR/1/002)	BASSET, MARCEL	IAEA-TA-2238	D
	RESEARCH REACTOR PROJECT PLANNING (SYR/4/002)	ALCALA RUIZ, FRANCISCO	IAEA-TA-2281	R
THAILAND	HIGH LEVEL DOSE MEASUREMENTS (THA/1/004)	RADAK, BRANISLAV BORISLAV	IAEA-TA-2256	R
	PESTICIDE RESIDUES (THA/5/021)	DAS, HENDRIK ALBERT	IAEA-TA-2193	D
	PLANT MUTATION BREEDING (THA/5/023)	IWAMOTO, MUTSUO	IAEA-TA-2183	D
TUNISIA	UPGRADING OF DATA PROCESSING EQUIPMENT FOR THE SERVICE DE MEDECINE NUCLEAIRE DE L'INSTITUT SALAH AZAIZ (TUN/6/002)	DI PAOLA, ROBERT JOSEPH	IAEA-TA-2251	D
TURKEY	TRACE ELEMENT IMBALANCE IN FARM ANIMALS (TUR/5/010)	FIELD, ALEXANDER CECIL	IAEA-TA-2239	D
	RUMINANT NUTRITION (TUR/5/010)	SMITH, ROY HENRY	IAEA-TA-2241	D
	X-RAY AND NEUTRON RADIOGRAPHY (TUR/8/008)	DOMANUS, JOSEF CZASLAW	IAEA-TA-2230	D
	NUCLEAR POWER PROGRAMME (TUR/9/005)	KARBASSIOUN, AHMAD	IAEA-TA-2174	D
		BONNEFILLE, RENE MARTIN		
		DI NUNNO, J.		
		EGGENBERGER, ANDREW JON		
		SERVA, LEONELLO		
		GURPINAR, AYBARS	IAEA-TA-2176	D
		GURPINAR, AYBARS	IAEA-TA-2188	D
		CELEBI, MEHMET	IAEA-TA-2196	D
		PIERMATTEI, SILVANA	IAEA-TA-2200	D
		HARTEVELT, JACOBUS JAN ABRAHAM	IAEA-TA-2184	D
		GURPINAR, AYBARS	IAEA-TA-2206	D
		TOKSOZ, M. NAFI	IAEA-TA-2235	D
	VAN ERP, JAN BAREND	IAEA-TA-2268	D	
	RECOMMENDATIONS ON SEISMIC SAFETY: ASPECTS OF AKKUYU AND SINOP NUCLEAR POWER PLANTS (TUR/9/005)	GURPINAR, AYBARS	IAEA-TA-2282	D
	EVALUATION OF METEOROLOGICAL DATA (TUR/9/005)	FAIROBENT, JAMES EDWARD	IAEA-TA-2287	S
UNITED ARAB EMIRATES	ASSESSMENT OF URANIUM POTENTIAL WITH SPECIAL REFERENCE TO THE EMIRATE OF FUJEIRAH (UAE/3/002)	MUELLER-KAHLE, EBERHARD	IAEA-TA-2228	D
UNITED REPUBLIC OF TANZANIA	STUDIES ON FERTILIZER UPTAKE BY CROP PLANTS: EXPERIMENTS WITH MAIZE AND RICE USING 32P-LABELLED SUPERPHOSPHATE (URT/5/005)	KANNAN, SESHADRI	IAEA-TA-2189	D
	ADVISORY MISSION ON STUDIES OF ACARICIDE RESIDUES IN MEAT AND MILK (URT/5/006)	VOLLNER, LAJOS	IAEA-TA-2208	D
	PROPOSAL FOR THE ESTABLISHMENT OF RADIOIMMUNOASSAY FACILITIES AT THE AMANI MEDICAL RESEARCH CENTRE (URT/6/003)	CASTELINO, JOHN BATISTA	IAEA-TA-2226	D
	PLANNING MISSION ON RADIATION PROTECTION SERVICES (URT/9/002)	HASLING, WILLY	IAEA-TA-2231	D
VIET NAM	RADIATION PROTECTION (VIE/0/002)	AHMED, JASIMUDDIN	IAEA-TA-2229	R
	NUCLEAR PHYSICS (VIE/1/006)	BRUNNER, JOHANNES GERHARD	IAEA-TA-2216	D
	RADIATION POLYMERIZATION (VIE/2/003)	STENGER, VILMOS	IAEA-TA-2218	D
	ISOTOPE HYDROLOGY (VIE/8/003)	SALIEGE, JEAN-FRANCOIS	IAEA-TA-2202	D

RECIPIENT	SUBJECT AND PROJECT CODE	AUTHOR(S)	REFERENCE NO.	STATUS ^{a/}
YUGOSLAVIA	ESTABLISHMENT OF A URANIUM ANALYSIS LABORATORY AT ZIROVSKI VRH MINE: PROJECT FINDINGS AND RECOMMENDATIONS (YUG/3/004)	SKANTAR-HEPP, MIRA	IAEA/UNDP-YUG/78/008-TR	R
	SITE QUALIFICATION PROGRESS (YUG/4/021)	EGGENBERGER, ANDREW JON	IAEA-TA-2233	D
	SITE QUALIFICATION (HYDROLOGY) (YUG/4/021)	PULSELLI, URBANO	IAEA-TA-2279	D
	ORGANIZATIONAL STRUCTURE IN NUCLEAR SAFETY (YUG/4/021)	MENELEY, DANIEL ALLISON	IAEA-TA-2286	S
	NUCLEAR POWER SAFETY (YUG/9/010)	VANNI, EMIO ANTONIO	IAEA-TA-2178	D
	NUCLEAR POWER SAFETY (YUG/9/010)	AGAPITO, JOISE RUBENS	IAEA-TA-2186	D
	OPERATIONAL SAFETY REVIEW OF THE KRSKO NUCLEAR POWER PLANT (YUG/9/010)	BLISSELIUS, PER-AAKE GUSTAF FRANZEN, FERDINAND L. GUIMARAES, SERGIO ROBERTO HOFMANN, WEENER JOENSSON, LEIF GOESTA LINDBLAD, VIKTORIJA PRESKAR SAMUEL, THOMAS STUBBE, ELIE JOZEF	IAEA-TA-2283	D
	SIMULATION OF THE KRSKO NUCLEAR POWER PLANT FOR REACTOR TRANSIENT ANALYSIS BY MEANS OF THE COMPUTER CODE RELAP-5 (MOD-1) (YUG/9/018)		IAEA-TA-2242	D
ZAIRE	ISOTOPE TECHNIQUES IN HYDROLOGY (ZAI/0/003)	DRAY, MARTIAL	IAEA/UNDP-ZAI/76/004-04	R
	NUCLEAR MEDICINE: A CONSULTANCY REPORT (ZAI/0/003)	HERNADY, TIBOR	IAEA/UNDP-ZAI/76/004-05	R
	INSTALLATION OF EQUIPMENT FOR NITROGEN-15 TRACER MEASUREMENT (ZAI/5/006)	JUNG, KLAUS	IAEA-TA-2272	D
ZAMBIA	NITROGEN FIXATION STUDIES (ZAM/5/004)	LEGG, JOSEPH OGDEN	IAEA-TA-2210	D
REGIONAL AFRICA	APPLICATION OF NUCLEAR TECHNIQUES IN SEDIMENTOLOGY: MOROCCO (RAF/8/007)	CAILLOT, ALAIN ROGER PIERRE	IAEA-TA-2274	D
INTERREGIONAL	A FACT-FINDING MISSION: THAILAND (INT/0/037)	BENNETT, LEONARD L. CHARPENTIER, JEAN-PIERRE MOLINA, PABLO	IAEA-TA-2267	R
	NATIONAL LOW-LEVEL RADIOACTIVE WASTE PROGRAMME: TURKEY (INT/0/038)	SAIRE, DONALD E.	IAEA-TA-2277	R
	NUCLEAR DATA TECHNIQUES AND INSTRUMENTATION: GREECE (INT/1/018)	VONACH, HERBERT K.	IAEA-TA-2177	D

^{a/} D = De-restricted distribution; R = Restricted distribution; S = Restricted pending notification from Government.

A N N E X I V

VOLUNTARY CONTRIBUTIONS PLEDGED AND PAID
TO THE TECHNICAL ASSISTANCE AND CO-OPERATION FUND FOR 1984
as at 31 December 1984

Member State	Base rate %	Share of \$22.5 million target for voluntary contributions for 1984 using base rate <u>a/</u>	Pledged	Paid
(1)	(2)	(3)	(4)	(5)
Afghanistan	0.01	2 250	-	-
Albania	0.01	2 250	1 900	-
Algeria	0.13	29 250	29 250	29 250
Argentina	0.71	159 750	159 750	-
Australia	1.57	353 250	351 887	351 887
Austria	0.75	168 750	168 750	168 750
Bangladesh	0.03	6 750	-	-
Belgium	1.28	288 000	89 431	89 431
Bolivia	0.01	2 250	-	-
Brazil	1.39	312 750	243 200	-
Bulgaria	0.18	40 500	40 500	40 500
Burma	0.01	2 250	-	-
Byelorussian SSR	0.36	81 000	89 744	89 744
Cameroon	0.01	2 250	2 100	2 100
Canada	3.09	695 250	695 250	695 250
Chile	0.07	15 750	15 750	15 750
China <u>b/</u>	0.88	198 000	206 622	206 622
Colombia	0.11	24 750	24 750	17 792
Costa Rica	0.02	4 500	509	509
Cuba	0.09	20 250	20 250	20 250
Cyprus	0.01	2 250	-	-
Czechoslovakia	0.76	171 000	164 918	164 918
Dem. Kampuchea	0.01	2 250	-	-
Dem. P.R. Korea	0.05	11 250	11 250	11 250
Denmark	0.75	168 750	168 750	168 750
Dominican Republic	0.03	6 750	-	-
Ecuador	0.02	4 500	4 500	4 500
Egypt	0.07	15 750	15 750	15 750
El Salvador	0.01	2 250	-	-
Ethiopia	0.01	2 250	-	-
Finland	0.48	108 000	108 000	108 000
France	6.52	1 467 000	1 467 000	1 467 000
Gabon	0.02	4 500	4 500	4 500
German D.R.	1.39	312 750	312 750	312 750
Germany, F.R.	8.55	1 923 750	1 923 750	1 923 750

Member State	Base rate %	Share of \$22.5 million target for voluntary contributions for 1984 using base rate <u>a/</u>	Pledged	Paid
(1)	(2)	(3)	(4)	(5)
Ghana	0.02	4 500	-	-
Greece	0.40	90 000	90 000	90 000
Guatemala	0.02	4 500	4 500	-
Haiti	0.01	2 250	-	-
Holy See	0.01	2 250	-	-
Hungary	0.23	51 750	53 156	53 156
Iceland	0.03	6 750	-	-
India	0.36	81 000	81 000	81 000
Indonesia	0.13	29 250	29 250	29 250
Iran, I.R.	0.58	130 500	-	-
Iraq	0.12	27 000	27 000	3 600
Ireland	0.18	40 500	-	-
Israel	0.23	51 750	-	-
Italy	3.75	843 750	446 927	446 927
Ivory Coast	0.03	6 750	-	-
Jamaica	0.02	4 500	-	-
Japan	10.33	2 324 250	2 324 250	2 324 250
Jordan	0.01	2 250	2 250	2 250
Kenya	0.01	2 250	-	-
Korea, R.	0.18	40 500	40 500	40 500
Kuwait	0.25	56 250	-	-
Lebanon	0.02	4 500	-	-
Liberia	0.01	2 250	-	-
Libyan A.J.	0.26	58 500	-	-
Liechtenstein	0.01	2 250	2 250	2 250
Luxembourg	0.06	13 500	-	-
Madagascar	0.01	2 250	2 250	852
Malaysia	0.09	20 250	20 250	20 250
Mali	0.01	2 250	-	-
Mauritius	0.01	2 250	-	-
Mexico	0.88	198 000	198 000	198 000
Monaco	0.01	2 250	-	-
Mongolia	0.01	2 250	2 250	2 250
Morocco	0.05	11 250	-	-
Namibia	-	-	-	-
Netherlands	1.78	400 500	400 500	400 500
New Zealand	0.26	58 500	-	-
Nicaragua	0.01	2 250	-	-
Niger	0.01	2 250	-	-
Nigeria	0.19	42 750	42 750	-

Member State	Base rate %	Share of \$22.5 million target for voluntary contributions for 1984 using base rate <u>a/</u>	Pledged	Paid
(1)	(2)	(3)	(4)	(5)
Norway	0.51	114 750	114 750	114 750
Pakistan	0.06	13 500	13 500	13 500
Panama	0.02	4 500	4 500	-
Paraguay	0.01	2 250	-	-
Peru	0.07	15 750	-	-
Philippines	0.09	20 250	10 000	10 000
Poland	0.72	162 000	174 732	174 732
Portugal	0.18	40 500	40 500	40 500
Qatar	0.03	6 750	-	-
Romania	0.19	42 750	-	-
Saudi Arabia	0.86	193 500	193 500	193 500
Senegal	0.01	2 250	-	-
Sierra Leone	0.01	2 250	-	-
Singapore	0.09	20 250	1 800	1 800
South Africa	0.41	92 250	-	-
Spain	1.93	434 250	30 000	30 000
Sri Lanka	0.01	2 250	2 250	2 250
Sudan	0.01	2 250	-	-
Sweden	1.32	297 000	297 000	297 000
Switzerland	1.10	247 500	247 500	247 500
Syrian A.R.	0.03	6 750	-	-
Thailand	0.08	18 000	18 000	18 000
Tunisia	0.03	6 750	-	-
Turkey	0.32	72 000	72 000	-
Uganda	0.01	2 250	-	-
Ukrainian SSR	1.32	297 000	321 750	321 750
USSR	10.55	2 373 750	2 366 127	2 366 127
U.A. Emirates	0.16	36 000	36 000	36 000
UK	4.68	1 053 000	1 053 000	1 053 000
U.R. Tanzania	0.01	2 250	2 250	2 250
USA	25.00	5 625 000	5 500 000	5 500 000
Uruguay	0.04	9 000	-	-
Venezuela	0.55	123 750	40 000	40 000
Viet Nam	0.02	4 500	-	-
Yugoslavia	0.46	103 500	103 500	103 500
Zaire	0.01	2 250	-	-
Zambia	0.01	2 250	2 250	-
TOTAL	100.88	22 698 000	20 732 803	20 170 197

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

b/ China became a Member State of the Agency on 1 January 1984.

A N N E X V

COST-FREE FELLOWSHIPS OFFERED AND AWARDED: 1984

Donor	Offered		Awarded ^{a/}	
	Number	Man-months	Number	Man-months
Argentina	6	72	-	-
Austria	- ^{b/}	-	1	12
Belgium	9	54	-	-
Brazil	10	120	6	50
Bulgaria	2	12	-	-
Czechoslovakia	9 ^{c/}	-	-	-
Denmark	5	60	2	9
France	-	50	1	12
Germany, F.R.	-	110	17	109
Hungary	4	48	3	20
India	10	-	9	45
Israel	-	45	1	12
Italy	-	100	7	66
Japan	5	45	4	39
Netherlands	8	-	-	-
Pakistan	6	-	-	-
Philippines	3	-	-	-
Poland	10	-	2	24
Spain	5	60	9	57
Thailand	2	-	-	-
United Kingdom	- ^{b/}	-	6	67
United States of America	- ^{b/}	-	89	718
Yugoslavia	-	22	-	-

^{a/} Awards less rejections and withdrawals as at 31 December 1984.

^{b/} A specific amount of money was made available rather than a given number of fellowships.

^{c/} Includes five long-term fellowships of up to 60 man-months each.

A N N E X V I

PROJECTS UNDER IMPLEMENTATION FOR UNDP
(in thousands of dollars)

Recipient	Project title and code	Total amount approved	Approved budgets				
			Prior to 1984	1984	1985	1986	1987
Albania	Installation and operation of a research and service reactor, ALB/81/004	2	1	1	-	-	-
Argentina	Nuclear engineering, ARG/78/020	2374	2039	244	91	-	-
Chile	Uranium prospection - Phase II, CHI/79/001	459	459	(13)	13	-	-
Costa Rica	Strengthening national capacity for mineral prospection, COS/83/T02 (UMFSSTD)	582	-	153	362	67	-
Cuba	Introduction of nuclear techniques into the national economy, CUB/77/001	1579	1322	107	50	100	-
Ecuador	Uranium prospection in Ecuador, ECU/80/002	539	345	194	-	-	-
Egypt	National Centre for Radiation Technology - Phase II, EGY/78/011	693	517	152	24	-	-
Hungary	Establishment of an automated radiation laboratory, HUN/82/002	63	46	8	9	-	-
Indonesia	Application of isotopes and radiation to increasing agricultural production, INS/78/074	1564	600	435	270	200	59
Iran, I.R.	Pilot demonstration plant for radio-sterilization and other applications of radiation technology, IRA/82/003	1559	764	330	465	-	-
Madagascar	Uranium prospection and evaluation, MAG/77/012	1465	1445	20	-	-	-
Malawi	Negotiations on uranium exploration, MLW/84/001	8	-	8	-	-	-
Peru	Nuclear energy, PER/81/004	1258	864	266	128	-	-
Philippines	Philippine nuclear power manpower development programme, PHI/80/007	1130	361	334	435	-	-
Romania	Assistance for nuclear power stations, ROM/82/001	706	438	136	132	-	-
Senegal	Assistance to the Institute for the Application of Nuclear Techniques, SEN/77/005	260	240	20	-	-	-
Sri Lanka	Radioactive tracer techniques for the study of coastal sedimentology, SRL/77/014	189	181	8	-	-	-

Recipient	Project title and code	Total amount approved	Approved budgets				
			Prior to 1984	1984	1985	1986	1987
Yugoslavia	Establishment of a uranium analysis laboratory at Zirovski Vrh Mine, Slovenia, YUG/78/008	80	77	3	-	-	-
	Establishment of radiation polymer laboratory, Vinca, YUG/82/007	147	-	77	40	30	-
	Ljubljana Nuclear Training Centre, YUG/83/007	105	34	61	10	-	-
Zaire	Strengthening of infrastructure - Centre régional d'études nucléaires - Regional Centre for Nuclear Studies (CREN), Kinshasa, ZAI/76/004	572	557	15	-	-	-
Asia and the Pacific	Support for regional co-operation in the industrial application of isotopes and radiation technology, RAS/79/061	4699	2985	372	814	528	-
Latin America	Regional non-destructive testing (NDT) project for Latin America and the Caribbean, RLA/84/T01 (UNFSSTD)	1585	-	177	843	565	-

A N N E X VII

PROJECTS COMPLETED OR CANCELLED DURING 1984

A. Completed projects

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment (\$)
Bangladesh	Neutron physics, BGD/1/005	1981, 1983	3.0	121 700
	Elemental analysis, BGD/2/007	1984	-	16 200
	Nuclear medicine, BGD/6/006	1982	3.0	42 100
	Sterilization of pharmaceuticals, BGD/7/003	1980, 1982	2.0	23 800
Bolivia	Uranium prospection, BOL/3/008	1979, 1980 1981, 1983	10.0	71 700
	Uranium exploration planning, BOL/3/010	1984	1.0	-
	Radiopharmaceuticals, BOL/6/010	1979	0.5	93 500
Brazil	Fuel management, BRA/0/005	1977	3.0	-
	Solid-state nuclear track detectors, BRA/1/020	1983	1.0	6 900
	Nuclear power plant safety, BRA/9/015	1979	14.0	-
	Fuel cycle safety analysis, BRA/9/018	1982	1.0	-
	Health physics, BRA/9/021	1983	-	48 100
Bulgaria	Computational safety analysis, BUL/9/007	1983	4.0	15 800

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment (\$)
Burma	Secondary standards dosimetry laboratory, BUR/1/011	1983	0.5	-
	Radioisotopes in medicine, BUR/6/010	1981	-	47 400
Chile	Small and medium-sized power reactors, CHI/0/007	1984	0.5	-
	Tracers in metallurgy, CHI/8/014	1984	2.0	-
Colombia	Geological data processing, COL/0/004	1981, 1982	1.5	55 500
Cuba	Nuclear science laboratory, CUB/1/002	1980, 1981	2.0	128 900
	Ionizing radiation metrology, CUB/1/004	1982, 1983	-	111 700
	Nuclear electronics, CUB/4/006	1976	2.0	63 800
	Radioisotopes in industry, CUB/8/005	1978, 1983	1.0	64 900
Ecuador	Nuclear medicine, ECU/6/007	1982	4.5	36 700
Egypt	Zircaloy cladding materials, EGY/4/015	1979	1.0	5 000
	Manpower development: operations and maintenance training, EGY/4/019	1983	2.0	-
Greece	Nuclear raw materials, GRE/3/006	1981, 1982 1983	11.5	125 700
	Research reactor utilization, GRE/4/007	1982	0.5	-
	Studies of plant water use efficiency, GRE/5/013	1983	2.0	14 700

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment (\$)
Hungary	Computational safety analysis, HUN/9/007	1983	3.0	15 800
Iran, I.R.	Radiation protection, IRA/9/007	1983	2.0	-
Ivory Coast	Radioisotopes in agriculture, IVC/5/009	1980	0.5	24 500
Kenya	Radioisotopes in agriculture, KEN/5/008	1977, 1979	9.0	50 500
	Nuclear medicine, KEN/6/004	1983	2.0	-
	Radiation protection, KEN/9/003	1982	6.0	84 500
Madagascar	Study of nutrient element cycle in cattle production, MAG/5/004	1983	0.5	-
Malaysia	Radioisotopes in agriculture, MAL/5/006	1979	5.0	14 100
	Plant mutation breeding, MAL/5/008	1980, 1981	5.5	-
	Nitrogen-15 fertilizer studies, MAL/5/010	1981, 1983	5.5	51 800
	Nuclear medicine, MAL/6/009	1980	-	36 300
Mali	Mutation breeding, MLI/5/005	1980	0.5	-
Mexico	Nuclear power planning, MEX/0/006	1984	1.0	-
	Electron accelerator development, MEX/4/032	1982	2.0	-
	Medfly control, MEX/5/009	1980, 1981 1982	22.5	132 200

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment (\$)
Mexico	Multi-purpose cobalt-60 irradiator, MEX/8/013	1983	1.0	-
	Radiation protection, MEX/9/026	1983	2.0	-
Mongolia	Radioimmunoassay, MON/6/002	1982	6.0	55 800
Niger	Radioisotopes in agriculture, NER/5/003	1979	5.5	22 400
Pakistan	Radioisotopes dispensing, PAK/4/022	1981	-	57 200
	Non-destructive testing, PAK/4/025	1982, 1983	2.0	70 800
	Irradiation facility, PAK/5/020	1983	-	12 000 ^{1/}
Paraguay	Isotopes in hydrology, PAR/8/003	1982	0.5	600
Peru	Nuclear science training, PER/0/009	1980	3.0	45 400
	Nuclear sciences, PER/0/010	1981, 1982	12.0	184 600
	Secondary standards dosimetry laboratory, PER/1/006	1983	0.5	42 200
	Research reactor commissioning, PER/9/010	1982	2.0	-
Philippines	Nuclear materials processing, PHI/3/006	1983	1.0	-
	Radioisotope production, PHI/4/015	1982, 1983 1984	3.0	14 900
	Nuclear licensing and regulation, PHI/9/010	1981	12.5	-

^{1/} Supplied under sub-contract.

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment (\$)
Poland	Radiopharmaceutical quality assurance, POL/2/008	1983	-	42 600
	Monitoring of radioactivity in the Baltic Sea, POL/9/006	1981	0.5	29 800
	Application of nuclear techniques, POL/83/001	1983	-	3 200 ^{2/}
Romania	Nuclear physics, ROM/1/003	1978, 1979 1980	6.0	267 800
	Nuclear materials research, ROM/4/009	1980, 1981	-	134 800
	Radioreceptor assay, ROM/6/007	1983, 1984	-	13 700
Singapore	Cobalt-60 supply, SIN/0/002,	1982	-	31 000
	Upgrading of radiation protection facilities, SIN/9/010	1981, 1983	-	79 400
Sri Lanka	Neutron physics laboratory, SRL/1/003	1980	6.0	31 800
	Non-destructive testing, SRL/4/007	1981	6.0	46 200
	Nuclear technology, SRL/4/008	1982	6.0	43 500
	Nuclear electronics training, SRL/4/009	1983	4.0	16 000
	Radioisotopes in animal science, SRL/5/013	1979, 1981	3.5	83 900
	Radioisotopes in hydrology, SRL/8/007	1981, 1982	4.0	25 900
Sudan	Nuclear raw materials, SUD/3/002	1982	0.5	-

^{2/} Funds used to finance fellowship.

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment (\$)
Thailand	Pesticide residues, THA/5/021	1979, 1980	7.5	116 600
	Pesticide residue study, THA/5/025	1981	-	13 200
	Nuclear medicine teaching facilities, THA/6/014	1981, 1982	3.0	47 600
Turkey	Nuclear techniques in agriculture, TUR/5/009	1980	-	74 700
	Nuclear techniques in animal science, TUR/5/010	1982, 1983	6.5	82 600
U.R. Tanzania	Radioisotope-aided soil fertility and fertilizer study, URT/5/005	1983	3.0	16 200
Uruguay	Radiopharmaceuticals, URU/2/005	1982	3.0	-
	Whole-body counting system, URU/6/009	1980	-	21 900
	Nuclear medicine, URU/6/011	1980	-	51 300
	Nuclear medicine, URU/6/012	1981	4.0	25 000
Venezuela	Research reactor operation, VEN/4/006	1978	5.0	30 200
	Radioisotopes in industry, VEN/8/006	1978	3.5	-
Viet Nam	Nuclear fuel for research reactor, VIE/4/004	1983	-	550 700
	Radiation monitoring, VIE/9/003	1981, 1982	2.5	106 800
Yugoslavia	Nuclear raw materials, YUG/3/006	1982	-	51 400
	Radioecology, YUG/9/011	1980, 1982	1.0	73 900

Recipient	Project title and code	Year of approval	Assistance provided	
			Experts (man-months)	Equipment (\$)
Zaire	Health physics, ZAI/9/002	1973	1.0	-
Zambia	Isotopes in agriculture, ZAM/5/005	1980, 1981	6.0	27 200
	Induced mutation breeding, ZAM/5/013	1984	0.5	-

B. Cancelled project

Recipient	Project title and code	Year of approval	Assistance approved	
			Experts (man-months)	Equipment (\$)
Kenya	Nuclear power and applications planning, KEN/0/005	1983	3.0	-

A N N E X V I I I

FOOTNOTE-a/ PROJECTS MADE OPERATIONAL OR EXTENDED DURING 1984

Recipient	Project title and code	Experts		Equipment	
		Man-months	Source ^{a/}	\$	Source ^{a/}
Bangladesh	Tracers in sedimentology, BGD/8/004	6	TACF	50 000	TACF
	Radioactive waste management, BGD/9/005	3	TACF	60 000	TACF
Brazil	Emergency preparedness (ANGRA I), BRA/9/025	-	-	53 000	TACF
Cyprus	Radiation dosimetry, CYP/1/003	-	-	35 000	UK
Egypt	Intracavitary radiation therapy for cancer, EGY/6/004	12	ITA	208 600	ITA
	Ground water studies, EGY/8/007	3	USA	75 000	USA
	Nuclear safety, EGY/9/014	20	USA	30 000	USA
El Salvador	Isotopes in geothermal studies, ELS/8/002	1	TACF	28 000	TACF
Greece	Neutron activation analysis, GRE/1/032	-	-	25 000	USA
Kenya	Nuclear techniques (accelerator study), KEN/1/003	2	USA	-	-
		2	UK	62 000	UK
Korea, R.	Isotopes in animal production, ROK/5/022	3	USA	40 000	USA
Malaysia	Neutron activation analysis for tin ^{b/} , MAL/1/007	-	-	40 000	TACF
	Pesticide residues ^{b/} , MAL/5/014	1	TACF	40 000	TACF
	Nitrogen-15 fertilizer studies, MAL/5/017	2	USA	20 000	USA

Recipient	Project title and code	Experts		Equipment	
		Man-months	Source ^{a/}	\$	Source ^{a/}
Mexico	In-core fuel management, MEX/4/034	4	USA	80 000	USA
	Plant mutation breeding, MEX/5/013	1	TACF	16 000	USA
	Isotopes in environmental studies, MEX/8/014	3	UK	36 000	UK
Pakistan	INIS data base ^{b/} , PAK/0/003	3	TACF	181 000	TACF
	Radiation preservation of dried fruit ^{b/} , PAK/5/019	3	TACF	37 000	TACF
Peru	Nuclear analytical services, PER/1/007	3	FIN	53 100	FIN
	Medfly control, PER/5/012	20	ITA	152 000	ITA
	Nuclear techniques in agriculture, PER/5/014	6	USA	57 000	USA
Philippines	Radioimmunoassay, PHI/2/007	6	USA	35 000	USA
	Radiation protection, PHI/9/015	2	USA	57 000	USA
Poland	Nuclear analytical techniques ^{b/} , POL/1/004	-	-	60 000	TACF
	Mass spectrometry, POL/1/006	1	TACF	-	-
		-	-	100 000	USSR
Portugal	Radiopharmaceutical development, POR/2/010	-	-	72 000	GFR
Romania	Radiation polymerization ^{b/} , ROM/8/008	-	-	15 000	TACF
Sri Lanka	Radiation dosimetry, SRL/1/005	6	TACF	80 000	TACF
	Radioisotopes in medical diagnosis ^{b/} , SRL/6/011	5	TACF	25 000	TACF

Recipient	Project title and code	Experts		Equipment	
		Man-months	Source ^{a/}	\$	Source ^{a/}
Sudan	Nuclear instrumentation, SUD/4/003	2	UK	40 000	UK
	Use of gamma camera, SUD/6/012	-	-	185 000	USA
Thailand	Nuclear physics, THA/1/006	-	-	20 000	USA
	Food irradiation, THA/5/029	6	USA	44 000	USA
Tunisia	Nuclear techniques in agriculture, TUN/5/007	-	-	26 000	USA
Uruguay	Nitrogen fertilizer use efficiency, URU/5/014	3	USA	23 000	USA
Yugoslavia	Heat exchanger corrosion studies, YUG/4/023	-	-	148 500	GFR
	Radiobiology ^{b/} , YUG/7/003	-	-	6 000	TACF
	Computer-aided safety analysis, YUG/9/019	2	USA	25 000	USA
	Failed fuel detection, YUG/9/021	1	USA	25 000	USA
Zaire	Radiopharmaceuticals, ZAI/6/004	3	USA	50 000	USA
Zambia	Isotopes in agriculture (soil moisture studies), ZAM/5/012	3	TACF	30 000	TACF
Interregional	Equipment maintenance training, INT/1/028	2	TACF	65 000	USSR

^{a/} Explanation of abbreviations: FIN = Finland, GFR = Federal Republic of Germany, ITA = Italy, TACF = Technical Assistance and Co-operation Fund, UK = United Kingdom, USA = United States of America, USSR = Union of Soviet Socialist Republic.

^{b/} Project approved prior to 1984 and not included in 1984 programme.

A N N E X I X

APPROVALS AGAINST THE RESERVE FUND IN 1984

A. New projects

Recipient	Project title and number	Experts m/m	Equipment \$	Other \$	Total \$
Albania	Isotopes in agriculture, ALB/5/003	-	25 000	-	25 000
Brazil	Isotope-aided studies of the Brazilian Amazon, BRA/0/010	2/00	-	-	13 200
Chile	Small- and medium-sized power reactors, CHI/0/007	1/00	-	-	6 600
China	Nuclear safety course, CPR/9/002	5/00	-	-	25 000
Guatemala	Medfly eradication programme, GUA/5/006	-	20 000	2 000 ^{a/}	22 000
Iran, I.R.	Feasibility study for an accelerator facility, IRA/1/006	1/00	-	-	6 600
	Nuclear power plant simulator, IRA/4/015	/15	-	-	3 300
Jamaica	Hormone receptors in tissue, JAM/6/005	-	12 000	-	12 000
Mexico	Nuclear power plan, MEX/0/006	1/00	-	-	6 600
	Manpower training, MEX/0/007	1/00	-	-	6 600
	Radioactive waste treatment and disposal, MEX/9/029	3/00	-	-	19 800
	Training in radiological emergency planning and prevention, MEX/9/030	3/00	-	-	19 800
Romania	Gamma irradiation facility, ROM/8/010	1/00	-	-	6 600
U.A. Emirates	Atomic energy planning, UAE/3/002	1/00	-	-	6 600
U.R. Tanzania	Radiation protection, URT/9/002	/15	-	-	3 300
Yugoslavia	Tandem accelerator facility, YUG/1/009	-	20 000	-	20 000
Zambia	Induced mutation breeding, ZAM/5/013	/15	-	-	3 300
Regional Asia and the Pacific	Workshop on microprocessors, RAS/0/009	-	-	20 000 ^{b/}	20 000
Regional Latin America	Nuclear legislation, RLA/0/007	2/00	1 500	10 000 ^{a/}	24 700
	Nuclear science development, RLA/1/006	1/00	9 400	9 000 ^{a/}	25 000
	Sub-total	23/15	87 900	41 000	276 000

Recipient	Project title and number	Experts m/m	Equipment \$	Other \$	Total \$
B. <u>Supplementary assistance to existing projects</u>					
Bangladesh	Database development, BGD/0/003	-	15 000	-	15 000
	Reactor utilization (isotope production), BGD/4/006	-	20 000 ^{c/}	-	20 000
Chile	Isotopes in hydrology, CHI/8/013	-	6 000	-	6 000
Costa Rica	Radiation protection, COS/9/003	/15	-	-	3 300
	Sub-total	/15	41 000	-	44 300
	TOTAL	24/00	128 900	41 000	320 300

^{a/} Assistance provided in the form of fellowships.

^{b/} Assistance provided in the form of a training course.

^{c/} Non-convertible currency.

A N N E X X
CHANGES TO APPROVED PROJECTS

Recipient	Project title and code	Existing approval 1 January 1984		Project changes in 1984	
		Experts (man-months/days)	Equipment (\$)	Experts ^{a/} (man-months/days)	Equipment ^{a/} (\$)
Albania	Applied nuclear techniques and documentation, ALB/0/002	2/00	195 000 40 000 NCC	-	25 000 -
Algeria	Radiopharmaceutical quality control, ALG/6/003	-	60 000	1/00	-
Bangladesh	Elemental analysis, BGD/2/007	-	14 000	-	2 000
	Reactor utilization (isotope production), BGD/4/006	15/00	372 000 315 000 NCC ^{c/}	-	59 000 -
Bolivia	Accelerator feasibility study, BOL/1/008	1/00	-	(0/14)	3 500
	X-ray fluorescence, BOL/2/008	2/00	49 000 61 000 NCC	-	- 18 000 NCC
	Radioisotopes in agriculture, BOL/5/004	5/15	82 500 40 000 NCC	-	9 500 -
	Radioimmunoassay, BOL/6/011	3/00	37 000	1/00	-
	Nuclear medicine centre upgrading, BOL/6/013	4/00	55 000	-	15 000
Brazil	Isotope-aided studies of the Brazilian Amazon, BRA/0/010	2/00 ^{b/}	-	3/00	-
	Uranium resources, BRA/3/010	5/00	56 200	(2/00)	-
	Fuel elements design and engineering, BRA/4/028	6/00	-	(0/24)	-
	Radiation defects in ferro-electric materials, BRA/4/029	12/00	10 500	(2/15)	-
	Nuclear quality assurance (NUCLEBRAS), BRA/4/031	12/00	-	(6/00)	-
	Animal science, BRA/5/015	8/00	36 000	(1/00)	(10 000)
	Foliar fertilizer studies, BRA/5/017	3/00	5 000 5 000 NCC	-	5 000 -
	Radioisotopes in medicine, BRA/6/010	12/00	100 000	(6/00)	40 800
	Nuclear power plant safety, BRA/9/015	18/00	-	(3/00)	-
	Nuclear power programme, BRA/9/016	7/00	-	(2/00)	-
Bulgaria	Radiation technology, BUL/8/009	1/00	100 000 850 000 NCC	-	- 100 000 NCC
Cameroon	Nuclear analytical laboratory, CMR/3/006	6/00	3 000	-	3 000
Chile	Uranium prospection, CHI/3/005	24/00	115 000	1/00	-
	Irradiation and testing of reactor materials, CHI/4/010	6/00	-	(2/00)	-
	Reactor materials corrosion studies, CHI/4/012	1/00	25 000	1/00	-
	Studies on phosphate fertilizer use efficiency, CHI/5/010	4/00	5 000	(1/15)	9 900

Recipient	Project title and code	Existing approval 1 January 1984		Project changes in 1984	
		Experts (man-months/days)	Equipment (\$)	Experts ^{a/} (man-months/days)	Equipment ^{a/} (\$)
Colombia	Cryogenic services, COL/1/004	-	5 000 60 000 NCC	-	- 15 000 NCC
	Research reactor conversion, COL/4/006	10/00	-	(5/00)	33 000
	Irradiated vaccines against parasites, COL/5/005	13/15	93 000	(4/25)	-
	Studies on nitrogen fertilizer use efficiency, COL/5/007	6/00	51 000 5 000 NCC	-	2 000 -
Costa Rica	Applied nuclear physics, COS/1/005	2/00	104 000	-	5 000
	Cryogenic service, COS/1/006	-	9 000 62 000 NCC	-	- 15 000 NCC
	Uranium prospection, COS/3/003	12/00	55 000	(10/00)	(52 000)
	Pesticide residues, COS/5/006	3/00	40 000	-	33 000
	Hormone profiles in cattle, COS/5/007	5/00	32 000 5 000 NCC	(2/00)	(10 000) -
Cuba	Moessbauer spectrometry, CUB/4/007	-	74 000 162 000 NCC	-	6 000 (6 000) NCC
	Food irradiation, CUB/5/004	-	1 000 927 000 NCC	1/00	- -
	Radioisotopes in biology, CUB/7/002	4/00	35 000 20 000 NCC	(1/00)	10 000 -
Cyprus	Radiation dosimetry, CYP/1/003	-	35 000 ^{d/}	-	22 000
	Isotopes in hydrology, CYP/8/003	-	22 000	-	3 000
Dominican Republic	Nuclear analytical techniques, DOM/1/004	4/00	70 000 65 000 NCC	-	- 15 000 NCC
Ecuador	Secondary standards dosimetry laboratory, ECU/1/003	18/00	204 000	-	31 000
	Uranium prospection, ECU/3/005	23/00	10 000	(4/00)	-
	Nuclear techniques in animal health and production, ECU/5/006	16/00	49 200	(1/22)	(5 000)
	Advanced medical physics training, ECU/6/008	1/00	-	(0/21)	-
	Radiation technology, ECU/8/005	6/06	25 000 910 000 NCC	1/00	6 000 -
Egypt	Secondary standards dosimetry laboratory, EGY/1/015	2/00	35 000	0/15	-
	Physico-chemical studies of actinides, EGY/2/003	1/00	50 000	-	17 000
	Manpower development: project management, EGY/4/020	4/00	-	2/00	1 000
	Medfly control, EGY/5/012	13/00	70 000	1/00	-
	Medfly eradication (TCDC), EGY/5/014	-	235 000 25 000 ^{e/}	10/00	(235 000) 166 000 ^{e/}
	Waste management (liquid), EGY/9/007	10/00	285 000 2 765 000 NCC	-	- 150 000 NCC
	Management of solid waste, EGY/9/012	3/00	75 000 -	(1/15)	3 200 ^{f/} 6 700 NCC ^{f/}
Nuclear safety, EGY/9/014	20/00 ^{d/}	30 000 ^{d/}	1/00	-	

Recipient	Project title and code	Existing approval 1 January 1984		Project changes in 1984	
		Experts (man-months/days)	Equipment (\$)	Experts ^{a/} (man-months/days)	Equipment ^{a/} (\$)
El Salvador	Radioimmunoassay, ELS/6/008	3/00	25 000	1/00	5 000
	Radiation protection, ELS/9/003	6/00	58 000	-	(5 000)
Ethiopia	Radioisotopes in medicine, ETH/6/003	6/00	26 000 35 000 NCC	-	20 000 2 000 NCC
	Radiation protection, ETH/9/004	12/00	100 000	(5/00)	(20 000)
Ghana	Secondary standards dosimetry laboratory, GHA/1/007	6/00	111 000	-	20 000
	Training in nuclear instrumentation, GHA/4/008	3/00	30 000	-	18 000
	Eradication of Riverine tsetse fly, GHA/5/011	3/00	16 000	-	10 500
	Nuclear medicine, GHA/6/007	27/00	150 000	(20/00)	(95 000)
Greece	Nuclear raw materials, GRE/3/006	11/00	100 000	0/20	26 000
Guatemala	Radioisotopes in agriculture, GUA/5/005	7/00	95 000 5 000 NCC	-	23 000 -
	Radioimmunoassay, GUA/6/004	3/00	-	-	9 000
Hungary	Cyclotron laboratory, HUN/4/004	4/10	55 000 1 937 254 NCC	-	15 000 -
	Radioisotopes in animal science, ICE/5/004	2/00	40 000	-	6 500
Iceland	Isotopes in geothermal studies, ICE/8/004	3/00	285 000	(1/00)	11 000
	Uranium prospection, INS/3/008	6/00	3 000	2/00	-
Iran, I.R.	Quality control of radioisotopes, IRA/2/003	3/00	10 000	-	4 000
	Quality assurance, IRA/4/014	9/00	-	(9/00)	75 900 £/
Ivory Coast	Optimization of cultivation methods for upland rice, IVC/5/012	2/00	12 000	(0/29)	3 500
	Physiology of Hevea, IVC/5/013	6/00	50 000	-	6 000
Korea, R.	Nuclear power plant safety, ROK/9/015	33/00	-	0/20	-
	Nuclear power plant safety, ROK/9/016	6/00	51 000	1/00	-
	Nuclear safety research and training, ROK/9/023	6/00	62 500	-	(13 000)
	Postgraduate training in radiation safety, ROK/9/024	-	40 000	-	7 000
Libyan A.J.	Nuclear raw materials, LIB/3/004	9/15	52 000	-	5 000
Madagascar	Nuclear raw materials, MAG/3/004	25/00	168 600	-	17 000

Recipient	Project title and code	Existing approval 1 January 1984		Project changes in 1984	
		Experts (man-months/days)	Equipment (\$)	Experts ^{a/} (man-months/days)	Equipment ^{a/} (\$)
Malaysia	Secondary standards dosimetry laboratory, MAL/1/003	11/00	202 400 4 600 NCC	(2/00)	13 200 -
	Radioisotope production, MAL/2/002	10/00	160 000 65 000 NCC	-	2 200 -
	Radioisotopes in animal science, MAL/5/005	3/11	56 500	(1/00)	-
	Nitrogen-15 fertilizer studies, MAL/5/010	5/00	25 000 30 000 NCC	0/21	- -
	Food preservation, MAL/5/011	4/00 <u>g/</u>	-	2/00	-
Mali	Mutation breeding, MLI/5/005	6/00	-	(5/15)	-
	Mutation breeding of rice and fonio, MLI/5/008	-	45 000	6/00	-
Mauritius	Studies on soil moisture and fertilizer use efficiency, MAR/5/004	4/00	30 000	-	7 500
	Nuclear medicine, MAR/6/002	1/00	-	-	7 000
Mexico	In-core fuel management, MEX/4/034	4/00 <u>d/</u>	80 000 <u>d/</u>	(3/00)	24 600 <u>h/</u>
	Use of radiation in food preservation, MEX/5/011	2/00	-	0/15)	-
	Isotopes in hydrology, MEX/8/009	3/00	-	(0/15)	2 400
	Nuclear power programme, MEX/9/022	27/00	-	(2/00)	-
	Mobil laboratory for environmental radioactivity monitoring, MEX/9/025	1/00	65 000	-	9 000
Morocco	Radioisotopes in agriculture, MOR/5/013	16/00	31 000 75 000 NCC	-	5 000 -
	Nuclear medicine, MOR/6/008	6/00	-	(3/00)	20 600 <u>h/</u>
Niger	Radioisotope laboratory, NER/0/003	13/00	22 300	13/00	20 000
	Radioisotopes in hydrology, NER/8/003	7/01	74 820	-	3 000
Nigeria	Radiochemical laboratory, NIR/2/003	3/00	28 000	(2/14)	(28 000)
Pakistan	Radioisotopes in agriculture, PAK/5/017	12/00	22 000 25 000 NCC	(8/00)	49 600 -
Panama	Radiopharmaceuticals, PAN/2/003	9/00	190 000 -	-	(5 900) 5 900 NCC
	Radioactive minerals prospection, PAN/3/002	18/00	54 000	0/15	2 000
	Genetic improvement of bananas, plantains and sugar-cane, PAN/5/004	3/00	82 000	1/00	8 500
	Nuclear medicine, PAN/6/005	9/00	32 000 56 000 NCC	(7/00)	- -
Paraguay	Nuclear medicine, PAR/6/006	-	92 500 57 500 NCC	-	8 000 -
Peru	Nuclear research centre, PER/0/008	2/00	71 500 89 000 NCC	-	3 000 15 000 NCC
	Nuclear science training, PER/0/015	18/00	-	(3/15)	-
	Radiochemistry teaching, PER/2/011	6/00	-	(2/00)	-

Recipient	Project title and code	Existing approval 1 January 1984		Project changes in 1984	
		Experts (man-months/days)	Equipment (\$)	Experts ^{a/} (man-months/days)	Equipment ^{a/} (\$)
Peru (continued)	Nuclear power planning, PER/4/008	22/00	-	(5/15)	-
	Medfly control, PER/5/012	60/00	545 600	36/00	-
	Nuclear techniques in agriculture, PER/5/014	6/00 <u>d/</u>	57 000 <u>d/</u>	2/00	-
	Nuclear medicine, PER/6/004	5/00	30 000	-	4 000
	Nuclear medicine training,, PER/6/007	8/00	20 000	-	7 200
Philippines	Secondary standards dosimetry laboratory, PHI/1/012	6/00	25 000	(3/00)	-
	Radioimmunoassay, PHI/2/007	6/00 <u>d/</u>	35 000 <u>d/</u>	-	2 000
	Radioisotope production, PHI/4/015	9/00	45 000	(5/25)	(30 000)
	Quality assurance/quality control training centre, PHI/4/016	30/00	50 000	(11/00)	72 600 <u>f/</u>
	Nuclear engineering education, PHI/4/017	8/00	20 000	-	70 000
	Medical physics training, PHI/6/010	14/00	107 000	1/00	-
	Nuclear licensing and regulation, PHI/9/010	12/00	-	0/15	-
	Spent fuel management, PHI/9/011	3/00	30 000	2/00	-
	Nuclear licensing and regulation, PHI/9/013	6/00	-	8/00	-
Poland	Electron beam radiation processing, POL/4/003	2/04	100 000 1 233 000 NCC	-	61 000 (200 000) NCC
	Use of linear accelerator, POL/4/004	1/00	52 000	(0/10)	18 000
	Isotopes in hydrology, POL/8/005	-	40 000	-	6 000
	Radiation protection, POL/9/007	-	57 000	-	8 500
Portugal	Accelerator utilization, POR/1/003	-	91 000 -	1/00	- 10 000 NCC
Romania	Soil fertility studies, ROM/5/004	2/00	25 000 15 000	(1/11)	17 000 -
Senegal	Radioisotopes in agriculture, SEN/5/011	9/00	110 900	(0/20)	-
	Radioisotopes in agriculture, SEN/5/015	4/00	34 000 18 000 NCC	(1/29)	- -
	Soil science, SEN/5/016	3/00	30 000	(0/20)	-
	Radioisotopes in agriculture, SEN/5/017	-	91 000	4/00	-
	Radioisotopes in medicine, SEN/6/007	11/10	28 000	(4/00)	-
Sierra Leone	Radioisotopes in medicine, SIL/6/003	24/00	51 000 39 500 NCC	-	7 500 -
Sri Lanka	Radioisotopes in plant nutrition and physiology, SRL/5/019	3/00	45 000	0/21	-
	Non-destructive testing, SRL/8/008	4/00	40 000 -	-	(1 700) 1 700 NCC
	Radiation processing/vulcanization of natural rubber latex, SRL/8/010	2/00	65 000	-	28 000

Recipient	Project title and code	Existing approval 1 January 1984		Project changes in 1984	
		Experts (man-months/days)	Equipment (\$)	Experts ^{a/} (man-months/days)	Equipment ^{a/} (\$)
Sudan	Radioisotopes in animal science, SUD/5/007	9/00	62 500 82 200 FIT <u>1/</u>	(3/00)	17 900 -
	Isotopes in hydrology, SUD/8/004	2/00	28 000	0/15	(3 300)
Syrian, A.R.	Nuclear analytical laboratory, SYR/1/002	10/00	170 000	-	5 500
Thailand	Nuclear physics, THA/1/006	-	20 000 <u>d/</u>	-	5 000
	Fish production and preservation, THA/5/027	4/00	15 000	0/15	-
	Nuclear cardiology, THA/6/018	24/00	6 000	(14/00)	120 000
Tunisia	National radiation protection centre, TUN/9/005	5/00	97 000	-	3 000
Turkey	Uranium recovery, TUR/3/005	3/00	6 000	-	1 300
	Exploitation of uranium resources, TUR/3/006	6/00	48 000 <u>h/</u>	-	1 000 <u>f/</u>
	Nuclear power programme, TUR/9/005	16/00	104 000	11/15	-
U.R. Tanzania	Acaricide residues in meat and milk, URT/5/006	14/00	112 000	(3/00)	-
	Radiotherapy, URT/6/002	1/00	60 000 10 000 NCC	-	25 000 (10 000) NCC
	Sediment dynamics, URT/8/005	2/00	25 000	-	6 000
Uruguay	Isotopes in agriculture, URU/5/012	3/00	36 400 30 000 NCC	(1/00)	10 000 -
	Radioisotopes in animal science, URU/5/013	10/00	92 000	(2/15)	-
	Radiological protection, URU/9/003	5/00	25 000	(3/00)	-
Venezuela	Secondary standards dosimetry laboratory, VEN/1/004	14/00	180 000	(3/00)	23 800
	Moessbauer spectrometry, VEN/4/007	3/00	38 000	(1/15)	7 200
	Radioisotopes in industry, VEN/8/006	8/00	-	(4/00)	-
Viet Nam	Plant mutation breeding, VIE/5/008	2/00	85 200 81 600 NCC	(1/00)	- (14 876) NCC
	Radioisotopes in medicine, VIE/6/011	3/00	33 000 10 000 NCC	-	3 000 -
	Nuclear techniques in metallurgy, VIE/8/002	2/00	- 130 000 NCC	-	550 (550)
Yugoslavia	Reactor fuel management, YUG/4/018	4/00	-	(1/15)	-
	Prevlaka nuclear power plant, YUG/4/021	18/00	35 000	-	6 600 <u>f/</u>
	Plant breeding, YUG/5/027	3/00	60 000	0/05	-
	Nuclear power safety, YUG/9/010	17/01	58 800 <u>h/</u>	6/00	-

Recipient	Project title and code	Existing approval 1 January 1984		Project changes in 1984	
		Experts (man-months/days)	Equipment (\$)	Experts ^{a/} (man-months/days)	Equipment ^{a/} (\$)
Zaire	Radioisotopes in agriculture, ZAI/5/003	12/00	5 000	(5/00)	-
	Industrial application of nuclear techniques, ZAI/8/007	6/00	64 000	(3/00)	-
Zambia	Nuclear analytical laboratory, ZAM/0/005	14/00	357 500 107 500 NCC	-	- 8 500 NCC
	Nuclear raw materials, ZAM/3/003	32/05	40 500	1/15	3 000
	Radioisotopes in animal science, ZAM/5/010	7/00	35 000	(2/00)	-
Regional Africa	Microcomputers, RAF/0/002	15/00	88 500	(2/00)	24 200
Regional Asia and the Pacific	Radioisotopes in industry, RAS/8/011	74/15	39 000	(4/00)	(14 848)
Regional Europe	Computer-aided safety analysis, RER/9/002	16/00	400 000	21/20	1 600 ^{h/}
Regional Latin America	Nuclear science and technology development, RLA/0/006	22/00	50 000	7/00	-
	Nuclear legislation, RLA/0/007	2/00 ^{b/}	11 500 ^{b/ i/}	-	10 000 ^{i/}
	Nuclear science development, RLA/1/006	1/00 ^{b/}	18 400 ^{b/ i/}	-	9 600
	Ecological studies of the Amazon Basin, RLA/5/016	30/00	-	(3/00)	-
	Quality control of nuclear medicine procedures in vivo, RLA/6/006	6/00	37 300	4/00	-
Interregional	Energy and nuclear power planning, INT/0/037	36/00	-	2/00	-
	Pre-project assistance, INT/0/038	6/00	-	3/00	10 000
	Secondary standards dosimetry laboratory, INT/1/014	30/00	58 000 3 000 NCC	3/00	- -
	Nuclear data techniques and instrumentation, INT/1/018	32/00	437 400 370 000 NCC	3/05	- -
	Siting of nuclear installation, INT/9/054	24/00	-	(1/00)	5 000
	Basic safety standards, INT/9/055	36/00	-	1/15	-
	Sub-totals	1 592/18	10 893 020 10 718 954 NCC 82 200 FIT	(52/02)	1 051 202 131 374 NCC -
	TOTAL	1 592/18	21 694 174	(52/02)	1 182 576

^{a/} Numbers in parentheses denote reductions - for example: (0/15) = minus 15 man-days and (4/00) = minus four man-months.

^{b/} Approved under the Reserve Fund during 1984.

^{c/} Includes 1984 Reserve Fund approval.

^{d/} Footnote-a/ project upgraded during 1984.

^{e/} Fellowship component.

^{f/} Sub-contract.

^{g/} In-kind.

^{h/} Includes sub-contract component.

^{i/} FIT denotes funds in trust - that is, assistance provided from funds made available by Member States to finance assistance for themselves.

^{j/} Includes fellowship component.

ANNEX XI

PROJECTS REPHASED DURING 1984

Recipient	Project title and code	Component	Approved/ Rephased	Programme year				
				Prior to 1984	1984	1985	1986	1987
Bolivia	X-ray fluorescence, BOL/2/008	Experts	Approved Rephased	2/00 (2/00)	- -	- -	- 2/00	- -
	Nuclear medicine centre upgrading, BOL/6/013	Experts	Approved Rephased	- -	2/00 (2/00)	2/00 -	- 2/00	- -
		Equipment (CC)	Approved Rephased	- -	50 000 (20 000)	20 000 -	- 20 000	- -
Brazil	Technician training, BRA/0/009	Experts	Approved Rephased	- -	8/00 (6/00)	4/00 2/00	4/00 4/00	- -
	Fuel elements design and engineering, BRA/4/02B	Experts	Approved Rephased	6/00 (4/00)	- -	- 2/00	- 2/00	- -
	Quality assurance for nuclear power plants, BRA/4/030	Experts	Approved Rephased	12/00 (11/00)	- -	- 5/00	- 6/00	- -
	Nuclear quality assurance (NUCLEBRAS), BRA/4/031	Experts	Approved Rephased	12/00 (2/00)	- -	- 2/00	- -	- -
	Nuclear power plant simulator training, BRA/4/035	Experts	Approved Rephased	- -	6/00 (5/00)	6/00 4/00	- 1/00	- -
	Safety analysis: Angra units 2 and 3, BRA/9/017	Experts	Approved Rephased	12/00 (5/00)	- -	- 3/00	- 2/00	- -
Bulgaria	Research reactor modernization, BUL/4/002	Experts	Approved Rephased	2/00 -	1/00 (1/00)	1/00 -	1/00 1/00	1/00 -
		Equipment (NCC)	Approved Rephased	- -	100 000 270 000	200 000 (40 000)	300 000 (100 000)	400 000 (130 000)
	Radiation technology, BUL/8/009	Equipment (CC)	Approved Rephased	- -	- 100 000	- 50 000	- -	100 000 (100 000)
		Equipment (NCC)	Approved Rephased	- -	300 000 (300 000)	150 000 (150 000)	200 000 -	300 000 250 000 <u>ex</u>
Burma	Environmental radiation monitoring, BUR/9/002	Experts	Approved Rephased	- -	3/00 (3/00)	3/00 -	- 3/00	- -
Chile	Seismic telemetry network, CHI/9/011	Experts	Approved Rephased	- -	1/00 (1/00)	2/00 -	- 1/00	- -
Colombia	Nuclear instrumentation, COL/4/007	Experts	Approved Rephased	- -	2/00 (2/00)	2/00 -	2/00 -	- 2/00
		Equipment (CC)	Approved Rephased	- -	35 000 (35 000)	25 000 -	25 000 -	- 35 000
	Studies on nitrogen fertilizer use efficiency, COL/5/007	Experts	Approved Rephased	6/00 (2/00)	- -	- 2/00	- -	- -

Recipient	Project title and code	Component	Approved/ Rephased	Programme year				
				Prior to 1984	1984	1985	1986	1987
Costa Rica	Uranium prospection, COS/3/003	Experts	Approved Rephased	12/00 (7/00)	- -	- 7/00	- -	- -
		Equipment (CC)	Approved Rephased	55 000 (40 000)	- -	- 40 000	- -	- -
Ecuador	Applied nuclear physics, ECU/1/004	Experts	Approved Rephased	- -	3/00 (1/00)	3/00 -	2/00 -	- 1/00
Egypt	Radioisotopes in animal science, EGY/5/009	Experts	Approved Rephased	4/00 (2/00)	1/00 -	1/00 -	1/00 1/00	- 1/00
	Medfly eradication (TCDC), EGY/5/014	Experts	Approved Rephased	- -	5/00 (2/00)	5/00 2/00	- -	- -
	Animal science (Pyramid Research Inst.), EGY/5/015	Experts	Approved Rephased	- -	2/00 (2/00)	1/00 -	1/00 2/00	- -
Ghana	Secondary standards dosimetry laboratory, GHA/1/007	Experts	Approved Rephased	4/00 (1/00)	2/00 (2/00)	- 3/00	- -	- -
		Equipment (CC)	Approved Rephased	46 000 (2 000)	65 000 (65 000)	- 67 000	- -	- -
	Nuclear agriculture centre, GHA/5/008	Experts	Approved Rephased	9/00 (3/00)	- -	- 3/00	- -	- -
		Equipment (CC)	Approved Rephased	117 000 (3 000)	- -	- 3 000	- -	- -
	Nuclear medicine, GHA/6/007	Experts	Approved Rephased	11/00 (10/00)	10/00 (4/00)	6/00 6/00	- 8/00	- -
		Equipment (CC)	Approved Rephased	68 000 (30 000)	37 000 (20 000)	45 000 -	- 50 000	- -
	Gamma irradiation facility, GHA/8/004	Experts	Approved Rephased	2/18 (1/00)	- -	- 1/00	- -	- -
		Equipment (CC)	Approved Rephased	72 248 (65 000)	- -	- 65 000	- -	- -
Guatemala	Uranium prospection, GUA/3/003	Experts	Approved Rephased	1/00 -	6/00 (3/00)	- 3/00	- -	- -
Indonesia	Secondary standards dosimetry laboratory, INS/1/010	Experts	Approved Rephased	7/11 (2/00)	- -	- -	- 2/00	- -
Ivory Coast	Nuclear science laboratory, IVC/0/003	Experts	Approved Rephased	13/00 (10/00)	6/00 -	- 10/00	- -	- -
	Nuclear techniques in agriculture, IVC/5/011	Experts	Approved Rephased	3/00 (3/00)	- -	- 3/00	- -	- -
Kenya	Nuclear science laboratory, KEN/0/003	Experts	Approved Rephased	44/00 -	12/00 (4/00)	12/00 -	- 4/00	- -

Recipient	Project title and code	Component	Approved/ rephased	Programme year				
				Prior to 1984	1984	1985	1986	1987
Lebanon	Nuclear analytical centre, LEB/0/003	Experts	Approved Rephased	4/00 (4/00)	- -	3/00 -	- -	- 4/00
	Pesticide analysis, LEB/5/011	Equipment (CC)	Approved Rephased	- -	40 000 (40 000)	40 000 -	- -	- 40 000
Madagascar	Nuclear physics, MAG/1/004	Experts	Approved Rephased	11/00 (1/00)	4/00 (3/00)	4/00 -	- 4/00	- -
Malaysia	Radioisotope production, MAL/2/002	Experts	Approved Rephased	7/00 (2/00)	2/00 -	1/00 -	- 2/00	- -
Mali	Nuclear medicine, MLI/6/002	Experts	Approved Rephased	19/20 (6/00)	4/00 -	- 6/00	- -	- -
Mexico	Radioactive standards, MEX/1/010	Experts	Approved Rephased	- -	1/00 (1/00)	2/00 -	- 1/00	- -
	Fuel elements, MEX/4/031	Experts	Approved Rephased	4/00 -	2/00 (2/00)	1/00 2/00	- -	- -
	Ruminant reproduction studies, MEX/5/012	Experts	Approved Rephased	- -	2/00 (1/00)	1/00 -	1/00 -	- 1/00
Niger	Nuclear techniques in animal production, NER/5/005	Experts	Approved Rephased	2/00 (1/00)	2/00 (2/00)	- 3/00	- -	- -
	Radioisotopes in hydrology, NER/8/003	Experts	Approved Rephased	7/01 (2/00)	- -	- 2/00	- -	- -
Nigeria	Nuclear techniques application, NIR/1/004	Experts	Approved Rephased	10/00 (5/00)	- -	- 1/00	- 2/00	- 2/00
	Radiochemical laboratory, NIR/2/003	Experts	Approved Rephased	3/00 (3/00)	- -	- 3/00	- -	- -
		Equipment (CC)	Approved Rephased	28 000 (28 000)	- -	- 28 000	- -	- -
Pakistan	Quality assurance, PAK/4/017	Experts	Approved Rephased	4/00 (2/00)	- -	- -	- 2/00	- -
Panama	Radiopharmaceuticals, PAN/2/003	Experts	Approved Rephased	7/00 -	1/00 (1/00)	1/00 1/00	- -	- -
Peru	Production and use of radioisotopes, PER/2/010	Equipment (CC)	Approved Rephased	40 000 -	40 000 (20 000)	30 000 -	- 20 000	- -
	Medical application of radioisotopes, PER/6/009	Experts	Approved Rephased	6/00 (2/00)	- -	- 2/00	- -	- -
Philippines	Nuclear emergency planning, PHI/9/014	Equipment (CC)	Approved Rephased	- -	40 000 (20 000)	- -	- 20 000	- -

Recipient	Project title and code	Component	Approved/ Rephased	Programme year				
				Prior to 1984	1984	1985	1986	1987
Romania	Dosimetry instrumentation, ROM/1/007	Equipment (CC)	Approved Rephased	- -	250 000 8 000	30 000 (8 000)	- -	- -
Senegal	Radioisotopes in medicine, SEN/6/007	Experts	Approved Rephased	11/00 (4/00)	- -	- 4/00	- -	- -
	Nuclear medicine, SEN/6/008	Experts	Approved Rephased	3/00 (3/00)	- -	- -	- 3/00	- -
		Equipment (CC)	Approved Rephased	30 000 (30 000)	- -	- -	- 30 000	- -
Singapore	Nuclear analytical techniques, SIN/1/004	Equipment (CC)	Approved Rephased	- -	70 000 11 500	25 000 (11 500)	- -	- -
Sri Lanka	Nuclear science training, SRL/0/002	Experts	Approved Rephased	4/00 -	7/00 (3/00)	10/00 -	9/00 -	- 3/00
Sudan	Nuclear science laboratory, SUD/0/006	Experts	Approved Rephased	16/00 (7/00)	3/00 -	- -	- 7/00	- -
	Secondary standards dosimetry laboratory, SUD/1/002	Experts	Approved Rephased	3/00 (2/00)	- -	- 2/00	- -	- -
Thailand	Secondary standards dosimetry laboratory, THA/1/004	Experts	Approved Rephased	9/00 (2/00)	4/00 (2/00)	- -	- 2/00	- 2/00
	Nuclear physics, THA/1/005	Experts	Approved Rephased	9/00 (2/00)	- -	- -	- 2/00	- -
		Radioisotope production facility, THA/4/008	Experts	Approved Rephased	8/00 (5/00)	1/00 -	1/00 5/00	1/00 -
Tunisia	Nuclear medicine, TUN/6/002	Experts	Approved Rephased	3/00 (2/00)	3/00 (1/00)	2/00 -	- 3/00	- -
	National radiation protection centre, TUN/9/005	Experts	Approved Rephased	2/00 (1/00)	3/00 (2/00)	- -	- 2/00	- 1/00
U.R. Tanzania	Tsetse fly eradication, URT/5/007	Expert	Approved Rephased	- -	7/00 (2/00)	7/00 -	7/00 -	- 2/00
Uruguay	Radioisotopes in animal science, URU/5/013	Experts	Approved Rephased	4/15 (1/00)	2/00 (2/00)	1/00 -	- 2/00	- 1/00
Venezuela	Secondary standards dosimetry laboratory, VEN/1/004	Experts	Approved Rephased	4/00 (2/00)	3/00 (2/00)	4/00 4/00	- -	- -
Viet Nam	Nuclear institute development, VIE/0/002	Experts	Approved Rephased	4/00 (2/00)	2/00 -	4/00 -	- 2/00	- -
	Isotope hydrology, VIE/8/003	Experts	Approved Rephased	3/00 (1/00)	2/00 (1/00)	2/00 -	- 2/00	- -

Recipient	Project title and code	Component	Approved/ Rephased	Programme year				
				Prior to 1984	1984	1985	1986	1987
Zaire	Radioisotopes in agriculture, ZAI/5/003	Experts	Approved Rephased	12/00 (5/00)	- -	- 5/00	- -	- -
	Radioisotopes in agriculture, ZAI/5/006	Experts	Approved Rephased	6/00 (2/00)	- -	- -	- 2/00	- -
Zambia	Radioisotopes in animal science, ZAM/5/010	Experts	Approved Rephased	3/00 (1/00)	2/00 (2/00)	- 1/00	- 1/00	- 1/00
Interregional	Nuclear data techniques and instrumentation, INT/1/018	Experts	Approved Rephased	20/00 (4/00)	4/00 (3/00)	8/00 -	- 7/00	- -
	Nuclear instrument maintenance, INT/4/054	Experts	Approved Rephased	44/00 (3/00)	10/00 -	12/00 -	12/00 -	- 3/00
Total		Experts (m/m)	Approved Rephased	416/05 (142/00)	141/00 (68/00)	112/00 99/00	41/00 87/00	1/00 24/00
		Experts (US\$)	Approved Rephased	2 746 700 (937 200)	930 600 (448 800)	806 400 712 800	319 800 678 600	8 400 201 600
		Equipment (CC)	Approved Rephased	456 248 (198 000)	627 000 (100 500)	215 000 233 500	25 000 140 000	100 000 (25 000)
		Equipment (NCC)	Approved Rephased	- -	400 000 (30 000)	350 000 (190 000)	500 000 (100 000)	700 000 120 000
GRAND TOTAL			Approved Rephased	3 202 948 (1 135 200)	1 957 600 (579 300)	1 371 400 756 300	844 800 718 600	808 400 296 600

^{a/} 1988 programme year.

