# THE AGENCY'S BUDGET FOR 1990

GC(XXXIII)/875

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INTERNATIONAL ATOMIC ENERGY AGENCY

#### THE AGENCY'S BUDGET FOR 1990

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#### LIST OF ABBREVIATIONS

ADBF	Division of Budget and Finance
ADEX	Division of External Relations
ADGS	Division of General Services
ADLA	Division of Languages
ADMS	Office of Management Services
ADPI	Division of Public Information
ADPR	Division of Personnel
Agency	International Atomic Energy Agency
ARCAL	Regional Co-operative Arrangements for the Promotion of Nuclear Science and Technology in Latin America
CANDU	Canada deuterium - uranium (reactor)
CIAMDA	Computer Index of Atomic and Molecular Data
CINDA	Computer Index of Neutron Data
CRP	Co-ordinated research programme
DDG AD; NE; RI; SG; TC	Deputy Director General for Administration; Nuclear Energy and Safety; Research and Isotopes; Safeguards; Technical Co-operation
DP	Data processing
ESR	Electron spin resonance
FAO	Food and Agriculture Organization of the United Nations
GS	General Service category (staff)
IA	Office of Internal Audit and Evaluation Support
IAEA	International Atomic Energy Agency
ICTP	International Centre for Theoretical Physics (Trieste)
INIS	International Nuclear Information System
Joint FAO/IAEA Division	Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture
M&O	Maintenance and Operatives Service category (staff)
m/m	Man-month
NENF	Division of Nuclear Fuel Cycle
NENP	Division of Nuclear Power
NENS	Division of Nuclear Safety
NESI	Division of Scientific and Technical Information
NNW State	Non-nuclear-weapon State
NPT	Treaty on the Non-Proliferation of Nuclear Weapons (reproduced in document INFCIRC/140)
P	Professional category (staff)
PSA	Probabilistic safety assessment

RCA	Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology
RIAL	Agency's Laboratory (Seibersdorf)
RIFA	See Joint FAO/IAEA Division
RILS	Division of Life Sciences
RIML	International Laboratory of Marine Radioactivity (Monaco)
RIPC	Division of Physical and Chemical Sciences
RITP	See ICTP
SAL	Safeguards Analytical Laboratory
SEC	Secretariat of the Policy-making Organs
SGCP	Division of Concepts and Planning
SGDE	Division of Development and Technical Support
SGIT	Division of Information Treatment
SGOA	Division of Operations (A)
SGOB	Division of Operations (B)
SGOC	Division of Operations (C)
SGSDS	Departmental Services
SIDA	Swedish International Development Authority
TC	Technical Co-operation
TCIM	Division of Technical Co-operation Implementation
TCPM	Division of Technical Co-operation Programmes
TCPU	Division of Publications
TCSEV	Evaluation Section
TCSPC	Programme Co-ordination Section
Tlatelolco Treaty	Treaty for the Prohibition of Nuclear Weapons in Latin America
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
VIC	Vienna International Centre
WHO	World Health Organization
WMO	World Meteorological Organization

#### NOTE

All sums of money are expressed in United States dollars

#### INTRODUCTION

#### GENERAL

1. In accordance with Article XIV.A of the Statute, the Board of Governors hereby submits to the General Conference the budget estimates for 1990. The Board requests the General Conference to adopt the draft resolutions set forth in Annex III.

2. The estimates for 1990 are based on the requirements for the second year of the biennium 1989-90, for which plans were presented in the Agency's Programme and Budget for 1989 and 1990 (document GC(XXXII)/837).

#### CHANGES IN THE PROGRAMME

3. The Board of Governors and the General Conference considered the programme for 1989-90 last year, and only changes in the plans for 1990 are described in the present document. These changes, which are described in detail under the relevant programmes, stem from the Agency's desire to respond to new developments in the nuclear field and to new demands placed on the nuclear community in Member States. It should be stressed that, broadly speaking, all the new or expanded activities proposed relate to protection of the environment and improved safety of nuclear installations. Specifically, the main changes concern:

- A study of all aspects of liability for nuclear damage;
- Elaboration of an internationally agreed code of practice for international transactions involving nuclear wastes;
- Initiation of preparations for a conference of States Parties to the Convention on the Physical Protection of Nuclear Material to be held in 1992;
- Comparative assessment of nuclear and other energy sources;
- International safety standards for the long term storage of spent fuel;
- Radiation protection in the use of radiation sources and in the disposal of old sources;
- Studies of environmental effects of toxic organic chemicals, including pesticides;
- Development of safety guides relating to the design, siting, commissioning, operation and decommissioning of research reactors.

#### CHANGES IN THE ORGANIZATIONAL STRUCTURE

#### Department of Safeguards

4. Following a review aimed at improving the implementation and efficiency of safeguards activities, a restructuring of the Department of Safeguards is planned. involves dissolving The principal change the Division for Standardization, Training and Administrative Support and redistributing its functions as follows: the Section for Administrative Support will report directly to the Deputy Director General; the Section for Standardization will be combined with the Section for Quality Assurance in the Division of Concepts and Planning (formerly the Division of Safeguards Evaluation); and the Section for Training will become part of the Division of Development and Technical Support.

5. It is also planned to transfer to the Division of Concepts and Planning the Section for Systems Studies (currently part of the Division of Development and Technical Support). This grouping together of the Sections for Systems Studies, Standardization and Statistical Analysis is expected to improve the Department's capabilities as regards the analysis of future requirements and planning.

6. In line with accepted management practices, it is proposed that the Section for Effectiveness Evaluation report directly to the Deputy Director General and thus be moved from the old Division of Safeguards Evaluation.

7. Preparation of the Safeguards Implementation Report (SIR), which requires input from each Division, is to become the responsibility of an SIR Task Force composed of the Directors of each of the Safeguards Divisions and headed by the Director of the Division of Concepts and Planning.

8. The expected effect of these and certain additional minor changes will be to eliminate or reduce redundancy, to transfer some human resources from support to operations work and thus to improve efficiency and effectiveness. A further task currently being undertaken is the consideration, with the advice of the Standing Advisory Group on Safeguards Implementation (SAGSI), of long term guidelines for safeguards activities, one of the results of which will be the formulation of unified implementation and evaluation criteria. When approved, implementation of the new criteria is expected to lead to improved safeguards efficiency.

#### Department of Technical Co-operation

9. In the Department of Technical Co-operation, the structure of which was originally designed for a much smaller programme, certain organizational adjustments are now desirable to cope with the expected future growth in resources available for technical co-operation. It is proposed to divide the Division of Technical Assistance and Co-operation into two Divisions of roughly equal size: a Division of Technical Co-operation Programmes, which will comprise the Area Sections and units responsible for regional programmes, and a Division of Technical Co-operation Implementation, which will consist of the Experts, Field Procurement, Fellowships and Training, and Training Courses Sections. In addition, the Programme Co-ordination and the Evaluation Sections will report directly to the Deputy Director General for Technical Co-operation.

#### BUDGETARY MATTERS

#### Exchange Rate

10. For the purpose of presenting the budget estimates for 1990 an exchange rate of 12.70 Austrian schillings to the United States dollar - the operational rate used in the Programme and Budget for 1989 and 1990 (GC(XXXII)/837) has again been used. This rate was closer to the market rates prevailing during the time of budget preparation than the rate in effect at the time of the last session of the General Conference in September 1988. In order to facilitate comparison, the actual 1988 expenditures are presented at the same exchange rate as the budget for 1989 and the estimates for 1990, i.e. AS 12.70. All figures within the document are therefore directly comparable with those for 1990.

#### The Regular Budget for 1990

11. The total of the Regular Budget estimates for 1990 as shown in Table 54, the Regular Budget by Appropriation Section, is \$162 832 000 at an exchange rate of 12.70 schillings to the dollar. The Regular Budget by Department is shown in Table 55 and by Item of Expenditure in Table 56.

12. The Regular Budget estimates for the Agency's programmes for 1990 amount to \$158 348 000 and show an expenditure increase at 1989 prices of \$302 000, or 0.2%. This is the net result of expenditure increases in Appropriation Sections 1 and 7 and expenditure decreases in all other Appropriation Sections.

13. The increase of \$521 000 in Appropriation Section 1, Technical Assistance and Co-operation, is accounted for mainly by higher staff costs associated either with existing manning table posts for which insufficient funding was provided in the past or with the addition of new posts, some of which will be transferred from other areas. Also, the budgetary provision for data processing services has had to be increased in view of the foreseen expansion of office automation.

14. In Appropriation Section 7, Executive Management and Administration, the increase of \$416 000 is due mainly to three items. The largest increase – some \$240 000 – is attributable to two programme activities to be conducted by the Legal Division: a working group is to be convened to study all aspects of liability for nuclear damage, and this group will require interpretation and translation services for all six official Agency languages; the Legal Division will also convene a representative working group of experts to elaborate an internationally agreed code of practice for international transactions involving nuclear wastes. In addition, about \$140 000 is required for the enhancement of the Financial Information and Control System, and \$50 000 for meetings of journalists to be organized by the Division of Public Information. Minor reductions are foreseen in other administrative areas. 15. The reductions effected in other Appropriation Sections have been made in such a way as to minimize the impact on programme implementation. The decrease of \$59 000 in Appropriation Section 2, Nuclear Energy and Safety, is the net result of programme increases in the waste management and radiation protection areas (greater emphasis on spent radioactive sources, for example) and of reductions in staff costs (greater allowance for staff turnover and recruitment delays) and in the costs of Shared Support Services such as printing and publishing, where technology improvements will produce real savings.

16. The decrease of \$318 000 in Appropriation Section 3, Research and Isotopes, relates to the operating costs of the Laboratory (which have been reduced to bring them into line with actual 1988 requirements), to cost savings in printing and publishing, and to other items.

17. The reduction of \$91 000 in Appropriation Section 5, Safeguards, reflects delays in the start-up of certain facilities and in other activities. As a result, the number of man-days of inspection will not increase to the extent originally envisaged for 1990.

18. Decreases in respect of Appropriation Section 4, Operational Facilities, (\$52 000) and Appropriation Section 8, General Services, (\$40 000) relate mainly to staff turnover and delays in recruitment. The decrease of \$75 000 for Appropriation Section 6, Policy-making Organs, stems from the decision not to reprint the summary records of the Board of Governors and its Committees in final form but to issue corrigenda if required, in line with a similar decision previously taken in respect of General Conference records.

19. Appropriation Section 9, Shared Support Services, which comprises "Work for Others" (i.e. services rendered mainly to other organizations at the VIC) is expected to show a decrease of \$973 000 in 1990 - \$543 000 in Printing and Publishing Services, \$269 000 in Data Processing Services, \$93 000 for the Library and \$68 000 for Medical Services. The reduction in financial support by other VIC organizations for the Library and Medical Services is due to the fact that their staff numbers are decreasing whereas the Agency's are increasing slightly, with the result that the percentage shares in the total cost move in the Agency's disfavour.

20. With respect to Printing and Publishing and Data Processing Services, UNIDO has informed the Agency that it intends to make less use of these services in 1990 and that it may stop using the joint Data Processing Services altogether. It is difficult for the Agency to protect its programmes against the adverse effects of a reduction in support by other organizations, but such effects can be mitigated by gradually reducing the staff and the capacity of the services in question.

21. <u>Price increases</u> for the items of expenditure making up the Agency's Regular Budget are expected to amount to 3.7% for 1990. Unless otherwise indicated, the 1990 figures shown in the tables include the price increase for 1990.

22. In calculating price increases, the principle of "semi-full budgeting" has been applied, as in past years. This means that for salaries and related

items which depend on index movements, trends and expectations are taken into account, while for all other items only those increases which have already occurred during the past year are recovered.

23. For Professional staff costs in 1990, only a 1% increase for within-grade increments or promotions has been assumed, as there is still no certainty as to the timing of a possible increase in the Professional post adjustment, the cost of living index having been frozen since 1984.

24. For General Service staff the 8.5% salary increase reflects the annual increase resulting from the movement of the combined cost of living and industrial wage index for Austria and normal within-grade increments, as well as a 5% increase to take into account the expected effect of changes in Austrian tax legislation on GS salaries.

25. Common staff costs are assumed to be 34.5% of salaries for established posts and temporary assistance, taking into account the dependency allowance and education grant increases foreseen for Professional staff.

26. On the basis of detailed analyses of the various types of equipment and supplies procured by the Agency and of the various cost items relating to travel as well as to research and other contracts concluded by the Agency, the price increases for "Other direct costs" total 3.1%, as can be seen from Table 56, the Regular Budget by Item of Expenditure. Within this average of 3.1%, 3.5% is foreseen in respect of VIC Operating Costs, as this percentage was used by UNIDO, the organization in charge of VIC operations.

27. The increases in the various shared costs are derived from increases in the individual items of expenditure in the relevant Shared Support Services.

28. It is proposed that the Regular Budget estimates for 1990 of \$162 832 000 be funded, after deduction of estimated income of \$7 901 000, by an <u>assessment on Member States</u> of \$154 931 000 (see Table 3, Regular Budget, Summary of Income). The assessment for 1990 represents an increase of \$6 400 000 over the assessment for 1989, all figures being presented at an exchange rate of AS 12.70.

29. The economic situation in Member States has made it necessary in recent years to restrict the growth of resources deployed by the Agency in implementing its programmes. The efficient and effective use of the limited resources which are at the Agency's disposal is therefore a major concern of both Member States and the Secretariat. Efforts continue to be made to improve the productivity of the Agency, to increase the volume of activity by more than the increase in expenditure, or to maintain the same volume of activity while reducing expenditure. To measure a general improvement and to make this improvement visible, simple yet useful methods can be employed.

30. For Safeguards, the number of man-days of inspection (days at facilities) have been taken as a useful measurement unit. The planned target of 11 000 man-days for 1990, compared with the figure of 10 600 man-days for 1989, represents a greater increase than in the cost per man-day for 1990, at 1989 prices, compared with the cost per man-day for 1989.

31. In the programme and budget for 1989 and 1990 rough calculations showed that efficiency gains of slightly below 3% per annum can be expected. This figure can be confirmed for 1990.

32. In other areas, variations in the volume of activities are measured by the number of meetings, publications, co-ordinated research programmes and so on. These tasks are identified as "main means" for achieving the Agency's objectives. A description of "main means" follows.

#### Categories of Main Means in the 1990 Programme Budget

33. As in previous years, the concept of "main means" is used in Part I of the budget document to categorize the principal activities involved in implementing the approved programmes. Using this concept, Member States can be shown what final products they can expect from the Agency.

34. In this sense, small meetings such as advisory group and technical committee meetings are inputs similar to "items of expenditure"; they are not associated directly with the generation of a final product for Member States. Accordingly, they are not shown as a separate "main means".

35. "Major Meetings" reflect the costs of providing a forum for the exchange of information (conferences, symposia, seminars), including the costs of manpower required for preparing and holding meetings. Meetings such as advisory group and technical committee meetings are included in this category only if they are associated with the planning of a conference, symposium or seminar.

36. "Publications" reflect the costs of preparing reports, guidelines, proceedings, manuals and other publications. These costs include costs of staff, consultants and printing and editing. The costs of advisory group and technical committee meetings held in conjunction with the preparation of publications are included in this category.

37. "Standards and Regulations" mainly reflect the costs of Safety Series documents. As in the case of "Publications", the costs associated with "Standards and Regulations" include costs of staff, consultants, printing and editing, advisory group meetings and technical committee meetings.

38. "Data Base" reflects the costs associated with setting up and maintaining specific data bases such as the Power Reactor Information System, Nuclear Fuel Cycle Information System, International Nuclear Information System, International Uranium Geology Information System and Computer Index of Atomic and Molecular Data. Included are staff costs, data processing and other computer costs and the costs of meetings held to exchange information or to provide data base training.

39. "Research and Development" reflects the costs of co-ordinated and other research programmes, including the costs of administration, staff, laboratory services, consultants and the preparation of reports.

40. "Services to Member States" reflect the actual costs of advisory services and missions as well as laboratory and other services which are financed from the Regular Budget, including associated staff costs.

41. "Technical Co-operation Support" reflects the staff costs associated with the support given by the technical Departments to the technical co-operation programme in selecting and briefing experts, designing training course programmes, evaluating equipment and similar activities. It is a category which includes a broad range of activities and is not restricted to support of technical co-operation projects: part of the costs of the Trieste Centre and the Seibersdorf and Monaco Laboratories is considered to represent support for technical co-operation.

42. "Safeguards Implementation" relates only to the Department of Safeguards and covers all safeguards implementation activities.

#### Extrabudgetary Resources

43. In general, the dollar amounts for extrabudgetary resources are tentative and represent the best estimates that can be made at present. Some amounts represent requests made by the Agency and some are reasonable expectations based on past experience; several are still subject to confirmation. A comparison with document GC(XXXII)/837 shows that the present estimates are about one third higher than originally foreseen for 1990.

44. In Part I of the document, the tables include, at the Project level, amounts of extrabudgetary resources expected to be available for the Agency to carry out its programme in 1990, without reference to prospective donors. This information is recapitulated in the tables "Summary of total resources by programme" and in the Attachment to Tables 1-4, Total Resources for Implementation in 1990, in which funds from other United Nations organizations are shown separately. Table 4 provides details of expected extrabudgetary resources by donor country. Apart from confirmed contributions, reasonable expectations have been included and footnoted.

## Target for Voluntary Contributions to the Technical Assistance and Co-operation Fund

45. The provision of technical assistance by the Agency to its developing Member States is financed from the Technical Assistance and Co-operation Fund, (TACF), which receives its income mainly in the form of voluntary contributions, for which a target is set each year. On the basis of an annual increase of \$3.5 million in the indicative planning figure (which the Board has approved for each of the years 1990, 1991 and 1992), the Board recommends that the target for 1990 be established at \$45.5 million. Taking into account miscellaneous income, it is expected that the Fund will amount in total to \$46.5 million.

46. In Part I of the document the project tables include, at the Area of Activity level, amounts of technical co-operation resources expected to be available for implementation in 1990. The amounts shown represent the

technical co-operation programme for 1990 considered by the Board of Governors in February 1989, plus expected UNDP projects. The allocation of \$4 000 000 for training to the programmes represents an extrapolation from the training courses in 1989.

#### Working Capital Fund

47. The Agency's Working Capital Fund remained, with minor variations, at the same level - namely \$2 million - from 1958 until 1988. For 1989 the Fund was increased to the level of \$4 million. For 1990, the Board recommends that the Fund be increased to the level of \$6 000 000.

#### Manning Table

48. Requests for additional manpower and the reclassification of existing posts have been scrutinized through the internal review process established for the purpose of reviewing human resource requirements in the light of programme trends and developments as well as the overall workload situation and staff utilization.

49. For 1990 an increase of 1 Professional post and 9 GS posts is considered necessary. Justifications are provided in the text accompanying Table 60.

50. In order to make full use of available manning table positions, several posts have been redeployed. The transfers are shown in Table 63, Transfer of Posts in 1989. Table 63(a) shows the transfers required in connection with the restructuring of the Departments of Safeguards and Technical Co-operation, while Table 63(b) shows other transfers of posts. Detailed explanations are provided in the text accompanying the tables.

#### REPORT ON THE BUDGET TO THE GENERAL ASSEMBLY OF THE UNITED NATIONS

51. In accordance with Article XVI of the Agency's relationship agreement with the United Nations (INFCIRC/11, Part I), the budget will be reviewed by the Advisory Committee on Administrative and Budgetary Questions, which will report on the administrative aspects thereof to the General Assembly of the United Nations.

## TABLES 1-4

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#### RESOURCES FOR PROGRAMME IMPLEMENTATION FROM THE REGULAR BUDGET AND FROM OTHER UN ORGANIZATIONS - 1990

#### Table 1

Programm	e Area / Programme	Regular Budget estimates	8	Funds from other UN organizations a_/
Α.	AR POWER AND THE FUEL CYCLE Nuclear Power Nuclear Fuel Cycle Radioactive Waste Management	6 604 000 2 474 000 4 366 000	1.6	- - -
	Sub-Total	13 444 000	8.5	
D.	CAR APPLICATIONS Food and Agriculture Human Health Industry and Earth Sciences Physical and Chemical Sciences	8 261 000 4 567 000 2 682 000 7 009 000	1.7	450 000
	Sub-Total	22 519 000	14.2	3 276 000
3. NUCLI H. I.	CAR SAFETY AND RADIATION PROTECTION Radiation Protection Safety of Nuclear Installations	4 513 000 5 511 000		-
	Sub-Total	10 024 000	6.3	-
	Planning, Direction, Co-ordination b_/ and Control Safeguards Operations	[297 000] 28 258 000 25 931 000	- 17.8 16.4	- - -
	Sub-Total	54 189 000	34.2	
s.1. s.2. s.3. s.4. s.5.	CTION AND SUPPORT General Management and Secretariat of the Policy-making Organs Administration Technical Co-operation Servicing and Co-ordination General Services Specialized Service Activities Shared Support Services c_/	9 975 000 11 870 000 9 362 000 17 523 000 7 866 000 1 576 000	6.3 7.5 5.9 11.1 5.0 1.0	- - - - - - - -
	Sub-Total	58 172 000	36.8	
Total - Plus:	Agency's Programmes Services provided to others	158 348 000 4 484 000	100.0	3 276 000
	Total	162 832 000		3 276 000
Assessm Income Other m	OF FUNDS ent on Member States from work for others iscellaneous income N organizations	154 931 000 4 484 000 3 417 000		- - 3 276 000
Total		162 832 000		3 276 000

Funds from FAO, UNEP, UNESCO, United Nations University etc., but excluding UNDP. Included in S.1. - General Management and Secretariat of the Policy-making Organs. Includes only the Library, all other services having been allocated to the user programmes. a\_/ b\_/ c\_/

#### THE REGULAR BUDGET

#### By programme area and programme

#### Table 2

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Program	me Area / Programme	1989 Budget	Expenditur increase/(dec	e r.) %	1990 at 1989 prices	Price Incr.	1990 with price incr
A.	EAR POWER AND THE FUEL CYCLE Nuclear Power	6 557 000	(171 000)	(2.6)	6 386 000	3.4	6 604 00
В. С.	Nuclear Fuel Cycle Radioactive Waste Management	2 233 000 4 419 000	(205 000)	7.3 (4.6)	4 214 000	3.6	
	Sub-Total	13 209 000	(212 000)	(1.6)	12 997 000	3.4	
. NUCL	EAR APPLICATIONS						
D. E.	Food and Agriculture Human Health	8 015 000 4 458 000		(1.0) $(1.1)$			8 261 00 4 567 00
F.	Industry and Earth Sciences Physical and Chemical Sciences	2 679 000	(99 000)	(3.7) (1.3)	2 580 000	3.9	2 682 00
G.			************			~~~~~~~	
	Sub-Total	21 973 000	(321 000)	(1.5)	21 652 000	4.0	22 519 00
	EAR SAFETY AND RADIATION PROTECTION	4 240 000	107 000	2 0	4 267 000	2.4	4 512 00
н. 1.	Radiation Protection Safety of Nuclear Installations	4 240 000 5 235 000	97 000	3.0 1.9	5 332 000	3.4	
	Sub-Total	9 475 000	224 000		9 699 000		
	GUARDS						
J.1.	Planning, Direction, Co-ordination a_/ and Control	[429 000]	-	-	[287 000]	- ,	[297 00
J.2. J.3.	Safeguards Operations Safeguards Support	26 938 000 25 555 000	(510 000)	2.1 (2.0)	25 045 000	3.5	25 931 0
	Sub-Total	52 493 000	51 000				
. DIRE	CTION AND SUPPORT						
S.1.	General Management and Secretariat of the Policy-making Organs	9 831 000	(213 000)	(2.2)	9 618 000	3.7	9 975 O
s.2. s.3.	Administration Technical Co-operation Servicing	10 985 000 8 471 000	364 000 521 000	3.3 6.2	11 349 000 8 992 000		11 870 0 9 362 0
	and Co-ordination General Services	16 798 000	(40 000)	(0.2)	16 758 000	4.6	17 523 0
s.5. s.6.	Specialized Service Activities Shared Support Services b_/	7 614 000 1 474 000		(0.9) (0.1)			7 866 00 1 576 00
	Sub-Total	55 173 000	560 000	1.0	55 733 000		58 172 00
otal - lus:	Agency's Programmes Services provided to others	152 323 000 5 217 000	302 000 (973 000) (	0.2 18.7)	152 625 000 4 244 000		
	Total	157 540 000	(671 000)	(0.4)	156 869 000	3.8	162 832 00
ess:	Miscellaneous income:				************		
	Services provided to others Other	5 217 000 3 792 000	(973 000) ( (497 000) (	18.7) 13 <b>.1</b> )	4 244 000 3 295 000	3.7	
ssessm	ent on Member States	148 531 000	799 000	0.5	149 330 000		154 931 00

#### THE REGULAR BUDGET

#### Summary of Income

#### Table 3

Item		1989 Budget	Increase (decrease)	
Assessed contributions on Member States			6 400 000	154 931 000
Miscellaneous income				
(a) Income from work for others				
Data processing services	1 508 581	1 565 000	(222 000)	1 343 000
Printing services	1 619 052	1 805 000	(458 000)	1 347 000
Medical services	596 598	652 000	(32 000)	620 000
Library services	781 766	982 000	(31 000)	951 000
Radiation protection services	183 271	213 000	10 000	223 000
Sub-total	4 689 268	5 217 000	(733 000)	4 484 000
(b) Attributable to specific programmes				
Publications of the Agency - INIS	477 619	497 000	(45 000)	452 000
Publications of the Agency - Other	885 284	1 148 000	(244 000)	904 000
Laboratory income	271 453	175 000	-	175 000
INIS/AGRIS/Direct Access income	173 868	240 000	(75 000)	165 000
Amounts recoverable under Safeguards agreements	298 491	250 000	-	250 000
Programme support income	739 593	650 000	(56 000)	594 000 a
Other Service income	7 210	2 000	45 000	47 000
Sub-total	2 853 518	2 962 000	(375 000)	2 587 000
(c) Not attributable to specific programmes				
Investment and interest income	2 425 052	650 000	-	650 000
Gain on exchange of currencies	405 265	-	-	-
Other	605 645	180 000	-	180 000
Sub-total	3 435 962	830 000		830 000
Total miscellaneous income	10 978 748	9 009 000	(1 108 000)	7 901 000
TOTAL CONTRIBUTIONS AND MISCELLANEOUS INCOME			5 292 000	

a/ The figure corresponds to 22% refund to offset programme support costs based on a UNDP programme of \$ 2.7 million. Income in excess of the budgeted figure will be at the disposal of the DDG TC for programme support expenditure. This treatment of excess income and expenditure is in accordance with para 3(a) of the Appropriation Resolution in ANNEX III or can be regarded as " Work for others ".

#### EXTRABUDGETARY RESOURCES 1989 - 1990 (as known on 11 July 1989) <u>a</u>/

## Table 4

	1 January 1989	1989 Estimate	
Technical Assistance and Co-operation			
Asian Development Bank Australia (RCA)	17 612	100 000 718 000 ь_/	- 750 000 ь_,
Belgium Canada European Economic Community	116 012 1 509 18 667	183 000	100 000 b_ 147 000
Finland France Germany, Federal Republic of	275 - 1 457 817	162 000 497 000 1 128 000 d_/	- 500 000 c_ 1 200 000 d
Italy Japan (RCA) Korea, Republic of	410 070 309 335 70 000	1 045 000 552 000 b_/ 30 000	480 000 700 000 b_
Kuwait Norway	63 278 15 263 4 229	-	-
Saudi Arabia Spain Sweden	281 828	368 000 280 000	-
Union of Soviet Socialist Republics United Kingdom of Great Britain and Northern Ireland United States of America	2 371 008	1 400 000	1 085 000 d_ 877 000 1 400 000 d_
Sub-total		7 440 000 e_/	
Nuclear Power	***		~~~~~~~~~~
Canada Germany, Federal Republic of Korea, Republic of (RCA)	(30 701) 1 159	 50 000 b_/	- - 50.000 b
Sub-total		50 000	
Nuclear Fuel Cycle			
Germany, Federal Republic of United States America	28 033	60 000 60 000	35 000 60 000
Sub-total	28 033	120 000	95 000
Nuclear Safety			
Finland Germany, Federal Republic of India (RCA)	25 419 62 493	100 000 83 000 25 000 b_/	100 000
Netherlands Sweden United States of America	78 169 f_/ 64 117 132 862	- f_/ 99 000 93 000	67 000 58 000 93 000
Sub-total	363 060	400 000	318 000
Scientific and Technical Information			
United States of America	-	10 000	-
	-	10 000	

#### Table 4 (continued)

	Unused balances as at 1 January 1989	1989 Estimate	1990 Estimate
Food and Agriculture			
Australia (RCA) China (RCA)	29 194 -	25 000 b_/	 25 000 b
Germany, Federal Republic of International Consultative Group on Food Irradiation (ICGFI)	52 472 78 623	124 000	
Italy Japan (RCA) Netherlands	278 805 10 376 (25 674)	1 755 000 b_/	3 987 000 b_
Sweden United States of America	345 905 58 767	410 000 181 000 150 000 b_/	150 <sup>000</sup> b_
Sub-total	828 468	2 645 000	4 286 000
Life Sciences			************
Canada Italy India (RCA) Japan (RCA)	(19 211) 24 311 424 790	20 000 b_/ 264 000 18 000 b_/ 150 000 22 000 b_/	- - 290 000 b_
United States of America	36 706	22 000 b_/	~ ~~~~~~~~
Sub-total	466 5%	474 000	290 000
Physical and Chemical Sciences			
Australia (RCA) China (RCA) Germany, Federal Republic of India (RCA)	11 527	- 25 000 b_/ 8 000 25 000 b_/	25 000 b_ 11 000 50 000 b_
Italy United States of America	1 801 62 164	-	-
Sub-total	75 608	58 000	86 000
Agency's Laboratory, Seibersdorf	•		
Austria Germany, Federal Republic of United States of America	-	691_000 	-
Sub-total	687 732 g /	/ 841 000	
International Centre for Theoretical Physics			
Brazil Italy Japan Kuwait Qatar Sweden United Kingdom of Great Britain and Northern Ireland United Kingdom of Great Britain and Northern Ireland	336 619 h_/ - - - - - -	10 000 18 477 000 h_/ 39 000 313 000 10 000 196 000 30 000 10 000	10 000 17 390 000 h_ 39 000 75 000 10 000
.Sub-total	336 619	19 085 000	17 524 000

#### Table 4 (continued)

	1 January 3	1989	1989 Estimat	te		te	
nternational Laboratory of Marine Radioactivity			*********				
Canada		-	25	000		-	
European Economic Community		-	70	000	48	000	J
Germany, Federal Republic of		413		•		-	
International Union for Conservation of Nature and Natural Resources (IUCN)	1	946		-		~	
Principality of Monaco		664		000	110	000	)
Regional Organization for the Protection of the Marine Environment (ROPME)					20	000	1
United States (National Science Foundation)	15	406	35	000		-	
Sub-total	61	984	252	000	178	000	)
əfeguards							-
Canada		153		- d_/	/	-	
Finland	(3	316)		- d_/	/		,
France		320		- d_	/	-	ł
Germany, Federal Republic of		595		- d_/	/	-	
Italy		136	·	-		-	
Japan		922	·	- a_/	1	-	
Sweden		471		· a_/		-	
Union of Soviet Socialist Republics		613				-	
United Kingdom of Great Britain and Northern Ireland	77		97	000		000	
United States of America	629	669		- d_/	/ 	-	
Sub-total	1 555	744	97	000	107	000	)
ministration							
Italy	164	954	500	000	400		
Japan		-		-	500	000	)
United States of America	17	492	71	000		-	
Sub-total	182	446	571	000	900	000	)
TOTAL	4 556	748	24 603	000	23 834	000	)

Note: Most contributions still require parliamentary approval.

In addition to the cash resources indicated above, Member States make contributions in kind consisting of cost-free experts and consultants, stipends for fellowships, training courses, etc. No fixed commitment has yet been received. a\_/

b\_/

Minimum amount anticipated.

ر] م No firm commitment has been received to date but it is expected that extrabudgetary funding will continue at about the same level as 1988.

These figures are not included in the total extrabudgetary resources since they are incorporated in the TC resources shown in the Attachment to Tables 1-4. e\_/

The unused balance includes resources received in 1988 but planned for implementation in 1989. f /

Includes the unused balance of contributions from Austria, the Federal Republic of Germany and the g\_/ United States of America, which are not accounted for separately. Includes funds for the Third World Academy of Sciences.

h\_/

ATTACHMENT TO TABLES 1 - 4

#### TOTAL RESOURCES FOR IMPLEMENTATION IN 1990

•	Area / Programme	Regular Budget estimates	Funds from other UN organizations a_/	Other extra- budgetary resources	TC programme b_/	Total
NUCLEAR	POWER AND THE FUEL CYCLE					
1 11	alaan Denen	6 604 000	-	50 000	2 025 000	8 679 000
B. Nu	clear Fuel Cycle	2 474 000 4 366 000	-			3 551 000
C. Ra	aclear Fower aclear Fuel Cycle adioactive Waste Management			205 000	1 077 000 913 000	5 484 000
	ub-Total	13 444 000		255 000	4 015 000	17 714 000
	APPLICATIONS					
	ood and Agriculture	8 261 000	1 528 000	4 354 000	6 603 000	20 745 000
2. h	man Health	4 567 000	450 000	510 000	5 1/6 000	10 503 000 9 586 000
F. In G. Pì	Nustry and Earth Sciences hysical and Chemical Sciences	7 009 000	1 298 000	17 560 000	6 603 000 5 176 000 6 854 000 8 596 000	34 463 000
	ıb-Total	22 519 000	3 276 000	22 274 000	27 229 000	75 298 000
NUCLEAR	SAFETY AND RADIATION PROFECTION					
H. Ra	idiation Protection	4 513 000	-	130 000	3 626 000	8 269 000
I. Sa	fety of Nuclear Installations	5 511 000	-	271 000	3 626 000 1 440 000	7 222 000
Sı	ib-Total	10 024 000	-	401 000	5 066 000	15 491 000
Safeguai						_
	lanning, Direction, Co-ordination	[297 000]	-	-	-	[297 000]
		28 258 000	-	-	-	28 258 000
J.3. Sa	feguards Support		-		72 000	
Sı	b-Total				72 000	
	NA AND SUPPORT eneral Management and Secretariat	9 975 000	-		<u>.</u>	9 975 000
	the Policy-making Organs	5 27.5 000				5 775 000
	iministration	11 870 000	-	400 000	• .	12 270 000
	echnical Co-operation Servicing of Co-ordination	9 362 000	-	-	6 004 000 d_/	15 366 000
	eneral Services	17 523 000	-	-	-	17 523 000
	pecialized Service Activities	7 866 000	-	500 000	136 000	8 502 000
s.6. sł	nared Support Services e_/	1 576 000	-		-	1 576 000
Si	ib-Total	58 172 000		900 000	6 140 000	65 212 000
	ency's Programmes	158 348 000	3 276 000		42 522 000	231 531 000
us: Se	ervices provided to others	4 484 000	• • • • • • • • • • • • • • • • • • • •	- 	-	4 484 000
Т	otal	162 832 000	3 276 000	27 385 000	42 522 000	236 015 000
URCE OF I	TUNDS					
	on Member States	154 931 000	-	-	-	154 931 000
come from	n work for others	4 484 000	-	-	-	4 484 000
	allaneous income	3 417 000	-	-	-	3 417 000
	rganizations	-	3 276 000	-	2 700 000 f_/	5 976 000
	Assistance and	-	-	-	33 129 000 -	33 129 000
-operatio		_	_	· 77 395 000	£ £02 000 ~ /	34 079 000
.crannade.	tary programme	-	- 	27 385 000	6 693 000 g_/	34 078 000
otal		162 832 000	3 276 000	27 385 000	42 522 000	236 015 000

a\_/ b/

ر\_ہ م\_

Funds from FAO, UNEP, UNESCO, United Nations University etc., but excluding UNDP - (see f\_/). Amounts shown represent the TC programme for 1990 considered by the Board of Governors in February 1989 (and subject to final Board approval in 1990), plus expected UNDP projects. The allocation of \$ 4 000 000 for training to the programmes represents an extrapolation from training courses in 1989. Included in S.1. - General Management and Secretariat of the Policy-making Organs. Includes \$ 4 519 000 in respect of manpower development (fellowships) which has not been allocated to individual programmes, the Reserve Fund of \$ 700 000 and miscellaneous expenditure of \$ 275 000. Includes only the Library, all other services having been allocated to the user programmes.

e\_/ f\_/ 9\_/

UNDP only. Footnote a / projects. The \$ 6 242 000 shown in Table 4 as expected from donors will be used in part to finance these projects.

## PART I

THE PROGRAMME BUDGET

## PROGRAMME AREA 1

NUCLEAR POWER AND THE FUEL CYCLE

#### NUCLEAR POWER AND THE FUEL CYCLE

#### Summary of total resources by programme

### <u>Table 5</u>

		Mai	n-years	 }	Pla	Planned expenditure for programme implementation in 1990							
	Programme	P	GS	MSO	Regular Budget estimates	Funds from other UN organizations	Other extra- budgetary resources	TC resources	Total				
<b>A.</b>	Nuclear Power	26.2	18.1	0.0	6 604 000	-	50 000	2 025 000	8 679 000				
в.	Nuclear Fuel Cycle	10.5	6.0	0.0	2 474 000	-	-	1 077 000	3 551 000				
c.	Radioactive Waste Management	18.0	21.0	0.0	4 366 000	-	205 000	913 000	5 <b>484</b> 000				
Prog	gramme Area 1	54.7	45.1	0.0	13 444 000		255 000	4 015 000	17 714 000				

#### PROGRAMME A: NUCLEAR POWER

## Summary of Regular Budget estimates by Area of Activity

#### <u>Table 6</u>

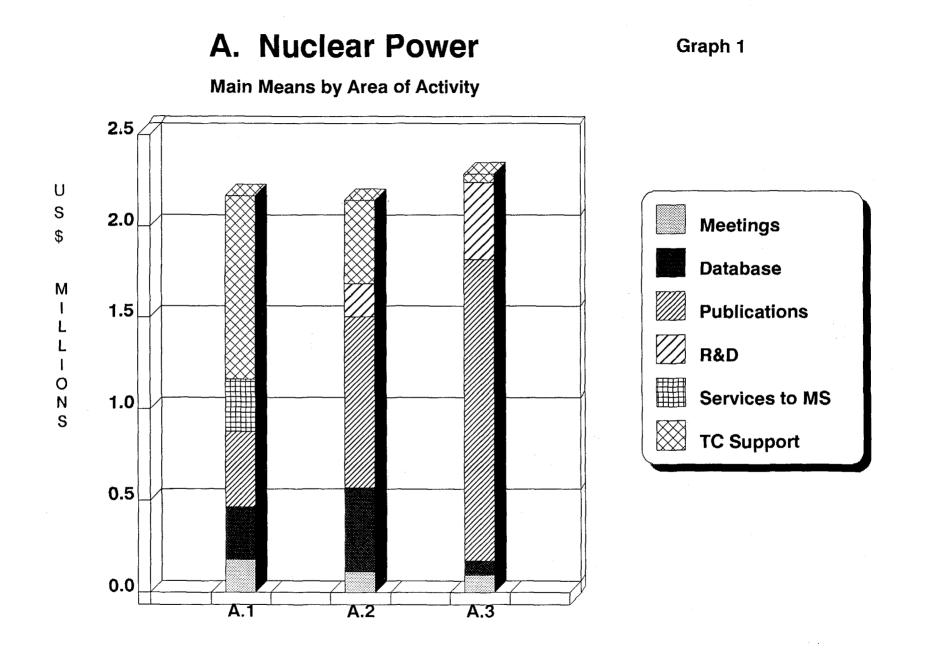
Area of	Activity / Programme		esponsible vision	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
A.1.	Nuclear Power Planning and Implementation	NE	INP	2 044 000	64 000	3.1	2 108 000	3.0	2 171 000
A.2.	Nuclear Power Plant Performance	NE	INP	2 282 000	(199 000)	(8.7)	2 083 000	3.0	2 145 000
A.3.	Nuclear Power Systems Technologies	NE	mp	949 000	(28 000)	(3.0)	921 000	3.0	949 000
		RI	РC	439 000	(8 000)	(1.8)	431 000	3.9	448 000
	`	NE	SI	843 000	-	-	843 000	5.7	891 000
		Sub-Total A.	.3	2 231 000	(36 000)	(1.6)	2 195 000	4.2	2 288 000
Program	me A Total	ب (), () نو من با الا الله الله الله الله الله الله ال	• • • • • • • • • • • • • • • • • •	6 557 000	(171 000)	(2.6)	6 386 000	3.4	6 604 000

#### PROGRAMME A: NUCLEAR POWER

#### Summary of main means by Area of Activity for 1990

#### <u>Table 7</u>

Area of Activity	Respon. Div.	Man~years		Major meetings	Data base	Publi- cations	Standards regula-	& devel-	Admin. sup- port and	to Member	TC support	Total Regular Budaat	
		P 	GS 	M&O				tions	opment.	management	States		Budget.
A.1. Nuclear Power Planning and Implementation	NENP	9.4	5.8	-	180 000	286 000	411 000	-	-	~	289 000	1 005 000	2 171 00
A.2. Nuclear Power Plant Performance	NENP	9.4	4.8	-	114 000	456 000	935 000	-	181 000	-	-	459 000	2 145 00
A.3. Nuclear Power Systems Technologies	NENP	4.2	2.4	-	-	-	581 000	-	323 000	-	-	45 000	949 00
	RIPC	2.2	1.1	-	97 000	-	251 000	-	100 000	-	_	-	448 00
	NESI	1.0	4.0	-	-	74 000	817 000	-	-	-	-	-	891 00
Programme & Total		26.2	18.1		391 000	816 000	2 995 000		604 000		289 000	1 509 000	6 604 0



#### Programme A: List of projects and estimated total resources for 1990

#### Table 8

		Es	timated total :	resources fo	•
Project Codes		Regular Budget	Extra- Budgetary	TC	Total Resources
A.1.	Nuclear Power Planning and Implementation			*******	
A.1.01	Nuclear Power Programme Planning	1 285 000	50 000		
A.1.07	Support for Nuclear Power Project Implementation	622 000	Ì		
A.1.08	Financial Planning for Nuclear Power Projects	264 000			
		2 171 000	50 000	872 000	3 093 0
A.2.	Nuclear Power Plant Performance				
A.2.01	Nuclear Power Plant Performance Analysis	749 000	1		
A.2.02	NPP Ageing and Life Extension	340 000	j		
A.2.03	Quality Programme Management	447 000	Ì		
A.2.06	Qualification Standards for Nuclear Power Plant Operating Personnel	358 000	1		
A.2.07	Man-Machine Interface Studies	251 000			
		2 145 000	-	837 000	2 982 0
A.3.	Nuclear Power Systems Technologies				**===
A.3.01	Improvement of Reactor Technologies	277 000	1		
A.3.02	Evolution of Current Power Reactor Technology	508 000	1		
A.3.03	Nuclear Heat Applications	93 000	1		
A.3.05	Fusion Research and Engineering (NENP)	71 000			
λ.3.05	(RIPC)	369 000	1		
A.3.05	(MESI)	891 000	1		
A.3.06	International Thermonuclear Experimental Reactor (RIPC)	79 000	} \		
	(RIFC)	2 288 000	1		2 604 0
amme A	Nuclear Power	6 604 000			8 679 0

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#### PROGRAMME A: NUCLEAR POWER

CHANGES IN THE ORIGINAL PLANS

A/1. Detailed information on the activities planned for 1990 is provided under Programme A in Part I and in the corresponding tables in Part II of document GC(XXXII)/837. The following additions to, and changes in, these activities are foreseen.

A/2. In the past, national and international organizations have devoted considerable effort to examining and comparing the costs of producing electricity by different means - coal, oil, gas, nuclear, and hydro. Today. the health and environmental impact of the various means of generating electricity has assumed equal, if not greater, importance, with the result that a number of studies are being undertaken on the subject, including on the risk of global warming due to the increased emission of "greenhouse gases". An intergovernmental panel on climate change has been established under the auspices of WMO and UNEP and there is a need for governments to formulate policies that can be the basis for internationally agreed action. As a contribution to this effort, it is planned to organize in 1991 a Senior Expert Symposium on Electricity and the Environment. The symposium will compare and review data on the health and environmental impact of alternative energy sources for electricity production, the importance of electricity in future energy supplies, the overall environmental impact of greater or less use of electricity, and the question of how environmental and health issues can be incorporated into planning and decision making for electricity generation. The programme of the symposium will consist entirely of invited presentations on the above subjects, and participants will also be expected to discuss and elaborate a number of "Issue Papers" dealing with these key topics as well as a "Symposium Summary". In view of the importance and complexity of the subject matter, which encompasses a wide variety of scientific disciplines and energy sectors, it will be necessary to convene a series of expert group meetings in 1990 to assist with the preparations for the symposium.

A/3. In order to make available the financial and manpower resources needed in 1990 for these preparations, it will be necessary to postpone or cancel some advisory group, technical committee and specialists' meetings within the 'Nuclear Power and the Fuel Cycle' and 'Nuclear Safety and Radiation Protection' programme areas (see also paragraphs C/8 and I/5). Under the 'Nuclear Power' programme, the preparation – with the assistance of advisory group meetings in 1990 – of technical reports on the costs of generating electricity by nuclear and alternative types of power station (No. 3, Table 69, GC(XXXII)/837), on costs/benefits of nuclear power plant performance improvements (No. 5, Table 70, GC(XXXII)/837) and on guidelines for control room design (No. 28, Table 70, GC(XXXII)/837) will be deferred by one year. Also, a specialists' meeting to draw up a technical document on high temperature supraconducting materials (No. 26, Table 72, GC(XXXII)/837) will be postponed until 1991.

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#### PROGRAMME B: NUCLEAR FUEL CYCLE

## Summary of Regular Budget estimates by Area of Activity

## <u>Table 9</u>

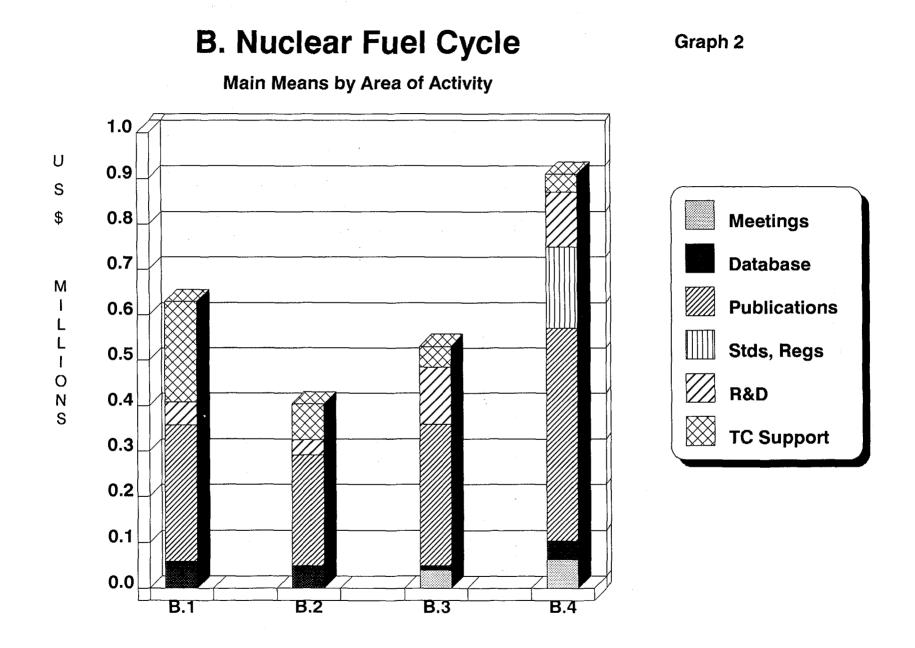
Area o	f Activity / Programme	Responsible Division	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
B.1.	Resources of Nuclear Raw Material	NENF	637 000	(28 000)	(4.4)	609 000	3.2	629 000
B.2.	Processing of Nuclear and Reactor Materials	NENF	384 000	7 000	1.8	391 000	3.2	404 000
B.3.	Reactor Fuel Design, Fabrication and Performance	NENF	473 000	42 000	8.9	515 000	3.2	531 000
B.4.	Spent Fuel Management	NENF	739 000	143 000	19.4	882 000	3.2	910 000
Progra	mme B Total		2 233 000	164 000	7.3	2 397 000	3.2	2 474 000

#### PROGRAMME B: NUCLEAR FUEL CYCLE

#### Summary of main means by Area of Activity for 1990

#### <u>Table 10</u>

Area of Activity	Respon. Div.	Na	n-years		Major meetings	Data base	Publi- cations	Standards regula-	Research & devel-	Admin. sup- port and	Services to Member	TC support	Total Regular
-		P	65	M&O				tions	opment	management	States		Budget
B.1. Resources of Nuclear Raw Material	NENF	3.5	2.0	-	-	60 000	298 000	-	50 000	-	-	221 000	629 00
B.2. Processing of Nuclear and Reactor Materials	NENP	2.0	1.0	-	-	50 000	242 000	-	33 000	-	-	79 000	404 00
B.3. Reactor Fuel Design, Fabrication and Performance	NENF	2.0	1.0	-	40 000	10 000	309 000	-	127 000	-	-	45 000	531 00
B.4. Spent Fuel Management	NENF	3.0	2.0	-	63 000	41 000	466 000	180 000	120 000	-	-	40 000	910 00
Programme B Total		10.5	 6.0		103 000	161 000	1 315 000	180 000	330 000			385 000	2 474 0



### Programme B: List of projects and estimated total resources for 1990

## Table 11

		Es	timated total	resources for	r 1990
Project Codes		Regular Budget	Extra-   Budgetary	TC	Total Resources
B.1.	Resources of Nuclear Raw Material			^	******
B.1.01	Data on Nuclear Raw Material Resources, Supply and Demand	84 000			
B.1.02	Nuclear Raw Material Geology, Exploration and Mining	225 000	1		
B.1.03	Assistance in Nuclear Raw Material Resources Assessment and Development	320 000			
		629 000	1	677 000	
B.2.	Processing of Nuclear and Reactor Materials	. ~ 5 2 5 2 2 2 2 2 2 2 3 3 3 7 5 1	}		*****
<b>B.2.</b> 01	Nuclear and Reactor Materials Processing and Production	251 000			
B.2.02	Guidance on Nuclear and Reactor Materials Processing and Production	153 000	}		
		404 000	1	200 000	
B.3.	Reactor Fuel Design, Fabrication and Performance	• • • • • • • • • • • • • • • • • • •	- ]		
B.3.01	Design, Quality and Performance of Reactor Fuel	531 000	1		
		531 000	!	200 000	731 000
B.4.	Spent Fuel Management			~~~~~~~~~~	
B.4.01	Spent Nuclear Fuel Arisings and Capacity Requirements	116 000			
B.4.02	Spent Fuel Storage Options and Practices	559 000	1		
B.4.03	Spent Fuel Treatment and Recycling	235 000			
		910 000	-	-	910 000
Programme B	Nuclear Fuel Cycle	2 474 000	!	1 077 000	3 551 000

PROGRAMME B: NUCLEAR FUEL CYCLE

#### CHANGES IN THE ORIGINAL PLANS

B/1. Detailed information on the activities planned for 1990 is provided under Programme B in Part I and in the corresponding tables in Part II of document GC(XXXII)/837. The following additions to, and changes in, these activities are foreseen.

B/2. In many countries the environmental consequences of the operation of nuclear fuel cycle facilities are the focus of public criticism of nuclear power. An assessment of these effects seems timely, and it is planned in 1990 to prepare, with the assistance of an advisory group, a technical report on the environmental effects of the nuclear fuel cycle in which the issues most frequently raised in the public debate will be addressed.

B/3. In the spent fuel management area, which represents a sizeable share of the "Nuclear Fuel Cycle" programme, it is considered necessary in the light of the rapidly growing quantities of fuel in storage to start work in 1990 on the preparation of international recommendations (safety standards) for the safe long term storage of spent fuel. The document will cover basic safety requirements for the design, construction, maintenance, operation and licensing of long term storage facilities. It is also planned to expand the scope of the technical document on topical problems of spent fuel treatment (No. 22, Table 76, GC(XXXII)/837) so that it comprises a survey of overall developments and emerging problem areas in spent fuel management and reprocessing.

B/4. It is planned to defer until 1992 the establishment of a co-ordinated research programme (CRP) on fission gas release under power ramping, load follow and accident conditions (No. 3, Table 75, GC(XXXII)/837). The initiation of such a programme in 1989 is considered premature in the light of the current status of research in this area in Member States and the expectation that significant information will become available in 1990-91. It is also proposed to postpone to 1991 the preparation of a technical document on decontamination and other means to reduce activity and crud buildup or to increase reactor lifetime (No. 8, Table 75, GC(XXXII)/837) as some input to the document is expected from the CRP on decontamination technology (No. 5, Table 79, GC(XXXII)/837) to be initiated in 1989.

#### PROGRAMME C: RADIOACTIVE WASTE MANAGEMENT

### Summary of Regular Budget estimates by Area of Activity

## <u>Table 12</u>

Area o	f Activity / Programme	Responsible Division	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase f	1990 with price increase
c.1.	Handling, Treatment, Conditioning and Storage of Radioactive Waste	NENF	818 000	152 000	18,6	970 000	3.2	1 001 000
C.2.	Radioactive Waste Disposal	NENF	1 502 000	(245 000)	(16.3)	1 257 000	3.2	1 297 000
		RIML	1 515 000	(41 000)	(2.7)	1 474 000	4.4	1 539 000
c.3.	Decontamination and Decommissioning of Nuclear Installations	NENF	584 000	(71 000)	(12.2)	513 000	3.2	529 000
rogra	mme C Total		4 419 000	(205 000)	(4.6)	4 214 000	3.6	4 366 000

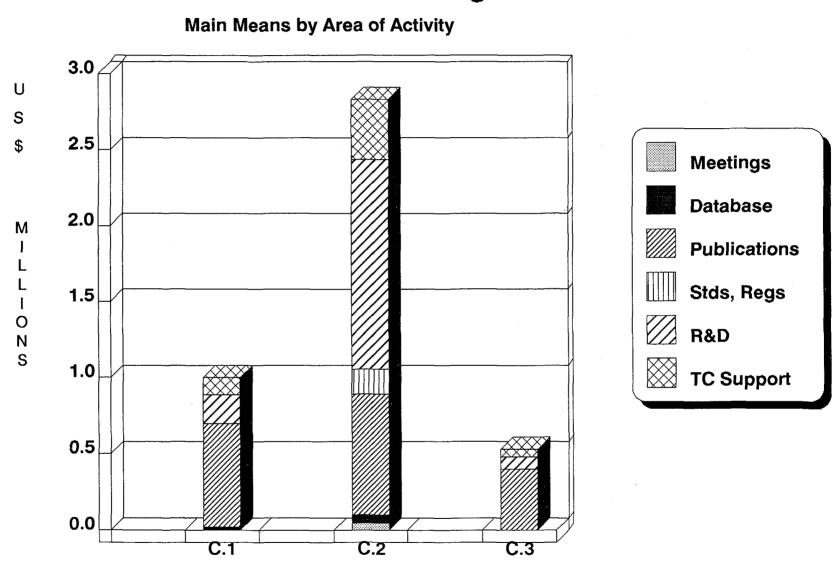
#### PROGRAMME C: RADIOACTIVE WASTE MANAGEMENT

#### Summary of main means by Area of Activity for 1990

area of Activity	Respon. Div.	Ma	an-years		Major meetings	Data base	Publi- cations	Standards regula-	Research & devel-	Admin. sup- port and	Services to Member	TC support	Total Regular
		P	GS	M&O				tions	opment.	management	States		Budget
2.1. Handling, Treatment, Conditioning and Storage of Radioactive Waste	NENF	3.5	2.0	-	-	22 000	678 000	-	190 000	-	-	111 000	1 001 00
2.2. Radioactive Waste Disposal	NENF	5.7	3.5	-	46 000	55 000	719 000	162 000	204 000	-	-	111 000	1 297 00
	RIM.	7.5	14.0	-	-	-	74 000	-	1 182 000	-	-	283 000 a_/	1 539 00
3. Decontamination and Decommissioning of Nuclear Installations	NENP	1.3	1.5	-	-	-	398 000	-	84 000	-	-	47 000	529 00
rogramme C Total		18.0	21.0		46 000	77 000	1 869 000	162 000	1 660 000			552 000	4 366 00

Table 13

a/ Represents TC-oriented activities conducted by RIML.



# **C. Radioactive Waste Management**

Graph 3

#### Programme C: List of projects and estimated total resources for 1990

## <u>Table 14</u>

		Es	timated total re	esources for	: 1990
Project Codes		Regular Budget	Extra- Budgetary	TC	Total Resources
C.1.	Handling, Treatment, Conditioning and Storage of Radioactive Waste		     		
C.1.01	Processing and Storage of High-Level and Alpha-Bearing Wastes	290 000			
C.1.02	Processing and Storage of Waste from Nuclear Power Plants and Nuclear Fuel Cycle Facilities	382 000	60 000		
C.1.03	Processing and Storage of Waste from Nuclear Applications	329 000	1		
		1 001 000	60 000	902 000	1 963 0
c.2.	Radicactive Waste Disposal				
c.2.01	Research and Technical Aspects of Waste Disposal	426 000			
c.2.02	Regulatory Aspects of Waste Disposal	253 000	1		
C.2.03	Exemption of Radiation Sources from Regulatory Control	209 000			<b>`.</b>
C.2.05	Support for Marine Radioactivity Monitoring (RIML)	659 000	35 000		
C.2.06	Research on Radionuclides in the Marine Environment (RIML)	880 000	75 000		
c.2.07	Radiological and Environmental Effects of Waste Disposal	409 000	35 000		
		2 836 000	145 000	11 000	2 992 (
C.3.	Decontamination and Decommissioning of Nuclear Installations		     		
c.3.01	Guidance on the Decontamination and Decommissioning of Nuclear Installations	217 000	1		
c.3.02	Decommissioning of Uranium Mining and Milling Facilities	113 000			
c.3.03	Clean-up of Large Areas after a Nuclear Accident	199 000	1		
		529 000		-	529 0
ramme C	Radioactive Waste Management	4 366 000	1	913 000	5 <b>484</b> C

3

#### PROGRAMME C: RADIOACTIVE WASTE MANAGEMENT

#### CHANGES IN THE ORIGINAL PLANS

C/1. Detailed information on the activities planned for 1990 is provided under Programme C in Part I and in the corresponding tables in Part II of document GC(XXXII)/837. The following additions to, and changes in, these activities are foreseen.

C/2. The programme drawn up for 1989-90 reflected international concern over the problems of managing mixed radioactive and chemical wastes. In 1988 it was recognized that further consideration needed to be given to this issue, and a group of consultants who met in November of that year concluded that work in Member States was not sufficiently well developed for the Agency to promulgate useful guidance at the international level. Accordingly, it is proposed to drop from the 1989-90 programme technical reports on the disposal of chemically hazardous radioactive waste (No. 5, Table 78, GC(XXXII)/837) and on the assessment of the impact on man of mixed wastes from the nuclear fuel cycle (No. 25, Table 78, GC(XXXII)/837). Before formulating the Agency's future work programme in this area, contact will be made with other relevant international organizations and information will be collected from Member States through a questionnaire.

C/3. It is also planned to cancel the proposed safety guide on the management of wastes generated during unplanned or accident situations at nuclear power plants (No. 10, Table 77, GC(XXXII)/837), since it is now considered that this subject is adequately dealt with in a technical report on the management of abnormal radioactive wastes at nuclear power plants which is currently in press.

C/4. Another area of emphasis in the 1989-90 programme is the processing and storage of waste from nuclear applications, and in particular of spent radiation sources used in industry, medicine, research and teaching. The latter topic was considered at special scientific meetings held in connection with the General Conference in 1988 and was also examined by a technical committee in September 1988. A number of new tasks are proposed for 1990 in both the waste management and radiation protection areas (see also Programme H). Specifically, it is planned to:

- Review and assess both the magnitude and nature of the radiological and disposal problems associated with old medical radium sources in Member States and the role the Agency should play in this connection;
- Contribute to a periodic newsletter to be established (under the "Radiation Protection" programme) in 1989, which will serve as a vehicle for the exchange of information on radiation sources;
- Consider including information on spent sources in the waste management data base currently being developed as a supplement to the Agency's activities in the waste management area. The exact scope of this data base will be determined once the feasibility of collecting and updating these data has been fully assessed;

- Expand the technical document on the management of low and intermediate level radioactive wastes generated in small nuclear research centres and by radioisotope users in medicine, research and industry (No. 15, Table 77, GC(XXXII)/837) into a set of nine short technical manuals intended mainly for developing countries. These documents - three of which will be prepared in 1990 - will cover the following subjects:
  - . Minimization and segregation of radioactive waste;
  - . Interim storage for decay of untreated and conditioned wastes;
    - Handling, conditioning and disposal of spent sealed sources;
  - . Handling, treatment and conditionining of solid radioactive wastes;
  - . Treatment and conditioning of radioactive animal carcasses and biological materials;
  - . Treatment and conditioning of radioactive effluents;
  - . Treatment and conditioning of radioactive organic liquids;
  - . Treatment and conditioning of spent ion exchange resins from research reactors;
  - Design of a centralized waste processing and storage facility.

C/5. In 1988 an international consensus was established on principles for the exemption of radiation sources and practices from regulatory control and the consensus document was published as Safety Series No. 89 (one year earlier than foreseen - No. 18, Table 78, GC(XXXII)/837). One of the areas in which it is now planned to apply these principles is the disposal of low level radioactive wastes from hospitals and research establishments (safety manual, No. 19, Table 78, GC(XXXII)/837). As this document will also take into account the assessment of the environmental impact of the disposal of such wastes, it is no longer felt necessary to have separate consideration of this subject (cancellation of No. 26, Table 78, GC(XXXII)/837). Instead, a technical report will be prepared in which the options for low level radioactive waste disposal will be compared and evaluated.

C/6. The lack of public understanding of radioactive waste management issues continues to be an important factor in many countries in relation to the acceptance of nuclear power. Work initiated in 1988 on a technical report dealing with aspects of radioactive waste management of concern to the public will be continued with a view to publishing in 1990 a source-book containing basic information on waste management questions.

C/7. In recognition of the increasing need for international harmonization of approaches to the decommissioning of nuclear facilities, a safety series report will be drawn up as a first step towards the elaboration of safety standards.

C/8. To make available the resources needed to convene preparatory meetings of experts for the symposium on electricity and the environment referred to in paragraph A/2, it is planned to postpone until 1991 the advisory group meeting on the assessment and control of radionuclide discharges to rivers and coastal waters (No. 28, Table 78, GC(XXXII)/837) and the technical committee meeting on the rehabilitation, decommissioning and disposal alternatives for a nuclear reactor after a serious accident (No. 10, Table 79, GC(XXXII)/837).

## PROGRAMME AREA 2

## NUCLEAR APPLICATIONS

#### NUCLEAR APPLICATIONS

#### Summary of total resources by programme

## <u>Table 15</u>

		Mar	-years		Pla	nned expenditur	e for programme	implementation	in 1990
	Programme	P	GS	MSO	Regular Budget estimates	Funds from other UN organizations	Other extra- budgetary resources	TC resources	Total
D.	Food and Agriculture	16.0 [13.6]		0.0 [1 <b>4.8</b> ]	8 261 000	1 528 000	4 354 000	6 603 000	20 746 000
E.	Human Health	16.5 [1.4]	1 <b>2.</b> 0 [6.1]		4 567 000	450 000	310 000	5 176 000	10 503 000
¥.	Industry and Earth Sciences	7.0 [4.2]		0.0 [1.0]	2 682 000	-	50 000	6 854 000	9 586 000
G.	Physical and Chemical Sciences	28.8 [4.9]	37.0 [13.6]	0.0 [3.5]	7 009 000	1 298 000	17 560 000	8 596 000	34 463 000
Pro	gramme Area 2	68.3	61.9	0.0	22 519 000	3 276 000	22 274 000	27 229 000	75 298 000

Note: The manpower figures shown in parentheses above represent the number of Agency Laboratory staff working for the programme in question.

#### PROGRAMME D: FOOD AND AGRICULTURE

#### Summary of Regular Budget estimates by Area of Activity

#### Responsible 1989 Expenditure 1990 at 1990 with Price Area of Activity / Programme Division Budget increase/(decrease) 1989 prices increase price \* 8 increase \_\_\_\_\_ Soil Fertility RIFA 2 008 000 99 000 4.9 2 107 000 2 194 000 D.1. 4.1 D.2. Plant Breeding and Genetics RIFA 1 293 000-(7 000) (0.5)1 286 000 1 339 000 4.1 D.3. Animal Production and Health RIFA 980 000 27 000 2.8 1 007 000 1 049 000 4.1 D.4. Insect and Pest Control RIFA 1 626 000 (3.3) 1 637 000 (54 000) 1 572 000 4.1 D.5. Agrochemicals and Residues RIFA 1 073 000 35 000 3.3 1 108 000 4.1 1 154 000 D.6. Food Irradiation RIFA 1 035 000 (181 000) (17.5)854 000 4.1 888 000 \_ \_ \_ \_ \_ \_ \_ 8 015 000 8 261 000 Programme D Total (81 000) (1.0)7 934 000 4.1

#### Table 16

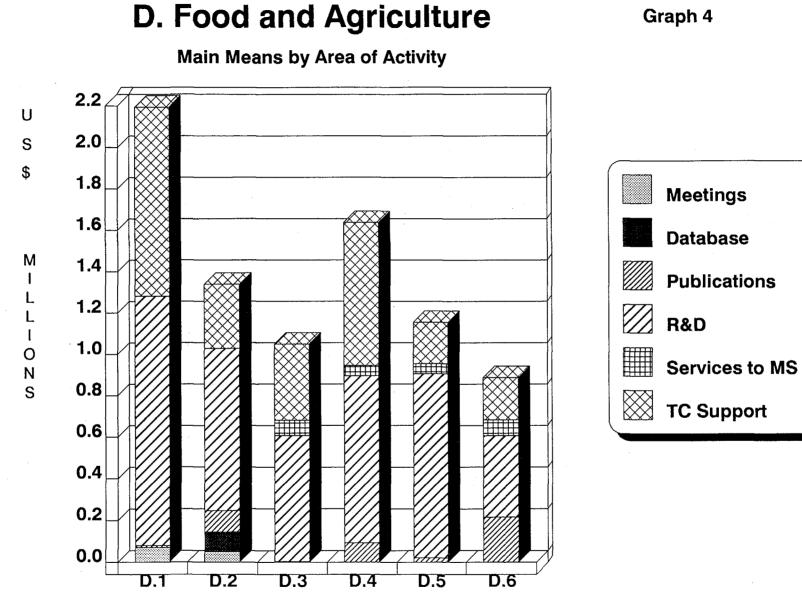
#### PROGRAMME D: FOOD AND AGRICULTURE

### Summary of main means by Area of Activity for 1990

#### Table 17

Area of Activity	Respon. Div.	Ma	an-years		Major meetings	Data base	Publi- cations	Standards regula-	Research & devel-	Admin. sup- port and	Services to Member	TC support	Total Regular
		P	GS	MSO				tions	opment.	management	States	States	
D.1. Soil Fertility	RIFA	4.2	1.4	-	73 000	_	10 000	-	1 197 000	-	-	914 000	2 194 000
-		[4.9]	[4.4]	[2.7]									
D.2. Plant Breeding and Genetics	RIFA	2.2	1.4	-	50 000	95 000	101 000	-	783 000	-	-	310 000	1 339 000
D.3. Animal Production and Health	RIFA	[2.6] 2.2	[1.5] 1.3	[3.6]	-	•	3 000	_	604 000	-	75 000	367 000	1 049 000
b.s. minal reduction and hearth	1117	[1.3]	{2.5}	[1.6]			5 000		001 000			50. 000	1 015 000
D.4. Insect and Pest Control	RIFA	2.1	1.3	-	-	-	93 000	-	803 000	-	50 000	691 000	1 637 000
		[3.5]	[4.2]	[4.9]									
D.5. Agrochemicals and Residues	RIFA	2.2	1.2	-	-	-	22 000	•	883 000	-	50 000	199 000	1 154 000
D.6. Food Irradiation	RIFA	[1.3] 3.1	[2.2] 1.4	[2.0]	_	_	217 000	-	391 000	-	75 000	205 000	888 000
D.0. 1004 HIGHLELON	41LA	5.1	1.4				217 000		331 000			200 000	
Programme D Total		16.0	8.0		123 000	95 000	446 000		4 661 000		250 000	2 686 000	8 261 000

Note: The manpower figures shown in parentheses above represent the number of man-years of Agency Laboratory staff working for that particular area of activity.



Graph 4

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		*************			r 1990 	
Project Codes		Regular Budget	Extra- Budgetary a_/	TC	Total Resources	
D.1.	Soil Fertility					
D.1.01	Optimizing the Use of Water, Fertilizer and Soil Resources	1 890 000	537 000			
D.1.02	Improving Productivity of Saline, Acidic and Other Deleterious Soils	304 000	80 000	*******		
		2 194 000	617 000	2 439 000	5 250 0	
D.2.	Plant Breeding and Genetics					
D.2.01	Established Mutation Breeding Technology for Improvement of Seed Propagated Plants	644 000	264 000			
D.2.02	Advanced Mutation Breeding Technology Using In Vitro Culture	695 000	438 000			
		1 339 000	702 000	1 043 000	3 084 (	
D.3.	Animal Production and Health			****	*********	
D.3.01	Optimization of the Reproductive Efficiency of Livestock	402 000	94 000			
D.3.02	Improvement of the Nutrition of Ruminant Livestock	245 000				
D.3.03	Diagnosis and Control of Livestock Diseases	402 000		***********		
D.4.	Insect and Pest Control	1 049 000	575 000	1 911 000	3 535 (	
2			\$			
D.4.01	Control or Eradication of Fruit Flies	626 000				
D.4.02	Eradication of Tsatse Flies	629 000				
D.4.03	New Techniques for Controlling Mejor Insect Pests	382 000	112 000	*=====		
		1 637 000	2 984 000	815 000	5 436 (	
D.5.	Agrochemicals and Residues		Ì			
D.5.01	Monitoring Pesticide Residues in Food and the Environment	874 000	95 000			
D.5.01	(RIPL)	-	48 000			
D.5.02	Bioconversion of Lignocellulosic Agricultural Residues	170 000	485 000			
D.5.03	Alleviating Adverse Effects of Accidental Releases of Radionuclides into the Agricultural Environment	110 000	95 000			
		1 154 000	723 000	308 000	2 185 (	
D.6.	Food Irradiation			=== # # # # # <u># # # # #</u> # # # #		
D.6.01	Guidelines for Acceptance of Irradiated Food in Trade	233 000	111 000			
D.6.02	Commercial Use of Food Irradiation	491 000	85 000			
D.6.03	Irrediation for Insect and Pathogen Control	164 000	85 000			
		888 000	•	87 000	1 256 0	
amme D	Food and Agriculture	8 261 000	1		20 746 0	

Programme D: List of projects and estimated total resources for 1990

#### Table 18

a / Includes funds from other UN organizations.

#### PROGRAMME D: FOOD AND AGRICULTURE

#### CHANGES IN THE ORIGINAL PLANS

D/1. Detailed information on the activities planned for 1990 is provided under Programme D in Part I and in the corresponding tables in Part II of document GC(XXXII)/837. The following additions to, and changes in, these activities are foreseen.

D/2. In the soil fertility area, a symposium on the use of stable isotopes in plant nutrition, soil fertility and environmental studies originally planned for 1989 but subsequently deferred is now being proposed for 1990. Increasing use is being made of stable isotope techniques in studies of, for example, water balance following large-scale deforestation ( $^{18}$ O), biological nitrogen fixation ( $^{15}$ N), organic matter maintenance in soil ( $^{15}$ N,  $^{13}$ C), the effect of environmental changes on ecological food chains ( $^{13}$ C,  $^{34}$ S,  $^{15}$ N) and the effectiveness of plant water use ( $^{13}$ C), and a review of the potential of these methods and their most effective application seems timely.

D/3. In the agrochemicals and residues area, there is growing concern over the environmental effects of toxic organic chemicals, including pesticides. Subject to the availability of extrabudgetary resources, it is planned in 1989 to establish two new five-year CRPs in which isotopic techniques will be used to study different aspects of this problem. One will focus on the fate and effects of selected chemicals in tropical coastal lagoon ecosystems and will investigate the potential detrimental effects of agrochemicals on the ecosystem as a whole and on commercial fish yield. This programme will be implemented with the support of the Agency's Monaco Laboratory. The second CRP will concentrate on the development of controlled-release formulations of insecticides used against banana pests, the aim being to increase the efficacy and reduce the amount of pesticides applied and hence diminish their environmental impact.

#### PROGRAMME E: HUMAN HEALTH

### Summary of Regular Budget estimates by Area of Activity

## Table 19

Area c	f Activity / Programme	Responsible Division	1989 Budget	Expenditu increase/(de		1990 at 1989 prices	Price increase %	1990 with price increase
E.1.	Nuclear Medicine	RILS	1 562 000	42 000	2.7	1 604 000	3.5	1 661 000
E.2.	Applied Radiation Biology and Radiotherapy	RILS	590 000	(85 000)	(14.4)	505 000	3.5	523 000
E.3.	Dosimetry	RILS	1 064 000	(20 000)	(1.9)	1 044 000	3.5	1 080 000
E.4.	Nutritional and Health-related Environmental Studies	RILS RIML	978 000 264 000	18 000 (4 000)	1.8 (1.5)	996 000 260 000	3.5 4.4	1 031 000 272 000
Progra	mme E Total	****	4 458 000	(49 000)	(1.1)	4 409 000	3.6	4 567 000

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#### PROGRAMME E: HUMAN HEALTH

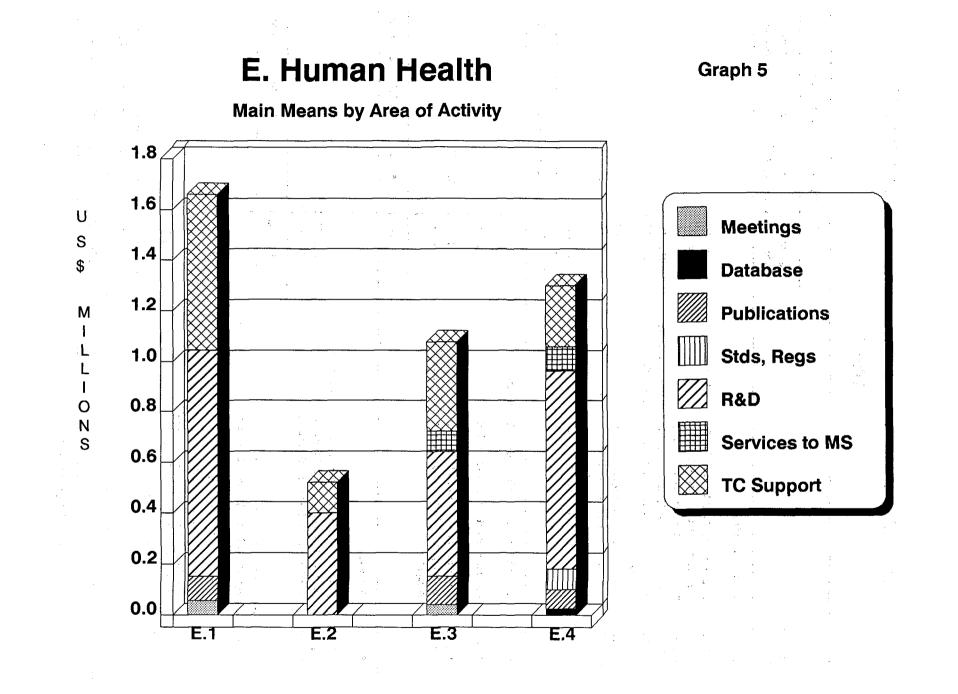
### Summary of main means by Area of Activity for 1990

#### Table 20

Area of Activity	Respon. Div.	Me	m-years		Major meetings	Data base	Publi- cations	Standards regula-	Research & devel-	Admin. sup- port and	Services to Member	TC support	Total Regular
		P	GS	M&O				tions	opment	management	States		Budget
E.1. Nuclear Medicine	RILS	4.3	2.3	-	55 000	-	97 000	-	894 000	· _	-	615 000	1 661 000
E.2. Applied Radiation Biology and Radiotherapy	RILS	4.3	2.3	-	-	-	· '-	-	400 000		-	123 000	523 000
E.3. Dosimetry	RILS	4.3	3.3 [1.6]	- · [0.7]	40 000	-	113 000	-	490 000	-	82 000	355 000	1 080 000
5.4. Nutritional and Health-Related Environmental Studies	RILS	2.1 [1.2]	2.1 [4.5]	[1.1]	-	25 000	76 000	82 000	646 000	-	96 000	106 000	1 031 000
	RIML	1.5	2.0	-	·′ <b>•</b>	-		-	136 000	` <b>-</b>	-	136 000 a_/	272 000
Programme E Total		16.5	12.0		95 000	25 000	286 000	82 000	2 566 000		178 000	1 335 000	4 567 000

Note: The manpower figures shown in parentheses above represent the number of man-years of Agency Laboratory staff working for that particular area of activity

a/ Represents TC-oriented activities conducted by RIML.



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E. HUMAN HEALTH

## Programme E: List of projects and estimated total resources for 1990

## <u>Table 21</u>

		£8	timated total r	esources ion	: 1990
Project		Regular	Extra-	TC	Total
Codes		Budget	Budgetary a_/		Resources
E.1.	Nuclear Medicine				
E.1.01	Strengthening Capabilities for In Vitro Assays	295 000			
E.1.02	Diagnosis of Communicable Diseases	289 000	1		
E.1.03	Thyroid Function in Endemic Goitre Areas	65 000	1		
E.1.04	Development of Indigenous Nuclear Medicine Resources	190 000			
E.1.05	Quality Control and Maintenance of Nuclear Medicine Equipment	350 000			
E.1.06	Dynamic Studies of Organ Function	203 000	1		
E.1.07	Cost-Effectiveness of Nuclear and Non-Nuclear	129 000	130 000		
	Procedures for Medical Diagnosis		!		
E.1.08	Early Diagnosis of Cancer by Nuclear Medicine Methods	140 000			
		1 661 000	130 000	2 383 000	4 174 0
E.2.	Applied Radiation Biology and Radiotherapy				
E.2.01	Radiation Sterilization of Nedical	335 000			
E.2.03	Radiotherapy of Cancer of the Cervix	102 000	160 000		
E.2.05	Assistance in Radiotherapy Physics and Clinical Dosimetry	86 000	1		
		523 000	160 000	1 396 000	2 079 (
E.3.	Dosimetry		•}		
E.3.01	Secondary Standard Dosimetry Laboratory Network	388 000	1		
E.3.02	Dose Intercomparison and Assurance	219 000	1		
E.3.03	Development of Dosimetry Techniques	473 000			
		1 080 000	-	1 209 000	2 289 (
E.4.	Nutritional and Health-related Environmental Studies		-		
E.4.01	Nuclear Analytical Techniques in Nutritional Research	499 000			
E.4.02	Nuclear Analytical Techniques in the Monitoring of	398 000			
	Health-Related Environmental Pollution				
E.4.03	Services to International Pollution Seibersdorf	134 000	1		
E.4.03	Monitoring Programmes: Monaco	272 000	470 000		
		1 303 000	470 000	188 000	1 961 (
ramme E	Human Health	4 567 000	760 000	5 176 000	10 503 0

a / Includes funds from other UN organizations.

#### PROGRAMME E: HUMAN HEALTH

#### CHANGES IN THE ORIGINAL PLANS

E/l. Detailed information on the activities planned for 1990 is provided under Programme E in Part I and in the corresponding tables in Part II of document GC(XXXII)/837. The following additions to, and changes in, these activities are foreseen.

E/2. In the area of applied radiation biology, a growing number of countries in Latin America are showing interest in developing the local capability for the radiation sterilization of medical supplies, ten countries having already introduced radiation processing technology through the Agency's technical co-operation programme. There is a need for accurate data on local microbiological burdens and activity under prevailing environmental conditions in order to ensure microbiological quality control and adequate levels of sterility in radiation-sterilized medical supplies. It is therefore proposed to initiate a CRP on the subject in 1990.

E/3. In the dosimetry field, it has recently been shown that the alanine/ESR (electron spin resonance) dosimeter currently used for high-dose measurements might also be suitable at doses in the therapy range. Such dosimeters offer potential economic and other advantages over the thermoluminescent dosimeters at present employed by the Agency in its dose measurement and intercomparison programmes, the accuracy of which with respect to cobalt sources and linear accelerators depends on adherence to a very strict procedure. It is proposed to establish a CRP in 1990 with the aim of evaluating the alanine/ESR dosimeter for doses in the therapy range and for different radiation qualities. The ESR spectrometer recently acquired by the Agency's Laboratory will be used for this purpose.

E/4. In the area of nutritional and health-related environmental studies, it is proposed, in collaboration with WHO, to initiate a new CRP in 1990 on the use of nuclear and isotopic techniques to study environmental exposure to mercury, which is the most important toxic element for which the tolerable intake limits are already known to be exceeded by some critical population groups. The proposed programme would draw upon the experience gained under the UNEP/FAO/WHO Mediterranean Action Plan and would focus on selected groups (not only in Mediterranean countries) that might be expected - because of a high consumption of contaminated fish, or because of direct exposure to industrial pollution - to have excessive intakes of mercury and/or methyl mercury. The Agency will assist nuclear research centres in developing countries in acquiring or increasing the capacity to use neutron activation analysis and other techniques for mercury measurements and will provide reference materials for quality control purposes. It is expected that WHO's contribution to this programme will consist of epidemiological and other health-related studies in the selected population groups.

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#### PROGRAMME F: INDUSTRY AND EARTH SCIENCES

### Summary of Regular Budget estimates by Area of Activity

## Table 22

.

Area o	of Activity / Programme	Responsible Division	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
F.1.	Industrial Applications	RIPC	630 000	(70 000)	(11.1)	560 000	3.9	582 000
F.2.	Development of Water and Mineral Resources	RIPC	2 049 000	(29 000)	(1.4)	2 020 000	3.9	2 190 000
Progra	amme F Total		2 679 000	(99 000)	(3.7)	2 580 000	3.9	2 682 000

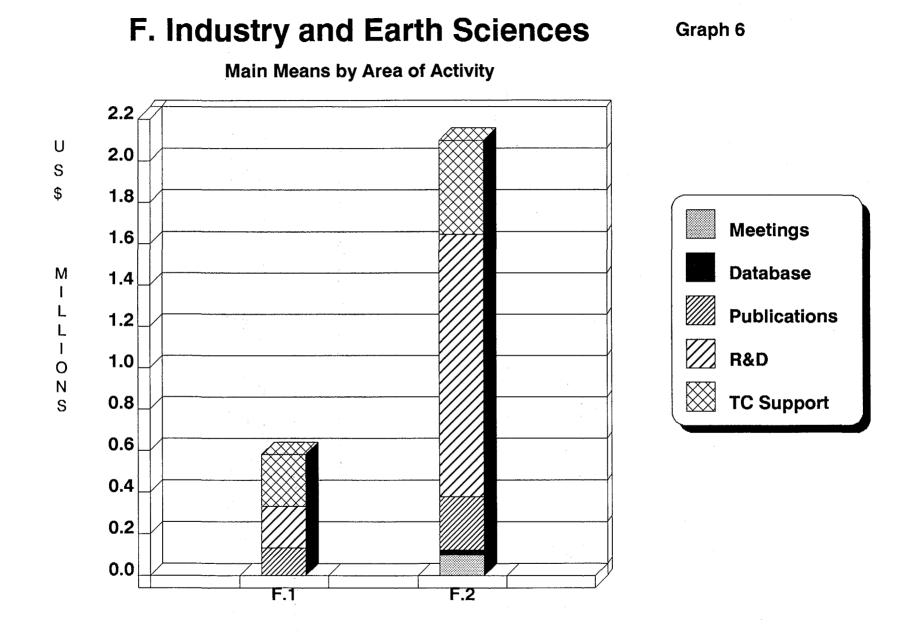
#### PROGRAMME F: INDUSTRY AND EARTH SCIENCES

#### Summary of main means by Area of Activity for 1990

#### Table 23

Area of Activity	Respon. Div.	N	an-years		Najor meetings	Data base	Publi- cations	regula-	& devel-	Admin. sup- port and	Servi <i>c</i> es to Member	TC support	Total Regular
		P	GS	03M	***			tions	opment	management	States		Budget
F.1. Industrial Applications	RIPC	2.1	1.0	-	-	-	133 000	-	201 000	-	-	248 000	582 000
F.2. Development of Water and Mineral Resources	RIPC	4.9 [4.2]	3.9 [8.0]	_ [1.0]	100 000	25 000	256 000	-	1 265 000	-	-	454 000	2 100 000
Programme F Total		7.0	4.9	-	100 000	25 000	389 000		1 466 000			702 000	2 682 000

Note: The manpower figures shown in parentheses above represent the number of man-years of Agency Laboratory staff working for that particular area of activity



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F. INDUSTRY AND EARTH SCIENCES

#### Programme F: List of projects and estimated total resources for 1990

### Table 24

			Estimated total resources for 1990						
Project Codes		Regular Budget	Extra- Budgetary		Total Resources				
F.1.	Industrial Applications								
F.1.02	Radiation and Isotope Applications in Industry	582 000	25 000						
		582 000	25 000	4 847 000	5 454 00				
F.2.	Development of Water and Mineral Resources								
F.2.02	Isotopic Methods for Water Resources Assessment	840 000	25 000						
F.2.03	Analytical and Intercalibration Services	814 000	1						
F.2.04	Study of Water Resources in Africa	126 000	1						
F.2.05	Development of Mineral Resources	320 000	1						
		2 100 000	25 000	2 007 000	4 132 0				
ramme F	Industry and Earth Sciences	2 682 000	50 000	6 854 000	9 586 0				

#### PROGRAMME F: INDUSTRY AND EARTH SCIENCES

#### CHANGES IN THE ORIGINAL PLANS

F/1. No changes are foreseen in 1990 to the activities planned under this programme, detailed information on which is provided under Programme F in Part I and in the corresponding tables in Part II of document GC(XXXII)/837.

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#### PROGRAMME G: PHYSICAL AND CHEMICAL SCIENCES

#### Summary of Regular Budget estimates by Area of Activity

### Table 25

Area o	f Activity / Programme	Responsible Division	1989 Budget	Expenditu increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
G.1.	Nuclear Measurements and Instrumentation	RIPC	3 787 000	(42 000)	(1.1)	3 745 000	3.9	3 894 000
G.2.	Theoretical Physics	RITP	1 262 000	(7 000)	(0.6)	1 255 000	5.1	1 319 000
G.3.	Utilization of Research Reactors and Particle Accelerators	RIPC	897 000	(95 000)	(10.6)	802 000	3.9	833 000
6.4.	Chemistry	RIPC	875 000	52 000	5.9	927 000	3.9	963 000
Progra	mme G Total	,	6 821 000	(92 000)	(1.3)	6 729 000	4.2	7 009 000

#### PROGRAMME G: PHYSICAL AND CHEMICAL SCIENCES

### Summary of main means by Area of Activity for 1990

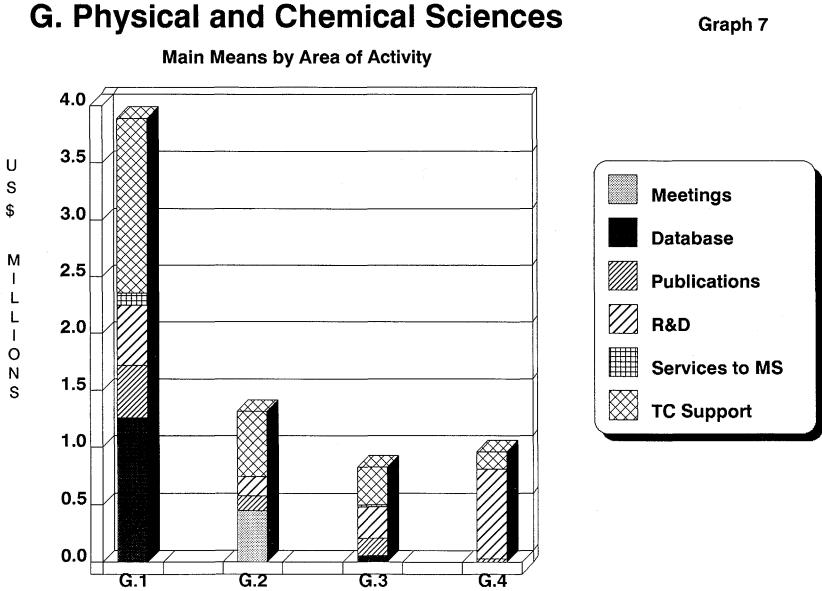
#### Table 26

Area of Activity	Respon. Div.	N. P	an-years 6S	M&O	Major meetings	Data base	Publi- cations	Standards regula- tions	Research & devel- opment	Admin. sup- port and management	Services to Member States	TC support	Total Regular Budget
G.1. Nuclear Measurements and	RIPC	14.6	10.9			1 262 000	460 000		530 000		104 000		3 892 000
Instrumentation			[10.1]	[2.4]									
G.2. Theoretical Physics	RITP	11.0	25.0	-	451 000	-	129 000	-	169 000	-	-	570 000 a_/	1 319 000
G.3. Utilization of Research Reactors and Particle Accelerators	RIPC	1.0	0.5	-	-	61 000	151 000	-	272 000	-	20 000	330 000	834 000
G.4. Chemistry	RIPC	2.2 [2.3]	0.6 [3.5]	- [1.1]	-	-	29 000	-	784 000	-	-	151 000	964 000
Programme G Total		28.8	37.0	-	451 000	1 323 000	769 000		1 755 000	-	124 000	2 587 000	7 009 000

Note: The manpower figures shown in parentheses above represent the number of man-years of Agency Laboratory staff working for that particular area of activity.

a / Represents TC-oriented activities conducted by the Centre.

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## Programme G: List of projects and estimated total resources for 1990

## Table 27

		E	stimated total r	: 1990		
Project Codes		Regular Budget	Extra-  Budgetary a_/	TC	Total Resources	
G.1.	Nuclear Measurements and Instrumentation					
G.1.01	Nuclear Instrumentation	817 000	11 000			
G.1.02	Data Assessment and Research Co-ordination	1 008 000	1			
G.1.03	Compilation, Evaluation, Exchange and Validation of Nuclear Data	1 002 000	1			
G.1.04	Data Centre Services and Technology Transfer	448 000	1			
G.1.05	Nuclear Spectroscopy	431 000	1			
G.1.06	Nuclear Methods in Materials Research	188 000	1			
		3 894 000	11 000	2 867 000		
G.2.	Theoretical Physics					
G.2.01	International Centre for Theoretical Physics	1 319 000	18 822 000			
		1 319 000	18 822 000	-		
G.3.	Utilization of Research Reactors and Particle Accelerators					
G.3.01	Research Reactor Core Conversion	439 000				
G.3.02	Utilization of Research Reactors and Particle Accelerators	394 000	25 000			
		833 000	25 000	2 343 000	3 201 0	
G.4.	Chemistry	~~*********		~~ <i>~~</i>	******	
G.4.01	Radioisotope and Radiopharmaceutical Production	217 000				
G.4.02	Nuclear Analytical Chemistry	746 000				
		963 000		3 386 000	4 349 0	
ramme G	Physical and Chemical Sciences	7 009 000	18 858 000	8 596 000	34 463 0	

a\_/ Includes funds from other UN organizations.

PROGRAMME G: PHYSICAL AND CHEMICAL SCIENCES

#### CHANGES IN THE ORIGINAL PLANS

G/1. Detailed information on the activities planned for 1990 is provided under Programme G in Part I and in the corresponding tables in Part II of document GC(XXXII)/837. The following additions to, and changes in, these activities are foreseen.

G/2. With the average age of research reactors world wide now exceeding 20 years, problems associated with ageing are growing in importance and are receiving increasing attention in Member States. In order to make available to developing countries experience gained to date in this area, it is planned to prepare in 1990 a technical document containing a number of specific examples of research reactor modification programmes that have already been implemented with the objective of coping with the problems of research reactor ageing.

## PROGRAMME AREA 3

## NUCLEAR SAFETY AND RADIATION PROTECTION

#### NUCLEAR SAFETY AND RADIATION PROTECTION

## Summary of total resources by programme

## <u>Table 28</u>

		Mai	n-years	   _	Pla	Planned expenditure for programme implementation in 1990						
	Programme	P	GS	M&O	Regular Budget estimates	Funds from other UN organizations	Other extra- budgetary resources	TC resources	Tota]			
Н.	Radiation Protection	16 <b>.2</b>	1 <b>2.2</b>	0.0	4 513 000	-	130 000	3 626 000	8 269 000			
1.	Safety of Nuclear Installations	21.8	13.8	0.0	5 511 000	-	271 000	1 440 000	7 222 000			
	gramme Area 3	38.0	26.0	0.0	10 024 000	_	401 000	5 066 000	15 491 000			

#### PROGRAMME H: RADIATION PROTECTION

# Summary of Regular Budget estimates by Area of Activity

# <u>Table 29</u>

Area c	f Activity / Programme	Responsible Division	1989 Budget	Expenditu increase/(de	crease) %	1990 at 1989 prices	Price increase १	1990 with price increase
н.1.	Basic Principles and Criteria	NENS	838 000	72 000	8.6	910 000	3.4	940 000
н.2.	Occupational Radiation Protection	NENS	525 000	61 000	11.6	586 000	3.4	606 000
н.з.	Environmental Assessment and Protection	NENS	783 000	(238 000)	(30.4)	545 000	3.4	563 000
		RILS	55 000	-	-	55 000	3.5	57 000
H.4.	Safe Transport of Radioactive Materials	NENS	470 000	24 000	5.1	494 000	3.4	510 000
в.5.	Emergency Planning and Preparedness	NENS	451 000	9 000	2.0	460 000	3.4	476 000
Н.6.	Control of Radiation Sources	NENS	304 000	215 000	70.7	519 000	3.4	536 000
H.7	Radiation Safety of Nuclear Fuel-Related Activities	NENS	348 000	31 000	8.9	379 000	3.4	392 000
н.8	Exposure Assessment and Handling	NENS	466 000	(47 000)	(10.1)	419 000	3.4	433 000
Progra	mme H Total	* 4	4 240 000	127 000	3.0	4 367 000	3.4	4 513 000

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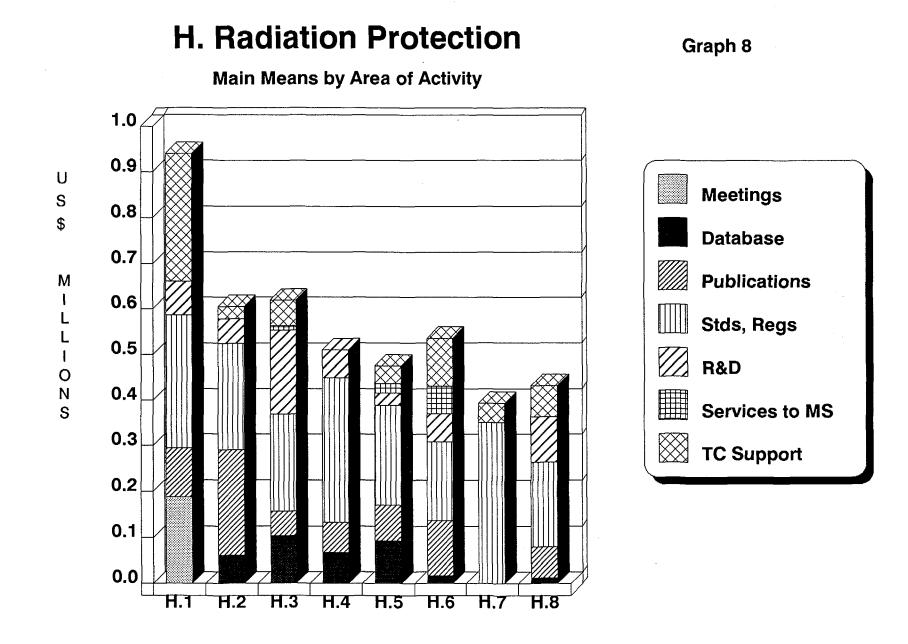
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#### PROGRAMME H: RADIATION PROTECTION

# Summary of main means by Area of Activity for 1990

# <u>Table 30</u>

Area of Activity	Respon. Div.	Ma	n <b>-year</b> s		Major meetings	Data base	Publi- cations	Standards regula-	Research & devel-	Admin. sup- port and	Services to Member	TC support	Total Regular
		P	GS	02M				tions	opment	management	States		Budget
1.1. Basic Principles and Criteria	NENS	2.9	2.6	-	188 000	-	107 000	292 000	74 000	-	-	279 000	940 0
1.2. Occupational Radiation Protection	NENS	2.8	1.2	-	-	62 000	229 000	234 000	54 000	-	-	27 000	606 00
4.3. Environmental Assessment	NENS	2.7	1.2	-	-	104 000	48 000	212 000	148 000	-	-	51 000	563 00
and Protection	RILS	a_/	a_/	-	-	-	5 000	-	37 000	-	10 000	5 000	57 00
3.4. Safe Transport of Radioactive Materials	NENS	1.2	2.3	-	-	67 000	66 000	316 000	61 000	-	-	-	510 0
.5. Emergency Planning and Preparedness	NENS	1.6	1.9	-	-	92 000	79 000	218 000	26 000	-	21 000	40 000	476 0
6.6. Control of Radiation Sources	NENS	1.2	0.8	-	-	17 000	121 000	171 000	61 000	-	61 000	105 000	536 0
1.7. Radiation Safety of Nuclear Fuel-Related Activities	NENS	1.7	1.1	-	-	-	-	350 000	-	-	-	42 000	392 0
.8. Exposure Assessment and Handling	NENS	2.1	1.1	-	-	13 000	67 000	185 000	99 000	-	-	69 000	433 0
rogramme H Total		 16.2	12.2		188 000	355 000	722 000	1 978 000	560 000		92 000	618 000	4 513 0



H. RADIATION PROTECTION

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# Programme H: List of projects and estimated total resources for 1990

# <u>Table 31</u>

		Es	Estimated total resources for 1990						
Project Codes		Regular Budget	Extra-	TC	Total Resources				
H.1.	Basic Principles and Criteria								
н.1.01	Basic Radiation Protection Criteria for Anticipated Situations	323 000							
н.1.02	Basic Radiation Protection Criteria for Unanticipated Situations	192 000							
Н.1.03	Strengthening Radiation Protection Infrastructures	425 000	47 000						
		940 000	47 000	1 803 000	2 790 000				
н.2.	Occupational Radiation Protection			*****					
8.2.01	Guidelines for Radiation Protection in Design and Operations	333 000							
H.2.02	Guidelines for Occupational Monitoring	273 000							
		606 000		350 000	956 000				
н.з.	Environmental Assessment and Protection								
н.3.01	Guidelines on the Limitation of Releases to the Environment	117 000							
H.3.02	Environmental Monitoring	446 000	}						
н.3.03	Measurement of Accidentally Released Radionuclides in Environmental and Food Samples (RILS)	57 000							
		620 000		611 000	1 231 000				
н.4.	Safe Transport of Radioactive Materials		·	***					
H.4.01	Maintenance of the Transport Regulations	289 000							
H.4.02	Implementation of the Transport Regulations	221 000	1						
		510 000	1	-	510 000				

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# Table 31 - contd.

		Es	timated total r	esources for	1990
Project Codes		Regular Budget	Extra-   Budgetary	TC	Total Resources
н.5.	Emergency Planning and Preparedness		   !		
н.5.01	Development of Guidelines for Emergency Planning and Preparedness	272 000	[ ]		
H.5.02	Implementation of Guidelines for Emergency Planning and Preparedness	81 000			
н.5.03	Emergency Assistance Services	123 000			
		476 000	-	312 000	788 000
н.6.	Control of Radiation Sources				
H.5.01	Safe Use and Control of Radiation Sources	536 000	83 000		
		536 000		120 000	739 000
н.7	Radiation Safety of Nuclear Fuel-Related Activities				
н.7.01	Guidelines on Radiation Safety of Nuclear Fuel-Related Facilities	392 000			
		392 000	1		392 000
н.8	Exposure Assesment and Handling				
H.8.01	Guidelines for the Monitoring of Intakes of Radio- active Materials and the Assessment of Internal Doses	203 000			
H.8.02	Guidelines for the Diagnosis, Prognosis and Treatment of Individuals Exposed to Radiation	230 000			
		433 000	!	430 000	863 000
Programme H	Radiation Protection	4 513 000	130 000	3 626 000	8 269 000

#### PROGRAMME H: RADIATION PROTECTION

#### CHANGES IN THE ORIGINAL PLANS

H/1. Detailed information on the activities planned for 1990 is given under Programme H in Part I and in the corresponding tables in Part II of document GC(XXXII)/837. The following additons to, and changes in, these activities are foreseen.

H/2. The question of the safe use of radioactive sources in industry, medicine, research and teaching has been the subject of active discussion in the past year, having been examined – inter alia – at the special scientific meetings held in connection with the General Conference and by a technical committee which met in September 1988. A general conclusion was that the Agency should adopt a more vigorous approach in assisting Member States – in particular developing ones – in giving closer attention to the safe use and disposal of sources. Consequently, a number of new activities are proposed for 1990, both in radiation protection and waste management (see also Programme C). The main tasks are the following:

- An additional training course on training techniques applicable to practical radiation protection and waste management of radiation sources will be proposed for 1990;
- With the help of a technical committee, a review will be made of research currently in progress on radiation sources and of areas which need to be emphasized in order to ensure - inter alia - that new sources are manufactured to the latest design and safety standards and are produced in accordance with a quality assurance plan. A technical document on the standardized international marking of sealed sources will be drawn up with the assistance of consultants;
- A CRP will be established to examine safety problems associated with old radiation sources, particularly those containing corrosive materials. The CRP is expected to result in recommendations on improvements in the design - and hence the safety - of sources and devices incorporating sources;
- A technical committee will be convened to exchange experience on effective mechanisms employed in national regulatory systems, with particular reference to licensing, inspection and device approval procedures. On the basis of the results of this meeting, a technical document will be prepared, with the assistance of consultants, on the development and implementation of efficient regulatory programmes for the control of radiation sources. It is expected that a workshop on the implementation of such regulatory programmes will be held subsequently;
- Consideration will be given to the establishment of a reporting system for incidents and accidents involving radiation sources (similar to the Incident Reporting System (IRS) for nuclear power plants). It is planned as a first step to determine the level of safety significance of events that merit reporting and the feasibility of collecting these data. The further development of a questionnaire already foreseen for 1989-90 (No. 10, Table 87, GC(XXXII)/837) will constitute part of this effort.

- A newsletter will be issued periodically to exchange information and practical experience on radiation sources (in conjunction with the "Radioactive Waste Management" programme).

H/3. In the emergency planning area, the development of a safety guide on emergency planning and preparedness for radiological accidents in fuel fabrication and reprocessing facilities (No. 1, Table 84, GC(XXXII)/837) is to be deferred by one year to allow more time to collect the relevant data.

H/4. In the radiation exposure assessment and handling area, a new CRP is proposed for 1990-92 on the modification and validation of a phantom for assessing plutonium and americium in the lung of Asian man. This will complement the CRP on the test phantom for Caucasian man which was completed in 1988.

# PROGRAMME I: SAFETY OF NUCLEAR INSTALLATIONS

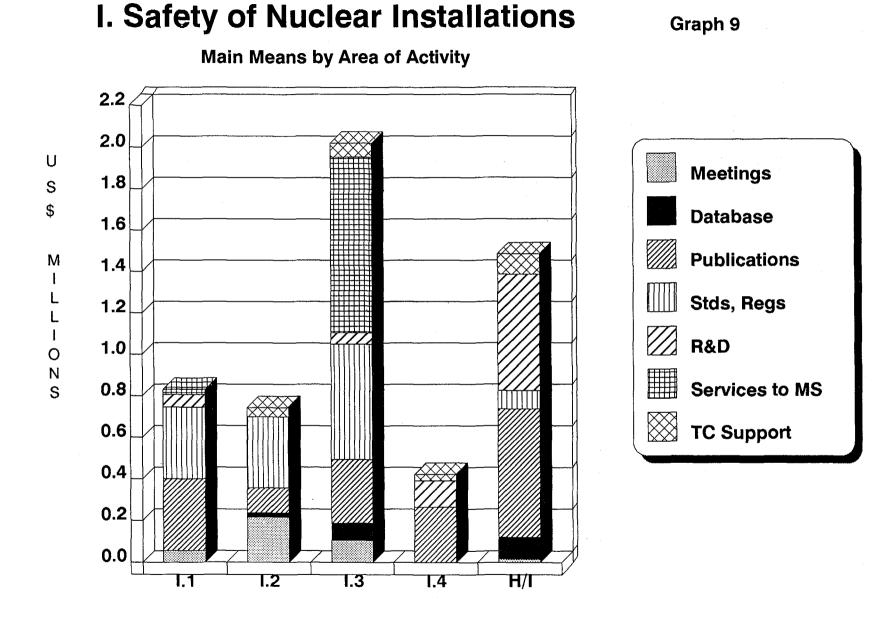
# Summary of Regular Budget estimates by Area of Activity

Area o	f Activity / Programme	Responsible Division	1989 Budget	Expenditu increase/(dee		1990 at 1989 prices	Price increase %	1990 with price increase
1.1.	Basic Principles and Criteria	NENS	940 000	(134 000)	(14.3)	806 000	3.4	833 000
I <b>.2.</b>	Safe Siting, Design and Construction of Nuclear Installations	NENS	588 000	133 000	22.6	721 000	3.4	745 000
I.3.	Safe Operation of Nuclear Installations	NENS	1 924 000	33 000	1.7	1 957 000	3.4	2 023 000
I.4.	Accident Management and Mitigation	NENS	374 000	35 000	9.4	409 000	3.4	423 000
H/I	Safety Assessment Techniques	NENS	1 409 000	30 000	2.1	1 439 000	3.4	1 487 000
Progra	mme I Total	* * * * * * *, * *, * * * * * * * * * *	5 235 000	97 000	1.9	5 332 000	3.4	5 511 000

# PROGRAMME I: SAFETY OF NUCLEAR INSTALLATIONS

# Summary of main means by Area of Activity for 1990

Area of Activity	Respon. Div.	Ma	an-years		Major meetings	Data base	Publi- cations	Standards regula-	Research & devel-	Admin. sup- port and	Services to Member	TC support	Total Regular
-		P	GS	NSO	-			tions	opment	management	States		Budget
I.l. Basic Principles and Criteria	NENS	2.2	1.6	-	56 000	-	344 000	345 000	63 000	-	25 000	-	833 000
1.2. Safe Siting, Design and Construction of Nuclear Installations	NENS	3.1	1.4	-	216 000	21 000	121 000	344 000	-	-	-	43 000	745 000
I.3. Safe Operation of Nuclear Installations	nens	9.0	5.3	-	104 000	83 000	305 000	557 000	58 000	-	847 000	69 000	2 023 000
I.4. Accident Management and Mitigation	WENS	1.8	1.0	-	-	-	265 000	-	127 000	-	-	31 000	423 000
H/I Safety Assessment Techniques	NENS	5.7	4.5	-	16 000	104 000	617 000	88 000	565 000	-	-	97 000	1 487 000
Programme I Total		21.8	13.8		392 000	208 000	1 652 000	1 334 000	813 000		872 000	240 000	5 511 000



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I. SAFETY OF NUCLEAR INSTALLATIONS

# Programme I: List of projects and estimated total resources for 1990

		Es	timated total r		r 1990
Project Codes		Regular Budget	Extra-   Budgetary	TC	Total Resources
I.1.	Basic Principles and Criteria		] 		
			1		
1.1.01	Basic Safety Principles	504 000			
1.1.02	Strengthening Nuclear Safety Infrastructures	329 000	46 000		
		833 000	46 000	267 000	1 146 0
1.2.	Safe Siting, Design and Construction of Nuclear Installations		1		
1.2.01	Siting of Nuclear Installations	159 000			
1.2.02	Design and Construction of Nuclear Installations	565 000	1		
1.2.03	Physical Protection of Nuclear Installations	21 000	1		
		745 000	-	464 000	1 209 0
I.3.	Safe Operation of Nuclear Installations				
1.3.01	Guidelines for the Safe Operation of Nuclear Power Plants	235 000	1		
I.3.02	Safety Aspects of Nuclear Power Plant Ageing	134 000			
1.3.03	Operational Safety Reviews of NPPs	788 000	100 000		
I.3.04	Feedback of Operational Safety Experience	384 000	67 000		
1.3.05	Research Reactors	482 000			
		2 023 000	167 000	236 000	2 426 (
1.4.	Accident Management and Mitigation	**===*****			
I.4.01	Strategies for Accident Management	214 000			
I.4.02	Guidelines for Severe Accident Mitigation	209 000	 		
		423 000	-	33 000	456 (
H/I	Safety Assessment Techniques				
1.01	Assistance in Conducting Accident Analysis	214 000	58 000		
1.02	Probabilistic Safety Assessment Techniques	442 000	1		
1.03	Guidelines for the Assessment of Human Reliability	345 000	1		
1.04	Risk Management, Comparative Assessment, and Decision-Aiding Techniques	486 000			
	Decision_Withh lachnidrea				
		1 487 000	58 000	440 000	1 985 0
amme I	Safety of Nuclear Installations	5 511 000	271 000	1 440 000	7 222 0

#### PROGRAMME I: SAFETY OF NUCLEAR INSTALLATIONS

#### CHANGES IN THE ORIGINAL PLANS

I/1. Detailed information on the activities planned for 1990 is given under Programme I in Part I and in the corresponding tables in Part II of document GC(XXXII)/837. The following additions to, and changes in, these activities are foreseen.

I/2. The importance of ensuring the safety of research reactors is reflected in the programme for 1989-90. A recent review of the guidance to be provided by the Agency in this field indicated that a number of changes would be desirable. Accordingly, in place of the safety guide programme originally planned (Area of Concentration A, Project I.3.05, Table 90, GC(XXXII)/837) it is now proposed to draw up safety guides covering the following aspects of research reactors: regulatory aspects, safety analysis report, emergency planning, siting, design for safety, commissioning, safe operation, safety aspects of utilization, and decommissioning.

I/3. In the accident management and mitigation area, work on a technical document on practical aspects of hydrogen mitigation will begin in 1990.

I/4. In the period that has elapsed since the formulation of the 1989-90 programme and budget, interest in putting the impact of nuclear energy into perspective in relation to other potential energy sources has increased. It is therefore considered necessary to expand comparative assessment studies beyond the level originally planned (H/I.1.04). The issues to be covered by this expanded effort are expected to include, for example, comparisons of the impact of alternative means of producing energy and the development of a methodology for incorporating such information into energy planning, comparison of radiation risk versus other risks from energy-related pollutants, and comparison of the incidence of radiation-induced illnesses and the incidence of the same illnesses induced by other causes. There has recently been rapid growth in the number of studies and publications on the above issues. It is not intended for the Agency to become involved in research work outside its field of competence, but rather for it to be fully aware of the wealth of information available, to stimulate studies by other international organizations (e.g. UNEP, WHO, WMO), and to be able to draw conclusions for the Agency's own work and publications and for use in official Agency statements. The detailed outline of the new activities will be considered by a technical committee in 1989.

I/5. To make available the resources needed to convene preparatory meetings of experts for the symposium on electricity and the environment referred to in paragraph A/2 (and which will be concerned to some extent with the topics described above), it is planned to cancel one of the three meetings of the International Nuclear Safety Advisory Group (INSAG) (No.1, Table 88, GC(XXXII)/837) foreseen for 1990 and to defer by one year a technical committee meeting to draw up a technical document on cognitive information processing related to nuclear power plant operation (No. 20, Table 92, GC(XXXII)/837).

# PROGRAMME AREA 4

SAFEGUARDS

## SAFEGUARDS

# Summary of total resources by programme

# Table 35

	Man	-years		Pla	Planned expenditure for programme implementation in 1990							
Programme	P	GS	MSO	Regular Budget estimates	Funds from other UN organizations	Other extra- budgetary resources	TC resources	Total				
J. Safeguards		205.0 [15.5]	0.0 [3.9]	54 189 000	-	3 555 000	72 000	57 816 000				
Programme Area 4	292.0	205.0	0.0	54 189 000		3 555 000	72 000	57 816 000				

Note: The manpower figures shown in parentheses above represent the number of Agency Laboratory staff working for the programme in question.

#### PROGRAMME J: SAFEGUARDS

# Summary of Regular Budget estimates by Area of Activity

Area of	Activity / Programme	Responsible Division	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
J.1.	Planning, Direction, Co-ordination and Control	a_/ DDGSG	[429 000]		-	[287 000]		[297 000]
3.2.	Safeguards Operations	SGOP	26 938 000	561 000	2.1	27 499 000	2.8	28 258 000
J.3.	Safeguards Support	SGDE,SGIT, SGCP,SGSDS	25 555 000	(510 000)	(2.0)	25 045 000	3.5	25 931 000
Program	mme J Total	***	52 493 000	51 000	0.1	52 544 000	3.1	54 189 000

# Table 36

a\_/ Included in S.1.1. - General Management.

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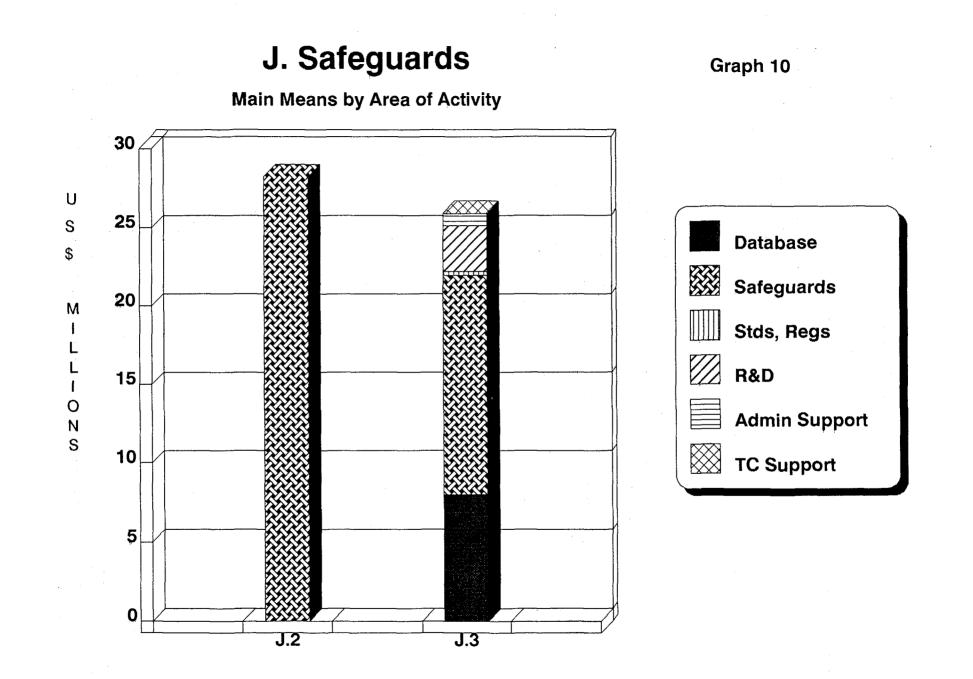
#### PROGRAMME J: SAFEGUARDS

# Summary of main means by Area of Activity for 1990

# Table 37

Area of Activity	Respon. Div.	M	an-years		Major	Data base	Publi- cations	Safeguards implemen-	Standards	Research & devel-	Admin. sup-	TC support	Total
Area of Activity	DIV.	Р	GS	03M	meetings	Dase	Calibias	tation	regula- tions	opment	port and management		Regular Budget
J.1. Planning, Direction, Co-ordination and Control	DDG~SG				-					-	[297 000]a_/		[297 000]a_/
J.2. Safeguards Operations	SGOP	198.0	98.0	-	-	-	-	28 258 000	-	-	-	-	28 258 000
J.3. Safeguards Support	SGDE,SGIT SGCP,SGSDS	94.0 [5.9]	107.0 [15.5]	[3.9]	-	7 971 000	-	14 000 000	228 000	2 955 000	772 000	5 000	25 931 000
Programme J Total		292.0	205.0			7 971 000		42 258 000	228 000	2 955 000	772 000	5 000	54 189 000

Note: The manpower figures shown in parentheses above represent the number of man-years of Agency Laboratory staff working for that particular area of activity. a\_/ Included in S.1.1. - General Management.



# Programme J: List of projects and estimated total resources for 1990

# Table 38

			Es	stimated total resources for 1990					
Project Codes		-	Regular Budget	Extra- Budgetary	TC	Total Resources			
J.1.	Planning, Direction, Co-ordination and Control		**********						
J.1.01	Planning, Direction, Co-ordination and Control	(DDGSG)	-	1		-			
	(Included in S.1.1General Management)	-	[297 000]	-	-	[297 000			
J.2.	Safeguards Operations								
J.2.01	Verification	(SGOP)	22 712 000	1					
J.2.02	Negotiation of Subsidiary Arrangements	(SGOP)	2 773 000	}					
J.2.03	Liaison with State Authorities	(SGOP)	2 773 000						
		-	28 258 000	-	-	28 258 0			
J.3.	Safeguards Support								
J.3.01	Safeguards Information Services	(SGIT)	7 971 000	-					
		-	7 971 000			7 971 0			
J.3.02	Safeguards Instruments, Methods and Techniques	(SGDE)	1 483 000	3 555 000 a	]				
J.3.03	Safeguards System and Approaches	(SGCP)	1 477 000	1					
J.3.04	Technical Services	(SGDE)	9 875 000	 					
			12 835 000	3 555 000		16 390 (			
J.3.05	Data Evaluation	(SGCP)	1 276 000						
J.3.05	Effectiveness Evaluation	(SGSDS)	915 000	1					
J.3.06	Quality Assurance	(SGCP)	689 000						
			2 880 000	-	-	2 880 0			
J.3.07	Training	(SGDE)	1 245 000	1					
J.3.07	Standardization	(SGCP)	228 000						
J.3.07	Administrative Support	(SGSDS)	772 000						
			2 245 000	-	-	2 245 (			
	Sub-	-total J.3	25 931 000	, <b>.</b>	72 000	26 003 0			
ramme J	Safequards	, <b>-</b>	54 189 000	3 555 000	72 000	57 816 0			

a/ Total extrabudgetary resources for Safeguards are shown against this project, although some may be allocated to other projects under J.3.

#### PROGRAMME J: SAFEGUARDS

#### CHANGES IN THE ORIGINAL PLANS

J/1. Detailed information on the activities planned for 1990 is provided under Programme J in Part I of document GC(XXXII)/837. The following changes to these activities are foreseen.

J/2. It is now expected that the number of man-days of inspection that will need to be carried out in 1990 will amount to only 11 000 as compared with the previous estimate of 12 000. The principal reasons for this reduction in workload are: (a) the expectation that an irradiated fuel reprocessing plant will not be recommissioned; (b) the expected transfer of the activities of a fuel fabrication plant from a non-nuclear-weapon State to a nuclear-weapon State, which affects the extent of safeguards activities; (c) a further delay in the construction and commissioning of a heavy water plant; (d) revised estimates of the level of operation of a second reprocessing plant.

J/3. A core discharge monitor system is being developed and will be implemented to meet core safeguards requirements at the Darlington nuclear power station in Canada when the first two units of this CANDU station begin operating in 1989. This work will continue into 1990 when the remaining two units come into operation.

J/4. An extensive multilateral project involving the Agency, Japan and the United States was established in 1988 with the objective of producing an integrated safeguards system for a new automated mixed-oxide fuel fabrication plant in Japan. Work on this project is expected to be completed in 1990-91 when the second unit of the plant comes into operation.

J/5. In order to increase the possibilities for prospective staff from developing countries to obtain a position in the inspectorate, it is planned to continue the training programme for professionally qualified staff from such States who are not able to acquire the necessary level of practical experience in nuclear facilities. The programme will last for about one year and, upon satisfactory completion, participating trainees will be eligible to apply for normal inspector posts.

J/6. Owing to a slower than expected increase in demand for data processing devices (terminals, personal computers and word processing work stations), the total number installed in the Department will now reach 215 by the end of 1988, increasing thereafter at an annual rate of 10%. This implies a reduction in the number of new devices installed in 1990 from about 40 to 25.

J/7. The reduction in the level of required inspection effort forecast a year ago combined with the expected outcome of the current review of organizational, procedural and management aspects of safeguards operations has made it possible to propose a safeguards budget for 1990 which is somewhat lower than the 1989 level. It is expected that the efficiency gains resulting from the above review will enable safeguards verification capacity to be strengthened sufficiently to ensure that the level of inspection effort necessary in 1990 is carried out. The slight reduction in the level of the safeguards budget for 1990 compared with 1989 should not be regarded as an indication of a longer-term trend, but as a result of specific circumstances and developments that are expected in 1989-90. The increase which will occur after 1990 in the volume of nuclear materials and installations to be safeguarded will result in a higher safeguards workload and a corresponding increase in the level of safeguards resources needed.

# Installations subject to safeguards or containing safeguarded material in non-nuclear-weapon States (1988 to 1992)

Table 39

					<u></u>					
Type of	1988	8	1989	(1)	199	90	199	91	19	92
installation	NPT and/or Tlatelolco agreements	INFCIRC/66 -type agreements								
Power reactors	159	28	176	16	180	16	187	17	196	18
Research reactors and critical assemblies	145	26	150	22	152	22	153	23	154	23
Conversion plants	4	3	4	3	4	3	4	3	4	3
Fuel fabrication plants	30	10	32	8	32	8	33	8	33	8
Reprocessing plants	4	2	5	1	5	1	5	1	5	1
Enrichment plants	5	1	5	1	5	1	6	1	6	1
Separate storage facilities	33	4	33	4	37	4	38	4	38	4
Other facilities (>1 ekg)	46	3	46	3	47	3	48	3	49	3
Other locations ( <u>&lt;</u> 1 ekg)	379	28	379	28	379	28	379	28	379	28
Non-nuclear installations	0	2	0	2	0	2	0	2	0	2
TOTAL	805	107	830	88	841	88	853	90	864	91

#### [1] From 1989, Spanish installations are listed under NPT agreements rather than INFCIRC/66-type agreements.

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#### Amounts of nuclear material under Agency safeguards in non-nuclear-weapon States

(Status as of 31 December 1988 and forecast for 1990 and 1995)

			Amounts (tonn	les)				
Material	1988		]	.990	1995			
	NPT and Tlatelolco agreements	INFCIRC/66-type agreements	NPT and Tlatelolco agreements	INFCIRC/66-type agreements	NPT and Tlatelolco agreements	INFCIRC/66-type agreements		
Plutonium	174.9	30.2	210-230	38-40	350-400	65-75		
Uranium enriched to 20% or more	12.8	0.3	12.8	0.3	12.8	0.3		
Uranium enriched to less than 20%	22 000	3260	24 000-27 000	3800-4200	32 000-40 000	5400-6600		
Source material	33 800	4150	36 000-40 000	46005000	49 000-61 000	6600-8000		

# PROGRAMME AREA S

DIRECTION AND SUPPORT

#### DIRECTION AND SUPPORT

#### Summary of total resources by programme

# Table 41

		Mar	n-years			—		implementation	
	Programme	P	GS	MSO	Regular Budget estimates	Funds from other UN organizations	Other extra- budgetary resources		Total
<b>s.</b> 1					9 975 000		-	-	
s.2	Administration	52.0	91.0	0.0	11 870 000	-	400 000	-	12 270 000
<b>s.</b> 3	T.C. Servicing and Co-ordination	48.0	73.0	0.0	9 362 000	-	-	6 004 000 c_/	15 366 000
s.4	General Services	10.0	73.0	28.0	17 523 000	-	-	-	17 523 000
s.5	Specialized Service Activities	22.0	37.0	0.0	7 866 000	-	500 000	136 000	8 502 000
S.6	Shared Support Services a_/	119.0	226.0	22.0	1 576 000	-	-	-	1 576 000
					[27 174 000] ]			و ہو ہے جو او کر او کر ہے کہ او	
-	ramme Area S	274.0	521.0	50.0	58 172 000	-	900 000	6 140 000	65 212 000

a/ All costs except those of the Library have been allocated to the user programmes. Contracts Administration Services, Conference Services, Interpretation, Translation and Records Services, Data Processing Services and Printing and Publishing Services are shared by the user programmes. Medical Services are allocated to Personnel Services. The cost of Radiation Protection Services is charged to Safeguards (Programme J) and TC Projects, and - in respect of other in-house utilization - to Area of Activity S.5.3. Only the Library has not been allocated to any other programme and the cost is therefore shown under this programme.

b\_/ Allocated costs as shown in Table 52.

c\_/ See footnote d\_/ on Attachment Table.

#### PROGRAMME S.1: GENERAL MANAGEMENT AND SECRETARIAT OF THE POLICY-MAKING ORGANS

#### Summary of Regular Budget estimates by Area of Activity

Area of	f Activity / Programme	Responsible Division	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
s.1.1	General Management	DDsG & DG	3 111 000	(118 000)	(3.8)	2 993 000	3,4	3 094 000
s.1.2	Secretariat of the Policy-making Organs	SEC	6 000 000	(75 000)	(1.3)	5 925 000	4.0	6 160 000
s.1.3	Internal Audit and Evaluation Support	AI	720 000	(20 000)	(2.8)	700 000	3.0	721 000
Program	mme S.1 Total		9 831 000	(213 000)	(2.2)	9 618 000	3.7	9 975 000

#### Table 42

#### Summary of main means by Area of Activity for 1990

Area of Activity	Respon. Div.	Na P	n-years GS	MSO	Major meetings	Data base	Publi- cations	Standards regula- tions	Research & devel- opment	Admin. sup- port and management	Services to Member States	TC support	Total Regular Budget
S.1.1 General Management	DDsG & DG	15.0	13.0	-		-		-	-	3 094 000	-	-	3 094 000
S.1.2 Secretariat of the Policy-making Organs	SEC	3.0	3.0	-	-	-	-	-	-	6 160 000	-	-	6 160 000
S.1.3 Internal Audit and Evaluation Support	IA	5.0	5.0	-	-	-	-	-	-	721 000	-	-	721 000
Programme S.1 Total		23.0	21.0							9 975 000		-	9 975 000

#### PROGRAMME S.2: ADMINISTRATION

# Summary of Regular Budget estimates by Area of Activity

Area of Activity / Programme	Responsible Division	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
S.2.1 External Relations	ADEX	1 631 000	(22 000)	(1.3)	1 609 000	4.5	1 682 000
S.2.2 Legal Advice	ADLG	709 000	249 000	35.1	958 000	2.7	984 000
S.2.3 Management Services	ADMS	317 000	-	-	317 000	3.2	327 000
S.2.4 Personnel Services	ADPR	3 834 000	-	-	3 834 000	4.8	4 017 000
S.2.6 Budget and Finance	ADBF	4 494 000	137 000	3.0	4 631 000	4.9	4 860 000
Programme S.2 Total		10 985 000	364 000	3.3	11 349 000	4.6	11 870 000

### PROGRAMME S.2: ADMINISTRATION

# Summary of main means by Area of Activity for 1990

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Area of Activity	Respon. Div.	Ma P	n-years GS	MgO	Major meetings	Data base	Publi- cations	Standards regula- tions	Research & devel- opment	Admin. sup- port and management	Services to Member States	TC support	Total Regular Budget
												*************	
S.2.1 External Relations	ADEX	8.0	13.0	-	-	-	-	-	-	1 682 000	-	-	1 682 000
S.2.2 Legal Advice	ADLG	8.0	4.0	-	-	-	-	-	-	984 000	-	-	984 000
S.2.3 Management Services	ADMS	3.0	2.0	-		-	-	-	-	327 000	-	-	327 000
S.2.4 Personnel Services	ADPR	12.0	26.0	-	-	-	-	-	-	4 017 000	-	-	4 017 000
S.2.6 Budget and Finance	ADBF	21.0	46.0	-	-	-	-	-	-	4 860 000	-	-	4 860 000
Programme S.2 Total		52.0	91.0	-	-	-	-	-	-	11 870 000	-	-	11 870 000

#### PROGRAMME S.2: ADMINISTRATION

#### Area of Activity S.2.2 Legal Advice

1. In addition to the programme foreseen in document GC(XXXII)/837 and pursuant to resolutions adopted by the General Conference in September 1988, the following actions are planned:

- A working group will be set up to study all aspects of liability for nuclear damage (resolution GC(XXXII)/RES/491).
- A representative working group of experts will be convened to elaborate an internationally agreed code of practice for international transactions involving nuclear wastes (GC(XXXII)/RES/490).

2. In accordance with Article 16 of the Convention on the Physical Protection of Nuclear Material, which entered into force in February 1987, a conference of States Parties to the Convention is to be convened five years after its entry into force to review its implementation and adequacy. It is planned to begin preparations for the conference to be held in 1992 by organizing a meeting of States Parties in 1990 to discuss both the administrative aspects of the conference and the substantive issues that it will consider.

## PROGRAMME S.3: TECHNICAL CO-OPERATION SERVICING AND CO-ORDINATION

# Summary of Regular Budget estimates by Area of Activity

# Table 46

Area of	Activity / Programme	Responsible Division	1989 Budget	Expenditu increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
S.3.A	Technical Co-operation Programmes	TCPM	3 206 000	170 000	5,3	3 376 000	3.3	3 487 000
S.3.B	Technical Co-operation Implementation	TCIM	3 572 000	192 000	5.4	3 764 000	5.2	3 958 000
s.3.c	Programme Co-ordination	TCSPC	1 140 000	66 000	5.8	1 206 000	4.0	1 254 000
\$.3.D	Evaluation	TCSEV	553 000	93 000	16.8	646 000	2.6	663 000
Program	me S.3 Total		8 471 000	521 000	6.2	8 992 000	4.1	9 362 000

# Summary of main means by Area of Activity for 1990

Area of Activity	Respon. Div.	Na P	an-years GS	M&O	Najor weetings	Data base	Publi- cations	Standards regula- tions	Research & devel- opment	Admin. sup- port and management	Services to Member States	TC support	Total Regular Budget
S.3.1 Technical Co-operation Programmes	TCPM	21.0	19.0									3 487 000	3 487 000
S.3.B Technical Co-operation Implementation	TCIN	18.0	44.0	_	-	_		_	_	_	-	3 958 000	3 958 000
S.3.C Programme Co-ordination	TCSPC	6.0	8.0	_	_	_	_	_	-	_	-	1 254 000	1 254 000
S.3.D Evaluation	TCSEV	3.0	2.0	_		_	_			_	-	663 000	663 000
2.J.0 MANULION	10344	5.0	2.0	_	-	_	_	-		_		005 000	003 000
Programme S.3 Total		48.0	73.0	-	~	-			-		-	9 362 000	9 362 000

#### PROGRAMME S.4: GENERAL SERVICES

	Table	48					
Area of Activity / Programme	Responsible Division	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
S.4.1 VIC Maintenance and Operations	ADGS	9 322 000	90 000	1.0	9 412 000	3.5	9 741 000
S.4.2 Other General Services	ADGS	7 476 000	(130 000)	(1.7)	7 346 000	5.9	7 782 000
Programme S.4 Total		16 798 000	(40 000)	(0.2)	16 758 000	4.6	17 523 000

# Summary of Regular Budget estimates by Area of Activity

# Summary of main means by Area of Activity for 1990

Area of Activity	Respon. Div.	P	an-years GS	M&O	Major meetings	Data base	Publi- cations	Standards regula- tions	Research & devel- opment	Admin. sup- port and management	Services to Member States	TC support	Total Regular Budget
S.4.1 VIC Maintenance and Operation S.4.2 Other General Services	ADGS ADGS	- 10.0	- 73.0	- 28.0	-	- -	-	-	-	9 741 000 7 782 000	-	-	9 741 000 7 782 000
Programme S.4 Total	*******	10.0	73.0	28.0					-	17 523 000			17 523 000

#### PROGRAMME S.5: SPECIALIZED SERVICE ACTIVITIES

#### Summary of Regular Budget estimates by Area of Activity

Area of Activity / Programme	Responsible Division	1989 Budget	Expenditur increase/(dec		1990 at 1989 prices	Price increase %	1990 with price increase
S.5.1 Public Information	ADPI	2 048 000	48 000	2.3	2 096 000	4.3	2 187 000
S.5.2A International Nuclear Information System	NESI	5 204 000	(123 000)	(2.4)	5 081 000	4.3	5 297 000
S.5.2B NESI - Director's Office	NESI	219 000	4 000	1.8	223 000	4.0	232 000
S.5.3 Radiation Protection Services	a_/ NENS	143 000	-	-	143 000	4.8	150 000
Programme S.5 Total		7 614 000	(71 000)	(0.9)	7 543 000	4.3	7 866 000

# Table 50

a\_/ Radiation protection services provided to the Departments of Nuclear Energy and Safety and Research and Isotopes.

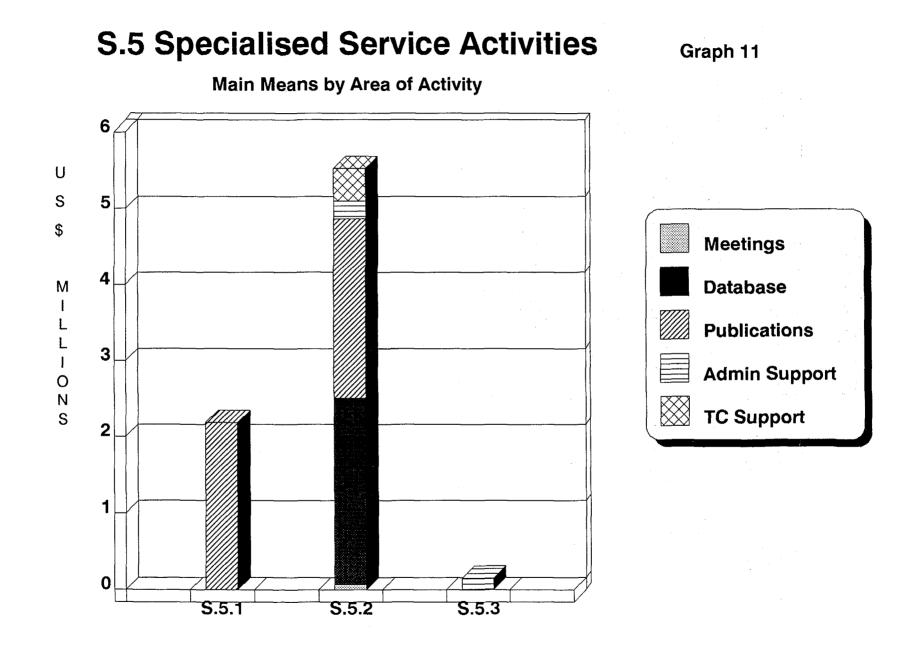
# PROGRAMME S.5: SPECIALIZED SERVICE ACTIVITIES

#### Summary of main means by Area of Activity for 1990

# Table 51

Area of Activity	Respon. Div.	Ma	n-years		Major meetings	Data base	Publi- cations	Standards regula-	Research & devel-	Admin. sup- port and	Services to Member	TC support	Total Regular
		P	GS	M&O	•••••			tions	opment	management	States		Budget.
S.5.1 Public Information	ADPI	5.0	8.0	-	-	-	2 187 000	-	-	-	-	-	2 187 000
S.5.2 International Nuclear Information System	NESI	16.0	27.0	-	73 000	2 434 000	2 364 000	-	-	-	-	426 000	5 297 000
NESI - Director's Office	NESI	1.0	2.0	-	-	-	-	-	-	232 000	-	-	232 000
S.5.3 Radiation Protection Services	NENS	a_/	a_/	-	-	-	-	-	-	150 000 a_/	-	-	150 000
	********												
Programme S.5 Total		22.0	37.0	-		2 434 000		-	-	382 000	-	426 000	7 866 000

a\_/ Radiation protection services provided to the Departments of Nuclear Energy and Safety and Research and Isotopes.



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S. DIRECTION AND SUPPORT

PROGRAMME S.5: SPECIALIZED SERVICE ACTIVITIES

#### Area of Activity S.5.1 Public Information

1. In addition to the programme foreseen in document GC(XXXII)/837, it is proposed to organize two meetings for journalists in 1990 to enhance public understanding of particular aspects of the Agency's activities and the peaceful uses of nuclear energy:

- An international meeting of journalists on Agency safeguards and nuclear non-proliferation will be held prior to the NPT Review Conference. About twelve influential media representatives will be invited and will receive a comprehensive briefing on the Agency's safeguards system and the NPT regime.
- A seminar for journalists is proposed on the subjects of reactor safety, radiation protection, food irradiation and other topical issues. It will be held in Vienna on the eve of the opening of the General Conference.

#### <u>Area of Activity S.5.2</u> International Nuclear Information System

1. In addition to the activities foreseen in document GC(XXXII)/837, it is planned in 1990 to organize - in co-operation with UNESCO, UNIDO and FAO - a symposium on the delivery of scientific information services.

#### PROGRAMME S.6: SHARED SUPPORT SERVICES

### Summary of Regular Budget estimates by Area of Activity

#### Table 52

Area of	Activity / Programme		Responsible Division	1989 Budget		rease) %	1990 at 1989 prices	8	1990 with price increase
s.6.1	Contracts Administration Services		DDGRI	450 000	(42 000)	(9.3)	408 000	5.6	431 000
s.6.2	Conference Services		ADEX	794 000	-	-	794 000	6.0	842 00
S.6.2A	Interpretation Services		ADEX	887 000	111 000	12.5	998 000	1.6	1 014 00
s.6.3	Translation and Records Services		ADLA	6 600 000	(33 000)	(0.5)	6 567 000	3.7	6 812 00
S.6.4	Medical Services		ADPR	1 226 000	(68 000)	(5.5)	1 158 000	6.1	1 229 00
\$.6.5	Library Services		NESI	2 456 000	(94 000)	(3.8)	2 362 000	7.0	2 527 00
S.6.6	Data Processing Services		nesi	8 538 000	(359 000)	(4.2)	8 179 000	3.6	8 475 00
s.6.7	Printing and Publishing Services		TCPU	8 083 000	(883 000)	(10.9)	7 200 000	6.2	7 647 00
	Radiation Protection Services	a_/	NENS	750 000	-	-	750 000	4.8	786 00
Program	me S.6 Total			29 784 000	(1 368 000)	(4.6)	28 416 000	4.7	29 763 00
Total: Less:	Programme S.6 cross charge								29 763 00 1 013 00
	Shared Support Services								28 750 00
Allocat	ed cost;							•	
	to Agency programmes under the Regular to other organizations and TC projects	Budget.							22 690 00 4 484 00
								-	27 174 00
Non-all	ocated cost:								
	Agency's share of the Library	b_/							1 576 00
Total:	Shared Support Services								28 750 00

3\_/ Represents total cost of radiation protection services including charges to the Department of Safeguards and TC projects.

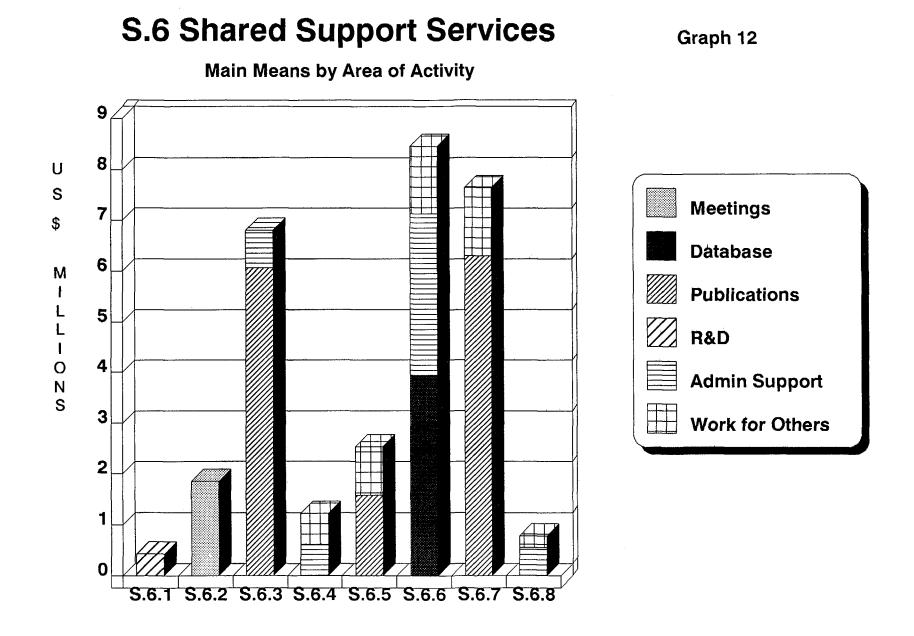
b/ See footnote on Table 41.

#### PROGRAMME S.6: SHARED SUPPORT SERVICES

### Summary of main means by Area of Activity for 1990

### Table 53

Area of Activity	Respon. Div.	M	Man-years		Major meetings	Data base	Publi- cations	Standards regula-	Research & devel-	Admin. sup- port and	Services to Member	Work for others	Total Regular
		Р	GS	03M	ilee (11195			tions	opment	management	States	,	Budget
Shared Support Services													
S.6.1 Contract Administration Services	DDG-RI	1.0	5.0	· -•	-	-	-	-	431 000	-	-	_	431 000
S.6.2 Conference Services	ADEX	5.0	8.0	-	842 000	-	-	-	-	-	-	-	842 000
and Interpretation		7,0	1.0	••	1 014 000	-	-	, 	-	-	-	-	1 014 000
5.6.3 Translation and Records Services	ADLA	48.0	44.0	2.0	-	-	6 062 000	-	-	750 000	-	-	6 812 000
3.6.4 Medical Services	ADPR	3.0	15.0	3.0	-	-	-	-	-	609 000	-	620 000	1 229 000
5.6.5 Library	NESI	5,0	10.0	-	-	-	1 576 000	-	-	-	-	951 000	2 527 000
.6.6 Data Processing Services	NESI	30.0	40.0	-	-	3 923 000	-	-	-	3 209 000	. –	1 343 000	8 475 000
6.6.7 Printing and Publishing	TCPU	17.0	96.0	17.0		-	6 300 000	-	-	-	-	1 347 000	7 647 000
.6.8 Radiation Protection Services	NENS	3.0	7.0	-	-	-	-	-	-	563 000	-	223 000	786 000 a_/
Programme S.6 Total		119.0	226.0	22.0	1 856 000	3 923 000	13 938 000		431 000	5 131 000		4 484 000	29 763 000



# ANNEXES I-III

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#### ANNEX I

#### CONFERENCES, SYMPOSIA AND SEMINARS IN 1990 [1]

Within the limits of the appropriation and subject to the requirements of the individual programmes as outlined for 1990, it is planned to hold the meetings listed below. The reference following each meeting is to the relevant paragraph in document GC(XXXII)/837.

NUCLEAR POWER AND THE FUEL CYCLE

1.	Thirteenth international conference on plasma physics and controlled nuclear fusion research	A/50
2.	Seminar on the costs and financing of nuclear power in developing countries	A/14
3.	Seminar on management of quality for nuclear power projects	<b>A/</b> 27
4.	Seminar on spent fuel storage - safety, engineering and environmental aspects	B/35
NUCLEA	R APPLICATIONS	
5.	Joint FAO/IAEA symposium on stable isotopes in plant nutrition, soil fertility and environmental studies	
6.	FAO/IAEA symposium on the contribution of plant mutation breeding to crop improvement	D/16
7.	Symposium on high-dose dosimetry for radiation processing	E/55
8.	Symposium on nuclear techniques in the exploration and exploitation of energy and mineral resources	F/20
9.	Joint FAO/IAEA seminar on the bioconversion of agricultural residues using nuclear techniques [2]	D/52
10.	Seminar on the application of nuclear techniques in the early diagnosis of cancer in developing countries	E/30
11.	Seminar on isotope techniques in hydrology for Africa	F/17
NUCLEA	R SAFETY AND RADIATION PROTECTION	
12.	Symposium on radiation protection infrastructure	H/4
13.	Symposium on balancing automation and human action in nuclear power plants	1/20
14.	Seminar on the use of incident reporting system output in nuclear power plant safety	I/38

#### DIRECTION AND SUPPORT

- 15. Symposium on the delivery of scientific information services [3]
- 16. INIS training seminar

S/43

- [1] In addition, the Agency will co-operate in a Conference on the Characterization and Quality Control of Nuclear Fuels organized by the Kernforschungszentrum Karlsruhe (FRG). The Agency will participate in formulating the programme for the meeting and, as in the case of its own symposia, will subsidize the participation of nationals from developing countries. As a result, the seminar on quality assurance and quality control in the design and manufacture of water reactor fuel (No. 4, Annex II, GC(XXXII)/837) planned for 1990 will not be held.
- [2] Postponed from 1989. To be funded from extrabudgetary sources.
- [3] In co-operation with UNESCO, UNIDO and FAO.

#### ANNEX II

#### CONFERENCES, SYMPOSIA AND SEMINARS IN 1991

The following list of scientific meetings is proposed for 1991.

NUCLEAR POWER AND THE FUEL CYCLE

- 1. Senior expert symposium on electricity and the environment
- 2. Symposium on power reactors with enhanced safety features
- 3. Seminar on efficient outage planning and management practices in nuclear power plants [1]
- 4. Seminar on the design and construction of storage and disposal facilities for low level radioactive wastes

#### NUCLEAR APPLICATIONS

- 5. Joint FAO/IAEA symposium on nuclear and related techniques in animal production and health
- 6. Symposium on radioimmunoassay and related procedures in health studies
- 7. Symposium on the use of isotope techniques in water resources development
- 8. Joint FAO/IAEA seminar on the use of induced mutations for crop improvement
- 9. Joint FAO/IAEA seminar on isotopes and radiation in the detection and control of trypanosomiasis
- 10. Joint FAO/IAEA seminar on the harmonization of legislation on food irradiation in Asia and the Pacific
- 11. Seminar on radiotherapy dosimetry

NUCLEAR SAFETY AND RADIATION PROTECTION

- 12. Symposium on the health effects of ionizing radiations: radiation protection implications
- Symposium on PSA 91 the use of probabilistic safety assessment for operational safety

#### SAFEGUARDS

14. Seminar on safeguards accounting data

DIRECTION AND SUPPORT

- 15. INIS training seminar
- [1] Cosponsorship by the World Association of Nuclear Operators (WANO) will be sought

#### ANNEX III

#### Draft resolutions

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#### A. REGULAR BUDGET APPROPRIATIONS FOR 1990

#### The General Conference,

Accepting the recommendations of the Board of Governors relating to the Regular Budget of the Agency for 1990 [1],

1. Appropriates on the basis of an exchange rate of AS 12.70 to \$1.00, an amount of \$162 832 000 for the Regular Budget expenses of the Agency in 1990 as follows:

United States dollars

		===:	====:	****
	TOTAL	162	832	000
	(Cost of Work for Others)			
9.	Shared Support Services	4	484	000
	Sub-Total Agency Programme	158	348	000
8.	General Services	17	523	000
7.	Executive Management and Administration	17	575	000
6.	Policy-making Organs	6	160	000
5.	Safeguards	54	486	000
4.	Operational Facilities [4]	3	130	000
3.	Research and Isotopes [3]	21	433	000
2.	Nuclear Energy and Safety [2]	28	679	000
1.	Technical Assistance and Co-operation	9	362	000

the amounts in the Appropriation Sections to be adjusted in accordance with the adjustment formula presented in the Attachment in order to take into account the exchange rate variations during the year.

2. <u>Decides</u> that the foregoing appropriation shall be financed, after the deduction of revenues deriving from Work for Others (Section 9) and of other miscellaneous income of \$3 417 000 (representing \$1 916 000 plus AS 19 063 000), from contributions by Member States amounting, for an

exchange rate of AS 12.70 to \$1.00, to \$154 931 000 (\$18 081 000 plus the equivalent in US dollars of AS 1 737 995 000), in accordance with the scale of assessment fixed by the General Conference in resolution GC(XXXIII)/RES/, each contribution to be adjusted in the light of the rate applicable at the date of payment; and

- 3. <u>Authorizes</u> the Director General:
  - (a) To incur expenditures additional to those for which provision is made in the Regular Budget for 1990, provided that the relevant emoluments of any staff involved and all other costs are entirely financed from revenues arising out of sales, work performed for Member States or international organizations, research grants, special contributions or other sources extraneous to the Regular Budget for 1990; and
  - (b) With the prior approval of the Board of Governors, to make transfers between any of the Sections listed in paragraph 1 above.

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- [1] See document GC(XXXIII)/
- [2] For the financing of Nuclear Power, Nuclear Fuel Cycle, Nuclear Safety and Scientific and Technical Information.
- [3] For the financing of Food and Agriculture, Life Sciences and Physical and Chemical Sciences.
- [4] For the financing of the International Centre for Theoretical Physics (in part) and the International Laboratory of Marine Radioactivity (in part).

### ATTACHMENT

### ADJUSTMENT FORMULA IN US \$

1.	Technical Assistance and Co-operation		765	000	+	(	109	182	000	1	R)
2.	Nuclear Energy and Safety [2]	3	962	000	+	(	313	906	000	1	R)
3.	Research and Isotopes [3]	3	413	000	+	(	228	854	000	1	R)
4.	Operational Facilities [4]	1	506	000	+	(	20	625	000	1	R)
5.	Safeguards	7	437	000	+	Ċ	597	522	000	1	R)
6.	Policy-making Organs		534	000	+	(	71	450	000	1	R)
7.	Executive Management and Administration	1	790	000	+	(	200	470	000	/	R)
8.	General Services		590	000	+	(	215	049	000	1	R)
	Sub Makal Assess Desensore						767				
	Sub-Total Agency Programme	19	997	000	+	(1	151	058	000	/	R)
9.	Shared Support Services		442	000	+	(	51	334	000	1	R)
	(Cost of Work for Others)										<b>-</b>
	TOTAL	20	439	000	+	(1	808	392	000	1	R)
		=2:	-===:		<b>222</b> 2:	===:		:===:		-=-	

Note: R is the average United Nations schilling-to-dollar exchange rate which will be experienced during 1990.

<sup>[2-4]</sup> See footnotes on preceding page.

B. TECHNICAL ASSISTANCE AND CO-OPERATION FUND ALLOCATION FOR 1990

#### The General Conference,

<u>Accepting</u> the recommendation of the Board of Governors relating to the target for voluntary contributions to the Agency's Technical Assistance and Co-operation Fund for 1990 [1];

1. <u>Decides</u> that for 1990 the target for voluntary contributions to the Technical Assistance and Co-operation Fund shall be \$45 500 000;

2. <u>Notes</u> that funds from other sources estimated at \$1 000 000 are expected to be available for that programme;

3. <u>Allocates</u> the amount of \$46 500 000 for the Agency's technical assistance and co-operation progamme for 1990; and

4. <u>Urges</u> all Member States to make voluntary contributions for 1990 in accordance with Article XIV.F of the Statute, with paragraph 2 of its Resolution GC(V)/RES/100 as amended by Resolution GC(XV)/RES/286 or with paragraph 3 of the former Resolution, as appropriate.

#### C. THE WORKING CAPITAL FUND IN 1990

#### The General Conference,

<u>Accepting</u> the recommendations of the Board of Governors relating to the Agency's Working Capital Fund in 1990 [2];

1. Approves a level of \$6 000 000 for the Agency's Working Capital Fund in 1990;

2. <u>Decides</u> that the Fund shall be financed, administered and used in 1990 in accordance with the relevant provisions of the Agency's Financial Regulations [3];

3. Authorizes the Director General to make advances from the Fund:

- (a) Not exceeding \$25 000 at any time, to finance temporarily projects or activities of a strictly self-liquidating character which will not necessitate an increase in the Fund in future years; and
- (b) With the prior approval of the Board of Governors, unless in his opinion the situation requires immediate action before such approval can be obtained, to meet the cost incurred by the Agency in organizing and rendering emergency assistance to Member States in connection with radiation accidents, up to \$50 000 in each case; and

4. <u>Requests</u> the Director General to submit to the Board statements of advances made from the Fund under the authority given in paragraph 3 above.

[1]	See Document GC (XXXIII)/	, para	of the Introduction.
[2]	See Document GC(XXXIII)/	, para	of the Introduction.
[3]	INFCIRC/8/Rev.1 and Mod.1.		

## PART II

# MANAGEMENT PLAN

,

.

### THE REGULAR BUDGET

### By appropriation section

### Table 54

	1988 Actual expenditures	1989 Budget	Expenditure increase(decrease) %	1990 at 1989 i prices	Price increase %	1990 with price increase
1. Technical Assistance and Co-operation	7 639 266	8 471 000	521 000 6.2	8 992 000	4.1	9 362 000
2. Nuclear Power	4 633 933	5 275 000	(163 000) (3.1)	5 112 000	3.0	5 265 000
Nuclear Fuel Cycle	4 409 580	5 137 000		5 137 000	3.2	5 301 000
Nuclear Safety	9 515 703	9 563 000 7 740 000	224 000 2.3	9 787 000 7 620 000	3.4	10 117 000 7 996 000
Scientific and Technical Information	6 977 318	7 740 000	(120 000) (1.6)	7 620 000	4.9	
Nuclear Energy and Safety	25 536 534	27 715 000	(59 000) (0.2)	27 656 000	3.7	28 679 000
3. Food and Agriculture	7 470 805	8 015 000	(81 000) (1.0)	7 934 000	4.1	8 261 000
Life Sciences	4 309 138	4 249 000	(45 000) (1.1)	4 204 000	3.5	4 352 000
Physical and Chemical Sciences	7 699 434	8 677 000	(192 000) (2.2)	8 485 000	3.9	8 820 000
Research and Isotopes	19 479 377	20 941 000	(318 000) (1.5)	20 623 000	3.9	21 433 000
4. International Centre for Theoretical Physics	1 221 718	1 262 000	(7 000) (0.6)	1 255 000	5.1	1 319 000
International Laboratory of Marine Radioactivity	1 672 616	1 779 000	(45 000) (2.5)	1 734 000	4.4	1 811 000
Operational Facilities	2 894 334	3 041 000	(52 000) (1.7)	2 989 000	4.7	3 130 000
5. Safeguards	45 947 529	52 922 000	(91 000) (0.2)	52 831 000	3.1	54 486 000
6. Policy-making Organs	5 466 375	6 000 000	(75 000) (1.3)	5 925 000	4.0	6 160 000
7. Executive Management	2 302 142	2 682 000	24 000 0.9	2 706 000	3.4	2 797 000
Administration	11 951 826	13 033 000	412 000 3.2	13 445 000	4.6	14 057 000
Internal Audit and Evaluation Support	646 890	720 000	(20 000) (2.8)	700 000	3.0	721 000
Executive Managem. and Administration	14 900 858	16 435 000	416 000 2.5	16 851 000	4.3	17 575 000
8. General Services	15 555 990	16 798 000	(40 000) (0.2)	16 758 000	4.6	17 523 000
Total Agency Programmes	137 420 263	152 323 000	302 000 0.2	152 625 000	3.7	158 348 000
9. Shared Support Services (Cost of work for others)	4 676 907	5 217 000	(973 000) (18.7)	4 244 000	5.7	4 484 000
TOTAL	142 097 170	157 540 000	(671 000) (0.4)	156 869 000	3.8	162 832 000

### THE REGULAR BUDGET

.

### By Department

## <u>Table 55</u>

	1988 Actual expenditures	1989 Budget	Expenditure increase(decrease) %	1990 at 1989 prices	Price increase %	1990 with price increase
<ol> <li>Director General, Secretariat of the Policy-making Organs and Office of Internal Audit and Evaluation Support</li> </ol>	7 063 384	7 853 000	(95 000) (1.2)	7 758 000	3.7	8 048 000
<ol> <li>Department of Technical Co-operation</li> <li>Department of Nuclear Energy and Safety</li> <li>Department of Research and Isotopes</li> <li>Department of Safeguards</li> <li>Department of Administration</li> </ol>	7 975 562 25 906 266 22 694 448 45 947 529 27 833 074	8 812 000 28 128 000 24 369 000 52 922 000 30 239 000	521         000         5.9           (59         000)         (0.2)           (386         000)         (1.6)           (91         000)         (0.2)           412         000         1.4	23 983 000	3.7 4.0 3.1	9 716 000 29 109 000 24 947 000 54 486 000 32 042 000
Total Agency Programmes	137 420 263	152 323 000	302 000 0.2	152 625 000	3.7	158 348 000
7. Shared Support Services including cost of work for others	27 194 326	28 711 000	(1 271 000) (4.4)	27 440 000	4.8	28 750 00
Less: Amount of services charged to Agency programmes	22 517 419	23 494 000	(298 000) (1.3)	23 196 000	4.6	24 266 00
Cost of work for others	4 676 907	5 217 000	(973 000) (18.7)	4 244 000	5.7	4 484 00
Total Regular Budget	142 097 170	157 540 000	(671 000) (0.4)	156 869 000	3.8	162 832 00

.

#### THE REGULAR BUDGET

### By item of expenditure

### Table 56

Item of Expenditure			Expenditure increase(decrease %		Price increase %	1990 with price increase
Salaries - established posts - P	34 703 265	41 989 000	118 000 0.3			42 530 000
Temporary assistance - P Salaries - established posts - GS & M&O	1 587 356	1 036 100	(74 900) (7.2			961 200
		20 295 000 587 400	358 000 1.8 12 100 2.1			22 414 000 645 300
Common staff costs	824 924 19 060 976	21 731 300	105 300 0.5			22 916 300
Overtime	192, 182	259 400	(3 900) (1.5	255 500	7.7	275 200
Sub-total: Staff costs	75 771 826	85 898 200	514 600 0.6	86 412 800	3.9	89 742 000
Travel	10 269 113	12 100 300	512 800 4.2	12 613 100		12 991 700
Representation and hospitality	146 258	165 800	4 100 2.5	169 900		177 700
Training Experts	320 970 272 558	410 800 783 200	(19 600) (4.8) (118 300) (15.1)	391 200 664 900		397 200 685 200
Equipment: leased or rented	586 165	576 000	(44 000) (7.6)	532 000	1.7	541 000
Equipment purchased/ construction Supplies and materials	5 622 163	4 757 000	(14 800) (0.3)			4 896 000
Supplies and materials	2 655 421	3 272 200	151 700 4.6			3 550 900
General operating expenses	12 670 167	14 236 100	(344 800) (2.4)	13 891 300	3,1	14 327 600
Contracts	1 127 320	1 318 000	(74 000) (5.6)			1 256 000
Research and technical contracts Miscellaneous	3 065 030 2 395 853	2 881 000 2 430 400	12 000 0.4 20 300 0.8			2 981 000 2 535 700
	2 393 033					
Sub-total: Other direct costs	39 131 018	42 930 800	85 400 0.2	43 016 200	3.1	44 340 000
Conference services	753 113	794 000		794 000		842 000
Interpretation services	777 579	887 000	111 000 12.5	998 000		1 014 000
Translation and records services Printing and publishing services	6 104 498 6 351 170	6 546 000 6 169 000	(343 000) (5.6)	6 546 000 5 826 000		6 791 000 6 182 000
Data processing services			$(343\ 000)$ $(3.8)$ $(23\ 000)$ $(0.4)$			6 258 000
Contract administration	410 927	450 000				431 000
Other services a/	2 303 863	6 063 000 450 000 2 585 000	(1 000) -	408 000 2 584 000	6.3	2 748 000
Sub-total: Shared costs	22 517 419					24 266 000
Agency Programmes	137 420 263	152 323 000	302 000 0.2	152 625 000	3.7	158 348 000
Cost of work for others	4 676 907	5 217 000	(973 000) (18.7)	4 244 000	5.7	4 484 000
Fotal Regular Budget	142 097 170	157 540 000	(671 000) (0.4)	156 869 000	3.8	162 832 000

a/ Includes the Agency's share of Medical Services, Library Services and Radiation Protection Services.

Table	57

Item of Expenditure	1988 Actual expenditures	1989 Budget	Expendi increase(d	lecrease) %	1990 at 1989 prices	010	1990 with price increase
Salaries - established posts - P	6 336 804	7 023 000	(101 000)	(1.4)	6 922 000		6 991 000
Temporary assistance - P	550 841	766 300	(54 300)	(7.1)	712 000		728 000
Salaries - established posts - GS & M&O		7 533 000	(254 000)	(3.4)	7 279 000		7 905 000
Temporary assistance ~ GS & M&O Common staff costs	249 446 4 570 225	318 900 5 105 100	(87 900) (142 100)	(27.6) (2.8)	231 000 4 963 000		248 500 5 279 300
Overtime	104 744	86 200	(142 100) (200)	(0.2)	86 000		92 500
Sub-total: Staff costs	18 939 701	20 832 500	(639 500)	(3.1)	20 193 000	5.2	21 244 300
Travel	161 548	57 900	110 100	190.2	168 000		173 100
Representation and hospitality	1 812	2 100	(100)	(4.8)	2 000		2 100
Training Experts	82 265 59 887	104 300 60 600	(4 300) 400	(4.1) 0.7	100 000 61 000		101 500 62 900
urber (2	55 007	00 000	400	0.1	01 000	3.1	02 500
Equipment: leased or rented	1 829 121	2 142 000	(66 000)	(3.1)	2 076 000		2 147 000
Equipment purchased/ construction	850 516	258 000	(110 000)	(42.6)	148 000		152 000
Supplies and materials	2 434 625	2 135 700	(288 700)	(13.5)	1 847 000		1 993 800
General operating expenses	1 765 619	2 329 400	(354 400)	(15.2)	1 975 000	1.0	1 994 800
Contracts	816 369	708 000	134 000	18.9	842 000	1.0	850 000
Research and technical contracts	-	5 000	(5 000)	(100.0)	-	-	-
Miscellaneous	252 863	75 500	(47 500)	(62.9)	28 000	1.8	28 500
Sub-total: Other direct costs	8 254 625	7 878 500	(631 500)	(8.0)	7 247 000	3.6	7 505 700
Translation and records services	25 255	54 000	(33 000)	(61.1)	21 000	-	21 000
Printing and publishing services	123 932	109 000	`3 000´	2.8	112 000		118 000
Data processing services	900 257		(67 000)	(7.4)	843 000	3.7	
Sub-total: Shared costs	1 049 444			(9.0)	976 000		1 013 000
SUB-TOTAL	28 243 770	<b>29</b> 784 000	(1 368 000)	(4.6)	28 416 000	4.7	29 763 000
Less: Cross-Charge (above)	1 049 444	1 073 000	(97 000)	(9.0)	976 000	3.8	1 013 000
Total Shared Support Services	27 194 326	28 711 000	(1 271 000)	(4.4)	27 440 000	4.8	28 750 000
Cost of work for others	4 676 907	5 217 000	(973 000)	(18.7)	4 244 000	5.7	4 484 000
Total paid by Agency under Shared Support Services	22 517 419	23 494 000	(298 000)	(1.3)	23 196 000	4.6	24 266 000

.

### Manning Table for 1990

### Table 58

Organizational Unit	DG	DDG	D	P-5	P-4	P-3	P-2	P-1	Sub- Total	GS	MSO	Total
Office of the Director General Secretariat of the Policy-making Oroans	1	-	1 1	1 1	-	- 1	1	- -	4 3	3	-	7
Internal Audit and Evaluation Support	-	-	-	2	2	-	1	-	5	5	-	10
Sub-total	1	-	2	4	2	1	2	-	12	11	-	23
Department of Technical Co-operation	-	1	-	-	•	1	-	-	2	2	-	4
Div. of Technical Co-op. Programmes Div. of Technical Co-op. Implementation	-	-	2 1	5 4	6 4	6 8	2 1	-	21 18	19 44	-	40 62
Programme Co-ordination Section Evaluation Section	-	-	-	1	-1	2 1	2	1	63	8	-	14
Sub-total		1	3	11	11	18	5	1	50	75		125
Department of Nuclear Energy and Safety	-	1	-			1	-	1	3	2		5
Div. of Nuclear Power	-	-	1 1	10 7	6 12	5 1	1	-	23	13	-	36
Div. of Nuclear Fuel Cycle Div. of Nuclear Safety a_/	-	-	1	20	15	2	-	-	38	13 26	-	34 64
Div. of Scientific and Technical Information b_/	-	-	1	3	6	7	-	1	18	33	-	51
Sub-total		1	4	40	39	16	1	2	103	87		190
Department of Research and Isotopes	-	1	-	-	-	1	-	-	2	2	-	4
Joint FAO/IAEA Division	-	-	- 1	5	7 8	2 2	2	-	16	8	-	24
Div. of Life Sciences Div. of Physical and Chemical Sciences	-	-	1	4 7	11	5	3	-	15 27	10 18	-	25
The Agency's Laboratory International Laboratory of	-	-	1	3 2	11 1	8 1	6 3	1 1	30	58 16	25	113 25
Marine Radioactivity International Centre for Theoretical Physics	-	-	1	5	3	1	1	-	11	25	-	36
Sub-total		1	5	26	41	20	15	2	110	137	25	272
Department of Safeguards		1			*				1	2	 ~	3
Div. of Operations A	-	-	1 1	12 12	25 23	34 24	, <b>-</b>	-	72 60	31	-	103 91
Div. of Operations B Div. of Operations C	-	-	ī	12	27	26	- `	-	66	36	-	102
Div. of Development and Tech. Support Div. of Information Treatment	-		1 1	8 4	15 12	2 6	- 6	2	26 31	37 42	-	63 73
Div. of Concepts and Planning Departmental Services	-	-	1	8 5	16 4	1 1	-	-	26 11	15 13	-	41 24
Sub-total		1	6	61	122	94	7	2	293	207		500
Department of Administration Office of Management Services	-	1 -	-	1 1	1	1 1	- -	- -	33	2 2	-	5 5
Div. of Budget and Finance	-	-	1	4	4	7	5	:	21	46	-	67
Div. of General Services Div. of External Relations	-	-	1 2	2 3	3 2	1	2	1 -	10	73	28	111 21
Div. of Public Information Legal Division		-	1	. 1	12	1	1 1	-	5	8	-	13 12
Div. of Personnel	-	-	i	2	3	4	2	-	12	26	-	38
Sub-total	-	1	7	17	16	17	11	1	70	174	28	272
Shared Support Services Contract Administration Services	-	-	-	-	1	-	-	-	1	5	-	6
Conference Services Interpretation	-	-	-	1	-4	1 2	3	-	57	8	-	13 8
Translation and Records Services	-	-	1	6	14	27		-	48	44	2	94
Medical Services Library	-	· -	1	1	2	2	2	-	35	15 10	3	21 15
Data Processing Services	-	-	-	3	8	11	6	2	30	40	-	70
Printing and Publishing Services Radiation Protection Services	-	-	-	2 1	-	5 2	10	-	17 3	96 7	17	130 10
Sub-total			2	15	29	50	21	2	119	226	22	367
TOTAL	1	5	29	174	260	216	62	10	757	917	75	1 749

a / Excluding Radiation Protection Services which is shown under Shared Support Services. b / Excluding Data Processing Services and Library which are shown under Shared Support Services.

### Table 59

		F	lumber of es	tablished po	sts	
				Change		
Grade of post	1988 Adjusted	1989	1989 Adjusted	New posts	Reclassi- fications	1990
DG	1	1	1	-	-	1
DDG	5	5	5	-	-	5
ם	30	30	30	-	(1)	29
P-5	169	173	173	-	1	174
P-4	256	260	260	-	-	260
P-3	207	215	215	1	-	216
P-2	59	59	59	-	3	62
P-1	13	12	12	-	(2)	10
Sub-total	740	755	755	1	1	757
GS	898	908	908	9	-	917
NSO	76	76	76	-	(1)	75
TOTAL	1 714	1 739	1 739	10		1 749

					Change		
				P	GS	M&O	
Department:							
Office of the Director General a	24	24	23	-	-	-	23
Department of Technical Co-operation	118	120	123	1	1	-	125
Department of Nuclear Energy and Safety	190	190	190	-	-	-	190
Department of Research and Isotopes	<b>271</b>	271	272	• •	-	-	272
Department of Safeguards	476	496	496	-	4	- *;	500
Department of Administration	268	268	271	-	2	(1)	272
Shared Support Services (Agency posts)	367	370	364	1	2	-	367
TOTAL	1 714	1 739	1 739	2	9	(1)	1 749
Extrabudgetary posts:	~~~ <del>~</del> ~~~~~~~	**********					*******
Common printing services	3	3	3	-	-	-	3
Library	14	14	14	- ,	-		14
TOTAL	17	17	17	*			17

a\_/ Includes Secretariat of the Policy-making Organs and Internal Audit and Evaluation Support.

New	posts	for	1990

#### Table 60

Organizational Unit	DG	DDG	D	P-5	P-4	P-3	P-2	P-1	Sub- Total	GS	M&O	Total
									+			· <b>+</b>
Department of Technical												
Co-operation												
Div. of Technical Co-op. Programmes	-	-	-	-	-	-	-	-	-	1	-	1
Div. of Technical Co-op. Implementation	-	-	-	-	-	1	-	-	1		-	1
Sub-total	-	-	-	-	-	1	-	-	1	1	-	2
Department of Safeguards		*******								+		
Div. of Operations A	-	-	-	-	-	-	-	-	-	1	-	1
Div. of Operations B	-	_	-	-	-	-	-	~	-	1	-	1
Div. of Operations C	-	-	-	-	-	-	-	-	1 _	1	-	
Div. of Development and Tech. Support	-	-	-	-	-	-	-	-	-	1	-	1
Sub-total			 -							4		4
Department of Administration									*****	+		•
Div. of General Services	•	-	-	-	-	-	-	-	-	1	-	1
Sub-total									-	1		1
Shared Support Services					*******					<b>†</b>		+
Translation and Records Services	-	-	-	-	-	-	-	-	-	1	-	1
Radiation Protection Services	-	-	-	-	-	-	-	-	-	2	-	2
Sub-total								-	-	3		3
TOTAL									1	9		10

ADDITIONAL PROFESSIONAL POSTS IN 1990

### Department of Technical Co-operation

### Division of Technical Co-operation Implementation

Owing to the increased workload in the Field Procurement Section, where the number of purchase orders handled has almost tripled over the past 10 years with no increase in Professional posts, an additional Professional post at P-3 level will be required on a continuing basis to replace temporary Professional assistance. 1 P-3

1

#### ADDITIONAL GENERAL SERVICE POSTS IN 1990

#### Department of Technical Co-operation

#### Division of Technical Co-operation Programmes

One additional GS post is needed for an office clerk in 1 GS the Asia and Pacific Section to cope with the increased workload. This post will replace temporary assistance.

#### Department of Safeguards

#### Divisions of Operations (A), (B) and (C)

Three additional GS posts at the G-7 level are needed for 3 GS senior quality assurance clerks, one in each Division. Their task will be to provide quality control on inspection reports and on statements of results and conclusions drawn from verification activities.

#### Division of Development and Technical Support

One additional GS post will be required for a 1 GS non-destructive assay (NDA) technician to cope with the increased workload in the maintenance and repair of NDA equipment. The volume of equipment to be serviced has sharply increased, in particular that used at large new nuclear facilities.

#### Department of Administration

#### Division of General Services

One additional GS post is required for a telex operator. 1 GS The workload has increased very significantly so that, despite computerization and other measures to optimize operations, additional manpower is required.

#### Shared Support Services

#### Translation and Records Services

One additional GS post is needed for a secretary in the 1 GS Arabic Section, as there is a continuing need for secretarial services. The post will replace temporary assistance.

#### Radiation Protection Services

Two additional GS posts are needed, one for a health 2 GS physics technician in the health physics laboratory in Seibersdorf, and one for a health physics clerk in the laboratory at Headquarters. The posts replace temporary assistance, as a continuing need for these services has been demonstrated.

9

### Reclassification of existing posts

### <u>Table 61</u>

.

Organizational Unit	DG	DDG	D	P-5	P-4	P-3	P-2	P-1	Sub- Total	GS	M&O	Tota
Department of Safeguards			~ ~ ~ ~ ~ ~ ~ ~				*****			1		1
Div. of Information Treatment	-	-	-	-	- '	÷	2	(2)	` <b>-</b>	-	-	
Departmental Services	-	-	(1)	1	-	-	-	-	-	- 1	-	
Sub-total		-	(1)	1	-		2 ·	(2)	-	-		1
Department of Administration										[		1
Div. of General Services	-	-	-	-	-	-	-	-	-	1	(1)	
Sub-total				-						1	(1)	1
Chared Support Services	******						****				******	1
Printing and Publishing Services	-	-	-	-	-	-	1	-	1	(1)	-	}
Sub-total		-	-		*		1		1	(1)		
POTAL			(1)	1			3	(2)	1		(1)	+

#### **RECLASSIFICATION OF POSTS IN 1990**

#### Department of Safeguards

One D to P-5

As a result of the restructuring of the Department of Safeguards, there will be one Division less, and instead of a D post a P-5 post will be required. (The post has been footnoted in Table 63(a)).

#### Division of Information Treatment

Two P-1 to P-2

The posts of two development programmers require reclassification, as they now entail additional responsibilities and substantially more independent work. Under the ICSC Master Standard, they are properly classified at the P-2 level. 1 P-5

.

2 P-2

#### Department of Administration

#### Division of General Services

One M&O to G-6

1 G-6

In order to accommodate the transfer of insurance matters to this Division, a clerical position is established by reclassifying an M&O post which was no longer required in Printing and Publishing Services (see explanations accompanying Table 63(b)).

#### Shared Support Services

#### Printing and Publishing

One G-7 to P-2

1 P-2

The post of assistant editor is to be reclassified as the duties and requirements are those of an English editor. The responsibilities are properly classified at the P-2 level under the ICSC Master Standard.

### Adjusted Manning Table for 1989

### Table 62

Organizational Unit	DG	DDG	D	P-5	P-4	P-3	P-2	P-1	Sub- Total	GS	0&M	Tota]
Office of the Director General Secretariat of the Policy-making Organs	1	-	1 1	1 1	-	1	1	-	4 3	3 3	-	7
Internal Audit and Evaluation Support	-	-	-	2	2	-	1	-	5	5	-	10
Sub-total	1	-	2	4	2	1	2	-	12	11	-	23
Department of Technical Co-operation		1	-	-	-	1	-	-	2	2	-	4
Div. of Technical Co-op. Programmes Div. of Technical Co-op. Implementation Programme Co-ordination Section	-	-	2 1	5 4 1	6 4	6 7 2	2 1 2		21 17 6	18 44 8	-	39 61
Evaluation Section	-	-	-	1	1	1	-	-	3	2	-	5
Sub-total		1	3	11	11	17	5	1	49	74		123
Department of Nuclear Energy and Safety	-	1	-	-	-	1	-	1	3	2	-	5
Div. of Nuclear Power Div. of Nuclear Fuel Cycle		-	1	10 7	6 12	5 1	1	-	23 21	13	-	36
Div. of Nuclear Safety a_/	-	-	1	20	15	2	-	-	38	26	-	64
Div. of Scientific and Technical Information b	-	-	1	3	6	7	-	1	18	33	-	51
Sub-total	-	1	4	40	39	16	1	2	103	87	-	190
Department of Research and Isotopes		1		-		1	-	-	2	2		4
Joint FAO/INEN Division Div. of Life Sciences	-	-	-1	5 4	7 8	2	2	-	16 15	8	-	24
Div. of Physical and Chemical Sciences	-	-	1	7	11	5	3	-	27	18	-	4
The Agency's Laboratory International Laboratory of	-	-	1 1	3 2	11 1	8 1	6 3	1	30	58 16	25	11:
Marine Radioactivity International Centre for	-	-	1	5	3	1	1	-	11	25	-	30
Theoretical Physics									+			
Sub-total	• • - • • • • • • •	1	5	26	41	20	15	2	110	137	25	272
Department of Safeguards Div. of Operations A	-	1	1	12	- 25	34	-	-	172	2 30	-	102
Div. of Operations B	-	-	1	12	23	24	-	-	60	30	-	9
Div. of Operations C Div. of Development and Tech. Support	-	-	1 1	12 8	27 15	26 2	-	-	66 26	35	-	
Div. of Information Treatment	-	-	1	4	12	б	4	4	31	42	-	7
Div. of Concepts and Planning Departmental Services	-	-	1 1	8 4	16 4	1	-	-	26 11	15 13	-	41
Spb-total		1	7	60	122	 94	5	4	293	203		496
Department of Administration		1		1		1			3	2		
Office of Management Services	-	-	-	1	1	1	-	-	3	2	-	5
Div. of Budget and Finance Div. of General Services	-	-	1	4 2	4	7	5 2	- 1	21	46	- 29	67
Div. of External Relations	-	-	2	3	2	i	-	-	8	13	-	21
Div. of Public Information Legal Division	-	-	1	1 3	1 2	1	1	-	5	8	-	13
Div. of Personnel	-	-	ī	2	3	4	2	-	12	26	-	38
Sub-total		1	7	17	16	17	11	1	70	172	29	271
Shared Support Services												
Contract Administration Services Conference Services	-	-	-	1	1	- 1	-3	-	1 5	5	-	13
Interpretation	-	-	-	ī	4	2	-	-	7	1	-	8
Translation and Records Services Medical Services	-	-	1 1	6	14	27	-	-	48	43	2	93
Library	-	-	-	1	2	2	2	-	5	15 10	3	15
Data Processing Services	-	-	-	3	8	11	6	2	30	40	-	70
Printing and Publishing Services Radiation Protection Services	-	-	-	2 1	-	5 2	9 -	-	16 3	97 5	17	130
Sub-total			2	15	29	50	20	2	118	224	22	364

a / Excluding Radiation Protection Services which is shown under Shared Support Services. b / Excluding Data Processing Services and Library which are shown under Shared Support Services.

### Table 63

#### a) In connection with the restructuring of several areas

Organizational Unit	DG	DDG	D	P-5	P-4	P-3	P-2	P-1	Sub- Total	GS	M&O	Total
Department of Technical		*******								<b> </b>		
Co-operation Div. of Technical Assistance			(5)	<i>(</i> <b>11</b> )		(1.7)				(70)		
and Co-operation (old)	-	~	(2)	(11)	(11)	(16)	(5)	(1)	(46)	(70)	-	(116)
Div. of Tech. Co-op. Programmes Div. of Tech. Co-op. Implementation	-	-	2	5 4	6 4	6 7	2	-	21 17	18	-	39 61
Programme Co-ordination Section	-	-	-	1	- 4	2	1 2	1	1/ 6	44	-	13
Evaluation Section	-	~	-	1	1	1	-	-	3	2	-	5
Sub-total	-		1	-	-	-	-	-	1	1	-	2
Printing and Publishing Services	-	-	(1)		•.	-	-	-	(1)	(1)	-	(2)
Sub-total			(1)					-	(1)	(1)		(2)
												+
Department of Safeguards												
Div. of Operations A Div. of Operations B	-	-	-	(1) 1	1	$\binom{1}{1}$	-	-	(2) 3	(1)	-	(3)
Div. of Operations C	-	-	-	-	1	-	-	-	1	(2)	-	(1)
Div. of Information Treatment	-	-	-	1 (11)	-	1	-	•	2 (33)	2 (34)	-	(67)
Div. of Dev. and Tech. Support (old) Div. of Evaluation (old)	-	-	(1) (1) (1)	(6)	(19) (13)	(2) (2)	-	-	(22)	(15)	-	(37)
Div. of Standardization (old)	-	-	(1)	(4)	`(5)	(1)	(1)	-	(12)	(14)	-	(26)
Div. of Dev. and Tech. Support (new)	-	-	1	8	15	2	-	-	26	36	-	62
Div. of Concepts & Planning (new) Departmental Services (new) a_/	-	-	1 1	8 4	16 4	1 1	1	-	26 11	15 13	-	41 24
Sub-total			<u>-</u>									
Office of Internal Audit and Management (old)	-	-	-	(2)	(3)	(2)	(1)	-	(8)	(6)	-	(14)
Internal Audit & Evaluation S. Nanagement Services	-	-	-	2	2 1	) 1	1	-	6 2	42	-	10 4
Sub-total			•	2	з	2	1		8	6		14
TOTAL												

a/ The D-1 post will be reclassified to P-5

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Organizational Unit	DG	DDG	D	P-5	P-4	P-3	P-2	P-1	Sub- Total	GS	M&O	Total
Office of the Director General			-			-			-	(1)		(1)
Internal Audit and Evaluation Support	-	-	-	-	-	(1)	-	-	(1)	1	-	-
Sub-total		-	-	-	-	(1)	-	-	(1)	-	-	(1)
Department of Technical Co-operation												
Programme Coordination Section	-	-	-	-	-	-	-	-	-	1	-	1
Sub-total	-	-	-	-	-	-	-		-	1	-	1
Department of Research and Isotopes												
Joint FAO/IAEA Division	-	-	-	(1)	-	-	-	-	(1)	-	-	(1)
The Agency's Laboratory	-		-	-	1	1	-	-	2	-	-	2
Sub-total	-	-	-	(1)	1	1	-	-	1	-	-	1
Department of Administration												
Office of Management Services	-	-	-	1	-	-	-	-	1	-	-	1
Div. of Budget and Finance	-	-	-	-	(1)	1	-	-	-	1	-	1
Div. of General Services	-	-	-	-	-	-	-	-	-	-	1	1
Sub-total				1	(1)	1			1	1	1	3
Shared Support Services											• •• •• •• •• •• •• •	****
Interpretation	-	-	-	-	-	(1)	-	-	(1)	-	-	(1)
Printing and Publishing Services	-	-	-	-	-	-			-	(2)	(1)	(3)
Sub-total		-	-	-	-	(1)	-		(1)	(2)	(1)	(4)
TOTAL		-			-				-	-		-

#### TRANSFER OF POSTS IN 1989

Table 63(a) shows the transfers of posts which are required in connection with the restructuring of the Departments of Safeguards and Technical Co-operation, and the Offices of Internal Audit and Evaluation Support and Management Services. Changes in the latter were described in the Programme and Budget for 1989 and 1990 (GC(XXXII)/837), but the manning table changes are only being made now.

As can be seen from the table, the restructuring of the Department of Safeguards does not affect any other organizational unit.

The reorganization of the Department of Technical Co-operation requires the addition of a Director's post and a GS post for the Director's Office. Both posts are transferred from the Division of Publications. As mentioned in paragraph 95 of the Introduction to document GC(XXXII)/837, the Director's post has not been filled.

Table 63(b) shows the transfer of other posts and functions within the Secretariat which the Director General has approved in order to make best use of human resources and available manning table posts. The explanations are given below:

- One GS post is transferred from the Office of the Director General to the newly created Office of Internal Audit and Evaluation Support.
- To accommodate the need of the Programme Co-ordination Section in the Department of Technical Co-operation for additional manpower, a vacant GS post is transferred from Printing and Publishing Services.
- The Animal Production Unit of the Seibersdorf Laboratory requires an additional P-4 post for a Unit Head. However, the post of the leader of the International Facility for Food Irradiation Technology (IFFIT) project in the Food Preservation Section of the Joint FAO/IAEA Division will be funded from extrabudgetary resources.
- In the newly created Office of Management Services, the post of the Head of the Service is reclassified to the P-5 level in view of the increased responsibilities resulting from the reorganization.

All these requirements can be met by transferring the P-5 post of the IFFIT Project Leader from the Joint FAO/IAEA Division to the Office of Management Services, and transferring the P-4 post from the Office of Management Services to the Laboratory.

- As a result of the expanded training and other activities of the Seibersdorf Laboratory, the Laboratory requires an administrative co-ordinator. A P-3 post is therefore transferred from the Office of Internal Audit and Evaluation Support to the Laboratory.
- The enhancement of the Financial Information and Control System (FICS) requires additional manpower. As the Agency has found it to be more economical to rely to a larger extent on free-lance interpreters instead of filling manning table positions, one vacant P-3 post in the Interpretation Service can be redeployed for FICS. Since a P-4 post is required for that purpose, the P-3 post is exchanged against a P-4 post in the Division of Budget and Finance, which is currently filled The resulting post at the P-4 level is situated in at the P-3 level. the Office of Management Services, but allocated to the Division of Finance. The position is required for a senior Budget and computerized accounting specialist who will co-ordinate the efforts required to make full use of the information and control tools which are at the Agency's disposal in FICS.
- One GS post which is required in the Division of Budget and Finance for a senior FICS clerk will be obtained from Printing and Publishing Services where a vacant post exists which will not be required.
- One M&O post which will also not be required in Printing and Publishing Services will be transferred to the Division of General Services where it will be used (after reclassification to the GS level - see Table 61) to accommodate a clerk dealing with insurance matters - duties transferred from the Division of Budget and Finance, which cannot release a post for reasons of workload.

### APPROPRIATION SECTION 1

### TECHNICAL ASSISTANCE AND CO-OPERATION

### APPROPRIATION SECTION 1: TECHNICAL ASSISTANCE AND CO-OPERATION

### Summary of cost

### Table 64

Item of Expenditure	1988 Actual expenditures	1989 Budget	Expenditure increase(decrease) %			Price increase %	1990 with price increase
				~~~~~~~~			
Salaries - established posts - P	2 556 044	2 936 000	283 000	9.6	3 219 000		3 251 000
Temporary assistance - P	78 706	62 900	(52 400)	(83.3)	10 500		10 500
	1 779 213	1 886 000	146 000	7.7	2 032 000		2 205 000
Temporary assistance - GS & M&O	153 348	109 000	(65 700)	(60.3)			46 600
Common staff costs		1 697 900	106_100	6.2	1 804 000		1 900 300
Overtime	4 793	5 500			5 500	7.3	5 900
Sub-total: Staff costs	6 101 074	6 697 300	417 000	6.2	7 114 300	4.3	7 419 300
Travel	112 273	161 600	28 400	17.6	190 000	3.0	195 700
Representation and hospitality	796	3 100	-	-	3 100	-	3 100
Experts	34 118	35 400	600	1.7	36 000	3.3	37 200
Equipment: leased or rented	7 627	-	-	-	-	_	-
Equipment purchased/ construction	-	-	8 000	-	8 000	-	8 000
Supplies and materials	15 464	10 100	5 400	53.5	15 500	2.6	15 900
General operating expenses	61 136	72 500	(7 500)	(10.3)	65 000	1.1	65 700
Miscellaneous	1 208	-	2 100	-	2 100	-	2 100
Sub-total: Other direct costs	232 622	282 700	37 000	13.1	319 700	2.5	327 700
Translation and records services	521 193	537 000	(5 000)	(0.9)	532 000	3.8	552 000
Printing and publishing services		34 000	(2 000)		32 000	6.3	34 000
Data processing services		920 000	74 000	8.0	994 000		1 029 000
add proceeding octraces							
Sub-total: Shared costs	1 305 570	1 491 000	67 000	4.5	1 558 000	3.7	1 615 000
ГОТАL	7 639 266	8 471 000	521 000	6.2	8 992 000	4.1	9 362 000

#### APPROPRIATION SECTION 1: TECHNICAL ASSISTANCE AND CO-OPERATION

#### Expenditure by Division / Section

#### 1988 1989 Expenditure 1990 Price 1990 Actual Budget at 1989 Divison / Section increase(decrease) increase with price expenditures 8 prices 8 increase \_\_\_\_ Technical Co-operation Programmes 3 206 000 170 000 5.3 3 376 000 3.3 3 487 000 Technical Co-operation Implementation 7 157 019 a/ 3 572 000 192 000 3 764 000 5.2 3 958 000 5.4 66 000 1 206 000 Programme Co-ordination 1 140 000 5.8 4.0 1 254 000 Evaluation 482 247 553 000 93 000 646 000 16.8 2.6 663 000 \_\_\_\_\_ 7 639 266 8 471 000 521 000 6.2 8 992 000 4.1 9 362 000 Total Appropriation Section

<u>Table 65</u>

a/ No breakdown is available of 1988 actual expenditure. The figure shown covers the three new organizational units.

#### Summary of manpower

#### Table 66

		198	89 Adjus	ted	1990					
	P	GS	O&M	Total	P	GS	M&O	Total		
Technical Co-operation Programmes	21	18	-	39	21	19	-	40		
Technical Co-operation Implementation	17	44	-	61	18	44	-	62		
Programme Co-ordination	6	8	-	14	6	8	-	14		
Evaluation	3	2	-	5	3	2	-	5		
 Fotal Appropriation Section	 47	 72	 -	119	48	73		121		

## APPROPRIATION SECTION 2

### NUCLEAR ENERGY AND SAFETY

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## APPROPRIATION SECTION 2: NUCLEAR ENERGY AND SAFETY

### Summary of cost

## Table 67

Item of Expenditure	expendicutes			prices	0	
Salaries - established posts - P	5 586 727	6 966 000	(209 000) (3.0	) 6 757 000	1.0	6 825 000
		6 966 000 547 000 2 366 000		666 000		666 000
Salaries - established posts - GS & M&O	2 241 194	2 366 000	(24 000) (1.0			2 541 000
Temporary assistance - GS & M&O	212 905	155 900	21 000 13.5			190 400
Common staff costs	2 982 14/	3 413 000	$(32\ 800)$ $(1.0)$	) 3 380 200	4.3	3 525 900
Temporary assistance - P Salaries - established posts - GS & M&O Temporary assistance - GS & M&O Common staff costs Overtime	10 0/0	27 100	(2 900) (10.7	) 24 200	/.9	26 100
Sub-total: Staff costs	11 901 935	13 475 000	(128 700) (1.0	) 13 346 300	3.2	13 774 400
Travel	3 140 126	4 159 500	289 500 7.0	4 449 000	3.0	4 582 500
Representation and hospitality	53 561	46 800	2 700 7 0			52 000
Training	3 254	4 000 2 400	3 700 7.9  100 4.2	4 000	2.5	4 100
Experts	111 863	2 400	100 4.2	50 500 4 000 2 500	4.0	2 600
Equipment: leased or rented	53 320	94 000 164 000 184 900	2 000 2.1			98 000
Equipment purchased/ construction	509 246	164 000	(29 500) (18.0			138 000
Supplies and materials			30 000 16.2			221 300
General operating expenses	192 110	360 400	12 200 3.4	372 600	1.0	376 200
Contracts	193 975	291 000	49 000 16.8	340 000	0.9	343 000
Research and technical contracts	591 333	647 000	(5 000) (0.8	) 642 000		662 000
Miscellaneous	120 155	88 000	25 700 29.2	113 700	1.9	115 900
Sub-total: Other direct costs	5 107 442		377 700 6.3			6 595 600
Conference services	311 019	302 000		302 000	6.0	320 000
Interpretation services	305 497	344 000	(24 000) (7.0	) 320 000		325 000
Translation and records services Printing and publishing services Data processing services	770 439	768 000 3 464 000	44 000 5.7			842 000
Printing and publishing services	3 754 418	3 464 000	(296 000) (8.5			3 361 000
Data processing services Contract administration Radiation protection services, Library	1 818 807	1 596 000	$(18 \ 000)  (1.1)$			
Radiation protection services Library	1 466 503	1 617 000	$(13\ 000)$ $(12.1)$	)	5.3 6.8	1 726 000
watacton protection services, hipidry						
Sub-total: Shared costs	8 527 157	8 198 000	(308 000) (3.8)	7 890 000	5.3	8 309 000
OTAL	25 536 534	27 715 000	(59 000) (0.2)	) 27 656 000	3.7	28 679 000

#### Expenditure by Division

Division	1988 Actual expenditures	1989 Budget	Expenditure increase(decrease) %		1990 at 1989 prices	Price increase %	1990 with price increase
Nuclear Power Nuclear Fuel Cycle Nuclear Safety Scientific and Technical Information a/	4 633 933 4 409 580 9 515 703 6 977 318	5 275 000 5 137 000 9 563 000 7 740 000	(163_000) 224_000 (120_000)	(3.1) 2.3 (1.6)	5 112 000 5 137 000 9 787 000 7 620 000	3.2 3.4	5 265 000 5 301 000 10 117 000 7 996 000
Total Appropriation Section	25 536 534	27 715 000	(59 000)	(0.2)	27 656 000	3.7	28 679 000

#### Table 68

a/ These figures do not include the cost of the Computer Section which can be found in Table 91, Shared Support Services.

#### Manpower by Division

Division		ted	1990					
	P	GS	M&O	Total	р	GS	M&O	Total
Nuclear Power	23	13	-	36	23	13	-	36
Nuclear Fuel Cycle	21	13	-	34	21	13	-	34
Nuclear Safety	38	26	-	64	38	26	-	64
Scientific and Technical Information	18	33	-	51	18	33	-	51
Total Appropriation Section	100	 85		185	100	85		185

RESEARCH AND ISOTOPES

#### APPROPRIATION SECTION 3: RESEARCH AND ISOTOPES

# <u>Summary of cost</u>

# <u>Table 70</u>

Item of Expenditure		1989 Budget	Expenditure increase(decrease) %	1990 at 1989 prices	Price increase %	1990 with price increase
Salaries - established posts - P Temporary assistance - P Salaries - established posts - GS & M&O Temporary assistance - GS & M&O Common staff costs Overtime	4 906 757 207 778 3 349 919	5 824 000 149 300 3 502 000 132 800 3 267 800 74 100	300         0.2           (23 000)         (0.7)           28 200         21.2           (31 300)         (1.0)           6 000         8.1	5 824 000 149 600 3 479 000 161 000 3 236 500 80 100	- 8.6 7.6 5.3	5 882 000 149 600 3 778 000 173 300 3 409 500 86 200
Sub-total: Staff costs	11 613 780	12 950 000	(19 800) (0.2)	12 930 200	4.2	13 478 600
Travel Representation and hospitality Training Experts	1 371 708 22 753 4 389 30 972	$\begin{array}{cccc} 1 & 794 & 700 \\ & 26 & 700 \\ & 11 & 700 \\ & 305 & 300 \end{array}$	(16 100) (0.9) 1 800 6.7 9 300 79.5 (118 000) (38.7)	1 778 600 28 500 21 000 187 300	3.0 3.2 1.9 3.0	$\begin{array}{cccc} 1 & 832 & 000 \\ & 29 & 400 \\ & 21 & 400 \\ & 193 & 000 \end{array}$
Equipment: leased or rented Equipment purchased/ construction Supplies and materials General operating expenses	74 529 1 334 178 837 497 1 244 868	$\begin{array}{c} 113 \ 000 \\ 644 \ 000 \\ 641 \ 800 \\ 1 \ 572 \ 200 \end{array}$	(32 000) (28.3) 136 000 21.1 77 700 12.1 (231 700) (14.7)	81 000 780 000 719 500 1 340 500	3.7 4.6 4.8 3.3	84 000 816 000 754 100 1 385 300
Contracts Research and technical contracts Miscellaneous	33 767 2 240 475 284 286	65 000 2 098 000 350 600	(30 000) (46.2) (65 200) (18.6)	35 000 2 098 000 285 400	3.0	35 000 2 161 000 291 200
Sub-total: Other direct costs	7 479 422	7 623 000	(268 200) (3.5)	7 354 800	3.4	7 602 400
Conference services Interpretation services Translation and records services Printing and publishing services Data processing services Contract administration Laboratory services	145 740 88 841 325 328 1 249 074 424 495 279 914 (2 127 217)			(2 315 000)	6.1 5.2	(2 435 000)
Sub-total: Shared costs	386 175	368 000	(30 000) (8.2)	338 000	4.1	352 000
TOTAL	19 479 377	20 941 000	(318 000) (1.5)	20 623 000	3.9	21 433 000

# Expenditure by Division

#### Table 71

Division	1988 Actual expenditures	1989 Budget	Expendi increase(d		1990 at 1989 prices	Price increase %	1990 with price increase
Food and Agriculture Life Sciences Physical and Chemical Sciences The Laboratory a/	7 470 805 4 309 138 7 699 434 [6 799 677]	8 015 000 4 249 000 8 677 000 [6 795 000]	(81 000) (45 000) (192 000) [9 000]	(1.0) (1.1) (2.2) [0.1]	7 934 000 4 204 000 8 485 000 [6 804 000]	4.1 3.5 3.9 [5.2]	8 261 000 4 352 000 8 820 000 [7 156 000]
Total Appropriation Section	19 479 377	20 941 000	(318 000)	(1.5)	20 623 000	3.9	21 433 000

a/ Cost included in the above three Divisions

#### THE LABORATORY

	1988 Actual expenditures	1989 Budget	Expendit increase(de		1990 at 1989 prices	Price increase %	1990 with price increase
Total Laboratory	8 926 894	9 110 000	9 000	0.1	9 119 000	5.2	9 591 000
Safeguards Analytical Laboratory (charged to Safeguards)	2 127 217	2 315 000	-	-	2 315 000	5.2	2 435 000
Total charged to Research and Isotopes	6 799 677	6 795 000	9 000	0.1	6 804 000	5.2	7 156 000
Consists of:							
Food and Agriculture Life Sciences Physical and Chemical Sciences	3 405 507 856 956 2 537 214	3 497 000 679 000 2 619 000	34 000 (25 000)	1.0 	3 531 000 679 000 2 594 000	5.2 5.2 5.2	3 714 000 714 000 2 728 000

#### APPROPRIATION SECTION 3: RESEARCH AND ISOTOPES

# Manpower by Division

Division		198	39 Adjust	ted		19		
	P	GS	M&O	Total	 P	GS	M&O	Total
Food and Agriculture	16	8	-	24	16	8	-	24
Life Sciences	15	10	-	25	15	10	_	25
Physical and Chemical Sciences	27	18	-	45	27	18	-	45
Laboratory	30	58	25	113	30	58	25	113
Total Appropriation Section	88	94	25	207	88	94	25	207

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OPERATIONAL FACILITIES

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#### APPROPRIATION SECTION 4: OPERATIONAL FACILITIES

# <u>Summary of cost</u>

# <u>Table 74</u>

Item of Expenditure	1988 Actual expenditures	1989 Budget		lture lecrease) %	1990 at 1989 prices	Price increase %	1990 with price increase
Salaries - established posts - P	345 098	511 000		-	511 000	1.0	516 000
Temporary assistance - P	30 672	-	-	-	-	-	-
Salaries - established posts - GS & M&O	431 933 8 700	482_000	(26_000)	(5.4)	456_000		495_000
Temporary assistance - GS & M&O Common staff costs		337 900	(8 900)		329 000		349 000
Sub-total: Staff costs	1 086 112	1 330 900	(34 900)	(2.6)	1 296 000	4.9	1 360 000
Travel	35 321	50 500	(500)	(1.0)	50 000	3.0	51 500
Representation and hospitality	808	2 000	$(1\ 000)$	(50.0)	1 000		1 000
fraining	1 994	3 000	$(1 \ 000)$	(33.3)	2 000	-	2 000
Experts	3 073	13 100	(4 100)	(31.3)	9 000	3.3	9 300
cuipment: leased or rented	1 474	1 000	4 000	400.0	5 000	_	5 000
Equipment purchased/ construction	354 402	141 000	(14 000)	(9.9)	127 000	3.1	131 000
Supplies and materials	83 733	113 300	(13 300)	(11.7)	100 000		103 000
General operating expenses	53 796	51 800	200	0.4	52 000		53 800
Contracts	1 243	3 000	-	-	3 000	-	3 000
Research and technical contracts	26 113	43 000	17 000	39.5	60 000	3.3	62 000
liscellaneous	1 126 959	1 215 400	(400)	-	1 215 000		1 275 400
Sub-total: Other direct costs	1 688 916	1 637 100	(13 100)	(0.8)	1 624 000		1 697 000
ranslation and records services	482	1 000	-	-	1 000	-	1 000
Printing and publishing services	97 289	61 000	3 000	4.9	64 000	6.3	68 000
Data processing services	17 713	7 000	(7 000)	(100.0)	-	-	-
Contract administration	3 822	4 000	-	-	4 000	-	4 000
ub-total: Shared costs	119 306	73 000	(4 000)	(5.5)	69 000	5.8	73 000
'OTAL	2 894 334	3 041 000	(52 000)	(1.7)	2 989 000	4.7	3 130 000

#### APPROPRIATION SECTION 4: OPERATIONAL FACILITIES

# Expenditure

# <u>Table 75</u>

	1988 Actual expenditures	1989 Budget	Expendit increase(de		1990 at 1989 prices	Price increase %	1990 with price increase
International Centre for Theoretical Physics	1 221 718	1 262 000	(7 000)	(0.6)	1 255 000	5.1	1 319 000
International Laboratory of Marine Radioactivity	1 672 616	1 779 000	(45 000)	(2.5)	1 734 000	4.4	1 811 000
Total Appropriation Section	2 894 334	3 041 000	(52 000)	(1.7)	2 989 000	4.7	3 130 000

#### Manpower

			89 Adjust			1990				
	 P	GS	M&O	Total	P	GS	M&O	Total		
International Laboratory of Marine Radioactivity	9	16	-	25	9	16	-	25		
International Centre for Theoretical Physics	11	25	-	36	11	25	-	36		
Total Appropriation Section	20	41		61	20	41		61		

SAFEGUARDS

#### APPROPRIATION SECTION 5: SAFEGUARDS

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# Summary of cost

# <u>Table 77</u>

Item of Expenditure	1988 Actual expenditures	1989 Budget	Expendi increase(d	ture ecrease) %	1990 at 1989 prices	Price increase %	1990 with price increase
Salaries - established posts - P	16 069 225	19 495 000	28 000	0.1	19 523 000		19 719 000
Temporary assistance - P Salaries - established posts - GS & M&O Temporary assistance - GS & M&O	366 774	179 600	(141 800)		37 800		37 800
Salaries - established posts - GS & M&O	5 436 725	5 685 000	221 000	3.9	5 906 000		6 408 000
Temporary assistance - GS & M&O	69 693 7 413 514	9 800 8 625 600	(9 800) 32 000	(100.0)	- 8 657 600		9 024 600
Common staff costs Overtime	6 408	9 900 9 900	-	0.4 -	9 900	9.1	10 800
OVEL CTING							
Sub-total: Staff costs	29 362 339	34 004 900	129 400	0.4	34 134 300	3.1	35 200 200
Travel	5 146 300	5 410 600	148 400	2.7	5 559 000	3.0	5 725 900
Representation and hospitality	20 806	21 400	600	2.8	22 000	4.5	23 000
Training	33 013	21 400 224 200	-	-	224 200	1.5	227 500
Experts	39 852	305 100	(39 000)	(12.8)	266 100	3.0	274 100
Equipment: leased or rented	397 149	312 000	-	-	312 000	1.0	315 000
Equipment purchased/ construction	2 952 909	3 416 000	(166 000)	(4.9)	3 250 000		3 347 000
Supplies and materials General operating expenses	715 153	1 363 500	(12 000)		1 351 500		
General operating expenses	981 768	1 155 100	22 800	2.0	1 177 900	1.0	1 189 700
Contracts	888 979	950 000	(100 000)	(10.5)	850 000	1.1	859 000
Research and technical contracts	207 109	93 000 316 200	` - <i>`</i>		93 000	3.2	96 000
fiscellaneous	346 950	316 200	(24 200)	(7.7)	292 000	2.0	297 700
Sub-total: Other direct costs	11 729 988	13 567 100	(169 400)	(1.2)	13 397 700		13 753 800
Conference services	14 404	17 000	-	-	17 000		18 000
Interpretation services	2 777	-	-	-	-	-	-
Franslation and records services	288 927	266 000	63 000		329 000		342 000
Printing and publishing services	32 812	35 000	-	- (E 1)	35 000 1 828 000		37 000
Data processing services Contract administration	1 700 590	1 926 000	(98 000) (16 000)	(5.1)	13 000	-	1 895 000 13 000
Laboratory services	2 127 217	2 315 000	(10 000)	(55.2)	2 315 000	5.2	
Contract administration Laboratory services Radiation protection and legal services	661 668	762 000	-	-	762 000	3.9	792 000
Sub-total: Shared costs	4 855 202	5 350 000			5 299 000		
'OTAL	45 947 529	52 922 000	(91 000)	(0.2)	52 831 000	3.1	54 486 000

# APPROPRIATION SECTION 5: SAFEGUARDS

#### Expenditure

# Table 78

	1988 Actual expenditures	1989 Budget	Expendit increase(de		1990 at 1989 prices	Price increase %	1990 with price increase
Programme Co-ordination Operations A Operations B Operations C Development and Technical Support Information Treatment Concepts & Planning	389 679 9 068 223 6 937 769 7 602 309 21 949 549 a/	429 000 9 946 000 8 347 000 8 645 000 12 229 000 8 046 000 3 649 000	(142 000) 242 000 135 000 184 000 (69 000) (355 000) (79 000)	(33.1) 2.4 1.6 2.1 (0.6) (4.4) (2.2)	287 000 10 188 000 8 482 000 8 829 000 12 160 000 7 691 000 3 570 000	2.7 2.8 2.9 3.6 3.6 2.8	297 000 10 458 000 8 718 000 9 082 000 12 603 000 7 971 000 3 670 000
Departmental Services	 4\$ 947 529	1 631 000 52 922 000	(7 000)  (91 000)	(0.4)	1 624 000  52 831 000	3.9  3.1	1 687 000  54 486 000

a/ No breakdown is available of 1988 actual expenditure. The figure shown covers the four reorganized units.

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#### APPROPRIATION SECTION 5: SAFEGUARDS

#### Manpower

# <u>Table 79</u>

		19	39 Adjust	ted		1	<u>390</u>	
	P	GS	M&O	Total	 P	GS	M&O	Total
Programme Co-ordination	1	2	-	3	1	2	-	3
Operations A	72	30	-	102	72	31	-	103
Operations B	60	30	-	90	60	31	-	91
Operations C	66	35	-	101	66	36	-	102
Development and Technical Support	26	36	-	62	26	37	-	63
Information Treatment	31	42	-	73	31	42	-	73
Concepts and Planning	26	15	-	41	26	15	-	41
Departmental Services	11	13	-	24	11	13	-	24
 Total Appropriation Section	293	203	-	496	293	207		500

POLICY-MAKING ORGANS

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#### APPROPRIATION SECTION 6: POLICY-MAKING ORGANS

# Summary of cost

Item of Expenditure	1988 Actual expenditures	1989 Budget	Expendit increase(de		1990 at 1989 prices	Price increase %	1990 with price increase
Salaries - established posts - P	206 795	255 000	(15 000)	(5.9)	240 000		243 000
Salaries - established posts - GS & M&O	84 117	85 000	-	-	85 000		93 000
Temporary assistance - GS & M&O	20 192	29 500	-	-	29 500		31 800
Common staff costs Overtime	$   \begin{array}{r}     100 \ 138 \\     42 \ 394   \end{array} $	125 200 56 700	(5 000)	(4.0)	120 200 56 700		126 400 61 000
overtime	42 374					/.0	01 000
Sub-total: Staff costs	453 636	551 400	(20 000)	(3.6)	531 400	4.5	555 200
Iravel	122 974	101 100	15 000	14.8	116 100		119 600
Representation and hospitality	9 506	16 300	-	-	16 300	3.1	16 80
quipment: leased or rented	22 880	27 000	-	-	27 000		28 00
Equipment purchased/ construction	8 668	-	5 000	-	5 000		5 00
Supplies and materials	19 428	11 100	-	-	11 .100		11 40
General operating expenses	33 625	45 600	-	-	45 600	0.9	46 000
Contracts	9 356	4 000	-	-	4 000		4 000
Miscellaneous	15 756	26 500	-	-	26 500	1.9	27 000
Sub-total: Other direct costs	242 193	231 600	20 000	8.6	251 600		257 800
Conference services	280 258	274 000	-	-	274 000	5.8	290 000
Interpretation services	370 747	419 000	19 000	4.5	438 000		445 00
Franslation and records services	3 569 976	3 925 000	(165 000)	(4.2)	3 760 000		3 901 00
rinting and publishing services	539 864	577 000	68 000	11.8	645 000		685 00
ata processing services	9 701	22 000	3 000	13.6	25 000		26 00
ub-total: Shared costs	4 770 546		(75 000)	(1.4)	5 142 000		
OTAL	5 466 375	6 000 000	(75 000)	(1.3)	5 925 000	4.0	6 160 00

#### APPROPRIATION SECTION 6: POLICY-MAKING ORGANS

# Expenditure

#### Table 81

	1988 Actual expenditures	1989 Budget	Expenditure increase(decrea	ase) %	1990 at 1989 prices	Price increase %	1990 with price increase
The General Conference	2 194 521	2 424 000	(51 000) (2	2.1)	2 373 000	4.0	2 469 000
The Board of Governors	3 271 854	3 576 000	(24 000) (0	).7)	3 552 000	3.9	3 691 000
Total Appropriation Section	5 466 375	6 000 000	(75 000) (1	3)	5 925 000	4.0	6 160 000

# Summary of manpower

	1989 Adjusted				1990				
	P	 GS	M&O	Total	P	GS	M&O	Total	
Policy-making Organs	3	3	-	6	3	3	-	6	

# EXECUTIVE MANAGEMENT AND ADMINISTRATION

#### APPROPRIATION SECTION 7: EXECUTIVE MANAGEMENT AND ADMINISTRATION

#### Summary of cost

#### Table 83

Item of Expenditure	1988 f Expenditure Actual expenditures		Expenditure increase(decrease %	1990 ) at 1989 prices	Price increase %	1990 with price increase
Salaries - established posts - P		5 329 000	52 000 1.0	5 381 000	1.0	5 435 000
Memporary assistance - P	43 342	97 300				97 300
Salaries - established posts - GS & M&O	3 498 523	3 586 000	87 000 2.4			3 986 000
Temporary assistance - GS & M&O	161 666	133 000	38 400 28.9		7.6	184 500
Common staff costs	161 666 2 790 453	3 110 100	60 200 1.9		5.5	3 344 200
Overtime	30 789	45 900	(7 000) (15.3	) 38 900	7.7	41 900
Sub-total: Staff costs	11 001 450	12 301 300	230 600 1.9			13 088 900
Travel	332 746	414 800	48 100 11.6	462 900	3.0	476 800
Representation and hospitality	37 770	48 900	(1 000) (2.0	) 47 900	8.1	51 800
Training	278 320	167 900	(27 900) (16.6	) 140 000		142 200
Experts	52 680	121 900	42 100 34.5	164 000	3.0	169 000
Equipment: leased or rented	22 324	29 000	(18 000) (62.1	) 11 000	-	11 000
Equipment purchased/ construction	190 785	112 000	(33 300) (29.7	) 78 700	1.7	80 000
Supplies and materials	81 489	60 100	20 300 33.8			82 700
General operating expenses	140 867	60 100 253 700	(8 000) (3.2	) 245 700	1.1	248 300
Contracts	-		7 000 140.0			12 000
Miscellaneous	399 700	316 400	72 100 22.8	388 500	2.0	396 300
Sub-total: Other direct costs	1 536 681	1 529 700	101 400 6.6	1 631 100	2.4	1 670 100
Conference services	1 692	1 000		1 000	-	1 000
Interpretation services	9 717	32 000	83 000 259.4	115 000		117 000
Translation and records services	624 181	32 000 691 000 687 000	12 000 1.7			729 000
Printing and publishing services	583 329	687 000	12 000 1.7 (11 000) (1.6)			717 000
Data processing services	968 206	987 000 206 000		987 000	3.5	
Other services a/	175 602	206 000		206 000	11.7	230 000
Sub-total: Shared costs	2 362 727	2 604 000	84 000 3.2	2 688 000	4.8	2 816 000
TOTAL	14 900 858	16 435 000	416 000 2.5			17 575 000

a/ Includes Medical Services, less charges for Legal Services which are transferred to Safeguards.

#### APPROPRIATION SECTION 7: EXECUTIVE MANAGEMENT AND ADMINISTRATION

# Expenditure

#### Table 84

	1988 Actual expenditures	1989 Budget	Expendit increase(de		1990 at 1989 prices	Price increase %	1990 with price increase
Executive Management Administration Internal Audit and Evaluation Support	2 302 142 11 951 826 646 890	2 682 000 13 033 000 720 000	24 000 412 000 (20 000)	0.9 3.2 (2.8)	2 706 000 13 445 000 700 000	4.6	2 797 000 14 057 000 721 000
Total Appropriation Section	14 900 858	16 435 000	416 000	2.5	16 851 000	4.3	17 575 000

#### Manpower

		19	39 Adjust	ted		1990				
	 P	GS	M&O	Total	 P	GS	M&O	Total		
Executive management	14	11	_	25	14	11	-	25		
Administration	57	99	-	156	57	99	-	156		
Internal Audit and Evaluation Support	5	5	-	10	5	5	-	10		
Total Appropriation Section	76	115		191	76	115		191		

GENERAL SERVICES

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#### APPROPRIATION SECTION 8: GENERAL SERVICES

# Summary of cost

# <u>Table 86</u>

Item of Expenditure	1988 Actual expenditures	1989 Budget	Expenditure increase(decrease) %			Price increase %	1990 with price increase
Salaries - established posts - P Salaries - established posts - GS & M&O Temporary assistance - GS & M&O Common staff costs Overtime	555 942 2 581 499 15 027	673 000 2 703 000 17 400 1 153 800 40 200	(21 000) (23 000) (15 000)	(3.1) (0.9) (1.3)	652 000 2 680 000 17 400 1 138 800 40 200	8.5 7.5 8.6	659 000 2 908 000 18 700 1 236 400 43 300
Sub-total: Staff costs	4 251 500	4 587 400	(59 000)	(1.3)	4 528 400	7.4	4 865 400
Travel Representation and hospitality	7 665 258	7 500 600	-	-	7 500 600	- 2 <b>.</b> 7	7 700 600
Equipment: leased or rented Equipment purchased/ construction Supplies and materials General operating expenses	6 862 271 975 764 158 9 961 997	280 000 887 400 10 724 800	79 000 43 600 (132 800)	28.2 4.9 (1.2)	359 000 931 000 10 592 000	3.5	371 000 963 600 10 962 600
Miscellaneous	100 839	117 300	10 200	8.7	127 500	2.0	130 100
Sub-total: Other direct costs	11 113 754	12 017 600			12 017 600	3.5	12 435 600
Translation and records services Printing and publishing services Data processing services	3 972 67 403 119 361	4 000 74 000 115 000	_ 19 000	- _ 16.5	4 000 74 000 134 000	6.8	4 000 79 000 139 000
Sub-total: Shared costs	190 736	193 000	19 000	9.8	212 000	4.7	222 000
TOTAL	15 555 990	16 798 000	(40 000)	(0.2)	16 758 000	4.6	17 523 000

#### APPROPRIATION SECTION 8: GENERAL SERVICES

#### Summary of manpower

# <u>Table 87</u>

		109	9 Adjus		 		 990	
								· · · · ·
	P 	GS	M&O	Total	 P	GS	M&O	Total
General Services	10	71	29	110	10	73	28	111

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#### VIC Operating Costs

# Table 88

	1988 Actual	1989 Budget	1990 Estimate
	expenditures		DSCIIIGCE
Utilities	2 553 07	71 2 965	000 2 644 000
Contractual maintenance services	1 118 54	44 1 364	000 1 333 000
Cleaning	1 058 00	00 1 053	600 1 019 000
Building and maintenance staff	1 968 00	00 1 932	000 2 200 000
Security services staff costs	1 537 35	58 1 422	000 1 508 000
Building and maintenance supplies	375 36	51 <b>42</b> 8	400 472 000
Building, property and maintenance equipment	81 30	00 84	000 93 000
Sinking Fund, major repairs	67 30	00 73	000 143 000
TOTAL	8 758 93	34 9 322	000 9 412 000

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# Costs of common services, supplies and equipment

		1988 Actual expenditures	1989 Budget		1990 Estimate
Div	vision of General Services				
Α.	Services:				
	Communications Freight and transportation Rental of premises Rental and maintenance of office equipment	44 887 62 557 522 570	93 ( 612 (	700 000 000	46 000 93 000 582 000
	Other	69 707	91 8	300	81 500
	Sub-total		2 105 5		2 015 500
в.	Supplies:				
	Office supplies Expendable equipment	297 301 91 496		000	326 000 133 000
	Sub-total	388 797			459 000
с.	Equipment:				
	Office furniture and equipment	102 106	92 0	00	95 000
	Transportation and equipment	21 269	31 0	00	28 000
	Sub-total	123 375	123 0		123 000

# Table 89

.

# SHARED SUPPORT SERVICES

(COST OF WORK FOR OTHERS)

# Cost of work for others

#### Summary of cost

Item of Expenditure	expenditures		Expenditure increase(decre	ase) at 1990 % prices		1990 with price increase
Salaries - established posts - P	6 336 804	7 023 000	(101 000) (	1.4) 6 922 0	00 1.0	6 991 000
Temporary assistance - P Salaries - established posts - GS & M&O	550 841	766 300		7.1) 712 0		728 000
		7 533 000		3.4) 7 279 0		7 905 000
Temporary assistance - GS & M&O Common staff costs	249 446 4 570 225	318 900 5 105 100		(7.6) 231 0 2.8) 4 963 0		248 500 5 279 300
Overtime	104 744	86 200		0.2) 86 0	0 7.6	92 500
Sub-total: Staff costs	18 939 701	20 832 500	(639 500) (	3.1) 20 193 0	0 5.2	21 244 300
Travel	161 548	57 900		0.2 168 00		173 100
Representation and hospitality	1 812	2 100		4.8) 2.00		2 100
Training	82 265	104 300		4.1) 100 00		101 500
Experts	59 887	60 600	400	0.7 61 00	0 3.1	62 900
Equipment: leased or rented	1 829 121	2 142 000	(66 000) (	3.1) 2 076 00	0 3.4	2 147 000
Equipment purchased/ construction	850 516	258 000		2.6) 148 00		152 000
Supplies and materials	2 434 625	2 135 700		3.5) 1 847 00	0 7.9	1 993 800
General operating expenses	1 765 619	2 329 400	(354 400) (1	5.2) 1 975 00		1 994 800
Contracts	816 369	708 000		8.9 842 00		850 000
Research and technical contracts	-	5 000		0.0) -		-
Miscellaneous	252 863	75 500	(47 500) (6	2.9) 28 00	0 1.8	28 500
Sub-total: Other direct costs	8 254 625	7 878 500	(631 500) (	8.0) 7 247 00	0 3.6	7 505 700
Translation and records services	25 255	54 000		1.1) 21 00		21 000
Printing and publishing services	123 932	109 000	3 000	2.8 112 00		118 000
Data processing services	900 257	910 000		7.4) 843 00		874 000
Sub-total: Shared costs	1 049 444	1 073 000		9.0) 976 00		1 013 000
SUB-TOTAL	28 243 770	29 784 000	(1 368 000) (4	4.6) 28 416 00	0 4.7	29 763 000
Less: Cross-Charge (above)	1 049 444	1 073 000	(97 000) (1	9.0) 976 00	0 3.8	1 013 000
Total Shared Support Services	27 194 326	28 711 000	(1 271 000) (4	4.4) 27 440 00	0 4.8	28 750 000
Less: Agency's share	22 517 419	23 494 000	(298 000) (2	1.3) 23 196 00	0 4.6	24 266 000
Cost of work for others	4 676 907	5 217 000	(973 000) (18	8.7) 4 244 00	0 5.7	4 484 000

#### APPROPRIATION SECTION 9: SHARED SUPPORT SERVICES

# Cost of work for others

#### Expenditure by service

Service	1988 Actual expenditures	1989 Budget	Expendit increase(de		1990 at 1989 prices	Price increase %	1990 with price increase
Contract administration services	410 927	450 000	(42 000)	(9.3)	408 000	5.6	431 000
Conference services	753 113	794 000	-	-	794 000		842 000
Interpretation	777 579	887 000	111 000	12.5	998 000	1.6	1 014 000
Translation and records services	6 129 753	6 600 000	(33 000)	(0.5)	6 567 000	3.7	6 812 000
Medical services	1 124 358	1 226 000	(68 000)	(5.5)	1 158 000	6.1	1 229 000
Library	2 125 315	2 456 000	(94 000)	(3.8)	2 362 000		2 527 000
Data processing services	8 222 380	8 538 000	(359 000)	(4.2)	8 179 000		8 475 000
Printing and publishing	8 085 341	8 083 000	(883 000)	(10.9)	7 200 000		7 647 000
Radiation protection services	615 004	750 000	-	-	750 000	4.8	786 000
Sub-total	28 243 770	29 784 000	(1 368 000)	(4.6)	28 416 000	4.7	29 763 000
Less: cross-charge (above)	1 049 444	1 073 000	(97 000)	(9.0)	976 000	3.8	1 013 000
Total Shared Support Services	27 194 326	28 711 000	(1 271 000)	(4.4)	27 440 000	4.8	28 750 000
Less: Agency's share	22 517 419	23 494 000	(298 000)	(1.3)	23 196 000	4.6	24 266 000
Services provided to others	4 676 907	5 217 000	(973 000)	(18.7)	4 244 000	5.7	4 484 000

# APPROPRIATION SECTION 9: SHARED SUPPORT SERVICES

# Breakdown of costs by user - 1990

# <u>Table 92</u>

	Contract administration services	Conference services	Translation and records services	Medical services	Library	Data processing services	Printing and publishing services	Interpre- tation	Radiation protection services	Total	8
Agency											
Appropriation Section 1 Appropriation Section 2 Appropriation Section 3 Appropriation Section 4 Appropriation Section 5 Appropriation Section 7 Appropriation Section 7 Appropriation Section 8 Appropriation Section 8	99 000 315 000 4 000 13 000	320 000 213 000 18 000 290 000 1 000	552 000 842 000 1 000 342 000 3 901 000 729 000 4 000 21 000	609 000	1 576 000	1 029 000 1 636 000 511 000 1 895 000 26 000 1 022 000 139 000 874 000	34 000 3 361 000 1 201 000 68 000 37 000 685 000 717 000 79 000 118 000	325 000 127 000 445 000 117 000	150 000 413 000	1 615 000 8 309 000 2 787 000 73 000 2 718 000 5 347 000 3 195 000 222 000 1 013 000	6.4 32.9 11.0 0.3 10.8 21.2 12.6 0.9 4.0
Sub-total	431 000	842 000	6 812 000	609 000	1 576 000	7 132 000	6 300 000	1 014 000	563 000	25 279 000	100.0
Less: Cross-charges	-	-	21 000	-	-	874 000	118 000	-	-	1 013 000	
Sub-total Agency	431 000	842 000	6 791 000	609 000	1 576 000	6 258 000	6 182 000	1 014 000	563 000	24 266 000	
Work for others											
UNIDO UNRWA AGRIS TC UN Other				411 000 68 000 141 000	712 000 10 000 229 000	571 000 224 000 262 000 226 000 60 000	595 000 - 695 000 57 000		- - 223 000 -	2 289 000 302 000 262 000 449 000 1 065 000 117 000	
Sub-total Work for others	******************	-		620 000	951 000	1 343 000	1 347 000	-	223 000	4 484 000	
TOTAL	431 000	842 000	6 791 000	1 229 000	2 527 000	7 601 000	7 529 000	1 014 000	786 000	28 750 000	

SHARED SUPPORT SERVICES (COST OF WORK FOR OTHERS)

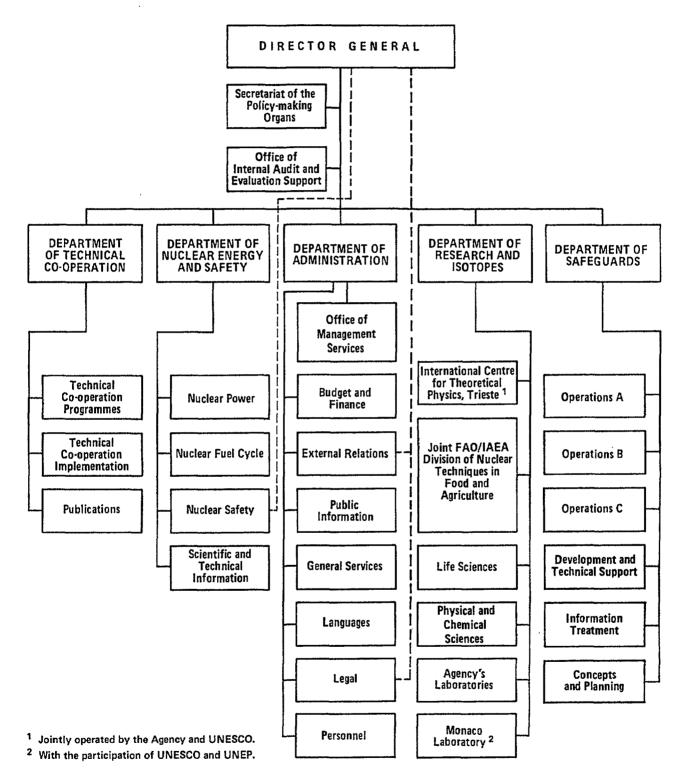
#### APPROPRIATION SECTION 9: SHARED SUPPORT SERVICES

#### Manpower by service

# <u>Table 93</u>

	1989 Adjusted				1990			
	P	GS	M&O	Total	P	GS	<b>M</b> &O	Total
Contract administration services	1	5	-	6	1	5	-	6
Conference services	5	8	-	13	5	8	-	13
Interpretation	7	1	-	8	7	1	-	8
Translation and records services	48	43	2	93	48	44	2	94
Medical services	3	15	3	21	3	15	3	21
Library	5	10	-	15	5	10	-	15
Data processing services	30	40	_	70	30	40	-	70
Printing and publishing	16	97	17	130	17	96	17	130
Radiation Protection Services	3	5	-	8	3	7	-	10
 Total Appropriation Section	118	224	22	 364	119	<b></b> 226	22	367

# ORGANIZATIONAL CHART



# ANNEX B

	Part II	Part I
	Appropriation Section	Programme/Area of Activity
1.	TECHNICAL ASSISTANCE AND CO-OPERATION	
	Technical Co-operation Programmes	S.3.A.
	Technical Co-operation Implementation	S.3.B.
	Programme Co-ordination	S.3.C.
	Evaluation	S.3.D.
2.	NUCLEAR ENERGY AND SAFETY	
	Nuclear Power	A (less part of A.3)
	Nuclear Fuel Cycle	B, C (less part of C.2)
	Nuclear Safety	H (less part of H.3), I, S.5.3
	Scientific and Technical Information	S.5.2, S.6.5 (Agency's share), part of A.3
3.	RESEARCH AND ISOTOPES	
	Food and Agriculture	D
	Life Sciences	E (less part of E.4), part of H.3
	Physical and Chemical Sciences	F, G (less G.2), part of A.3
	Agency Laboratory (allocated)	
4.	OPERATIONAL FACILITIES	
	Int. Centre for Theor. Physics	G.2
	Int. Lab. of Marine Radioactivity	Part of E.4, part of C.2
5.	SAFEGUARDS	
	Programme Co-ordination	Part of S.1.1
	Operations A, Operations B, Operations C	J.2
	Development and Technical Support	Part of J.3
	Information Treatment	Part of J.3
	Concepts and Planning	Part of J.3
	Departmental Services	Part of J.3
6.	POLICY-MAKING ORGANS	S.1.2
7.	EXECUTIVE MANAGEMENT AND ADMINISTRATION	
	Executive Management	S.1.1 (less Safeguards Programme Co-ordination)
	Administration	S.2, S.5.1
	Internal Audit and Evaluation Support	S.1.3.
8.	GENERAL SERVICES	S.4
9.	SHARED SUPPORT SERVICES	
	Contract Administration Services	S.6.1
	Conference Services	Part of S.6.2
	Interpretation Services	Part of S.6.2
	Translation and Records Services	S.6.3
	Medical Service	S.6.4
	Library	S.6.5
	Data Processing Services	S.6.6
	Printing and Publishing Services	S.6.7
	Radiation Protection Services	S.6.8

#### TABLE OF CORRESPONDENCE BETWEEN PART II AND PART I