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1. Introduction

Article III of the IAEA Statute authorises the Agency to encourage and assist research on, and development and practical application of, atomic energy for peaceful purposes throughout the world and to foster the exchange of scientific and technical information, as well as the exchange of scientists in the field of peaceful uses of atomic energy.

The research supported by the Agency is within the framework of the Agency's programmes, sub-programmes and projects that are listed in the approved Programme and Budget of the Agency. The research work is normally implemented through Co-ordinated Research Projects (CRPs) that bring together research institutes in both developing and developed Member States to collaborate on the research topic of interest.

In addition, the introduction of a new type of CRP (called Thematic CRP), meant to complement traditional CRPs, is currently being tested by the Human Health programme. This new, optional type of CRP is designed to strengthen promotion of research on nuclear technologies in developing Member States through CRPs that rest on pair building between agreement holders and contract holders and includes a PhD training programme at the contract holders' institutions.

Further details of the administration of research contracts and general information on CRPs is contained in the Agency's Website at:-

<http://www.iaea.org/programmes/ri/uc.html>

2. CRP Support to Programmes and Subprogrammes

The CRPs reported in this document are conducted in support of the following Agency programmes / subprogrammes (Ref: GC(44)/6) August 2000.

Programme A:- Nuclear Power

Programme B:- Nuclear Fuel Cycle and Waste Management Technology

Programme C:- Comparative Assessment for Sustainable Energy Development

Programme D:- Food and Agriculture

Programme E:- Human Health

Programme F:- Marine Environment and Water Resources

Programme G:- Applications of Physical and Chemical Sciences

Programme H:- Nuclear Safety

Programme I:- Radiation Safety

Programme J:- Radioactive Waste Safety

Programme K:- Co-ordination of Safety Activities

Programme L:- Safeguards

The Sub-programmes supported by the CRPs are listed in Appendix C.

Results of research are available to all Member States, and are disseminated through national, international and Agency scientific and technical publications (TECDOCs). In certain cases the research results are directly relevant to implementation of projects in the Agency's Technical Co-operation Programme.

3. Co-ordinated Research Project Activities

In terms of number of awards and degree of funding, CRPs constitute a significant activity within the Agency's programmes.

932 contracts and agreements were awarded arising of the 1371 contract and agreement proposals received by the Agency during 2001. Annex I lists by country the number of proposals received and awards made.

In 2001, \$6,199,104 were awarded from the regular budget to institutes under contractual arrangements and to fund Research Co-ordination Meetings (RCMs). Additionally, \$241,901 of extra-budgetary contributions was used to fund additional contracts and RCMs. Thus, total awards amounted to \$6,441,005. Table 1 summarizes all awards by Programme in 2001. The average award per contract was \$5,800.

Table 1: Summary of All Awards by Programme in 2001

Programme	Regular Budget				Extra-budgetary Funding				Total Expenses
	Contracts	CRP	RCM	Total	Contracts	CRP	RCM	Total	US \$
	US \$	Purchases US \$	Expenses US \$	US \$	US \$	Purchases US \$	Expenses US \$	US \$	
A Nuclear Power	172,500	14,500	160,600	347,600	0	0	23,630	23,630	371,230
B Nuclear Fuel Cycle and Waste Management Technology	181,600	0	127,969	309,569	0	0	0	0	309,569
C Comparative Assessment for Sustainable Energy Development	22,000	0	58,400	80,400	0	0	0	0	80,400
Major Programme 1	376,100	14,500	346,969	737,569	0	0	23,630	23,630	761,199
D Food and Agriculture	1,875,491	112,246	426,643	2,414,380	120,000	0	0	120,000	2,534,380
E Human Health	1,158,792	45,469	313,842	1,518,103	33,748	0	0	33,748	1,551,851
F Marine Environment and Water Resources	168,110	0	64,017	232,127	10,000	0	0	10,000	242,127
G Application of Physical and Chemical Sciences	644,538	16,127	302,184	962,849	0	0	16,740	16,740	979,589
Major Programme 2	3,846,931	173,842	1,106,686	5,127,459	163,748	0	16,740	180,488	5,307,947
H Nuclear Safety	81,850	0	106,191	188,041	10,000	0	4,670	14,670	202,711
I Radiation Safety	15,800	0	42,235	58,035	0	0	0	0	58,035
J Radioactive Waste Safety	0	0	0	0	4,500	0	18,613	23,113	23,113
K Co-ordination of Safety Activities	40,000	0	0	40,000	0	0	0	0	40,000
Major Programme 3	137,650	0	148,426	286,076	14,500	0	23,283	37,783	323,859
L Safeguards/ Major Programme 4	48,000	0	0	48,000	0	0	0	0	48,000
Total:	4,408,681	188,342	1,602,081	6,199,104	178,248	0	63,653	241,901	6,441,005
Total Contract/CRP Awards	4,775,271								
Total RCM Expenditures	1,665,734								
Total Expenditures	6,441,005								

Figure 1 illustrates the proportion of regular budget and extra-budgetary funding in 2001.

Figure 1: 2001 Resources

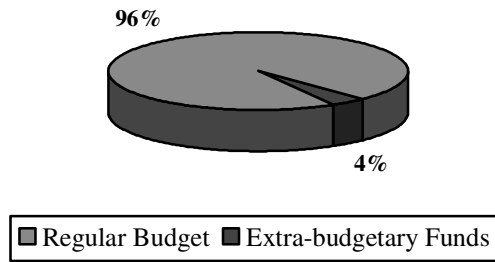
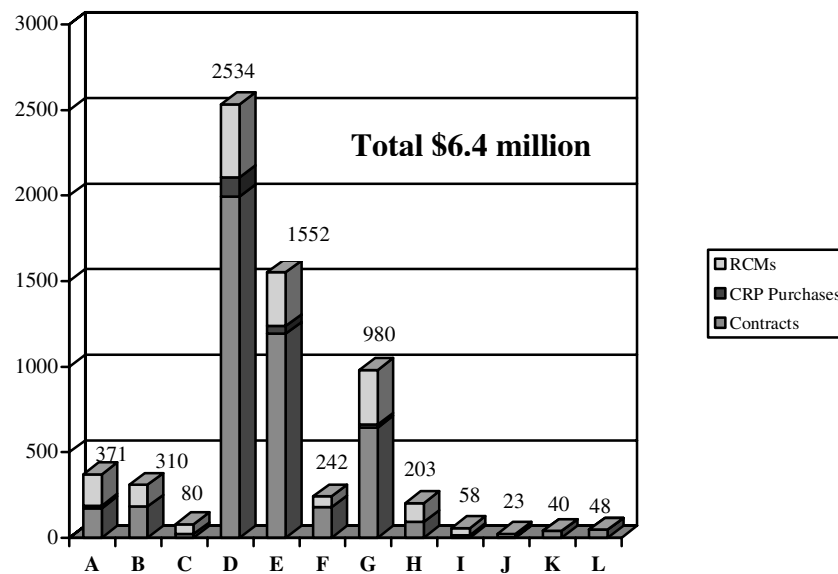


Figure 2 shows the types of awards made by programme.

Figure 2: Distribution of all 2001 Awards by Programme and Type of Activity



Details of resources for 2001 awards by programme and sub-programme and type of award are provided in Table 2. Annex II lists awards by country and programme.

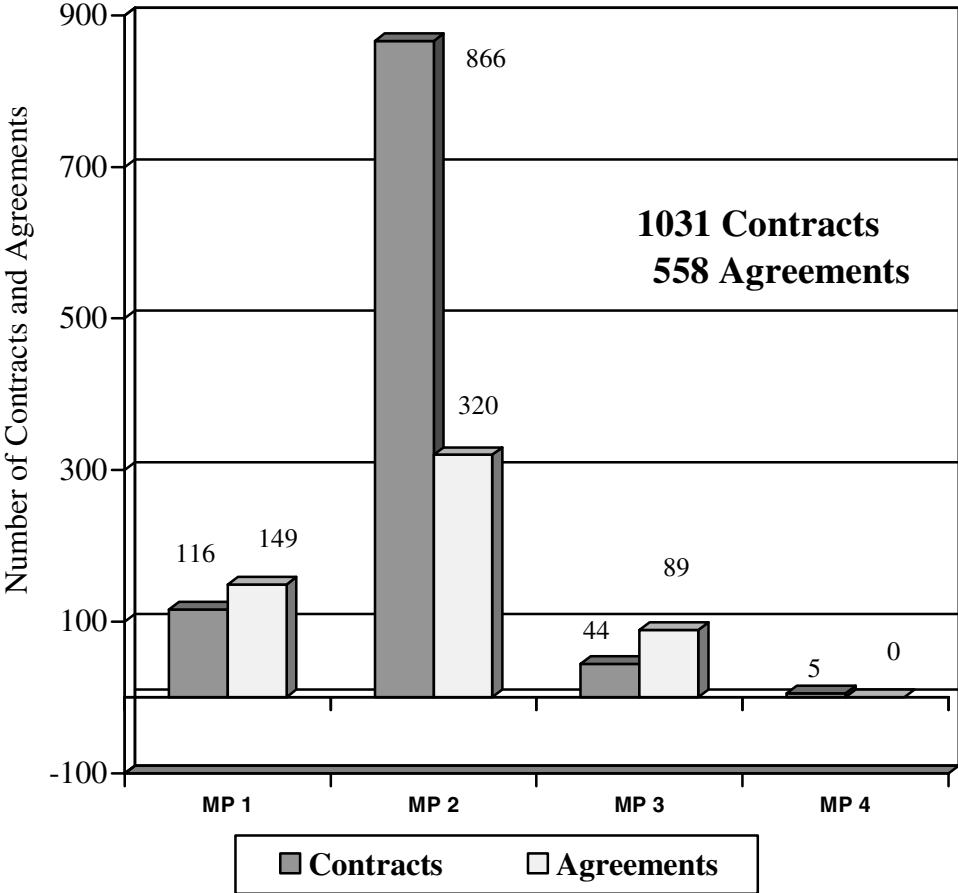
Table 2: Distribution of 2001 Total Funds by Programme

Prog.	Research Contracts		Technical Contracts		Thematic Contracts		CRP Purchases	Total	RCMs		Overall Total	
	#*	US \$	#	US \$	#	US \$	US \$	US \$	#	US \$	US \$	
A	A1	27	108,500	0	0	0	0	14,500	123,000	5	94,300	217,300
	A2	24	64,000	0	0	0	0	0	64,000	5	89,930	153,930
		51	172,500	0	0	0	0	14,500	187,000	10	184,230	371,230
B	B1	19	98,000	1	18,600	0	0	0	116,600	3	53,809	170,409
	B2	13	65,000	0	0	0	0	0	65,000	3	74,160	139,160
		32	163,000	1	18,600	0	0	0	181,600	6	127,969	309,569
C	C1	3	18,000	0	0	0	0	0	18,000	2	31,600	49,600
	C2	1	4,000	0	0	0	0	0	4,000	1	26,800	30,800
		4	22,000	0	0	0	0	0	22,000	3	58,400	80,400
D	D1	39	277,000	2	16,000	0	0	110,706	403,706	4	121,863	525,569
	D2	52	401,219	2	30,000	0	0	0	431,219	1	13,322	444,541
	D3	63	431,750	6	45,000	0	0	0	476,750	4	85,414	562,164
	D4	50	301,500	10	92,000	0	0	0	393,500	5	121,022	514,522
	D5	69	356,522	4	44,500	0	0	1,540	402,562	3	85,022	487,584
		273	1,767,991	24	227,500	0	0	112,246	2,107,737	17	426,643	2,534,380
E	E1	83	497,000	4	27,000	0	0	45,330	569,330	7	156,881	726,211
	E2	28	113,000	8	57,000	0	0	0	170,000	2	32,437	202,437
	E3	15	77,000	1	9,000	0	0	139	86,139	3	33,630	119,769
	E4	46	311,290	1	1,250	8	100,000	0	412,540	4	90,894	503,434
		172	998,290	14	94,250	8	100,000	45,469	1,238,009	16	313,842	1,551,851
F	F1	1	5,000	0	0	0	0	0	5,000	0	0	5,000
	F3	4	20,000	0	0	0	0	0	20,000	0	0	20,000
	F4	28	140,610	2	12,500	0	0	0	153,110	3	64,017	217,127
		33	165,610	2	12,500	0	0	0	178,110	3	64,017	242,127
	G1	16	68,173	4	20,000	0	0	0	88,173	5	85,178	173,351
	G2	25	120,000	0	0	0	0	0	120,000	4	56,416	176,416
G	G4	18	90,000	1	1,000	0	0	0	91,000	1	21,077	112,077
	G5	60	240,365	4	21,000	0	0	16,127	277,492	7	129,440	406,932
	G6	18	84,000	0	0	0	0	0	84,000	1	26,813	110,813
		137	602,538	9	42,000	0	0	16,127	660,665	18	318,924	979,589
	H1	6	30,000	0	0	0	0	0	30,000	2	59,127	89,127
	H2	8	37,250	0	0	0	0	0	37,250	1	21,710	58,960
H	H4	5	24,600	0	0	0	0	0	24,600	1	30,024	54,624
		19	91,850	0	0	0	0	0	91,850	4	110,861	202,711
I	I1	2	3,000	2	5,800	0	0	0	8,800	1	10,241	19,041
	I2	2	4,000	0	0	0	0	0	4,000	1	17,728	21,728
	I3	0	0	0	0	0	0	0	0	1	14,266	14,266
	I4	1	3,000	0	0	0	0	0	3,000	0	0	3,000
		5	10,000	2	5,800	0	0	0	15,800	3	42,235	58,035
J1		4,500	0	0	0	0	0	4,500	1	18,613	23,113	
K1		0	2	40,000	0	0	0	40,000	0	0	40,000	
L2		2	38,000	1	10,000	0	0	0	48,000	0	0	48,000
		728	4,036,279	55	450,650	8	100,000	188,342	4,775,271	81	1,665,734	6,441,005

* Includes contracts with multiple fundings.

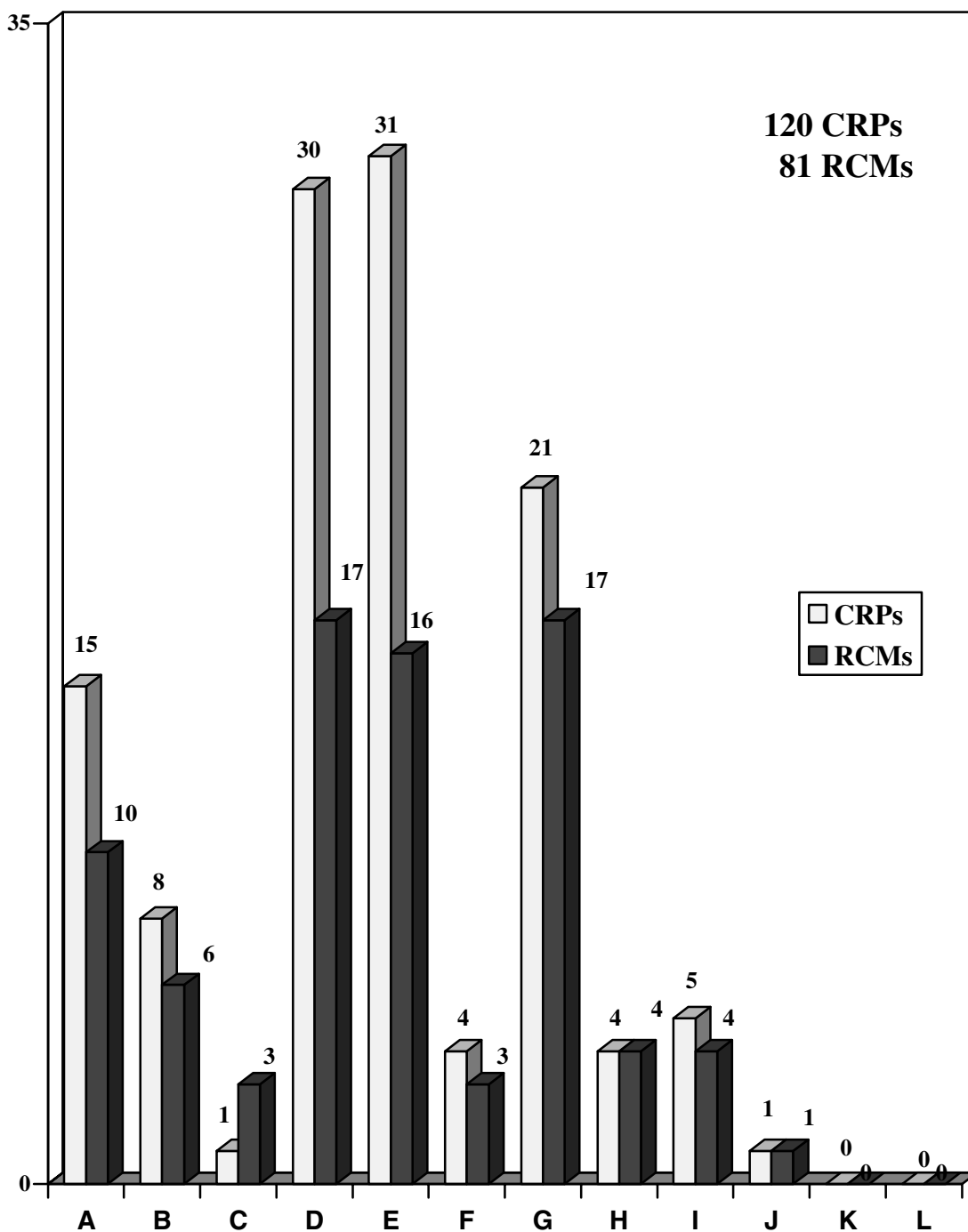
At the end of 2001, there were 1031 contracts and 558 agreements supporting 120 active CRPs (see Appendix A). 81 RCMs (see Annex III) were held in support of these CRPs and an amount of \$1,665,734 was spent in support of these meetings. Figure 3 shows the distribution by Major Programme of these contracts and agreements and Figure 4 shows the distribution by programme of the CRPs and RCMs held during the year.

Figure 3: Active Contracts and Agreements by Major Programme at End 2001



- MP 1: Nuclear Power; Nuclear Fuel Cycle and Waste Management Technology; Comparative Assessment for Sustainable Energy Development
- MP 2: Food and Agriculture, Human Health; Marine Environment and Water Resources; Applications of Physical and Chemical Sciences
- MP 3: Nuclear Safety; Radiation Safety; Radioactive Waste Safety; Co-ordination of Safety Activities
- MP 4: Safeguards

Figure 4: CRPs Active at End 2001 and RCMs Held During the Year



3.1 Member State Participation

The distribution of all contract awards in 2001 is shown by country in Annex IV. 87% of the funds awarded for contracts were made to institutes in developing countries. Table 3 shows the geographical distribution of all contract awards in 2001.

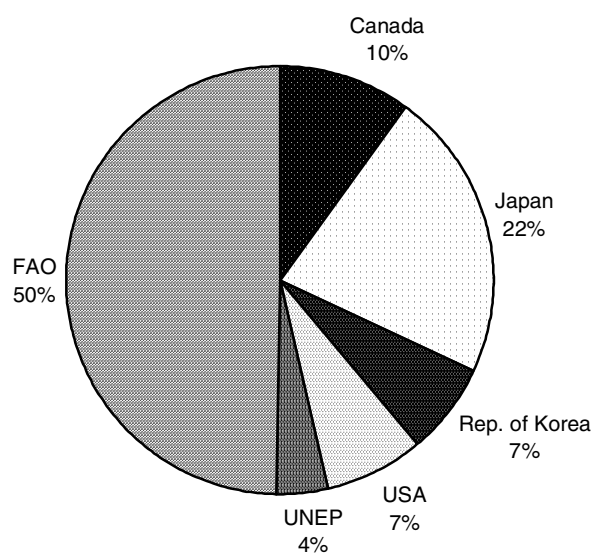
Table 3: Geographical Distribution of Research Contract Awards in 2001

	US \$	%
South East Asia	1,520,496	33
Latin America	940,550	21
Eastern Europe	823,270	18
Africa	565,173	12
Western Europe	434,140	9
West Asia	174,700	4
North America	128,600	3
Total	4,586,929	100

3.2 Extra-budgetary Funding

In 2001, extra-budgetary funds amounting to \$241,901 were used for financing contracts and RCMs. The funds used were from Canada, Japan, Republic of Korea, the United States of America, UNEP and FAO, as shown in Figure 5 and Table 3.

Figure 5: Extra-budgetary Funds, Approved in 2001, by Donor



Total Awards \$241,901

Table 3: Summary of 2001 Extra-budgetary Funded Awards

Canada			
I3.30.10	Intercomparison of techniques for pressure tube inspection and diagnostics	1 meeting	23,630
Food and Agriculture Organization of the United Nations (FAO)			
D1.00.00	Food and agriculture: Soil fertility, irrigation and crop production	4 contracts	32,000
D3.20.19	Assessment of the effectiveness of vaccination strategies against Newcastle Disease and Gumboro Disease using immunoassay-based technologies for increasing farmyard poultry production in Africa	12 contracts	68,000
D3.20.20	The use of non-structural protein of foot-and-mouth disease virus (FMDV) to differentiate between vaccinated and infected animals	2 contracts	20,000
Japan			
E4.30.08	Reference Asian Man Project (Phase 2): Ingestion and organ content of trace elements of importance in radiological protection (RCA)	1 contract	6,748
E4.30.10	Isotopic evaluations in infant growth monitoring - a collaboration with WHO (partly RCA)	1 contract	9,000
J7.10.09	To update and expand the IAEA reliability data for research reactor PSAs	2 contracts	10,000
		1 meeting	4,670
J9.10.05	The use of selected safety indicators (concentrations; fluxes) in the assessment of radioactive waste disposal	1 contract	4,500
		1 meeting	18,613
Republic of Korea			
F1.10.07	Application of nuclear techniques to anti-personnel landmines identification	1 meeting	16,740
United Nations Environment Programme (UNEP)			
K4.00.02	MEDPOL	2 contracts	10,000
United States of America			
E4.30.10	Isotopic evaluations in infant growth monitoring - a collaboration with WHO (partly RCA)	2 contracts	18,000
Total		27 Contracts	\$178,248
		4 Meetings	: \$63,653

3.3 Completed CRPs in 2001

39 CRPs were completed in 2001 of which 23 of these CRPs concerned topics in Nuclear Sciences and Applications, 12 in Nuclear Power and Fuel Cycle, and 4 in Nuclear, Radiation and Waste Safety. A list of these CRPs is included in Appendix B. Evaluations of these CRPs will be completed by the end of 2002 and included in the next annual report.

4. Accomplishments of Co-ordinated Research Projects Completed in 2000

Co-ordinated Research Projects are fully evaluated about one year after their completion. During 2000, 44 CRPs were successfully completed: 35 of these related to Nuclear Sciences and Applications, 4 related to Nuclear Power and Fuel Cycle, and 5 to Nuclear, Radiation and Waste Safety.

Accomplishments of these CRPs are included in Appendix D. Publications and other outputs included 95 Agency and 405 external publications, as well as other outputs such as data bases, software packages, Web sites, presentations at conferences, etc. Detailed listings of these outputs can be seen in Appendix D.

An external review panel evaluated CRP activities in 2001 and will report its findings in 2002. Draft conclusions of the panel are that CRPs are important and a highly visible component of the Agency's activities, well conceived and worthy of expansion and refinement. A full summary of the panel's findings and recommendations will be included in the 2002 Annual Report.