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INTERNATIONAL ATOMIC ENERGY AGENCY

IAEA-CPS-93/10
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Original: ENGLISH

COUNTRY PROGRAMME SUMMARY

**THE AGENCY'S TECHNICAL CO-OPERATION
PROGRAMME WITH
JAMAICA
1983 - 1993
COUNTRY PROGRAMME SUMMARIES**

DEPARTMENT OF TECHNICAL CO-OPERATION

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EVALUATION SECTION

DEPARTMENT OF TECHNICAL CO-OPERATION

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1983 - 1993
COUNTRY PROGRAMME SUMMARIES**

This report contains a review of the Agency's technical co-operation activities in Jamaica carried out during 1983 - 1993. In terms of coverage and analytical depth, country programme summaries stand somewhere midway between in-depth country programme evaluations and individual project evaluations. They attempt to provide a comprehensive, descriptive picture of the Agency's co-operation with a Member State in a manner that will be particularly useful for programming decisions. The attempt is very much to describe -- largely through statistical data -- not to provide independent analysis and evaluation.

JAMAICA

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INTRODUCTION

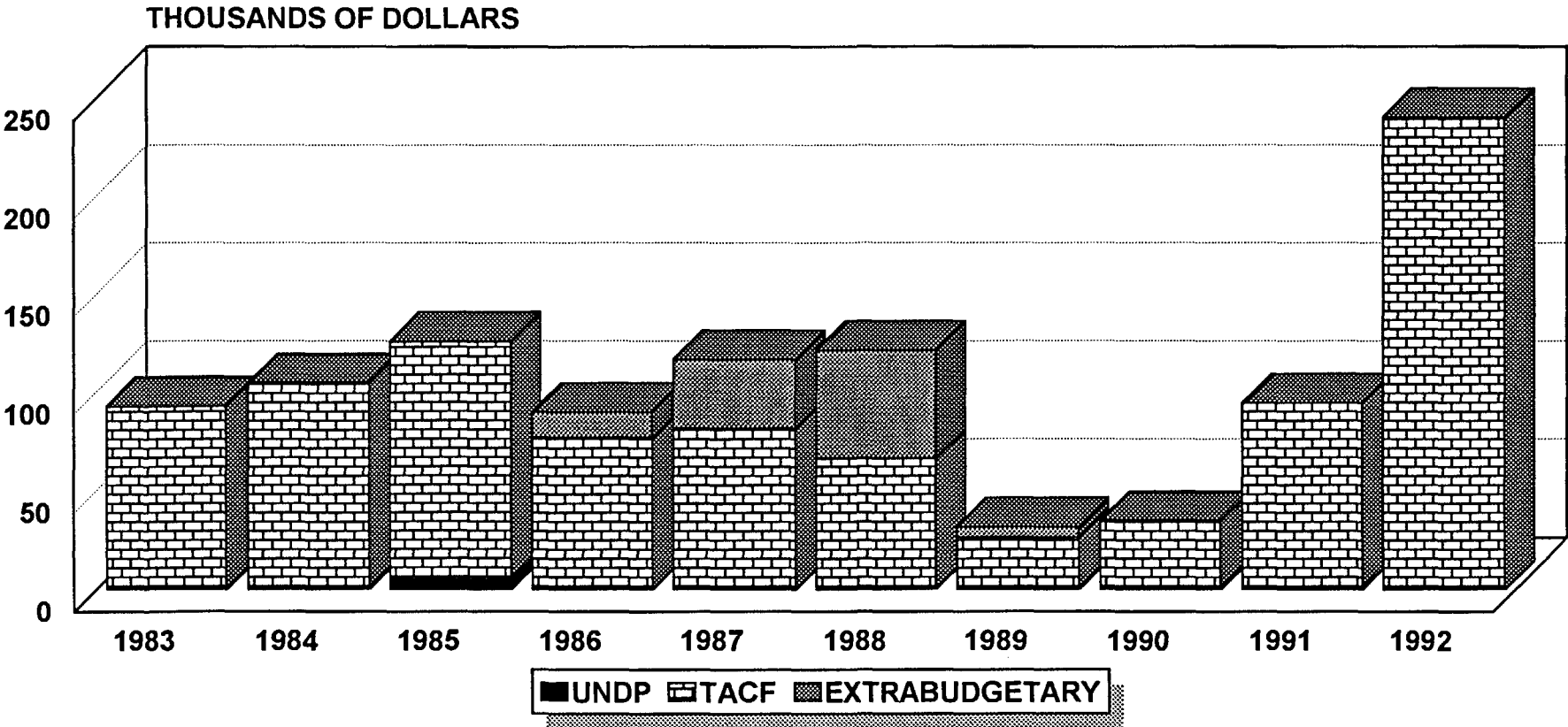
The country programme summary reported on here is one in the series of such studies being undertaken of the Agency's TC programme with Member States. With \$1.4 million of Agency support received, Jamaica ranks 68th among all recipients of technical assistance during the period 1958 through 1992.

More than two-thirds of the assistance received during the past ten years has been provided in the form of equipment (69%), complemented by expert services (26%, including services provided under a sub-contract) and training (5%). The bulk of the resources was made available through the TACF (89%), the rest was provided through extrabudgetary contributions (10%) and through UNDP (less than 1%).

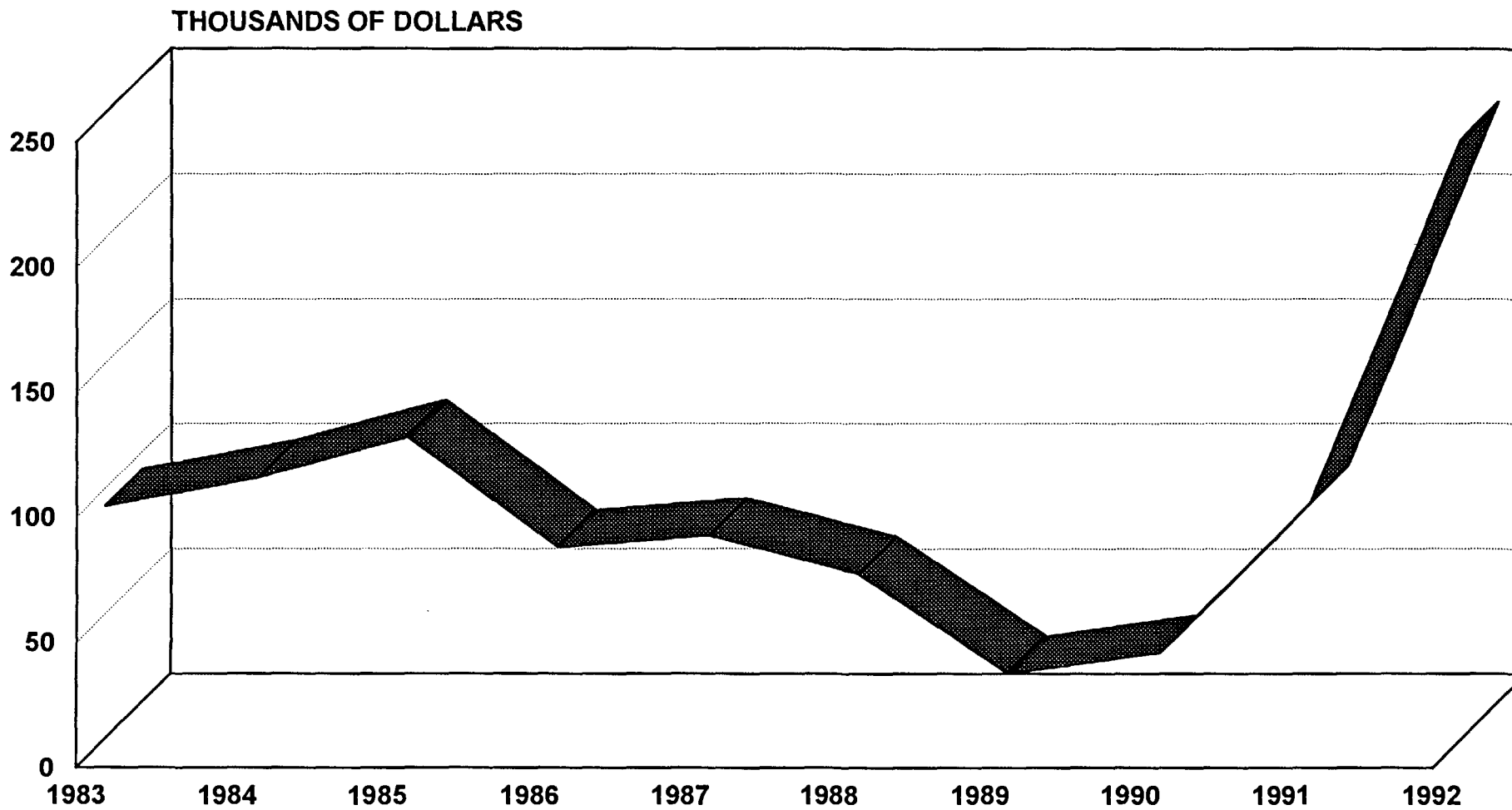
With regard to total disbursements -- by sector -- under those projects that were operational during the period 1983 through mid-May 1993, the largest area has been nuclear engineering and technology (50%), followed by nuclear physics and chemistry (25%) and nuclear safety (15%). Only small shares went to nuclear medicine (8%) and agriculture (2%).

During the same period, the country has provided experts and training course lecturers for a total of 35 assignments, and has hosted one fellowship and one scientific visit as well as two interregional and five regional training courses with a total of 71 participants.

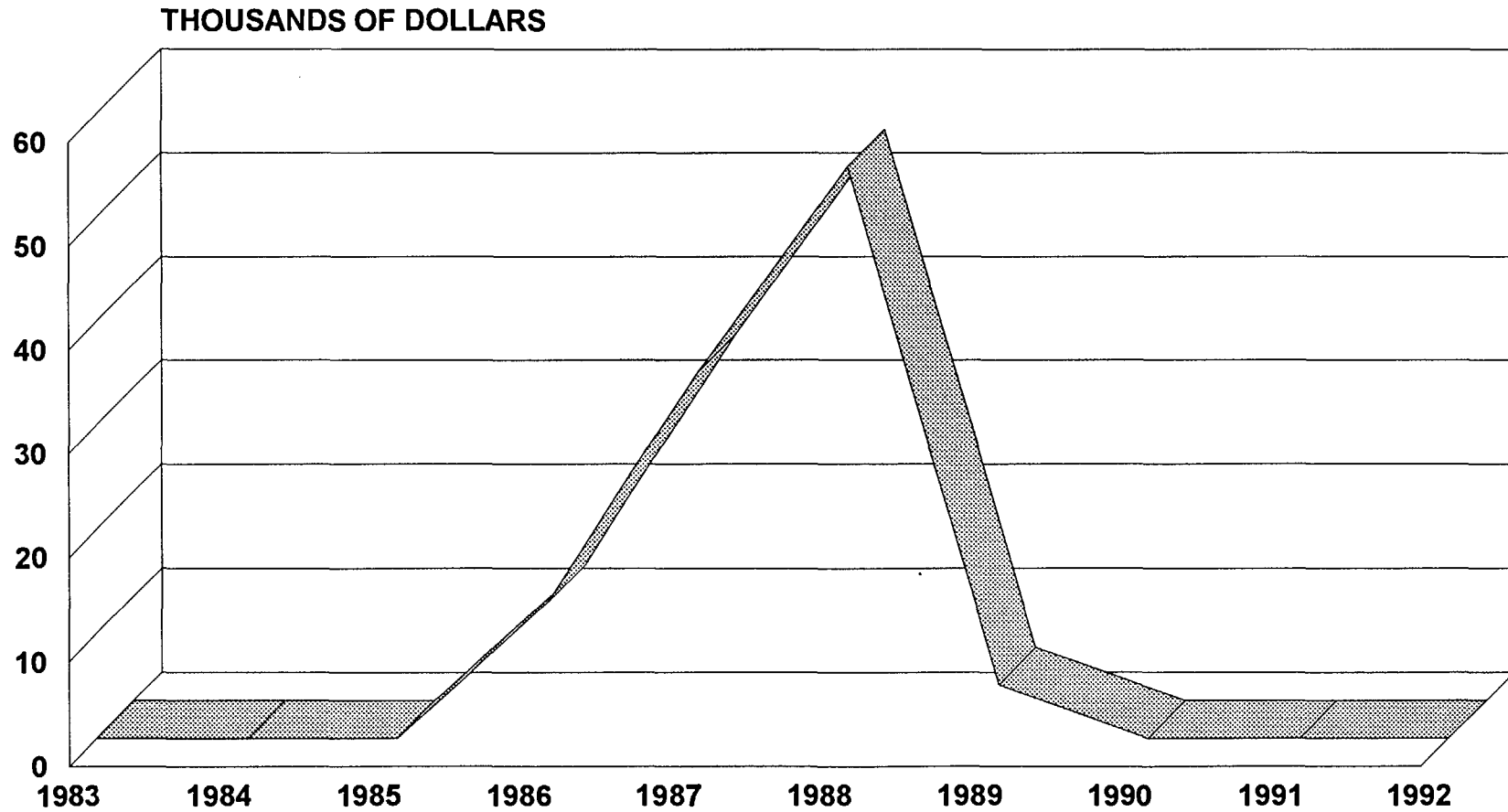
ASSISTANCE PROVIDED BY THE AGENCY TO JAMAICA BY SOURCE (1983 - 1992)



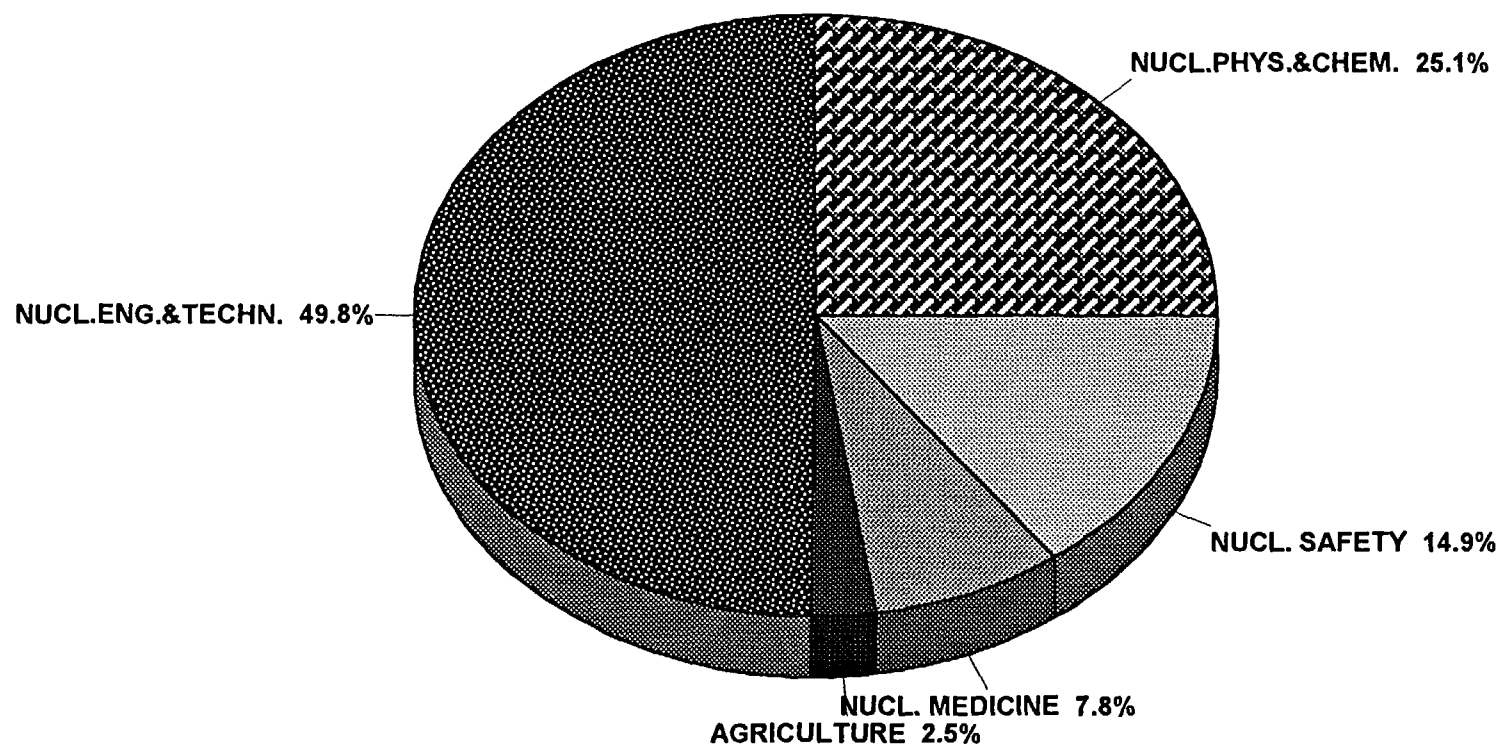
TACF ASSISTANCE PROVIDED TO JAMAICA (1983 - 1992)



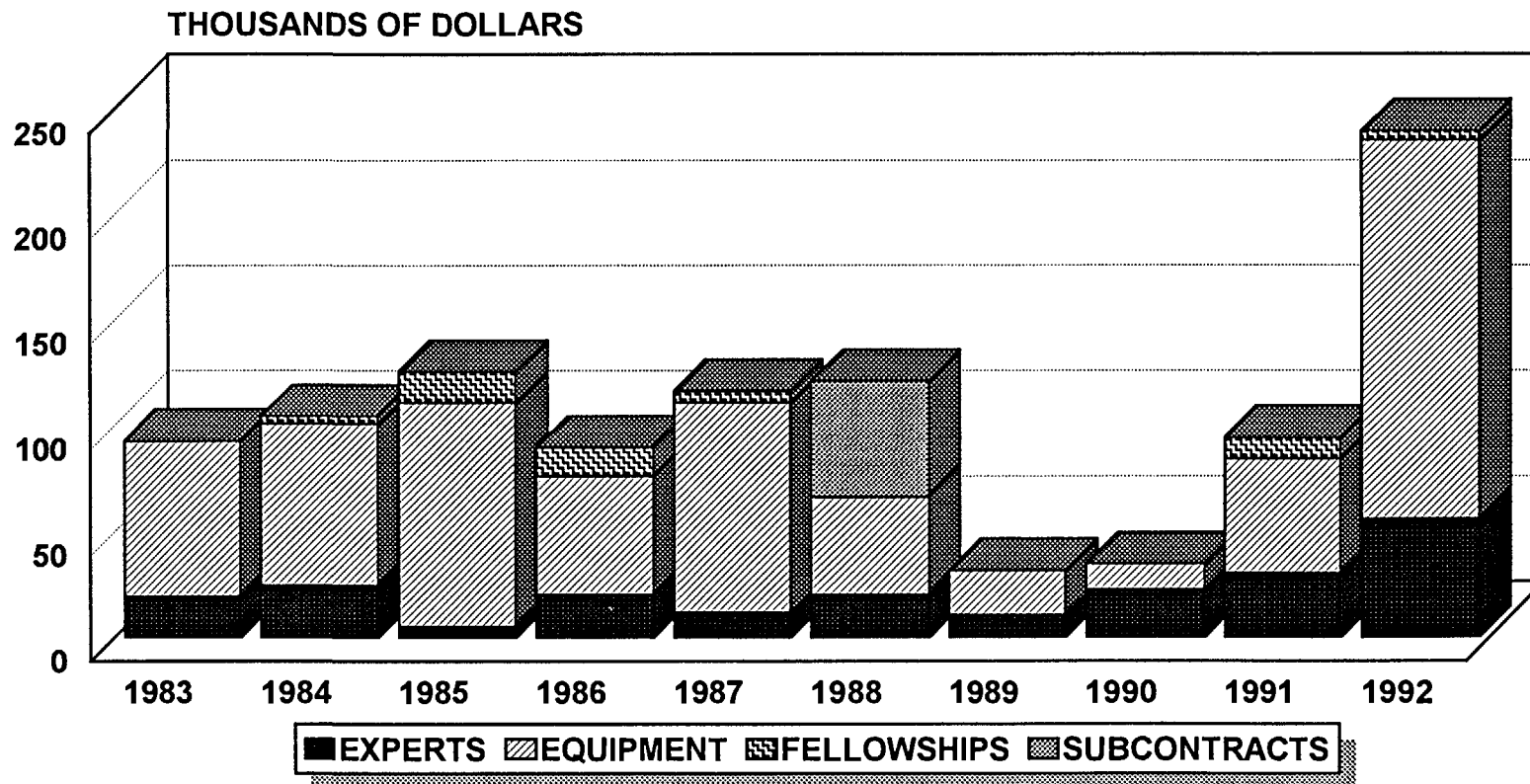
EXTRABUDGETARY ASSISTANCE PROVIDED TO JAMAICA (1983 - 1992)



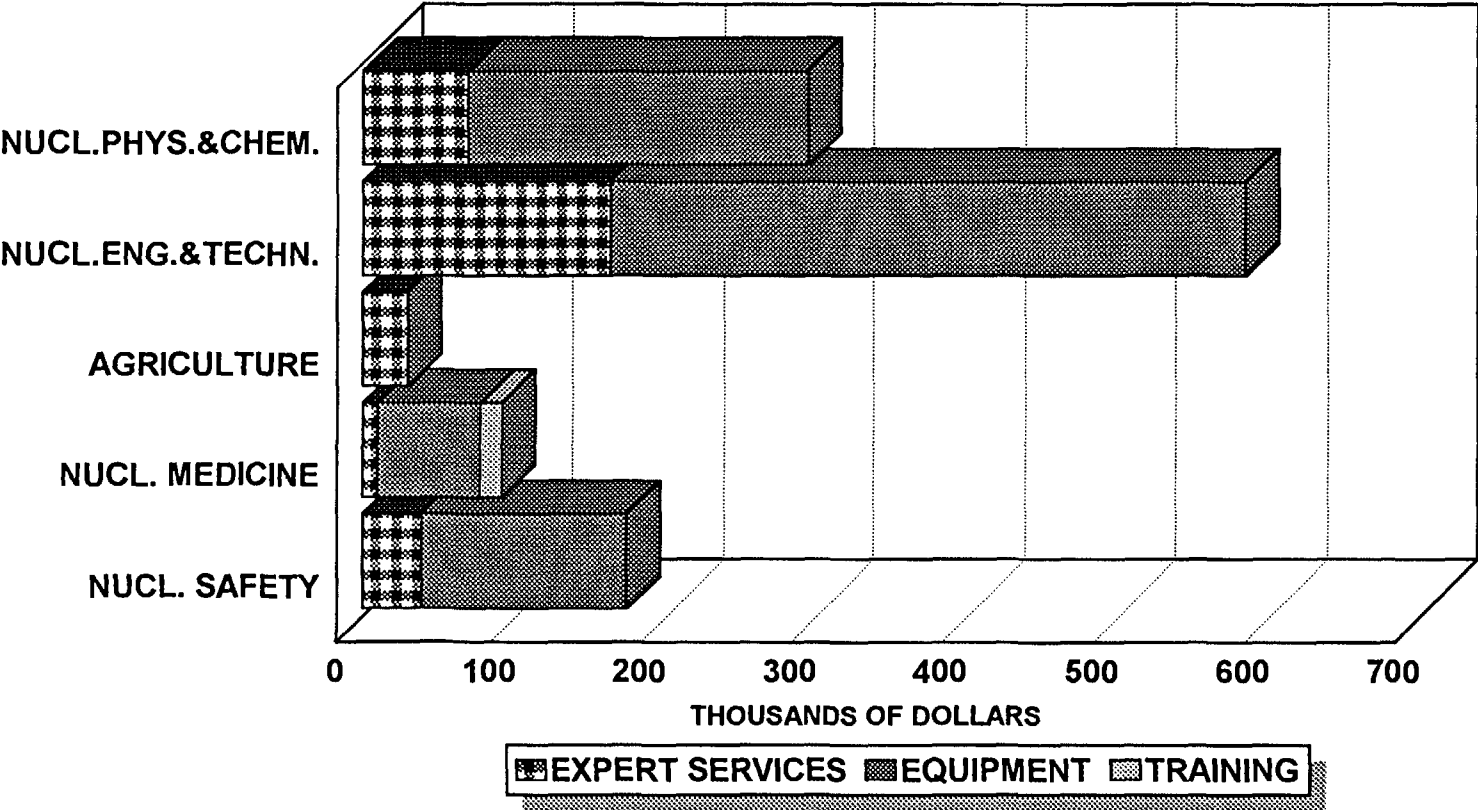
TC PROJECT DISBURSEMENTS IN JAMAICA BY SECTOR (1983 - 1993)



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EXPERT SERVICES, EQUIPMENT AND PROJECT-FUNDED TRAINING PROVIDED TO JAMAICA BY SECTOR (1983 - 1993)



THE AGENCY'S TECHNICAL CO-OPERATION PROGRAMME WITH JAMAICA

ALL SOURCES

JAMAICA'S RANKING AS A TC RECIPIENT
1958 - 1992
(in \$1000)

YEAR	RANKING	AMOUNT
1958-82	67 th	348.4
1983	60 th	92.8
1984	60 th	104.5
1985	57 th	125.7
1986	60 th	89.7
1987	59 th	116.5
1988	58 th	121.1
1989	74 th	31.4
1990	79 th	34.7
1991	69 th	94.4
1992	53 rd	240.0
1958-92	68 th	1399.2

**"TOP FIVE" RECIPIENTS OF AGENCY ASSISTANCE
1958 - 1992 (in \$1000)**

ALL SOURCES

Year	I	II	III	IV	V	JAMAICA
1958-82	BRA 8507.3	IND 6849.4	ARG 5528.2	PAK 5492.7	CHI 5240.1	67 th - 348.4
1983	EGY 2077.9	PER 1116.8	VIE 948.1	PHI 778.6	IRA 722.1	60 th - 92.8
1984	EGY 3625.9	PER 1750.4	THA 1094.6	CUB 1028.7	PHI 881.2	60 th - 104.5
1985	EGY 2494.8	PER 1120.7	THA 1117.4	BGD 1068.2	PHI 963.7	57 th - 125.7
1986	EGY 2317.0	BRA 1452.9	THA 1169.4	POL 1050.3	BGD 896.4	60 th - 89.7
1987	HUN 3452.6	EGY 1775.4	THA 1742.4	INS 1312.5	YUG 1223.2	59 th - 116.5
1988	EGY 1486.9	BUL 1361.6	CPR 1278.5	THA 1158.7	BRA 1096.7	58 th - 121.1
1989	CPR 1542.3	EGY 1505.1	THA 1205.3	BRA 1096.5	INS 999.1	74 th - 31.4
1990	POL 2308.1	CPR 2005.0	VIE 1589.2	INS 1412.6	BRA 1229.1	79 th - 34.7
1991	INS 1305.2	CPR 975.0	EGY 959.8	BRA 951.2	BUL 934.7	69 th - 94.4
1992	EGY 1586.3	INS 1342.1	CPR 1328.8	MEX 1127.8	POL 1036.4	53 rd - 240.0
1958-92	EGY 23808.6	BRA 17736.8	THA 15332.0	INS 13725.9	PER 13129.6	68 th - 1399.2

**"TOP FIVE" RECIPIENTS OF AGENCY ASSISTANCE
1958 - 1992 (in \$1000)**

TECHNICAL ASSISTANCE AND CO-OPERATION FUND

Year	I	II	III	IV	V	JAMAICA
1958-82	HUN 2971.7	EGY 2405.8	PAK 2340.5	THA 2000.3	BRA 1983.5	65 th - 267.2
1983	EGY 1049.4	VIE 897.4	POL 667.8	PAK 498.5	PHI 430.0	53 rd - 92.8
1984	EGY 1197.2	CUB 655.6	ECU 565.6	BGD 506.3	BUL 472.4	55 th - 104.5
1985	BGD 991.8	VIE 745.0	THA 708.7	BRA 571.8	POR 538.7	51 st - 120.8
1986	BRA 1381.8	THA 871.9	POL 833.5	BGD 823.9	SYR 751.8	60 th - 76.7
1987	HUN 3305.2	DRK 986.8	BUL 888.5	INS 885.8	EGY 878.9	65 th - 81.3
1988	BUL 1195.6	PER 856.5	EGY 768.6	INS 751.7	MAL 656.0	61 th - 66.1
1989	EGY 990.9	CPR 868.2	POR 769.6	CHI 756.9	MAL 619.4	74 th - 26.3
1990	POL 1562.3	VIE 1518.8	DRK 1156.2	IRA 958.0	YUG 933.4	78 th - 34.7
1991	BUL 893.1	PAK 868.8	INS 855.1	VIE 817.6	CPR 814.5	65 th - 94.4
1992	EGY 1255.7	CPR 1009.0	VIE 872.8	INS 826.6	IRA 795.5	47 th - 240.0
1958-92	EGY 10847.0	HUN 8743.7	POL 8486.4	VIE 8199.9	PAK 8115.6	67 th - 1204.8

ASSISTANCE PROVIDED BY THE AGENCY TO JAMAICA

Financial Summary 1983 - 1992
(In thousands of dollars)

Year	ASSISTANCE PROVIDED, BY TYPE						ASSISTANCE PROVIDED, BY SOURCE					
	Experts	Equipment	Fellowships	Group training	Sub-contracts	Total	UNDP	TACF CC	TACF NCC	Extra-budgetary	In-kind	Total
1983	19.4	73.4	-	-	-	92.8	-	92.8	-	-	-	92.8
1984	24.5	76.4	3.6	-	-	104.5	-	104.5	-	-	-	104.5
1985	5.2	105.8	14.7	-	-	125.7	4.9	114.7	6.1	-	-	125.7
1986	20.2	55.9	13.6	-	-	89.7	-	66.5	10.2	13.0	-	89.7
1987	11.9	99.1	5.5	-	-	116.5	-	81.3	-	35.2	-	116.5
1988	20.3	45.8	-	-	55.0	121.1	-	66.1	-	55.0	-	121.1
1989	10.5	20.9	-	-	-	31.4	-	26.3	-	5.1	-	31.4
1990	22.6	12.1	-	-	-	34.7	-	34.7	-	-	-	34.7
1991	30.2	54.1	10.1	-	-	94.4	-	94.4	-	-	-	94.4
1992	55.9	179.7	4.4	-	-	240.0	-	240.0	-	-	-	240.0
1983-92	220.7	723.2	51.9	-	55.0	1 050.8	4.9	921.3	16.3	108.3	-	1 050.8

TECHNICAL CO-OPERATION PROJECTS IN JAMAICA
BY SECTOR

PROJECTS COMPLETED AND OPERATIONAL 1983 - 1993

TOTAL PROJECT ALLOTMENTS AND DISBURSEMENTS
(as of mid-May 1993)

SECTOR	NO. OF PROJECTS	ALLOTMENTS \$	% OF TOTAL	DISBURSEMENTS \$	% OF TOTAL
General atomic energy development	-	-	-	-	-
Nuclear physics and chemistry	2	270 665	18.4	294 443	25.1
Nuclear raw materials	-	-	-	-	-
Nuclear engineering and technology	2	612 206	41.6	584 481	49.8
Nuclear techniques in agriculture	2	93 600	6.3	29 303	2.4
Nuclear medicine	2	175 702	11.9	91 374	7.8
Nuclear techniques in biology	-	-	-	-	-
Nuclear techniques in industry and hydrology	-	-	-	-	-
Nuclear safety	1	320 420	21.8	174 660	14.9
TOTAL	9	1 472 593	100.0	1 174 261	100.0

TECHNICAL CO-OPERATION PROJECTS IN JAMAICA
 COMPLETED AND OPERATIONAL, BY SECTOR, 1983 - 1993
 (As of mid-May 1993)

Sector	No. of projects	Total project allotments \$	Total project disbursements \$
<u>Completed projects</u>			
General atomic energy development	-	-	-
Nuclear physics and chemistry	2	270 665	294 443
Nuclear raw materials	-	-	-
Nuclear engineering and technology	1	514 056	521 084
Nuclear techniques in agriculture	-	-	-
Nuclear medicine	1	14 200	15 408
Nuclear techniques in biology	-	-	-
Nuclear techniques in industry & hydrology	-	-	-
Nuclear safety	-	-	-
TOTAL	4	798 921	830 935
<u>Operational projects</u>			
General atomic energy development	-	-	-
Nuclear physics and chemistry	-	-	-
Nuclear raw materials	-	-	-
Nuclear engineering and technology	1	98 150	63 397
Nuclear techniques in agriculture	2	93 600	29 303
Nuclear medicine	1	161 502	75 966
Nuclear techniques in biology	-	-	-
Nuclear techniques in industry & hydrology	-	-	-
Nuclear safety	1	320 420	174 660
TOTAL	5	673 672	343 326

EXPERT SERVICES, EQUIPMENT AND PROJECT-FUNDED TRAINING PROVIDED TO JAMAICA, BY SECTOR
 PROJECTS COMPLETED AND OPERATIONAL 1983 - 1993
 (As of mid-May 1993)

FIELD	TOTAL PROJECT ALLOTMENTS				TOTAL PROJECT DISBURSEMENTS			
	EXPERT SERVICES		EQUIPMENT	TRAINING	EXPERT SERVICES		EQUIPMENT	TRAINING
	M/M	\$	\$	\$	M/M	\$	\$	\$
General atomic energy development	-	-	-	-	-	-	-	-
Nuclear physics and chemistry	10/27	45 550	225 115	-	11/05	68 616	225 827	-
Nuclear raw materials	-	-	-	-	-	-	-	-
Nuclear engineering and technology	15/18	162 748	449 458	-	14/18	163 526	420 955	-
Nuclear techniques in agriculture	3/20	35 150	46 000	12 450	1/27	29 303	-	-
Nuclear medicine	3/00	27 450	132 900	15 352	1/01	9 907	67 010	14 457
Nuclear techniques in biology	-	-	-	-	-	-	-	-
Nuclear techniques in industry & hydrology	-	-	-	-	-	-	-	-
Nuclear safety	9/21	92 670	205 700	22 050	3/23	38 720	135 940	-
TOTAL	42/26	363 568	1 059 173	49 852	32/14	310 072	849 732	14 457

AGENCY FELLOWS FROM JAMAICA

1983 - 1993¹
(As of mid-May 1993)

Sector	No. of fellowships	No. of months/days	Host countries
General atomic energy development	-	-	-
Nuclear physics	-	-	-
Nuclear chemistry	2	1/13	DEN, YUG, UK
Nuclear raw materials	-	-	-
Nuclear engineering and technology	-	-	-
Nuclear techniques in agriculture	-	-	-
Nuclear medicine	1	9/00	CAN
Nuclear techniques in biology	-	-	-
Nuclear techniques in industry and hydrology	5	28/03	ITA, UK
Nuclear safety	-	-	-
TOTAL	8	38/16	

¹/ Only includes fellows who have completed or at least started training.

JAMAICA
LONG-TERM FELLOWSHIPS
1983 - 1993
(As of mid-May 1993)

Name	Field of study	Host country	Date	Duration	Project
BENNETT	Non-destructive testing	UK	Oct.85 - Nov.86	13/08	RLA/8/005
HERON	General industrial applications	UK	Oct.91 - Sep.92	12/00	RLA/8/013

**JAMAICAN NATIONALS WHO WERE AWARDED MORE THAN ONE
FELLOWSHIP OR SCIENTIFIC VISIT
1983 - 1993
(As of mid-May 1993)**

NONE

AGENCY TRAINING COURSES WITH JAMAICAN PARTICIPATION

1983 - 1993
(As of mid-May 1993)

Field	Number of participants	Number of courses
General atomic energy development	2	2
Nuclear physics	4	4
Nuclear chemistry	1	1
Nuclear raw materials	-	-
Nuclear engineering and technology	3	3
Nuclear techniques in agriculture	-	-
Nuclear medicine	-	-
Nuclear techniques in biology	1	1
Nuclear techniques in industry & hydrology	79	77
Nuclear safety	4	4
TOTAL	94	92

**MULTIPLE PARTICIPATION IN AGENCY TRAINING COURSES
BY JAMAICAN NATIONALS
1983 - 1993
(As of mid-May 1993)**

Name	Course No.	Course title	Year	Location
ADAMS	RLA/8/005 (086)	Regional train-the-trainers course on magnetic particles	1985	CAN
	RLA/8/006 (010)	RTC on acoustic emission and holography in NDT	1985	BRA
	RLA/8/013 (006)	Regional seminar on NDT in petrochemical industry	1988	TRI
CAMPBELL, D.	RLA/8/005 (196)	RTC on eddy currents (level II)	1987	CHI
	RLA/8/013 (026)	Regional Working Group meeting	1989	COS
	RLA/8/013 (056)	RWS on quality assessment	1990	BRA
	RLA/8/013 (088)	RTC on computers in RT inspection	1990	MEX
	RLA/8/013 (109)	RWS on criteria for conception and management of test pieces for qualification and certification of NDT personnel	1991	CHI
	RLA/8/017 (013)	Regional Working Group meeting on quality engineering	1992	ARG
	RLA/8/017 (016)	RWS on NDT for quality	1992	CHI
RLA/8/017 (071)	Regional Working Group on criteria for a survey on quality in the region	1992	BRA	
CAMPBELL, J.S.T.	RLA/8/005 (148)	Regional seminar on NDT in concrete structures	1985	ARG
	RLA/8/006 (014)	RWS on development of regional NDT organization	1988	ARG
	RLA/8/006 (015)	International workshop on implementation and implications of ISO international standard	1988	GUA
	RLA/8/013 (009)	International 12th World Conference on NDT	1989	NET
	RLA/8/013 (010)	International workshop on project achievements	1989	GFR
	RLA/8/013 (011)	Regional seminar on NDT advanced techniques	1989	GRF
	RLA/8/013 (012)	Regional seminar on NDT advanced techniques	1989	ITA
	RLA/8/013 (110)	RWS on NDT in civil works	1991	GUA
	DIXON	RLA/8/005 (128)	RTC on surface methods (level II)	1986
RLA/8/013 (061)		RTC on inspection of LPG cylinders	1990	PER
RLA/8/013 (078)		RTC on UT and RT in casting inspection	1990	MEX

**MULTIPLE PARTICIPATION IN AGENCY TRAINING COURSES
BY JAMAICAN NATIONALS
1983 - 1993
(As of mid-May 1993)**

Name	Course No.	Course title	Year	Location
DUNN	RLA/8/005 (085)	RTC on ultrasonics (level III)	1985	COL
	RLA/8/005 (087)	Regional train-the-trainers course in ultrasonics	1985	CAN
	RLA/8/005 (192)	Regional seminar on NDT of vibrations	1987	ARG
	RLA/8/005 (216)	Regional informative course on on-line applications NDT	1988	BRA
	RLA/8/006 (008)	RTC on surface methods (level III)	1985	BRA
	RLA/8/013 (005)	Regional informative course on NDT in composite materials	1988	PER
	RLA/8/013 (072)	RWS on underwater inspection	1990	BRA
GOODEN	RLA/8/013 (106)	RTC on preparation of test procedures	1991	GUY
	RLA/8/017 (034)	RWS on quality improvement in metal-mechanical industry by eddy current	1992	CHI
HERON	RLA/8/013 (021)	RTC on tomography	1989	URU
	RLA/8/013 (111)	RWS on inspection of LPG cylinders	1991	DOM
HUTCHINSON	RLA/8/005 (077)	RTC on eddy currents (level III)	1985	BRA
	RLA/8/005 (136)	RTC on ultrasonics in welded joints	1986	BRA
	RLA/8/005 (223)	Regional informative course on eddy current testing in boiler-tube inspection	1988	CHI
LAWRENCE	RLA/8/005 (194)	Regional seminar on high-energy RT	1987	ECU
	RLA/8/013 (024)	RTC on real-time radiography	1989	BRA
LESTER	RLA/8/005 (081)	RTC on NDT in thermography	1985	ARG
	RLA/8/005 (087)	Regional train-the-trainers course on ultrasonics	1985	CAN
	RLA/8/005 (150)	Regional seminar on NDT in petroleum refinery	1985	VEN
MILNE	RLA/8/005 (113)	Regional seminar on NDT in steel industry	1985	MEX
	RLA/8/006 (017)	Regional co-ordinators meeting at the 13th World Conference on NDT	1992	BRA
	RLA/8/017 (001)	RWS on industrial quality in production and maintenance	1991	BRA

**MULTIPLE PARTICIPATION IN AGENCY TRAINING COURSES
BY JAMAICAN NATIONALS
1983 - 1993
(As of mid-May 1993)**

Name	Course No.	Course title	Year	Location
OLIVER	RLA/8/005 (088)	Regional study tour for RWG members	1985	CAN
	RLA/8/005 (115)	Fifth regional working group meeting	1985	MEX
	RLA/8/005 (116)	Sixth regional working group meeting	1985	GUA
	RLA/8/005 (200)	Eighth regional working group meeting	1987	BOL
	RLA/8/005 (232)	Ninth regional working group meeting	1988	PER
	RLA/8/013 (002)	RWS on qualification and certification	1988	BRA
	RLA/8/013 (003)	RWS on preparation of test specimens	1988	BRA
RATTRAY	INT/1/037 (001)	ITC on advanced data processing and interpretation in X-ray fluorescence analysis	1985	YUG
	RLA/2/003 (001)	RTC on advanced fluorescence analysis	1986	PAR
RICHARDS	RLA/8/005 (078)	RTC on ultrasonics (level II)	1985	PER
	RLA/8/005 (083)	RTC on NDT on eddy currents (level II)	1985	ARG
	RLA/8/005 (193)	RTC on eddy currents (level III)	1987	BRA
RICKETTS	RLA/8/006 (009)	RTC on ultrasonics (level II)	1985	ARG
	RLA/8/013 (023)	RTC on eddy currents in ferromagnetic materials	1989	CHI
ROBOTHAM	INT/1/047 (001)	ITC on experimental nuclear spectroscopy	1990	GRE
	INT/4/065 (001)	ITC on advanced research reactor utilization	1983	HUN
THOMAS	INT/9/129 (001)	ITC on planning, organization and implementation of radiation protection on a national level	1992	USA
	RAF/9/004 (001)	RTC on radiation protection	1988	EGY
TOMLINSON	RLA/8/005 (154)	Regional seminar on NDT in thermoelectric plants	1986	MEX
	RLA/8/005 (237)	National informative study tour on vibrations	1988	GFR
	RLA/8/013 (079)	RTC on eddy currents (level III - tubes)	1990	PER

MULTIPLE PARTICIPATION IN AGENCY TRAINING COURSES
BY JAMAICAN NATIONALS
1983 - 1993
(As of mid-May 1993)

Name	Course No.	Course title	Year	Location
WAGH	RLA/8/005 (144) RLA/8/005 (234)	Regional seminar on NDT in fracture mechanics Regional II Congress of NDT for Latin America and the Caribbean	1985 1988	BRA PER
WHITE	RLA/8/006 (011) RLA/8/013 (035)	RTC on computer-aided NDT RTC on NDT in quality assurance	1986 1989	MEX BRA
WHYTE	RLA/8/013 (001) RLA/8/013 (058)	Regional informative course on computers in NDT RWS on radiation protection for radiographers	1988 1990	ARG ARG
WILSON	RLA/8/006 (016) RLA/8/013 (018)	Regional informative course on thermography RTC on acoustic emission	1988 1989	VEN ARG

**PROJECTS COMPLETED IN JAMAICA SINCE 1983
(As of mid-May 1993)**

STARTED	PROJECT NO.	TITLE	ALLOTMENTS				DISBURSEMENTS				COMPLETED
			EXPERTS		EQUIPMENT	TRAINING	EXPERTS		EQUIPMENT	TRAINING	
			M/M	\$	\$	\$	M/M	\$	\$	\$	
1978	JAM/2/003	Applied radiochemistry	8/27	31 150	169 715	-	8/27	46 652	169 706	-	1987
1988	JAM/2/004	Nuclear analytical laboratory	2/00	14 400	55 400	-	2/08	21 964	56 121	-	1992
1982	JAM/4/002	Research reactor centre	13/18	144 598	369 458	-	13/18	151 274	369 810	-	1991
1984	JAM/6/005	Hormone receptors in tissue	-	-	14 200	-	-	-	15 408	-	1987
	TOTAL	4 projects	24/15	190 148	608 773	-	24/23	219 890	611 045	-	

^{1/} Expert allotments and disbursements include \$55 000 for a sub-contract.

OPERATIONAL PROJECTS IN JAMAICA
(As of mid-May 1993)

STARTED	PROJECT NO.	TITLE	ALLOTMENTS				DISBURSEMENTS			
			EXPERTS		EQUIPMENT	TRAINING	EXPERTS		EQUIPMENT	TRAINING
			M/M	\$	\$	\$	M/M	\$	\$	\$
1991	JAM/4/003	Servicing of nuclear instrumentation	2/00	18 150	80 000	-	1/00	12 252	51 145	-
1990	JAM/5/003	Nuclear agriculture development	1/20	14 000	-	-	1/20	25 077	-	-
1993	JAM/5/004	Use of immunoassay methods for control of animal diseases	2/00	21 150	46 000	12 450	0/07	4 226	-	-
1991	JAM/6/006	Upgrading of nuclear medicine services	3/00	27 450	118 700	15 352	1/01	9 907	51 602	14 457
1989	JAM/9/003	Radiation protection	9/21	92 670	205 700	22 050	3/23	38 720	135 940	-
	TOTAL	5 projects	18/11	173 420	450 400	49 852	7/21	90 182	238 687	14 457

COUNTERPART INSTITUTIONS IN JAMAICA (I)
(By Project)

<u>Project No.</u>	<u>Institute</u>	<u>Counterpart(s)</u>
<u>NUCLEAR PHYSICS AND CHEMISTRY</u>		
JAM/2/003	University of the West Indies, Centre for Nuclear Science, Kingston	LALOR
JAM/2/004	University of the West Indies, Centre for Nuclear Science, Kingston	LALOR
<u>NUCLEAR ENGINEERING AND TECHNOLOGY</u>		
JAM/4/002	University of the West Indies, Centre for Nuclear Science, Kingston	LALOR
JAM/4/003	University of the West Indies, Centre for Nuclear Science, Kingston	LALOR
<u>AGRICULTURE</u>		
JAM/5/003	University of the West Indies, Kingston	
JAM/5/004	Ministry of Agriculture, Veterinary Division, Veterinary Laboratory, Kingston	GRANT LAZARUS
<u>NUCLEAR MEDICINE</u>		
JAM/6/005	University of the West Indies, Tropical Metabolism Research Unit, Kingston	ROBINSON
JAM/6/006	University of the West Indies, Nuclear Medicine Department, Kingston	REID

COUNTERPART INSTITUTIONS IN JAMAICA (I)
(By Project)

<u>Project No.</u>	<u>Institute</u>	<u>Counterpart(s)</u>
	<u>NUCLEAR SAFETY</u>	
JAM/9/003	1. University of the West Indies, Centre for Nuclear Science, Kingston	ROBOTHAM
	2. Ministry of Public Health, Kingston	

COUNTERPART INSTITUTIONS IN JAMAICA (II)
(By Institute)

KINGSTON

**Ministry of Agriculture
Veterinary Division
Veterinary Laboratory
Kingston**

JAM/5/004 Use of Immunoassay Methods for Control of Animal Diseases

**Ministry of Public Health
Kingston**

JAM/9/003 Radiation Protection

**University of the West Indies
Kingston**

JAM/5/003 Nuclear Agriculture Development

**University of the West Indies
Centre for Nuclear Science
Kingston**

JAM/2/003 Applied Radiochemistry
JAM/2/004 Nuclear Analytical Laboratory
JAM/4/002 Research Reactor Centre
JAM/4/003 Servicing of Nuclear Instrumentation
JAM/9/003 Radiation Protection

**University of the West Indies
Tropical Metabolism Research Unit
Kingston**

JAM/6/005 Hormone Receptors in Tissue

**University of the West Indies
Nuclear Medicine Department
Kingston**

JAM/6/006 Upgrading of Nuclear Medicine Services

**THE AGENCY'S TECHNICAL CO-OPERATION PROGRAMME WITH
JAMAICA
SINCE 1983**

LONG-TERM EXPERT ASSIGNMENTS

NONE

RESEARCH CONTRACTS/AGREEMENTS IN JAMAICA SINCE 1983 ¹
(As of mid-May 1993)

Field of activity	No. of contracts/ agreements	Amount allocated \$
Nuclear physics	1	6 000
Nuclear engineering and technology	1	11 000
Nuclear techniques in agriculture	1	5 000
Nuclear medicine	3	20 000
Nuclear techniques in industry & hydrology	1	8 000
TOTAL	7	50 000

¹/ New awards since 1983

**SCIENTISTS FROM JAMAICA SERVING AS AGENCY
TECHNICAL CO-OPERATION EXPERTS OR
TRAINING COURSE LECTURERS
1983 - 1993
(As of mid-May 1993)**

Name	No. of assignments	Project(s)
ADAMS	1	RLA/8/005
CAMPBELL, D.	5	RLA/8/005, RLA/8/013
CAMPBELL, J.S.T.	6	RLA/8/005, RLA/8/006
CLARKE	1	INT/4/101
HUDSON	1	RLA/8/005
LALOR	1	JAM/4/002
LESTER	1	RLA/8/005
MILNE	1	RLA/8/013
OLIVER	6	RLA/8/005, RLA/8/006, RLA/8/013
PRESTON	6	BOL/4/005, COS/1/005, JAM/4/002, INT/4/068, RAF/4/002, RLA/4/006
RICKETTS	3	RLA/8/005, RLA/8/013
ROBOTHAM	1	INT/1/048
TOMLINSON	1	RLA/8/005
WAGH	1	RLA/8/006
TOTAL	35	

**AGENCY FELLOWSHIPS AND SCIENTIFIC VISITS
HOSTED BY JAMAICA
1983 - 1993
(As of mid-May 1993)**

Recipient country	No. of fellowships	No. of scientific visits	TOTAL ¹
COSTA RICA	1	-	1
MADAGASCAR	-	1	1
TOTAL	1	1	2

1./ Includes trainees who have completed or at least started their studies.

**REGIONAL AND INTERREGIONAL TRAINING EVENTS
HOSTED BY JAMAICA
1983 - 1993
(As of mid-May 1993)**

Course No.	Course Title	Partici- pants	Year
INT/4/085 (001)	ITC on advanced nuclear electronics	16	1986
INT/4/093 (001)	ITC on advanced nuclear electronics	17	1987
RLA/8/005 (074)	RTC on ultrasonics (level I)	4	1985
RLA/8/005 (075)	RTC on surface methods (level II)	6	1985
RLA/8/005 (125)	RTC on radiography (level I)	7	1986
RLA/8/013 (004)	Regional seminar on NDT in railways	7	1988
RLA/8/013 (080)	RTC on diagnosis of rotating equipment	14	1990
	TOTAL	71	