# **Annex**

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 $\textbf{Note:} \ \ \textbf{Tables A38-A43} \ \ \textbf{are available online only at } \ \textit{www.iaea.org/publications/reports}.$ 

Table A1. Regular Budget allocation and utilization of resources in 2022 by Programme and Major Programme (in euros)

Major Programme (MP)/Programme	Original budget US\$1/€1	Adjusted budget US\$1/€0.949	Expenditure	Resource utilization	Balance
	a*	b**	C	d = c/b	e = b - c
MP1 — Nuclear Power, Fuel Cycle and Nuclear Science					
Overall management, coordination and common activities	3 484 098	3 458 550	3 581 556	103.6%	(123 006)
Nuclear Power	9 528 906	9 446 307	9 000 336	95.3%	445 971
Nuclear Fuel Cycle and Waste Management	9 540 390	9 462 419	8 638 951	91.3%	823 468
Capacity Building and Nuclear Knowledge for Sustainable Energy Development	10 978 838	10 887 459	10 247 311	94.1%	640 148
Nuclear Science	9 258 347	9 207 987	9 140 018	99.3%	67 969
Total Major Programme 1	42 790 579	42 462 722	40 608 172	95.6%	1 854 550
MP2 — Nuclear Techniques for Development and Environmental Protection					
Overall management, coordination and common activities	8 923 139	8 890 179	8 790 760	98.9%	99 419
Food and Agriculture	12 161 632	12 090 774	12 089 375	100.0%	1 399
Human Health	9 099 476	9 032 658	8 932 831	98.9%	99 827
Water Resources	3 877 856	3 856 602	3 805 634	98.7%	50 968
Marine Environment	4 871 178	4 843 194	4 755 169	98.2%	88 025
Radiochemistry and Radiation Technology	4 582 025	4 553 526	4 406 038	96.8%	147 488
Total Major Programme 2	43 515 306	43 266 933	42 779 807	98.9%	487 126
MP3 — Nuclear Safety and Security					
Overall management, coordination and common activities	4 133 419	4 098 607	4 018 810	98.1%	79 797
Incident and Emergency Preparedness and Response	4 621 629	4 583 008	4 008 500	87.5%	574 508
Safety of Nuclear Installations	11 093 051	10 986 117	10 518 938	95.7%	467 179
Radiation and Transport Safety	7 921 420	7 852 610	8 004 615	101.9%	(152 005)
Radioactive Waste Management and Environmental Safety	3 997 006	3 959 783	4 006 942	101.2%	(47 159)
Nuclear Security	6 556 688	6 488 698	6 201 755	95.6%	286 943
Total Major Programme 3	38 323 213	37 968 823	36 759 560	96.8%	1 209 263
MP4 — Nuclear Verification					
Overall management, coordination and common activities	14 780 452	14 701 630	14 959 364	101.8%	(257 734)
Safeguards Implementation	135 775 821	134 680 611	134 119 700	99.6%	560 911
Other Verification Activities	3 100 992	3 062 592	3 150 290	102.9%	(87 698)
Total Major Programme 4	153 657 265	152 444 833	152 229 354	99.9%	215 479
MP5 — Policy, Management and Administration Services					
Policy, Management and Administration Services	84 287 568	83 844 462	83 820 518	100.0%	23 944
Total Major Programme 5	84 287 568	83 844 462	83 820 518	100.0%	23 944
MP6 — Management of Technical Cooperation for Development	0.120.000	00011102		330.070	
Management of Technical Cooperation for Development	27 620 821	27 415 688	26 888 903	98.1%	526 785
Total Major Programme 6	27 620 821	27 415 688	26 888 903	98.1%	526 785
· · ·					
Total Operational Regular Budget	390 194 752	387 403 461	383 086 314	98.9%	4 317 147
Major Capital Investment Funding Requirements***					
MP1 — Nuclear Power, Fuel Cycle and Nuclear Science	_	<del>-</del> -	<del>-</del>	_	_
MP2 — Nuclear Techniques for Development and Environmental Protection	1 525 500	1 522 144	2 773	0.2%	1 519 371
MP3 — Nuclear Safety and Security	305 100	305 100	18 146	5.9%	286 954
MP4 — Nuclear Verification	1 017 000	1 017 000	-	0.0%	1 017 000
MP5 — Policy, Management and Administration Services	3 254 400	3 254 400	1 622 068	49.8%	1 632 332
MP6 — Management of Technical Cooperation for Development	E 100 000	- 6 000 644	1 6/0 007	- 26 00/	A AEE CE7
Total Capital Regular Budget	6 102 000	6 098 644	1 642 987	26.9%	4 455 657
Total Agency Programmes	396 296 752	393 502 105	384 729 301	97.8%	8 772 804
Reimbursable Work for Others	3 128 370	3 128 370	3 501 762	111.9%	(373 392)
Total Regular Budget	399 425 122	396 630 475	388 231 063	97.9%	8 399 412

<sup>\*</sup> General Conference resolution GC(65)/RES/4 of September 2021 — original budget at \$1/ $\in$ 1.

<sup>\*\*</sup> Original budget revalued at the United Nations operational average rate of exchange of €0.949 to \$1.

<sup>\*\*\*</sup> Additional information about the Major Capital Investment Fund can be found in note 39d of *The Agency's Financial Statements for 2022.* 

Table A2. Extrabudgetary regular programme fund resource utilization in 2022 by Programme and Major Programme (in euros)

Major Programme (MP)/Programme	2022 net expenditure
MP1 — Nuclear Power, Fuel Cycle and Nuclear Science	
Overall management, coordination and common activities	120 065
Nuclear Power	3 604 347
Nuclear Fuel Cycle and Waste Management	1 407 368
Capacity Building and Nuclear Knowledge for Sustainable Energy Development	3 652 490
Nuclear Science	530 637
Total Major Programme 1	9 314 907
MP2 — Nuclear Techniques for Development and Environmental Protection	
Overall management, coordination and common activities	17 416 225
Food and Agriculture	6 443 385
Human Health	538 955
Water Resources	50 135
Marine Environment	1 568 378
Radiochemistry and Radiation Technology	754 160
Total Major Programme 2	26 771 238
MP3 — Nuclear Safety and Security	
Overall management, coordination and common activities	5 148 102
Incident and Emergency Preparedness and Response	1 940 632
Safety of Nuclear Installations	5 654 460
Radiation and Transport Safety	3 812 318
Radioactive Waste Management and Environmental Safety	1 524 984
Nuclear Security	27 054 324
Total Major Programme 3	45 134 820
MP4 — Nuclear Verification	
Overall management, coordination and common activities	3 776 022
Safeguards Implementation	16 928 448
Other Verification Activities	5 291 458
Total Major Programme 4	25 995 928
MP5 — Policy, Management and Administration Services	
Policy, Management and Administration Services	4 078 078
Total Major Programme 5	4 078 078
MP6 — Management of Technical Cooperation for Development	
Management of Technical Cooperation for Development	1 146 436
Total Major Programme 6	1 146 436
Total extrabudgetary programme funds	112 441 407

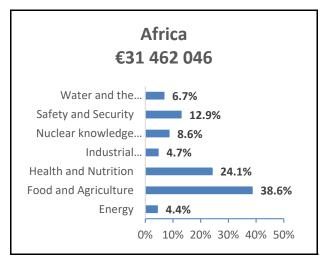
Table A3(a). Disbursements (actuals) of the Technical Cooperation Fund by technical field and region in 2022

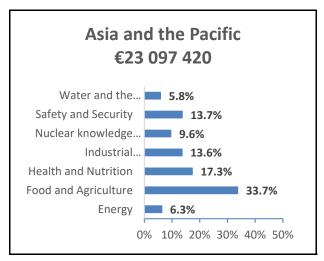
#### Summary of all regions (in euros)

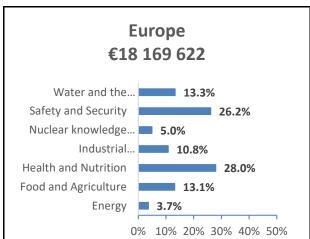
Technical field	Africa	Asia and the Pacific	Europe	Latin America and the Caribbean	Interregional and miscellaneous	PACT <sup>a</sup>	Grand total
Energy	1 373 652	1 457 527	663 575	344 636	1 838 036	0	5 677 427
Food and Agriculture	12 138 922	7 780 754	2 389 047	5 266 274	1 482 150	0	29 057 147
Health and Nutrition	7 591 498	3 999 481	5 078 926	5 591 132	521 363	661 300	23 443 700
Industrial Applications/ Radiation Technology	1 464 353	3 142 070	1 965 092	1 946 476	0	0	8 517 990
Nuclear knowledge development and management	2 703 878	2 209 164	900 509	3 819 789	6 086 190	0	15 719 530
Safety and Security	4 068 968	3 159 224	4 754 042	5 310 763	893 649	0	18 186 646
Water and the Environment	2 120 776	1 349 201	2 418 431	2 133 559	37 782	0	8 059 749
Grand Total	31 462 046	23 097 420	18 169 622	24 412 630	10 859 171	661 300	108 662 189

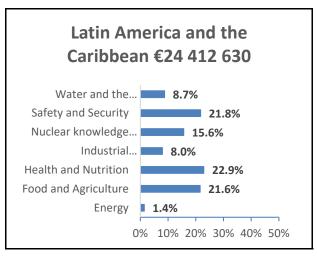
 $<sup>^{\</sup>rm a}$  PACT: Programme of Action for Cancer Therapy.

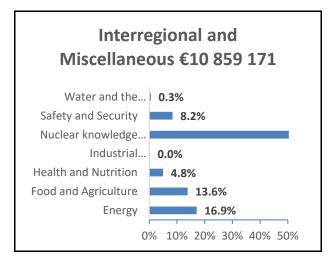
Table A3(b). Graphical representation of the information in Table A3(a)

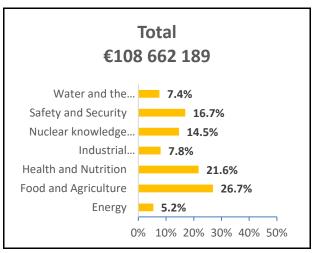












**Note:** See Table A3(a) for the full titles of the technical fields.

Table A4. Amount of nuclear material under Agency safeguards at the end of 2022 by type of agreement

Nuclear material	Comprehensive safeguards agreement <sup>a</sup>	INFCIRC/66-type agreement	Voluntary offer agreement	Quantity in significant quantities (SQs)
Plutonium <sup>b</sup> contained in irradiated fuel and in fuel elements in reactor cores	154 802	3 843	22 628	181 273
Separated plutonium outside reactor cores	1 232	5	10 886	12 123
High enriched uranium (equal to or greater than 20% U-235)	154	2	0	156
Low enriched uranium (less than 20% U-235)	19 221	403	993	20 617
Source material <sup>c</sup> (natural and depleted uranium and thorium)	12 186	1 709	2 672	16 567
U-233	18	0	0	18
Total SQs of nuclear material	187 613	5 962	37 179	230 754

Amount of heavy water under Agency safeguards at the end of 2022 by type of agreement					
Non-nuclear material <sup>d</sup>	Comprehensive safeguards agreement	INFCIRC/66-type agreement	Voluntary offer agreement	Quantity in tonnes	
Heavy water (tonnes)		414.1		414.8 <sup>e</sup>	

<sup>&</sup>lt;sup>a</sup> Includes nuclear material under Agency safeguards in Taiwan, China; excludes nuclear material in the Democratic People's Republic of Korea.

<sup>&</sup>lt;sup>b</sup> The quantity includes an estimated amount (9 000 SQs) of plutonium in fuel elements loaded into reactor cores and plutonium in other irradiated fuel, which has not yet been reported to the Agency under agreed reporting procedures.

 $<sup>^{\</sup>circ}$  This table does not include material within the terms of subparagraphs 34(a) and 34(b) of INFCIRC/153 (Corrected).

<sup>&</sup>lt;sup>d</sup> Non-nuclear material subject to Agency safeguards under INFCIRC/66/Rev.2-type agreements.

<sup>&</sup>lt;sup>e</sup> Includes 0.7 tonnes of heavy water under Agency safeguards in Taiwan, China.

Table A5. Number of facilities and material balance areas outside facilities under Agency safeguards during 2022

Туре	Comprehensive safeguards agreement <sup>a</sup>	INFCIRC/66-type agreement <sup>b</sup>	Voluntary offer agreement	Total
Power reactors	248	18	1	267
Research reactors and critical assemblies	143	3	0	146
Conversion plants	17	0	0	17
Fuel fabrication plants	37	3	1	41
Reprocessing plants	10	0	1	11
Enrichment plants	17	0	3	20
Separate storage facilities	138	2	4	144
Other facilities	76	0	0	76
Facility subtotals	686	26	10	722
Material balance areas containing locations outside facilities <sup>c</sup>	628	1	2	631
Total	1314	27	12	1353

<sup>&</sup>lt;sup>a</sup> Covering safeguards agreements pursuant to the Treaty on the Non-Proliferation of Nuclear Weapons and/or the Treaty of Tlatelolco and other comprehensive safeguards agreements; includes facilities in Taiwan, China.

<sup>&</sup>lt;sup>b</sup> Covering facilities in India, Israel and Pakistan.

 $<sup>^{\</sup>rm c}$  Includes 79 material balance areas in States with amended small quantities protocols.

Table A6. Conclusion of safeguards agreements, additional protocols and small quantities protocols (as of 31 December 2022)

State <sup>a</sup>	Small quantities protocols <sup>b</sup>	Safeguards agreements <sup>c</sup>	INFCIRC	Additional protocols
Afghanistan	Amended: 28 Jan. 2016	In force: 20 Feb. 1978	257	In force: 19 Jul. 2005
Albania <sup>1</sup>		In force: 25 Mar. 1988	359	In force: 3 Nov. 2010
Algeria		In force: 7 Jan. 1997	531	Signed: 16 Feb. 2018
Andorra	Amended: 24 Apr. 2013	In force: 18 Oct. 2010	808	In force: 19 Dec. 2011
Angola	In force: 28 Apr. 2010	In force: 28 Apr. 2010	800	In force: 28 Apr. 2010
Antigua and Barbuda <sup>2</sup>	Amended: 5 Mar. 2012	In force: 9 Sep. 1996	528	In force: 15 Nov. 2013
Argentina <sup>3</sup>		In force: 4 Mar. 1994	435	
Armenia		In force: 5 May 1994	455	In force: 28 Jun. 2004
Australia		In force: 10 Jul. 1974	217	In force: 12 Dec. 1997
Austria <sup>4</sup>		Accession: 31 Jul. 1996	193	In force: 30 Apr. 2004
Azerbaijan		In force: 29 Apr. 1999	580	In force: 29 Nov. 2000
Bahamas <sup>2</sup>	Amended: 25 Jul. 2007	In force: 12 Sep. 1997	544	
Bahrain	In force: 10 May 2009	In force: 10 May 2009	767	In force: 20 Jul. 2011
Bangladesh		In force: 11 Jun. 1982	301	In force: 30 Mar. 2001
Barbados <sup>2</sup>	Х	In force: 14 Aug. 1996	527	
Belarus		In force: 2 Aug. 1995	495	Signed: 15 Nov. 2005
Belgium		In force: 21 Feb. 1977	193	In force: 30 Apr. 2004
Belize <sup>5</sup>	Amended: 21 Jun. 2021	In force: 21 Jan. 1997	532	
Benin	In force: 17 Sep. 2019	In force: 17 Sep. 2019	930	In force: 17 Sep. 2019
Bhutan	Х	In force: 24 Oct. 1989	371	
Bolivia, Plurinational State of <sup>2</sup>	Х	In force: 6 Feb. 1995	465	Signed: 18 Sep. 2019
Bosnia and Herzegovina		In force: 4 Apr. 2013	851	In force: 3 Jul. 2013
Botswana		In force: 24 Aug. 2006	694	In force: 24 Aug. 2006
Brazil <sup>6</sup>		In force: 4 Mar. 1994	435	
Brunei Darussalam	Amended: 2 Sep. 2021	In force: 4 Nov. 1987	365	
Bulgaria <sup>7</sup>		Accession: 1 May 2009	193	Accession: 1 May 2009
Burkina Faso	Amended: 18 Feb. 2008	In force: 17 Apr. 2003	618	In force: 17 Apr. 2003

State <sup>a</sup>	Small quantities protocols <sup>b</sup>	Safeguards agreements <sup>c</sup>	INFCIRC	Additional protocols
Burundi	In force: 27 Sep. 2007	In force: 27 Sep. 2007	719	In force: 27 Sep. 2007
Cabo Verde	In force: 7 Sep. 2022	In force: 7 Sep. 2022	1048	In force: 7 Sep. 2022
Cambodia	Amended: 16 Jul. 2014	In force: 17 Dec. 1999	586	In force: 24 Apr. 2015
Cameroon	Amended: 15 Jul. 2019	In force: 17 Dec. 2004	641	In force: 29 Sep. 2016
Canada		In force: 21 Feb. 1972	164	In force: 8 Sep. 2000
Central African Republic	In force: 7 Sep. 2009	In force: 7 Sep. 2009	777	In force: 7 Sep. 2009
Chad	In force: 13 May 2010	In force: 13 May 2010	802	In force: 13 May 2010
Chile <sup>8</sup>		In force: 5 Apr. 1995	476	In force: 3 Nov. 2003
China		In force: 18 Sep. 1989	369*	In force: 28 Mar. 2002
Colombia <sup>8</sup>		In force: 22 Dec. 1982	306	In force: 5 Mar. 2009
Comoros	In force: 20 Jan. 2009	In force: 20 Jan. 2009	752	In force: 20 Jan. 2009
Congo	In force: 28 Oct. 2011	In force: 28 Oct. 2011	831	In force: 28 Oct. 2011
Costa Rica <sup>2</sup>	Amended: 12 Jan. 2007	In force: 22 Nov. 1979	278	In force: 17 Jun. 2011
Côte d'Ivoire		In force: 8 Sep. 1983	309	In force: 5 May 2016
Croatia <sup>9</sup>		Accession: 1 Apr. 2017	193	Accession: 1 Apr. 2017
Cuba <sup>2</sup>		In force: 3 Jun. 2004	633	In force: 3 Jun. 2004
Cyprus <sup>10</sup>		Accession: 1 May 2008	193	Accession: 1 May 2008
Czech Republic <sup>11</sup>		Accession: 1 Oct. 2009	193	Accession: 1 Oct. 2009
Democratic Republic of the Congo		In force: 9 Nov. 1972	183	In force: 9 Apr. 2003
Denmark <sup>12</sup>		In force: 1 Mar. 1972 In force: 21 Feb. 1977	176 193	In force: 22 Mar. 2013 In force: 30 Apr. 2004
Djibouti	In force: 26 May 2015	In force: 26 May 2015	884	In force: 26 May 2015
Dominica <sup>5</sup>	Х	In force: 3 May 1996	513	
Dominican Republic <sup>2</sup>	Amended: 11 Oct. 2006	In force: 11 Oct. 1973	201	In force: 5 May 2010
Democratic People's Republic of Korea		In force: 10 Apr. 1992	403	
Ecuador <sup>2</sup>	Amended: 7 Apr. 2006	In force: 10 Mar. 1975	231	In force: 24 Oct. 2001
Egypt		In force: 30 Jun. 1982	302	
El Salvador <sup>2</sup>	Amended: 10 Jun. 2011	In force: 22 Apr. 1975	232	In force: 24 May 2004

State <sup>a</sup>	Small quantities protocols <sup>b</sup>	Safeguards agreements <sup>c</sup>	INFCIRC	Additional protocols
Equatorial Guinea	Approved: 13 Jun. 1986	Approved: 13 Jun. 1986		
Eritrea	In force: 20 Apr. 2021	In force: 20 Apr. 2021	960	In force: 20 Apr. 2021
Estonia <sup>13</sup>		Accession: 1 Dec. 2005	193	Accession: 1 Dec. 2005
Eswatini	Amended: 23 Jul. 2010	In force: 28 Jul. 1975	227	In force: 8 Sep. 2010
Ethiopia	Amended: 2 Jul. 2019	In force: 2 Dec. 1977	261	In force: 18 Sep. 2019
Fiji	X	In force: 22 Mar. 1973	192	In force: 14 Jul. 2006
Finland <sup>14</sup>		Accession: 1 Oct. 1995	193	In force: 30 Apr. 2004
France	Amended: 25 Feb. 2019	In force: 12 Sep. 1981 In force: 26 Oct. 2007 <sup>15</sup>	290* 718	In force: 30 Apr. 2004
Gabon	Amended: 30 Oct. 2013	In force: 25 Mar. 2010	792	In force: 25 Mar. 2010
Gambia	Amended: 17 Oct. 2011	In force: 8 Aug. 1978	277	In force: 18 Oct. 2011
Georgia		In force: 3 Jun. 2003	617	In force: 3 Jun. 2003
Germany <sup>16</sup>		In force: 21 Feb. 1977	193	In force: 30 Apr. 2004
Ghana		In force: 17 Feb. 1975	226	In force: 11 Jun. 2004
Greece <sup>17</sup>		Accession: 17 Dec. 1981	193	In force: 30 Apr. 2004
Grenada <sup>2</sup>	X	In force: 23 Jul. 1996	525	
Guatemala <sup>2</sup>	Amended: 26 Apr. 2011	In force: 1 Feb. 1982	299	In force: 28 May 2008
Guinea	Signed: 13 Dec. 2011	Signed: 13 Dec. 2011		Signed: 13 Dec. 2011
Guinea-Bissau	In force: 23 Jun. 2022	In force: 23 Jun. 2022	1005	In force: 23 Jun. 2022
Guyana <sup>2</sup>	X	In force: 23 May 1997	543	
Haiti <sup>2</sup>	Amended: 22 Jan. 2020	In force: 9 Mar. 2006	681	In force: 9 Mar. 2006
Holy See	Amended: 11 Sep. 2006	In force: 1 Aug. 1972	187	In force: 24 Sep. 1998
Honduras <sup>2</sup>	Amended: 20 Sep. 2007	In force: 18 Apr. 1975	235	In force: 17 Nov. 2017
Hungary <sup>18</sup>		Accession: 1 Jul. 2007	193	Accession: 1 Jul. 2007
Iceland	Amended: 15 Mar. 2010	In force: 16 Oct. 1974	215	In force: 12 Sep. 2003
India <sup>19</sup>		In force: 30 Sep. 1971 In force: 17 Nov. 1977 In force: 27 Sep. 1988 In force: 11 Oct. 1989 In force: 1 Mar. 1994 In force: 11 May 2009	211 260 360 374 433 754	In force: 25 Jul. 2014
Indonesia		In force: 14 Jul. 1980	283	In force: 29 Sep. 1999

State <sup>a</sup>	Small quantities protocols <sup>b</sup>	Safeguards agreements <sup>c</sup>	INFCIRC	Additional protocols
Iran, Islamic Republic of <sup>20</sup>		In force: 15 May 1974	214	Signed: 18 Dec. 2003
Iraq		In force: 29 Feb. 1972	172	In force: 10 Oct. 2012
Ireland		In force: 21 Feb. 1977	193	In force: 30 Apr. 2004
Israel		In force: 4 Apr. 1975	249/Add.1	
Italy		In force: 21 Feb. 1977	193	In force: 30 Apr. 2004
Jamaica <sup>2</sup>		In force: 6 Nov. 1978	265	In force: 19 Mar. 2003
Japan		In force: 2 Dec. 1977	255	In force: 16 Dec. 1999
Jordan		In force: 21 Feb. 1978	258	In force: 28 Jul. 1998
Kazakhstan		In force: 11 Aug. 1995	504	In force: 9 May 2007
Kenya	In force: 18 Sep. 2009	In force: 18 Sep. 2009	778	In force: 18 Sep. 2009
Kiribati	X	In force: 19 Dec. 1990	390	Signed: 9 Nov. 2004
Korea, Republic of		In force: 14 Nov. 1975	236	In force: 19 Feb. 2004
Kuwait	Amended: 26 Jul. 2013	In force: 7 Mar. 2002	607	In force: 2 Jun. 2003
Kyrgyzstan	X	In force: 3 Feb. 2004	629	In force: 10 Nov. 2011
Lao People's Democratic Republic	Amended: 24 Jun. 2022	In force: 5 Apr. 2001	599	Signed: 5 Nov. 2014
Latvia <sup>21</sup>		Accession: 1 Oct. 2008	193	Accession: 1 Oct. 2008
Lebanon	Amended: 5 Sep. 2007	In force: 5 Mar. 1973	191	
Lesotho	Amended: 8 Sep. 2009	In force: 12 Jun. 1973	199	In force: 26 Apr. 2010
Liberia	In force: 10 Dec. 2018	In force: 10 Dec. 2018	927	In force: 10 Dec. 2018
Libya		In force: 8 Jul. 1980	282	In force: 11 Aug. 2006
Liechtenstein		In force: 4 Oct. 1979	275	In force: 25 Nov. 2015
Lithuania <sup>22</sup>		Accession: 1 Jan. 2008	193	Accession: 1 Jan. 2008
Luxembourg		In force: 21 Feb. 1977	193	In force: 30 Apr. 2004
Madagascar	Amended: 29 May 2008	In force: 14 Jun. 1973	200	In force: 18 Sep. 2003
Malawi	Amended: 29 Feb. 2008	In force: 3 Aug. 1992	409	In force: 26 Jul. 2007
Malaysia		In force: 29 Feb. 1972	182	Signed: 22 Nov. 2005
Maldives	Amended: 21 May 2021	In force: 2 Oct. 1977	253	
Mali	Amended: 18 Apr. 2006	In force: 12 Sep. 2002	615	In force: 12 Sep. 2002

State <sup>a</sup>	Small quantities protocols <sup>b</sup>		INFCIRC	Additional protocols		
Malta <sup>23</sup>		Accession: 1 Jul. 2007	193	Accession: 1 Jul. 2007		
Marshall Islands		In force: 3 May 2005	653	In force: 3 May 2005		
Mauritania	Amended: 20 Mar. 2013	In force: 10 Dec. 2009	788	In force: 10 Dec. 2009		
Mauritius	Amended: 26 Sep. 2008	In force: 31 Jan. 1973	190	In force: 17 Dec. 2007		
Mexico <sup>24</sup>		In force: 14 Sep. 1973	197	In force: 4 Mar. 2011		
Micronesia, Federated States of	In force: 1 Sep. 2021	In force: 1 Sep. 2021	962			
Monaco	Amended: 27 Nov. 2008	In force: 13 Jun. 1996	524	In force: 30 Sep. 1999		
Mongolia	X	In force: 5 Sep. 1972	188	In force: 12 May 2003		
Montenegro	In force: 4 Mar. 2011	In force: 4 Mar. 2011	814	In force: 4 Mar. 2011		
Morocco		In force: 18 Feb. 1975	228	In force: 21 Apr. 2011		
Mozambique	In force: 1 Mar. 2011	In force: 1 Mar. 2011	813	In force: 1 Mar. 2011		
Myanmar	X	In force: 20 Apr. 1995	477	Signed: 17 Sep. 2013		
Namibia	Amended: 4 Jul. 2022	In force: 15 Apr. 1998	551	In force: 20 Feb. 2012		
Nauru	X	In force: 13 Apr. 1984	317			
Nepal	X	In force: 22 Jun. 1972	186			
Netherlands	X	In force: 5 Jun. 1975 <sup>15</sup> In force: 21 Feb. 1977	229 193	In force: 30 Apr. 2004		
New Zealand <sup>25</sup>	Amended: 24 Feb. 2014	In force: 29 Feb. 1972	185	In force: 24 Sep. 1998		
Nicaragua <sup>2</sup>	Amended: 12 Jun. 2009	In force: 29 Dec. 1976	246	In force: 18 Feb. 2005		
Niger		In force: 16 Feb. 2005	664	In force: 2 May 2007		
Nigeria		In force: 29 Feb. 1988	358	In force: 4 Apr. 2007		
North Macedonia	Amended: 9 Jul. 2009	In force: 16 Apr. 2002	610	In force: 11 May 2007		
Norway		In force: 1 Mar. 1972	177	In force: 16 May 2000		
Oman	Х	In force: 5 Sep. 2006	691			
Pakistan		In force: 5 Mar. 1962 In force: 17 Jun. 1968 In force: 17 Oct. 1969 In force: 18 Mar. 1976 In force: 2 Mar. 1977 In force: 10 Sep. 1991 In force: 24 Feb. 1993 In force: 22 Feb. 2007 In force: 15 Apr. 2011 In force: 3 May 2017	34 116 135 239 248 393 418 705 816 920			

State <sup>a</sup>	Small quantities protocols <sup>b</sup>	Safeguards agreements <sup>c</sup>	INFCIRC	Additional protocols
Palau	Amended: 15 Mar. 2006	In force: 13 May 2005	650	In force: 13 May 2005
Panama <sup>8</sup>	Amended: 4 Mar. 2011	In force: 23 Mar. 1984	316	In force: 11 Dec. 2001
Papua New Guinea	Amended: 6 Feb. 2019	In force: 13 Oct. 1983	312	
Paraguay <sup>2</sup>	Amended: 17 Jul. 2018	In force: 20 Mar. 1979	279	In force: 15 Sep. 2004
Peru <sup>2</sup>		In force: 1 Aug. 1979	273	In force: 23 Jul. 2001
Philippines		In force: 16 Oct. 1974	216	In force: 26 Feb. 2010
Poland <sup>26</sup>		Accession: 1 Mar. 2007	193	Accession: 1 Mar. 2007
Portugal <sup>27</sup>		Accession: 1 Jul. 1986	193	In force: 30 Apr. 2004
Qatar	In force: 21 Jan. 2009	In force: 21 Jan. 2009	747	
Republic of Moldova	Amended: 1 Sep. 2011	In force: 17 May 2006	690	In force: 1 Jun. 2012
Romania <sup>28</sup>		Accession: 1 May 2010	193	Accession: 1 May 2010
Russian Federation		In force: 10 Jun. 1985	327*	In force: 16 Oct. 2007
Rwanda	In force: 17 May 2010	In force: 17 May 2010	801	In force: 17 May 2010
Saint Kitts and Nevis <sup>5</sup>	Amended: 19 Aug. 2016	In force: 7 May 1996	514	In force: 19 May 2014
Saint Lucia <sup>5</sup>	Amended: 23 Nov. 2021	In force: 2 Feb. 1990	379	
Saint Vincent and the Grenadines <sup>5</sup>	Х	In force: 8 Jan. 1992	400	
Samoa	X	In force: 22 Jan. 1979	268	
San Marino	Amended: 13 May 2011	In force: 21 Sep. 1998	575	
Sao Tome and Principe	Approved: 21 Nov. 2019	Approved: 21 Nov. 2019		Approved: 21 Nov. 2019
Saudi Arabia	Х	In force: 13 Jan. 2009	746	
Senegal	Amended: 6 Jan. 2010	In force: 14 Jan. 1980	276	In force: 24 Jul. 2017
Serbia <sup>29</sup>		In force: 28 Dec. 1973	204	In force: 17 Sep. 2018
Seychelles	Amended: 31 Oct. 2006	In force: 19 Jul. 2004	635	In force: 13 Oct. 2004
Sierra Leone	X	In force: 4 Dec. 2009	787	Signed: 31 Oct. 2022
Singapore	Amended: 31 Mar. 2008	In force: 18 Oct. 1977	259	In force: 31 Mar. 2008
Slovakia <sup>30</sup>		Accession: 1 Dec. 2005	193	Accession: 1 Dec. 2005
Slovenia <sup>31</sup>		Accession: 1 Sep. 2006	193	Accession: 1 Sep. 2006
Solomon Islands	x	In force: 17 Jun. 1993	420	

State <sup>a</sup>	Small quantities protocols <sup>b</sup>	Safeguards agreements <sup>c</sup>	INFCIRC	Additional protocols
Somalia				
South Africa		In force: 16 Sep. 1991	394	In force: 13 Sep. 2002
Spain		Accession: 5 Apr. 1989	193	In force: 30 Apr. 2004
Sri Lanka		In force: 6 Aug. 1984	320	Approved: 12 Sep. 2018
State of Palestine <sup>32</sup>	In force: 7 Sep. 2022	In force: 7 Sep. 2022	1050	
Sudan	Amended: 19 Feb. 2021	In force: 7 Jan. 1977	245	
Suriname <sup>2</sup>	Amended: 31 Oct. 2022	In force: 2 Feb. 1979	269	
Sweden <sup>33</sup>		Accession: 1 Jun. 1995	193	In force: 30 Apr. 2004
Switzerland		In force: 6 Sep. 1978	264	In force: 1 Feb. 2005
Syrian Arab Republic		In force: 18 May 1992	407	
Tajikistan		In force: 14 Dec. 2004	639	In force: 14 Dec. 2004
Thailand		In force: 16 May 1974	241	In force: 17 Nov. 2017
Timor-Leste	Signed: 6 Oct. 2009	Signed: 6 Oct. 2009		Signed: 6 Oct. 2009
Togo	Amended: 8 Oct. 2015	In force: 18 Jul. 2012	840	In force: 18 Jul. 2012
Tonga	Amended: 3 Apr. 2018	In force: 18 Nov. 1993	426	
Trinidad and Tobago <sup>2</sup>	Х	In force: 4 Nov. 1992	414	
Tunisia		In force: 13 Mar. 1990	381	Signed: 24 May 2005
Türkiye		In force: 1 Sep. 1981	295	In force: 17 Jul. 2001
Turkmenistan		In force: 3 Jan. 2006	673	In force: 3 Jan. 2006
Tuvalu	Amended: 1 Dec. 2022	In force: 15 Mar. 1991	391	
Uganda	Amended: 24 Jun. 2009	In force: 14 Feb. 2006	674	In force: 14 Feb. 2006
Ukraine		In force: 22 Jan. 1998	550	In force: 24 Jan. 2006
United Arab Emirates		In force: 9 Oct. 2003	622	In force: 20 Dec. 2010
United Kingdom	Signed: 6 Jan. 1993	In force: 14 Dec. 1972 <sup>34</sup> Signed: 6 Jan. 1993 <sup>15</sup>	175	
	A	In force: 31 Dec. 2020 <sup>35</sup>	951*	In force: 31 Dec. 2020 <sup>35</sup>
United Republic of Tanzania	Amended: 10 Jun. 2009	In force: 7 Feb. 2005 In force: 9 Dec. 1980	643 288*	In force: 7 Feb. 2005 In force: 6 Jan. 2009
United States of America	Amended: 3 Jul. 2018	In force: 6 Apr. 1989 <sup>15</sup>	366	III IOIGG. O JAN. 2009
Uruguay <sup>2</sup>		In force: 17 Sep. 1976	157	In force: 30 Apr. 2004
Uzbekistan		In force: 8 Oct. 1994	508	In force: 21 Dec. 1998

State <sup>a</sup>	Small quantities protocols <sup>b</sup>	Safeguards agreements <sup>c</sup>	INFCIRC	Additional protocols
Vanuatu	In force: 21 May 2013	In force: 21 May 2013	852	In force: 21 May 2013
Venezuela, Bolivarian Republic of <sup>2</sup>		In force: 11 Mar. 1982	300	
Viet Nam		In force: 23 Feb. 1990	376	In force: 17 Sep. 2012
Yemen	X	In force: 14 Aug. 2002	614	
Zambia	X	In force: 22 Sep. 1994	456	Signed: 13 May 2009
Zimbabwe	Amended: 31 Aug. 2011	In force: 26 Jun. 1995	483	In force: 21 Sep. 2021

#### Key

**Bold** States not party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) whose safeguards agreements are of INFCIRC/66-type.

Italics States Parties to the NPT that have not yet brought into force comprehensive safeguards agreements (CSAs) pursuant to Article III of the NPT.

- \* Voluntary offer safeguards agreement with NPT nuclear-weapon States.
- X 'X' in the 'small quantities protocols' column indicates that the State has an operative small quantities protocol (SQP). 'Amended' or 'In force' indicates that the operative SQP is based on the revised SQP standardized text.

NB: This table does not aim at listing all safeguards agreements that the Agency has concluded. Not included are agreements under which the application of safeguards has been suspended upon the entry into force of a CSA. Unless otherwise indicated, the safeguards agreements referred to are CSAs concluded pursuant to the NPT.

- <sup>a</sup> An entry in this column does not imply the expression of any opinion whatsoever on the part of the Agency concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.
- Provided that they meet certain eligibility criteria (including that the quantities of nuclear material do not exceed the limits set out in paragraph 37 of INFCIRC/153 (Corrected)), countries have the option to conclude an SQP to their CSAs that holds in abeyance the implementation of most of the detailed provisions set out in Part II of the CSAs as long as eligibility criteria continue to apply. This column contains countries whose CSA with an SQP based on the original standard text has been approved by the Board of Governors and for which, as far as the Secretariat is aware, these eligibility criteria continue to apply. For those States that have accepted the revised standard SQP text (approved by the Board of Governors on 20 September 2005) the current status is reflected.
- <sup>c</sup> The Agency also applies safeguards for Taiwan, China, under two agreements, which entered into force on 13 October 1969 (reproduced in INFCIRC/133) and 6 December 1971 (reproduced in INFCIRC/158), respectively.
- Sui generis comprehensive safeguards agreement. On 28 November 2002, upon approval by the Board of Governors, an exchange of letters entered into force confirming that the safeguards agreement satisfies the requirement of Article III of the NPT.
- Safeguards agreement is pursuant to both the Treaty of Tlatelolco and the NPT.
- Date refers to the safeguards agreement concluded between Argentina, Brazil, ABACC and the Agency. On 18 March 1997, upon approval by the Board of Governors, an exchange of letters entered into force between Argentina and the Agency confirming that the safeguards agreement satisfies the requirements of Article 13 of the Treaty of Tlatelolco and Article III of the NPT to conclude a safeguards agreement with the Agency.
- <sup>4</sup> The application of safeguards for Austria under the NPT bilateral safeguards agreement (reproduced in INFCIRC/156), in force since 23 July 1972, was suspended on 31 July 1996, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Austria had acceded, entered into force for Austria.
- Date refers to a safeguards agreement pursuant to Article III of the NPT. Upon approval by the Board of Governors, an exchange of letters entered into force (for Saint Lucia on 12 June 1996 and for Belize, Dominica, Saint Kitts and Nevis and Saint Vincent and the Grenadines on 18 March 1997) confirming that the safeguards agreement satisfies the requirement of Article 13 of the Treaty of Tlatelolco.
- Date refers to the safeguards agreement concluded between Argentina, Brazil, ABACC and the Agency. On 10 June 1997, upon approval by the Board of Governors, an exchange of letters entered into force between Brazil and the Agency confirming that the safeguards agreement satisfies the requirement of Article 13 of the Treaty of Tlatelolco. On 20 September 1999, upon approval by the Board of Governors, an exchange of letters entered into force confirming that the safeguards agreement also satisfies the requirement of Article III of the NPT.
- The application of safeguards for Bulgaria under the NPT bilateral safeguards agreement (reproduced in INFCIRC/178), in force since

- 29 February 1972, was suspended on 1 May 2009, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Bulgaria had acceded, entered into force for Bulgaria.
- Date refers to a safeguards agreement pursuant to Article 13 of the Treaty of Tlatelolco. Upon approval by the Board of Governors, an exchange of letters entered into force (for Chile on 9 September 1996; for Colombia on 13 June 2001; for Panama on 20 November 2003) confirming that the safeguards agreement satisfies the requirement of Article III of the NPT.
- The application of safeguards for Croatia under the NPT bilateral safeguards agreement (reproduced in INFCIRC/463), in force since 19 January 1995, was suspended on 1 April 2017, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Croatia had acceded, entered into force for Croatia.
- The application of safeguards for Cyprus under the NPT bilateral safeguards agreement (reproduced in INFCIRC/189), in force since 26 January 1973, was suspended on 1 May 2008, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Cyprus had acceded, entered into force for Cyprus.
- 11 The application of safeguards for the Czech Republic under the NPT bilateral safeguards agreement (reproduced in INFCIRC/541), in force since 11 September 1997, was suspended on 1 October 2009, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which the Czech Republic had acceded, entered into force for the Czech Republic.
- The application of safeguards for Denmark under the NPT bilateral safeguards agreement (reproduced in INFCIRC/176), in force since 1 March 1972, was suspended on 21 February 1977, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193) entered into force for Denmark. Since 21 February 1977, INFCIRC/193 also applies to the Faroe Islands. Upon Greenland's secession from Euratom as of 31 January 1985, INFCIRC/176 re-entered into force for Greenland. The Additional Protocol for Greenland entered into force on 22 March 2013 (reproduced in INFCIRC/176/Add.1).
- 13 The application of safeguards for Estonia under the NPT bilateral safeguards agreement (reproduced in INFCIRC/547), in force since 24 November 1997, was suspended on 1 December 2005, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Estonia had acceded, entered into force for Estonia.
- 14 The application of safeguards for Finland under the NPT bilateral safeguards agreement (reproduced in INFCIRC/155), in force since 9 February 1972, was suspended on 1 October 1995, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Finland had acceded, entered into force for Finland.
- $^{15}$  The safeguards agreement is in connection with Additional Protocol I to the Treaty of Tlatelolco.
- 16 The NPT safeguards agreement of 7 March 1972 concluded with the German Democratic Republic (reproduced in INFCIRC/181) is no longer in force with effect from 3 October 1990, on which date the German Democratic Republic acceded to the Federal Republic of Germany.
- 17 The application of safeguards for Greece under the NPT bilateral safeguards agreement (reproduced in INFCIRC/166), in force since 1 March 1972, was suspended on 17 December 1981, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Greece had acceded, entered into force for Greece.
- The application of safeguards for Hungary under the NPT bilateral safeguards agreement (reproduced in INFCIRC/174), in force since 30 March 1972, was suspended on 1 July 2007, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Hungary had acceded, entered into force for Hungary.
- The application of safeguards for India under the safeguards agreement between the Agency, Canada and India (reproduced in INFCIRC/211), in force since 30 September 1971, was suspended as of 20 March 2015. The application of safeguards for India under the safeguards agreements between the Agency and India reproduced in the following INFCIRCs was suspended as of 30 June 2016: INFCIRC/260, in force since 17 November 1977; INFCIRC/360, in force since 27 September 1988; INFCIRC/374, in force since 11 October 1989; and INFCIRC/433, in force since 1 March 1994. Items subject to safeguards under the aforementioned safeguards agreements are subject to safeguards under the safeguards agreement between India and the Agency (reproduced in INFCIRC/754), which entered into force on 11 May 2009.
- On 16 January 2016, as notified in its letter to the Director General of 7 January 2016, Iran began to provisionally apply its additional protocol in accordance with Article 17(b) of the additional protocol, pending its entry into force. The additional protocol, which was provisionally applied by Iran as of 16 January 2016, has not been applied since 23 February 2021.
- 21 The application of safeguards for Latvia under the NPT bilateral safeguards agreement (reproduced in INFCIRC/434), in force since 21 December 1993, was suspended on 1 October 2008, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Latvia had acceded, entered into force for Latvia.
- The application of safeguards for Lithuania under the NPT bilateral safeguards agreement (reproduced in INFCIRC/413), in force since 15 October 1992, was suspended on 1 January 2008, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Lithuania had acceded, entered into force for Lithuania.
- 23 The application of safeguards for Malta under the NPT bilateral safeguards agreement (reproduced in INFCIRC/387), in force since 13 November 1990, was suspended on 1 July 2007, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Malta had acceded, entered into force for Malta.
- The safeguards agreement was concluded pursuant to both the Treaty of Tlatelolco and the NPT. The application of safeguards under an earlier safeguards agreement pursuant to the Treaty of Tlatelolco, which entered into force on 6 September 1968 (reproduced in INFCIRC/118), was suspended as of 14 September 1973.
- Whereas the NPT safeguards agreement and SQP with New Zealand (reproduced in INFCIRC/185) also apply to Cook Islands and Niue, the additional protocol thereto (reproduced in INFCIRC/185/Add.1) does not apply to those territories. Amendments to the SQP entered into force only for New Zealand on 24 February 2014 (reproduced in INFCIRC/185/Mod.1).
- <sup>26</sup> The application of safeguards for Poland under the NPT bilateral safeguards agreement (reproduced in INFCIRC/179), in force since

- 11 October 1972, was suspended on 1 March 2007, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Poland had acceded, entered into force for Poland.
- <sup>27</sup> The application of safeguards for Portugal under the NPT bilateral safeguards agreement (reproduced in INFCIRC/272), in force since 14 June 1979, was suspended on 1 July 1986, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Portugal had acceded, entered into force for Portugal.
- The application of safeguards for Romania under the NPT bilateral safeguards agreement (reproduced in INFCIRC/180), in force since 27 October 1972, was suspended on 1 May 2010, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Romania had acceded, entered into force for Romania.
- <sup>29</sup> The NPT safeguards agreement concluded with the Socialist Federal Republic of Yugoslavia (reproduced in INFCIRC/204), which entered into force on 28 December 1973, continues to be applied for Serbia to the extent relevant to the territory of Serbia.
- The application of safeguards for Slovakia under the NPT bilateral safeguards agreement with the Czechoslovak Socialist Republic (reproduced in INFCIRC/173), in force since 3 March 1972, was suspended on 1 December 2005, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Slovakia had acceded, entered into force for Slovakia.
- 31 The application of safeguards for Slovenia under the NPT bilateral safeguards agreement (reproduced in INFCIRC/538), in force since 1 August 1997, was suspended on 1 September 2006, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Slovenia had acceded, entered into force for Slovenia.
- 32 The designation employed does not imply the expression of any opinion whatsoever concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.
- The application of safeguards for Sweden under the NPT bilateral safeguards agreement (reproduced in INFCIRC/234), in force since 14 April 1975, was suspended on 1 June 1995, on which date the agreement of 5 April 1973 between the non-nuclear-weapon States of Euratom, Euratom and the Agency (reproduced in INFCIRC/193), to which Sweden had acceded, entered into force for Sweden.
- <sup>34</sup> Date refers to the INFCIRC/66-type safeguards agreement, concluded between the United Kingdom and the Agency, which remains in force.
- <sup>35</sup> The voluntary offer safeguards agreement between the United Kingdom and the Agency (reproduced in INFCIRC/951) and the additional protocol thereto (reproduced in INFCIRC/951/Add.1) entered into force on 31 December 2020 at 23:00 GMT.

Table A7. Participation in multilateral treaties for which the Director General is the depositary (status as of 31 December 2022)

	State/Organization <sup>a</sup>	P&I	ENC	AC	CNS	2	CPPNM	A/CPPNM	VC	PVC	CSC	<del>-</del>
*	Afghanistan						Х					
*	Albania	Х	Х	Х	Χ	X	Х	Х				
*	Algeria		Х	Х			Х	Х				
	Andorra						Х					
*	Angola		Х		Χ		Х	Х				
*	Antigua and Barbuda						Х	Х				
*	Argentina	Х	Х	Х	Χ	Χ	Х	Х	Х	X	Χ	
*	Armenia		Х	Х	X	X	X	Х	Х			
*	Australia	X	Х	X	Χ	Χ	Х	Х				
*	Austria		Х	X	Χ	X	Х	Х				
*	Azerbaijan						Х	Х				
*	Bahamas						X					
*	Bahrain		Χ		X		Χ	Χ				
*	Bangladesh		Х	Х	X		X	Х				
*	Barbados											
*	Belarus	X	X	X	X	X	X		Х	X		
*	Belgium	X	Χ	X	Χ	X	Χ	Χ				
*	Belize											
*	Benin	X	Χ	X	X	X	Χ	Χ	Χ	X	Χ	X
	Bhutan											
*	Bolivia, Plurinational State of	Х	Χ	Х	Χ	Χ	Х	Х	Χ			
*	Bosnia and Herzegovina	X	Х	X	Χ	X	X	Х	Х	X		
*	Botswana		Х	Х		X	Х	Х				
*	Brazil	Χ	Х	Х	Χ	X	X	Х	Х			
*	Brunei Darussalam	Х										
*	Bulgaria	X	Х	X	Χ	Χ	X	Х	Х			X

	State/Organization <sup>a</sup>	P&I	ENC	AC	CNS	JC JC	CPPNM	A/CPPNM	VC	PVC	CSC	음
*	Burkina Faso		Χ	Χ			X	X				
*	Burundi											
	Cabo Verde						X					
*	Cambodia		Х	Х	X		X					
*	Cameroon	X	X	X			X	X	X			X
*	Canada	X	X	Х	X	X	X	X			X	
*	Central African Republic						Χ					
*	Chad						X	X				
*	Chile	Χ	Х	Х	X	X	X	X	Х			X
*	China	X	Χ	Х	X	X	X	X				
*	Colombia	X	Х	Х			X	X				
*	Comoros						X	X				
*	Congo	X	Χ		X	X	X					
*	Costa Rica		Х	Х			X	X				
*	Côte d'Ivoire	X	Х	Χ			X	X				
*	Croatia	X	Х	Х	X	X	X	X	Х			X
*	Cuba	X	Х	Χ	X	X	X	X	Χ			
*	Cyprus	X	Χ	Χ	X	X	X	X				
*	Czech Republic	X	Х	Х	X	Χ	Χ	X	Х			X
	Dem. People's Rep. of Korea											
*	Dem. Rep. of the Congo	X					X					
*	Denmark	X	Х	Х	X	X	X	X				X
*	Djibouti						X	X				
*	Dominica						X					
*	Dominican Republic		Х				X	X				
*	Ecuador	X	Х	Х			X	X				
*	Egypt	X	Х	Х					Х			X
*	El Salvador		Х	Х			Х	Х				

	State/Organization <sup>a</sup>	P&I	ENC	AC	CNS	<u>ي</u>	CPPNM	A/CPPNM	VC	PVC	CSC	₽
	Equatorial Guinea						Х					
*	Eritrea	Χ	X	X		X	Χ	X				
*	Estonia	Χ	Χ	X	Χ	X	Χ	X	X			X
*	Eswatini						Х	X				
*	Ethiopia											
*	Fiji						Х	X				
*	Finland	Χ	Х	X	Х	Χ	Χ	Х				X
*	France		Х	X	Х	X	Х	Х				X
*	Gabon		Χ	X		X	Χ	Χ				
	Gambia											
*	Georgia	X	Χ	X		X	Χ	Х				
*	Germany	X	X	X	Χ	X	Χ	Χ				X
*	Ghana	X	Х	X	Х	X	Χ	Х	X	Χ	Χ	X
*	Greece	X	X	X	Χ	X	Χ	Χ				X
*	Grenada						Χ					
*	Guatemala		Χ	X			Χ					
	Guinea						Χ					
	Guinea-Bissau						Χ					
*	Guyana						Χ					
*	Haiti											
*	Holy See	X										
*	Honduras						Χ					
*	Hungary	X	Χ	X	Χ	X	Χ	Χ	X			X
*	Iceland	Χ	Х	X	Х	X	Х	Х				
*	India	X	Х	X	Х		Х	Х			Χ	
*	Indonesia	Χ	Х	X	Х	X	Х	Х				
*	Iran, Islamic Republic of	Χ	Х	X								
*	Iraq	Χ	Х	Х			Х					

	State/Organization <sup>a</sup>	P&I	ENC	AC	CNS	<u>ي</u>	CPPNIM	A/CPPNM	VC	PVC	OSC	<b>e</b> r
*	Ireland	Х	Х	Χ	Х	Х	Х	Х				
*	Israel		X	X			X	X				
*	Italy	X	X	X	Χ	Χ	X	X				Χ
*	Jamaica	X					X	X				
*	Japan	X	X	X	Χ	Χ	X	X			X	
*	Jordan	X	X	X	X	X	X	X	X	X		
*	Kazakhstan	X	X	X	X	X	X	X	X	X		
*	Kenya						X	X				
	Kiribati											
*	Korea, Republic of	X	X	X	Χ	Χ	X	X				
*	Kuwait	Χ	X	X	Χ		Χ	X				
*	Kyrgyzstan					Χ	X	X				
*	Lao People's Dem. Rep.		X	Χ			X					
*	Latvia	X	X	X	X	X	X	X	X	X		X
*	Lebanon	X	X	Χ	Χ		X		Χ			
*	Lesotho	X	X	X		Χ	X	X				
*	Liberia											
*	Libya		X	X	Χ		X	X				
*	Liechtenstein		X	X			X	X				
*	Lithuania	X	X	X	X	X	X	X	X			X
*	Luxembourg	X	X	X	X	Χ	X	Χ				
*	Madagascar		X	X	X	X	X	X				
*	Malawi		X	Χ		Χ	X	Χ				
*	Malaysia		X	X								
	Maldives											
*	Mali		X	X	X		X	X				
*	Malta				Х	Χ	X	X				
*	Marshall Islands						Х	Χ				

	State/Organization <sup>a</sup>	P&I	ENC	AC	CNS	5	CPPNIM	A/CPPNM	۸C	PVC	OSC	<u>a</u>
*	Mauritania		Х	Х		Х	Х	Х				
*	Mauritius	Х	Х	X		Χ			X			
*	Mexico	X	Χ	X	Χ	Χ	Χ	X	X			
	Micronesia, Federated States of											
*	Monaco		X	X			X	X				
*	Mongolia	X	X	X			Х					
*	Montenegro	X	Χ	X	Χ	Χ	Χ	X	X	X	Χ	Χ
*	Morocco	X	Х	X	Χ	Χ	Х	X	X	X	Χ	Χ
*	Mozambique	X	Х	X			Х	X				
*	Myanmar		Χ	X	Χ		Χ	X				
*	Namibia		Х	X			Х	X				
	Nauru						Χ	X				
*	Nepal											
*	Netherlands	X	Х	Χ	Χ	Χ	Χ	X				Χ
*	New Zealand	X	Χ	X			Χ	X				
*	Nicaragua	X	Х	Χ			Χ	X				
*	Niger	X	Х	X	Χ	Χ	Χ	X	X	X		
*	Nigeria	X	Χ	X	Χ	Χ	Χ	X	X			
	Niue						Х					
*	North Macedonia		Х	X	X	X	Х	X	X			
*	Norway	X	Х	Χ	Χ	Χ	Χ	X				Χ
*	Oman	X	Х	X	X	X	Х	X				
*	Pakistan	Х	Х	Χ	Χ		Χ	Χ				
*	Palau	X					Х					
	Palestine						Xb	Xb				
*	Panama		Х	X			Х	X				
*	Papua New Guinea											
*	Paraguay	Х	Х	Χ	Χ	Χ	Х	Х				

	State/Organization <sup>a</sup>	P&I	ENC	AC	CNS	٦ <sub></sub>	CPPNM	A/CPPNM	VC	PVC	OSC	╾
*	Peru		Χ	X	X	Χ	Х	Х	X			
*	Philippines	Х	X	X			Χ	Х	Х			
*	Poland	X	X	X	X	X	Χ	X	X	X		X
*	Portugal	X	X	X	X	X	X	X				
*	Qatar		X	X	X		X	X				
*	Republic of Moldova	X	X	X	X	X	X	X	X			
*	Romania	X	Х	Χ	X	X	Χ	X	X	X	Χ	Χ
*	Russian Federation	X	Х	X	X	X	Х	X	X			
*	Rwanda		Х	X		Χ	Х	Χ	Х			
*	Saint Kitts and Nevis						X	X				
*	Saint Lucia						Х	Х				
*	Saint Vincent and the Grenadines		X	X					Χ			Χ
*	Samoa											
*	San Marino						Х	X				
	São Tomé and Príncipe											
*	Saudi Arabia		Х	X	X	X	Х	X	X	X		
*	Senegal	X	Χ	X	X	X	Χ	Χ	X			
*	Serbia	X	Х	X	X	X	Χ	X	X			
*	Seychelles						Х	X				
*	Sierra Leone											
*	Singapore	X	Х	X	X		Χ	X				
*	Slovakia	X	Х	X	X	X	Х	X	X			X
*	Slovenia	Х	Х	X	X	X	Х	X				X
	Solomon Islands											
	Somalia											
*	South Africa	X	X	X	X	X	X					
	South Sudan											
*	Spain	Х	Х	Χ	Χ	Χ	Х	Х				

	State/Organization <sup>a</sup>	P&I	ENC	AC	CNS	<u>ي</u>	CPPNM	A/CPPNM	VC	PVC	oso	٩٢
*	Sri Lanka		X	Χ	Χ							
*	Sudan						Χ					
	Suriname											
*	Sweden	X	X	X	X	X	X	X				X
*	Switzerland	X	X	X	X	Χ	X	X				X
*	Syrian Arab Republic	X	X	X	X	X	X	X				
*	Tajikistan	X	X	Χ		Χ	Χ	Χ				
*	Thailand	X	X	X	X	X	X	X				
	Timor Leste											
*	Togo						Χ					
*	Tonga						Χ					
*	Trinidad and Tobago						Χ		Χ			
*	Tunisia	X	X	Χ	Χ		Χ	Χ				
*	Türkiye	X	X	Χ	Χ		Χ	X				X
*	Turkmenistan						Χ	X				
	Tuvalu											
*	Uganda						Χ					
*	Ukraine	X	X	Χ	Χ	Χ	Χ	X	X			X
*	United Arab Emirates		X	Χ	Χ	Χ	Χ	Х		Х	X	X
*	United Kingdom	X	X	Χ	X	Χ	Χ	X				
*	United Republic of Tanzania		Χ	Χ			Χ					
*	United States of America		X	Χ	X	X	X	X			X	
*	Uruguay		Χ	Χ	Χ	Χ	Χ	X	Х			Χ
*	Uzbekistan					Χ	X	X				
*	Vanuatu											
*	Venezuela, Bolivarian Republic of		X									
*	Viet Nam	X	Χ	Χ	Χ	Χ	Χ	X				
*	Yemen						Χ					

	State/Organization <sup>a</sup>	P&I	ENC	AC	CNS	25	CPPNM	A/CPPNM	VC	PVC	OSO	╾
*	Zambia						Χ					
*	Zimbabwe		Х	X		X	Χ					
	Euratom		Х	X	Χ	X	Χ	Χ				
	FAO		Х	X								
	WHO		Х	Χ								
	WMO		Х	X								

P&I	Agreement on the Privileges and Immunities of the IAEA
ENC	Convention on Early Notification of a Nuclear Accident
AC	Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
CNS	Convention on Nuclear Safety
JC	Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management
CPPNM	Convention on the Physical Protection of Nuclear Material
A/CPPNM	Amendment to the Convention on the Physical Protection of Nuclear Material
VC	Vienna Convention on Civil Liability for Nuclear Damage
PVC	Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage
CSC	Convention on Supplementary Compensation for Nuclear Damage
JP	Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention
*	Agency Member State
X	Party

<sup>&</sup>lt;sup>a</sup> An entry in this column does not imply the expression of any opinion whatsoever on the part of the Agency concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

<sup>&</sup>lt;sup>b</sup> Acceded as State of Palestine.

## Table A8. Member States that have concluded a Revised Supplementary Agreement (RSA) concerning the Provision of Technical Assistance by the Agency (status as of 31 December 2022)<sup>a</sup>

Afghanistan Gabon North Macedonia
Albania Georgia Oman

Algeria Ghana Pakistan Angola Greece Palau Guatemala Antigua and Barbuda Panama Guyana Argentina Paraguay Armenia Haiti Peru Azerbaijan Honduras **Philippines** Bahrain Hungary Poland Bangladesh Iceland Portugal

Belize Iran, Islamic Republic of Republic of Moldova

BeninIraqRomaniaBolivia, Plurinational State ofIrelandRwandaBosnia and HerzegovinaIsraelSaint Lucia

Indonesia

Botswana Jamaica Saint Vincent and the Grenadines

Qatar

Saudi Arabia

Senegal

Serbia

Brazil Jordan

Brunei Darussalam Kazakhstan

Bulgaria Kenya

Burkina Faso Korea, Republic of

Belarus

Burundi Kuwait Sierra Leone
Cambodia Kyrgyzstan Singapore

Cameroon Lao People's Democratic Republic Slovakia Central African Republic Latvia Slovenia Chad Lebanon South Africa Chile Lesotho Spain China Liberia Sri Lanka Colombia Libya

Comoros Lithuania Sudan Syrian Arab Republic

CongoMadagascarSyrian ArabCosta RicaMalawiTajikistanCôte d'IvoireMalaysiaThailandCroatiaMaliTogo

Cuba Malta Trinidad and Tobago

CyprusMarshall IslandsTunisiaCzech RepublicMauritaniaTürkiyeDemocratic Republic of the CongoMauritiusTurkmenistanDjiboutiMexicoUgandaDominicaMongoliaUkraine

Dominican RepublicMontenegroUnited Arab EmiratesEcuadorMoroccoUnited Republic of Tanzania

Egypt Mozambique Uruguay
El Salvador Myanmar Uzbekistan
Eritrea Namibia Vanuatu

Estonia Nepal Venezuela, Bolivarian Republic of

Eswatini Nicaragua Viet Nam
Ethiopia Niger Zambia
Fiji Nigeria Zimbabwe

<sup>&</sup>lt;sup>a</sup> In 2022, Comoros concluded an RSA with the Agency. By the end of the year, there were 143 States party to an RSA.

## Table A9. Acceptance of Amendment to Article VI of the Agency's Statute (status as of 31 December 2022)<sup>a</sup>

Afghanistan Germany Netherlands Albania Greece Norway Holy See Algeria Pakistan Argentina Hungary Panama Austria Iceland Peru Poland Belarus Ireland Israel Portugal Belgium Republic of Moldova Bosnia and Herzegovina Italy Brazil Romania Japan Bulgaria Kazakhstan San Marino Canada Korea, Republic of Slovakia Colombia Slovenia Latvia Croatia Libya South Africa Liechtenstein Cyprus Spain Czech Republic Lithuania Sweden Denmark Luxembourg Switzerland El Salvador Malta Tunisia Estonia Türkiye Mexico Ethiopia Monaco Ukraine Finland United Kingdom Morocco France Myanmar Uruguay

<sup>&</sup>lt;sup>a</sup> In 2022, Belgium accepted the Amendment to Article VI of the Agency's Statute. By the end of the year, there were 63 States.

## Table A10. Acceptance of Amendment to Article XIV.A of the Agency's Statute (status as of 31 December 2022)<sup>a</sup>

Albania Greece Pakistan Algeria Holy See Peru Argentina Hungary Poland Australia Iceland Portugal Iran, Islamic Republic of Austria Republic of Moldova Belarus Ireland Romania Belgium Italy San Marino Bosnia and Herzegovina Japan Seychelles Brazil Kazakhstan Slovakia Bulgaria Kenya Canada Korea, Republic of Slovenia Colombia Latvia South Africa Liechtenstein Croatia Spain Cyprus Lithuania Sweden Czech Republic Luxembourg Switzerland Denmark Malta Syrian Arab Republic Ecuador Mexico Tunisia

Germany Norway United Kingdom

Türkiye

Ukraine

Monaco

Myanmar

Netherlands

Estonia

Finland

France

<sup>&</sup>lt;sup>a</sup> In 2022, Belgium accepted the Amendment to Article XIV.A of the Agency's Statute. By the end of the year, there were 61 States.

### Table A11. Multilateral treaties negotiated and adopted under the auspices of the Agency and/or for which the Director General is the depositary (status and relevant developments)

Agreement on the Privileges and Immunities of the IAEA (reproduced in INFCIRC/9/Rev.2). In 2022, there was 1 new Party to the Agreement. By the end of the year, there were 92 Parties.

Convention on Early Notification of a Nuclear Accident (reproduced in INFCIRC/335). Entered into force on 27 October 1986. In 2022, there was 1 new Party to the Convention. By the end of the year, there were 132 Parties.

Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (rereproduced in INFCIRC/336). Entered into force on 26 February 1987. In 2022, there were 3 new Parties to the Convention. By the end of the year, there were 127 Parties.

Convention on Nuclear Safety (reproduced in INFCIRC/449). Entered into force on 24 October 1996. In 2022, the status of the Convention remained unchanged with 91 Parties.

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (reproduced in INFCIRC/546). Entered into force on 18 June 2001. In 2022, there were 2 new Parties to the Convention. By the end of the year, there were 88 Parties.

Convention on the Physical Protection of Nuclear Material (reproduced in INFCIRC/274/Rev.1). Entered into force on 8 February 1987. In 2022, the status of the Convention remained unchanged with 164 Parties.

Amendment to the Convention on the Physical Protection of Nuclear Material. Entered into force on 8 May 2016. In 2022, there were 4 new Parties to the Amendment. By the end of the year, there were 131 Parties.

Vienna Convention on Civil Liability for Nuclear Damage (reproduced in INFCIRC/500). Entered into force on 12 November 1977. In 2022, there was 1 new Party to the Convention. By the end of the year, there were 44 Parties.

Optional Protocol Concerning the Compulsory Settlement of Disputes (reproduced in INFCIRC/500/Add.3). Entered into force on 13 May 1999. In 2022, the status of the Protocol remained unchanged with 2 Parties.

Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (reproduced in INFCIRC/566). Entered into force on 4 October 2003. In 2022, the status of the Protocol remained unchanged with 15 Parties.

Convention on Supplementary Compensation for Nuclear Damage (reproduced in INFCIRC/567). Entered into force on 15 April 2015. In 2022, the status of the Convention remained unchanged with 11 Parties.

Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention (reproduced in INFCIRC/402). Entered into force on 27 April 1992. In 2022, there were 2 new Parties to the Protocol. By the end of the year, there were 33 Parties.

Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA), 2017 (reproduced in INFCIRC/919). Entered into force on 11 June 2017. In 2022, the status of the Agreement remained unchanged with 19 Parties.

African Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA) (reproduced in INFCIRC/935). Entered into force on 4 April 2020. In 2022, there were 10 new Parties to the Agreement. By the end of the year, there were 23 Parties.

Agreement to further extend the Co-operation Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean (ARCAL) (Second Extension) (reproduced in INFCIRC/582/Add. 5). Entered into force on 5 September 2020. In 2022, there was 1 new Party to the Agreement. By the end of the year, there were 21 Parties.

Co-operative Agreement for Arab States in Asia for Research, Development and Training Related to Nuclear Science and Technology (the 2017 ARASIA) (reproduced in INFCIRC/929). Entered into force on 28 July 2020. In 2022, the status of the Agreement remained unchanged with 6 Parties.

Agreement on the Establishment of the ITER International Fusion Energy Organization for the Joint Implementation of the ITER Project (reproduced in INFCIRC/702). Entered into force on 24 October 2007. In 2022, the status of the Agreement remained unchanged with 7 Parties.

Agreement on the Privileges and Immunities of the ITER International Fusion Energy Organization for the Joint Implementation of the ITER Project (reproduced in INFCIRC/703). Entered into force on 24 October 2007. In 2022, the status of the Agreement remained unchanged with 6 Parties.

Table A12. Nuclear power status worldwide — 2022 <sup>a</sup>

Country		actors peration	Reactors under construction		Nuclear electricity supplied in 2022		Total operating experience through 2022	
	No. of units	Total MW(e)	No. of units	Total MW(e)	TW∙h	% of total	Years	Months
Argentina	3	1 641	1	25	7.5	5.4	97	2
Armenia	1	416			2.6	31.0	55	3
Bangladesh			2	2 160				
Belarus	1	1 110	1	1 110	4.4	11.9	2	2
Belgium	6	4 936			41.7	46.4	324	4
Brazil	2	1 884	1	1 340	13.7	2.5	63	3
Bulgaria	2	2 006			15.8	32.5	173	3
Canada	19	13 624			81.7	12.9	903	0
China	54	52 181	20	20 284	395.4	5.0	513	2
Czech Republic	6	3 934			29.3	36.7	188	10
Egypt			2	2 200				
Finland	5	4 394			24.2	35.0	176	2
France	56	61 370	1	1 630	282.1	62.6	2 449	0
Germany	3	4 055			31.9	5.8	834	8
Hungary	4	1 916			15.0	47.0	150	2
India	19	6 290	8	6 028	42	3.1	594	11
Iran, Islamic Republic of	1	915	1	974	6.0	1.7	11	4
Japan	10	9 486	2	2 653	51.9	6.1	2 020	6
Korea, Republic of	25	24 489	3	4 020	167.5	30.4	644	9
Mexico	2	1 552			10.5	4.5	61	11
Netherlands	1	482			3.9	3.3	78	0
Pakistan	6	3 262			22.2	16.2	98	9
Romania	2	1 300			10.2	19.3	41	11
Russian Federation	37	27 727	3	2 700	209.5	19.6	1 447	7
Slovakia	4	1 868	2	880	14.8	59.2	184	7

Country	Reactors in operation			tors under struction		electricity ed in 2022	Total operating experience through 2022	
	No. of units	Total MW(e)	No. of units	Total MW(e)	TW∙h	% of total	Years	Months
Slovenia	1	688			5.3	42.8	41	3
South Africa	2	1 854			10.1	4.9	76	3
Spain	7	7 123			56.2	20.3	368	2
Sweden	6	6 937			50.0	29.5	486	0
Switzerland	4	2 973			23.2	36.4	236	11
Türkiye			4	4 456				
Ukraine <sup>b</sup>	15	13 107	2	2 070	NA	NA	563	6
United Arab Emirates	3	4 011	1	1 310	19.3	6.8	4	0
United Kingdom	9	5 883	2	3 260	43.6	14.2	1 658	9
United States of America	92	94 718	2	2 234	772.2	18.2	4 825	9
Worldwide <sup>c, d</sup>	438 <sup>e</sup>	393 823 <sup>e</sup>	58	59 334	2 486.6	NA	19 764	11

#### Note: NA — Not available.

- <sup>a</sup> Source: Agency's Power Reactor Information System (PRIS) (www.iaea.org/pris) as per data provided by Member States by the end of May 2023.
- b The total electricity production does not include Ukrainian reactor units as operational data were not submitted for the year 2022 by the time of publication.
- <sup>c</sup> The total figures include the following data from Taiwan, China: 3 units, 2 859 MW(e) in operation and 22.9 TW·h of electricity supplied, accounting for 9.1% of the total electricity mix.
- <sup>d</sup> The total operating experience also includes shutdown plants in Italy (80 years, 8 months), Kazakhstan (25 years, 10 months), and Lithuania (43 years, 6 months), and shutdown and operational plants in Taiwan, China (239 years, 8 months).
- e The total figures include data for units where operation remained suspended: India (4 units; 639 MW(e)) and Japan (23 units, 22 193 MW(e)).

Table A13. Member State participation in selected Agency activities in 2022

	No. of	No. of	Services provided to Member Sta		States
Member State	research contracts and agreements	Collaborating Centres	ALMERA <sup>a</sup>	Dosimetry audits for radiotherapy	Plant irradiation services
Afghanistan					
Albania	4				
Algeria	12				
Angola	1				
Antigua and Barbuda					
Argentina	53	1	2		
Armenia	1				
Australia	38	1	3	9	
Austria	8	1	4		
Azerbaijan	5				
Bahamas	1				
Bahrain					
Bangladesh	16			11	
Barbados					
Belarus	6		1		
Belgium	20		2	1	
Belize					
Benin	1				
Bolivia, Plurinational State of	1				
Bosnia and Herzegovina	2		3	5	2
Botswana	1			7	
Brazil	55	3	4	7	
Brunei Darussalam				5	
Bulgaria	6		2	21	
Burkina Faso	10	1			1

Member State	No. of	No. of	Services provided to Member		States	
	research contracts and agreements	Collaborating Centres	ALMERA <sup>a</sup>	Dosimetry audits for radiotherapy	Plant irradiation services	
Burundi						
Cambodia				12		
Cameroon	7					
Canada	37	1	3	6		
Central African Republic					1	
Chad	2					
Chile	14		1	1		
China	107	7	3	41		
Colombia	5			1		
Comoros						
Congo						
Costa Rica	10	1	1			
Côte d'Ivoire						
Croatia	14		2	18	2	
Cuba	11		3	11		
Cyprus			1	9		
Czech Republic	13		1	11		
Dem. Rep. of the Congo	1				1	
Denmark	4		1	1		
Djibouti						
Dominica						
Dominican Republic						
Ecuador	8		1	1		
Egypt	25	2	1	19		
El Salvador						
Eritrea					1	

Member State	No. of	No. of	Servi	States	
	research contracts and agreements	Collaborating Centres	ALMERA <sup>a</sup>	Dosimetry audits for radiotherapy	Plant irradiation services
Estonia	4		1	8	
Eswatini					
Ethiopia	7		1	6	
Fiji					
Finland	13		1	1	
France	56	4	5		1
Gabon					
Georgia	1			1	
Germany	46		4		5
Ghana	22			4	2
Greece	22		6	2	1
Grenada					
Guatemala	3			6	
Guyana					
Haiti					
Holy See					
Honduras					1
Hungary	21	2	3	20	1
Iceland			1		
India	70	1	3	32	1
Indonesia	33	2	1	21	
Iran, Islamic Republic of	21		4	2	
Iraq			1		1
Ireland	3		1		
Israel	7		2	30	
Italy	43	3	8		

	No. of	No. of	Services provided to Member St		tates	
Member State	research contracts and agreements	Collaborating Centres	ALMERA <sup>a</sup>	Dosimetry audits for radiotherapy	Plant irradiation services	
Jamaica	4		1			
Japan	37	5	5	8		
Jordan	7		1	15		
Kazakhstan	2		1	41		
Kenya	16		1	1	1	
Korea, Republic of	28	2	2	20		
Kuwait	5	1	1	1	1	
Kyrgyzstan	3				1	
Lao People's Dem. Rep.	1					
Latvia	1		1	5		
Lebanon	6		1	12		
Lesotho						
Liberia						
Libya						
Liechtenstein						
Lithuania	7		3	15		
Luxembourg	1		1			
Madagascar	1		1			
Malawi	1				1	
Malaysia	32	1	1	43		
Mali						
Malta						
Marshall Islands						
Mauritania				3	1	
Mauritius	4					
Mexico	34	2	3	54		
Monaco						

	No. of	No. of	Services provided to Member Sta		States
Member State	research contracts and agreements	Collaborating Centres	ALMERA <sup>a</sup>	Dosimetry audits for radiotherapy	Plant irradiation services
Mongolia	3		1		
Montenegro	1		1		
Morocco	20	2	1	9	
Mozambique	1				
Myanmar	4		1		
Namibia	6			1	1
Nepal	2				
Netherlands	8	1	4	1	1
New Zealand	5		1		
Nicaragua	1				
Niger					
Nigeria	5		1	10	1
North Macedonia	5		1	3	1
Norway	4	1	2	2	
Oman					
Pakistan	40	2	1	1	
Palau					
Panama			1	7	
Papua New Guinea	1				
Paraguay				9	
Peru	8	1	1	15	
Philippines	16		1	31	1
Poland	22	1	6	7	3
Portugal	9	1	1	1	
Qatar	1		1		
Republic of Moldova	1			2	
Romania	21		4	63	

	No. of	No. of	Servi	ces provided to Member	ed to Member States	
Member State	research contracts and agreements	Collaborating Centres	ALMERA <sup>a</sup>	Dosimetry audits for radiotherapy	Plant irradiation services	
Russian Federation	55	1	4	53		
Rwanda						
Saint Kitts and Nevis						
Saint Lucia						
Saint Vincent and the Grenadines						
Samoa						
San Marino						
Saudi Arabia	4		2	24	1	
Senegal	7			2		
Serbia	15		5	15	1	
Seychelles						
Sierra Leone						
Singapore	9		3	14		
Slovakia	6	1	3	5	2	
Slovenia	13		1		1	
South Africa	36	1	3	8		
Spain	45	2	2	3		
Sri Lanka	10		1	24		
Sudan	5			1		
Sweden	16		2	11		
Switzerland	11	2	3			
Syrian Arab Republic	5		1	1		
Tajikistan			1			
Thailand	25	1	2	63		
Togo						
Tonga						

	No. of	No. of	Servio	States	
Member State	research contracts and agreements	Collaborating Centres	ALMERA <sup>a</sup>	Dosimetry audits for radiotherapy	Plant irradiation services
Trinidad and Tobago	1			17	
Tunisia	24		1	20	
Türkiye	24		2	18	
Turkmenistan					
Uganda	8				
Ukraine	23		1	37	
United Arab Emirates	3	1	4	8	
United Kingdom	45	2	6	13	4
United Republic of Tanzania	6			1	1
United States of America	105	1	7	16	
Uruguay	8		1	9	
Uzbekistan	1		1	21	
Vanuatu					
Venezuela, Bolivarian Republic of			2	53	
Viet Nam	25		3	38	
Yemen					
Zambia	9		1		
Zimbabwe	4			2	

<sup>&</sup>lt;sup>a</sup> ALMERA: Analytical Laboratories for the Measurement of Environmental Radioactivity.

Table A14. Advisory Missions on Regulatory Infrastructure for Radiation Safety and Nuclear Security (RISS) in 2022

Туре	Country
RISS	Bolivia
RISS	Democratic Republic of the Congo
RISS	Djibouti
RISS	Gabon
RISS	Seychelles
RISS	Uruguay

Table A15. Education and Training Appraisal (EduTA) missions in 2022

Туре	Country
EduTA	Nigeria

#### Table A16. Emergency Preparedness Review (EPREV) missions in 2022

Туре	Country
EPREV	Morocco
EPREV follow-up	Hungary
EPREV follow-up	Slovenia

Table A17. IAEA-designated International Centres based on Research Reactors (ICERRs)

Туре	Organization/research centre	Country	Year of designation/ redesignation
ICERR	Institute for Nuclear Research Pitești	Romania	2020
ICERR	Korea Atomic Energy Research Institute	Republic of Korea	2019
ICERR	Nuclear Research Centre SCK CEN	Belgium	2017
ICERR	Idaho and Oak Ridge National Laboratories of the US Department of Energy	United States of America	2017
ICERR	Research Institute of Atomic Reactors	Russian Federation	2016/2022
ICERR	Alternative Energies and Atomic Energy Commission, in partnership with the Institute for Radiological Protection and Nuclear Safety	France	2015/2020

#### Table A18. Independent Safety Culture Assessment (ISCA) missions in 2022

Туре	Country
ISCA	Brazil

#### Table A19. Integrated missions of the Agency's Programme of Action for Cancer Therapy (imPACT) in 2022

Туре	Country
imPACT	Colombia
imPACT	Lao People's Democratic Republic
imPACT	Syrian Arabic Republic
imPACT	Uzbekistan

#### Table A20. Integrated Nuclear Infrastructure Review (INIR) missions in 2022

Туре	Country
INIR Phase 1	Sri Lanka

#### Table A21. Integrated Nuclear Infrastructure Review for Research Reactors (INIR-RR) missions in 2022

Туре	Country
INIR-RR follow-up	Nigeria

Table A22. Integrated Regulatory Review Service (IRRS) missions in 2022

Туре	Country
IRRS	Argentina
IRRS	Bangladesh
IRRS	Bosnia and Herzegovina
IRRS	Finland
IRRS	Portugal
IRRS	Singapore
IRRS	Slovakia
IRRS	Slovenia
IRRS	Sweden
IRRS	Türkiye
IRRS follow-up	India
IRRS follow-up	Pakistan
IRRS follow-up	Zimbabwe

Table A23. Integrated Research Reactor Utilization Review (IRRUR) missions in 2022

Туре	Country
IRRUR	Chile
IRRUR	Peru
IRRUR	South Africa

Table A24. Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) missions in 2022

Туре	Country
ARTEMIS	Austria
ARTEMIS	Cyprus
ARTEMIS	Denmark
ARTEMIS	Finland
ARTEMIS	Hungary
ARTEMIS	Lithuania
ARTEMIS	Malta
ARTEMIS	Romania
ARTEMIS	Slovenia
ARTEMIS follow-up	Germany

Table A25. International Nuclear Management Academy (INMA) missions in 2022

Туре	Organization/research centre	Country
INMA	University of West Bohemia	Czech Republic
INMA	KEPCO International Nuclear Graduate School	Republic of Korea
INMA	University of Idaho	United States of America

Table A26. International Nuclear Security Advisory Service (INSServ) missions in 2022

Туре	Country
INSServ	Jordan
INSServ	Malaysia
INSServ	Sudan

Table A27. International Physical Protection Advisory Service (IPPAS) missions in 2022

Туре	Country
IPPAS	Finland

Table A28. Knowledge Management Assist Visits (KMAVs) in 2022

Туре	Nuclear organization <sup>a</sup>	Country
KMAV	Chilean Nuclear Energy Commission	Chile
KMAV	Ethiopian Government ministries	Ethiopia
KMAV	National Research and Innovation Agency	Indonesia
KMAV	Jordan Atomic Energy Commission	Jordan
KMAV	National Commission for Science, Technology and Innovation; Kenyatta University	Kenya
KMAV	Nuclear Power and Energy Agency	Kenya
KMAV	University of Mauritius	Mauritius
KMAV	Laguna Verde NPP	Mexico
KMAV	Nigeria Atomic Energy Commission	Nigeria
KMAV	Rwanda Atomic Energy Board	Rwanda
KMAV	Department of Mineral Resources and Energy	South Africa
KMAV	Atomic Energy Commission of Syria	Syrian Arab Republic
KMAV	National Centre for Nuclear Science and Technology	Tunisia
KMAV	National Centre for Nuclear Science and Technology; University of Carthage; University of Tunis El Manar	Tunisia

<sup>&</sup>lt;sup>a</sup> Nuclear organizations include operators, regulators, technical support organizations and education providers.

Table A29. Occupational Radiation Protection Appraisal Service (ORPAS) missions in 2022

Туре	Country
ORPAS	Nigeria
ORPAS	Philippines
ORPAS	Slovakia
ORPAS follow-up	Costa Rica
ORPAS follow-up	Morocco
ORPAS follow-up	Peru
ORPAS follow-up	United Arab Emirates

Table A30. Operation and Maintenance Assessment for Research Reactors (OMARR) missions in 2022

Туре	Country
OMARR	Chile
OMARR	Poland

Table A31. Operational Safety Review Team (OSART) missions in 2022

Туре	Country
OSART	France
OSART	Republic of Korea
OSART follow-up	France
OSART follow-up	Islamic Republic of Iran
OSART follow-up	United Arab Emirates

Table A32. Peer Reviews of Operational Safety Performance Experience (PROSPER) in 2022

Туре	Country
PROSPER	Argentina

Table A33. Safety Aspects of Long Term Operation (SALTO) missions in 2022

Туре	Country
SALTO	South Africa
SALTO	Sweden
SALTO follow-up	Brazil
SALTO follow-up	Mexico

Table A34. Safety Culture Continuous Improvement Process (SCCIP) missions in 2022

Туре	Country
SCCIP	Poland

#### Table A35. Site and External Events Design (SEED) missions in 2022

Туре	Country
SEED	Czech Republic
SEED	Romania
SEED follow-up	Czech Republic

#### Table A36. Technical Safety Reviews (TSRs) in 2022

Туре	Country
Probabilistic Safety Assessment	Mexico
Periodic Safety Review	South Africa

#### Table A37. Uranium Production Site Appraisal Team (UPSAT) missions in 2022

Туре	Organization	Country
UPSAT	Nuclear Energy Commission	Mongolia