

# Resolutions and Other Decisions of the General Conference

Sixtieth Regular Session  
26–30 September 2016

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**IAEA**

*60 Years*

*Atoms for Peace and Development*



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**GC(60)/RES/DEC(2016)**

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**Other Decisions**

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## **Introductory Note**

1. The 16 resolutions adopted and the 11 other decisions taken by the General Conference at its sixtieth (2016) regular session are reproduced in this booklet.
2. The resolutions are, for ease of reference, preceded by the agenda for the session. Before the title of each resolution a serial number is given by which it may be cited. Any footnotes to a resolution appear immediately after the text on the left side of the page; on the right side are given the date of adoption of the resolution, the relevant agenda item and a reference to the record of the meeting at which the resolution was adopted. The other decisions taken by the Conference are presented similarly.
3. This booklet should be read in conjunction with the summary records of the General Conference, where details of the proceedings are contained (GC(60)/OR.1-10).



## Agenda for the Sixtieth (2016) Regular Session\*

<u>Item Number</u>	<u>Title</u>	<u>Allocation for initial discussion</u>
1	Election of officers and appointment of the General Committee	Plenary
2	Applications for membership of the Agency	Plenary
3	Message from the Secretary-General of the United Nations	Plenary
4	Statement by the Director General	Plenary
5	Arrangements for the Conference	General Committee
6	Contributions to the Technical Cooperation Fund for 2017	Plenary
7	General debate and Annual Report for 2015	Plenary
8	Election of Members to the Board of Governors	Plenary
9	The Agency's Financial Statements for 2015	Committee of the Whole
10	The Agency's Budget Update for 2017	Committee of the Whole
11	Amendment to Article XIV.A of the Statute	Committee of the Whole
12	Scale of assessment of Member States' contributions towards the Regular Budget for 2017	Committee of the Whole
13	Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety	Committee of the Whole
14	Nuclear security	Committee of the Whole
15	Strengthening of the Agency's technical cooperation activities	Committee of the Whole
16	Strengthening the Agency's activities related to nuclear science, technology and applications	Committee of the Whole
17	Strengthening the effectiveness and improving the efficiency of Agency safeguards	Committee of the Whole

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\* Reproduced in document GC(60)/20.

18	Implementation of the NPT safeguards agreement between the Agency and the Democratic People's Republic of Korea	Plenary
19	Application of IAEA safeguards in the Middle East	Plenary
20	Israeli nuclear capabilities	Plenary
21	Promotion of Efficiency and Effectiveness of the IAEA Decision Making Process	Committee of the Whole
22	Examination of delegates' credentials	General Committee
23	Report on contributions pledged to the Technical Cooperation Fund for 2017	Plenary

<b><u>Information documents</u></b>	<b><u>Title</u></b>
GC(60)/INF/1	Inscription in the List of speakers in the General Debate
GC(60)/INF/2	Nuclear Technology Review 2016
GC(60)/INF/3	Advance Information for Delegations
GC(60)/INF/4 and Supplement	Technical Cooperation Report for 2015
GC(60)/INF/5	Nuclear Safety Review 2016
GC(60)/INF/6	List of Participants
GC(60)/INF/7	Statement of Financial Contributions to the IAEA
GC(60)/INF/8	Report on Measures Taken to Facilitate Payment of Contributions and Status Report on Member States Participating in a Payment Plan — Report by the Director General
GC(60)/INF/9	International Conference on Nuclear Security: Commitments and Actions, 5–9 December 2016 — Status Report on Preparations
GC(60)/INF/10	Communication dated 20 July 2016 from the Chairman of the International Nuclear Safety Group (INSAG)
GC(60)/INF/11	Measures to Strengthen International Cooperation in Nuclear, Radiation, Transport and Waste Safety — Report by the Director General
GC(60)/INF/12	Communication dated 29 September 2016 received from the Permanent Mission of the Republic of Armenia to the Agency concerning statements delivered at the 60th regular session of the General Conference
GC(60)/INF/13	Communication dated 7 October 2016 received from the Permanent Mission of the Republic of Turkey to the Agency concerning statements delivered at the 60th regular session of the General Conference



## Resolutions

### **GC(60)/RES/1                      Application by Saint Lucia for membership of the Agency**

The General Conference,

- (a) Having received the recommendation of the Board of Governors that Saint Lucia should be approved for membership of the Agency,<sup>1</sup> and
  - (b) Having considered the application of Saint Lucia for membership in the light of Article IV.B of the Statute,
1. Approves Saint Lucia for membership of the Agency; and
  2. Determines, pursuant to Financial Regulation 5.09<sup>2</sup>, that in the event of the Government of Saint Lucia becoming a Member of the Agency during the remainder of 2016 or in 2017 it shall be assessed as appropriate:
    - (a) For an advance or advances to the Working Capital Fund, in accordance with Financial Regulation 7.04<sup>3</sup>; and
    - (b) For a contribution or contributions towards the Agency's Regular Budget, in accordance with the principles and arrangements the Conference has established for the assessment of Members for such contributions.<sup>4</sup>

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<sup>1</sup> GC(60)/6, para. 3.

<sup>2</sup> INFCIRC/8/Rev.4.

<sup>3</sup> INFCIRC/8/Rev.4.

<sup>4</sup> Resolutions GC(III)/RES/50, GC(XXI)/RES/351, GC(39)/RES/11, GC(44)/RES/9 and GC(47)/RES/5.

*26 September 2016  
Agenda item 2  
GC(60)/OR.1, paras 28–30*

### **GC(60)/RES/2                      Application by Saint Vincent and the Grenadines for membership of the Agency**

The General Conference,

- (a) Having received the recommendation of the Board of Governors that Saint Vincent and the Grenadines should be approved for membership of the Agency,<sup>1</sup> and
- (b) Having considered the application of Saint Vincent and the Grenadines for membership in the light of Article IV.B of the Statute,

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<sup>1</sup> GC(60)/18, para. 3.

1. Approves Saint Vincent and the Grenadines for membership of the Agency; and
2. Determines, pursuant to Financial Regulation 5.09<sup>2</sup>, that in the event of the Government of Saint Vincent and the Grenadines becoming a Member of the Agency during the remainder of 2016 or in 2017 it shall be assessed as appropriate:
  - (a) For an advance or advances to the Working Capital Fund, in accordance with Financial Regulation 7.04<sup>3</sup>; and
  - (b) For a contribution or contributions towards the Agency's Regular Budget, in accordance with the principles and arrangements the Conference has established for the assessment of Members for such contributions.<sup>4</sup>

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<sup>2</sup> INFCIRC/8/Rev.4.

<sup>3</sup> INFCIRC/8/Rev.4.

<sup>4</sup> Resolutions GC(III)/RES/50, GC(XXI)/RES/351, GC(39)/RES/11, GC(44)/RES/9 and GC(47)/RES/5.

*26 September 2016  
Agenda item 2  
GC(60)/OR.1, paras 28–30*

**GC(60)/RES/3**

**Application by the Islamic Republic of the Gambia for membership of the Agency**

The General Conference,

- (a) Having received the recommendation of the Board of Governors that the Islamic Republic of the Gambia should be approved for membership of the Agency,<sup>1</sup> and
  - (b) Having considered the application of the Islamic Republic of the Gambia for membership in the light of Article IV.B of the Statute,
1. Approves the Islamic Republic of the Gambia for membership of the Agency; and
  2. Determines, pursuant to Financial Regulation 5.09<sup>2</sup>, that in the event of the Government of the Islamic Republic of the Gambia becoming a Member of the Agency during the remainder of 2016 or in 2017 it shall be assessed as appropriate:
    - (a) For an advance or advances to the Working Capital Fund, in accordance with Financial Regulation 7.04<sup>3</sup>; and

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<sup>1</sup> GC(60)/19, para. 3.

<sup>2</sup> INFCIRC/8/Rev.4.

<sup>3</sup> INFCIRC/8/Rev.4.

(b) For a contribution or contributions towards the Agency's Regular Budget, in accordance with the principles and arrangements the Conference has established for the assessment of Members for such contributions.<sup>4</sup>

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<sup>4</sup> Resolutions GC(III)/RES/50, GC(XXI)/RES/351, GC(39)/RES/11, GC(44)/RES/9 and GC(47)/RES/5.

*26 September 2016  
Agenda item 2  
GC(60)/OR.1, paras 28–30*

**GC(60)/RES/4                      The Agency's Financial Statements for 2015**

The General Conference,

Having regard to Financial Regulation 11.03(b),

Takes note of the report of the External Auditor on the Agency's financial statements for the year 2015 and of the report of the Board of Governors thereon<sup>1</sup>.

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<sup>1</sup> GC(60)/3.

*29 September 2016  
Agenda item 9  
GC(60)/OR.7, para. 89*

**GC(60)/RES/5                      Regular Budget Appropriations for 2017**

The General Conference,

Accepting the recommendations of the Board of Governors relating to the Regular Budget of the Agency for 2017,<sup>1</sup>

1. Appropriates, on the basis of an exchange rate of \$1.00 to €1.00, an amount of €360 920 506 for the operational portion of the Regular Budget expenses of the Agency in 2017 as follows:<sup>2</sup>

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<sup>1</sup> Document GC(60)/2.

<sup>2</sup> Appropriation Sections 1–6 represent the Agency's Major Programmes.

	€
1. Nuclear Power, Fuel Cycle and Nuclear Science	39 378 365
2. Nuclear Techniques for Development and Environmental Protection	39 958 257
3. Nuclear Safety and Security	35 162 847
4. Nuclear Verification	139 292 251
5. Policy, Management and Administration Services	79 557 324
6. Management of Technical Cooperation for Development	24 873 650
Subtotal of Major Programmes	<hr/> 358 222 694
7. Reimbursable work for others	2 697 812
TOTAL	<hr/> 360 920 506 <hr/>

the amounts in the appropriation sections to be adjusted in accordance with the adjustment formula presented in Attachment A.1 in order to take into account the exchange rate variations during the year;

2. Decides that the foregoing appropriation shall be financed, after the deduction of:

- Revenues deriving from Reimbursable Work for Others (Section 7); and
- Other Miscellaneous Income of €550 000;

from contributions by Member States amounting, for an exchange rate of \$1.00 to €1.00, to €357 672 694 (€309 787 266 plus \$47 885 428), in accordance with the scale of assessment fixed by the General Conference in resolution GC(60)/RES/8;

3. Appropriates, on the basis of an exchange rate of \$1.00 to €1.00, an amount of €8 100 584 for the capital portion of the Regular Budget expenses of the Agency, in 2017 as follows:<sup>3</sup>

	€
1. Nuclear Power, Fuel Cycle and Nuclear Science	-
2. Nuclear Techniques for Development and Environmental Protection	2 511 084
3. Nuclear Safety and Security	304 072
4. Nuclear Verification	2 227 574
5. Policy, Management and Administration Services	3 057 853
6. Management of Technical Cooperation for Development	-
<b>TOTAL</b>	<u>8 100 584</u>

the amounts in the appropriation sections to be adjusted in accordance with the adjustment formula presented in Attachment A.2 in order to take into account the exchange rate variations during the year;

4. Decides that the foregoing appropriation shall be financed from contributions by Member States amounting, for an exchange rate of \$1.00 to €1.00, to €8 100 584 (€8 100 584 plus \$0), in accordance with the scale of assessment fixed by the General Conference in resolution GC(60)/RES/8;

5. Authorizes the transfer of the capital portion of the Regular Budget to the Major Capital Investment Fund; and

6. Authorizes the Director General:

- a. To incur expenditures additional to those for which provision is made in the Regular Budget for 2017, provided that the relevant emoluments of any staff involved and all other costs are entirely financed from revenues arising out of sales, work performed for Member States or international organizations, research grants, special contributions or other sources extraneous to the Regular Budget for 2017; and
- b. With the approval of the Board of Governors, to make transfers between any of the Sections listed in paras. 1 and 3 above.

<sup>3</sup> Please refer to footnote 2.

## ATTACHMENT

### A.1 APPROPRIATIONS FOR THE OPERATIONAL PORTION OF THE REGULAR BUDGET IN 2017

#### ADJUSTMENT FORMULA IN EURO

	€	US\$
1. Nuclear Power, Fuel Cycle and Nuclear Science	33 838 324 + (	5 540 042 /R)
2. Nuclear Techniques for Development and Environmental Protection	35 589 727 + (	4 368 530 /R)
3. Nuclear Safety and Security	29 210 593 + (	5 952 254 /R)
4. Nuclear Verification	118 636 077 + (	20 656 175 /R)
5. Policy, Management and Administration Services	71 875 368 + (	7 681 956 /R)
6. Management of Technical Cooperation for Development	21 187 177 + (	3 686 472 /R)
Subtotal of Major Programmes	<u>310 337 266 + (</u>	<u>47 885 428 /R)</u>
7. Reimbursable work for others	2 697 812 + (	- /R)
TOTAL	<u>313 035 078 + (</u>	<u>47 885 428 /R)</u>

**Note:** R is the average United Nations dollar to euro exchange rate which will be experienced during 2017.

## ATTACHMENT

### A.2 APPROPRIATIONS FOR THE CAPITAL PORTION OF THE REGULAR BUDGET IN 2017

#### ADJUSTMENT FORMULA IN EURO

	€	US\$
1. Nuclear Power, Fuel Cycle and Nuclear Science	- + (	- /R)
2. Nuclear Techniques for Development and Environmental Protection	2 511 084 + (	- /R)
3. Nuclear Safety and Security	304 072 + (	- /R)
4. Nuclear Verification	2 227 574 + (	- /R)
5. Policy, Management and Administration Services	3 057 853 + (	- /R)
6. Management of Technical Cooperation for Development	+ (	/R)
TOTAL	8 100 584 + (	- /R)

**Note:** R is the average United Nations dollar to euro exchange rate which will be experienced during 2017.

*29 September 2016  
Agenda item 10  
GC(60)/OR.7, para. 90*

### GC(60)/RES/6                      Technical Cooperation Fund Allocation for 2017

#### The General Conference,

- (a) Noting the decision of the Board of Governors of June 2016 to recommend the Technical Cooperation Fund target of €84 915 000 for voluntary contributions to the Agency's Technical Cooperation Fund for 2017; and
- (b) Accepting the foregoing recommendation of the Board,
  1. Decides that for 2017 the target figure for voluntary contributions to the Technical Cooperation Fund shall be €84 915 000;
  2. Allocates, in euro, contributions of €84 915 000 for the Agency's technical cooperation programme for 2017;



2. Determines, pursuant to Financial Regulation 5.09<sup>2</sup>, that in the event of a State becoming a Member of the Agency during the remainder of 2016 or in 2017 it shall be assessed as appropriate:

- (a) For an advance or advances to the Working Capital Fund, in accordance with Financial Regulation 7.04<sup>2</sup>; and
- (b) For a contribution or contributions towards the Agency's Regular Budget, in accordance with the principles and arrangements the Conference has established for the assessment of Member States for such contributions.

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<sup>2</sup> INFCIRC/8/Rev.4

## Annex 1

2017 Scale of Assessment

Member State	Base rate %	Scale %	Regular Budget assessment		
			€	+	\$
Afghanistan	0.006	0.005	16 897		2 502
Albania	0.008	0.007	23 440		3 490
Algeria	0.155	0.143	454 157		67 630
Angola	0.010	0.009	28 162		4 169
Antigua and Barbuda	0.002	0.002	6 357		958
Argentina	0.858	0.830	2 641 064		396 088
Armenia	0.006	0.006	17 580		2 618
Australia	2.249	2.296	7 295 197		1 101 878
Austria	0.693	0.707	2 247 917		339 529
Azerbaijan	0.058	0.053	169 943		25 307
Bahamas	0.013	0.013	41 325		6 225
Bahrain	0.042	0.042	133 513		20 112
Bangladesh	0.010	0.009	28 162		4 169
Barbados	0.007	0.007	22 252		3 352
Belarus	0.054	0.050	158 222		23 562
Belgium	0.851	0.869	2 760 433		416 940
Belize	0.001	0.001	2 930		436
Benin	0.003	0.003	8 449		1 251
Bolivia, Plurinational State of	0.011	0.010	32 231		4 799
Bosnia and Herzegovina	0.012	0.011	35 161		5 236
Botswana	0.013	0.012	38 090		5 672
Brazil	3.678	3.559	11 321 483		1 697 917
Brunei Darussalam	0.028	0.028	89 009		13 408
Bulgaria	0.043	0.040	125 992		18 762
Burkina Faso	0.004	0.004	11 265		1 667
Burundi	0.001	0.001	2 816		417
Cambodia	0.004	0.004	11 265		1 667
Cameroon	0.010	0.009	29 300		4 363
Canada	2.810	2.868	9 114 940		1 376 735
Central African Republic	0.001	0.001	2 816		417
Chad	0.005	0.004	14 081		2 084
Chile	0.384	0.372	1 182 015		177 270
China	7.621	7.013	22 329 869		3 325 250
Colombia	0.310	0.285	908 314		135 262
Congo	0.006	0.006	19 073		2 873
Costa Rica	0.045	0.041	131 852		19 635
Côte d'Ivoire	0.009	0.008	26 370		3 927
Croatia	0.095	0.087	278 354		41 451
Cuba	0.062	0.057	181 663		27 052
Cyprus	0.041	0.042	132 997		20 088
Czech Republic	0.331	0.320	1 018 872		152 804
Democratic Republic of the Congo	0.008	0.007	22 530		3 335
Denmark	0.562	0.574	1 822 986		275 346
Djibouti	0.001	0.001	2 816		417
Dominica	0.001	0.001	3 179		479
Dominican Republic	0.044	0.040	128 922		19 199
Ecuador	0.064	0.059	187 522		27 925
Egypt	0.146	0.134	427 786		63 704
El Salvador	0.013	0.012	38 090		5 672
Eritrea	0.001	0.001	2 816		417

## Annex 1

2017 Scale of Assessment

Member State	Base rate %	Scale %	Regular Budget assessment	
			€	+
Estonia	0.036	0.033	105 482	15 708
Ethiopia	0.010	0.009	28 162	4 169
Fiji	0.003	0.003	9 537	1 437
Finland	0.439	0.448	1 424 005	215 084
France	4.675	4.772	15 164 540	2 290 477
Gabon	0.016	0.015	49 251	7 387
Georgia	0.008	0.007	23 440	3 490
Germany	6.147	6.274	19 939 341	3 011 670
Ghana	0.015	0.014	43 951	6 545
Greece	0.453	0.453	1 440 032	216 921
Guatemala	0.027	0.025	79 112	11 781
Guyana	0.002	0.002	6 357	958
Haiti	0.003	0.003	8 449	1 251
Holy See	0.001	0.001	3 243	490
Honduras	0.008	0.007	23 440	3 490
Hungary	0.155	0.150	477 116	71 554
Iceland	0.022	0.022	71 359	10 778
India	0.709	0.653	2 077 402	309 356
Indonesia	0.485	0.446	1 421 071	211 619
Iran, Islamic Republic of	0.453	0.417	1 327 310	197 657
Iraq	0.124	0.114	363 326	54 104
Ireland	0.322	0.329	1 044 485	157 760
Israel	0.414	0.423	1 342 915	202 836
Italy	3.606	3.681	11 696 966	1 766 728
Jamaica	0.009	0.008	26 370	3 927
Japan	9.314	9.506	30 212 303	4 563 315
Jordan	0.019	0.017	55 671	8 291
Kazakhstan	0.184	0.169	539 129	80 284
Kenya	0.017	0.016	49 811	7 418
Korea, Republic of	1.962	1.962	6 236 960	939 512
Kuwait	0.274	0.280	888 783	134 243
Kyrgyzstan	0.002	0.002	5 860	873
Lao People's Democratic Republic	0.003	0.003	8 449	1 251
Latvia	0.048	0.044	140 643	20 944
Lebanon	0.044	0.040	128 922	19 199
Lesotho	0.001	0.001	2 816	417
Liberia	0.001	0.001	2 816	417
Libya	0.120	0.116	369 379	55 397
Liechtenstein	0.007	0.007	22 705	3 429
Lithuania	0.069	0.064	202 173	30 106
Luxembourg	0.062	0.063	201 112	30 376
Madagascar	0.003	0.003	8 449	1 251
Malawi	0.002	0.002	5 632	834
Malaysia	0.310	0.300	954 230	143 109
Mali	0.003	0.003	8 449	1 251
Malta	0.015	0.015	46 173	6 924
Marshall Islands	0.001	0.001	2 930	436
Mauritania	0.002	0.002	5 632	834
Mauritius	0.011	0.010	32 231	4 799
Mexico	1.381	1.336	4 250 943	637 527

## Annex 1

2017 Scale of Assessment

Member State	Base rate %	Scale %	Regular Budget assessment	
			€	+
Monaco	0.010	0.010	32 436	4 899
Mongolia	0.005	0.005	14 650	2 181
Montenegro	0.004	0.004	11 720	1 745
Morocco	0.052	0.048	152 363	22 689
Mozambique	0.004	0.004	11 265	1 667
Myanmar	0.010	0.009	28 162	4 169
Namibia	0.010	0.009	29 300	4 363
Nepal	0.006	0.005	16 897	2 502
Netherlands	1.426	1.456	4 625 586	698 656
New Zealand	0.258	0.263	836 885	126 404
Nicaragua	0.004	0.004	11 265	1 667
Niger	0.002	0.002	5 632	834
Nigeria	0.201	0.185	588 939	87 702
Norway	0.817	0.834	2 650 141	400 281
Oman	0.109	0.109	346 497	52 195
Pakistan	0.089	0.082	260 774	38 833
Palau	0.001	0.001	3 078	461
Panama	0.033	0.030	96 691	14 399
Papua New Guinea	0.004	0.004	12 716	1 915
Paraguay	0.013	0.012	38 090	5 672
Peru	0.131	0.121	383 836	57 159
Philippines	0.159	0.146	465 877	69 377
Poland	0.809	0.745	2 370 406	352 989
Portugal	0.377	0.377	1 198 437	180 528
Qatar	0.259	0.264	840 130	126 895
Republic of Moldova	0.004	0.004	11 720	1 745
Romania	0.177	0.163	518 618	77 230
Russian Federation	2.971	3.033	9 637 188	1 455 616
Rwanda	0.002	0.002	5 632	834
San Marino	0.003	0.003	9 537	1 437
Saudi Arabia	1.103	1.067	3 395 214	509 191
Senegal	0.005	0.004	14 081	2 084
Serbia	0.031	0.029	90 832	13 526
Seychelles	0.001	0.001	3 078	461
Sierra Leone	0.001	0.001	2 816	417
Singapore	0.430	0.439	1 394 812	210 675
Slovakia	0.154	0.142	451 227	67 194
Slovenia	0.081	0.083	262 741	39 685
South Africa	0.350	0.322	1 025 516	152 714
Spain	2.351	2.400	7 626 054	1 151 852
Sri Lanka	0.030	0.028	87 901	13 090
Sudan	0.010	0.009	28 162	4 169
Swaziland	0.002	0.002	6 357	958
Sweden	0.920	0.939	2 984 251	450 746
Switzerland	1.097	1.120	3 558 395	537 466
Syrian Arab Republic	0.023	0.021	67 391	10 036
Tajikistan	0.004	0.004	11 720	1 745
Thailand	0.280	0.258	820 413	122 172
The former Yugoslav Republic of Macedonia	0.007	0.006	20 511	3 054
Togo	0.001	0.001	2 816	417

## Annex 1

**2017 Scale of Assessment**

Member State	Base rate %	Scale %	Regular Budget assessment		
			€	+	\$
Trinidad and Tobago	0.033	0.033	104 903		15 803
Tunisia	0.027	0.025	79 112		11 781
Turkey	0.979	0.901	2 868 514		427 164
Turkmenistan	0.025	0.025	79 472		11 971
Uganda	0.009	0.008	25 346		3 752
Ukraine	0.099	0.091	290 074		43 196
United Arab Emirates	0.581	0.593	1 884 615		284 655
United Kingdom of Great Britain and Northern Ireland	4.294	4.383	13 928 664		2 103 807
United Republic of Tanzania	0.010	0.009	28 162		4 169
United States of America	25.000	25.518	81 093 773		12 248 532
Uruguay	0.076	0.074	233 940		35 085
Uzbekistan	0.022	0.020	64 461		9 599
Vanuatu	0.001	0.001	2 816		417
Venezuela, Bolivarian Republic of	0.549	0.505	1 608 595		239 544
Viet Nam	0.056	0.050	157 713		23 345
Yemen	0.010	0.009	28 162		4 169
Zambia	0.007	0.006	19 714		2 918
Zimbabwe	0.004	0.004	11 720		1 745
<b>TOTAL</b>	<b>100.000</b>	<b>100.000</b>	<b>317 887 850</b>		<b>47 885 428 [a]</b>

[a] See document GC(60)/2, *The Agency's Budget Update for 2017*.

29 September 2016

Agenda item 12

GC(60)/OR.7, para. 92

**GC(60)/RES/9****Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety**The General Conference,

- (a) Recalling resolution GC(59)/RES/9 and previous General Conference resolutions on matters relating to measures to strengthen international cooperation in nuclear, radiation, transport and waste safety, and emergency preparedness and response,
- (b) Acknowledging the Agency's statutory functions with respect to safety and welcoming the activities of the Agency in establishing Safety Standards,
- (c) Recognizing the central role of the Agency in coordinating international efforts to strengthen nuclear safety globally, in providing expertise and advice in this field and in promoting nuclear safety,
- (d) Recognizing that strengthening nuclear safety globally requires the resolve of Member States to continuous improvement in the pursuit of high levels of safety,
- (e) Recognizing the increasing number of countries considering introducing nuclear power and radiation technology, and the importance of international cooperation to strengthen nuclear safety in this regard,
- (f) Recognizing that nuclear safety culture is a key element of the peaceful uses of nuclear energy, ionizing radiation and radioactive substances, and that continuous efforts are required to ensure its maintenance at a high level,

- (g) Noting with appreciation the implementation of the IAEA Action Plan on Nuclear Safety (GC(55)/14), and the results achieved,
- (h) Recognizing that nuclear safety and security have the common aim of protecting people and the environment, while acknowledging the distinctions between the two areas, and affirming the importance of coordination in this regard,
- (i) Recognizing the primary responsibility of operators for ensuring safety,
- (j) Recognizing the importance of Member States establishing and maintaining effective and sustainable regulatory infrastructures,
- (k) Acknowledging that research, development and the introduction of innovative methods and technologies are of fundamental importance in improving nuclear safety worldwide,
- (l) Recalling the objectives of the Convention on Nuclear Safety (CNS), the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention), the Convention on Early Notification of a Nuclear Accident (Early Notification Convention) and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (Assistance Convention) and the respective obligations of States Parties, and recognizing the need for effective and sustainable implementation of these conventions,
- (m) Recalling the objectives of the Code of Conduct on the Safety of Research Reactors and the Code of Conduct on the Safety and Security of Radioactive Sources and the supplementary Guidance on the Import and Export of Radioactive Sources;
- (n) Recalling that States, under international law, have the obligation to protect and preserve the environment, including the marine and terrestrial environment, and emphasizing the importance of the Secretariat's continued collaboration with the Contracting Parties of international and regional instruments aimed at protecting the environment from radioactive wastes, in particular the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention) and Protocol,
- (o) Recognizing that, historically, the safety record of civilian transport, including maritime transport, of radioactive materials has been excellent, and stressing the importance of international cooperation to enhance the safety and security of international transport,
- (p) Recalling maritime and air navigation rights and freedoms, as provided for in international law and as reflected in relevant international instruments,
- (q) Noting that the timely shipment of radioactive materials that meet the Agency's Regulations for the Safe Transport of Radioactive Material, particularly those having important uses in the medical, academic and industrial sectors, is being adversely affected by incidents of denial or delay of shipment,
- (r) Recalling resolution GC(59)/RES/9 and previous resolutions that invited Member States shipping radioactive material to provide, as appropriate, assurances to potentially affected States, upon their request, that their national regulations take into account the Agency's Regulations for the Safe Transport of Radioactive Material and to provide them with relevant information relating to shipments of such material, and noting that

the information provided should in no case be contradictory to the measures of safety and security,

- (s) Recognizing the importance of communication with and outreach to the public, for the purpose of enhancing public awareness regarding nuclear safety in the context of peaceful uses of nuclear energy,
- (t) Recognizing that nuclear accidents may have transboundary effects and raise public concerns about nuclear energy and the radiological effects on people and the environment,
- (u) Recognizing that radiological emergencies also raise public concerns about the radiological effects on people and the environment,
- (v) Emphasizing the importance of Member States and relevant international organizations responding to nuclear and radiological emergencies in a timely and effective manner,
- (w) Recognizing the importance of well-developed communication arrangements and regular public information as an important component of effective planning and preparedness for and response to nuclear accidents and radiological emergencies,
- (x) Acknowledging the Secretariat's role in response to nuclear or radiological incidents or emergencies and recognizing the need to ensure the timeliness of the collection, validation, assessment and prognosis, and dissemination by the Secretariat, in cooperation with the incident/accident State, of incident or emergency information to Member States and the public, as well as seeking effective facilitation and coordination of assistance by the Secretariat, upon request,
- (y) Emphasizing the importance of education, training and knowledge management in establishing and maintaining an adequate nuclear, radiation, transport and waste safety and emergency preparedness infrastructure,
- (z) Recognizing ongoing efforts of the international community to enhance capacity building, share knowledge and strengthen international standards in nuclear safety, including emergency preparedness and response and the radiation protection of people and the environment,
- (aa) Recognizing the importance of self-assessment and the Agency's peer review services as effective tools for continued efforts by Member States to evaluate, maintain effective practices and further improve their respective nuclear safety,
- (bb) Recognizing that regional organizations of regulatory authorities have been strengthening regional efforts through the exchange of information and experience and technical programmes, and recognizing also the transparent cross peer reviews among the respective members of the Ibero-American Forum of Radiological and Nuclear Regulatory Agencies (FORO), the European Nuclear Safety Regulators Group (ENSREG) and the Western European Nuclear Regulators' Association (WENRA) of targeted reassessments of their nuclear power plants in the light of the Fukushima Daiichi nuclear accident, and further recognizing that such activities can be of interest to other organizations or regulatory authorities,

- (cc) Underscoring that medical uses of ionizing radiation constitute by far the largest source of artificial exposure, and emphasizing the need for enhanced efforts to optimize radiation protection for patients and health workers,
- (dd) Recognizing the need to enhance cooperation and coordination between the Agency and the relevant organizations at the intergovernmental, national, regional and international levels on all nuclear safety-related matters,
- (ee) Emphasizing the importance of the establishment, implementation, regular exercise and continuous improvement of national emergency preparedness and response mechanisms and arrangements, taking into account the IAEA Safety Standards and relevant action plans, including for communications, and contributing to the harmonization of national protective actions,
- (ff) Emphasizing the need to be prepared for remediation following a nuclear or radiological incident or accident, and the need for appropriate plans for the safe management of waste, including unusual waste forms and large volumes of waste,
- (gg) Noting the importance of decommissioning programmes and spent fuel management activities as facilities reach end of life,
- (hh) Recalling United Nations General Assembly resolution A/RES/70/81 of 9 December 2015 related to the effects of atomic radiation, and the Board decision in March 1960 on health and safety measures (INFCIRC/18),
- (ii) Recalling the IAEA Action Plan on Nuclear Safety's objective of establishing a global nuclear liability regime that addresses the concerns of all States that might be affected by a nuclear accident with a view to providing appropriate compensation for nuclear damage,
- (jj) Recalling the Paris Convention on Third Party Liability in the Field of Nuclear Energy, the Vienna Convention on Civil Liability for Nuclear Damage, the Brussels Convention supplementary to the Paris Convention, the Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention, the protocols amending the Brussels, Paris and Vienna Conventions, and the Convention on Supplementary Compensation for Nuclear Damage (CSC) and noting that these instruments can provide the basis for establishing a global nuclear liability regime based on the principles of nuclear liability,
- (kk) Stressing the importance of having in place effective and coherent nuclear liability mechanisms at the national and global levels to ensure prompt, adequate and non-discriminatory compensation for damage to — inter alia — people, property and the environment, including actual economic loss due to a nuclear accident or incident, recognizing that principles of nuclear liability, including strict liability, should apply as appropriate in the event of a nuclear accident or incident, including during the transport of radioactive material, and noting that the principles of nuclear liability can benefit from the advances contained in the 1997 and 2004 instruments concerning broader definition of nuclear damage, expanded jurisdiction over nuclear incidents and increased compensation, and from recommendations made by the International Expert Group on Nuclear Liability (INLEX), to provide better protection to victims of nuclear damage, and

(ll) Recalling the central role of the IAEA in (a) promoting adherence to all international nuclear safety conventions concluded under its auspices and (b) promoting adherence, in coordination with the OECD Nuclear Energy Agency (NEA), when appropriate, to conventions concluded under their auspices related to civil nuclear liability,

1.

**General**

1. Urges the Secretariat to continue to strengthen its efforts to maintain and improve nuclear, radiation, transport and waste safety, focusing particularly on mandated activities and on technical areas;
2. Encourages Member States to maintain and improve nuclear safety and safety infrastructure, particularly those considering introducing nuclear power, radiation technology or engaging in international nuclear cooperation, taking into account the relevant IAEA Safety Standards and safety conventions as applicable;
3. Requests the Secretariat to continue to assist Member States, particularly those considering introducing nuclear power or radiation technology, upon request, in developing, utilizing and improving their national infrastructure, including legislative and regulatory frameworks, scientific and technical capabilities and knowledge management practices and procedures for nuclear, radiation, transport and waste safety;
4. Urges that the Agency, following the publication of the Director General's report, "Measures to Strengthen International Cooperation in Nuclear, Radiation, Transport and Waste Safety: Building on the Action Plan on Nuclear Safety" (GOV/INF/2016/10), continues to build upon the IAEA Action Plan on Nuclear Safety and the experience of its implementation by Member States, the IAEA Report on the Fukushima Daiichi nuclear power plant accident, and the principles enshrined in the Vienna Declaration on Nuclear Safety and uses them for defining its nuclear safety strategy and programme of work, including priorities and milestones, and notes that the Secretariat will report periodically in this regard to the Board of Governors and the General Conference, in particular in March 2017 and September 2017;
5. Requests the Secretariat to promote safety culture and, upon request, to support Member States in assessing and improving safety culture at all levels, including within nuclear regulatory bodies and within nuclear operators;
6. Encourages Member States to continue to exchange regulatory information and share experience on the effectiveness of safety culture approaches, including the sharing of best practical examples, through multilateral, bilateral and other channels;
7. Requests the Secretariat, while recognizing the distinction between nuclear safety and nuclear security, to continue facilitating in close cooperation with Member States a coordination process to address their interfaces, and encourages the Agency to develop safety and security publications and to foster culture accordingly;
8. Encourages the Secretariat to coordinate its programmatic activities in safety with other relevant activities of the Agency, in particular in uranium mining, remediation and knowledge management, and to ensure consistency of safety aspects of relevant IAEA publications;
9. Urges Member States receiving assistance from the Agency to update information in the IAEA Radiation Safety Information Management System (RASIMS) so as to enable the

Secretariat to identify the technical assistance needed to strengthen radiation safety infrastructure in accordance with IAEA Safety Standards;

10. Welcomes the establishment of regional safety fora and related networks, requests the Secretariat to continue assisting such fora and networks, and encourages Member States to join relevant regional safety fora and networks, and to participate and work in cooperation with other members so that the benefits of membership can be fully realized;

11. Requests the Secretariat to strengthen its cooperation with the regional regulatory organizations FORO and ENSREG in areas of mutual interest, and further requests the Secretariat to promote wide dissemination of technical documents and outcomes of projects developed by these organizations;

12. Requests the Secretariat to review the arrangements for reporting nuclear incidents and accidents with a view to harmonizing them;

13. Encourages Member States to continue sharing safety-relevant findings and lessons learned among regulators, technical and scientific support organizations, operators and industry, as appropriate with the assistance of the Secretariat;

14. Encourages Member States to continue to communicate effectively to interested parties, including to their general public, about regulatory processes and safety aspects, including health effects, and environmental aspects of facilities and activities, on the basis of scientific data as available, in order to enhance public awareness, and encourages Member States to provide for consultation with their public as appropriate;

15. Requests the Secretariat, in collaboration with Member States, to identify actions to improve regulatory effectiveness, taking into account the conclusions of the report of the President of the 2016 International Conference on Effective Nuclear Regulatory Systems;

16. Encourages the Secretariat and Member States to continue to make effective use of the Agency's technical cooperation resources for the further enhancement of safety;

17. Encourages Member States to actively participate in the Global Nuclear Safety and Security Network (GNSSN) and requests the Secretariat to continue to strengthen its effort in maintaining and developing the GNSSN, including the development of the knowledge platforms;

## **2.**

### **Conventions, Regulatory Frameworks and Supporting Non-Legally-Binding Instruments for Safety**

18. Urges all Member States that have not yet done so, especially those planning, constructing, commissioning or operating nuclear power plants, or considering a nuclear power programme, to become Contracting Parties to the CNS;

19. Stresses the importance of CNS Contracting Parties fulfilling the obligations of the Convention and actively participating in peer reviews for the 7th CNS Review Meeting in 2017;

20. Urges all Member States that have not yet done so, including those managing radioactive waste from the use of radioactive sources and nuclear energy, to become Contracting Parties to the Joint Convention;

21. Urges all Member States that have not yet done so to become Contracting Parties to the Early Notification Convention and the Assistance Convention, thereby contributing to a broader and stronger international emergency response capability, to the benefit of all Member States;
22. Requests the Secretariat to continue its activities to promote the importance of relevant conventions concluded under its auspices or in coordination with OECD/NEA where appropriate, and to assist Member States, upon request, with adherence and participation;
23. Calls on all Member States that have not yet done so to make a political commitment to implement the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary Guidance on the Import and Export of Radioactive Sources, further calls on all Member States to act in accordance with the Code and the Guidance, and requests the Secretariat to continue supporting Member States in this regard;
24. Urges Member States with research reactors under construction, in operation, being decommissioned or in extended shutdown to apply the guidance of the Code of Conduct on the Safety of Research Reactors;
25. Urges Member States that have not already done so to establish and sustain a regulatory body that is effectively independent in its regulatory decision-making, competent, and has the legal authority, and the appropriate human, financial and technical resources organized as necessary for fulfilling its responsibilities, and encourages Member States to take the appropriate steps to ensure an effective separation between the functions of the regulatory body and those of any other body or organization concerned with the promotion or utilization of nuclear energy;
26. Urges Member States to strengthen regulatory effectiveness in the field of nuclear, radiation, transport and waste safety, and emergency preparedness, and to continue promoting cooperation and coordination among regulatory bodies within a Member State, as appropriate, and among Member States;
27. Urges Member States to establish or maintain regulatory decision-making processes that take into account scientific knowledge and expertise, and, where appropriate, technical and scientific support organizations and other relevant institutions;
28. Takes note of the valuable contribution of the International Nuclear Safety Group (INSAG) to the overall IAEA activities aimed at strengthening nuclear safety, and encourages the INSAG Chairperson to continue to communicate to Member States on a regular basis about major outcomes and recommendations of INSAG to the Director General;
29. Encourages Member States to work towards establishing a global nuclear liability regime and, as appropriate, to give due consideration to the possibility of joining the international nuclear liability instruments;
30. Requests the Secretariat, in coordination with the OECD/NEA when appropriate, to assist Member States, upon request, in their efforts to adhere to any international nuclear liability instruments concluded under the auspices of the IAEA and the OECD/NEA, taking into account the recommendations of the INLEX in response to the IAEA Action Plan on Nuclear Safety;
31. Recognizes the valuable work of INLEX, and takes note of its recommendations and best practices on establishing a global nuclear liability regime, including through the

identification of actions to address gaps in and enhance the existing nuclear liability regimes, encourages the continuation of INLEX, especially for its support for the IAEA's outreach activities to facilitate the achievement of a global nuclear liability regime, and requests the Secretariat to report on the continuing work of INLEX;

32. Requests that INLEX, via the Secretariat, and in light of the practice established by INSAG, informs Member States on a regular basis about the work of INLEX and its recommendations to the Director General;

33. Requests that INLEX, via the Secretariat, shares the existing recommendations made by INLEX regarding insurance or other financial security for at least Categories 1 and 2 sources, and encourages Member States, as appropriate, to take these into consideration;

### **3.**

#### **The Agency's Safety Standards Programme**

34. Encourages Member States to implement measures nationally, regionally and internationally to ensure nuclear, radiation, transport and waste safety, as well as emergency preparedness, taking full account of IAEA Safety Standards;

35. Requests the Agency to continuously review, strengthen, promulgate and implement as broadly and effectively as possible the IAEA Safety Standards, and to continue to support the Commission on Safety Standards (CSS) and the Safety Standards Committees;

36. Requests the Secretariat to continue its close cooperation with the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), the International Commission on Radiological Protection (ICRP) and other relevant organizations in the development of Safety Standards;

37. Encourages Member States to use the IAEA Safety Standards in their national regulatory programmes, as appropriate, and notes the need to consider the periodic review of national regulations and guidance against internationally established standards and guidance and report on progress in appropriate international fora such as review meetings under the terms of the relevant safety conventions;

38. Requests the Secretariat to further develop the IAEA Safety and Security Series Online User Interface (NSS-OUI), to facilitate access to, and navigation through, the content of the IAEA Safety Standards;

39. Requests the Secretariat, given the importance of the Safety Standards Committees, to promote the effective participation of all Member States in those committees;

### **4.**

#### **Self-assessments and the Agency's Peer Review Services**

40. Encourages Member States to ensure regular self-assessments of their domestic nuclear, radiation, transport and waste safety, as well as emergency preparedness, taking into account the Agency's self-assessment tools and relevant IAEA Safety Standards;

41. Encourages Member States in a position to do so to continue making the necessary expertise available to the Secretariat for effective implementation of the IAEA safety peer reviews and requests the Secretariat to make further use of Member States' expertise;

42. Further encourages Member States, on a voluntary basis, to regularly host Agency peer review services, to implement recommended actions, and to make publicly available in a timely manner the results of such self-assessments and peer review services;
43. Requests that the Secretariat provides for and promotes the active interaction of the Peer Review and Advisory Services Committee with Member States, and in consultation and coordination with Member States, assesses the overall structure, effectiveness and efficiency of services within the purview of the Committee; and continues to report to the Board of Governors on the outcomes of this common effort;
44. Requests the Agency to continue to strengthen its peer review services and self-assessment tools by incorporating lessons learned into its criteria and processes;
45. Encourages the Agency to share, as appropriate, the lessons learned from IAEA peer review missions;

## 5.

### Nuclear Installation Safety

46. Recalls the outcomes of the 6th Review Meeting of the Contracting Parties to the CNS, including the actions taken to strengthen the effectiveness and transparency of the Convention particularly when preparing for the 7th Review Meeting of the Convention, to be held in 2017, welcomes the adoption by consensus of the Vienna Declaration on Nuclear Safety at the CNS Diplomatic Conference of February 2015, and encourages all Member States to contribute to the realization of its principles including through the implementation of the relevant provisions of this Resolution;
47. Takes note of the Informal Technical Follow-up Meeting of Nuclear Regulators held in Buenos Aires in 2015 to exchange views on how to improve CNS reporting on the basis of the Vienna Declaration;
48. Encourages the active participation of Contracting Parties to the CNS in the 7th Review Meeting of the Convention, including by fully engaging in the peer review process and the development of questions and comments, looks forward to all Contracting Parties reporting as decided by the Diplomatic Conference, and requests the Secretariat in this regard to provide full support for the dissemination and follow-up of the outcomes of the 7th CNS Review Meeting, and to address these in the Agency's current activities, as appropriate;
49. Requests the Secretariat, in consultation with all Member States, using the safety issues highlighted in the summary report of the 6th Review Meeting of the Contracting Parties of the CNS, to identify issues of particular relevance for civilian nuclear reactors not covered by the scope of the CNS;
50. Calls upon all Member States with nuclear installations that have not yet done so to establish effective operational experience feedback programmes including identifying safety-related precursors, and to share freely their experience, assessments and lessons learned, including through the submission of incident reports to the Agency's web-based reporting systems related to operational experience;
51. Encourages Member States that are constructing new nuclear power plants to share with other Member States, on a voluntary basis, their safety-relevant construction and commissioning experiences, and to benefit from, as appropriate, interaction within

international organizations and fora such as the OECD/NEA and the World Association of Nuclear Operators (WANO);

52. Requests the Secretariat to continue efforts in the area of ageing management for the long-term operation of nuclear power plants and research reactors, and invites all Member States with such nuclear installations to consider making use of the Agency's guidance and services in this area;

53. Renews its calls upon Member States to ensure that comprehensive and systematic safety assessments are carried out periodically and regularly for existing installations throughout their lifetime in order to identify safety improvements that are oriented to meet the objective of preventing accidents with radiological consequences and mitigating such consequences should they occur, and that reasonably practicable or achievable safety improvements are implemented in a timely manner;

54. Encourages Member States that have not already done so to perform safety assessments in accordance with international best practice and relevant IAEA Safety Standards, including at multi-unit sites, to evaluate the robustness of nuclear power plants against multiple extreme events, and share their experience and the results of such assessments with other interested Member States;

55. Acknowledges the Secretariat's efforts in assisting Member States with safety reassessments of their research reactors and fuel cycle facilities in light of the feedback from the accident at the Fukushima Daiichi Nuclear Power Station, and encourages all Member States with such installations, in particular those that have not yet done so, to consider the Agency's guidance and assistance in this area;

56. Encourages the Agency to extend the activities, safety services and External Events Notification System of the International Seismic Safety Centre to cover tsunamis and volcanoes, encourages Member States to actively participate in this effort and requests the Secretariat to keep Member States informed of these activities;

57. Further encourages Member States to exchange regulatory information and share experiences with regard to new nuclear power plants, taking into account that new nuclear power plants are to be designed, sited, and constructed consistent with the objective of preventing accidents in the commissioning and operation and, should an accident occur, mitigating possible releases of radionuclides causing long-term off-site contamination and avoiding early radioactive releases or radioactive releases large enough to require long-term protective measures and actions;

58. Encourages the Secretariat to provide for the exchange of information and experience of conducting the safety assessment of the digital Instrumentation and Control system;

59. Encourages the Agency to facilitate the exchange of results of research and development on severe accident management strategies for nuclear power plants;

60. Encourages Member States to develop as necessary and implement severe accident management guidelines in line with operational experience feedback, as well as the lessons learned from the Fukushima Daiichi Nuclear Power Station accident, and requests the Secretariat to support their efforts through training workshops and the development of Safety Standards and related documents;

61. Recognizes that there are ongoing projects to construct transportable nuclear power plants, requests the Secretariat and Member States to continue considering the safety and security aspects related to such facilities throughout their life cycle, including through the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO), and requests the Secretariat to organize a technical meeting for information exchange on safety aspects for such power plants;

62. Notes that a number of States have plans to embark or are interested in embarking on nuclear power plants, and encourages Member States that have licensed similar types of reactors to share important nuclear safety knowledge and experience with international bodies and with other operating organizations and regulatory bodies, through bilateral and multilateral mechanisms;

## **6.**

### **Radiation Safety and Environmental Protection**

63. Encourages Member States to align their national radiation protection regulatory programmes to the revised International Basic Safety Standards (BSS) (IAEA Safety Standards Series No. GSR Part 3), and requests the Secretariat to support the effective implementation of the revised BSS in relation to occupational, public and medical exposure, as well as protection of the environment, including the ongoing revision and development of new guidance, and further requests the Secretariat to continue to organize national workshops on implementing GSR Part 3, upon request;

64. Requests the Secretariat to continue supporting the IAEA-OECD/NEA Information System on Occupational Exposure (ISOE) programme, and invites Member States operating nuclear power plants and those planning, constructing, commissioning or decommissioning nuclear power plants to encourage their utilities and authorities to become members of the ISOE programme;

65. Requests the Secretariat to promote the Information System on Occupational Exposure in Medicine, Industry and Research (ISEMIR) programme to facilitate the implementation of as low as reasonably achievable (ALARA) practices and effective exposure control, and recommends that Member States provide data on occupational exposure to the ISEMIR programme;

66. Requests the Secretariat, in cooperation with other international organizations, to assist Member States in the application of the new dose limits to the lens of the eye as set out in GSR Part 3, and encourages Member States to make arrangements for monitoring these doses for workers who may receive significant doses;

67. Requests the Secretariat to continue to follow up, in consultation with Member States, on the actions identified by the 2014 IAEA International Conference on Occupational Radiation Protection: Enhancing the Protection of Workers — Gaps, Challenges, and Developments;

68. Requests the Secretariat to assist Member States, upon request, to strengthen their capabilities for the realistic assessment of radiological impacts of material containing enhanced levels of naturally occurring radioactive materials (NORM) and to continue to develop guidance to optimize radiation protection in the management of such materials, taking into account GSR Part 3;

69. Encourages Member States to share safety-relevant experiences and practices in the field of handling NORM and NORM residues;
70. Requests the Agency, in coordination with other international organizations, to continue implementation of the *International Action Plan for the Radiation Protection of Patients*, and the *Bonn Call for Action*, to strengthen the radiation protection of patients and health workers and to enhance the safety of radiological procedures;
71. Encourages the Secretariat, in cooperation with the World Health Organization (WHO), to develop further guidance on the radiation protection principles of justification of medical exposure and optimization of protection and safety in the medical field, including on radiation protection education and training for health professionals, and documenting the individual radiation procedure histories of patients;
72. Encourages Member States to take advantage of regional technical cooperation projects on medical exposure and to use safety reporting and learning systems developed by the Agency for radiological procedures and radiotherapy;
73. Requests the Secretariat to continue developing radiation protection guidance for the regulatory control of the use of human imaging techniques for non-medical purposes;
74. Requests the Secretariat, in cooperation with Member States, the WHO and other relevant international organizations, to assist Member States, as appropriate, to raise awareness of and reduce risks from public exposure due to radon indoors, and further requests the Secretariat to liaise, as appropriate, with the ICRP and UNSCEAR on exposure to radon indoors;
75. Requests the Secretariat to cooperate with relevant international organizations in developing a harmonized framework for the control of radioactivity in food and drinking water;
76. Requests the Secretariat to continue work to develop a technical document to set out activity concentration values for contaminated non-food commodities;
77. Encourages the participation of Member States in the Modelling and Data for Radiological Impact Assessments (MODARIA) programme to foster, develop and maintain capabilities in assessing radiological impacts from radionuclides being released or extant in the environment, and requests the Secretariat to continue development of MODARIA II;
78. Requests the Secretariat to develop specific technical documents to provide guidance on the application of the radiation protection principles of justification and optimization for populations living in, and economic activities carried out in existing exposure situations;
79. Supports the Secretariat's development of updates pertinent to the "*Inventory of Radioactive Materials Resulting from Historical Dumping, Accidents and Losses at Sea (For the Purposes of the London Convention 1972 and Protocol 1996)*";
80. Requests the Secretariat to update its guidance in relation to the application of the principles of exemption and clearance;
81. Requests the Secretariat to further develop guidance on the remediation process for areas affected by past activities and accidents, and to capture lessons learned from nuclear and radiological events, including the Fukushima Daiichi accident;

## 7.

**Transport Safety**

82. Urges Member States that do not have national regulatory documents governing the safe transport of radioactive material to adopt and implement such documents expeditiously, calls upon all Member States to ensure that such regulatory documents are in conformity with the applicable edition of the Agency's Regulations for Safe Transport of Radioactive Material, welcomes the ongoing revision of the Regulations to ensure that they remain relevant and up-to-date, and requests the Secretariat to finalize the ongoing update of document GOV/1998/17, entitled "*Safety of transport of radioactive material*";

83. Welcomes the practice of some shipping States and operators of providing timely information and responses to relevant coastal States in advance of shipments in order to address concerns regarding nuclear safety and security, including emergency preparedness, and notes that the information and responses provided should in no case be contradictory to measures of nuclear security and safety of the shipment or of the shipping State;

84. Recalls the issuing of the Best Practices for Voluntary and Confidential Government to Government Communications on the Transport of MOX Fuel, High Level Radioactive Waste and, as appropriate, Irradiated Nuclear Fuel by Sea (INFCIRC/863) in 2014;

85. Calls upon Member States to further enhance mutual confidence, such as through the use of guidelines, voluntary communication practices and tabletop exercises, such as the Tabletop Exercise of the Dialogue of Coastal and Shipping States held on 17 June 2015, which was recognized as a success by its participants, takes note of the useful lessons learned during the Exercise, and requests the Secretariat to provide appropriate support to interested Member States upon their request;

86. Recognizes the very positive developments since 2013 in the dialogue process between shipping and coastal States aimed at improving mutual understanding, confidence-building and enhanced communication in relation to the safe maritime transport of radioactive material and encourages the continuation of this positive dialogue and takes note of the visit by participants to the dialogue process to a transport ship in the United Kingdom, held on 12–13 July 2016, which contributed to the dialogue process by helping the participants deepen their understanding on the stringent safety measures in place for the maritime transport of radioactive material;

87. Takes note that relevant shipping and coastal States invite other Member States to join in the informal dialogue process between coastal and shipping States to improve mutual understanding and confidence regarding shipments of radioactive material and to implement as appropriate, the best practices as contained in document INFCIRC/863, subject to confidentiality and security constraints;

88. Stresses the importance of having effective liability mechanisms in place to ensure prompt compensation for damage incurred during the transport of radioactive material, including maritime transport, and in this context notes the application of the principles of nuclear liability, including strict liability;

89. Calls upon Member States and their regulatory authorities to use the GNSSN and relevant regional networks to build capacity for effective regulation of the safe transport of radioactive material;

90. Encourages efforts to address problems related to denials of and delays in the shipment of radioactive material, particularly shipment by air and calls upon Member States to facilitate the transport of radioactive material, taking full account of the Agency's Regulations for the Safe Transport of Radioactive Material, and to each identify, if they have not done so, a national focal point on denials on shipment of radioactive materials to achieve a satisfactory and timely resolution of this issue;

91. Encourages the Agency to continue to strengthen and widen efforts to make available relevant education and training on the safety and security of radioactive material during transport, including through the Technical Cooperation Programme (TCP) and through the development of synergies between regional training courses and the Agency's work related to denials of shipment, involving to the extent possible experts from the regions concerned, and acknowledges the progress made in that regard, including the preparation and translation of training materials into IAEA official languages;

## **8.**

### **The Safety of Spent Fuel and Radioactive Waste Management**

92. Calls upon Member States to work to continuously improve safety in the management of spent fuel and radioactive waste, in accordance with the relevant IAEA Safety Standards, including work on detailed plans for the decommissioning, storage and subsequent management and disposal of such material;

93. Encourages the Agency as it reviews its guidance documents on the safe management of radioactive waste with a view to ensuring proper planning for waste arising during the lifetime of nuclear facilities and the nuclear fuel cycle, to take into account where applicable available tools of the Agency such as the criteria and indicators developed by INPRO;

94. Encourages the Agency to continue its activities relating to the safety of facilities for the geological disposal of high-level radioactive waste and, where appropriate, spent nuclear fuel, requests the Secretariat to undertake the further development of guidance on safety of geological disposal facilities, which encourages early engagement of the regulatory bodies in the period before the formal licensing process is launched and through all stages of the life cycle, and encourages Member States to share lessons about their relevant regulatory experiences;

95. Welcomes the establishment of the ARTEMIS review service for radioactive waste and spent fuel management, decommissioning and remediation programmes, and encourages Member States to benefit from the service, including follow-up missions, as appropriate;

96. Encourages Member States to engage with all stakeholders, including the general public, in all aspects of radioactive waste management;

97. Encourages Member States to plan for the management of waste arising from a nuclear or radiological emergency, including waste from damaged facilities, and/or fuel where routine strategies are impractical or less than optimal, and where the potential exists for large volumes of radioactive waste resulting from the emergency and/or environmental remediation;

98. Encourages Member States to plan and develop solutions for the safe disposal of radioactive waste and management of spent fuel and to, where appropriate, share experiences and lessons learned in this regard, and put mechanisms in place to ensure resources are available for implementation;

99. Encourages Member States to follow IAEA Safety Standards on classification of radioactive waste;

**9.  
Safety in Uranium Mining and Processing, Decommissioning and Environmental  
Remediation**

100. Requests the Secretariat to assist Member States, upon request, in implementing Safety Standards and recognized international best practices in uranium production, including management of the resulting waste;

101. Emphasizes the importance of the Agency's activities on decommissioning and remediation, and in light of the anticipated increase in the number of facilities requiring decommissioning, and requests the Secretariat to continue its efforts to facilitate international cooperation in safety assessment and risk management for decommissioning;

102. Requests the Secretariat, in close cooperation with Member States, to follow up on the outcomes of the IAEA *International Conference on Advancing the Global Implementation of Decommissioning and Environmental Remediation Programmes*, held in Madrid in 2016;

103. Encourages Member States to plan for the decommissioning of facilities during the facility design phase, and update as appropriate, and to put mechanisms in place to ensure resources are available for implementation;

104. Encourages the Agency to share, as appropriate, the lessons learned from decommissioning and remediation activities, and encourages the Secretariat and Member States to support initiatives in international cooperation;

105. Requests the Secretariat to assist Member States, upon request, including those phasing out nuclear power and those with damaged facilities, with the identification of decommissioning strategies;

106. Encourages Member States to share lessons learned about actions taken regarding the remediation of radioactively contaminated sites and the resulting waste, and encourages the Secretariat to further develop standards and guidance documents, as appropriate, on the management and disposal of radioactive waste arising from the remediation of existing situations;

107. Recognizes the crucial role of planning for post-accident situations, and requests the Agency to continue to strengthen its guidance on remediation and waste management after a radiological or nuclear accident to assist Member States in facilitating the return of affected areas to safe conditions;

108. Commends the continued efforts of the Secretariat relating to technical coordination for multilateral initiatives to remediate legacy uranium production sites, notably in Central Asia, through the Coordination Group for Uranium Legacy Sites, and encourages the Secretariat to consult relevant Member States in Africa, upon request, with a view to implementing similar initiatives;

109. Requests the Secretariat to support the work of the International Working Forum on Regulatory Supervision of Legacy Sites and, in consultation with Member States, to take into account the recommendations of the Forum in developing IAEA Safety Standards;

110. Encourages Member States to plan for the remediation of contaminated sites and to put mechanisms in place to ensure resources are available for implementation;

**10.**

**Education, Training and Knowledge Management**

111. Encourages Member States to develop national strategies for capacity building through training, education and knowledge management, which are key components of a sustainable nuclear safety infrastructure, and further encourages Member States to ensure that resources are made available for capacity building of this kind;

112. Requests the Secretariat to strengthen and expand its programme of training and education activities, focusing on building institutional, technical and managerial capabilities in Member States, and to continue its efforts to preserve its knowledge and institutional memory relating to nuclear safety, and encourages Member States to consider providing, on a voluntary basis, support to the Secretariat in this regard;

113. Encourages the Secretariat to support and coordinate regional and inter-regional efforts, including through the GNSSN, for the sharing of knowledge, expertise and experience on safety-relevant issues;

114. Encourages Member States to benefit, as appropriate, from the IAEA Systematic Approach to Training (SAT) and other relevant tools for the self-assessment of capacity building programmes at national and organizational level;

**11.**

**Safe Management of Radioactive Sources**

115. Calls upon all Member States to ensure that their legislative or regulatory framework includes specific provisions for the safe management of radioactive sources through all stages of the life cycle;

116. Calls upon all Member States to ensure that there is adequate provision, including financial arrangements, as appropriate, for safe and secure storage and disposition pathways for disused sources so that such sources within their territories remain under regulatory control, and encourages all Member States to develop arrangements, as practicable, to permit the return of disused sources to the supplier States or consider other options including the reuse or recycling or disposal of sources wherever possible;

117. Encourages the Secretariat and Member States to strengthen national and multinational efforts to recover orphan sources and maintain control of disused sources, and invites Member States to establish radiation detection systems, as appropriate;

118. Calls upon all Member States to establish and maintain national registers of high-activity sealed radioactive sources;

119. Encourages the Agency to promote the identification of actions to enhance the effective implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and improve the long term management of disused sources;

120. Requests the Secretariat to take note of and consider, as appropriate, the report of the Chairman from the 2016 Open-ended Meeting of Technical and Legal Experts for Sharing of Information on States' Implementation of the Code of Conduct on the Safety and Security of

Radioactive Sources and its supplementary Guidance on the Import and Export of Radioactive Sources, and calls for the report to be made available in all official languages of the Agency for consideration by Member States;

121. Requests the Secretariat take note of and consider, as appropriate, the report of the Chairman from the 2016 Open-ended Meeting of Legal and Technical Experts to Develop Internationally Harmonized Guidance for Implementing the Recommendations of the Code of Conduct on the Safety and Security of Radioactive Sources in Relation to the Management of Disused Radioactive Sources containing draft supplementary Guidance on the Management of Disused Radioactive Sources, and calls for the report to be made available in all official languages of the Agency for the consideration of Member States;

122. Requests the Secretariat to continue to foster information exchange on implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary Guidance on the Import and Export of Radioactive Sources;

123. Requests the Secretariat to further facilitate, as appropriate, information exchange between interested Member States on radiation safety aspects of the management of movement of scrap metal or materials produced from scrap metal that may inadvertently contain radioactive material;

## 12.

### **Nuclear and Radiological Incident and Emergency Preparedness and Response**

124. Encourages Member States to develop and strengthen national, bilateral, regional and international emergency preparedness and response mechanisms and arrangements, including protective measures; to cooperate closely on precautionary measures to minimize long-term consequences, as appropriate; to facilitate timely information exchange during a nuclear or radiological emergency; and to continue to improve bilateral, regional and international cooperation among national experts, competent authorities and regulators to that effect;

125. Requests the Secretariat to work with Member States to refine arrangements for assessment, prognosis and communication, including arrangements for the timely sharing of relevant technical parameters, while making effective use of Member States' capabilities, and continuing to refine the role of the Incident and Emergency Centre (IEC), during an emergency;

126. Encourages Member States to inform and periodically update the Secretariat and other Member States of their capabilities, and to assist the IEC during an emergency;

127. Encourages Member States to establish and maintain effective communication channels between the responsible national authorities at all times, to ensure respective responsibilities are clear and to improve coordination and decision-making process for all types of accident scenarios;

128. Requests the Secretariat to work with Member States to strengthen the IAEA Response and Assistance Network (RANET) to ensure that, if and when requested, timely and effective assistance can be provided, further requests the Secretariat to work with Member States to facilitate, as appropriate, bilateral and multilateral arrangements, and to enhance efforts to establish technical compatibility for international assistance, and encourages Member States to register national capabilities in as many fields as possible in RANET;

129. Requests the Secretariat to provide support to the States Parties to the Assistance Convention and the Early Notification Convention to strengthen technical and administrative procedures that enhance the implementation of both conventions effectively;

130. Requests the Secretariat, in close cooperation with Member States, to continue to develop an effective public communication strategy and to maintain and further develop arrangements to provide Member States, international organizations and the general public with timely, clear, factually correct, objective and easily understandable information during a nuclear or radiological emergency, including the analysis of available information and the prognosis of potential consequences;

131. Requests the Secretariat, in close cooperation with Member States and appropriate relevant international organizations, to continue a programme of international exercises to ensure the effectiveness of the national, regional and international emergency preparedness and response continues to be enhanced;

132. Encourages Member States to continue discussions on the effectiveness of Emergency Preparedness Review (EPREV) missions and further encourages interested Member States to invite EPREV or EPREV follow-up missions on a voluntary basis;

133. Encourages the Secretariat to continue utilizing the International Radiation Monitoring Information System (IRMIS), to work with national contact points towards a public version of the system in a timely manner, and further encourages Member States in a position to do so to provide data to the system;

134. Encourages Member States to consider providing information to the Emergency Preparedness and Response Information Management System (EPRIMS);

135. Encourages Member States to consider the recently published IAEA Safety Standards Series No. GSR Part 7 on Preparedness and Response for a Nuclear or Radiological Emergency in the context of their nuclear or radiological emergency arrangements;

136. Requests the Secretariat to take into consideration, in consultation with Member States, as appropriate, the recommendations of the 2015 International Conference on Global Emergency Preparedness and Response;

137. Requests the Secretariat to make available for the consideration of Member States the outcomes of the Eighth Meeting of the Representatives of Competent Authorities identified under the Early Notification Convention and the Assistance Convention;

### **13.**

#### **Implementation and Reporting**

138. Requests the Secretariat to implement the actions called for in this resolution in a prioritized manner within available resources; and

139. Requests the Director General to report in detail at the sixty-first (2017) regular session of the General Conference on implementation of this resolution, and on other relevant developments in the intervening period.

*29 September 2016  
Agenda item 13  
GC(60)/OR.7, para. 93*

**GC(60)/RES/10**

**Nuclear security**

The General Conference,

- (a) Recalling its previous resolutions on measures to improve the security of nuclear and other radioactive material and on measures against the illicit trafficking of these materials,
- (b) Taking note of the Nuclear Security Report 2016 submitted by the Director General in document GC(60)/11 and of the Nuclear Security Plan for 2014-2017 approved by the Board of Governors in September 2013,
- (c) Reaffirming the common goals of nuclear non-proliferation, nuclear disarmament and peaceful uses of atomic energy, recognizing that nuclear security contributes to international peace and security, and stressing that progress in nuclear disarmament is critically needed and will continue to be addressed in all relevant fora, consistent with the relevant obligations and commitments of Member States,
- (d) Asserting that the responsibility for nuclear security within a State rests entirely with that State, and mindful of the responsibilities of every Member State, in accordance with its respective national and international obligations, to maintain at all times effective and comprehensive nuclear security of all nuclear and other radioactive material,
- (e) Confirming the important role of science, technology and engineering in understanding and addressing current and evolving challenges to nuclear security,
- (f) Recalling with appreciation the 2013 International Conference on Nuclear Security: Enhancing Global Efforts and its related Ministerial Declaration, taking note of valuable technical expert discussions reflected in the President's Summary Report, and looking forward to the 2016 International Conference on Nuclear Security "Commitments and Actions", for both its ministerial segment and its scientific and technical programme,
- (g) Recognizing the importance of maintaining a dialogue, as appropriate, between government bodies and nuclear industry at national level on strengthening nuclear security,
- (h) Underlining the enduring need to raise awareness of nuclear security among all stakeholders, which include users of nuclear and other radioactive material and competent authorities,
- (i) Recognizing the Agency's central role, as emphasized for instance by the 16th Summit of the Non-Aligned Movement (NAM) held in August 2012, in developing comprehensive nuclear security guidance documents and, on request, providing assistance to Member States in order to facilitate their implementation,
- (j) Emphasizing the need for the involvement of all Member States of the Agency in nuclear security-related activities and initiatives in an inclusive manner, and noting the role that international processes and initiatives, including the Nuclear Security Summits, have played in the area of nuclear security,

- (k) Reaffirming the central role of the Agency in facilitating international cooperation in supporting the efforts of States to fulfil their responsibilities to ensure the security of civilian nuclear and other radioactive material,
- (l) Reaffirming the importance of the Convention on the Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment extending its scope, welcoming the entry into force of that Amendment, recognizing the importance of acceptance, approval or ratification by further States, and noting the importance of its full implementation and universalization,
- (m) Recognizing that highly enriched uranium (HEU) and separated plutonium in all their applications require special precautions to ensure their nuclear security and that it is of great importance that they be appropriately secured and accounted for, by and in the relevant State,
- (n) Recognizing the importance of minimizing the use of highly enriched uranium (HEU) and using low enriched uranium (LEU) where technically and economically feasible,
- (o) Noting United Nations Security Council resolutions 1373, 1540, 1673, 1810 and 1977, United Nations General Assembly resolution 69/39, the International Convention for the Suppression of Acts of Nuclear Terrorism, and international efforts in conformity with these instruments to prevent access by non-State actors to weapons of mass destruction and related material,
- (p) Noting the conclusions and recommendations for follow-on actions of the 2010 Review Conference of the parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) relating to nuclear security,
- (q) Recognizing the need to strengthen and improve cooperation in, and the coordination of, international efforts in the field of nuclear security in order to avoid duplication and overlap, and acknowledging the Agency's central role in this respect,
- (r) Emphasizing the need for Member States to continue providing appropriate technical, human and financial resources, including through the Nuclear Security Fund, for the Agency to implement its nuclear security activities and to enable the Agency to provide, upon request, the support needed by Member States,
- (s) Recognizing that nuclear security and safety measures have the common aim of protecting human health, society and the environment, while acknowledging the distinctions between the two areas, and reaffirming the importance of coordination in this regard, and underlining the importance that, at the national level, both these areas are dealt with, appropriately, by governments and their competent authorities according to their respective competencies,
- (t) Noting the recommended requirements for measures to protect against sabotage of nuclear facilities and unauthorized removal of nuclear material in use, storage and transport included in IAEA Nuclear Security Series No. 13 (INFCIRC/225/Rev.5), using inter alia a graded approach, as well as the ongoing work by the Agency on further guidance on their implementation, including during the process of design, construction, commissioning, operation, maintenance and decommissioning of nuclear facilities,

- (u) Reaffirming the importance and the value of the non-legally-binding Code of Conduct on the Safety and Security of Radioactive Sources, as approved by the Board of Governors in 2003, and underlining the important role of the revised supplementary Guidance on the Import and Export of Radioactive Sources, as approved by the Board of Governors in 2011,
  - (v) Noting the importance of security of transport of nuclear and other radioactive material and stressing the need to take effective measures to protect nuclear and other radioactive material during transport against unauthorized removal or sabotage,
  - (w) Reaffirming and respecting each Member State's choices in nuclear technology, and encouraging the Agency to promote and facilitate technical exchanges of experience, knowledge and good practices on the use and security of high activity radioactive sources,
  - (x) Noting the contribution of Member States' systems of accounting for and control of nuclear material to preventing loss of control and illicit trafficking and to deterring and detecting the unauthorized removal of nuclear material,
  - (y) Recognizing physical protection as a key element of nuclear security,
  - (z) Underlining the importance of Agency programmes for education and training in nuclear security, as well as other international, regional and national efforts to this end, and encouraging the Secretariat to continue the coordinated research projects (CRPs) in the field of nuclear security and to provide further information in this respect,
  - (aa) Commending the work done by the Agency in providing, upon request, technical assistance and expert support to countries hosting major public events, and
  - (bb) Stressing the essential importance of ensuring the confidentiality of information relevant to nuclear security,
1. Affirms the central role of the Agency in strengthening the nuclear security framework globally and in coordinating international activities in the field of nuclear security, while avoiding duplication and overlap;
  2. Calls upon all Member States, within their responsibility, to achieve and maintain highly effective nuclear security, including physical protection, of nuclear and other radioactive material during use, storage and transport and of the associated facilities at all stages in their life cycle, as well as protecting sensitive information;
  3. Calls upon the Secretariat to continue to implement the Nuclear Security Plan 2014-2017 (GC(57)/19 and Corr.1) in a comprehensive manner and calls upon the Agency to develop the Nuclear Security Plan 2018-2021 in a close consultation process between the Secretariat and Member States;
  4. Encourages the Agency to enhance its technical capabilities and keep abreast of scientific and technological innovations with a view to confronting current and evolving challenges and risks to nuclear security;
  5. Calls upon the Secretariat to continue to organize International Conferences on Nuclear Security every three years and encourages all Member States to participate at ministerial level;

6. Calls upon Member States that have not yet done so to establish or designate, and sustain a competent authority or authorities responsible for the implementation of the legislative and regulatory framework, which is or are functionally independent in its or their regulatory decision-making from any other bodies that deal with the promotion or utilization of nuclear or other radioactive material, and which has or have the legal authority and the human, financial and technical resources necessary for fulfilling its or their responsibilities;
7. Calls upon all States to ensure that measures to strengthen nuclear security do not hamper international cooperation in the field of peaceful nuclear activities, the production, transfer and use of nuclear and other radioactive material, the exchange of nuclear material for peaceful purposes and the promotion of peaceful uses of nuclear energy, and do not undermine the established priorities of the Agency's technical cooperation programme;
8. Calls upon all Member States to consider providing the necessary political, technical and financial support to the Agency's efforts to enhance nuclear security through various arrangements at the bilateral, regional and international levels, and recalls the decision of the Board of Governors on support for the Nuclear Security Fund;
9. Encourages all Parties to the CPPNM and its 2005 Amendment to fully implement their obligations thereunder, encourages States that have not yet done so to become party to this Convention and its Amendment, further encourages the Agency to continue efforts to promote further adherence to the Amendment with the aim of its universalization, welcomes the organization by the Secretariat of CPPNM meetings and encourages all States Parties to the Convention to participate in relevant meetings;
10. Encourages all Member States that have not yet done so to become parties to the International Convention on the Suppression of Acts of Nuclear Terrorism as soon as possible;
11. Encourages the Secretariat, in consultation with Member States, to consider ways of further promoting and facilitating the exchange, on a voluntary basis, of information on the implementation of the international legal instruments relevant to nuclear security;
12. Calls upon the Secretariat to further develop, with coordination and priority-setting by the Nuclear Security Guidance Committee (NSGC), the publication of Nuclear Security Series guidance documents to facilitate the implementation of the Nuclear Security Fundamentals (IAEA Nuclear Security Series No. 20) and Recommendations, and encourages further efforts of the Secretariat to enable representatives of all Member States to participate in the work of the NSGC;
13. Encourages the Secretariat, while recognizing the distinction between nuclear safety and nuclear security, to continue facilitating, in close cooperation with Member States, a coordination process relating to their interfaces, and encourages the Agency to develop safety and security publications accordingly;
14. Calls upon all Member States to take into account information security, considering the balance between security and transparency as provided for in IAEA Nuclear Security Series No. 23-G with a view to further strengthening and improving relevant mechanisms that handle information pertaining to nuclear or other radioactive material encountered outside of regulatory control;
15. Encourages all Member States to take into account, as appropriate, the Nuclear Security Series publications, including the Nuclear Security Fundamentals, and to make use of them at their national discretion in their efforts to strengthen nuclear security;

16. Encourages the Agency to continue, in coordination with Member States, to play its central and coordinating role in nuclear security activities among international organizations and initiatives, taking into account their respective mandates and memberships, and to work jointly, as appropriate, with relevant international and regional organizations and institutions, welcomes regular IAEA Information Exchange Meetings and requests the Secretariat to keep Member States informed in this regard;
17. Encourages the Secretariat to promote international exchanges of experience, knowledge and good practices as regards ways to develop, foster and maintain a robust nuclear security culture compatible with States' nuclear security regimes, and encourages the Secretariat to organize an international workshop on nuclear security culture;
18. Encourages the Secretariat, in consultation with Member States, to increase its assistance to States, upon request, on the development and consolidation of a nuclear security culture, including through publishing guidance, provision of training and related self-assessment and training materials and tools;
19. Encourages the Secretariat, in cooperation with Member States, to continue its training and train-the-trainers programmes taking account of the IAEA Nuclear Security Series, and to adapt the courses as appropriate, within its mandate, to meet the needs of Member States;
20. Encourages ongoing initiatives of Member States, in cooperation with the Secretariat, to further enhance nuclear security culture, as well as skills and knowledge of personnel through nuclear security education and training, and through dialogue with the nuclear industry and collaborative international and regional networks, as appropriate, including through centres of excellence, Nuclear Security Support Centres (NSSCs) and the International Nuclear Security Education Network (INSEN), and taking into account and promoting relevant Nuclear Security Series publications, and requests the Secretariat to continue to report to the Board of Governors on its activities in this respect;
21. Recognizes and supports the Agency's continuing work to assist, upon request, States' efforts to establish effective and sustainable national nuclear security regimes, to fulfil their obligations under United Nations Security Council resolution 1540, provided that the requests are within the scope of the Agency's statutory responsibilities;
22. Recognizes and supports the Agency's continuing work to assist, upon request, States' efforts to ensure the security of their nuclear and other radioactive material, including through the offer of assistance in the implementation of Agency Nuclear Security Fundamentals and Recommendations when radioactive material is supplied by the Agency, and through the provision of such assistance when requested;
23. Encourages States to make further use of assistance in the field of nuclear security, including, as appropriate, through the establishment of Integrated Nuclear Security Support Plans (INSSPs), and similarly encourages States in a position to do so to make available such assistance;
24. Encourages the Secretariat to assist Member States, upon request, in the development of implementation strategies of their INSSPs in close consultation with the concerned Member State;
25. Encourages the Secretariat to further develop, in close consultation with Member States, a voluntary mechanism to match Member States' requests for assistance with other Member States' offers of assistance, and highlighting, in cooperation with the recipient State, the most

urgent needs for assistance, with due regard to the confidentiality of information relevant to nuclear security;

26. Calls upon the Agency to support continued dialogue on the security of radioactive sources and disused radioactive sources, and to promote research and development in this field;

27. Invites States that have not yet done so to make political commitments to implement the non-legally-binding Code of Conduct on the Safety and Security of Radioactive Sources and the revised supplementary Guidance on the Import and Export of Radioactive Sources, and encourages all States to further implement these instruments to maintain effective security of radioactive sources throughout their life cycle;

28. Notes the discussion on the development of supplementary guidance of the Code of Conduct on the Safety and Security of Radioactive Sources regarding the management of disused sealed sources;

29. Calls upon all Member States to ensure that there is adequate provision for safe and secure storage and disposition pathways for disused radioactive sealed sources so that such sources within their territories remain under regulatory control, and further encourages all Member States to develop arrangements, as practicable, to permit the return of disused sources to the supplier States or consider other options including the reuse or recycling of sources whenever possible;

30. Calls upon all States to improve and sustain, based on national security threat assessments, their national capabilities to prevent, detect, deter and respond to illicit trafficking and other unauthorized activities and events involving nuclear and other radioactive material throughout their territories and to meet their relevant international obligations, and calls upon those States in a position to do so to work to enhance international partnerships and capacity building in this regard;

31. Encourages Member States to organize exercises to strengthen national capacities to prepare and respond to a nuclear security event involving nuclear or other radioactive material;

32. Notes the utility of the Incident and Trafficking Database (ITDB) as a voluntary mechanism for the international exchange of information on incidents and illicit trafficking of nuclear and other radioactive material, encourages the Agency to further facilitate, including through designated Points of Contact, the timely exchange of information including through secured electronic access to information contained in the ITDB, and encourages all States to join and participate actively in the ITDB programme in support of their national efforts to prevent, detect and respond to radioactive and nuclear materials that may have fallen out of regulatory control;

33. Encourages States to continue efforts on their territory to recover and secure nuclear and other radioactive material that has fallen out of regulatory control;

34. Calls upon all Member States to continue to take appropriate steps, consistent with the national legislation and regulation, to prevent, detect, and protect against insider threats at nuclear facilities, and calls upon the Secretariat to advise Member States, upon request, on taking further preventive and protective measures against insider threats to enhance nuclear security, including through the use of Nuclear Material Accounting and Control for Nuclear Security Purposes at Facilities (IAEA Nuclear Security Series No. 25-G);

35. Calls upon all Member States to continue to take appropriate steps, consistent with the national legislation and regulation, to prevent, detect, and protect against insider threats at facilities using radioactive sources, and during transport;
36. Notes the Agency's efforts to raise awareness of the threat of cyber-attacks, and their potential impact on nuclear security, encourages States to take effective security measures against such attacks, and encourages the Agency to continue its efforts to strengthen computer security, to improve international cooperation, to bring together experts and policy-makers to promote the exchange of information and experiences, to develop appropriate guidance and to assist Member States, upon request, in this area by providing training courses and hosting further expert meetings specific to the computer security of nuclear facilities;
37. Welcomes the Agency's work of promotion and support in the field of nuclear forensics, including through the development of guidance, further requests the Secretariat to assist interested Member States, upon their request, through the provision of education and training, and encourages Member States to make available experts, to share experiences, knowledge and good practices, in nuclear forensics with due regard of the principle of protection of sensitive information, and, if they have not yet done so, to consider establishing, where practical, national nuclear material databases or national nuclear forensics libraries;
38. Encourages the Member States concerned, on a voluntary basis, to further minimize highly enriched uranium (HEU) in civilian stocks and use low enriched uranium (LEU) where technically and economically feasible;
39. Encourages Member States to voluntarily use, and make available experts to the Agency to carry out, the Agency's nuclear security advisory services for exchanges of views and advice on nuclear security measures, welcomes the increased recognition of the value of IPPAS (International Physical Protection Advisory Service) and INSServ (International Nuclear Security Advisory Service), missions by Member States, and notes with appreciation the organization by the Agency of meetings, including the forthcoming IPPAS 20th anniversary meeting in London, to allow interested Member States to share experience and lessons learned, with due regard of the principle of confidentiality, and to make recommendations for improvements of IPPAS and INSServ missions;
40. Encourages the Secretariat, in cooperation with Member States, to continue to develop and promote self-assessment methodologies and approaches that are based on Nuclear Security Series documents and can be used by Member States on a voluntary basis to ensure effective and sustainable national nuclear security infrastructure;
41. Encourages Member States to make use of the IAEA Nuclear Security Information Management System (NUSIMS), on a voluntary basis;
42. Supports the steps taken by the Secretariat to ensure confidentiality of information relevant to nuclear security and requests the Secretariat to continue its efforts to implement appropriate confidentiality measures in conformity with the Agency's confidentiality regime and to report as appropriate to the Board of Governors on the status of the implementation of the confidentiality measures;
43. Requests the Director General to submit an annual Nuclear Security Report to the General Conference at its sixty-first (2017) regular session on activities undertaken by the Agency in the area of nuclear security, and on external users of ITDB and on past and planned activities of educational, training and collaborative networks, as well as highlighting

significant accomplishments of the previous year within the framework of the Nuclear Security Plan and indicating programmatic goals and priorities for the year to come; and

44. Requests the Secretariat to implement the actions called for in this resolution in a prioritized manner within available resources.

*30 September 2016  
Agenda item 14  
GC(60)/OR.10, para. 8*

**GC(60)/RES/11                      Strengthening of the Agency's technical cooperation activities**

**1.  
General**

The General Conference,

- (a) Recalling resolution GC(59)/RES/11 on “Strengthening of the Agency’s technical cooperation activities”,
- (b) Bearing in mind that the objectives of the Agency, as stated in Article II of the Statute, are “to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world” and to ensure that the assistance provided by it is not used “to further any military purpose”,
- (c) Recalling that one of the statutory functions of the Agency, as stated in Article III of the Statute, is to “encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world”,
- (d) Acknowledging that for developing countries, including least developed countries (LDCs), the technical cooperation (TC) programme is a major vehicle for executing this statutory function,
- (e) Recalling that the Statute and the Revised Guiding Principles and General Operating Rules to Govern the Provision of Technical Assistance by the Agency as contained in INFCIRC/267 are the Agency’s established guidelines for the formulation of the TC programme, and also recalling other directives from the General Conference and the Board of Governors relevant to the formulation of the TC programme, including the Agency’s Medium Term Strategy 2012–2017,
- (f) Further recalling the Board of Governors’ requirement, in light of the document GOV/1931 of 12 February 1979, that all Member States receiving technical assistance from the Agency should have signed a Revised Supplementary Agreement (RSA) Concerning the Provision of Technical Assistance by the Agency,
- (g) Welcoming the adoption of the 2030 Agenda for Sustainable Development by the United Nations General Assembly in 2015 (A/RES/70/1),
- (h) Recalling the Brussels Declaration on the LDCs and the 2011–2020 Programme of Action of the Fourth United Nations Conference on the Least Developed Countries and the Istanbul Declaration on the Least Developed Countries: Time for Action,
- (i) Taking into account that the TC programme of the Agency is needs-based,

- (j) Mindful of the increasing number of Member States requesting TC projects, which requires adequate resources for the Agency to meet these demands,
  - (k) Noting the substantive outcomes of the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons relating to the Agency's TC activities,
  - (l) Recognizing that Member States and the Secretariat continue to work to promote transparency and accountability in project formulation, management, monitoring and evaluation of the TC programme,
  - (m) Mindful of the shared responsibility of all Member States towards supporting and enhancing TC activities of the Agency, and
  - (n) Welcoming the convening of the International Conference on the IAEA Technical Cooperation Programme: Sixty Years and Beyond — Contributing to Development in 2017 as part of the Agency's initiatives to strengthen the TC programme and to commemorate the 60th anniversary of IAEA,
1. Stresses that, when formulating the TC programme, the Secretariat should adhere strictly to the provisions of the Statute and the guiding principles and policies as contained in INFCIRC/267 and to relevant directives from the General Conference and the Board of Governors, and welcomes the Secretariat's efforts to ensure that TC projects are consistent with the Agency's Statute; and
  2. Stresses the importance of the Revised Supplementary Agreement (RSA) and encourages all Member States receiving technical cooperation to sign a RSA Concerning the Provision of Technical Assistance by the Agency and implement its provisions.

## **2.**

### **Strengthening technical cooperation activities**

- (a) Considering that the strengthening of technical cooperation activities in the fields of — inter alia — food and agriculture, human health, water resource management, biotechnology, environment, industry, knowledge management, and nuclear energy programming, planning and production will substantially contribute to the sustainable socio-economic development and help improve the quality of life and the well-being of the peoples of the world, and particularly those of developing Member States of the Agency, including the least developed ones,
- (b) Recognizing that the TC programme continues to contribute to the achievement of national and regional goals for sustainable development, particularly in developing countries,
- (c) Further recognizing that the TC programme has contributed to the achievement of the Millennium Development Goals (MDGs), and that the TC programme should play an active role in realizing the goals of the 2030 Agenda for Sustainable Development (A/RES/70/1),
- (d) Expressing appreciation of the Directors General's initiative in selecting radiation technology for development as a key focus area in 2015–16, and aware of the role of TC projects in strengthening national and regional capacities in the application of radiation technologies for development, particularly in the developing countries,

(e) Conscious of the potential of nuclear power for meeting increasing energy requirements in a number of countries, and of the need for sustainable development, including environmental protection, and of the need for the application of the Agency's safety standards and nuclear security guidelines to be applied in all uses of nuclear technology in order to protect humankind and the environment, and noting the Agency's support aimed at human resources and nuclear power infrastructure development,

(f) Taking note with appreciation of the activities being developed by the Agency in the field of nuclear knowledge management, education and training and particularly of the initiatives being emphasized by the TC programme in assisting national nuclear and other entities to build and enhance the basic infrastructure and regulatory framework in this field, and to further improve their technical capacity for ensuring sustainability,

(g) Recognizing that human capital planning, the development of human resources through scientific visits, fellowships and training courses, expert services and appropriate equipment supply continue to be important components of TC activities to ensure impact and sustainability, and expressing appreciation for the extrabudgetary contributions of some States, as well as in-kind contributions such as, inter alia, experts, training courses and infrastructure, that make those TC activities possible,

(h) Recalling that the Programme of Action for Cancer Therapy (PACT) was relocated in 2014 to the Department of Technical Cooperation and recognizing that the integration of PACT into the TC programme contributes to strengthening and facilitating the programmatic delivery of PACT in close cooperation and coordination with all relevant stakeholders, and

(i) Recognizing the need for furthering the work of the Agency in promoting nuclear science, technologies and applications for peaceful uses, and their delivery to Member States through the Agency's TC programme, and the role of high-level international conferences in this regard,

1. Requests the Secretariat to continue to facilitate and to enhance the development of nuclear technology and know-how and its transfer to and among Member States for peaceful uses as embodied in the Agency's TC programme, taking into account and emphasizing the importance of specific needs of developing countries, including those of LDCs in line with Article III of the Statute, and encourages Member States to contribute in sharing knowledge and technology in the field of peaceful uses of nuclear energy;

2. Requests the Director General to strengthen the Agency's TC activities, in consultation with Member States, through the development of effective programmes with well-defined outcomes aimed at promoting and improving the scientific, technological, research and regulatory capabilities of the Member States implementing projects, account being taken of the infrastructure and the level of technology of the countries concerned, by continuing to assist them in their peaceful, safe, secure and regulated applications of atomic energy and nuclear techniques;

3. Welcomes the Secretariat's efforts to promote gender equality throughout the TC programme, and encourages the Secretariat, in close coordination with Member States, to continue its efforts to further advance gender balance in the TC programme;

4. Requests the Director General to make every effort to ensure, where relevant, that the Agency's TC programme, taking into account specific needs of each Member State, particularly developing countries and LDCs, as well as the Agency's adoption of the 'technical

cooperation among developing countries' (TCDC) modality in assisting LDCs, contributes to the implementation of the principles expressed in the Istanbul Declaration, the Programme of Action for the Least Developed Countries for the Decade 2011–2020 and to the attainment of the internationally agreed development goals, and further requests the Director General to keep Member States informed of the Agency's activities in this regard;

5. Looks forward to the Agency's contribution to the implementation of the 2030 Agenda for Sustainable Development, in particular through the TC programme;

6. Requests the Secretariat to continue, within the framework of the TC programme, to work actively to provide assistance and support services to Member States to identify and implement the lessons learned from the Fukushima Daiichi accident;

7. Requests the Secretariat to continue, within the framework of the TC programme, to work actively to render assistance and radiological support to the most affected countries in mitigating the consequences of the Chernobyl disaster and rehabilitating the contaminated territories;

8. Requests the Secretariat to continue examining in depth the specific characteristics and problems of the LDCs with respect to the peaceful applications of nuclear energy and, in this regard, reiterates its request to the Secretariat to report its conclusions on this matter to the Member States at the Technical Assistance and Cooperation Committee in November 2016, and to include a report on this issue in the 2016 Technical Cooperation Report;

9. Encourages the Secretariat to continue implementing the Programme Cycle Management Framework (PCMF) in phases, and to make it simpler and user-friendly so that Member States may use the tools effectively, and to take into account, in designing and implementing subsequent phases, difficulties experienced and concerns of Member States, including lack of adequate training, equipment and IT infrastructure in developing countries, particularly in LDCs; and

10. Requests the Secretariat to initiate consultations with Member States on the preparation of the 2018 Ministerial Conference on nuclear science, technologies and applications for peaceful uses, and their delivery to Member States through the Agency's TC programme, while highlighting their future contribution to sustainable development.

### **3.**

#### **Effective execution of the technical cooperation programme**

(a) Reiterating the need to strengthen technical cooperation activities and to further enhance the effectiveness, efficiency and transparency of the TC programme, in accordance with Member States' requests, based on their needs and national priorities and emphasizing that all measures taken in this regard should also preserve and enhance the ownership of TC projects by recipient Member States,

(b) Stressing the importance for the Agency of regular internal and external evaluations (as performed by the Office of Internal Oversight Services and the External Auditor, respectively), which contribute to achieving more effectiveness, efficiency, transparency and sustainability of the TC programme, with a view to having a positive impact on results,

(c) Appreciating the efforts of the Secretariat in continuing to apply a two-step mechanism of quality assessment and review of projects for the 2016–2017 cycle, on the

basis of TC quality criteria, in particular the central criterion of the Logical Framework Approach (LFA),

(d) Noting that the key lessons from the review process carried out by the Secretariat in 2011 showed that consideration should be given to moving towards more focused and comprehensive projects, and that a differentiation in LFA treatment should be made between large, complex projects and small, simple ones,

(e) Recognizing the growing number of Member States and their increasing demands on the TC programme, as well as the Agency's role in the achievement of the Sustainable Development Goals (SDGs), and the importance of enhancing within available resources the capacity of Agency staff to meet the needs of Member States, so as to effectively service Member States in line with the Agency's statutory requirements, in particular Articles II and III of the Statute, and further recognizing the valuable contribution of general service staff,

(f) Recognizing the efforts of the Secretariat to introduce outcome monitoring to the TC programme, through a number of pilot projects in the 2016–2017 programme cycle, and

(g) Recognizing that the Secretariat will continue to promote to the extent possible gender equality and equitable geographical representation in the Agency, especially at managerial levels, and recalling that the recruitment and retention of staff of the highest standards of efficiency, technical competence and integrity are essential for the success and impact of the Agency's programme,

1. Urges the Secretariat to continue to work, in close cooperation with Member States, to strengthen TC activities, including the provision of sufficient resources, in accordance with Member States' requests based on their needs and national priorities, inter alia through ensuring that the components of TC projects, training, expertise and equipment are readily available to the Member States that have made such requests;
2. Requests the Secretariat, within available resources, to enhance TC project implementation capacity by ensuring that staff are adequately and appropriately assigned at all levels;
3. Welcomes and further encourages the continuing efforts of the Secretariat to optimize the quality, the number and the impact of TC projects and to create synergies among them, whenever feasible, and in coordination with the Member States concerned;
4. Requests the Secretariat to continue to provide Member States with adequate information and training on project development according to the LFA sufficiently in advance of their consideration by the Technical Assistance and Cooperation Committee and the Board of Governors;
5. Recognizes the importance of regular reporting on the implementation and outcomes of TC projects, urges Member States to adhere to all the requirements in this regard, welcomes the progress achieved and encourages further progress by Member States in the submission of their Project Progress Assessment Reports (PPARs). In this regard, requests the Secretariat to continue to provide necessary guidance to Member States on improving their reporting, as appropriate;

6. Requests the Secretariat to keep Member States informed of the results of the efforts to implement outcome monitoring in the TC programme, and of the financial and human resource implications of its expansion;
7. Requests the Secretariat, when applying the two-step mechanism in monitoring the quality of TC projects, to reflect on the findings in the TC annual report in this regard, as appropriate;
8. Encourages the Secretariat and Member States to enhance adherence to the central criterion and all the TC requirements, and calls upon the Secretariat to guide Member States in this regard;
9. Requests the Secretariat to continue providing updates on the progress of TC programme implementation in between annual TC reports; and
10. Requests the Office of Internal Oversight Services and the External Auditor, in the course of their regular work and within resources allocated to these offices from the Regular Budget, to evaluate TC projects on the basis of specific outcomes achieved in relation to objectives outlined in the relevant Country Programme Framework or national development plan and further requests the External Auditor to report the results to the Board of Governors.

4.

**Technical cooperation programme resources and delivery**

- (a) Recalling that the financing of TC should be in line with the concept of shared responsibility and that all Member States share a common responsibility towards financing and enhancing the TC activities of the Agency, and welcoming the contributions made by Member States, on a voluntary basis through government cost-sharing,
- (b) Stressing that the Agency's resources for TC activities should be sufficient, assured and predictable (SAP) to meet the objectives mandated in Article II of the Statute, and welcoming, in this regard, the *Report of the Working Group on Financing the Agency's Activities (WGFAA)*, including to examine the ways and means to render resources for the Technical Cooperation Fund sufficient, assured and predictable, as approved by the Board of Governors in September 2014 (GOV/2014/49) and the recommendations contained therein,
- (c) Recognizing that the Technical Cooperation Fund (TCF) target should be set at an adequate level, taking into account not only the growing needs of Member States but also funding capabilities, and mindful of the increasing number of Member States requesting TC projects,
- (d) Noting the decision of the Board of Governors, as contained in document GOV/2015/37, to set the target for voluntary contributions to the TCF at the level of €84 456 000 in 2016 and €84 915 000 in 2017, and that the indicative planning figure for 2018 shall be the same as the target for 2017 (€84 915 000) and for 2019 no less than €84 915 000,
- (e) Noting the decision of the Board of Governors, as contained in document GOV/2016/29, through which Secretariat was requested to place the appropriate emphasis on the activities directly related to the implementation of the SDGs during the preparation of the Programme and Budget Proposal 2018–2019, and aware of the need

for sufficient, assured and predictable resources,

(f) Aware of the significant number of approved projects that remain unfunded (footnote-a/projects) in the TC programme,

(g) Also aware that the existence of a significant number of such projects also results in an increased workload on the Secretariat in terms of project planning and design review,

(h) Stressing the importance of maintaining an appropriate balance between the promotional and other statutory activities of the Agency, and taking note of the decision of the Board, which — inter alia — notes that the synchronization of the TC programme cycle with the budget cycle provides a framework beginning in 2012, to consider appropriate increases to the resources for the TC programme, including the TCF target where such adjustments would take into account the changes in the level of the regular operational budget from 2009 onwards, the price adjustment factor and other relevant factors as contained in document GOV/2009/52/Rev.1,

(i) Acknowledging the efforts of the Secretariat to respond to Member States' request (included in decision GOV/2011/37) to reassess the application of the due account mechanism with a view to its possible future strengthening, and recognizing that its effectiveness depends on its consistent application to all Member States,

(j) Stressing that Major Programme 6 should be funded appropriately through the Regular Budget, and recalling the decision GOV/2011/37 that recommends — inter alia — one Working Group dealing with both the level of the Regular Budget and the TCF target,

(k) Expressing appreciation to those Member States which have paid in full their TCF target shares and their obligatory National Participation Costs (NPCs) in a timely manner, noting the improvement in the number of Member States paying their NPCs and thus their strong commitment to the TC programme, and noting the Rate of Attainment of 2015, which was 93.8%, including the deferred or additional payments made by Member States, and looking forward to reaching the rate of 100%, which is central to demonstrating the commitment of Member States to the Agency's TC programme,

(l) Encouraging Member States in a position to do so, to consider contributing on a voluntary basis through government cost-sharing to future national and regional TC projects, while recognizing that government cost-sharing is a sovereign decision,

(m) Noting the use of the Programme Cycle Management Framework and emphasizing the need for assessing its impact on, inter alia, enhancing coordination, programme planning and the quality of programme delivery as well as increasing the implementation rate, and

(n) Recognizing that the Agency requests that shipments of radioactive materials in the framework of the TC programme are carried out in compliance with the Agency's Regulations for the Safe Transport of Radioactive Material,

1. Stresses the need for the Secretariat to continue to work, in consultation with Member States, towards establishing means, including mechanisms, that would achieve the goal of making TC resources sufficient, assured and predictable (SAP);

2. Urges Member States to pay in full and on time their voluntary contributions to the TCF, encourages Member States to pay their National Participation Costs (NPCs) on time, and requests those which are in arrears with Assessed Programme Costs (APCs) to meet this obligation;
3. Requests the Secretariat to ensure that the commencement of projects within a national programme will take place upon the receipt of at least the minimum payment of the NPCs without affecting the preparatory activities and that, in the event of a failure to pay any second instalment during a biennium, funding for a core project in the next biennium will be suspended until full payment is received;
4. Requests the Secretariat to make every effort to strictly apply the due account mechanism to all Member States equally, efficiently and effectively, and to further consult with Member States, in a timely manner, regarding specific guidelines for its application, and its approval by the Policy Making Organs of the Agency;
5. Further requests the Director General to continue to take account of the views of the General Conference when requesting Member States to pledge and pay their respective shares of the TCF targets and to make timely payments to the TCF;
6. Requests the Secretariat, when presenting the Programme and Budget Proposal 2018–2019, to inform Member States on how it intends to give effect to the Board’s decision to place appropriate emphasis on the activities directly related to the implementation of the SDGs;
7. While cognizant of the diverse nature of export control regimes, urges Member States to work in close cooperation with the Agency to facilitate the transfer of necessary equipment for TC activities, in accordance with the Statute, in order to ensure that TC project implementation is not delayed by denials of necessary equipment supply to Member States;
8. Requests the Secretariat to continue to actively seek resources to implement footnote-a/ projects;
9. Encourages Member States in a position to make voluntary contributions to show flexibility as regards their use in order to enable the implementation of more footnote-a/ projects;
10. Welcomes all extrabudgetary contributions announced by Member States, including the Agency’s Peaceful Uses Initiative, which is designed to raise extrabudgetary contributions to Agency activities, and encourages all Member States in a position to do so to make contributions to meet this goal, and requests the Secretariat to continue to work with all Member States in matching contributions to Member States’ needs;
11. Welcomes the completion of the mechanism to allow Member States to share voluntarily their Country Programme Frameworks (CPFs) and footnote-a/ project details, via the electronic search engine, and encourages Member States to make full use of these tools;
12. Requests that the actions of the Secretariat called for in this resolution that are not directly related to the implementation of TC projects be undertaken subject to the availability of resources; and
13. Welcomes the Progress Reports on the Secretariat’s Implementation of the Recommendations of the Working Group on Financing the Agency’s Activities (WGFAA), including to examine the ways and means to render resources for the Technical Cooperation Fund sufficient, assured and predictable, as contained in GOV/INF/2015/4 and

GOV/INF/2016/7 and calls upon Member States and the Secretariat to continue to take the necessary actions on the recommendations made by the Working Group.

**5.**

**Partnership and cooperation**

- (a) Recalling that the financing of TC should be in line with the concept of shared responsibility and that all Member States share a common responsibility towards financing and enhancing the TC activities of the Agency, and welcoming the contributions made by Member States, on a voluntary basis through government cost-sharing,
- (b) Noting that interested Member States making their CPFs available to potential partners on a voluntary basis could facilitate additional cooperation and improve understanding of how TC projects respond to the needs of Member States,
- (c) Considering that the ‘Delivering as One’ approach for the development, financing and delivery of country programmes by all UN system organizations may have a possible impact on the TC programme in many areas, including resource mobilization, while noting the relationship between the Agency and the UN system and the nature, character and specificity of the TC programme, and noting that there are pilot countries implementing this exercise on a voluntary basis,
- (d) Recognizing that the 2030 Agenda for Sustainable Development (A/RES/70/1) presents another opportunity for partnership building and resource mobilization for the benefit of Member States,
- (e) Appreciating the increase in the number of United Nations Development Assistance Frameworks (UNDAFs) signed by the Agency, resulting in higher synergies with the activities of other UN organizations, including towards the implementation of the SDGs, while emphasizing that, by virtue of their specialized technical focus, some aspects of TC projects may not fit within UNDAFs, which should not be a requirement for TC projects,
- (f) Recognizing that national nuclear and other entities are important partners in the implementation of TC programmes in Member States and in promoting the use of nuclear science, technology and innovation for achieving national development objectives, and recognizing also in this regard the role of the National Liaison Officers, the Permanent Missions to the Agency and the Programme Management Officer (PMO),
- (g) Recalling previous resolutions favouring innovative educational partnerships – such as the World Nuclear University – involving academia, government and industry, and confident that such initiatives can, with the Agency’s support, play a valuable role in promoting strong educational standards and building leadership for an expanding global nuclear profession,
- (h) Appreciating the work done by the Agency in promoting partnerships with relevant regional and multilateral organizations and recognizing that such partnerships can play a key role in further disseminating the contribution of the Agency in nuclear applications for peaceful uses, health, and prosperity; maximizing the impact of TC projects; and integrating TC activities into relevant international development frameworks,

(i) Noting the Agency's efforts in building relationships with international organizations within the UN system, which also could contribute to achieving the SDGs, and

(j) Noting the approval of the Strategic Guidelines on Partnerships and Resource Mobilization, as contained in document GOV/2015/35, and the importance of keeping Member States informed of developments in this regard,

1. Requests the Director General to continue consultations and interactions with interested States, the competent organizations of the UN system, multilateral financial institutions, regional development bodies and other relevant intergovernmental and non-governmental bodies to ensure the coordination and optimization of complementary activities, and to ensure that they are regularly informed, where relevant, about the developmental impact of the TC programme, while aiming at achieving sufficient, assured and predictable resources for the TC programme;

2. Requests the Director General to promote, in close consultation with Member States, TC activities supporting the self-reliance, sustainability and further relevance of national nuclear and other entities in Member States, particularly in developing countries, and, in this context, requests him to continue and further enhance regional and interregional cooperation by (a) encouraging activities under and seeking complementarities between national projects and regional cooperation, including regional cooperation agreements, (b) identifying, utilizing and strengthening established regional capacities and resource centres or other qualified institutes, (c) formulating guidelines for the use of such centres and (d) strengthening guidance for partnership mechanisms; and in this regard to keep Member States informed of the Agency's activities; and

3. Requests the Director General to resume and to further develop and facilitate cost-sharing, outsourcing and other forms of partnership in development by reviewing and amending or simplifying, as appropriate, relevant financial and legal procedures for these partnerships, to ensure that their objectives are Specific, Measurable, Achievable, Realistic and Timely (SMART).

## **6.**

### **Implementation and reporting**

1. Requests the Director General to report to the Board of Governors periodically and to the General Conference at its sixty-first (2017) regular session on the implementation of this resolution, highlighting significant accomplishments of the prior year and indicating goals and priorities for the year to come under an agenda item entitled "Strengthening of the Agency's technical cooperation activities".

*30 September 2016  
Agenda item 15  
GC(60)/OR.10, para. 26*

GC(60)/RES/12

**Strengthening the Agency's activities related to nuclear science, technology and applications**

**A.**

**Non power nuclear applications**

**1.**

**General**

The General Conference,

- (a) Noting that the Agency's objectives as outlined in Article II of the Statute include *"to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world"*,
- (b) Noting also that the statutory functions of the Agency as outlined in Article III of the Statute, paragraphs A.1 to A.4, include encouraging research and development and fostering the exchange of scientific and technical information and the training of scientists and experts in the field of peaceful uses of atomic energy, with due consideration for the needs of developing countries,
- (c) Noting the Medium Term Strategy 2012–2017 as guidance and input in this respect,
- (d) Taking note of the *Nuclear Technology Review 2016* (document GC(60)/INF/2),
- (e) Stressing that nuclear science, technology and applications address and contribute to a wide variety of basic socio-economic human development needs of Member States, in such areas as energy, materials, industry, environment, food and agriculture, nutrition, human health and water resources, noting that many Member States, both developing and developed, are obtaining benefits from the application of nuclear techniques in all the above areas and noting the successful cooperation and significant results being achieved by FAO and the Agency through the Joint FAO/IAEA Programme,
- (f) Recognizing the commitment of the Food and Agriculture Organization of the United Nations (FAO) to the Revised Arrangements regarding the work of the Joint FAO/IAEA Division for Nuclear Techniques in Food and Agriculture, signed in 2013, and the FAO's Strategic Framework for 2010–2019, as well as its five strategic objectives, all of which provide a foundation for the strong and effective collaboration with, inter alia, the IAEA through the Joint FAO/IAEA Programme of Nuclear Techniques in Food and Agriculture, and taking note of the support of the FAO to continue collaborating with the IAEA through this joint programme,
- (g) Appreciating the support of the Joint FAO/IAEA Division to the control of outbreaks of peste des petits ruminants, swine fever, foot-and-mouth disease, Ebola virus disease, avian influenza, bluetongue and lumpy skin disease in Africa, Asia and Europe,
- (h) Aware of the activities of the Latin American and Caribbean Analytical Network (RALACA), composed of national food safety institutes in 20 countries in Latin America and the Caribbean, to address food contamination issues and improve environmental and food safety with health, trade and economic benefits,

- (i) Noting that the United Nations General Assembly, in resolution 64/292, called upon States and international organizations to provide financial resources, capacity-building and technology transfer, through international assistance and cooperation, in particular to developing countries, in order to scale up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all,
- (j) Welcoming the adoption of the 2030 Agenda for Sustainable Development by the United Nations General Assembly of 2015 (A/RES/70/1), and recognizing the Secretariat activities that contribute to fostering sustainable development and protecting the environment,
- (k) Further welcoming the adoption of the Paris Agreement at the twenty-first Conference of the Parties (COP 21) of the United Nations Framework Convention on Climate Change,
- (l) Recognizing the success of the sterile insect technique (SIT) in the suppression or eradication of populations of the screw worm, tsetse flies, and various fruit flies and moths pests that can cause large economic impacts,
- (m) Confirming the important role of science, technology and engineering in enhancing nuclear and radiation safety and security, and the need to resolve the issues of managing radioactive waste in a sustainable manner,
- (n) Acknowledging that the peaceful use of fusion energy can be advanced through increased international efforts and with the active collaboration of interested Member States and international organizations, such as the International Thermonuclear Experiment Reactor (ITER) project group, in fusion-related projects, appreciating the efforts taken in leading the demonstration fusion power plant (DEMO) experiments and biennial IAEA Fusion Energy Conferences, and taking note of the 26th biennial IAEA Fusion Energy Conference (FEC2016) to be held in Japan in October 2016,
- (o) Recognizing the role of ion beam accelerators and synchrotron radiation sources in research and development in material science, environmental science, bio- and life sciences and cultural heritage,
- (p) Aware of the problems of pollutants arising from urban and industrial activities and the potential of radiation treatment to address some of them, including industrial wastewaters, and noting the initiative taken by the Agency to explore the use of radiation technology for waste water treatment and the remediation of pollutants in Member States through coordinated research activities (CRAs),
- (q) Taking note of the high potential of electron beams as a source of radiation for the treatment of materials and pollutants and the attenuation of pathogens for development of vaccines and acknowledging the encouraging results produced through the related coordinated research projects (CRPs),
- (r) Noting with appreciation the success of the Scientific Forum held during the 59th General Conference in 2015, focused on the theme of radiation technology applications in industry, in creating awareness about the use of radiation technology in a wide variety of situations in industries,
- (s) Recognizing the increasing use of radioisotopes and radiation technology in healthcare practices, sanitation and sterilization, industrial process management,

environment remediation, food preservation, crop improvement, new materials development and analytical sciences, and in assessing the impacts of climate change,

(t) Noting the expanding use of positron emission tomography (PET), PET-computed tomography (PET-CT) and hospital-prepared radiopharmaceuticals and acknowledging the efforts taken by the Secretariat in planning appropriate activities to address the needs for production of PET radiopharmaceuticals and their use following the applicable national regulatory requirements,

(u) Noting the importance of molybdenum-99 availability for medical diagnosis and treatment, and acknowledging with appreciation the efforts made by the Agency, in coordination with other international organizations, Member States and relevant stakeholders, to facilitate a reliable supply of molybdenum-99 by supporting the development of Member States' abilities to generate, for their indigenous needs and for export, the non-HEU-based production of molybdenum-99 and technetium-99m, where technically and economically feasible, including research into the accelerator-based alternative production of technetium-99 / molybdenum-99,

(v) Aware of the new cooperative initiatives that have emerged to provide reactor irradiation services, of the significant advances reported in the development of new molybdenum-99 production facilities and the expansion of existing facilities, and of the continued interest of many countries in establishing non-HEU-based molybdenum-99 production facilities to meet domestic needs, for export and/or to serve as a partial reserve capacity,

(w) Acknowledging the multiple uses of research reactors as valuable tools for, inter alia, education and training, research, radioisotope production and materials testing and also as a learning tool for Member States that are considering the introduction of nuclear power,

(x) Aware that greater regional and international cooperation will be needed to ensure broad access to research reactors, owing to the fact that older research reactors are being replaced by fewer multi-purpose reactors, resulting in a drop in the number of operational reactors and noting with appreciation the Secretariat's integrated and systematic support to countries embarking on their first research reactor project,

(y) Noting with concern that the 38 TRIGA reactors worldwide would be adversely affected by the inability of the sole supplier of TRIGA fuel to guarantee a long-term supply of this fuel due to a weak business case,

(z) Recognizing the importance of nuclear instrumentation in the monitoring of nuclear radiation and nuclear materials in the environment and noting with appreciation the development of instruments for monitoring surface radioactivity and the provision of services to requesting Member States for the mapping of their land,

(aa) Acknowledging the need for increasing the capacity of Member States for using advanced nuclear techniques in disease — including cancer — management, and aware of the need to develop performance indicators for measuring such capacity,

(bb) Recognizing that independent external peer-reviews, forming part of a comprehensive quality assurance programme, are an effective tool for quality improvement of the radiation medicine practice, and appreciating the Secretariat's

efforts in developing the peer-review mechanisms in nuclear medicine, diagnostic radiology and radiotherapy,

(cc) Aware of the innovative use of IT technology capacity building and educational tools in human health through the well-developed IAEA Human Health Campus,

(dd) Noting ongoing cooperation and partnership between the World Health Organization (WHO) and the Agency, and the increasing demand from Member States in nuclear applications for human health,

(ee) Noting that the Agency has compiled and disseminated isotope data on aquifers and rivers worldwide and is addressing links between climate change, rising food and energy costs and the global economic crisis, with the aim of assisting decision-makers in adopting better management practices for integrated water resources management and planning, especially for surface water related to agricultural use,

(ff) Recognizing the Agency's unique capabilities in contributing to global efforts to protect the marine environment, acknowledging the important contribution of the Ocean Acidification International Coordination Centre at the IAEA Environment Laboratories in Monaco to the coordination of activities supporting a better understanding of the global effects of ocean acidification, and welcoming the significant financial and in-kind support for the Centre provided by a number of Member States, including under the IAEA Peaceful Uses Initiative,

(gg) Aware that the events sponsored by the IAEA Nobel Peace Prize Cancer and Nutrition Fund have led to an increase in requests from Member States for cooperation in the field of infant and young child nutrition, and prevention of obesity related non-communicable diseases, and noting that the IAEA International Symposium on Understanding Moderate Malnutrition in Children for Effective Interventions, held in Vienna, Austria from 26 to 29 May 2014 has led to closer cooperation with other agencies working in the area of malnutrition,

(hh) Recognizing the success of science and technology studies projects in enhancing scientific communication and their contribution to training the trainer,

(ii) Noting with appreciation the efforts of the Secretariat, together with Member States, under the programme and budget for 2016–2017, to allocate sufficient resources to renovate the Agency's nuclear applications laboratories at Seibersdorf with facilities and equipment that are fully fit-for-purpose and to ensure that maximum benefits in terms of capacity building and technology enhancement are made available to Member States, particularly developing countries,

(jj) Recognizing the Agency's contribution through the human health and food and agriculture programmes to address the Zika virus outbreak in Latin America and the Caribbean region, in close collaboration with WHO through the offices of the Pan-American Health Organisation (WHO-PAHO), and

(kk) Recognizing the Agency's success at establishing partnerships and successful significant funding with non-conventional partners, notably in human health,

1. Requests the Director General, in conformity with the Statute, to continue to pursue, in consultation with Member States, the Agency's activities in the areas of nuclear science, technology and applications, with special emphasis on supporting the development of nuclear

applications in Member States with a view to strengthening infrastructures and fostering science, technology and engineering for meeting sustainable growth and development needs of Member States in a safe manner;

2. Requests the Secretariat to fully utilize the capacities of Member State institutions through appropriate mechanisms in order to expand the extent to which nuclear sciences and applications are utilized to achieve socio-economic benefits and looks forward to the Agency's contribution to the implementation of the 2030 Agenda for Sustainable Development (A/RES/70/1), as well as the Paris Agreement on Climate Change;

3. Underlines the importance of facilitating effective programmes in the areas of nuclear science, technology and applications aimed at pooling and further improving the scientific and technological capabilities of Member States through CRPs within the Agency and between the Agency and Member States and through direct assistance, and urges the Secretariat to further strengthen capacity-building for Member States, particularly through interregional, regional and national training courses and fellowship training in the areas of nuclear science, technology and applications, and expanding the scope and outreach of CRAs;

4. Following up on the success of the Scientific Forum during the 2015 General Conference, urges the Secretariat to communicate the benefits of various applications of nuclear technologies for development that could benefit Member States and to address the needs for human resource training in these applications;

5. Requests the Secretariat to initiate consultations with Member States on the preparation of the 2018 Ministerial Conference on nuclear science, technologies and applications for peaceful uses, and their delivery to Member States through the Agency's TC programme, while highlighting their future contribution to sustainable development;

6. Urges the Secretariat to continue implementing efforts that contribute to greater understanding and a well-balanced perspective of the role of nuclear science and technology in sustainable global development, including the Kyoto commitments, and future efforts to address climate change;

7. Welcomes all contributions announced by Member States, including the IAEA Peaceful Uses Initiative, as extrabudgetary contributions to the Agency;

8. Calls upon the Secretariat to continue to address identified priority needs and requirements of Member States in the areas of nuclear science, technology and applications, including nuclear applications related to food and agriculture, such as climate-smart agriculture, the use of the SIT to establish tsetse-free zones and for combating malaria-transmitting mosquitoes and the Mediterranean fruit fly, the application of nuclear-derived techniques to early, rapid diagnosis and control of emerging and re-emerging transboundary animal and zoonotic diseases, the unique applications of isotopes to track the global uptake by the oceans of carbon dioxide and the resulting acidification effects on marine ecosystems, the use of isotopes and radiation in groundwater management and applications relating to agriculture, such as land and water management, crop improvement and management in light of climate change, and to human health, and in the use of cyclotrons, research reactors and accelerators for the production of radiopharmaceuticals, and the use of radiation technology for development of novel materials, as well as the treatment of waste water, flue gases and other pollutants resulting from industrial activities;

9. Encourages strengthening mutual cooperation between Member States to exchange information on relevant experiences and good practices on water resources management in

synergy with the UN system organizations dealing with water resources management, such as the IAEA and UNIDO;

10. Takes note with appreciation of the continued efforts of the Secretariat with Member States party to the Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA) for Asia and the Pacific, in particular India, to support cancer management by developing a smart phone application that would enable cancer staging to improve the management of gynaecological cancer, launched during this 60th General Conference, and also recalling the launching of the TNM App for Cancer Staging during the 59th General Conference, which enables cancer management professionals to harmonize communication on cancer staging, and encourages the Secretariat to use IT tools in a similar way in other areas of nuclear applications;

11. Urges the Secretariat to continue exploring the use of accelerators for various radiation technology applications and to facilitate demonstrations and training for interested Member States;

12. Recognizes the success of the VETLAB network of veterinary diagnostic laboratories in disseminating the use of nuclear techniques for the diagnosis and control of transboundary animal and zoonotic diseases such as Ebola virus disease, avian influenza and lumpy skin disease in Africa, Asia and Europe, and urges the Secretariat to further increase these efforts;

13. Requests the Secretariat, in collaboration with interested Member States, to continue with the development of appropriate instruments and to make available, to requesting Member States, services for the rapid and economic mapping of radioactivity on the Earth's surface;

14. Urges the Secretariat to continue to implement activities that will contribute to securing and supplementing the molybdenum-99/technetium-99m production capacity, including in developing countries, in an effort to ensure the security of supplies of molybdenum-99 to users worldwide and further urges the Secretariat to continue its cooperative work towards this goal with other international initiatives such as the High-level Group on the Security of Supply of Medical Radioisotopes established by the OECD Nuclear Energy Agency;

15. Requests the Secretariat, upon request from interested Member States, to provide technical assistance to emerging national and regional efforts to establish non-HEU based molybdenum-99 production capabilities, and to provide technical assistance to transition existing production capabilities to utilize non-HEU-based methods and facilitate training activities such as workshops to support Member States in their efforts to achieve self-sufficiency in local production of medical radioisotopes;

16. Requests the Secretariat to continue to provide to interested Member States, upon request, technical assistance regarding medical isotope production;

17. Requests the Secretariat to foster regional and international efforts in ensuring wide access to existing multi-purpose research reactors to increase research reactor operations and utilization, and further requests the Secretariat to facilitate safe, effective and sustainable operation of these facilities;

18. Urges the Secretariat to continue to assist Member States considering their first research reactor with systematic, comprehensive and appropriately graded infrastructure development and to provide guidelines on the applications of research reactors to help Member State organizations make informed decisions that ensure the strategic viability and enduring sustainability of these projects;

19. Requests the Secretariat to assist interested Member States in developing safety infrastructure and in establishing regional training and education centres in their regions, where they do not exist, for the specialized training of nuclear and radiological experts, and requests the Secretariat to take advantage of qualified instructors from developing countries in this regard;
20. Urges the Secretariat to continue to engage with stakeholders and to encourage the international fuel supply industry to ensure uninterrupted and adequate supplies of research reactor fuels, including TRIGA fuel;
21. Encourages the Secretariat to continue cooperating with the World Nuclear University (WNU) in the biennial School on Radiation Technologies and to enhance its support for the participation of applicants from developing countries;
22. Requests the Secretariat to strengthen the Agency's activities in the area of fusion science and technology in view of the advances in nuclear fusion research at ITER and worldwide and to continue the DEMO activities, expanding the scope and participation to the extent possible;
23. Recognizing the underpinning nature of reliable nuclear data for all activities related to nuclear sciences and engineering, expresses its appreciation to the Secretariat for the provision of reliable nuclear data to the Member States for over 50 years as well as the development of an application for accessing nuclear data through mobile phones, and encourages it to continue the service in future;
24. Calls for the support of the Agency in setting guidelines for the adoption of advanced techniques and equipment in radiation medicine in Member States;
25. Encourages the Secretariat to further strengthen the IAEA-WHO partnership, and to explore the possibility for a more formalized cooperation, such as a joint programme or entity between the WHO and the IAEA;
26. Requests the Secretariat to continue providing assistance with capacity-building for quality assurance in radiopharmaceutical development and the use of radiation technology in industries and disseminating radiation technology guidelines based on international quality assurance standards;
27. Encourages Member States to make use of the existing peer-review mechanisms in radiation medicine to strengthen quality diagnosis and patient treatment;
28. Requests the Secretariat to make efforts together with Member States in developing industrial irradiation facilities such as electron accelerators and their accessories for use in, inter alia, healthcare practices, crop improvement, food preservation, industrial applications, sanitization and sterilization, and further requests the provision of technical support for the use of research reactors in the production of radiopharmaceuticals and industrial radioisotopes;
29. Requests also that the actions of the Secretariat called for in this resolution be undertaken subject to the availability of resources; and
30. Recommends that the Secretariat report to the Board of Governors and to the General Conference at its sixty-first (2017) regular session on the progress made in the areas of nuclear science, technology and applications.

2.

**Development of the sterile insect technique for the control or eradication of malaria-, dengue-, Zika- and other disease-transmitting mosquitoes**

The General Conference,

- (a) Recalling its resolution GC(44)/RES/24 on “Servicing Immediate Human Needs” and its resolution GC(58)/RES/13 on “Development of the sterile insect technique for the control or eradication of malaria-, dengue- and other disease-transmitting mosquitoes”,
- (b) Taking note of the decisions taken by the Summit of the African Union at its Fifteenth Ordinary Session, held in Kampala, Uganda, on 25–27 July 2010, on the five-year review of the Abuja Call for Accelerated Action Towards Universal Access to HIV/AIDS, Tuberculosis and Malaria Services in Africa, reaffirming the commitments undertaken at the Special Summit on HIV/AIDS, TB and Malaria, as well as under the Millennium Development Goals (MDGs) and the Decade for Roll Back Malaria, and deciding to extend the Abuja Call for Accelerated Action Towards Universal Access to HIV/AIDS, Tuberculosis and Malaria Services (the Abuja Call) to 2015 to coincide with attainment of the MDGs,
- (c) Welcoming the adoption of the 2030 Agenda for Sustainable Development, especially the relevant targets under Sustainable Development Goal 3 to ensure healthy lives and promote well-being for all, at all ages,
- (d) Appreciating the important role of nuclear applications in addressing human needs,
- (e) Conscious that the work done by the Agency in the field of nuclear sciences and applications in the non-power sector contributes to sustainable development, especially with programmes aimed at enhancing the quality of life in various ways, including improving human health,
- (f) Recognizing the success of the area-wide integrated application of the sterile insect technique (SIT) in the eradication and/or suppression of tsetse flies, moths, fruit flies and other insects of economic importance,
- (g) Noting with concern that about 3.2 billion people remain at risk of malaria, transmitted by mosquitos and that in 2015 alone, there were an estimated 214 million new cases of malaria and 438 000 deaths, mainly in Africa, thus constituting a major obstacle to poverty eradication in Africa,
- (h) Noting that the malaria parasite has continued to develop resistance to drugs and that mosquitoes have continued to develop resistance to insecticides, and that it is envisaged that the SIT would be used under specific conditions as an adjunct to other technologies, conforming to the World Health Organization’s (WHO’s) roll-back strategy, including integrated vector management, of not relying on any single approach to control malaria,
- (i) Noting with serious concern that mosquito-transmitted dengue has become in recent years a major international public health concern due to the increasing spread of invasive mosquito species, with 2.5 billion people living in 128 countries where dengue viruses can be transmitted, and that insecticide-treated bed nets are not effective in

combating dengue as the mosquito vectors are active during the day and other control tactics are urgently required,

(j) Noting with concern an increase of mosquito-transmitted chikungunya in the Latin American and the Caribbean region, and that currently there is no treatment available for this mosquito-borne disease,

(k) Noting with concern the Zika virus outbreak in the Americas, which has been strongly linked to babies born with severe neurological disorders, such as congenital microcephaly, and which led to the declaration of a public health emergency of international concern by the WHO on 1 February 2016, and that so far there are no drugs nor effective global vaccines available to treat or prevent Zika,

(l) Noting that the Thematic Plan for the Development and Application of the Sterile Insect Technique (SIT) and Related Genetic and Biological Control Methods for Disease Transmitting Mosquitoes organized by the Agency and held in Vienna from 16 to 20 June 2014 recommended that the Agency invest in supporting the control of the mosquito vector species through continuous funding of the development of the SIT and other related genetic and environment-friendly methods,

(m) Noting that the suppression of disease-transmitting mosquitoes using the SIT will be suitable mostly in urban areas, where aerial spraying with insecticides is prohibited or not indicated, and that an area-wide approach is required, which represents a novel and potentially powerful supplement to existing community-based programmes,

(n) Welcoming the fact that R&D on malaria and other disease-transmitting mosquitoes, which commenced with the inauguration of the Agency's mosquito laboratory in Seibersdorf on 26 June 2003, continued in the last biennium,

(o) Taking note of the prioritization of the renovation of the Insect Pest Control Laboratory in Seibersdorf within the ReNuAL Strategy — *Strategy for the Renovation of the Nuclear Sciences and Applications Laboratories in Seibersdorf* (GOV/INF/2014/11),

(p) Noting with appreciation the interest shown by some donors in and their support for R&D on the SIT for combating malaria-, dengue-, Zika- and other disease-transmitting mosquitoes, and

(q) Acknowledging with appreciation the support given by the Agency to development of the SIT for the control of mosquitoes that transmit arthropod borne viruses as outlined in the report by the Director General in document GC(60)/5, Annex 3,

1. Requests the Agency to continue and strengthen, through the activities mentioned above, the research, both in the laboratory and in the field, required to be able to refine and validate the use of the SIT for the integrated management of malaria-, dengue-, Zika- and other disease-transmitting mosquitoes;

2. Requests the Agency to increasingly involve developing Member States' scientific and research institutes in the research programme in order to ensure their participation, leading to ownership by the affected countries;

3. Requests the Agency to increase efforts to develop and transfer more efficient sex separation systems that allow complete removal of the female mosquitoes in production

facilities and to develop cost-effective methods to release and monitor sterile males in the field;

4. Further requests the Agency to allocate adequate resources and to attract extrabudgetary funds so as to enable an expansion of the mosquito research programme, laboratory/office space and staffing;
5. Requests the Agency to strengthen capacity building and networking in Latin America, Asia and Africa through regional TC projects and to support field projects against Aedes and Anopheles mosquitoes through national TC projects for assessing the potential of the SIT as an efficient control tactic for disease-transmitting mosquitoes;
6. Invites the Agency to act upon the recommendation made by the experts of the Thematic Plan for the Development and Application of the Sterile Insect Technique (SIT) and Related Genetic and Biological Control Methods for Disease Transmitting Mosquitoes organized by the Agency in Vienna in June 2014 to invest in supporting the control of the mosquito vector species through continuous funding of the development of the SIT and related genetic and environment-friendly methods;
7. Calls on Member States to support the renovation of the Insect Pest Control Laboratory in Seibersdorf with increased space for the rapidly expanding mosquito activities and make financial contributions in support of its research programme;
8. Requests the Secretariat to continue to solicit extrabudgetary resources, including through the IAEA Peaceful Uses Initiative, so as to enable increased efforts to be made in validating in the field the SIT package for disease-transmitting mosquitoes through an operational project in the field; and
9. Requests the Director General to report on the progress made in the implementation of this resolution to the General Conference at its sixty-second session (2018).

### 3.

#### **Support to the African Union's Pan African Tsetse and Trypanosomosis Eradication Campaign (AU-PATTEC)**

##### The General Conference,

- (a) Recalling its previous resolutions on support to the African Union's Pan African Tsetse and Trypanosomosis Eradication Campaign (AU-PATTEC),
- (b) Recognizing that the main objective of AU-PATTEC is to eradicate tsetse flies and trypanosomosis by creating sustainable tsetse- and trypanosomosis-free areas, using various suppression and eradication techniques, while ensuring that the reclaimed land areas are sustainably and economically exploited and hence contributing to poverty alleviation and food security,
- (c) Recognizing that tsetse fly and trypanosomosis (T&T) control programmes are complex and logistically demanding activities which require flexible, innovative and adaptable approaches in the provision of technical support,
- (d) Recognizing that tsetse flies and the trypanosomosis problem which they cause are increasing and constitute one of the greatest constraints on the African continent's socio-economic development, affecting the health of humans and livestock, limiting sustainable rural development and thus causing increased poverty and food insecurity,

- (e) Recognizing that although reported cases of human African trypanosomosis (HAT) are now below 4000 per year and are currently at the lowest level for several decades, animal trypanosomosis still affects millions of livestock every year and is a constraint to rural development for tens of millions of people in rural communities in 39 African countries, most of which are Agency Member States,
- (f) Recognizing the importance of the development of more efficient livestock production systems in rural communities affected by tsetse flies and trypanosomosis in order to reduce poverty and hunger and to form the basis for food security and socio-economic development,
- (g) Recalling decisions AHG/Dec.156 (XXXVI) and AHG/Dec. 169 (XXXVII) of the Heads of State and Government of the then Organization of African Unity (now African Union) to free Africa of tsetse flies and on a plan of action for implementing AU-PATTEC,
- (h) Recognizing the upstream work of the Agency under its Joint FAO/IAEA Programme of Nuclear Techniques in Food and Agriculture in developing the sterile insect technique (SIT) against tsetse flies and providing assistance through field projects, supported from the Agency's Technical Cooperation Fund, on integrating tsetse SIT into Member States' efforts to address the T&T problem in a sustainable manner,
- (i) Cognizant that the SIT is a proven technique for the creation of tsetse-free zones when integrated with other control techniques and when applied within an area-wide integrated pest management (AW-IPM) approach,
- (j) Welcoming the continuing close collaboration of the Secretariat with AU-PATTEC, in consultation with other mandated specialized United Nations organizations, in raising awareness regarding the T&T problem, organizing regional training courses and providing, through the Agency's Technical Cooperation programme and Regular Budget programme, operational assistance to field project activities, as well as advice regarding project management and policy and strategy development in support of national and subregional AU-PATTEC projects,
- (k) Welcoming the adoption of the AU-PATTEC Strategic Plan for the period 2012–2018 on 12 December 2012 and looking forward to its effective implementation,
- (l) Welcoming the progress made by AU-PATTEC in increasingly involving — besides international organizations such as the Agency, the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) — also non-governmental organizations and the private sector in addressing the T&T problem and to foster sustainable agriculture and rural development (SARD),
- (m) Welcoming the progress made in the Agency-supported tsetse eradication project under the National Institute for Control and Eradication of Tsetse and Trypanosomiasis (NICETT) in the Ethiopian Southern Rift Valley and the progress made in eradication of tsetse in the Niayes Region of Senegal,
- (n) Appreciative of the contributions made by various Member States and United Nations specialized agencies in support of addressing the T&T problem in West Africa, especially the contributions made by the United States of America through the Peaceful

Uses Initiative (PUI) in support of projects for T&T control in Senegal and Burkina Faso,

(o) Acknowledging the continued close collaboration of the Secretariat and the International Centre of Research and Development for Livestock in Subhumid Zones (CIRDES) in Bobo- Dioulasso, Burkina Faso, the first IAEA Collaborating Centre in Africa for the ‘Use of the Sterile Insect Technique for Area-Wide Integrated Management of Tsetse Fly Populations’,

(p) Welcoming the efforts made by the Agency’s Department of Technical Cooperation and the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture in support of AU-PATTEC,

(q) Welcoming the efforts made by the Secretariat to address and eliminate obstacles to applying the SIT against tsetse flies in African Member States through applied research and methods development, both in-house and through the Agency’s coordinated research project mechanism, and

(r) Acknowledging the continued support given to AU-PATTEC by the Agency as outlined in the report submitted by the Director General in document GC(60)/5, Annex 1,

1. Urges the Secretariat to continue assigning high priority to agricultural development in Member States and to redouble its efforts to build capacity and further develop the techniques for integrating the SIT with other control techniques in creating tsetse-free zones in sub-Saharan Africa;
2. Calls upon Member States to strengthen the provision of technical, financial and material support to African States in their efforts to create tsetse-free zones, while stressing the importance of a needs-driven approach to applied research and methods development and validation to support operational field projects;
3. Requests the Secretariat, in cooperation with Member States and other partners, to maintain funding through the Regular Budget and the Technical Cooperation Fund for consistent assistance to operational SIT field projects and to strengthen its support for R&D and technology transfer to African Member States in order to complement their efforts to create and subsequently expand tsetse-free zones;
4. Requests the Secretariat to support Member States through technical cooperation projects on baseline data collection, development of full project proposals and implementation of operational tsetse eradication projects underpinned by on-site based experts, with priority given to genetically isolated tsetse populations;
5. Encourages the Agency’s Department of Technical Cooperation and the Joint FAO/IAEA Division to continue working closely with AU-PATTEC in the agreed areas of collaboration as specified in the Memorandum of Understanding between the African Union Commission and the Agency signed in November 2009;
6. Stresses the need for continued harmonized, synergetic efforts by the Agency and other international partners, particularly FAO and WHO, with the aim of supporting the African Union Commission and Member States through the provision of guidance and quality assurance in planning and implementing sound and viable national and sub-regional AU-PATTEC projects;

7. Requests the Agency and other partners to strengthen capacity-building in Member States for informed decision-making regarding the choice of T&T strategies and the cost-effective integration of SIT operations in AW-IPM campaigns;
8. Urges the Secretariat and other partners to continue capacity building and to explore the possibilities of private-public partnership for the establishment and operation of tsetse mass rearing centres for providing cost-effectively large numbers of sterile male flies to different field programmes;
9. Encourages the countries that have selected a T&T strategy with an SIT component to focus initially on the field activities, including releases of sterile males imported from mass production centres as in the case of the successful eradication project in Senegal;
10. Encourages the Agency's Department of Technical Cooperation and the Joint FAO/IAEA Division to continue to support AU-PATTEC; and
11. Requests the Director General to report on the progress made in the implementation of this resolution to the Board of Governors and to the General Conference at its sixty-first (2017) regular session.

#### **4.**

#### **Plan for producing potable water economically using small and medium-sized nuclear reactors**

##### The General Conference,

- (a) Recalling resolution GC(58)/RES/13, Section 4, Plan for producing potable water economically using small and medium-sized nuclear reactors, and previous General Conference resolutions on strengthening the Agency's activities related to nuclear science, technology and applications,
- (b) Recognizing that sufficient and clean potable water supplies for all humankind are of vital importance, as emphasized in Agenda 21 of the Rio Summit on Development and Environment, held in 1992, and the United Nations Conference on Sustainable Development (Rio +20), held in June 2012 in Rio de Janeiro, Brazil, and most recently, in Goal 6 of the 2030 Agenda for Sustainable Development, as well as through the discussion towards implementing the Paris Agreement adopted at the COP 21 United Nations Climate Change Conference in December 2015, and the Rabat Call 'Water for Africa' outcome document of the International Conference on Water and Climate: "Water Security for Climate Justice", which seeks to ensure stronger integration of water in the climate agenda ahead of the COP 22 United Nations Climate Change Conference scheduled to take place in Morocco in November 2016,
- (c) Noting that potable water shortages are of growing concern in many regions of the world, due to population growth, increased urbanization and industrialization and the effects of climate change,
- (d) Underlining the urgent need for regional and international cooperation in helping to solve the serious problem of potable water shortages, particularly through the desalination of seawater,
- (e) Recognizing that a number of Member States have expressed their interest in participating in activities relating to seawater desalination using nuclear energy,

- (f) Noting that seawater desalination using nuclear energy has been successfully demonstrated through various projects in some Member States both for drinking water and for plant operated service water and is generally cost-effective, while recognizing that the economics of implementation will depend on site-specific factors,
- (g) Taking note with appreciation of the different activities carried out by the Secretariat in cooperation with interested Member States and international organizations, as outlined in the report of the Director General contained in document GC(60)/5,
- (h) Taking note of the recent enhancement in the scope of the Technical Working Group on Nuclear Desalination (TWG-ND), to encompass integrated water resources management and more specifically the efficient use of water in nuclear facilities,
- (i) Noting that the Secretariat has in 2015 published IAEA-TECDOC-1753, which documents the results of the Coordinated Research Project (CRP) on new technologies for seawater desalination using nuclear energy, and also noting that progress has been made in developing a report that provides generic guidance on cogeneration options and also assesses the economics associated with such options, and reports on “Opportunities for Cogeneration with Nuclear Energy” and “Industrial Applications of Nuclear Energy” (under publication),
- (j) Further noting the release of a new version of the Desalination Economic Evaluation Programme (DEEP) 5.1, in January 2015, which includes a new option for sensitivity analysis, case comparison, as well as an optimized merit function for faster and easier access, and the release of an updated version of the nuclear desalination toolkit,
- (k) Noting that the CRP on the Application of Advanced Low Temperature Desalination Systems to Support Nuclear Power Plants and Non-Electric Applications is progressing as planned with two research coordinating meetings held in 2014 and 2015,
- (l) Recalling with appreciation that the Agency has established a programme to assist developing countries in addressing issues concerning economics, safety, reliability and technical measures for proliferation resistance in the application of small and medium-sized nuclear reactors (SMRs) for the production of potable water, and
- (m) Taking note of the efforts of the Director General in soliciting additional funds for nuclear desalination,
1. Requests the Director General to continue consultations and strengthen interactions with interested Member States, the competent organizations of the United Nations system, regional development bodies and other relevant intergovernmental and non-governmental organizations in activities relating to seawater desalination using nuclear energy;
  2. Encourages the TWG-ND to continue its functions as a forum for advice and review on nuclear desalination activities;
  3. Stresses the need for international cooperation in the planning and implementation of nuclear desalination demonstration programmes through national and regional projects open for the participation of any interested country;
  4. Requests the Director General, subject to the availability of resources to:

- (a) Continue to hold regional training workshops and technical meetings and to use other available mechanisms for disseminating information on nuclear desalination and water management using SMRs and to undertake further activities aimed at better establishing how existing reactors may offer options for cogeneration;
  - (b) Issue a technical report addressing responsibilities of vendors and users involved in nuclear desalination projects, and assessing different scenarios for cogeneration; and
  - (c) Increase the Secretariat's activities in capacity building (including training and education) on nuclear desalination projects to bridge the gap among users/vendors/operators/regulators;
5. Invites the Director General to raise funds from extrabudgetary sources in order to catalyse and contribute to the implementation of all Agency activities relating to nuclear desalination and cogeneration, and the development of innovative SMRs;
6. Requests the Director General to note the high priority given by a growing number of interested Member States to the nuclear desalination of seawater in the process of preparing the Agency's Programme and Budget; and
7. Further requests the Director General to report on the progress made in the implementation of this resolution to the Board of Governors and to the General Conference at its sixty-second (2018) regular session under an appropriate agenda item.

**5.**

**Strengthening the support to Member States in food and agriculture**

The General Conference,

- (a) Recalling its resolutions GC(58)/RES/13.A.5, GC(56)/RES/12.A.4, GC(54)/RES/10.A.4 and GC(52)/RES/12.A.5 on "Strengthening the support to Member States in food and agriculture" and its resolution GC(51)/RES/14 on "Strengthening the Agency's activities related to nuclear science, technology and applications",
- (b) Recognizing the central role of agricultural development in accelerating progress towards several Sustainable Development Goals (SDGs), in particular to end hunger, achieve food security and improved nutrition and promote sustainable agriculture,
- (c) Recognizing that the major global trends that will frame agricultural development over the medium-term include: rising food demand, lingering food insecurity, malnutrition, and the impact of climate change,
- (d) Noting that the Paris Agreement on Climate Change recognizes the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change,
- (e) Noting that, according to the FAO publication "The State of Food Insecurity in the World 2015", hunger remains an everyday challenge for 795 million people worldwide, including 780 million in the developing regions,
- (f) Noting the benefits from the peaceful application of nuclear techniques in food and agriculture, and the importance of making appropriate technologies available, particularly to developing Member States,

- (g) Appreciating the work of the Joint Division of the Food and Agriculture Organization of the United Nations and the International Atomic Energy Agency (the Joint FAO/IAEA Division) dedicated to the development and application of nuclear and related techniques in food and agriculture, and welcoming the reaffirmation of the commitment of both organizations to the long-standing partnership between the two organizations through the signing by the Agency and FAO in 2013 of revised arrangements regarding the work of the Joint FAO/IAEA Division,
- (h) Affirming the synergy and contribution of the unique partnership between the FAO and the Agency through the Joint FAO/IAEA Division to global food security and sustainable agriculture development,
- (i) Noting that the Strategic Framework of FAO focuses on five Strategic Objectives, streamlining its priorities, results and resource allocation to accelerate the eradication of hunger, malnutrition, poverty, and the sustainable use of natural resources,
- (j) Expressing appreciation for the work undertaken by the FAO/IAEA Agriculture and Biotechnology Laboratories in Seibersdorf and noting the importance of fit-for-purpose laboratories that comply with health and safety standards and have the appropriate infrastructure,
- (k) Recognizing the importance of the Agency's Biosafety Level 3 (BSL3) capabilities to support Member States' efforts to control transboundary animal and zoonotic diseases, and appreciating the good cooperation with Austrian authorities, in particular the Austrian Agency for Health and Food Safety (AGES), which provides full access and use of its new BSL3 facility, and welcoming the Agency's consideration to establish an IAEA owned extension to the existing facility,
- (l) Commending the Secretariat on the effective support provided to Member States to combat emerging and re-emerging animal and zoonotic diseases such as peste des petits ruminants, swine fever, foot-and-mouth disease, Ebola virus disease, avian influenza, bluetongue and lumpy skin disease in Africa, Asia and Europe,
- (m) Commending the Secretariat for strengthening the VETLAB network of national veterinary diagnostic laboratories in Africa, Asia and Europe,
- (n) Noting the efforts made by the Secretariat in building national and regional capacity in animal genetic characterization targeting animal breeding for sustainable development in the context of resistance to diseases and tolerance to climate change and in supporting the Global Plan of Action for Animal Genetic Resources,
- (o) Noting the efforts made by the Secretariat in identification and inclusion of lesser known, non-conventional feeds and forages, crop residues and industrial by-products for sustainably increasing animal-origin food production,
- (p) Noting with appreciation the eradication of the Mediterranean fruit fly (medfly) from 300 000 hectares in Guatemala, facilitating the export of fresh fruit and vegetables to the United States of America and other high-value medfly-free international markets,
- (q) Applauding the support provided by the Agency to the African Union's Pan African Tsetse and Trypanosomosis Eradication Campaign (AU-PATTEC), which is making excellent progress in eradicating tsetse flies from the Niayes region of

Senegal and is fostering the suppression of tsetse flies and the disease they transmit in several affected Member States, including 10 000 km<sup>2</sup> of the Southern Rift Valley in Ethiopia, permitting an increase of productive livestock and opening up opportunities for sustainable agricultural and rural development and thereby benefiting thousands of farmers,

(r) Appreciating the major achievement of the Joint FAO/IAEA Division and the Agency's Technical Cooperation programme in developing mutant wheat varieties with resistance to Ug99, a black stem rust disease of wheat,

(s) Commending the Agency and FAO on jointly providing Achievement Awards and Outstanding Achievement Awards to plant breeders and institutes in Member States for exceptional achievements in mutation breeding and their contributions to global food security,

(t) Commending the Agency on its key role in the post-rinderpest era, including its contributions to the sequestration of the rinderpest virus from diagnostic and vaccine production and storage facilities and to the maintenance of global diagnostic capabilities and expertise, and on its support in building national and regional capacity, improving epidemiological studies and data management and setting up pertinent networks to combat and eliminate other livestock and zoonotic diseases,

(u) Commending the Agency on its exemplary role in the enhancement of nuclear emergency response in the field of food and agriculture and on its adaptation of nuclear and related technologies in that connection,

(v) Applauding the demand-driven R&D work at the FAO/IAEA Agriculture and Biotechnology Laboratories in Seibersdorf on the development of the sterile insect technique (SIT) for disease-transmitting mosquitoes, the use of isotopic techniques in soil erosion control, land and water management, climate-smart agriculture, greenhouse gas emission reduction, food forensics, traceability and contaminant control to improve food safety and quality, the investigation of irradiated animal vaccines, and the application of stable isotopes as tracing technologies and in enhancing animal disease diagnostic applications,

(w) Applauding the support of the Secretariat to 65 African, Asian, European and Latin American countries in the development of soil conservation strategies using fallout radionuclide (FRN) techniques to ensure sustainable agricultural production and to mitigate the impacts of climate change,

(x) Welcoming the demand-driven research activities on the development of communication tools to improve decision-making in agricultural water management in Africa, and the new visualization platform for nuclear and radiological emergency preparedness and response for food and agriculture, and

(y) Recognizing that the demand from Member States for technical assistance in the area of nuclear applications in food and agriculture remains high, as evidenced by the scientific and technical support of the Joint FAO/IAEA Division for 278 national, regional and interregional technical cooperation projects and 28 coordinated research projects,

1. Urges the Secretariat to further expand, in an integrated and holistic manner, its efforts to address, inter alia, food insecurity in Member States and to further increase its contribution

to raising agricultural productivity and sustainability through the development and integrated application of nuclear science and technology;

2. Encourages the Secretariat, and in particular the Joint FAO/IAEA Division, to continue playing its unique role in strengthening the capacity of Member States in the use of nuclear and related techniques to improve food security and sustainable agriculture through international cooperation in research, training and outreach activities;

3. Urges the Secretariat to address the impacts of climate change on food and agriculture through the use of nuclear technologies, with priority on adaptation to and mitigation of the effects of climate change, including, in soil and water management, through the development of tools and technology packages to build soil resilience and address land degradation, and requests the Secretariat to carry out new activities for addressing the climate change challenges under the thematic heading of ‘climate-smart agriculture’;

4. Encourages the Secretariat, in view of the global trend of antimicrobial resistance (AMR) and its impact on human and animal health, to join the international community in efforts to address the global AMR concern, e.g. through investigation of AMR using nuclear/isotopic-derived methods/tools and molecular techniques;

5. Urges the Joint FAO/IAEA Division to continue developing laboratory networks in order to strengthen support for the control and eradication of transboundary animal diseases (TADs) (e.g. VETLAB) and for food safety, including the application of appropriate and competitive nuclear and non-nuclear techniques in animal health and food safety, and, with the participation of multiple stakeholders, to strengthen national programmes and enhance laboratory networks;

6. Requests the Secretariat to strengthen capacity building for Member States, including in addressing those transboundary animal and zoonotic diseases that potentially pose a bio-threat to people and their livelihoods, in case of accidental or deliberate release to the environment, and encourages the Agency, in consultation with Member States, to pursue its consideration of an IAEA owned extension of the existing BSL3 laboratory of the AGES in order to strengthen capacity building for Member States to address these global threats;

7. Encourages the Joint FAO/IAEA Division, including the FAO/IAEA Agriculture and Biotechnology Laboratories in Seibersdorf, to continue its valuable work in the provision of demand- driven training and services and in applied R&D;

8. Requests the Secretariat to work towards the renewal of the FAO/IAEA Agriculture and Biotechnology Laboratories in Seibersdorf, in conjunction with the other programmatic entities of the laboratories of the Department of Nuclear Sciences and Applications, in order to ensure that fit-for- purpose laboratories will also in future be optimally positioned to assist Member States’ research and development activities;

9. Urges the Secretariat to continue strengthening its activities in the area of food and agriculture through interregional, regional and national capacity building initiatives, and to further expedite the sustainable transfer of technology to developing Member States;

10. Expresses appreciation for the financial and extrabudgetary contributions made by Member States and other stakeholders in support of, inter alia, the food and agriculture programme of the Agency, and encourages Member States to contribute, particularly through the Peaceful Uses Initiative, to food and agriculture activities, and to continue

supporting these activities by funding projects that will further enhance agricultural productivity while protecting increasingly scarce natural resources;

11. Urges the Secretariat to further strengthen its efforts to seek extrabudgetary funding for infrastructure and equipment improvement and modernization of the Seibersdorf laboratories, especially the FAO/IAEA Agriculture and Biotechnology Laboratories, so as to enable these to meet the growing and continuously evolving needs of Member States, and specifically encourages Member State contributions in support of the ReNuAL+ project;

12. Urges the Secretariat, in its resource mobilization efforts for the ReNuAL project, to draw on the extensive experience of the FAO in mobilizing extrabudgetary resources, and encourages the Secretariat to have relevant FAO staff work closely with Agency staff in these efforts;

13. Encourages the Secretariat to further strengthen its partnership with FAO and to continue adjusting and adapting its technology development, capacity building and technology transfer services in response to Member States' demands and needs in food and agriculture, especially in light of the FAO Strategic Objectives;

14. Appreciates the continuing activities of the Secretariat in relation to nuclear and radiological emergency preparedness and response, especially in the areas of agricultural countermeasures and remediation strategies to mitigate immediate and longer-term effects arising from radionuclide contamination, and urges the Secretariat to develop technologies, manuals, protocols and guidance to strengthen the capacity of Member States to deal with radionuclide contamination in the area of food and agriculture;

15. Encourages the Joint FAO/IAEA Division to continue responding to the major global trends framing agricultural development in order to ensure to the maximum extent possible an increased resilience of livelihoods to threats and crises in agriculture, including the adaptation to and mitigation of the effects of climate change;

16. Urges the Secretariat to further strengthen its effort to seek extrabudgetary funding for strengthening its research activities in the preparedness and response to nuclear emergencies, with a particular focus on the area of food and agriculture; and

17. Requests the Director General to report on the progress made in the implementation of this resolution to the Board of Governors and the General Conference at its sixty-second (2018) regular session.

## **6.**

### **Renovation of the Agency's Nuclear Applications Laboratories at Seibersdorf**

#### The General Conference,

(a) Recalling paragraph 9 of resolution GC(55)/RES/12.A.1, in which the General Conference called upon the Secretariat to make efforts, together with Member States, to modernize the Agency's Nuclear Applications (NA) Laboratories at Seibersdorf, thus ensuring maximum benefits to Member States, particularly developing ones,

(b) Further recalling additional resolutions requiring that the NA Laboratories at Seibersdorf be fully fit-for-purpose (such as resolution GC(56)/RES/12.A.2, concerning the development of the sterile insect technique for the eradication and/or suppression of malaria-transmitting mosquitoes; resolution GC(57)/RES/12.A.3, concerning support to the African Union's Pan African Tsetse and Trypanosomosis Eradication Campaign

(AU-PATTEC); resolution GC(56)/RES/12.A.4, on strengthening the support to Member States in food and agriculture; resolution GC(57)/RES/9.13, regarding nuclear and radiological incident and emergency preparedness and response; and resolution GC(57)/RES/11, relating to the strengthening of the Agency's technical cooperation activities),

(c) Recognizing the growing applications, with economic and environmental benefits, of nuclear and radiation technologies in a wide variety of areas, the vital role that the NA Laboratories at Seibersdorf play in the demonstration and development of new technologies and in their deployment in Member States, and the dramatic increase in associated training courses and provision of technical services during recent years,

(d) Acknowledging with appreciation the worldwide leading role of the NA Laboratories at Seibersdorf in the establishment of global laboratory networks in several areas, such as the animal disease control networks supported through the Peaceful Uses Initiative (PUI), the African Renaissance Fund (ARF) initiative and numerous other initiatives,

(e) Further recognizing that the NA Laboratories at Seibersdorf are in urgent need of modernization in order to respond to the evolving range and complexity of the requests submitted to them and the growing demands of Member States and keep pace with increasingly rapid technological developments,

(f) Emphasizing the importance of fit-for-purpose laboratories that comply with health and safety standards and that have the appropriate infrastructure,

(g) Supporting the Director General's initiative regarding the modernization of the NA Laboratories at Seibersdorf, announced in his statement at the 56th regular session of the General Conference,

(h) Recalling resolution GC(56)/RES/12.A.5, and specifically paragraph 4, in which the General Conference requested the Secretariat "to develop a strategic overarching plan of action for the modernization of the NA Laboratories at Seibersdorf, provide a concept and methodology for the short-, medium- and long-term modernization programme and outline the vision and future role for each of the eight NA laboratories",

(i) Further recalling the report of the Director General to the Board of Governors (GC(57)/INF/11), mapping out activities and services of the NA Laboratories at Seibersdorf aimed at benefiting Member States and other stakeholders, quantifying projected future needs of and demands by Member States and identifying current and anticipated future gaps,

(j) Welcoming the Director General's report to the Board of Governors on the Strategy for the Renovation of the Nuclear Sciences and Applications Laboratories in Seibersdorf as contained in GOV/INF/2014/11, which outlines the necessary elements and resource requirements for assuring fit-for-purpose laboratories, known as the ReNuAL project, to be implemented from 2014–2017 within a €31 million target budget, and the Addendum to the Strategy as contained in GOV/INF/2014/11/Add.1, which provides an update to the Strategy defining the additional elements as contained in paragraph 15 of the Strategy, known as ReNuAL Plus (ReNuAL+), and the Agency's consideration to establish its own Biosafety Level 3 (BSL3) laboratory capabilities,

- (k) Further welcoming the Director General's report in GOV/2016/34-GC(60)/5, Annex 2, to the Board of Governors on progress made in preparing and implementing the ReNuAL project since the 59th General Conference,
- (l) Noting the finalization of the designs of the new Insect Pest Control Laboratory (IPCL), the new Flexible Modular Laboratory (FML) building and the new bunker to house a medical linear accelerator as the final preparatory steps before construction began, with work on site infrastructure having begun in March 2016,
- (m) Further noting GOV/INF/2016/4 "The Renovation of the Nuclear Applications Laboratories Project (ReNuAL)", which provided an update to Member States on progress and described the revised scope of the project,
- (n) Recognizing that the revised scope of ReNuAL now includes the structure of the IPCL to be built in full with as much of its interior as possible, two of the originally planned three laboratory wings of the FML to be built and fully finished, the majority of the required infrastructure and some of the required equipment within the target budget of €31 million,
- (o) Noting that some elements of the ReNuAL strategy as defined in GOV/INF/2014/11, "Strategy for the Renovation of the Nuclear Science and Applications Laboratories in Seibersdorf", have been moved to ReNuAL+,
- (p) Further noting that the construction contract was awarded in March 2016 and that work on both the IPCL and the FML began in July 2016, with the IPCL to be fully built and an estimated 60% of its interior to be completed by December 2017, and that the completion of the two wings of the FML should be completed along with required infrastructure by mid-2018,
- (q) Recognizing the importance of the Agency's BSL3 capabilities to support Member States' efforts to control transboundary animal and zoonotic diseases, and appreciating the good cooperation with Austrian authorities, in particular the Austrian Agency for Health and Food Safety (AGES), which began providing full access and use of its new BSL3 facility at Mödling, thereby enhancing the Agency's ability to provide increased assistance to Member States in controlling transboundary animal and zoonotic diseases, and further noting the Austrian Government's offer of a package of land, infrastructure and technical services that it values at €2 million towards the Agency establishing its own BSL3 capabilities at the same facility in Mödling,
- (r) Welcoming that, since the start of the 59th General Conference, 20 financial contributions to ReNuAL were announced, pledged or provided bilaterally by 18 Member States and collectively in the case of the African Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA), which consists of 39 Member States, totalling approximately €13.2 million and bringing the total of extra budgetary funds to the €20.6 million of extra budgetary funds required for ReNuAL to be funded fully,
- (s) Further welcoming the financial and in-kind contributions as well as cost-free experts for the implementation of the ReNuAL project, made by the following 26 Member States: Australia, Austria, France, Canada, China, Germany, India, Indonesia, Israel, Japan, Kazakhstan, the Republic of Korea, Kuwait, Malaysia, Mongolia, New Zealand, Norway, Pakistan, the Philippines, the Russian Federation, Saudi Arabia,

South Africa, Spain, Switzerland, the United Kingdom and the United States of America, as well as AFRA, to further support the full implementation of the project,

(t) Recognizing the efforts of the informal group of Member States known as the 'Friends of ReNuAL' who are actively facilitating the mobilization of resources for the project and encouraging all Member States that are in a position to do so, to make resources available to support activities,

(u) Further recognizing both bilateral as well as regional efforts to mobilize resources such as the Symposium on Nuclear Applications for Sustainable Development in GCC Member States in Kuwait in February 2016, as well as efforts to attract support from non-traditional donors, including equipment manufacturers, foundations and industry associations, leading to significant progress in working with manufacturers to develop a modality for the cost-free lending of equipment,

(v) Emphasizing that completing the elements of ReNuAL that were moved to ReNuAL+ in GOV/INF/2016/4, and in particular the full completion of the IPCL, the FML as well as construction of the bunker for the Dosimetry Laboratory, should be the first priority of mobilizing resources,

(w) Noting that planning for the initial elements of ReNuAL+ as defined in GOV/INF/2014/11/Add.1 is now proceeding, and

(x) Noting with appreciation that the implementation of the ReNuAL project has commenced with an initial €2.6 million per year as provided for in the Agency's Programme and Budget for 2014–2015, and €2.5 million in 2016 as well as the €2.5 million that is planned for 2017 in the 2016–2017 Programme and Budget,

1. Stresses the need, in conformity with its Statute, for the Agency to continue pursuing adaptive research and development activities in the areas of nuclear science, technology and applications where the Agency has a comparative advantage, and to retain its focus on capacity-building initiatives and the provision of technical services so as to meet the basic sustainable development needs of Member States;

2. Requests the Secretariat to strive to ensure that, commensurate with the prominence of the NA Laboratories at Seibersdorf within the Agency, the urgent needs and projected future demands of Member States as regards the services of those laboratories are met within the overall funding target for the renovation project;

3. Encourages the Secretariat to continue to implement the key recommendations of the Standing Advisory Group for Nuclear Applications (SAGNA) as regards prioritization of the redesign and expansion of infrastructure, including buildings, safety and security arrangements and administration and to ensure that the project results in fully fit for purpose laboratories that meets the needs of Member States;

4. Encourages the Secretariat to continue to explore the possibilities of extrabudgetary funding from non-traditional donors, and to assess the potential for collaboration with the private sector, within the Agency's financial and administrative rules and regulations, with a view to the establishment of low- or no-cost arrangements for equipment acquisition;

5. Calls on the Secretariat to continue to pursue a project specific resource mobilization strategy seeking resources from Member States, foundations and the private sector and encourages partnerships amongst them and further encourages the Secretariat to consider

devoting financial resources from savings or efficiency gains to the project, in consultation with Member States;

6. Further calls on the Secretariat to continue to develop targeted resource mobilization packages that will match the interest of the potential donors with the needs of ReNuAL+, prioritizing the elements that were originally in the adjusted project scope of ReNuAL and now moved to ReNuAL+;
7. Requests the Secretariat to provide information on the financial resources required for upcoming implementation and to indicate where resources are needed to match implementation schedules;
8. Invites Member States to make financial commitments and contributions, as well as in-kind contributions in a timely manner, as well as to facilitate cooperation with other partners, as relevant, including foundations and the private sector, to ensure that the completion of the IPCL with full functionality, as well as the construction of the third wing of the FML with full functionality, can be undertaken as early as possible to ensure cost saving;
9. Requests the Secretariat to undertake planning activities in order to appropriately scope the elements required to complete the renovation of the NA Laboratories as defined in GOV/INF/2014/11/Add.1;
10. Further invites Member States, based on the information provided from the current planning efforts of the Secretariat, to make the appropriate contributions to support the completion of the renovation of the NA Laboratories in Seibersdorf, as provided for in the addendum to the Strategy for the Renovation of the Nuclear Sciences and Applications Laboratories in Seibersdorf, as contained in GOV/INF/2014/11 and so that those elements within ReNuAL+ are implemented as soon as possible, in consultation with all Member States;
11. Encourages the ‘Friends of ReNuAL’ under the co-chairmanship of South Africa and Germany, and all Member States to continue to support the implementation of the project with a focus on mobilizing resources in a timely manner; and
12. Requests the Director General to report to it on progress made in the implementation of this resolution at its sixty-first (2017) session.

## **B.**

### **Nuclear power applications**

#### **1.**

##### **General**

###### The General Conference,

- (a) Recalling resolution GC(59)/RES/12 and previous General Conference resolutions on strengthening the Agency’s activities related to nuclear science, technology and applications,
- (b) Noting that the Agency’s objectives as outlined in Article II of the Statue include “*to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world*”,
- (c) Noting also that the Agency’s statutory functions include “*to encourage and assist research on, and practical application of, atomic energy for peaceful uses*”, “*to*

*foster the exchange of scientific and technical information” and “to encourage the exchange and training of scientists and experts in the field of peaceful uses of atomic energy”, including the production of electric power, with due consideration for the needs of developing countries,*

(d) Recalling the importance of involving the Member States in the drafting and publication process of important publications on nuclear energy,

(e) Noting that in the present resolution, expanding countries or expanding nuclear power programmes mostly refers to re-embarking countries with existing nuclear power programmes, now considering or actively pursuing one or more modern nuclear power plants,

(f) Noting the continued value of Integrated Work Plans (IWPs), which provide an operational framework for the delivery of optimized Agency assistance to support Member States with new and expanding national nuclear programmes, the latter mostly referring to re-embarking countries,

(g) Acknowledging the value of the contribution of the Secretariat and its Nuclear Infrastructure Development Section in providing a coordinated approach to supporting Member States in the area of nuclear infrastructure,

(h) Acknowledging that actions have been taken by the Secretariat and Member States with nuclear power, in response to the lessons learned from the Fukushima Daiichi accident, towards enhancement of the robustness of nuclear power plants and fuel cycle facilities, as well as human and organizational effectiveness, and emphasizing the need for ensuring competent technical support at every stage of the lifetime of a nuclear power plant for safe and reliable operations,

(i) Recalling that new, maintaining and expanding nuclear power programmes require the development, implementation and continuous improvement of appropriate infrastructure to ensure the safe, secure, efficient and sustainable use of nuclear power, and implementation of the highest standards of nuclear safety, taking into account relevant Agency standards and guidance and relevant international instruments, as well as a strong and long-term commitment of national authorities to creating and maintaining this infrastructure,

(j) Recognizing the growing interest within a number of Member States in next generation reactor designs,

(k) Encouraging interested Member States, including both technology users and holders, to consider jointly the improving of innovations in nuclear reactors, fuel cycles and institutional approaches, such as in the framework of the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO),

(l) Recognizing that small and medium-sized/modular reactors (SMRs) could be well-suited to the small electrical grids of many developing Member States with less developed infrastructure, and that for some developed Member States they could be one way to replace obsolete, ageing or high-carbon-emitting small and medium-sized power sources and noting that SMRs could play a significant role in district heating, desalination and hydrogen production systems in the future, and their potential for use in innovative energy systems,

- (m) Recalling that the development of innovative fast neutron systems, closed fuel cycles, and alternative fuel cycles (e.g. thorium, recycled uranium) are regarded by many as steps towards a long-term sustainable energy supply that can extend the lifetime of nuclear fuel resources and contribute to effective solutions to nuclear waste management,
- (n) Noting the increasing number of requests from Member States for advice on the exploration of uranium resources and on mining and milling for safe, secure and effective uranium production while minimizing the environmental impact, and acknowledging the importance of the Agency's assistance in this field,
- (o) Noting the importance of identifying undiscovered uranium or secondary uranium resources, and underlining the necessity to support uranium mine remediation, as part of a sustainable nuclear programme,
- (p) Welcoming the signing of a Host State Agreement between the Agency and Kazakhstan, and the signing of a Transit Agreement between the Agency and the Russian Federation to support the implementation of the low enriched uranium (LEU) bank,
- (q) Taking note of the decision made to build a dedicated new facility, in cooperation with Kazakhstan, to assure the operation of the future LEU bank according to the IAEA safety standards and nuclear security guidance,
- (r) Noting also the functioning of the LEU reserve in Angarsk, Russian Federation, comprising 120 tons of LEU under the aegis of the Agency,
- (s) Aware of the availability of the American Assured Fuel Supply, a bank of approximately 230 tons of LEU, for responding to supply disruptions in countries pursuing peaceful civilian nuclear programmes,
- (t) Recognizing the role that the effective management of spent fuel and radioactive waste should play in avoiding imposing undue burdens on future generations, and recognizing that, while each Member State should, as far as is compatible with the safe management of such material, dispose of the radioactive waste it generates, in certain circumstances the safe and efficient management of spent fuel and radioactive waste might be fostered through agreements among Member States to use facilities in one of them for their mutual benefit,
- (u) Stressing the importance of IAEA safety standards related to the management of radioactive waste and spent nuclear fuel and the benefits of strong cooperation with international organizations,
- (v) Recognizing that the establishment of a robust safety, security and non-proliferation infrastructure in the States considering introducing nuclear power plants is vital for any nuclear programme and stressing that the use of nuclear power must be accompanied at all stages by commitments to and ongoing implementation of the highest standards of safety and security throughout the life of the power plants, and effective safeguards, consistent with Member States' national legislation and respective international obligations and welcoming the Agency's assistance in these areas,
- (w) Emphasizing the need to ensure effective management of spent fuel and radioactive waste, decommissioning and remediation in a safe and sustainable manner,

and confirming the important role of science and technology in continuously addressing these challenges, particularly through innovations,

(x) Recognizing the continuing efforts and good progress that have been made on the Fukushima Daiichi site, whilst noting the enormous decommissioning, environmental remediation and radioactive waste management challenges that remain,

(y) Acknowledging that it is important for Member States that opt to use nuclear power to engage the public in science-based and transparent dialogue,

(z) Recognizing that the growing number of shut down reactors increases the need for collecting experience and developing adequate methods and techniques for decommissioning, environmental remediation and managing large volumes of radioactive waste, including contaminated water, resulting from legacy practices and radiological or nuclear accidents,

(aa) Acknowledging progress made in the field of deep geological disposal of spent nuclear fuel or highly radioactive waste, and further acknowledging the vital importance of involving national authorities, including regulatory bodies, in order to enhance stakeholder engagement,

(bb) Recognizing the need for Member States to evaluate and manage the financial commitments that are necessary for planning and implementing radioactive waste management programmes, including disposal,

(cc) Commending the continuous efforts of the Secretariat to enable the safe and effective borehole disposal of disused sealed radioactive sources and acknowledging the Canadian pledge to enable the projects implemented in Ghana and Malaysia,

(dd) Noting the Agency's integrated peer review service for radioactive waste and spent fuel management, decommissioning and remediation programmes (ARTEMIS) and welcoming the requests made by Australia, Poland and France to each host a mission in 2017, and by Spain in 2018,

(ee) Recognizing the success of the International Conference on Advancing the Global Implementation of Decommissioning and Environmental Remediation Programmes, in Spain in May 2016, and noting the request for Member States to reach consensus on matters where further international collaboration could contribute to safe and cost-effective decommissioning and remediation, wherever applicable,

(ff) Recalling the International Action Plan on the Decommissioning of Nuclear Facilities, adopted at the 48th Regular Session of the General Conference, GC(48)/RES/10,

(gg) Acknowledging the organization by the Secretariat, in June 2015, of the International Conference on the Management of Spent Fuel from Nuclear Power Reactors — An Integrated Approach to the Back-End of the Fuel Cycle,

(hh) Noting also the organization of workshops by the Agency on vital topics related to nuclear power, such as technologies and economics, the competitiveness of nuclear power and other energy technologies, regional cooperation to support transitioning to sustainable nuclear power, the development of the required infrastructure for the safe, secure and efficient use of nuclear power, desalination and other non-electrical uses of nuclear power, advanced waste management approaches among which are partitioning

and transmutation, the role of research reactors in the development of nuclear power programmes, in support of operating and future power plants and in the training of many professionals from Member States through various regional and national courses,

(ii) Noting the increasing number of technical cooperation projects, including the provision of assistance to Member States planning to introduce or expand nuclear power generation in conducting energy studies to evaluate future energy options, especially in the scope of the Intended Nationally Determined Contributions (INDCs), and in establishing appropriate technical, human, legal, regulatory and administrative infrastructure, and acknowledging the Agency's role in facilitating the safe, secure, efficient and sustainable use of nuclear power,

(jj) Recalling the importance of human resource development, education and training and knowledge management and stressing the Agency's unique experience and capacity to assist Member States in building their national capacities to support the safe, secure and efficient use of nuclear power and its application, inter alia through its technical cooperation programme,

(kk) Noting that significant concerns over energy resource availability, the environment and energy security suggest that a wide variety of energy options needs to be addressed in a holistic manner in order to ensure that they are competitive, environmentally benign, safe, secure and affordable, so as to support sustainable economic growth in all Member States,

(ll) Stressing that ensuring access to affordable, reliable, sustainable and modern energy for all, along with taking urgent action to combat climate change and its impacts, have been identified as Sustainable Development Goals by the Member States of the United Nations in September 2015,

(mm) Taking note that nuclear power does not produce either air pollution or greenhouse gas emissions during normal operation, which makes it one of the low carbon technologies available to generate electricity,

(nn) Acknowledging that each State has the right to decide its priorities and establish its national energy policy in accordance with its national requirements, taking into account relevant international obligations, and to use diverse portfolios of energy sources when pursuing its own way to achieving its energy security and climate protection goals in light of the Paris Agreement adopted on 12 December 2015 at the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 21), held in Paris from 30 November to 13 December 2015,

(oo) Recognizing the challenges in obtaining a large amount of financing to construct nuclear power plants as a viable and sustained option in meeting energy needs and taking into account appropriate financing schemes, which could involve investors from not only the public sector but the private sector where it is available,

(pp) Taking into account the potential advantages offered by SMRs (including lower upfront capital cost, shorter construction time, smaller footprint for site flexibility, better compatibility with small grids, enhanced safety features, suitability of coupling with renewables and non-electric applications),

(qq) Noting the important role that the Agency plays in assisting Member States in the establishment, preservation and enhancement of nuclear knowledge and in implementing effective knowledge management programmes at national and organizational levels and confirming the important role of nuclear knowledge management programmes in strengthening nuclear education, training and networking capabilities,

(rr) Recognizing the role that safe, secure, reliably operated and well utilized research reactors can play in national, regional and international nuclear science and technology programmes, including support of R&D in the fields on neutron science, fuel and material testing, and education and training,

(ss) Acknowledging with appreciation the efforts made by the Agency to organize the quadrennial International Conference on Research Reactors: Safe Management and Effective Utilization, which fostered the exchange of information on operating and planned research reactors, provided a forum at which members of the research reactor community shared lessons learned, and addressed common issues, challenges, and strategies,

(tt) Commending the Secretariat for the first International Centre based on Research Reactors (ICERR) announced during the 59th General Conference and the designation, during the 60th General Conference, of the Joint Stock Company ‘State Scientific Center – Research Institute of Atomic Reactors’ in Dimitrovgrad, Russian Federation,

(uu) Taking note of the *Nuclear Technology Review 2016* (GC(60)/INF/2), as well as of the report *Strengthening the Agency’s Activities related to Nuclear Science, Technology and Applications* (GC(60)/5), prepared by the Secretariat, and

(vv) Acknowledging that the peaceful use of fusion energy can be advanced through increased international efforts, through the active collaboration of interested Member States and organizations in fusion-related projects, such as the International Thermonuclear Experimental Reactor (ITER) project and noting the latest biennial IAEA Fusion Energy Conference in St Petersburg, Russian Federation,

1. Affirms the importance of the role of the Agency in facilitating through international cooperation among interested Member States, the development and use of nuclear energy for peaceful purposes, including the specific application of the generation of electric power, in assisting these States in that regard, in fostering international cooperation and in disseminating to the public well-balanced information on nuclear energy;
2. Encourages the Agency to continue its support to interested Member States in building their national capacities in the operation of nuclear power plants and in embarking on new nuclear power programmes;
3. Encourages Member States to develop programmes and initiatives such as the Capacity Building Initiative, in close relationship with the Agency, to improve and promote the potential of all Member States;
4. Commends the Agency for the assistance and review services for Member States with embarking and re-embarking national nuclear power programmes and encourages Member States to voluntarily use this assistance and the Agency’s review services when planning and assessing the economics/socio-economics of their energy programmes, developing their

national infrastructures for nuclear power and defining their long-term strategies for sustainable nuclear energy;

5. Encourages the Nuclear Infrastructure Development Section (NIDS) to pursue its activities integrating the Agency's assistance provided to Member States embarking on or expanding nuclear power programmes, such as the Integrated Nuclear Infrastructure Review (INIR) missions;

6. Requests the Secretariat to consolidate the application of the Milestones approach (IAEA Nuclear Energy Series No. NG-G-3.1 (Rev. 1), 2015) across the Agency as the leading document for the use of Member States in the development of new nuclear power programmes and in the establishment of corresponding IWPs;

7. Recommends that the Secretariat continue to pursue, in consultation with interested Member States, activities in the areas of innovative nuclear technologies with a view to strengthening infrastructure, safety and security, fostering science, technology, engineering and capacity building via the utilization of existing and planned experimental facilities and material test reactors, as well as the development and validation of advanced modelling and simulation tools;

8. Recommends that the Secretariat continue and strengthen the effort, together with other relevant international organizations and initiatives, aimed at assisting Member States in developing robust and harmonized regulatory approaches to support the licensing of innovative nuclear systems;

9. Welcomes the organization by the Agency, in cooperation with Rosatom, of the International Conference on Fast Reactors and Related Fuel Cycles: Next Generation Nuclear Systems for Sustainable Development, FR17, in Yekaterinburg, in June 2017 and the joint organization by the Department of Nuclear Safety and Security and the Department of Nuclear Energy of the International Conference on Topical Issues in Nuclear Installation Safety: Safety Demonstration of Advanced Water Cooled Nuclear Power Plants, in Vienna, in June 2017;

10. Encourages the Secretariat to explore, in consultation with interested Member States, the need for closer collaboration in technology development for advanced reactor lines by hosting a workshop with the aim of considering launching a new project on molten salt and molten salt cooled advanced reactors;

11. Encourages the Secretariat to pursue its efforts on reducing the number of finalized but unpublished documents, and on promoting the systematic review of oldest ones, as appropriate;

12. Calls on the Secretariat to proactively and regularly share the list of documents being drafted and provide the opportunity for inputs from willing Member States;

13. Recognizes the importance of assisting Member States interested in uranium production to develop and maintain sustainable activities through appropriate technology, infrastructure and stakeholder involvement and the development of skilled human resources and encourages the Agency to cooperate with the OECD Nuclear Energy Agency (NEA) for the publication of the 26th edition of the Red Book on Uranium Resources, Production and Demand;

14. Looks forward to the organization by the Secretariat of the 4th International Symposium on Uranium Raw Material for the Nuclear Fuel Cycle: Exploration, Mining, Production,

Supply and Demand, Economics and Environmental Issues (URAM 2018), which is expected in 2018;

15. Welcomes the Secretariat's efforts in pursuing activities for enhancing Member State capabilities in modelling, predicting and improving the understanding of the behaviour of nuclear fuel under accident conditions, for instance through Coordinated Research Projects;
16. Welcomes the intending signing of the transit agreement with China in the first half of 2017, to support the operation of the LEU bank;
17. Welcomes the Secretariat's effort to ensure a fair LEU acquisition process for the LEU bank, with the upcoming organization of a workshop with experts in order to enable openness and avoid undue influence in the process;
18. Encourages discussion among interested Member States on the development of multilateral approaches to the nuclear fuel cycle, including on the one hand possibilities of creating mechanisms for assurance for nuclear fuel supply and on the other hand possible schemes for the back-end of the fuel cycle, recognizing that any discussion on these matters should take place in a non-discriminatory, inclusive and transparent manner and be respectful of the rights of each Member State to develop national capabilities;
19. Requests the Secretariat to continue and strengthen its efforts relating to nuclear power, fuel cycle and radioactive waste management, focusing particularly on technical areas where the needs for improvement, advances and enhanced international collaboration are greatest;
20. Encourages international cooperation in the safe management of spent fuel and radioactive waste, as well as in exploring multinational approaches to storage and disposal;
21. Encourages the upcoming publication of the report setting out the results of the 2013 project on 'Status and Trends of Spent Fuel and Radioactive Waste', which was initiated as a joint activity of three agencies — the OECD/NEA, the IAEA and the European Commission;
22. Stresses in this regard the importance of the safe management of spent fuel, which for some Member States includes reprocessing and recycling, as well as the safe management and/or disposal of radioactive waste, inter alia for the safe, secure, efficient and sustainable development of nuclear science and technology, including nuclear power and to avoid imposing undue burdens on future generations;
23. Encourages the Secretariat to continue the preparation of safety and technical documents on the management of large amounts of waste generated after a nuclear or radiological accident and on the implementation of post-accident decommissioning and environmental remediation projects;
24. Encourages the Secretariat to promote information sharing to better integrate approaches to the back-end of the fuel cycle that impact retrievability, transportation and recycling of spent nuclear fuel, for example through the coordination of research projects;
25. Encourages the Secretariat to pursue its activities on 'Status and Trends of Radioactive Waste Management' by publishing a series of reports on global inventories of radioactive waste and spent nuclear fuel and on provisions for their management;
26. Requests the Agency to formulate milestone and guidance documents on decommissioning and action plans to support decommissioning, inter alia by establishing an

international cooperation framework for implementation with a view of promoting the safe, secure, efficient and sustainable execution of these activities;

27. Encourages the Secretariat to promote the ARTEMIS peer review service concept, explaining its benefits as a means of encouraging Member States to invite such peer reviews where appropriate;

28. Encourages further strengthening of Agency safety standards and strong cooperation with international organizations, such as through the Net-Enabled Waste Management Database;

29. Welcomes the Agency's efforts to provide more detailed information on designing, constructing, operating and closing a radioactive waste disposal facility, and thereby assisting Member States, including those embarking on nuclear power programmes, to develop and implement adequate disposal programmes;

30. Takes note of the success of the Ministerial Conferences on global nuclear power, status and future development with a particular focus on nuclear power including safety aspects, organized by the Agency in Paris, France, Beijing, China and St Petersburg, Russian Federation, respectively in 2005, 2009 and 2013, and welcomes the offer by the United Arab Emirates to host the next such Ministerial Conference in 2017 and encourages interested Member States to participate in this important event;

31. Encourages the Agency to continue to organize capacity building workshops on vital topics related to nuclear power to understand and implement, in an integrated way, the requirements of effective management systems to ensure the safety, effectiveness and sustainability of nuclear power programmes;

32. Acknowledges the importance of the Agency's technical cooperation projects for assisting Member States in energy analysis and planning, and in establishing the infrastructure required for the safe, secure and efficient introduction and use of nuclear power, and encourages interested Member States to consider how they can further contribute in this field by enhancing the Agency's technical cooperation with developing countries and notes the importance of active stakeholder involvement in the development or expansion of nuclear power programmes;

33. Encourages the Secretariat to continue to enhance Member States' understanding as they seek to identify potential approaches to financing nuclear power programmes, including radioactive waste management in a changing international financial landscape, and encourages interested Member States to work with the relevant financial institutions towards addressing financial issues related to the introduction of enhanced safety design and technologies for nuclear power;

34. Encourages the Secretariat to analyze the technical and economic cost drivers for economic sustainability of nuclear power operation, especially in the scope of life extension, to determine the value of nuclear power in the energy mix considering environmental conditions;

35. Welcomes the creation of the new Division of Planning, Information and Knowledge Management;

36. Requests the Secretariat to henceforth publish the International Status and Prospects for Nuclear Power on a 4-year basis, starting in 2017, to enhance its visibility and make this

publication an input document for the 2017 Ministerial Conference on Nuclear Power in the 21st Century;

37. Encourages the Secretariat to reshape the annual publication Energy, Electricity and Nuclear Power Estimates for the Period up to 2050, Reference Data Series No. 1, in order to better describe the plausible development of new nuclear power plants in different world regions whatever the scenario taken into account, and invites willing Member States to support the Secretariat with the promotion of this publication;

38. Further commends the Secretariat for fostering nuclear knowledge management as a vital component of an integrated management system;

39. Encourages the Secretariat to facilitate effective programmes in the areas of nuclear science technology and applications related to nuclear power, aimed at sharing and further improving the scientific and technological capabilities of interested Member States through cooperation and coordinated research and development;

40. Requests the Secretariat to continue to pursue, in consultation with interested Member States, the Agency's activities in the areas of nuclear science and technology for nuclear power applications in Member States, with a view to strengthening infrastructures, including safety and security, and fostering science, technology and engineering, including capacity building via the utilization of existing research reactors;

41. Encourages the Secretariat to continue to foster regional and international collaboration and networking that expands access to research reactors, such as international user communities;

42. Encourages the Secretariat to inform Member States considering the development or installation of their first research reactor of the utility, economics, environmental protection, safety and security, reliability, proliferation resistance and waste management issues associated with such reactors and about international alternatives, and, on request, to assist decision makers in pursuing new reactor projects systematically and on the basis of robust, utilization-based strategic plans;

43. Urges the Secretariat to continue to provide guidance on all aspects of the research reactor life cycle, including the development of ageing management programmes at both new and older research reactors, to ensure continuous improvements in safety and reliability, the sustainability of fuel supply and exploration of disposition options for spent fuel and waste management;

44. Further encourages Member States operating research reactors to voluntarily invite an Operation and Maintenance Assessment for Research Reactor (OMARR) mission;

45. Encourages the Secretariat to promote the ICERR scheme and call on willing Member States to apply for designation, in order to build a comprehensive network comprising different nuclear operating techniques, worldwide access and different languages;

46. Acknowledges with appreciation the kick-off of the IAEA Internet Reactor Laboratory project in Latin America and Europe as well as the implementation of multi-reactor based, hands-on training courses and encourages the Secretariat to further its efforts to support capacity building based on research reactors;

47. Calls on the Secretariat to continue to support international programmes working to minimize the civilian use of highly enriched uranium, for example through the development

and qualification of low enriched uranium high density fuel for research reactors, where such minimization is technically and economically feasible;

48. Stresses the importance, when planning and deploying nuclear energy, including nuclear power and related fuel cycle activities, of ensuring the highest standards of safety and emergency preparedness and response, security, non-proliferation, and environmental protection, for example through the promotion of a platform for the international nuclear community to continuously exchange information on R&D addressing safety issues highlighted by the Fukushima Daiichi accident, as well as the strengthening of long-term research programmes to learn about severe accidents and related decommissioning activities;

49. Welcomes the continuation of the IAEA Peaceful Uses Initiative and all contributions announced by Member States or regional groups of States, and encourages Member States and groups of States, in a position to do so, to contribute;

50. Requests that the actions of the Secretariat called for in this resolution be undertaken as a priority subject to the availability of resources; and

51. Requests the Secretariat to report to the Board of Governors as appropriate and to the General Conference at its sixty-first (2017) session on developments relevant to this resolution.

## **2.**

### **Communication and IAEA cooperation with other agencies**

#### The General Conference,

(a) Welcoming the Secretariat's contributions to international discussions addressing global climate change, such as at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 21), held in December 2015 in Paris, France, and attended by the IAEA Deputy Director General and Head of the Department of Nuclear Energy, and taking note of the participation of the Agency in the Intergovernmental Panel on Climate Change (IPCC), and

(b) Commending the 2016 Scientific Forum, entitled "Nuclear Technology for the Sustainable Development Goals",

1. Requests the Secretariat to continue cooperation with international initiatives such as UN-Energy, and to explore the possibility of cooperation with Sustainable Energy for All (SE4All), stressing the importance of ongoing, transparent communications about the risks and benefits of nuclear power in operating and newcomer countries;

2. Encourages the Secretariat's efforts in providing comprehensive information on nuclear energy's potential as a low carbon energy source and its potential to contribute to mitigating climate change, in advance of the United Nations Climate Change Conference, COP 22, to be held in Marrakech, Morocco, in November 2016, and encourages the Secretariat to work directly with Member States upon request and to continue to extend its activities in these areas, including the Paris Agreement adopted on 12 December 2015, which sets out the related national commitments to address climate change;

3. Encourages the Agency to participate and contribute expertise and data to the scientific assessment on climate change in the IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-industrial Levels and related Global Greenhouse Emission Pathways;

4. Encourages the Agency to consider senior level representation at COP 22 and other major international forums where there will be debate and decisions regarding climate change and the potential role of nuclear power; and
5. Encourages strengthening mutual cooperation between Member States by exchanging information on relevant experiences and good practices with respect to nuclear power programmes, through international organizations such as the IAEA, OECD/NEA and the World Association of Nuclear Operators (WANO).

**3.**

**Operating existing nuclear power plants**

The General Conference,

- (a) Stressing the essential role the Agency plays as an international forum for the exchange of information and experience on nuclear power plant operation and for continuous improvement of this exchange among interested Member States, inter alia through the Nuclear Operator Organization Cooperation Forum held during regular sessions of the General Conference, while recognizing both the role of international organizations such as the OECD Nuclear Energy Agency, and multinational networks among operators, such as the World Association of Nuclear Operators (WANO), and the need to further strengthen the cooperation between the Agency and these organizations, and
  - (b) Noting the growing importance of long-term operation of existing nuclear power reactors and underlining the need to benefit from this experience gained from long-term operation and to apply it to new programmes that may have nuclear power reactors capable of operating beyond 60 years,
1. Stresses the importance of adequate human resources for ensuring, inter alia, the safe and secure operation and the effective regulation of a nuclear power programme, and noting the increasing need, worldwide, for trained and qualified personnel;
  2. Stresses the importance of adequate human resources development and capacity building to support nuclear energy related activities during construction, commissioning and operation including long-term operation, performance improvements, effective radioactive waste management and decommissioning;
  3. Requests the Secretariat to promote collaboration among interested Member States for strengthening excellence in nuclear power plant operation and to establish effective collaboration mechanisms such as technical working groups for safe, secure, efficient and sustainable operation of nuclear power plants and also for application of management systems in the nuclear industry to exchange information on relevant experiences and good practices in safe and effective nuclear power plant operation;
  4. Requests the Secretariat to continue its support to interested Member States, in particular through strengthening their knowledge, experience and capacity in management of ageing and plant life management, and welcomes the organization of the 4th International Conference on Nuclear Power Plant Life Management (PLiM), in France, in 2017;
  5. Encourages the Secretariat to disseminate best practices and experience through the publication of technical documents with respect to learning and development, leadership, safety culture, organizational culture, stakeholder involvement, decision-making and

management, including the need to maintain an appropriate organizational structure while nuclear power plants are in permanent shutdown, or in transition to decommissioning;

6. Acknowledges the growing interest in the application of advanced instrumentation and control systems and encourages the Agency to provide further support to interested Member States;

7. Recognizes the need to enhance further the support for grid and nuclear power plant interfaces, grid reliability and water usage, and recommends that the Secretariat collaborate with Member States that have operating nuclear power plants on these matters; and

8. Encourages the Secretariat to identify and promote best practices and lessons learned, through Technical Documents and Guides, with respect to procurement and supply chain issues, including bidding and contract evaluation processes, and also to support experience sharing related to quality control and quality surveillance activities related to nuclear construction, component manufacturing, and modifications, with respect to fitness for service issues and independent nuclear training accreditation.

#### **4.**

#### **Agency activities in the development of innovative nuclear technology**

The General Conference,

(a) Recalling its previous resolutions on the Agency's activities in the development of innovative nuclear technology,

(b) Conscious of the need for sustainable development and of the potential contribution of nuclear power to meet the growing energy needs in the 21st century and mitigating climate change,

(c) Noting the progress achieved in a number of Member States in the development of innovative nuclear energy system technologies and the high technical and economic potential of international collaboration in the development of such technologies,

(d) Noting that the membership of the Agency's International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO), which was launched in 2000, is continuing to grow and now comprises 41 Member States and the European Commission,

(e) Noting also that the Agency fosters collaboration among interested Member States on selected innovative technologies and approaches to nuclear power through INPRO Collaborative Projects, Technical Working Groups (TWGs) working on facilitating innovations for advanced reactors and nuclear fuel cycle options, and Coordinated Research Projects, and acknowledging that the coordination of INPRO-related activities is achieved through the Agency's Programme and Budget and the INPRO Subprogramme Plan,

(f) Noting that the INPRO Subprogramme Plan identifies activities in areas of global and regional nuclear energy scenarios, innovations in nuclear technology and institutional arrangements including such key collaborative projects as *Roadmaps for a Transition to Globally Sustainable Nuclear Energy Systems* (ROADMAPS), the project on *Key Indicators for Innovative Nuclear Energy Systems* (KIND), the project on *Cooperative Approaches to the Back End of the Nuclear Fuel Cycle: Drivers and Legal, Institutional and Financial Impediments* and other collaborative projects on specific

issues of interest related to innovative nuclear reactor and fuel cycle concepts and designs,

(g) Noting that the scope of INPRO includes activities to support interested Member States in developing national long-range sustainable nuclear energy strategies and related nuclear energy deployment decision making, including nuclear energy system assessments (NESAs) using INPRO methodology, the INPRO Dialogue Forum and regional training on nuclear energy system modelling, including collaborative scenarios, and sustainability assessment using the INPRO methodology,

(h) Noting with appreciation that INPRO has successfully completed the collaborative project on *Synergistic Nuclear Energy Regional Group Interactions Evaluated for Sustainability* (SYNERGIES) and the Secretariat has drafted a final report of this project,

(i) Noting the progress of other national, bilateral and international activities and initiatives, and their contributions to joint research and development work on innovative approaches to nuclear energy deployment and operation,

(j) Recognizing that a number of Member States are planning to license, construct and operate prototypes or demonstrations of fast neutron systems, high temperature reactors and other innovative reactors and integrated systems within the next decades, and noting that the Secretariat is fostering this process through the provision of international fora for the exchange of information, thus supporting interested Member States to develop innovative technology with enhanced safety, proliferation resistance and economic performance,

(k) Welcoming the increased participation at the meeting, organized in November 2015, to “present and share important information on the interest and status of technology developments in the area of molten-salt and molten-salt cooled advanced reactors” and welcoming the meeting that will take place in November 2016, and

(l) Noting with appreciation the Director General’s report on Agency activities in the development of innovative nuclear technology contained in document GOV/2016/34-GC(60)/5,

1. Commends the Director General and the Secretariat for their work in response to the relevant General Conference resolutions, in particular the results achieved to date within INPRO;

2. Emphasizes the important role that the Agency can play in assisting interested Member States in building long-term national nuclear energy strategies and in long-term sustainable nuclear energy deployment decision-making through NESAs, based on the INPRO methodology, and nuclear energy scenario analyses;

3. Encourages the Secretariat to consider further opportunities to develop, coordinate and integrate the services it provides to Member States, including broad energy planning and long-term nuclear energy planning, economic analysis and technico-economic assessments, NESAs and assessments of transition scenarios to sustainable nuclear energy systems using, inter alia, the analytical framework developed by the INPRO Section;

4. Encourages interested Member States, the Secretariat, and the INPRO Section in particular, to further develop and evaluate various nuclear energy scenarios and roadmaps,

based on synergistic collaboration among involved countries, that could lead to sustainable nuclear energy development in the 21st century, and to help define collaborative pathways to such development;

5. Requests the Secretariat to promote collaboration among interested Member States in developing innovative, globally sustainable, nuclear energy systems and to support the establishment of effective collaboration mechanisms to exchange information on relevant experiences and good practices;

6. Encourages the Secretariat to elaborate summary key indicator sets, consistent with the INPRO methodology, and judgement aggregation methods to further examine the application of multi-criteria decision analysis to develop comparative evaluation approaches to consider benefits and associated costs and potential risks in nuclear energy system performance that may be achievable using innovative nuclear energy technologies;

7. Encourages the Secretariat to study cooperative approaches to the back-end of the nuclear fuel cycle with a focus on the drivers and institutional, economic and legal impediments to ensure effective cooperation among countries towards the long-term sustainable use of nuclear energy;

8. Invites Member States and the Secretariat, to examine the role that technological and institutional innovations can play in improving nuclear power infrastructure and enhancing nuclear safety, security and non-proliferation and to exchange information, including through the INPRO Dialogue Forum;

9. Invites all interested Member States to join, under the aegis of the Agency, in the activities of INPRO in considering issues of innovative nuclear energy systems and institutional and infrastructure innovations, particularly by continuing assessment studies of such energy systems and their role in national, regional and global scenarios for the further use of nuclear energy, and also by identifying common topics of interest for possible collaborative projects;

10. Encourages the Secretariat to further its efforts on distance learning/training on development and evaluation of innovative nuclear technology for students and staff of universities and research centres, and to further develop tools supporting this activity that supports efficient delivery of services to Member States;

11. Notes with appreciation that the INPRO section jointly with the Planning and Economic Studies Section has prepared a new Nuclear Energy Series report on “Modelling Nuclear Energy Systems with MESSAGE: A User’s Guide”, published in March 2016, and is using it as a reference document in learning and training activities carried out by both sections;

12. Encourages the Secretariat and interested Member States to complete the revision of the INPRO methodology, taking into account the results of NESAs performed in Member States and lessons learned from the Fukushima Daiichi accident, while noting updates to the INPRO manuals dealing with infrastructure, economics, depletion of resources and environmental stressors;

13. Recognizes ongoing efforts by the Secretariat and interested Member States to conduct comprehensive case studies for deployment of factory-fuelled small modular reactors as follow on to the already published preliminary study on transportable nuclear power plants (TNPPs);

14. Recommends that the Secretariat continue to explore opportunities for synergy between the Agency's activities (including INPRO) and those pursued under other international initiatives in areas relating to international cooperation in peaceful uses of nuclear energy, safety, proliferation resistance and security issues and, in particular, supports collaboration among INPRO, appropriate TWGs, the Generation IV International Forum (GIF), the International Framework for Nuclear Energy Cooperation (IFNEC) and the European Sustainable Nuclear Industrial Initiative (ESNII) with regard to innovative and advanced nuclear energy systems;
15. Invites interested Member States that have not done so to consider joining INPRO and to contribute to innovative nuclear technology activities by providing scientific and technical information, financial support, or technical and other relevant experts and by contributing to joint collaborative projects on innovative nuclear energy systems;
16. Encourages the Secretariat to continue, through the consolidation of available resources and additional assistance from interested Member States, regular training and workshops on innovative nuclear technologies and their underlying science and technology to exchange knowledge and experience in the area of innovative, globally-sustainable nuclear energy systems;
17. Notes the role of research reactors in supporting the development of innovative nuclear energy systems;
18. Calls upon the Secretariat and Member States in a position to do so to investigate new reactor and fuel cycle technologies with improved utilization of natural resources and enhanced proliferation resistance, including those needed for the recycling of spent fuel and its use in advanced reactors under appropriate controls and for the long-term disposition of remaining waste materials, taking into account, inter alia, economic, safety and security factors;
19. Recommends that the Secretariat continue to pursue, in consultation with interested Member States, activities in the areas of innovative nuclear technologies, such as alternative fuel cycles (e.g. thorium, recycled uranium) and Generation IV systems including fast neutron systems, supercritical water-cooled, high-temperature gas cooled and molten salt nuclear reactors, with a view to strengthening infrastructure, safety and security, fostering science, technology, engineering and capacity building via the utilization of existing and planned experimental facilities and material test reactors, and with a view to strengthening the efforts aimed at creating an adequate and harmonized regulatory framework so as to facilitate the licensing, construction and operation of these innovative reactors;
20. Welcomes the extrabudgetary funds provided to the Secretariat's activities for the development of innovative nuclear technology and encourages Member States in a position to do so to consider how they can further contribute to the Secretariat's work in this area; and
21. Requests the Director General to report on the progress made in the implementation of this resolution to the Board of Governors and to the General Conference at its sixty-first (2017) regular session under an appropriate agenda item.

5.

**Approaches to supporting nuclear power infrastructure development**

The General Conference,

- (a) Recognizing that the development and implementation of an appropriate infrastructure to support the successful introduction of nuclear power and its safe, secure and efficient use is an issue of great importance, especially for countries that are considering and planning for the introduction of nuclear power,
- (b) Recalling its previous resolutions on approaches to supporting nuclear power infrastructure development,
- (c) Stressing that primary responsibility for nuclear safety and security rests with States and their regulatory agencies, licensees and operating organizations in order to achieve the protection of the public and environment, and that a strong infrastructure is necessary to execute this responsibility,
- (d) Encouraging the Secretariat to develop stronger support for the creation and development of a knowledgeable future owner/operator,
- (e) Commending the Secretariat's effort to provide support in the areas of human resource development, which continues to be a high priority to Member States that are considering and planning for the introduction of nuclear power with assessments of infrastructure needs, taking into account relevant economic, social and policy considerations, to support the safe, secure and efficient use of nuclear power, and noting the Agency's increasing activities in this area, in accordance with the requests of Member States,
- (f) Noting the Secretariat's effort to provide support in the area of stakeholder involvement, which continues to be of utmost importance to Member States that are considering and planning for the introduction of nuclear power,
- (g) Recognizing the continued value of the Agency's Integrated Nuclear Infrastructure Review (INIR) missions, which provide expert and peer-based evaluations, in helping requesting Member States to determine their nuclear infrastructure development status and needs,
- (h) Noting the 19 INIR missions performed since 2009, among them the missions performed in Bangladesh, Poland and Morocco, welcoming the planned missions in Kazakhstan, Malaysia and Ghana, and further noting that additional countries thinking of launching or re-embarking on nuclear power programmes are considering requesting INIR missions,
- (i) Welcoming the establishment of Integrated Work Plans (IWPs), which provide an operational framework for the delivery of Agency assistance in support of national nuclear programmes, thereby facilitating optimized assistance by the Agency to embarking countries,
- (j) Noting the publication of Nuclear Energy Series reports and the organization of a wide range of conferences, technical meetings and workshops on topics related to infrastructure development,

- (k) Recognizing the Nuclear Energy Management School and other training courses on management and leadership and on construction management, and mentoring programmes implemented under the Agency's auspices, in China, the Czech Republic, France, Japan, the Republic of Korea, the Russian Federation, Sweden, the United Kingdom and the United States of America, as effective platforms for leadership development,
- (l) Taking note of the Secretariat's cooperation with the International Framework for Nuclear Energy Cooperation (IFNEC),
- (m) Recognizing the Regional Conference on the Prospects for Nuclear Power in the Asia Pacific Region, co-organized by the Agency and IFNEC in Manila, Philippines, from 30 August to 1 September 2016, and the Workshop on Listening and Learning from Stakeholders, co-organized by the Agency and IFNEC in February 2016,
- (n) Noting the importance of coordination of activities within the Agency for nuclear infrastructure development,
- (o) Noting the joint efforts of the Nuclear Infrastructure Development Section (NIDS) and INPRO in developing innovative infrastructure approaches for future nuclear energy systems,
- (p) Commending the Technical Working Group on Nuclear Power Infrastructure (TWG-NPI) that provides guidance to the Agency on approaches, strategy, policy and implementing actions for the establishment of a national nuclear power programme,
- (q) Recognizing the importance of encouraging effective workforce planning for operating and expanding nuclear power programmes, worldwide, and the increasing need for trained personnel, and
- (r) Taking note of other international initiatives focusing on support for infrastructure development,
1. Commends the Director General and the Secretariat for their efforts in implementing resolution GC(55)/RES/12.B.4 as reported in document GC(60)/5;
  2. Encourages the Secretariat to facilitate broad international participation at all technical meetings, workshops, training courses and conferences on nuclear infrastructure development sponsored by in kind support from Member States;
  3. Encourages Member States to ensure the development of the appropriate legislative and regulatory frameworks, which are necessary for the safe introduction of nuclear power;
  4. Encourages Member States embarking on nuclear power programmes to conduct a self-evaluation based on IAEA Nuclear Energy Series No. NG-T-3.2 to identify gaps in their national nuclear infrastructure and to invite an INIR mission and relevant peer review missions, including site design safety reviews, prior to commissioning the first nuclear power plant, and to make public their INIR mission reports in order to promote transparency and to share best practices;
  5. Notes the work of the Nuclear Infrastructure Development Section and its internal coordination and holistic approach to nuclear infrastructure development, and encourages the Secretariat to strengthen and tailor the services provided to countries introducing new nuclear

power programmes, while taking into account the results of assessments of infrastructure requirements, such as INIR mission outcomes;

6. Invites Member States to make use of INIR follow-up missions to assess progress and determine whether recommendations and suggestions were successfully implemented;

7. Requests the Secretariat to continue to learn lessons from INIR missions and to enhance the effectiveness of its activities;

8. Urges Member States to develop Action Plans to address the recommendations and suggestions provided by the INIR missions and encourages them to participate in the development of IWPs;

9. Encourages the Secretariat to finalize the development of Phase 3 (before commissioning) INIR missions, with willing newcomers or expanding Member States close to commissioning;

10. Encourages the activities undertaken by the Secretariat to promote cooperation between newcomer countries and those with established nuclear power programmes;

11. Welcomes the development of the competency framework for embarking countries and the update of the nuclear infrastructure bibliography, as a useful tool to help Member States plan technical cooperation and other assistance;

12. Welcomes the Secretariat's efforts in the production of a series of e-learning modules, based on the 19 infrastructure issues defined by the Agency's Milestones approach, of which 15 have already been released on line, supporting capacity building in both countries embarking on new nuclear programmes and countries expanding their nuclear programmes;

13. Encourages the Secretariat to continue providing training related to the development of the 'knowledgeable customer' concept;

14. Invites all Member States that are considering or planning for the introduction or expansion of nuclear power to provide, as appropriate, information and/or resources to enable the Agency to apply its full spectrum of tools in support of nuclear infrastructure development;

15. Calls on the Secretariat to facilitate, as necessary, 'soft coordination' among Member States for the more efficient implementation of multilateral and bilateral assistance to countries considering or planning for the introduction or expansion of nuclear power;

16. Welcomes the activities undertaken by Member States, both individually and collectively, to cooperate on a voluntary basis in nuclear infrastructure development and encourages further such cooperation;

17. Welcomes the extrabudgetary funds provided to the Secretariat's activities for the infrastructure development support to Member States and encourages Member States, in a position to do so, to consider how they can further contribute to the Secretariat's work in this area; and

18. Requests the Director General to report on the progress made in the implementation of this resolution to the Board of Governors and to the General Conference at its sixty-first (2017) session under an appropriate agenda item.

**C.**  
**Nuclear knowledge management**

The General Conference,

- (a) Recalling its previous resolutions on nuclear knowledge management,
- (b) Noting the importance of establishing and strengthening governance processes to advance knowledge management within organizations and having systems in place to measure the success of knowledge management programmes,
- (c) Emphasizing the increasing importance of the role of the Agency in providing information and good practices in the safe and efficient utilization of nuclear technology for peaceful purposes including information and knowledge for the general public,
- (d) Recognizing that preserving and enhancing nuclear knowledge and ensuring the availability of qualified human resources are vital to the continued safe, economic and secure utilization of all nuclear technologies for peaceful purposes,
- (e) Recognizing that nuclear knowledge management involves both education and training for succession planning as well as the preservation or growth of existing knowledge in nuclear science and technology,
- (f) Noting the important role that the Agency plays in assisting Member States in the establishment, preservation and enhancement of nuclear knowledge and in implementing effective knowledge management programmes at national and organizational levels,
- (g) Recognizing the importance of knowledge management in all areas of the Secretariat's activities and programmes, and the cross-cutting inter-disciplinary and inter-departmental nature of many knowledge management issues and initiatives,
- (h) Acknowledging the importance of adequate nuclear knowledge in understanding and applying safety principles in the design, construction, licensing, operation, life extension, closure and decommissioning of nuclear facilities,
- (i) Aware of continuing concerns about risks of knowledge loss for operating facilities,
- (j) Aware of the benefits of utilizing nuclear knowledge management approaches to support long-term operation of nuclear facilities, disposal of radioactive waste, decommissioning projects, environmental remediation projects, and the need to improve learning from incidents and events,
- (k) Noting the increased interest of Member States in the development and use of modern plant information models and guidelines to support nuclear knowledge management, including design knowledge, throughout the entire life cycle of facilities and projects,
- (l) Acknowledging the utility of collaborations towards development and adoption of integrated national and regional strategic planning approaches to strengthen and make sustainable university nuclear education programmes,
- (m) Recognizing the benefits of collaboration between the Agency, universities, industry, national laboratories and government institutes, and the role that international

and national human resource and knowledge development (HRKD) networks play in facilitating this collaboration,

(n) Recognizing the useful role of international coordination and cooperation in facilitating exchanges of information and experience and in implementing actions to help address common problems, and also in benefitting from opportunities relating to education and training and to nuclear knowledge preservation and enhancement,

(o) Noting the successful installation of the Cyber-Learning Platform for Nuclear Education and Training (CLP4NET) in the Middle East, Asia, Africa and Latin America to support regional efforts in introducing modern e-learning technology for nuclear education and training,

(p) Noting the success of the Nuclear Energy Management (NEM) School and the Nuclear Knowledge Management (NKM) School, both held annually at the International Centre for Theoretical Physics (ICTP) in Trieste and the highly-valued continuous cooperation between the IAEA and the ICTP, and

(q) Further noting the sustainable outcomes the NEM School hosted by the United Arab Emirates and Japan in 2015, as well as the regional NEM Schools held in Japan in July 2016, the Russian Federation in September 2016, and the upcoming NEM School in South Africa in October 2016, and welcoming the continued interest of other Member States to host regional NEM Schools,

1. Commends the Director General and the Secretariat for their significant, interdepartmental efforts in addressing issues of preservation and enhancement of nuclear knowledge, in response to relevant General Conference resolutions;

2. Commends the Secretariat for its support to Member States in applying a comprehensive methodology and guidance for managing nuclear knowledge, including through nuclear knowledge management assistance visits and seminars in Member States;

3. Further commends the Secretariat for fostering nuclear knowledge management as a vital component of an integrated management system;

4. Encourages the Director General and the Secretariat to continue to strengthen their current and planned efforts in this area, in a holistic, interdepartmental manner, while consulting and engaging Member States and other relevant international organizations, and to further increase the level of awareness of efforts in managing nuclear knowledge, and in particular:

i. Requests the Secretariat to assist Member States, at their request, in their efforts to ensure the sustainability of nuclear education and training in all areas of the peaceful use of nuclear energy, including its regulation, inter alia by taking advantage of the activities of the regional networks in Asia (ANENT), Latin America (LANENT) and Africa (AFRA-NEST), and Eastern Europe and Central Asia (STAR-NET);

ii. Notes in particular the needs of developing countries or those considering or launching a nuclear power programme and in this regard, encourages Member States in a position to do so to participate in and support networking, and underlines the importance of the Technical Cooperation Programme in that context;

- iii. Requests the Secretariat, in consultation with Member States, to further develop and disseminate guidance and methodologies for planning, designing, implementing and evaluating nuclear power programmes, including programmes for sustaining nuclear knowledge;
  - iv. Requests the Secretariat to continue to make available to Member States training programmes of the Nuclear Energy Management School and the Nuclear Knowledge Management School;
  - v. Requests the Secretariat to review the broad range of education and training programmes established by the Department of Nuclear Energy and other departments of the Secretariat, as appropriate, in order to develop the most cost-effective and sustainable combination of events to maximize effectiveness and minimize unnecessary duplication among Agency offerings;
  - vi. Requests the Secretariat to further develop and utilize e-learning material, relevant content and technologies to make nuclear education and knowledge more broadly available in a modern, effective and efficient manner, including the further development and effective use of the IAEA's CLP4NET and CONNECT platforms as e-learning repositories; and
  - vii. Encourages the Secretariat to promote the use of state of the art knowledge management technologies, including those related to the application of modern plant information models and guidelines to support knowledge management, including design knowledge, throughout the entire life cycle of facilities and projects, and support interested Member States in their further development;
5. Requests the Secretariat to continue to gather, and make available to Member States, nuclear data, information and knowledge resources on the peaceful use of nuclear energy, including the International Nuclear Information System (INIS) and other valuable databases as well as the IAEA Library and the International Nuclear Library Network (INLN);
6. Calls on the Secretariat, to continue to focus, in particular, on activities aimed at helping interested Member States assess their human resource needs and to identify ways to address those needs, inter alia by encouraging the development of new tools and opportunities to gain practical experience through fellowships;
7. Invites the Secretariat, in consultation with Member States, to further develop and disseminate guidance and methodologies for planning, designing, implementing, and evaluating nuclear knowledge management programmes and practices;
8. Requests the Secretariat to continue to develop tools and services in the area of human resource development with a particular focus on capacity building and welcomes the Third International Conference on Nuclear Knowledge Management — Challenges and Approaches, which will take place in Vienna in November 2016 to promote the sharing of experience and solutions between operating and newcomer countries;
9. Encourages the Secretariat to facilitate the establishment of effective human resource and knowledge management (HRKM) networks in developing countries, and where appropriate in collaboration with other United Nations organizations and with the support of existing such networks in developed countries;

10. Requests the Director General to take into account the continuing high level of interest of Member States in the range of issues associated with nuclear knowledge management when preparing and carrying out the Agency's programme; and

11. Requests the Director General to report on progress made in the implementation of this resolution to the Board of Governors and to the General Conference at its sixty-second (2018) session under an appropriate agenda item.

*30 September 2016  
Agenda item 16  
GC(60)/OR.10, para. 27*

**GC(60)/RES/13                      Strengthening the effectiveness and improving the efficiency of Agency safeguards**

The General Conference,

- (a) Recalling resolution GC(59)/RES/13,
- (b) Convinced that the Agency's safeguards are a fundamental component of nuclear non-proliferation, promote greater confidence among States, inter alia, by providing assurance that States are complying with their obligations under relevant safeguards agreements, contribute to strengthening their collective security and help to create an environment conducive to nuclear cooperation,
- (c) Considering the Agency's essential and independent role in applying safeguards in accordance with the relevant articles of its Statute, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), nuclear-weapon-free zone treaties and Agency bilateral and multilateral safeguards agreements,
- (d) Noting that nothing should be done to undermine the authority of the Agency in accordance with its Statute,
- (e) Considering also nuclear-weapon-free zones and the positive role that the establishment of such zones, freely arrived at among States of the region concerned, and in accordance with the 1999 Guidelines of the United Nations Disarmament Commission, could play in furthering the application of Agency safeguards in those regions,
- (f) Noting that the 2010 Review Conference of the States party to the Treaty on the Non-Proliferation of Nuclear Weapons achieved a substantive outcome in the form of a Final Document, including conclusions and recommendations for follow-on actions applicable to Agency safeguards,
- (g) Taking note of the Agency's Safeguards Statement for 2015,
- (h) Recognizing that the Agency, in a professional and impartial manner, makes every effort to ensure effectiveness, non-discrimination and efficiency in implementing safeguards, which must be in accordance with relevant safeguards agreements,
- (i) Noting that the implementation of comprehensive safeguards agreements should be designed to provide for verification by the Agency of the correctness and completeness of a State's declarations,

- (j) Stressing the importance of the Model Additional Protocol approved on 15 May 1997 by the Board of Governors aimed at strengthening the effectiveness and improving the efficiency of Agency safeguards,
- (k) Noting that safeguards agreements are necessary for the Agency to provide assurances about a State's nuclear activities, and that additional protocols are very important instruments for enhancing the Agency's ability to derive safeguards conclusions regarding the absence of undeclared nuclear materials and activities,
- (l) Stressing the importance of the Agency exercising fully its mandate and its authority in accordance with its Statute to provide assurances about the non-diversion of declared nuclear material and the absence of undeclared nuclear material and activities in accordance with respective safeguards agreements and, where relevant, with additional protocols,
- (m) Welcoming the Board's decision, in September 2005, that the Small Quantities Protocol (SQP) should remain part of Agency safeguards, subject to the modifications in the standardized text and the change in the criteria for an SQP referred to in paragraph 2 of document GC(50)/2,
- (n) Noting that decisions adopted by the Board of Governors aimed at further strengthening the effectiveness and improving the efficiency of Agency safeguards should be supported and implemented and that the Agency's capability to detect undeclared nuclear material and activities should be increased within the context of its statutory responsibilities and safeguards agreements,
- (o) Noting that when approving safeguards agreements and additional protocols, the Board of Governors authorizes the Director General to implement safeguards in accordance with the terms of the safeguards agreement or additional protocol concerned,
- (p) Welcoming the work the Agency has undertaken in verifying nuclear material from dismantled nuclear weapons,
- (q) Recalling the IAEA Statute and in particular Article III.B.1, which states that, in carrying out its functions, the Agency shall conduct its activities in accordance with the purposes and principles of the United Nations to promote peace and international cooperation, and in conformity with policies of the United Nations furthering the establishment of safeguarded worldwide disarmament and in conformity with any international agreements entered into pursuant to such policies,
- (r) Recalling that the 2010 NPT Review Conference in Action 30 of the Final Document called for the wider application of safeguards to peaceful nuclear facilities in the nuclear weapon States, under the relevant voluntary offer safeguards agreements, in the most economic and practical way possible, taking into account the availability of IAEA resources, and stressed that comprehensive safeguards and additional protocols should be universally applied once the complete elimination of nuclear weapons has been achieved,
- (s) Recognizing that the Agency's safeguards implementation is continually reviewed and evaluated by the Agency,
- (t) Recognizing that effective and efficient safeguards implementation requires a cooperative effort between the Agency and States, and that the Secretariat will continue

to engage in open dialogue on safeguards matters with States to maintain and foster transparency and confidence in the implementation of safeguards,

(u) Noting that the Supplementary Document to The Report on the Conceptualization and Development of Safeguards Implementation at the State Level (GOV/2014/41), together with its Corrigenda, is the reference point and is part of the continuing process of consultations,

(v) Stressing that safeguards should remain non-discriminatory and only objective factors should be used to determine safeguards implementation, while political or other extraneous considerations are not included,

(w) Emphasizing that there is a distinction between the legal obligations of States and voluntary measures aimed at facilitating and strengthening the implementation of safeguards and aimed at confidence building, bearing in mind the obligation of States to cooperate with the Agency to facilitate the implementation of safeguards agreements,

(x) Noting that bilateral and regional safeguards agreements involving the Agency play an important role in the further promotion of transparency and mutual confidence between States and also provide assurances concerning nuclear non-proliferation,

(y) Stressing that the strengthening of Agency safeguards should not entail any decrease in the resources available for technical assistance and cooperation and that it should be compatible with the Agency's function of encouraging and assisting the development and practical application of atomic energy for peaceful uses and with adequate technology transfer, and

(z) Stressing the importance of maintaining and observing fully the principle of confidentiality regarding all information related to the implementation of safeguards in accordance with the Agency's Statute and safeguards agreements,

Consistent with the respective safeguards undertakings of Member States and in order to pursue further efforts to both strengthen the effectiveness and improve the efficiency of Agency safeguards:

1. Calls on all Member States to give their full and continuing support to the Agency in order to ensure that the Agency is able to meet its safeguards responsibilities;
2. Stresses the need for effective safeguards in order to prevent the use of nuclear material for prohibited purposes in contravention of safeguards agreements, and underlines the vital importance of effective and efficient safeguards for facilitating cooperation in the field of peaceful uses of nuclear energy;
3. Emphasizes the obligation of States to cooperate with the Agency in order to facilitate the implementation of safeguards agreements;
4. Stresses the importance of States complying fully with their safeguards obligations;
5. Recognizes the importance of the Agency continuing to implement safeguards in accordance with the rights and obligations under the respective safeguards agreements between States and the Agency;
6. Regrets that not all State parties to the NPT obligated to do so have concluded comprehensive safeguards agreements with the Agency;

7. Bearing in mind the importance of achieving the universal application of Agency safeguards, urges all States which have yet to bring into force comprehensive safeguards agreements to do so as soon as possible;
8. Calls on the Agency to continue to exercise fully its authority in accordance with the Statute in the implementation of safeguards agreements, drawing independent objective conclusions using only impartial and technically based evaluation methods and rigorously reviewed and validated information, including other information to be assessed for accuracy, credibility and safeguards relevance, as described in GOV/2014/41;
9. Underscores the importance of resolving all cases of non-compliance with safeguards obligations in full conformity with the Statute and States' legal obligations, and calls on all States to extend their cooperation in this regard;
10. Calls on all States with unmodified SQPs to either rescind or amend their respective SQPs as soon as their legal and constitutional requirements allow, and requests the Secretariat to continue to assist States with SQPs, through available resources, in the establishment and maintenance of their State Systems of Accounting for and Control of Nuclear Material (SSACs);
11. Welcomes the fact that, as of 30 September 2016, 64 States have accepted SQPs in accordance with the modified text endorsed by the Board of Governors;
12. Welcomes the fact that, as of 30 September 2016, 147 States and other parties to safeguards agreements have signed additional protocols, and that additional protocols are in force for 129 of those States and other parties;
13. Bearing in mind that it is the sovereign decision of any State to conclude an additional protocol, but once in force, the additional protocol is a legal obligation, encourages all States which have not yet done so to conclude and to bring into force additional protocols as soon as possible and to implement them provisionally pending their entry into force in conformity with their national legislation;
14. Notes that, for States with both a comprehensive safeguards agreement, and an additional protocol in force or being otherwise applied, Agency safeguards can provide increased assurances regarding both the non-diversion of nuclear material placed under safeguards and the absence of undeclared nuclear material and activities for a State as a whole;
15. Notes that, in the case of a State with a comprehensive safeguards agreement supplemented by an additional protocol in force, these measures represent the enhanced verification standard for that State;
16. Recommends that the Agency further facilitate and assist concerned Member States, at their request, in the conclusion and entry into force of comprehensive safeguards agreements, additional protocols and modified SQPs;
17. Notes the commendable efforts of some Member States and the Agency Secretariat in implementing elements of the plan of action outlined in resolution GC(44)/RES/19 and the Agency's updated plan of action (September 2016), and encourages them to continue these efforts, as appropriate and subject to the availability of resources, and review the progress in this regard, and recommends that the other Member States consider implementing elements of that plan of action, as appropriate, with the aim of facilitating the entry into force of

comprehensive safeguards agreements and additional protocols, and the amendment of operative SQPs;

18. Reaffirms that the Director General use the Model Additional Protocol as the standard for additional protocols which are to be concluded by States and other parties to comprehensive safeguards agreements with the Agency and which should contain all of the measures in the Model Additional Protocol;

19. Invites the nuclear-weapon States to keep the scope of their additional protocols under review;

20. Notes that the Agency must remain ready to assist, in accordance with its Statute, with verification tasks under nuclear disarmament or arms control agreements that it may be requested to carry out by the States parties to such agreements;

21. Notes that for 2015 the Secretariat has been able to draw the broader safeguards conclusion that all nuclear material remains in peaceful activities and there is no diversion of declared nuclear material from peaceful nuclear activities and no indication of undeclared nuclear material and activities for 67 States that have both a comprehensive safeguards agreement and additional protocol in force;

22. Encourages the Agency to continue the implementation of integrated safeguards for those States where both a comprehensive safeguards agreement and additional protocol are in force and the Secretariat has drawn the broader conclusion that all nuclear material remains in peaceful activities;

23. Welcomes the clarifications and additional information provided by the Director General in the Supplementary Document to the Report on The Conceptualization and Development of Safeguards Implementation at the State Level (GOV/2014/41, and its Corrigenda), taken note of by the Board of Governors in September 2014, following the intensive consultation process undertaken over the preceding year;

24. Welcomes the important assurances contained in GOV/2014/41 and its Corrigenda, and in the statements by the Director General and the Secretariat as noted by the Board of Governors in its September 2014 session, including inter alia:

- The State-level concept (SLC) does not, and will not, entail the introduction of any additional rights or obligations on the part of either States or the Agency, nor does it involve any modification in the interpretation of existing rights and obligations;
- The SLC is applicable to all States, but strictly within the scope of each individual State's safeguards agreement(s);
- The SLC is not a substitute for the Additional Protocol and is not designed as a means for the Agency to obtain from a State without an Additional Protocol the information and access provided for in the Additional Protocol;
- The development and implementation of State-level approaches requires close consultation with the State and/or regional authority, particularly in the implementation of in-field safeguards measures;
- Safeguards-relevant information is only used for the purpose of safeguards implementation pursuant to the safeguards agreement in force with a particular State – and not beyond it;

25. Notes the Secretariat's intention to continue to concentrate its verification effort on the sensitive stages of the nuclear fuel cycle;
26. Notes that the development and implementation of State-level approaches requires close consultation and coordination with the State and/or regional authority, and agreement by the State concerned on practical arrangements for effective implementation of all safeguards measures identified for use in the field if not already in place;
27. Notes that, on the basis of GOV/2014/41 and its Corrigenda, the Secretariat will continue to keep the Board of Governors informed of progress made in the development and implementation of safeguards in the context of the SLC and requests the Director General to report to the Board on progress made in the development and implementation of safeguards in the context of the SLC, including in the annual Safeguards Implementation Report;
28. Welcomes the Secretariat's ongoing open dialogue with States on safeguards matters and its intention to maintain the enhanced dialogue and to issue periodic update reports, as further experience is gained;
29. Notes the statement of the Director General that the focus of the Agency for the immediate future is on updating existing State-level approaches for States under integrated safeguards and that State-level approaches will be progressively developed and implemented for other States;
30. Requests the Director General to report to the Board of Governors about lessons learned and experience gained in State-level approaches for States under integrated safeguards after State-level approaches have been updated and are being implemented for all such States, including a cost-benefit analysis;
31. Encourages the Secretariat to continue to implement State-level approaches, making every effort to ensure optimal efficiency in the economical use of its resources without compromising effectiveness and with a view to optimizing safeguards implementation for States concerned;
32. Encourages the Agency to enhance its technical capabilities and keep abreast of scientific and technological innovations that hold promising potential for safeguards purposes, and to continue building effective partnerships with Member States in this regard;
33. Welcomes efforts to strengthen safeguards, and in this context takes note of the Secretariat's activities in verifying and analyzing information provided by Member States on nuclear supply and procurement in accordance with the Statute and relevant State safeguards agreements, taking into account the need for efficiency, and invites all States to cooperate with the Agency in this regard;
34. Welcomes continued cooperation between the Secretariat and State and Regional Systems of Accounting for and Control of Nuclear Material (SSAC and RSAC), and encourages them to increase their cooperation, taking into account their respective responsibilities and competencies;
35. Encourages States to maintain and, as appropriate, to continue to strengthen their SSAC or RSAC, recognizing the important role SSACs and RSACs play in safeguards implementation;

36. Encourages States concerned to promote early consultations with the Agency at the appropriate stage on safeguards-relevant aspects for new nuclear facilities in order to facilitate future safeguards implementation;
37. Encourages States to support the Agency's efforts to strengthen the Safeguards Analytical Laboratories and the Network of Analytical Laboratories, especially in developing countries;
38. Welcomes the steps taken by the Director General to protect classified safeguards information as described in document GC(60)/13, and urges the Director General to exercise the highest vigilance in ensuring the proper protection of classified safeguards information, and requests the Director General to continue to review and update the established procedure for the protection of classified safeguards information within the Secretariat and report periodically to the Board about the implementation of the regime for the protection of classified safeguards information;
39. Requests the Director General and the Secretariat to continue to provide objective, technically and factually based reports to the Board of Governors and the General Conference on the implementation of safeguards, with appropriate reference to relevant provisions of safeguards agreements;
40. Requests that any new or expanded actions in this resolution be subject to the availability of resources, without detriment to the Agency's other statutory activities; and
41. Requests the Director General to report on the implementation of this resolution to the General Conference at its sixty-first (2017) regular session.

*30 September 2016  
Agenda item 17  
GC(60)/OR.10, para. 28*

**GC(60)/RES/14                      **Implementation of the NPT safeguards agreement  
between the Agency and the Democratic People's  
Republic of Korea****

The General Conference,

- (a) Recalling previous reports by the Agency's Director General regarding nuclear activities in the Democratic People's Republic of Korea (DPRK), as well as relevant resolutions of the Agency's Board of Governors and General Conference,
- (b) Recalling with deep concern the steps taken by the DPRK which led the Board of Governors to find that the DPRK was in non-compliance with its safeguards agreement and to report the DPRK's non-compliance to the United Nations Security Council,
- (c) Further recalling with grave concern the nuclear tests by the DPRK on 9 October 2006, on 25 May 2009, on 12 February 2013, on 6 January 2016, and most recently, on 9 September 2016, in violation of United Nations Security Council resolutions 1718 (2006), 1874 (2009), 2087 (2013), 2094 (2013), and 2270 (2016),
- (d) Conscious that a Korean Peninsula free of nuclear weapons would contribute positively to regional and global peace and security,

- (e) Recognizing the importance of the Six-Party Talks, in particular all the commitments made by the Six Parties in the 19 September 2005 Joint Statement, and on 13 February and 3 October 2007, including the commitment to denuclearization,
- (f) Recalling the important role that the Agency has played in monitoring and verification activities at the Yongbyon nuclear facilities, including as agreed in the Six-Party Talks,
- (g) Noting with deep concern the DPRK's decision to cease all cooperation with the Agency, its demand on 14 April 2009 that Agency inspectors leave the DPRK and remove all Agency containment and surveillance equipment from its facilities, and the subsequent actions announced by the DPRK, including the reactivation of all facilities at Yongbyon, reprocessing of spent fuel and weaponization of the extracted plutonium, the development of uranium enrichment technology, and the construction of a light water reactor,
- (h) Noting that the Agency unfortunately was not able to conduct monitoring and verification activities in the DPRK following the discontinuation of the DPRK's invitation to the Agency in 2012, and noting that the Agency's knowledge of developments in the DPRK's nuclear programme is limited,
- (i) Stressing the importance of a complete understanding of the DPRK's entire nuclear programme, and welcoming that the Agency has continued to collect and evaluate safeguards-relevant information regarding the DPRK's nuclear programme, as noted in the Director General's report (GC(60)/16)),
- (j) Noting the Director General's report that the continuation and further development of the DPRK's nuclear programme remain a major cause for concern, including indications consistent with the operation of the Yongbyon Experimental Nuclear Power Plant (5 MW(e)) reactor, except for a period sufficient for the reactor to have been de-fuelled and subsequently re-fuelled, the operation of the Radiochemical Laboratory, which, in previous reprocessing campaigns, involved the use of the spent fuel discharged from the 5 MW(e) reactor, the use of the reported centrifuge enrichment facility and associated construction work, construction activities at the light water reactor site and other locations within the Yongbyon site, and ongoing uranium mining, milling and concentration activities at Pyongsan, and noting that such actions are clear violations of relevant United Nations Security Council resolutions,
- (k) Recalling with grave concern the DPRK's announcements that it readjusted and started normal operation of all nuclear facilities at Yongbyon including the uranium enrichment facility and the 5 MW(e) reactor, that it reprocessed spent nuclear fuel rods removed from the Yongbyon nuclear reactor and is producing highly enriched uranium for nuclear weapons, its 6 January 2016 claim that it had conducted an "H-bomb" test, and its 9 September 2016 claim that it had tested a "nuclear warhead that has been standardized," and that the DPRK's policy of building its nuclear forces and its statements asserting the need to bolster and diversify its nuclear deterrent capability, including claiming advances in the areas of nuclear warhead miniaturization, are contrary to its denuclearization commitments,
- (l) Noting the Director General's report that contrary to the requirements of relevant United Nations Security Council resolutions, the DPRK has not abandoned its existing

nuclear programme in a complete, verifiable and irreversible manner or ceased all related activities,

(m) Reiterating the international community's firm opposition to the DPRK's possession of nuclear weapons,

(n) Reiterating support for the IAEA's efforts to maintain preparedness to conduct monitoring and verification in the DPRK, and

(o) Having considered the Director General's report contained in document GC(60)/16,

1. Condemns in the strongest terms the five nuclear tests conducted by the DPRK, including on 6 January 2016 and 9 September 2016, in violation and flagrant disregard of the relevant United Nations Security Council resolutions;
2. Calls upon the DPRK to refrain from conducting any further nuclear test, pursuant to the relevant United Nations Security Council resolutions;
3. Strongly deplores all the DPRK's ongoing nuclear activities, as outlined in the Director General's report, including the restart and operation of the 5 MW(e) reactor and the Radiochemical Laboratory (Reprocessing Facility), the extension and operation of the uranium enrichment facility, and ongoing construction activities at the light water reactor site and other locations at Yongbyon; and urges the DPRK to halt all such activities, and any efforts to readjust or expand its nuclear facilities, aimed at the production of fissile material;
4. Stresses its desire for a diplomatic resolution of the DPRK nuclear issue so as to achieve the complete, verifiable and irreversible denuclearization of the Korean Peninsula;
5. Supports the Six-Party Talks as an effective mechanism for dealing with the DPRK nuclear issue, stresses the importance of the full implementation of the 19 September 2005 Joint Statement, and underscores the need for continued efforts by all the parties concerned in this regard, with a view to creating the favourable conditions for the resumption of the Six-Party Talks aimed at achieving substantive progress towards the complete, verifiable, and irreversible denuclearization of the Korean Peninsula, and maintaining peace and security in the Korean Peninsula and North East Asia;
6. Strongly urges the DPRK to renounce its policy of building its nuclear forces, and to honour its commitment to denuclearization and the 19 September 2005 Joint Statement of the Six-Party Talks;
7. Strongly urges the DPRK to fully comply with all its obligations under United Nations Security Council resolutions 1718 (2006), 1874 (2009), 2087 (2013), 2094 (2013), 2270 (2016) and other relevant resolutions, and to take concrete steps to fulfill its commitments under the 19 September 2005 Joint Statement of the Six-Party Talks, including abandoning all its nuclear weapons and existing nuclear programmes, and immediately ceasing all related activities;
8. Stresses the importance of all Member States fully implementing their obligations pursuant to United Nations Security Council resolutions 1718 (2006), 1874 (2009), 2087 (2013), 2094 (2013), and 2270 (2016), including the DPRK's non-proliferation obligations;
9. Reaffirms that the DPRK cannot have the status of a nuclear-weapon State in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), as stated in

United Nations Security Council resolutions 1718 (2006) and 1874 (2009), and in the Final Document of the 2010 Review Conference of the Parties to the NPT;

10. Calls upon the DPRK to come into full compliance with the NPT and to cooperate promptly with the Agency in the full and effective implementation of Agency comprehensive safeguards, including all necessary safeguards activities provided for in the safeguards agreement, which the Agency has not been able to conduct since 1994, and to resolve any outstanding issues that may have arisen due to the long absence of Agency safeguards and the lack of Agency access since April 2009;

11. Deplores the DPRK's actions to cease all cooperation with the Agency, strongly endorses actions taken by the Board of Governors, commends the impartial efforts of the Director General and the Secretariat to apply comprehensive safeguards in the DPRK, and encourages the Secretariat to maintain its readiness to play an essential role in verifying the DPRK's nuclear programme, including the capability to re-establish implementation of safeguards-related activities in the DPRK;

12. Supports and encourages the international community's peaceful efforts in all available and appropriate forums to address the challenge posed by the DPRK; and

13. Decides to remain seized of the matter and to include the item "Implementation of the NPT safeguards agreement between the Agency and the Democratic People's Republic of Korea" in the agenda for its sixty-first (2017) regular session.

*30 September 2016  
Agenda item 18  
GC(60)/OR.9, paras 59–60*

## **GC(60)/RES/15**

## **Application of IAEA safeguards in the Middle East**

The General Conference,<sup>1</sup>

- (a) Recognizing the importance of the non-proliferation of nuclear weapons — both globally and regionally — in enhancing international peace and security,
- (b) Mindful of the usefulness of the Agency's safeguards system as a reliable means of verification of the peaceful uses of nuclear energy,
- (c) Concerned by the grave consequences, endangering peace and security, of the presence in the Middle East region of nuclear activities not wholly devoted to peaceful purposes,
- (d) Welcoming the initiatives regarding the establishment of a zone free of all weapons of mass destruction, including nuclear weapons, in the Middle East and earlier initiatives regarding arms control in the region,
- (e) Recognizing that full realization of these objectives would be promoted by the participation of all States of the region,

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<sup>1</sup> The resolution was adopted with 122 in favour, 0 against and 6 abstentions (roll-call vote).

- (g) Commending the efforts of the Agency concerning the application of safeguards in the Middle East and the positive response of most States in concluding a full-scope safeguards agreement, and
- (h) Recalling its resolution GC(59)/RES/15,
1. Takes note of the Director General's report in document GC(60)/14;
  2. Calls upon all States in the region to accede to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT);<sup>2</sup>
  3. Calls upon all States in the region, to accede to and implement, all relevant nuclear disarmament and non-proliferation conventions, to fulfil in good faith international obligations and commitments relating to safeguards, and to cooperate fully with the IAEA within the framework of their respective obligations;
  4. Affirms the urgent need for all States in the Middle East to forthwith accept the application of full-scope Agency safeguards to all their nuclear activities as an important confidence-building measure among all States in the region and as a step in enhancing peace and security in the context of the establishment of a NWFZ;
  5. Calls upon all parties directly concerned to consider seriously taking the practical and appropriate steps required for the implementation of the proposal to establish a mutually and effectively verifiable NWFZ in the region, and invites the countries concerned which have not yet done so to adhere to international non-proliferation regimes, including the Treaty on the Non-Proliferation of Nuclear Weapons, as a means of complementing participation in a zone free of all weapons of mass destruction in the Middle East and of strengthening peace and security in the region;
  6. Further calls upon all States of the region, pending the establishment of the zone, not to pursue actions that would undermine the goal of establishing the zone, including developing, producing, testing or otherwise acquiring nuclear weapons;
  7. Further calls upon all States in the region to take measures, including confidence-building and verification measures, aimed at establishing a NWFZ in the Middle East;
  8. Urges all States to render assistance in the establishment of the zone and at the same time to refrain from any action that would hinder efforts aiming at its establishment;
  9. Mindful of the importance of establishing the Middle East as a nuclear weapons free zone, and in this context, emphasizing the importance of establishing peace therein;
  10. Requests the Director General to pursue further consultations with the States of the Middle East to facilitate the early application of full-scope Agency safeguards to all nuclear activities in the region as relevant to the preparation of model agreements, as a necessary step towards the establishment of a NWFZ in the region, referred to in resolution GC(XXXVII)/RES/627;
  11. Calls upon all States in the region to extend their fullest cooperation to the Director General in the fulfilment of the tasks entrusted to him in the preceding paragraph;

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<sup>2</sup> Operative paragraph 2 was voted on separately and was approved with 119 in favour, 1 against and 5 abstentions (roll-call vote).

12. Calls upon all other States, especially those with a special responsibility for the maintenance of international peace and security, to render all assistance to the Director General by facilitating the implementation of this resolution; and

13. Requests the Director General to submit to the Board of Governors and the General Conference at its sixty-first (2017) regular session a report on the implementation of this resolution and to include in the provisional agenda for that session an item entitled “Application of IAEA safeguards in the Middle East”.

*29 September 2016  
Agenda item 19  
GC(60)/OR.8, para. 47*

**GC(60)/RES/16**

**Examination of delegates’ credentials**

The General Conference,

Accepts the report by the General Committee on its examination of the credentials of delegates to the Conference’s sixtieth regular session, which is set forth in document GC(60)/24.

*29 September 2016  
Agenda item 22  
GC(60)/OR.7, paras 60–61*



## **Other Decisions**

### **GC(60)/DEC/1                      Election of the President**

The General Conference elected HE Dato' Adnan Othman (Malaysia) as President of the General Conference, to hold office until the close of the sixtieth regular session.

*26 September 2016  
Agenda item 1  
GC(60)/OR.1, paras 11–13*

### **GC(60)/DEC/2                      Election of the Vice-Presidents**

The General Conference elected the delegates of Canada, Chile, Greece, Indonesia, the Islamic Republic of Iran, Latvia, Mongolia and Sudan as Vice-Presidents of the General Conference, to hold office until the close of the sixtieth regular session.

*26 September 2016  
Agenda item 1  
GC(60)/OR.1, paras 24–25*

### **GC(60)/DEC/3                      Election of the Chairman of the Committee of the Whole**

The General Conference elected Mr Vilmos Cserveny (Hungary) as Chairman of the Committee of the Whole, to hold office until the close of the sixtieth regular session.

*26 September 2016  
Agenda item 1  
GC(60)/OR.1, paras 24–25*

**GC(60)/DEC/4                      Election of additional members of the General Committee<sup>1</sup>**

The General Conference elected the delegates of Guatemala, Morocco, Norway, Portugal, the Russian Federation and Saudi Arabia as additional members of the General Committee, to hold office until the close of the sixtieth regular session.

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<sup>1</sup> As a result of the decisions taken under GC(60)/DEC/1, 2, 3 and 4, the General Committee appointed for the sixtieth (2016) regular session was composed as follows:  
HE Dato' Adnan Othman (Malaysia) as President;  
the delegates of Canada, Chile, Greece, Indonesia, the Islamic Republic of Iran, Latvia, Mongolia and Sudan as Vice-Presidents;  
Mr Vilmos Cserveny (Hungary) as Chairman of the Committee of the Whole;  
and the delegates of Guatemala, Morocco, Norway, Portugal, the Russian Federation and Saudi Arabia as additional members.

*26 September 2016  
Agenda item 1  
GC(60)/OR.1, paras 24–25*

**GC(60)/DEC/5                      Adoption of the agenda and allocation of items for initial discussion**

The General Conference adopted the agenda for its sixtieth regular session and allocated the items for initial discussion.

*26 September 2016  
Agenda item 5(a)  
GC(60)/OR.2, paras 1–2*

**GC(60)/DEC/6                      Closing date of the session**

The General Conference fixed Friday, 30 September 2016, as the closing date for the sixtieth regular session.

*26 September 2016  
Agenda item 5(b)  
GC(60)/OR.2, paras 3–4*

**GC(60)/DEC/7                      Opening date of the sixty-first regular session of the General Conference**

The General Conference fixed Monday, 18 September 2017, as the opening date for the sixty-first regular session of the General Conference.

*26 September 2016  
Agenda item 5(b)  
GC(60)/OR.2, paras 3–4*



2. The General Conference notes that, in accordance with Article XVIII.C (ii) of the Statute, two thirds of all the members of the Agency will have to accept the amendment in order for it to enter into force, but also notes from document GC(60)/10 that as of 5 July 2016 only 57 Member States had deposited instruments of acceptance with the depositary Government. For this reason, the General Conference encourages and urges Member States that have not yet deposited an instrument of acceptance of this amendment to do so as soon as feasible in order to allow the benefits of biennial budgeting to be attained. This would permit the Agency to come into line with the virtually universal practice among United Nations system organizations of biennial budgeting.

3. The General Conference requests the Director General to draw the attention of the governments of Member States to this issue, to submit to the Conference at its sixty-first (2017) regular session a report on the progress made towards the entry into force of this amendment and to include in the provisional agenda for that session an item entitled “Amendment to Article XIV.A of the Statute”.

*29 September 2016  
Agenda item 11  
GC(60)/OR.7, para. 91*

**GC(60)/DEC/11**

**Promotion of Efficiency and Effectiveness of the IAEA  
Decision Making Process**

The General Conference took note of the report of the Chairman of the Committee of the Whole.

*30 September 2016  
Agenda item 21  
GC(60)/OR.10, para. 34*