

NMUN•NY 2017



19 – 23 March

Documentation of the Work of the International Atomic Energy Agency (IAEA)



2017 NATIONAL MODEL UNITED NATIONS • NEW YORK

Conference A

International Atomic Energy Agency (IAEA)

Committee Staff

Director	Tobias Dietrich
Assistant Director	Daniel Berlinguette-Poulin
Chair	Ferry Santoso
Rapporteur	Alexander Thomas
Rapporteur	Crystal Burns

Agenda

- I. Improving Science and Technology Activities through Technical Cooperation
- II. Application of IAEA Safeguards in the Middle East
- III. Nuclear Waste Management

Resolutions adopted by the Committee

Code	Topic	Vote
IAEA/1/1	Improving Science and Technology Activities through Technical Cooperation	89 votes in favor, 3 votes against, 23 abstentions
IAEA/1/2	Improving Science and Technology Activities through Technical Cooperation	86 votes in favor, 13 votes against, 16 abstentions
IAEA/1/3	Improving Science and Technology Activities through Technical Cooperation	64 votes in favor, 30 votes against, 21 abstentions
IAEA/1/4	Improving Science and Technology Activities through Technical Cooperation	88 votes in favor, 8 votes against, 19 abstentions
IAEA/1/5	Improving Science and Technology Activities through Technical Cooperation	100 votes in favor, 6 votes against, 9 abstentions
IAEA/1/6	Improving Science and Technology Activities through Technical Cooperation	93 votes in favor, 4 votes against, 18 abstentions
IAEA/1/7	Improving Science and Technology Activities through Technical Cooperation	90 votes in favor, 7 votes against, 18 abstentions
IAEA/1/8	Improving Science and Technology Activities through Technical Cooperation	95 votes in favor, 7 votes against, 13 abstentions
IAEA/1/9	Improving Science and Technology Activities through Technical Cooperation	96 votes in favor, 8 votes against, 11 abstentions

IAEA/1/10	Improving Science and Technology Activities through Technical Cooperation	87 votes in favor, 7 votes against, 21 abstentions
IAEA/1/11	Improving Science and Technology Activities through Technical Cooperation	100 votes in favor, 5 votes against, 10 abstentions
IAEA/1/12	Improving Science and Technology Activities through Technical Cooperation	92 votes in favor, 14 votes against, 9 abstentions
IAEA/1/13	Improving Science and Technology Activities through Technical Cooperation	82 votes in favor, 9 votes against, 24 abstentions
IAEA/1/14	Improving Science and Technology Activities through Technical Cooperation	77 votes in favor, 11 votes against, 27 abstentions
IAEA/1/15	Improving Science and Technology Activities through Technical Cooperation	86 votes in favor, 6 votes against, 23 abstentions
IAEA/1/16	Improving Science and Technology Activities through Technical Cooperation	98 votes in favor, 8 votes against, 9 abstentions

Summary Report for the International Atomic Energy Agency

The International Atomic Energy Agency held its annual session to consider the following agenda items:

- I. Application of IAEA Safeguards in the Middle East
- II. Improving Science and Technology Activities through Technical Cooperation
- III. Nuclear Waste Management

The session was attended by representatives of 119 Member States and no Observers. On Sunday, the committee adopted the agenda of II, I, III, beginning discussion on the topic of “Improving Science and Technology Activities through Technical Cooperation.”

By Tuesday, the Dais received a total of 18 proposals covering a wide range of sub-topics, including medical research and health care, waste management, agricultural and water sustainability, nuclear development, and the self-reliance of least developed countries. Member States collaborated outside of regional blocks to facilitate the work of the body, highlighting their transnational desire to improve technical cooperation. Further discussion of the topic also led to debates about combatting the illegal trafficking of nuclear material. The committee efficiently and collaboratively produced all working papers by Tuesday morning. By the end of this day, delegates had started merging working papers that shared similar ideas on addressing the issue at hand.

On Wednesday, 16 draft resolutions had been approved by the Dais, four of which had amendments. The committee adopted 16 resolutions following voting procedure. The resolutions represented a wide range of issues, including the creation of alternative fuel sources, pest control treatments and plant mutations, safety frameworks regarding the use of nuclear energy, the creation of regional nuclear waste storage facilities, the increase of water production, and training seminars for scientists using nuclear materials.



Code: IAEA/1/1

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*

2
3 *Bearing in mind* Article II, paragraph I of the *Charter of the United Nations* (1945), that recognizes the sovereignty
4 of the different Member States in order to ensure a better implementation of technologies,

5
6 *Declaring* that nuclear energy can be used for peaceful purposes in line with the established Sustainable
7 Development Goals (SDG), with the Revised Supplementary Agreement Concerning the Provision of Technical
8 Assistance (RSA) by the International Atomic Energy Agency (IAEA), and in adherence to Article 2 of the Statute
9 of the International Atomic Energy Agency,

10
11 *Fully aware* that sharing information, knowledge and expertise between Member States is the best way to implement
12 cooperation between Member States for peaceful purposes, as stated by the *Medium Term Strategy 2006-2011*'s
13 objective D.1,

14
15 *Reaffirming* SDG 17, which is aiming to “Strengthen the means of implementation and revitalize the global
16 partnership for sustainable development,”

17
18 *Acknowledging* the increasing demand for nuclear energy and its derived technologies and SDG 7th that “Ensures
19 access to affordable, reliable, sustainable and modern energy for all,”

20
21 *Recalling* one of the objectives of the *Technical Cooperation Strategy: The 2002 Review* (GOV/INF/824) which is
22 aiming to increase the level of funding for technical co-operation activities, particularly from non-traditional sources
23 to help resolve development problems,

24
25 *Bearing in mind* the sovereignty of the different Member States in order to ensure a better implementation of
26 technologies,

27
28 *Alarmed and concerned* by the fact that IAEA’s current Technical Cooperation Programs are limited in nature and
29 ineffective in providing sufficient assistance to fulfill the needs of every Member State, especially least developed
30 countries (LDCs),

31
32 *Regretting* the lack of funding only allows for a part of the technically sound project proposals from Member States
33 and interferes with comprehensive evaluation of the programs,

34
35 1. *Urges* Member States and the IAEA to consider providing the developing and the least developed countries who
36 are compliant with IAEA safeguards with proper means to become permanently self-reliant in terms of energy
37 and other nuclear technologies, through revisions of the Model Project, which is an assistance project structure
38 proposition that ensures that the assistance provided truly responds to an essential need of the Member States,
39 which will endorse:

40
41 a. Independence as a fundamental criterion in the granting of assistance;

42
43 b. Installation of reliable post-implementation reviews;

44
45 2. *Encourages* Member States applying for IAEA’s technical assistance to benefit from Member States’
46 knowledge and expertise by participating in a “peer review mechanism” overseeing the implementation of
47 concerned nuclear technologies and techniques that could draw from the International Physical Protection
48 Advisory Service (IPPAS), and would therefore allow other experts from Member States and Non-
49 Governmental Organizations (NGO) to:

- 50
- 51 a. Provide feedback on shared technologies and their effects, and look for possible improvements on the
- 52 concerned nuclear technology;
- 53
- 54 b. Identify the potentials for nuclear energy development that each LDCs possess or might possess;
- 55
- 56 c. Visit Member States that have expressed their need for IAEA's expertise and determine what
- 57 technological innovations are necessary;
- 58
- 59 d. Observe the assisted Member States' compliance to the 1968 *Treaty on the Non-Proliferation of*
- 60 *Nuclear Weapons* (NPT) and Comprehensive Safeguards Agreements (CSA);
- 61
- 62 3. *Affirms* the necessity for Member States to enhance technology sharing platforms, such as the African Regional
- 63 Cooperative Agreement for Research Development and Training Related to Nuclear Science and Technology
- 64 (AFRA), to ensure to all Member States access to specific nuclear technology knowledge;
- 65
- 66 4. *Asks* for the continuation of the Technical Cooperation Fund (TCF) and the Peaceful Uses Initiatives (PUI)
- 67 since they ensure that Member States in need of technical assistance from the Agency will be effectively aided;
- 68
- 69 5. *Recommends* organizations under and outside the United Nations like the World Bank, the International
- 70 Monetary Fund (IMF) and the United Nations Capital Development Fund (UNCDF) to participate in ways such
- 71 as but not limited to providing loans, increasing access to nations in need of technological assistance, and
- 72 providing consultation to:
- 73
- 74 a. Equip emerging nations with the resources to pursue nuclear technologies that, without this funding,
- 75 would be impossible to achieve;
- 76
- 77 b. Decrease sociopolitical tensions, to expand the global economy and increase the overall value of
- 78 living;
- 79
- 80 6. *Expresses its serious concern* regarding the fact that fiscal constraints limit governments' capacity to finance
- 81 nuclear technology development projects;
- 82
- 83 7. *Calls* for the inclusion of private sectors in ways such as:
- 84
- 85 a. Taking part in the technological cooperation process and assisting nations in developing technologies
- 86 to become more significant stakeholders in the process of improving science and technology;
- 87
- 88 b. Investing in developing and establishing new programs to raise revenues in new and potential markets
- 89 for the newly developed technologies;
- 90
- 91 8. *Further requests* that the IAEA elaborates a non-state funding strategy that would foster partnerships between
- 92 the private and public sectors by:
- 93
- 94 a. Developing a brand image that could draw from corporations from the private sectors' marketing
- 95 strategies, in order to reinforce the private actors' awareness of IAEA's work in the field of technical
- 96 cooperation, making it more attractive to potential donors;
- 97
- 98 b. Identifying the best-poised actors of the civil society, and developing cooperation in various sectors of
- 99 applications, notably medical, engineering and environmental issues;
- 100
- 101 c. Arranging meetings between representatives from NGOs, companies and the private sector responsible
- 102 for a scheduled plan.



Code: IAEA/1/2

Committee: The International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*
2

3 *Recalling* the preamble of the *Charter of the United Nations* (1945) as an example of Member States' universal
4 stance on the progression of society and the promotion of better living standards for all,
5

6 *Keeping in mind* Article III of the 1956 *Statute of the International Atomic Energy Agency* (IAEA) to encourage and
7 assist research on and development of atomic energy for peaceful uses, while encouraging the training and exchange
8 of information among scientists and nuclear experts,
9

10 *Emphasizing* the importance of the compliance to IAEA Safeguard Agreements and the insurance of the use of
11 nuclear technology for peaceful purposes only,
12

13 *Recognizing* the importance of non-governmental cooperation with the IAEA through biennial forums, which aim to
14 improve all countries' self-sufficiency, as is outlined in Sustainable Development Goal (SDG) 7,
15

16 *Commending* the IAEA Peaceful Uses Initiative (PUI) and the Member States which have provided extra-budgetary
17 contributions toward the peaceful uses of nuclear technology,
18

19 *Recognizing* the advantages of using thorium in nuclear power plants, especially in regards to reduced nuclear waste,
20 as well as a lower risk of enrichment for weaponization and its higher fuel efficiency,
21

22 *Taking note* of the conclusions from Expert Group Report on Multilateral Approaches to the Nuclear Fuel Cycle,
23 MNA/2005, to the Director General of the IAEA that the civilian nuclear industry is forecasted for worldwide
24 expansion, and thus, states are actively searching for cleaner nuclear fuel cycles to address this trend,
25

26 *Concerned with* the lack of rural affordability and accessibility to modern energy services as stated at the 2001 Ninth
27 Session of the Commission on Sustainable Development,
28

29 *Noting also* that Small Modular Reactors (SMR) have enhanced security as they are assembled at the production site
30 and then sent to location of final deployment,
31

32 *Emphasizing* recent studies on thorium as an alternate fuel, as per the Technical Working Group on Fuel
33 Performance and Technology (TWGFPT),
34

35 *Calling attention* to the need for an organized gathering of research bodies and willing Member States in the form of
36 a summit to commit to the further researching, testing, and possible implementation of less-harmful alternative fuels
37 to uranium such as thorium,
38

39 *Affirming* IAEA support for bilateral Memorandums of Understanding, which not only facilitate the exchange of
40 international nuclear safety regulations, but also advances the transparency required for constructive diplomacy,
41

42 *Recalling* IAEA-TECDOC-1450 on the potential benefits and challenges of thorium,
43

44 *Applauding* the success of technical cooperation in such practices as the TWGFPT,
45

46 *Recognizing* the opportunity to integrate SDG 5 into the research on thorium through encouraged involvement of
47 women in the research and development towards alternative nuclear fuels,
48

49 1. *Requests* further research into alternative fuel sources to be used for the process of generating nuclear energy
50 by:

- 51
- 52 a. Actively advocating for both government and private institution research in the field of alternative
- 53 nuclear fuels, for example by increasing voluntary financial contributions, as was seen in the Peaceful
- 54 Uses Initiative (PUI);
- 55
- 56 b. Expanding the purview of the IAEA to include thorium as a source of energy;
- 57
- 58 c. Utilizing the IAEA laboratories in Seibersdorf, Austria, for further research of Thorium as an
- 59 alternative energy source to uranium;
- 60
- 61 2. *Invites* regional subgroups under the IAEA to organize a biennial forum to be held in Geneva with the goal of
- 62 sharing nuclear technological innovations to encourage self-sustainability for Least Developed Countries
- 63 (LDCs) through:
- 64
- 65 a. Collaborating with the established regional cooperative groups of the IAEA such as the African
- 66 Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science
- 67 and Technology (AFRA), the Regional Cooperative Agreement for the Promotion of Nuclear Science
- 68 and Technology in Latin America and the Caribbean (ARCAL), the Regional Cooperative Agreement
- 69 for Research, Development and Training Related to Nuclear Science and Technology for Asia and the
- 70 Pacific (RCA) and the Cooperative Agreement for Arab States in Asia for Research, Development and
- 71 Training related to Nuclear Science and Technology (ARASIA);
- 72
- 73 b. Facilitating South-South collaboration and joint scientific development led by the aforementioned
- 74 regional Intergovernmental Organizations (IGOs), as well as willing and technically advanced Member
- 75 States;
- 76
- 77 c. Promoting common safety standards for nuclear and nuclear-related exports between regions;
- 78
- 79 3. *Calls upon* an international research and information-sharing summit to be hosted in New Delhi, India, in 2020
- 80 with the purpose of:
- 81
- 82 a. Exchanging ideas concerning safer and more stable fuels that may be used in nuclear power plants;
- 83
- 84 b. Encouraging research and experimentation into alternative fuel sources for current and newly constructed
- 85 power plants;
- 86
- 87 c. Highlighting the possibility of the use of thorium as an alternate fuel for nuclear reactors, as well as
- 88 researching and discussing similar alternative fuel sources;
- 89
- 90 d. Arranging a follow-up summit to be held in 2030, at a location to be determined at the first summit in
- 91 India;
- 92
- 93 4. *Emphasizes* the importance of including the findings of thorium-related research in the International Nuclear
- 94 Information System's (INIS) database, in order to improve and diversify the channels for disseminating
- 95 scientific and technical knowledge, increase the overall transparency of nuclear energy related initiatives, and
- 96 foster inter-state confidence building measures;
- 97
- 98 5. *Encourages* Member States to contribute extra financial support for thorium research in compliance with their
- 99 commitment and leadership role on this topic, following the example presented by China, India and Saudi
- 100 Arabia, which are willing contributors for this agenda;
- 101
- 102 6. *Encourages* research on Small Modular Reactors (SMR) to provide flexible power generation in remote regions
- 103 lacking fitting infrastructure with financial contribution by the New Development Bank (NDB);
- 104
- 105 7. *Declares* the compliance to comprehensive safeguard agreements and Memorandums of Understanding by state
- 106 recipients of technical assistance, inevitable to the trust necessary for continued and effective technical

107 assistance provision, through the proposal of additional protocols to Memorandums of Understanding as
108 conditions of security with nuclear energy practices;

109

110 8. *Further invites* Member States to expand their domestic research on thorium-based fuel for reactors by
111 developing higher education training programs for women, in hopes of using this research as an opportunity to
112 increase gender equality in the scientific community, as per SDG 5.



Code: IAEA/1/3

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*

2
3 *Deeply conscious* of an international inclination towards increased border security, which impedes technical
4 cooperation and information sharing,

5
6 *Convinced* that nuclear technical cooperation can be used as a way to develop friendly relations between nations,
7 which is a purpose of the United Nations (UN), as stated in Article 2 of the *Charter of the United Nations* (1945),

8
9 *Underlining* Article 3 of the 1956 *Statute of the International Atomic Energy Agency* (the Statute), which states one
10 of the purposes of the IAEA is “to foster the exchange of scientific and technical information on peaceful uses of
11 atomic energy,”

12
13 1. *Urges* Member States to create a Nuclear Science Diplomacy Card (NSDC), which would:

14
15 a. Give nuclear scientists and experts an international, non-legally binding document to:

- 16
17 i. make international travel for research and observation easier for nuclear scientists and experts
18 in possession of the NSDC;
19 ii. foster international trust and communication between nuclear scientists, governments and
20 academic institutions;
21 iii. identify scientists and experts with relevant nuclear knowledge;
22 iv. encourage the sharing of information between scientists of developed countries and less
23 developed countries;

24
25 b. Give nuclear scientists and experts an international accreditation, enabling them to have access to:

- 26
27 i. nuclear research centers;
28 ii. nuclear infrastructures;
29 iii. national databases concerning nuclear technology;

30
31 2. *Suggests* that the Department of Management of the IAEA, Division of Conference and Document Services, be
32 tasked with:

33
34 a. The creation of a panel to review NSDC applicants, which will be composed of:

- 35
36 i. nuclear scientists and experts;
37 ii. IAEA officials;

38
39 b. Establishing the criteria based on experience, which will be used by the panel to grant the NSDC, such
40 as:

- 41
42 i. specific nuclear areas of specialisation, like nuclear knowledge development and
43 management, food and agriculture, safety and security, industrial applications of radiation
44 technology, water and environment;
45 ii. past research;
46 iii. research goals;
47 iv. university degree;
48 v. applicants’ respective country’s need for further nuclear technology knowledge;

49
50 c. Conducting a background security check for prospective applicants;

51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69

3. *Encourages* Member States to participate in the creation of a NSDC Conference planned by the Department of Management of the IAEA, Division of Information Technology (MTIT), aiming to:
 - a. Invite a diversity of participants, such as:
 - i. nuclear scientists and experts;
 - ii. academic institutions;
 - iii. prospective NSDC applicants;
 - iv. NSDC holders;
 - v. national governments' officials;
 - b. Evaluate the progress of the NSDC;
 - c. Assess the long-term feasibility of the NSDC;
 - d. Share information found by NSDC researchers;
 - e. Promote the NSDC to prospective applicants, governments and academic institutions.



Code: IAEA/1/4

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*

2
3 *Cognizant* of the success of the International Nuclear Security Advisory Service (INSServ) in creating a regulatory
4 system to protect and improve the safety of global citizens,

5
6 *Deeply disturbed* by the increasing rate of illegal activity and transportation of hazardous nuclear materials, as well
7 as the importance of radioactive detectors on borders, potential threats from non-state actors during the transport,
8 and exchange of nuclear technology and material as stated by the Illicit Nuclear Trafficking Conference,

9
10 *Recalling* the objective of the International Network for Nuclear Security Training and Support Centers (NSSC
11 Network), which aims to achieve excellence in nuclear security worldwide,

- 12
- 13 1. *Encourages* the expansion of the INSServ Education and Training Programs to facilitate regional workshops to
14 include public and private schools;
 - 15
16 2. *Suggests* the expansion of the Systematic Assessment of Regulatory Competence Needs (SARCoN) “Train the
17 Trainers” program to include the United Nations Scientific Committee on the Effects of Atomic Radiation
18 (UNSCEAR), to allow trainers to:
 - 19 a. Educate their local agriculture industry on the impacts of nuclear materials, and the implications
20 associated with nuclear material trafficking;
 - 21
22 b. Bring awareness to civilian populations upon the impacts of nuclear materials to physical health;
 - 23
24 3. *Supports* the collaborative efforts between the IAEA, the World Customs Organization (WCO), European
25 Police Office (EUROPOL), and the International Police Office (INTERPOL), to further utilize the Agency's
26 Incident and Trafficking Database (ITDB) by:
 - 27 a. Assessing the threats of and decide upon the proper protocol to combat the trafficking of:
 - 28 i. radiological dispersal devices;
 - 29 ii. nuclear explosive devices and material for such devices;
 - 30
31 b. Modernizing search procedures of existing border security in their practices of:
 - 32 i. general search preparation;
 - 33 ii. pedestrian, vehicle, and cargo searches;
 - 34
35 c. Promoting the sharing of information and collaboration when transferring nuclear material and
36 technology across borders, as outlined in IAEA document *Detection of radioactive materials at*
37 *borders* (IAEA-TECDOC-1312);
 - 38
39 d. Suggesting that Member States use the existing peer review mechanism tools, such as the International
40 Physical Protection Advisory Service (IPPAS), by:
 - 41 i. incorporating peer review mechanism tools into a national framework based on the National
42 Systems for Effective Safeguards Implementation established by GC/59/18 as a platform for
43 incorporating technical cooperation when addressing nuclear safety;
 - 44 ii. applying IPPAS to an annual report monitoring Member States’ progress and cohesion to
45 IAEA’s safeguard systems;
- 46
47
48
49
50

51	iii.	collaborating with the Agency and the World Customs Organization (WCO) by hosting a joint
52		Technical Committee Meeting on Detecting and Responding to Illicit Cross-border
53		Movement of Radiation Material.



Code: IAEA/1/5

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*
2

3 *Recognizing* the positive impact of the joint Food and Agriculture Organization (FAO) - International Atomic
4 Energy Agency (IAEA) program for Nuclear Techniques in Food and Agriculture, notably its Insect Pest Control
5 project, which aims to help Member States develop and adopt nuclear-based technologies for maximizing
6 agricultural insect pest management and seed strengthening practices that support the improvement of crop
7 production,
8

9 *Considering* the profound impact of civil society, notably non-governmental organizations (NGOs), on technical
10 cooperation programs,
11

12 *Further recognizing* the successes of Sterile Insect Technique (SIT) Programs, such as the use of the technique in
13 eradicating the melon fly in tropical regions and fighting the tsetse fly in Western Africa,
14

15 *Deeply disturbed* by the devastating impact of vector-borne diseases, such as Zika, malaria and dengue fever, on
16 populations throughout the globe,
17

18 *Bearing in mind* that nuclear-related genetic modification methods offer a great opportunity to increase living
19 standards, health situations and food safety,
20

21 *Noting with satisfaction* the progress that has been achieved in nuclear-based cancer therapy and research,
22

23 *Supporting* the continuation of IAEA's involvement in order to achieve Sustainable Development Goal (SDG) 3,
24 which aims to ensure healthy lives and promote well-being for all, with nuclear-based techniques,
25

26 *Emphasizing* the need of Member States to sign the *Revised Supplementary Agreement* of 2002 with the IAEA, in
27 order to become entitled to receive technical assistance by the IAEA,
28

29 *Taking note* of the considerable success that the Peaceful Uses Initiative (PUI) has achieved since 2010 in raising
30 additional funds,
31

32 *Convinced* that the employment of nuclear technologies and cooperation programs, as emphasized by General
33 Conference resolution 60/12 of 2016, which reiterates the importance of strengthening the IAEA's activities related
34 to nuclear science, technology and applications should also be addressed by the General Assembly and the Security
35 Council,
36

37 *Believing* that only Member States that have shown and agreed to make responsible and peaceful use of the nuclear
38 technologies provided, such as respecting safeguard agreements, should have the privilege of receiving new nuclear
39 technologies that assist in medicine and agriculture,
40

41 1. *Calls upon* increased collaboration of sharing of peaceful nuclear technologies through bilateral and multilateral
42 state-state interactions, regional organizations, and through United Nations (UN) bodies such as the World
43 Health Organization (WHO), FAO, and IAEA, as it relates to agriculture and medicine in order to:

44
45 a. Improve diagnostics and treatments of cancerous and neurological diseases;

46
47 b. Further develop research in nuclear technologies in order to safely discover new ways to diagnose and
48 treat more viruses and bacterial infections;
49

- 50 2. *Encourages* IAEA Member States to coordinate and facilitate cooperation with NGOs to ensure direct
51 implementation and application of nuclear technology as exemplified by Peru's work with PATH, where since
52 2006 the partnership administered decentralized diagnoses and treatment and educated Member States on breast
53 and cervical cancers;
- 54
- 55 3. *Strongly advocates* expanding access of Member States to Technical Cooperation Programme-approved (TCP)
56 nuclear-driven techniques in agriculture such as:
- 57
- 58 a. The Sterile Insect Technique (SIT) for pest control in agriculture based on successes in the eradication
59 of the Mediterranean fly and other tephritid fruit flies located in America, South Africa, Europe and
60 Asia;
- 61
- 62 b. Plant mutation practices, such as food crop mutation breeding programs, for increasing food yields in
63 agriculture based on the success of technical cooperation efforts between the IAEA and FAO in South-
64 East Asia;
- 65
- 66 c. The expansion of the Southern Tsetse Eradication Project (STEP) in the Sub-Saharan African region
67 and the Melon Fly Eradication Project;
- 68
- 69 d. Stable isotope N15 labelled fertilizer and neutron probes, nitrogen movement in soil-plant systems, and
70 available soil moisture content;
- 71
- 72 e. Livestock productivity through strengthened trans-boundary animal disease control with nuclear
73 technology;
- 74
- 75 4. *Urges* all Member States to increase cooperation, through bilateral and multilateral negotiations in regional
76 organizations, with nuclear-driven techniques that affect public health including the use of:
- 77
- 78 a. The Sterile Insect technique (SIT) practices in the field of disease control of vector-borne illnesses,
79 such as Zika, Malaria, and Dengue Fever;
- 80
- 81 b. The enzyme-linked immunosorbent assay for the detection of viruses in animal carriers;
- 82
- 83 c. The Boron Neutron Capture Therapy (BNCT), which helps control tumor tissue while sparing normal
84 tissue within cancer patients;
- 85
- 86 d. Targeted Alpha Therapy as a main method in cancer-based TCPs, which has a high level of precision
87 in targeting tumors, and subsequently low levels of side effects;
- 88
- 89 5. *Encourages* Member States to voluntarily share Gamma Radiation Sterilization (GRS) techniques, equipment,
90 and safety training specifically designed to reduce food spoilage with Member States interested in developing
91 GRS, and requests that Gamma Radiation techniques are used in industrial crop seed preparation so that seeds
92 grow faster, stronger, and have increased resistance to salinity by:
- 93
- 94 a. Developing baseline data on GRS techniques;
- 95
- 96 b. Constructing a database to collect, verify and register activities undertaken by governmental and non-
97 governmental organizations world-wide researching and implementing GRS techniques;
- 98
- 99 c. Creating an open platform to which regional bodies and member states can access and contribute their
100 inputs to world-wide implementation of GRS techniques;
- 101
- 102 d. Reporting periodically on tendencies, progress and perceived obstacles to the attainment of world-wide
103 implementation of GRS techniques;
- 104

- 105 6. *Encourages* the IAEA to collaborate with governments of Member States to provide incentives, confidence
106 measures, and capacity building programs to ensure the successful transfer and implementation of the technical
107 cooperation programs;
108
- 109 7. *Encourages* the IAEA to continue working jointly with the EDD to produce conferences that focus on
110 presenting nuclear-based techniques to achieve sustainable development goals such as ending hunger (SDG 2),
111 eliminating poverty (SDG 1) and improving health and well-being (SDG 3);
112
- 113 8. *Recommends* that Member States publicly offer more information on the Peaceful Uses Initiative as a means to
114 ensure continuous funding for the additional investments that have to be undertaken;
115
- 116 9. *Calls upon* the IAEA and its inspectors to report to the General Conference of the IAEA regarding the
117 developments and implementation of research projects and TCP on agriculture and health issues;
118
- 119 10. *Emphasizes* that Member States who have been found by the IAEA to be noncompliant with their
120 Comprehensive Safeguard Agreements (CSA) will be denied access to TCPs related to the use of nuclear
121 technology in health and agriculture and will not be able to capitalize on their benefits.



Code: IAEA/1/6

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*

2
3 *Recalling* Article I, Paragraph 3, of the *Charter of the United Nations* (1945), which promotes the achievement of
4 international cooperation in solving international problems of an economic, social, cultural, or humanitarian
5 character,

6
7 *Recognizing* the importance of technical cooperation and its role as a collaborative measure in unifying the
8 international world of technology as stated by the International Atomic Energy Agency's (IAEA) Technical
9 Cooperation Programme (TCP),

10
11 *Mindful* of the shared responsibility of all Member States towards enhancing and supporting technical cooperation
12 activities of the IAEA,

13
14 *Noting* the previous successes of the Department of Technical Cooperation (DTC) in its efforts to improve
15 socioeconomic development across the globe as well as combating diseases, such as cancer, as stated by the
16 Programme for Action of Cancer Therapy (PACT),

17
18 *Fully aware* that one of the functions of the Agency is to “encourage and assist research on, and development and
19 practical application of, atomic energy for peaceful uses throughout the world” as stated by Article II of the 1956
20 *Statute of the IAEA,*

21
22 *Appreciating* the efforts of national and regional organizations and leaders such as the Regional Cooperative
23 Agreement for Research, Development and Training Related to Nuclear Science and Technology for Asia and the
24 Pacific (RCA) to facilitate the sharing of discoveries in nuclear technology,

25
26 *Fully believing* in the contribution of nuclear energy in the process of achieving the Sustainable Development Goals
27 (SDGs) such as SDG 17, which aims to “strengthen the means of implementation and revitalize the global
28 partnerships for sustainable development,”

- 29
30 1. *Proposes* the idea of a consolidation of existing databases, such as NUCLEUS, International Nuclear
31 Information System (INIS), Power Reactor Information System (PRIS), Advanced Reactors Information
32 System (ARIS), Incident and Trafficking Database (ITDB), Integrated Nuclear Fuel Cycle Information System
33 (INFCIS), Net Enabled Waste Management Database (NEWMDB), Nuclear Security Information Portal
34 (NUSEC), Nuclear Data Services, Nuclear Medicine Database (NUMDAB), Directory of Radiotherapy Centers
35 (DIRAC), World-Wide Directory of SIT Facilities, International Database on Insect Disinfestation and
36 Sterilization (IDIDAS), Tephritid Workers Database, Radiation Safety Information Management System
37 (RASIMS), Information Resources in Radiation Protection and the InTouch database, in order to reinforce them
38 to ensure an efficient sharing of innovative ideas called, Central Resource and Intelligence Sharing Information
39 System (CRISIS), to be organized;
- 40
41 2. *Further proposes* CRISIS to be overseen by the Department of Technical Cooperation, run by an elected leader
42 from the IAEA, including a board made up of three elected officials from each of the five regions of the world
43 for a total of fifteen board members;
- 44
45 3. *Recommends* this board of fifteen members to be elected through nomination by the Board of Governors within
46 the IAEA and each official elected for servicing and maintaining CRISIS to serve a term of three years, with the
47 possibility of reelection the next election process;
- 48
49 4. *Further suggests* the President to be elected by the Board of Governors as a member of the Board of Governors
50 to serve a term of three years, to be rotated among the five regional blocks of the world with every election;

- 51
52 5. *Calls upon* Member States to promote CRISIS by:
53
54 a. Facilitating and enhancing the transfer of nuclear technology and know-how among Member States for
55 peaceful uses, including but not limited to technical cooperation on nuclear technology promoting
56 agriculture and the sustainable growth of crops, the desalination of water and the promotion of nuclear
57 technology in the health sector;
58
59 b. Being mindful of the special needs of developing countries, especially least developed countries
60 (LDCs) and the way to address each need individually by categorizing information in the areas of
61 health, food and agriculture and water, so that each Member State will have access to the information
62 that best fits their needs by closely collaborating with organizations such as the Food and Agriculture
63 Organization (FAO), the World Health Organization (WHO) and the Water Resources Program
64 (WRP);
65
66 c. Increasing equity of resource knowledge for all Member States of the IAEA by giving access to the
67 database to regional organizations regarding TC Programs inter alia, African Regional Cooperative
68 Agreement for Research Development and Training related to Nuclear Science and Technology
69 (AFRA), Regional Cooperative Agreement for Research Development and Training Related to Nuclear
70 Science and Technology for Asia and the Pacific (RCA), Regional Cooperative Agreement for the
71 Promotion of Nuclear Science and Technology for Latin America and the Caribbean (ARCAL), the
72 Joint Research Centre of the European Commission, the Gulf Cooperation Council (GCC) and the
73 United States Nuclear Regulatory Commission (U.S. NRC);
74
75 6. *Asks* for the organization of an annual conference composed of representatives from various national and
76 regional nuclear research bodies (such as the Asia-Pacific's RCA), industry groups, and regulators to permit the
77 spread of ideas between these groups:
78
79 a. To discuss the latest research techniques, the latest findings, and their applications, in order to
80 collaborate to adapt the best methods of scientific research;
81
82 b. To evaluate and discuss participating countries' policies, and make suggestions to them to improve the
83 nuclear policies, and their implementation;
84
85 c. While the first instance of the conference will occur a year from the passage of this resolution;
86
87 d. While the first instance of this conference will be located in Singapore;
88
89 e. While the attendees of the conference will vote on where and when to hold subsequent iterations of the
90 conference;
91
92 f. While the conference will be led by the head of the IAEA's TC;
93
94 7. *Urges* both Member States and the DTC to work in close cooperation to strengthen the cohesiveness between
95 Member States;
96
97 8. *Requires* the committee to ensure that the components on Technical Cooperation projects, training, expertise,
98 and equipment will be made readily available.



Code: IAEA/1/12

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*

2
3 *Guided by the purposes and principles of the Charter of the United Nations (1945) and the 1956 Statute of the*
4 *International Atomic Energy Agency (the Statute),*

5
6 *Recalling the spirit of the United Nations (UN) and the International Atomic Energy Agency (IAEA) to promote and*
7 *to ensure the use of atomic energy for safe, secure and peaceful purposes,*

8
9 *Acknowledging the importance of three pillars of the Statute of the IAEA: the transfer of technology, safety and*
10 *security and nuclear verification,*

11
12 *Recognizing the broad fields of work of the IAEA, noting especially important topics such as protection of the sea,*
13 *healthcare, and agriculture,*

14
15 *Recalling Article III, Section A of the Statute of the IAEA, stating that one of the main goals of the IAEA is “to*
16 *foster the exchange of scientific and technical information on peaceful uses of atomic energy,”*

17
18 *Cognizant of the Revised Guiding Principles and General Operating Rules to Govern the Provision of Technical*
19 *Assistance adopted by Board of Governors (1979), and the Technical Cooperation Strategy adopted by the Board of*
20 *Governors (2002),*

21
22 *Further recalling the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (1968) binding Member States to*
23 *use their nuclear technologies for non-destructive purposes and to accept and comply with IAEA standards,*

24
25 *Noting with appreciation the enhancement of the Technical Cooperation (TC) Programme through the contributions*
26 *of the Peaceful Uses Initiative (PUI),*

27
28 *Welcoming the efforts and the contribution of the Member States by building partnerships within the framework of*
29 *Technical Cooperation Strategy as well as the IAEA Medium Term Strategy 2012-2017 in order to prioritize*
30 *developments in nuclear science and technology,*

31
32 *Recognizing the fact that the Technological Cooperation Fund (TCF) serves as the foundation to successfully*
33 *implement Technological Cooperation,*

34
35 *Noting that the IAEA’s TC budget was not fully funded in 2014, as stated in the outcome document 14 of the 2015*
36 *NPT review conference, section 3.3, as well as the need to increase fund the TC fund in order to fully implement*
37 *IAEA programmes in Member States, and the continued cooperation between the IAEA, UN Office of Disarmament*
38 *Affairs (UNODA), and Organization for the Prohibition of Chemical Weapons (OPCW), which includes sharing*
39 *funding and implementation responsibilities, similar to the National Action Plan for the Implementation of Security*
40 *Council (SC) resolution 1540 in Niger, 2014-2019,*

41
42 *Recalling General Conference (GC) resolution 60/11 (2016) that acknowledges TC Programme as a crucial means*
43 *for less and least developed countries to reach the Sustainable Development Goals (SDGs),*

44
45 *Emphasizing that Technical Cooperation is essential to reach the 2030 SDGs which requires long-term planning and*
46 *commitment and relies on a dependable financial basis,*

47
48 *Taking into consideration the gap between the TCF, consisting, inter alia, of voluntary contribution pledged from all*
49 *Member States and the growing demand for TC,*

50

51 *Recognizing* the importance of technological cooperation for less and least developed countries in order to ensure
52 adherence to the NPT and to gain equal opportunity for sustainable economic and social growth,
53
54 *Recalling* the public mission of the IAEA as outlined in Article 2 of the Statute,
55
56 *Noting* that regular internal and external evaluations for the Technical Cooperation Programs are a potential way to
57 enhance effectiveness, efficiency, transparency and sustainability of the TC activities and funds,
58
59 1. *Proposes* to develop a comprehensive non-state funding strategy for TCP, in order to especially, but not
60 exclusively, fund footnote-a projects by attracting and accepting non-state donor contributions;
61
62 2. *Encourages* the IAEA to encourage the development of nuclear technology through auxiliary sources, to a
63 level approved by the Board of Directors and compatible to relevant policies, by:
64
65 a. Allowing private actors to invest in less and least developed states that require financial assistance for
66 nuclear development under peaceful purposes by:
67
68 i. Establishing bilateral and multilateral partnerships instead of direct partnerships with the
69 IAEA and utilizing the abilities of independent audit committees who have no affiliation with
70 the IAEA or UN to monitor private investors' actions so as to ensure transparency in
71 fundraising and investments and that companies stay in accord with the SFGs and the goals of
72 the UN, and report to the IAEA every two years;
73
74 ii. Preventing from giving decision-making powers to investors to avoid corruption within the
75 IAEA system;
76
77 b. Encouraging Member States who have already developed nuclear technologies to allow less and least
78 developed countries to utilize such technology at a nominal cost negotiated by the participating states;
79
80 c. Adopting collaborative structures like patent pools, open source innovation, open licensing
81 agreements, joint license schemes and non-assertion pledges;
82
83 d. Adhering to the following process when diffusing existing technologies into technical cooperation
84 partnership programs, locate technologies that are essential for development of a new crucial one,
85 negotiate to cut the costs and complexity of access of the technologies, facilitate access of the
86 technologies to member nations of the partnership program, especially LDCs;
87
88 e. Encouraging cooperation between the IAEA, Member States and development banks, such as the
89 World Bank and the Asian Infrastructure Investment Bank;
90
91 3. *Endorses* a presentation of past and current TCPs to the private sector and interested private parties in an
92 annual special conference in order to:
93
94 a. Rehabilitate TCP so that less and least developed countries may be aided;
95
96 b. Provide non-monetary, mutually beneficial incentives such as natural resources to private actors in
97 hopes to ameliorate their position with comparative advantages;
98
99 c. Be familiar with the goals and practices of the IAEA;
100
101 4. *Urges* countries to ratify the statutory amendment of 1999 that converts the IAEA annual to the bi-annual
102 budget in order to increase cooperation with the Food and Agriculture Organization (FAO) and the World
103 Health Organization (WHO), both of whom have bi-annual budgets;
104
105 5. *Endorses* establishing a department for marketing purposes within the IAEA, encompassing:
106
a. An ambassador for the IAEA, appointed by the Director General;

- 107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
- b. Distinguished scientists within all applicable fields affiliated with the IAEA;
 - c. Business professionals with expertise in various concentrations, such as marketing and economics, affiliated with the UN;
6. *Proposes* that the department of marketing establish a campaign directed by the ambassador in order to inform and involve civil society of the work of the IAEA and the importance of the Technical Cooperation Programme;
 7. *Implores* Member States to implement preventive mechanisms and responses to actions of private investors included in the funding of TCPs by:
 - a. Developing a consultation strategy together with the Department of Technical Cooperation to ensure that nuclear technology is used in the most effective and efficient way;
 - b. Monitoring the flow of natural resources through annual reports written by the special national rapporteur to the Department of Technical Cooperation and, if necessary, a task force from the IAEA's Departments of Technical Cooperation and Safeguards;
 8. *Recommends* that the participating bodies in the private sector receive rebates and government subventions in their domestic territory that maintain national sovereignty and legislations;
 9. *Urges* Member States to utilize South-South Cooperation (SSC) and the Triangular Development Cooperation (TDC) as precedence to create a North-South Cooperation between countries of varying regions, and further encouraging affluent and resource-rich countries to help developing countries by:
 - a. Giving fiscal, physical, and non-monetary resources to developing countries so that they are able to expand on nuclear research and/or create nuclear energy programs for which the technology already exists but the funds to make it a reality do not;
 - b. Directly creating infrastructure and programs, alleviating the burden of all Member States, ensuring equity and so that they may focus on nuclear energy expansion without worrying about financial discord;
 10. *Requests* that the IAEA continues to enhance current cooperation with the UNODA and OPCW with the goal of acquiring additional funding to implement more joint programs, in order to further IAEA programs and goals to countries in need of advanced technical development assistance;
 11. *Strongly urges* streamlining the TCF into the IAEA ordinary budget, in order to secure stable funding for TCF initiatives, such as the Peaceful Uses Initiative (PUI):
 - a. On the condition that if any budget cuts are executed, funding for technical cooperation will not be affected;
 - b. With the caveat that, if the physical safety and security of any peoples is threatened by natural disasters, funding will be reevaluated, including a grace period relative to said natural disasters;
 12. *Encourages* all Member States to make financial contributions to TCFs as well as extra budgetary funds so that all developing countries have the same opportunity to enjoy the advancement in nuclear technology;
 13. *Recommends* the cooperation between the IAEA and the Nuclear Energy Agency (NEA) for the purposes of:
 - a. Encouraging private actors to invest and become financially involved in the nuclear energy development of states with lower nuclear infrastructure expertise;

163
164
165
166
167
168
169
170
171
172

b. Decreasing costs and improving the efficiency of nuclear energy development;

14. *Emphasizes* that Member States that have been found by the IAEA to be violating their safeguard agreements will not be able to benefit from the proposed programs;
15. *Proposes* a change to the calculation of Member States' annual contribution to the IAEA regular budget by establishing a more flexible measurement using countries' Human Development Index (HDI), their Gross Domestic Product (GDP), their annual GDP growth along with the OECD's Wellness Index included as well in average, reviewing this measurement every five years to define new categories and updating existing categories.



Code: IAEA/1/8

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

- 1 *The International Atomic Energy Agency,*
- 2
- 3 *Guided by the Charter of the United Nations (1945) and the 1956 Statute the International Atomic Energy Agency*
- 4 *(the Statute),*
- 5
- 6 *Emphasizing* the need for Member States to implement General Conference resolutions 60/9 and 60/12 of 2016
- 7 *adopted by the International Atomic Energy Agency (IAEA) to the fullest extent,*
- 8
- 9 *Noting* the Medium-Term Strategy 2018-2023 as a guideline in regards to future applications for nuclear technology,
- 10
- 11 *Recognizing* the success of Technical Cooperation between the IAEA and Members States, which addresses the
- 12 *topic of safely transferring nuclear technology information in order to give access to less developed countries (LDCs)*
- 13 *to an alternative energy source,*
- 14
- 15 *Endorsing* the need for the further use of IAEA task forces in order to monitor nuclear facilities around the world to
- 16 *better assist those countries and manage the nuclear activities of the international community,*
- 17
- 18 *Supporting* the technical cooperation of Member States, non-governmental organizations (NGOs), and the private
- 19 *sector to create an educational framework that endorses the education and training of engineers and scientists of both*
- 20 *developed and developing countries,*
- 21
- 22 *Emphasizing* the creation of a multilateral research coalition overseen by the IAEA in order to facilitate the transfer
- 23 *and sharing of nuclear technology on a transparent and incentive -providing mechanism,*
- 24
- 25 *Encouraging* the partnership with Member States' governments and private institutions in order to collaborate on the
- 26 *drafting blueprints within the IAEA guidelines and funding of projects in order to prioritize public interest at the*
- 27 *safest and most cost-efficient way,*
- 28
- 29 *Recognizing* the contribution of the Generation IV Reactors Forum on the development of a more advanced and
- 30 *efficient nuclear reactor blueprint,*
- 31
- 32 *Understanding* that fast neutron reactors, by consuming enriched uranium and plutonium, have the potential to
- 33 *increase energy generation and prevent nuclear proliferation, which allows for wider and safer application in*
- 34 *accordance with the IAEA pillar of sharing peaceful nuclear usages,*
- 35
- 36 *Fully aware* of the current use of outdated reactors and the danger they present to the health of the global
- 37 *community,*
- 38
- 39 *Believing* in the bilateral success of IAEA technical cooperation initiatives to train a state's engineers and scientists
- 40 *on a hands on approach with the intentions of scientific independence,*
- 41
- 42 *Reminding* Member States of the Sustainable Development Goals (SDGs) and their importance in the purpose of
- 43 *promoting a successful global civil society,*
- 44
- 45 *Bearing in mind* that all national, regional, interregional technical cooperation projects are planned through the
- 46 *logical framework approach (LPA),*
- 47
- 48 1. *Recommends* Member States on the submission of Project Progress assessment Reports (PPARs) to complete
- 49 *the evaluation of TC programs which can serve as a guidance or reflection on the effectiveness and efficiency of*
- 50 *the specific program;*

- 51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
2. *Encourages* Member States to utilize advanced technologies such as cubic-meter sized antineutrino detectors to monitor radioactive materials in both the power cycle and on site repositories in order to assist in the inspection process of IAEA task forces in the process of reviewing the efficiency and the dangers that power plants pose to the international community as a proper method of avoiding disaster like Chernobyl;
 3. *Recognizes* private sectors and NGOs as important stakeholders that are essential to the process of establishing Technical Cooperation Programmes (TCP), in conjecture with their expertise, knowledge and human resources to a common base level, through means of, but not limited to:
 - a. Standardization of nuclear technology to be more understandable and easily operable by local communities;
 - b. Building public acceptance through multi-stakeholder forums by spreading latest nuclear technology updates, and highlighting the economic and social benefits they provide;
 - c. Creating a wide range of stakeholders to work on and emphasize Human Resource Development for Nuclear Power Programmes by means of, but not limited to:
 - i. Encompassing local highly trained workforces to provide unique positive and professional development experiences by letting participants from local communities;
 - ii. Encouraging local communities to develop two-year academic institutions graduating with associate degrees to specialize in fields such as radiation protection, nuclear power plant maintenance, digital instrumentation and control;
 - iii. Multidisciplinary Experiences for Undergraduates (MEU) program to create potential engineering manpower by allowing students to engage in real experience working at nuclear facilities;
 - iv. Educational incentive Program created by nuclear industry to attract and train workers for a career at a nuclear technique facilities;
 4. *Calls upon* developed states to share Science, Technology, Innovation's (STI's) with developing states to ensure a flow of information under the template provided by the Technology Facilitation Management (TFM) and its subsidiary proposals in accordance with SDG 17 by supporting innovation on nuclear technology in science communities through the cultivation of nuclear technologies, while considering the social and cultural factors, in order to increase acceptability of recipient countries;
 5. *Directs attention* to SDG 7 and the need for affordable energy for all Member States which can be made possible through the transfer of technologies between nations and cooperation between Member States, intergovernmental organizations, and regional organizations;
 6. *Encourages* intergovernmental cooperation programs between states with and without sustainable nuclear power facilities to provide developing Member States with expert services, specialized equipment's, training, and other types of support in collaboration with the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO);
 7. *Suggests* regional technical cooperation to strengthen emergency response to potential nuclear emergencies such as the International Nuclear Emergency Exercise 5 (INEX5) at the Krsko Power Plant;
 8. *Approves* of communication between scientist individuals and industries or companies as facilitated by organizations such as the World Nuclear Association and the Organization for Economic Co-operation and Development's (OECD) Global Science Forum, by means of, but not limited to:
 - a. Safeguarding of intellectual property rights until full transformation of nuclear technology has been applied and is in use;

- 106 b. Refraining from publishing research discoveries by providing incentives through the transformation of
107 an institutional reward system on the state level;
108
- 109 c. Creating sub-regional research blocks similar to the Eastern European Research Reactor Initiative or
110 the Eurasia Research Reactor Coalition;
111
- 112 9. *Encourages* cooperation with the OCED to promote policy coherence for development and strengthen capacity
113 of government on designing, implementing, and monitoring coherent and integrated policies for sustainable
114 development as well as a Nuclear Technology Research & Development Fund on funding companies and
115 entrepreneurial attempts to experiment or develop new applications such as nuclear fusion to:
116
- 117 a. Introduce private sector technology and innovation in providing better public service in a more
118 efficient way;
119
- 120 b. Provide budgetary certainty through a set timeline to evaluate the cost-effectiveness of infrastructure
121 projects;
122
- 123 c. Incentivize the private sector to deliver projects on time and within budget;
124
- 125 d. Develop local private sectors capabilities through joint ventures with international firms, while also
126 providing subcontracting opportunities for local firms such as civil work, facility management, security,
127 cleaning and maintenance services;
128
- 129 10. *Encourages* Member States to actively cooperate and share research and development progress on Generation
130 IV Reactors and fast neutron reactors (FNR) to upgrade or replace currently underperforming reactor designs so
131 as to improve output capacity, increase thermal efficiency, and further waste minimization, which makes it cost-
132 effective and prevents the production of weapons-grade fissile materials;
133
- 134 11. *Recommends* the establishment of North-South and South-South TC programs on the development and
135 application of Small Modular Reactors (SMR) that can be replicated without requiring re-certification and allow
136 off-site building to overcome uncertainty and long construction/certification time, smaller-initial capital,
137 providing a viable alternatives for geological unstable nations to safely utilize nuclear power as well as serve a
138 broader and more sustainable nuclear power industry;
139
- 140 12. *Calls upon* the International Expert Group on Nuclear Liability (INLEX) to continue to recommend actions to
141 facilitate a global nuclear liability regime;
142
- 143 13. *Requests* Member States to improve the quality of Project Progress Assessment Reports (PPAR) as a means of
144 verification by:
145
- 146 a. Tracking important quantitative and qualitative project indicators in all areas including process,
147 outcomes, and impact;
148
- 149 b. Dispatching more Filed Monitoring Missions (FMMs) to evaluate reality on the ground to collect data
150 on the performance of TC programs to serve as a guidance or self-reflection.



Code: IAEA/1/9

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*
2

3 *Guided by* the global principles of the *Charter of the United Nations* (1945), with particular regard to Article I,
4 which aims to achieve to achieve international cooperation for problems relating to economic, social, and
5 humanitarian issues,
6

7 *Emphasizing* the importance of international cooperation and collaboration, specifically technical cooperation and
8 shared experiences and techniques regarding the peaceful uses of nuclear energy,
9

10 *Recognizing* the significance of Article III of the *1956 Statute of the International Atomic Energy Agency* (IAEA)
11 (the Statute), which underlines the usage of nuclear technology for peaceful purposes,
12

13 *Further noting* that the principles stated in Article IV of the *Nuclear Non-Proliferation Treaty* (NPT) emphasize
14 peaceful and constructive uses of nuclear technology as well,
15

16 *Recalling* the Sustainable Development Goals (SDGs), in particular SDG 3, which puts good health as a top priority
17 and identifies research and development as key areas of healthcare, along with SDGs 2, 7 and 17, which are in the
18 purview of nuclear technology advancement and partnerships for achievement of these goals,
19

20 *Fully aware* of the nexus between technical cooperation (TC) and the empowerment of developing countries and
21 least developed countries (LDCs),
22

23 *Noting* the prevalence of cancer in LDCs in which by 2030 the number of new cases is expected to increase by 70%,
24 according to the World Health Organization (WHO),
25

26 *Raising awareness* for the need for Member States to share information on cancer research, as 8.8 million cases
27 were recorded worldwide in 2015, that is nearly one in six of all global deaths, according to the WHO,
28

29 *Alarmed by* significant global costs caused by cancer, such as the worldwide total expense of 1.4 trillion euros in
30 2010, which can create a financial burden to many Member States,
31

32 *Fully aware* that according to the WHO, approximately one third of deaths arising from cancer are partially due to
33 behavioral and dietary risks,
34

35 *Recalling* the *Atoms for Peace and Development* report, which encourages information sharing on nuclear
36 techniques in healthcare,
37

38 *Taking into consideration* the relevance of private sector as Civil Society Organizations (CSOs), non-governmental
39 organizations (NGOs) and academia sector in developing the peaceful uses of nuclear technology,
40

41 *Highlighting* the 60th IAEA General Conference featuring the potential for nuclear techniques to monitor the
42 nutritional value of breast milk for infants,
43

44 *Concerned* about the effect that vector-borne diseases have on public health, tourism, travel, and agriculture, as well
45 as negative effects that non-nuclear based mosquito control techniques have on the environment, according to the
46 IAEA and Mosquito-Borne Illnesses Report,
47

48 *Concerned* that 1.3 million people die each year due to malaria and 90% are under the age of five due to unsanitary
49 water, and the Sterile Insect Technique (SIT) can be used to combat this, along with other communicable diseases
50 like Zika virus, dengue fever, and Ebola,

51
52 *Stressing* the need to ensure the sound operation of technical cooperation programs, to make sure they are carrying
53 out the standards set through the IAEA,

54
55 *Noting* the paramount importance of cooperation with the IAEA and Member States to ensure safe handling of
56 nuclear material in accordance with the principles of the Technical Cooperation Programme, the IAEA Statute, and
57 the Framework of the United Nations (UN),

- 58
59 1. *Encourages* Member States to work on innovation in nuclear technology in the scientific community by
60 domestication of nuclear technologies to increase acceptability of recipient countries, through means of, but not
61 limited to:
62
63 a. Modernization standardization of nuclear technology, especially in LCDs, through training sessions
64 and workshops to have more knowledge management, and become easily operable by scientists and
65 officials in local communities;
66
67 b. Building public acceptance of nuclear technology through multilateral forums that spread the latest
68 updates and highlight the economic and social benefits of such technology;
69
70 2. *Suggests* Members States to work to establish Multidisciplinary Conferences held every three years by the
71 Department of Technical Cooperation of the IAEA, government officials, and experts, and hosted on a rotating
72 basis by geographical regions through the participating experts from academia, NGOs, civil society and
73 representatives from IAEA Member States in order to unite private sectors regarding important areas to debate
74 during these conferences, including:
75
76 a. Health and medicine regarding the fight against cancer, epidemics and terminal diseases;
77
78 b. Agriculture, food security and water management;
79
80 c. Environmental issues regarding the uses of nuclear energy such as handling nuclear waste
81 management, the protection of nuclear material and the disposal and storage of high-level radioactive
82 wastes;
83
84 3. *Invites* Member States to involve the private sector, which will assist Member States in developing technologies
85 and help them enter potential markets for those developed technologies, in addition to NGOs, such as the Red
86 Cross/Red Crescent and Doctors Without Borders, to be important stakeholders in the process of the
87 establishment of Technical Cooperation Programs taking into consideration their expertise, knowledge and
88 human resources to develop international norms and standards, regarding the areas of knowledge sharing,
89 medical research and development and training;
90
91 4. *Recommends* Member States to give priority to Article 4 of the *Treaty on the Non-Proliferation of Nuclear*
92 *Weapons* (NPT) of 1968 and applying it in the creation of national programs called “Training for Trainers” with
93 the purpose of preparing the scientific sector and academia in order to provide knowledge regarding technical
94 skills and the peaceful uses of nuclear energy, and developing it with the help of the IAEA Revision Mission
95 Education and Training Appraisal (EduTA) to tackle areas like the:
96
97 a. Creation of infrastructure for radiation, to be used for the development of more technical cooperation
98 research for the peaceful uses of nuclear technology;
99
100 b. Creation of international strategies regarding the storage and transportation of nuclear materials and
101 further implementation of the already existing repositories, as well as creation of new regional

- 102 repositories, following along the guidelines of the *Convention on the Physical Protection of Nuclear*
103 *Materials*;
- 104
- 105 c. Creation of training centers in order to further equip the scientific research community of each
106 Member State;
- 107
- 108 d. Creation of crisis response teams for preemptive measures and laid out guidelines and comprehensive
109 plan in the event of a nuclear crisis;
- 110
- 111 e. Preparation of qualified personnel, to apply the knowledge, assistance, and intellectual know-how to
112 Technical Cooperation programs;
- 113
- 114 5. *Advises* Members States to participate into the nomination and registration process of the Global Nuclear Safety
115 and Security Network of the IAEA in order to ensure a more comprehensive way of sharing information
116 through the human network and web platform, which will allow Members States to share their knowledge and
117 expertise regarding capacity building frameworks and national approaches to nuclear safety;
- 118
- 119 6. *Encourages* Member States to improve cooperation and the negotiation process among the International
120 Community through the creation of more regional agreements, such as the African Regional Cooperative
121 Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA), the
122 Cooperative Agreement for Arab States in Asia for Research, Development and Training related to Nuclear
123 Science and Technology (ARASIA), the Regional Cooperative Agreement for Research, Development and
124 Training Related to Nuclear Science and Technology for Asia and the Pacific (RCA), and the Cooperation
125 Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean
126 (ARCAL), in particular in those specific regions that have not yet implemented regional agreements and treaties
127 and to establish proper revisions to the already implemented regional agreements in order to adapt them to the
128 current situation;
- 129
- 130 7. *Calls upon* increased information sharing and review of Technical Cooperation Programs through the
131 Programme Cycle Management Framework (PCMF) IT platform, which is a web-based multi-user application,
132 that:
- 133
- 134 a. Enables Member States to take responsibility for the formulation and execution of its TC Programme,
135 while allowing stakeholders in the Secretariat to support the process;
- 136
- 137 b. Decreases time and effort spent by the Agency on project formulation and budget allocation;
- 138
- 139 c. Sets an annual reviews of the program, through the reallocation of funds, to ensure that the standards
140 being established are carried out in a beneficial way;
- 141
- 142 8. *Supports* myocardial perfusion imaging techniques and single photon emission computed technology (SPECT),
143 which has been proven highly successful in treating patients with coronary artery disease;
- 144
- 145 9. *Encourages* States to share information regarding Sterile Insect Technique (SIT) for vector-borne viral
146 infections, particularly using the book *Sterile Insect Technique*, written by 50 experts in the field, as a guideline,
147 and also through:
- 148
- 149 a. Implementing regional frameworks for disease control;
- 150
- 151 b. Circulating information to enhance public awareness of such techniques;
- 152
- 153 10. *Further encourages* the enhancement of multilateral information-sharing among Member States to improve
154 overall health care in regards to nuclear technology through:
- 155
- 156 a. Supporting Member States to grant funds to institutions working to develop new nuclear technology;
- 157

- 158 b. Stressing the use of confidence-building measures through information sharing of nuclear techniques;
159
- 160 c. Enhancement of the Third Country Training Programme (TCTP) in collaboration with the Technical
161 Cooperation Programme (TCP) to increase the amount of training for doctors, nurses, nuclear
162 scientists, and medical practitioners;
163
- 164 11. *Invites* Member States to use the tools of the IAEA such as the Nuclear Medicine DataBase (NUMDAB) and
165 the Directory of Radiotherapy Centers (DIRAC) as the main platforms to share information regarding national
166 nuclear medicine facilities and the manpower and equipment around the parties, through which Member States
167 will share their current and historical data related to External Beam Radiotherapy (EBRT) machines,
168 radiotherapy centers, diagnosis and treatments, computed tomography systems and simulators;
169
- 170 12. *Recommends* the utilization of the United Nations Joint Global Programme on Cervical Cancer Prevention and
171 Control, in collaboration with the World Health Organization (WHO), which took place during the 60th IAEA
172 General Conference, and which pushed to reduce cervical cancer mortality in participating countries by 25% by
173 2025;
174
- 175 13. *Urges* the continued use of the Programme of Action for Cancer Therapy (PACT) to share information between
176 Member States and work to develop new nuclear techniques in prevention and treatment of cancer by:
177
- 178 a. Modeling of programs after the Virtual University for Cancer Control (VUCCnet) program of the
179 IAEA, which serves as a pilot e-Learning platform that provides cancer-related courses adapted to
180 correspond to the needs of cancer control projects;
181
- 182 b. Utilizing the Advisory Group on increasing access to Radiotherapy Technology in low and middle
183 income countries (AGaRT);
184
- 185 c. Using the PACT Model Demonstration Sites (PMDS), which work in collaboration with the WHO to
186 assess healthcare infrastructure of Member States;
187
- 188 14. *Supports* all Member States to train doctors from areas with a lack of healthcare infrastructure in cancer
189 detection and treatment through workshops by reallocation of funds by the Technical Cooperation Fund (TCF);
190
- 191 15. *Suggests* that Member States promote National Quality Assurance Programs for Radiotherapy, which work to
192 improve the quality of life for cancer patients;
193
- 194 16. *Invites* Member States to work along with the review mission of the IAEA called Integrated Research Reactor
195 Infrastructure Assessment (IRRIA) in order to work together in the process of determining the status of its
196 national nuclear programs and to further identify the needs of each State regarding nuclear infrastructure and
197 reactor projects;
198
- 199 17. *Encourages* further progress in Member States on the submission of Project Progress Assessment Reports
200 (PPARs) to complete the evaluation of TC programs which can serve to be a guidance or reflection on the
201 effectiveness and efficiency of the specific program;
202
- 203 18. *Asks* Member States to use the program Learn Nuclear Science Through Play through the IAEA along with
204 United Nations International Children's Emergency Fund (UNICEF) and national education systems aimed at
205 educating children on the risks and the possibilities connected to medical purviews related to nuclear
206 technology;
207
- 208 19. *Endorses* the expansion of programs such as the TCP's Evaluating Breast Milk Intake and Body Composition of
209 Infants and Mothers which uses Deuterium dilutions as an indicator of good nutritional status of breast milk, a
210 technique that provides preemptive knowledge of breast cancer within the body, and provides for optimal
211 nutrition for infants;
212

- 213 20. *Supports* programs that increase awareness of good nutritional practices within Member States through the use
214 of nuclear techniques by:
215
- 216 a. Encouraging the use of nuclear modified plants that utilize the best nutritional methods that are
217 drought resistant to prevent times of famine;
 - 218 b. Recommending the utilization of information-sharing among Member States on good nutritional
219 status;
 - 220 c. Encouraging the implementation of an IT-platform to share said information;
 - 221 d. Reaffirming the use of programs in the workplace to promote a healthy lifestyle and decrease the risk
222 of cancer;
- 223
- 224 21. *Strongly supports* the modeling of programs after Africa's More Crop per Drop Program, which works to
225 promote nutrition by producing highly nutritional crops by:
226
- 227 a. Assessing soil fertility;
 - 228 b. Increasing yield of high value crops;
 - 229 c. Increasing farmer wages;
- 230
- 231 22. *Encourages* all Member States with capabilities to promote and participate in the research of the application of
232 nuclear techniques to all aspects of freshwater resources through programs such as the Water Availability
233 Enhancement Project (IWAVE) of the IAEA;
- 234
- 235 23. *Welcomes* the participation of all Member States to the economic sustainability of this resolution on a voluntary
236 basis, in addition to monetary backing from the International Monetary Fund (IMF), the cooperation of the UN
237 Development Programme (UNDP), the Technical Cooperation Fund (TCF) and the Peaceful Uses Initiative
238 (PUI) from the IAEA and also any involvement of the private sector and NGOs to enforce human resources in
239 accordance with this resolution;
- 240
- 241 24. *Expresses its hope* that Member States, in the blanket of inclusivity, cooperation, and with the philosophy of
242 peaceful use of nuclear energy, to embrace the topics established in this resolution, in which it hopes to achieve
243 better solutions through medical research, information-sharing, nutrition, and capacity-building measures and
244 encourages them to cooperate in terms of security with the IAEA allowing it to be in charge of overseeing the
245 safe application of nuclear technologies for peaceful purposes.
250



Code: IAEA/1/10

Committee: The International Atomic Energy Agency

Topic: Improving Science and Technology Activities Through Technical Cooperation

1 *The International Atomic Energy Agency,*
2

3 *Recalling* Article 2 of the 1956 *Statute of the International Atomic Energy Agency* (IAEA) (the Statute), which seeks
4 to accelerate the contribution of nuclear technology to peace, health, and prosperity,
5

6 *Affirming* Article 3, Section A, Subsection 1 of the Statute, which authorizes the IAEA to foster research for
7 peaceful uses of atomic power,
8

9 *Recalling* General Conference resolution 56/12 of 2012 and the need to modernize the IAEA's Nuclear Applications
10 (NA) laboratories to ensure the maximum amount of benefit to Member States, with particular focus on less
11 developed countries (LDCs),
12

13 *Emphasizing* the importance of sharing of technological data pertaining to nuclear application, as well as resources
14 in the expansion of applicable nuclear technologies as stated in General Conference resolution 60/11 of 2016,
15

16 *Recognizing* the need for an increase in scientific resources to be used for the IAEA in the researching and scientific
17 development of nuclear technology,
18

19 *Emphasizing* the increasing burden on the current IAEA laboratories in Seibersdorf and the increasing demand for
20 scientific research into nuclear technology applications, and the potential benefit of an expansion of IAEA
21 laboratories both in Austria and the construction of new laboratories abroad in an effort to increase the efficiency
22 and accessibility of research,
23

24 *Understanding* the limitations of the current IAEA laboratories and the financial strains placed on the contributors of
25 infrastructure, resources, and extra-budgetary funding to the NA Laboratories which slows the progress of
26 modernisation and scientific research,
27

28 *Observing* that many IAEA Member States have, and utilize existing advanced nuclear research laboratories which
29 can be strengthened through a connected network,
30

31 *Aware* of the advantage of further diversifying research done by the IAEA laboratories in the field of applicable
32 nuclear technology,
33

34 *Recognizing* the importance of The Renovation of Nuclear Applications Laboratories (ReNuAL), its mission to
35 improve and modernize already existing research technologies and resources, and the progress made creating the
36 new Insect Pest Control Laboratory, Flexible Modular Laboratory, and a bunker for a medical linear accelerator for
37 the Dosimetry Laboratory,
38

39 *Noting with concern* the potential for cyber breaches of laboratory systems, and possible proliferation of classified
40 nuclear information,
41

42 *Emphasizing* the need for a universal standard of procedure for all laboratories that operate under the IAEA,
43

- 44 1. *Expresses* its appreciation to all nations who committed extra-budgetary resources to the ReNuAL project;
45
46 2. *Calls upon* the Director General of the IAEA to oversee a report pertaining to existing facilities at Seibersdorf
47 requiring further expansion and determining which potential new laboratories will be needed to fulfill the
48 mandate of the Technical Cooperation Programme and Member States of the IAEA;
49

- 50 3. *Calls upon* the Director General to commission a high-level forum in January 2018, consisting of Member
51 States and subject-matter experts from existing IAEA-approved laboratories to investigate the feasibility of
52 constructing shared regional laboratories in desiring countries and continents, which are able to support these
53 labs financially, and with the proper resources referencing networks facilitated by the IAEA, including the
54 Research Reactor Database (RRDB), the Research Reactor Ageing Database (RRADB), and the IAEA
55 International Network of Laboratories for Nuclear Waste Characterization (LABONET);
56
- 57 4. *Suggests* that regional conferences be held every two years and organized by the high forum to determine the
58 need and location of new laboratories for the purpose of inspecting locations for new laboratory facilities, these
59 conferences would be sponsored by the IAEA, while still cooperating with regional organs that would provide
60 experts to contribute in local initiatives;
61
- 62 5. *Encourages* all Member States to make use of the laboratory facilities and the technologies and research
63 conducted at the IAEA laboratories;
64
- 65 6. *Requests* voluntary aid to the Seibersdorf laboratories in terms of financial care of these establishments, and
66 again in terms of capacity of the IAEA Laboratories;
67
- 68 7. *Welcomes* Member States willing to explore the possibility of constructing their own nuclear applications
69 laboratories;
70
- 71 8. *Further invites* Member States with existing advanced research laboratories to participate in a sharing of
72 knowledge concerning nuclear technology with the IAEA, as these international collaborative exercises provide
73 the means for:
74
- 75 a. Programs such as the Abus Salam International Center for Theoretical Physics (ASICTP) in ensuring
76 best practice-sharing, technical cooperation, and information sharing in regards to nuclear applications
77 laboratories;
78
- 79 b. Laboratories to continuously monitor and share their results;
80
- 81 c. Assessing performance and collaborating with other laboratories and the network;
82
- 83 d. Giving technical support and assistance to fellow laboratories identifying factors affecting their
84 performance;
85
- 86 9. *Calls for* interested Member States interested in aiding the expansion of the ReNuAL project and the
87 modernization of the NA laboratories through extra-budgetary contributions once the Director General has
88 reported back to the General Conference and recognizing member states for all previous extra-budgetary
89 contributions, as well as those expressing interest to further support future development of Seibersdorf and
90 newly developed labs;
91
- 92 10. *Calls for the* integration of IAEA's Department of Nuclear Safety and Security with nuclear laboratories to
93 standardize and strengthen these establishments' computer and information security programs, in an effort to
94 ensure the safekeeping of classified nuclear information through:
95
- 96 a. Training and expert programs related to nuclear security such as the Convention for Practical
97 Coordination between the IAEA and Naif University for Security Sciences in Saudi Arabia;
98
- 99 b. Sharing of research and expertise between both state-sponsored and private institutions for the purpose
100 of ensuring safety during nuclear procedures and laboratory practices.



Code: IAEA/1/11

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*

2
3 *Guided by the purposes and principles of the Charter of the United Nations (1945) and the 1956 Statute of the*
4 *International Atomic Energy Agency (the Statute),*

5
6 *Welcoming the adoption of the 2030 Agenda for Sustainable Development within General Assembly resolution 70/1*
7 *of 2015,*

8
9 *Taking into account that nuclear desalination is a cost-competitive alternative to desalination using fossil fuels, such*
10 *as natural gas and crude oil,*

11
12 *Bearing in mind that the objectives of the International Atomic Energy Agency (IAEA), as stated in Article II of the*
13 *Statute, are “to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout*
14 *the world” and to ensure that the assistance provided by it is not used “to further any military purpose,”*

15
16 *Expressing that one of the statutory functions of the Agency, as stated in Article III of the Statute, is to “encourage*
17 *and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the*
18 *world,”*

19
20 *Noting the benefits of the IAEA Technical Cooperation project for all Member States of the IAEA,*

21
22 *Acknowledging that for developing countries, including least developed countries (LDCs), the technical cooperation*
23 *(TC) program is a major vehicle for executing this statutory function,*

24
25 *Recalling the IAEA General Conference resolution 60/11 of 2015 on “Strengthening of the Agency’s technical*
26 *cooperation activities,”*

27
28 *Reframing other directives from the General Conference and the Board of Governors relevant to the formulation of*
29 *the TC program, including the Agency’s Medium Term Strategy 2018-2023,*

30
31 *Mindful of regular internal and external evaluations for the Technical Cooperation Programs as a potential way to*
32 *enhance effectiveness, efficiency, transparency and sustainability of Technical Cooperation (TC) activities,*

33
34 *Affirming that only nuclear reactors are capable of delivering the copious quantities of energy required for large-*
35 *scale desalination projects in the future,*

36
37 *Underlining that General Assembly resolution 64/196 of 2010 calls for the promotion of life in harmony with*
38 *nature,*

39
40 *Recognizing that water is considered a basic human right as stated in General Assembly resolution 64/292 of 2010,*

41
42 *Appreciating that General Assembly resolution 71/222 of 2017 proclaims the period from 2018 to 2028 as the*
43 *International Decade for Action, “Water for Sustainable Development,”*

44
45 *Taking note that one-fifth of the world’s population does not have access to safe drinking water and, nuclear*
46 *techniques can be used for water resource management, to improve access to safe drinking water, protect*
47 *ecosystems, fight pollution, and monitor health of the oceans,*

48
49 *Recognizing the working of the Central Emergency Response Fund, and their monetary contributions to*
50 *socioeconomic agencies supporting underdeveloped Member States,*

51
52 *Nothing with concern* that although two-thirds of earth's surface is covered by water, less than 3% of these reserves
53 can be used for human consumption,
54
55 *Aware* that contaminated water and a lack of basic sanitation are undermining efforts to end extreme poverty and
56 disease in the world's poorest Member States increase the gap between developed and least developed countries,
57
58 *Noting* that at least 1.8 billion people worldwide are estimated to drink water that is contaminated,
59
60 *Appreciating* that since 1990, 2.6 billion people have gained access to improved sanitation,
61
62 *Stressing* the necessity to monitor pesticide residues in soil, water and farming and to promote best farming
63 practices, including soil-water-crop management practices,
64
65 *Expressing* the urgent need to address food crises especially in developing countries through the use of isotopes,
66
67 *Conscious* of the importance of sustainable agricultural practices to improve the efficiency of plant cultivation,
68
69 *Recalling* goal 17.6 of the 2030 Agenda for Sustainable Development, which is designed to enhance access to
70 science, technology and innovation by technical cooperation,
71
72 *Recognizing* the progress that has been made by the IAEA Water Availability Enhancement Project (IWAVE),
73 which helped to strengthen national capacities for collecting, managing and interpreting water resource data and to
74 implement advanced techniques to improve resource management,
75
76 1. *Calls upon* enhancing cooperation between Member States in the form of:
77
78 a. Research sharing through coordinated Research Projects (CRPs), typically 3 to 6 years in duration;
79
80 b. Exchange of experts, available on-the-spot in-country training in developing Member States held by a
81 recognized expert from developed Member States and sending the scientific or managerial
82 qualifications of specialists in developing countries out for a scientific visit is an essential way to
83 improve Technical Cooperation;
84
85 c. Training programs, training courses and workshops provided through the TC program which cover a
86 wide range of topics related to the peaceful application of nuclear technology in water, farming and
87 other fields can build local expertise and strengthen networking by bringing together researchers,
88 technicians, and other national practitioners from across the developing Member States;
89
90 d. Supporting training forums by taking the major responsibility for actual administration of the courses,
91 providing scientific advisers, lectures and equipment;
92
93 2. *Encourages* the development of programs to improve efficiency of plant cultivation as recently discussed in a
94 symposium jointly organized by the Food and Agriculture Organization of the United Nations and the IAEA,
95 held at the IAEA's headquarters in Vienna, through the use of isotopes to label different fertilizers by attaching
96 radioactive tracers such as phosphorus-30 to determine how much of the of the fertilizers are being used by the
97 plants, as evidenced by plant breeding and genetics subprograms of the IAEA;
98
99 3. *Calling* for the raise of water production in order to tackle the pressing issue of water shortage through
100 voluntary:
101
102 a. Construction of nuclear desalination plants within Private-Public-Partnership (PPP) cooperation, under
103 the umbrella of the IAEA and the regional organisations established by the aforementioned institution
104 in coastal countries to combat water shortage especially but not exclusively in African and Middle
105 Eastern countries;
106

- 107 b. Sharing of knowledge regarding the establishment of facilities appropriate to enlarge water production
108 of Member States under the auspices of the IAEA;
109
- 110 c. The construction of drinking water pipes, interconnectors and mains to safely transport drinking water
111 produced by aforementioned plants from coastal countries to non-coastal countries in need of fresh
112 drinking water;
113
- 114 4. *Endorses* the Joint FAO/IAEA Agriculture and Biotechnology Laboratories specialized in cooperative activities
115 as well as the necessity of improving soil fertility through:
116
- 117 a. Research, development and transfer of nuclear techniques in soil science;
118
- 119 b. Plant breeding, animal production and health, entomology and food contaminant control;
120
- 121 c. Training of scientists from developing countries through individual fellowship and interregional and
122 group training courses in various disciplines;
123
- 124 d. The usage of biologically fixed nitrogen in order to reduce the need of inorganic nitrogen fertilizers;
125
- 126 5. *Affirms* the need to use water in a sustainable manner through use of isotopes to investigate water sources for
127 water uptake by plants, to improve the productivity and to quantify transpiration and soil evaporation;
128
- 129 6. *Proposes* the creation of a Water Management Fund, which will aid less developed states to develop efficient
130 water management nuclear desalination plants, enhance knowledge sharing and support the sustainable usage of
131 water resources:
132
- 133 a. The Water Management Fund will operate with the volunteer donations from all Member States, the
134 private sector, non-governmental organizations, and the international donor community;
135
- 136 b. The fund will allow Member States to be provided with money that is necessary to create nuclear-
137 powered desalination plants, as well as pipelines to deliver fresh water to landlocked countries with
138 poor access to said resource, which will especially help those regions that suffer from water scarcity
139 and drought by giving them access to safe drinking water;
140
- 141 7. *Calls upon* the necessity of new agriculture funding strategies through:
142
- 143 a. Supporting the Food Security and Agriculture Cluster (FSAC) in improving food security by
144 supporting agricultural livelihoods, strategies and assets;
145
- 146 b. Improving the FAO's Emergency Programme, which includes the Central Emergency Response Fund
147 (CERF) and other United Nations Trust Funds at country level;
148
- 149 c. Encouraging international and local fundraising from the public and private sector, while avoiding
150 corporate interests;
151
- 152 8. *Recommends* that Member States implement model programs after the Ethiopia's National Ground-Water
153 Resources Assessment Program (EGRAP), assisted by IAEA Technical Cooperation, which assesses the
154 geophysical, hydrogeological, sanitary status of groundwater to using nuclear techniques to establish a database
155 as a resource to better determine sources for clean and sustainable water;
156
- 157 9. *Encourages* the expansion of IWAVE's membership beyond its pilot phase to include further Member States
158 which would allow an expansion of accessibility to a multilateral water resource database, which includes:
159
- 160 a. How much water exists and where it comes from;
161
- 162 b. How sustainable water resources are for current and future uses;

163
164
165
166

- c. How vulnerable water resources are to pollution and climate change;
- d. Quality of water determined by radiotherapy.



Code: IAEA/1/12

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*
2
3 *Guided by the purposes and principles of the Charter of the United Nations (1945) and the 1956 Statute of the*
4 *International Atomic Energy Agency (the Statute),*
5
6 *Recalling the spirit of the United Nations (UN) and the International Atomic Energy Agency (IAEA) to promote and*
7 *to ensure the use of atomic energy for safe, secure and peaceful purposes,*
8
9 *Acknowledging the importance of three pillars of the Statute of the IAEA: the transfer of technology, safety and*
10 *security and nuclear verification,*
11
12 *Recognizing the broad fields of work of the IAEA, noting especially important topics such as protection of the sea,*
13 *healthcare, and agriculture,*
14
15 *Recalling Article III, Section A of the Statute of the IAEA, stating that one of the main goals of the IAEA is “to*
16 *foster the exchange of scientific and technical information on peaceful uses of atomic energy,”*
17
18 *Cognizant of the Revised Guiding Principles and General Operating Rules to Govern the Provision of Technical*
19 *Assistance adopted by Board of Governors (1979), and the Technical Cooperation Strategy adopted by the Board of*
20 *Governors (2002),*
21
22 *Further recalling the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (1968) binding Member States to*
23 *use their nuclear technologies for non-destructive purposes and to accept and comply with IAEA standards,*
24
25 *Noting with appreciation the enhancement of the Technical Cooperation (TC) Programme through the contributions*
26 *of the Peaceful Uses Initiative (PUI),*
27
28 *Welcoming the efforts and the contribution of the Member States by building partnerships within the framework of*
29 *Technical Cooperation Strategy as well as the IAEA Medium Term Strategy 2012-2017 in order to prioritize*
30 *developments in nuclear science and technology,*
31
32 *Recognizing the fact that the Technological Cooperation Fund (TCF) serves as the foundation to successfully*
33 *implement Technological Cooperation,*
34
35 *Noting that the IAEA’s TC budget was not fully funded in 2014, as stated in the outcome document 14 of the 2015*
36 *NPT review conference, section 3.3, as well as the need to increase fund the TC fund in order to fully implement*
37 *IAEA programmes in Member States, and the continued cooperation between the IAEA, UN Office of Disarmament*
38 *Affairs (UNODA), and Organization for the Prohibition of Chemical Weapons (OPCW), which includes sharing*
39 *funding and implementation responsibilities, similar to the National Action Plan for the Implementation of Security*
40 *Council (SC) resolution 1540 in Niger, 2014-2019,*
41
42 *Recalling General Conference (GC) resolution 60/11 (2016) that acknowledges TC Programme as a crucial means*
43 *for less and least developed countries to reach the Sustainable Development Goals (SDGs),*
44
45 *Emphasizing that Technical Cooperation is essential to reach the 2030 SDGs which requires long-term planning and*
46 *commitment and relies on a dependable financial basis,*
47
48 *Taking into consideration the gap between the TCF, consisting, inter alia, of voluntary contribution pledged from all*
49 *Member States and the growing demand for TC,*
50

51 *Recognizing* the importance of technological cooperation for less and least developed countries in order to ensure
52 adherence to the NPT and to gain equal opportunity for sustainable economic and social growth,
53
54 *Recalling* the public the mission of the IAEA as outlined in Article 2 of the Statute,
55
56 *Noting* that regular internal and external evaluations for the Technical Cooperation Programs are a potential way to
57 enhance effectiveness, efficiency, transparency and sustainability of the TC activities and funds,
58
59 1. *Proposes* to develop a comprehensive non-state funding strategy for TCP, in order to especially, but not
60 exclusively, fund footnote-a projects by attracting and accepting non-state donor contributions;
61
62 2. *Encourages* the IAEA to encourage the development of nuclear technology through auxiliary sources, to a
63 level approved by the Board of Directors and compatible to relevant policies, by:
64
65 a. Allowing private actors to invest in less and least developed states that require financial assistance for
66 nuclear development under peaceful purposes by:
67
68 i. Establishing bilateral and multilateral partnerships instead of direct partnerships with the
69 IAEA and utilizing the abilities of independent audit committees who have no affiliation with
70 the IAEA or UN to monitor private investors' actions so as to ensure transparency in
71 fundraising and investments and that companies stay in accord with the SFGs and the goals of
72 the UN, and report to the IAEA every two years;
73
74 ii. Preventing from giving decision-making powers to investors to avoid corruption within the
75 IAEA system;
76
77 b. Encouraging Member States who have already developed nuclear technologies to allow less and least
78 developed countries to utilize such technology at a nominal cost negotiated by the participating states;
79
80 c. Adopting collaborative structures like patent pools, open source innovation, open licensing
81 agreements, joint license schemes and non-assertion pledges;
82
83 d. Adhering to the following process when diffusing existing technologies into technical cooperation
84 partnership programs, locate technologies that are essential for development of a new crucial one,
85 negotiate to cut the costs and complexity of access of the technologies, facilitate access of the
86 technologies to member nations of the partnership program, especially LDCs;
87
88 e. Encouraging cooperation between the IAEA, Member States and development banks, such as the
89 World Bank and the Asian Infrastructure Investment Bank;
90
91 3. *Endorses* a presentation of past and current TCPs to the private sector and interested private parties in an
92 annual special conference in order to:
93
94 a. Rehabilitate TCP so that less and least developed countries may be aided;
95
96 b. Provide non-monetary, mutually beneficial incentives such as natural resources to private actors in
97 hopes to ameliorate their position with comparative advantages;
98
99 c. Be familiar with the goals and practices of the IAEA;
100
101 4. *Urges* countries to ratify the statutory amendment of 1999 that converts the IAEA annual to the bi-annual
102 budget in order to increase cooperation with the Food and Agriculture Organization (FAO) and the World
103 Health Organization (WHO), both of whom have bi-annual budgets;
104
105 5. *Endorses* establishing a department for marketing purposes within the IAEA, encompassing:
106
a. An ambassador for the IAEA, appointed by the Director General;

- 107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
- b. Distinguished scientists within all applicable fields affiliated with the IAEA;
 - c. Business professionals with expertise in various concentrations, such as marketing and economics, affiliated with the UN;
6. *Proposes* that the department of marketing establish a campaign directed by the ambassador in order to inform and involve civil society of the work of the IAEA and the importance of the Technical Cooperation Programme;
7. *Implores* Member States to implement preventive mechanisms and responses to actions of private investors included in the funding of TCPs by:
- a. Developing a consultation strategy together with the Department of Technical Cooperation to ensure that nuclear technology is used in the most effective and efficient way;
 - b. Monitoring the flow of natural resources through annual reports written by the special national rapporteur to the Department of Technical Cooperation and, if necessary, a task force from the IAEA's Departments of Technical Cooperation and Safeguards;
8. *Recommends* that the participating bodies in the private sector receive rebates and government subventions in their domestic territory that maintain national sovereignty and legislations;
9. *Urges* Member States to utilize South-South Cooperation (SSC) and the Triangular Development Cooperation (TDC) as precedence to create a North-South Cooperation between countries of varying regions, and further encouraging affluent and resource-rich countries to help developing countries by:
- a. Giving fiscal, physical, and non-monetary resources to developing countries so that they are able to expand on nuclear research and/or create nuclear energy programs for which the technology already exists but the funds to make it a reality do not;
 - b. Directly creating infrastructure and programs, alleviating the burden of all Member States, ensuring equity and so that they may focus on nuclear energy expansion without worrying about financial discord;
10. *Requests* that the IAEA continues to enhance current cooperation with the UNODA and OPCW with the goal of acquiring additional funding to implement more joint programs, in order to further IAEA programs and goals to countries in need of advanced technical development assistance;
11. *Strongly urges* streamlining the TCF into the IAEA ordinary budget, in order to secure stable funding for TCF initiatives, such as the Peaceful Uses Initiative (PUI):
- a. On the condition that if any budget cuts are executed, funding for technical cooperation will not be affected;
 - b. With the caveat that, if the physical safety and security of any peoples is threatened by natural disasters, funding will be reevaluated, including a grace period relative to said natural disasters;
12. *Encourages* all Member States to make financial contributions to TCFs as well as extra budgetary funds so that all developing countries have the same opportunity to enjoy the advancement in nuclear technology;
13. *Recommends* the cooperation between the IAEA and the Nuclear Energy Agency (NEA) for the purposes of:
- a. Encouraging private actors to invest and become financially involved in the nuclear energy development of states with lower nuclear infrastructure expertise;

163
164
165
166
167
168
169
170
171
172

b. Decreasing costs and improving the efficiency of nuclear energy development;

14. *Emphasizes* that Member States that have been found by the IAEA to be violating their safeguard agreements will not be able to benefit from the proposed programs;
15. *Proposes* a change to the calculation of Member States' annual contribution to the IAEA regular budget by establishing a more flexible measurement using countries' Human Development Index (HDI), their Gross Domestic Product (GDP), their annual GDP growth along with the OECD's Wellness Index included as well in average, reviewing this measurement every five years to define new categories and updating existing categories.



Code: IAEA/1/13

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*
2

3 *Affirming* article 2 of the *Statute of the International Atomic Energy Agency* (the Statute) (IAEA) and its focus on
4 utilizing nuclear technology to promote international peace, health, and prosperity,
5

6 *Recalling* IAEA General Conference resolution 60/9 of 2015, on “Measures to strengthen international cooperation
7 in nuclear, radiation, transport and waste safety,” and the *Convention on Nuclear Safety* (CNS) and its focus on safe
8 and sustainable use of nuclear technology,
9

10 *Having examined* the policies set forth by the *Convention of Nuclear Safety* (CNS) in regards to high safety
11 regulations, assessments, and quality assurance of nuclear power plants,
12

13 *Appreciating* the IAEA’s Technical Cooperation Programme (TCP) and the need for multilateral exchange of ideas
14 and technology in effectively managing nuclear waste, allowing Member States to utilize all potential sources of
15 expertise, both public and private, including outside organizations such as the World Association of Nuclear
16 Operators (WANO) and the Nuclear Waste Management Organization (NWMO),
17

18 *Noting* the necessity of adherence to the *Revised Guiding Principles and General Operating Rules to Govern the*
19 *Provision of Technical Assistance by the Agency,*
20

21 *Reaffirming* the regulations and policies set forth in articles 3 and 4 of the *Revised Supplementary Agreement*
22 *Concerning the Provision of Technical Assistance* by the IAEA (RSA),
23

24 *Aware* of the unavoidable danger of severe accidents related to the usage of nuclear technology for power
25 production, the need for stringent controls and regulation of nuclear energy and its associated waste, which can have
26 detrimental effects on the environment and human health that last far beyond the beneficial uses of the technology,
27

28 *Concerned* about the inability of many states to effectively and sustainably manage the nuclear waste produced
29 within their own borders,
30

31 *Emphasizing* the primary responsibility of the operators of nuclear facilities to be responsible for ensuring the safety
32 and environmentally-conscious operation of those installations,
33

34 *Cognizant* that nuclear power plants at the end of their operational lifespan need to be decommissioned in a safe and
35 permanent manner in accordance with rigid security measures and effective and long-term removal of waste
36 material,
37

38 *Affirming* the effectiveness of global transparency to facilitate safety when exploring the application of nuclear
39 technologies,
40

41 1. *Strongly encourages* Member States planning to use, considering, or currently utilizing nuclear technology to
42 become Contracting Parties to the *Convention on Nuclear Safety*;
43

44 2. *Encourages* continuing collaboration with private and public sector organizations possessing expertise on the
45 use, transport and disposal of nuclear material such as, but not limited to, WANO and NWMO, in order to
46 refine and gain the practical knowledge necessary to share with parties interested in cooperating on waste
47 disposal;
48

49 3. *Recommends* that all Member States continue to uphold the International Commission on Radiological
50 Protection (ICRP) regulation standards for global safety;

- 51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
4. *Calls for* Member States, the IAEA, and the Underground Research Facilities Network for Geological Disposal (URF), under the auspices of the TCP, to support the development of regionally-focused international waste repositories to increase the technical capacity of Member States to sustainably deal with the nuclear waste created by facilities within their borders and engage in technical cooperation by sharing the technical capacity for dealing with waste, acting cohesively to mutual benefit, engaging in bilateral, multilateral, and regional collaboration and:
 - a. Utilizing the URF Network as a platform to exchange information and encourage training of professionals focused on geological disposal, the sharing of best practices, and the deliverance of assistance to Member States needing technical support in the management of waste;
 - b. Encouraging that the financial burden in creating and maintaining these storage facilities be shared among the states utilizing them, wherever possible, and calling upon other states interested in fostering the safe use and storage of nuclear materials contribute to their development;
 - c. Emphasizing the transportation of the radioactive materials to be stored in these repositories must be conducted in accordance with the IAEA's Regulations for the Safe Transport of Radioactive Material;
 - d. Stressing that detailed information for all materials stored at these repositories should be shared among all states utilizing the centres and all neighboring states that may be affected by potential contamination or damage to the facilities;
 5. *Requests* the establishment of an IAEA technical assistance program, known as the Nuclear Waste Repository Facilitation Programme (NWRFP), funded by voluntary contributions to the Technical Cooperation Fund, to facilitate the safe and efficient transportation and storage of nuclear waste in national, regional, and international nuclear waste repositories by:
 - a. Providing training for state officials in the process of protecting and transporting nuclear waste across variable distances and geographic terrains sourced from the Strategic Approach to Education and Training in Radiation, Transport, and Waste Safety;
 - b. Helping in the location assessment and multilateral negotiation process necessary to plan regional repositories by assessing suitable locations for these repositories based upon the regional needs, centrality of proposed locations, available security, and environmental concerns, utilizing the expertise of public and private organizations such as the European Repository Development Association and Pangea Resources;
 - c. Providing logistical support and expert personnel support beyond what URF can provide as a platform in order to facilitate the development of waste repositories in a concrete way and ensure universal accessibility to repository technology;
 - d. Calling for the creation of an IAEA-facilitated forum to connect developing Member States with the best available technical practices for nuclear waste repository construction and maintenance, provided by URF and any other Member States, organizations, or groups wishing to share expertise, with the forum:
 - i. Being run by the Global Nuclear Safety and Security Network (GNSSN);
 - ii. Consisting of a permanent online platform for discussion and publication of practices associated with repository construction, operation, and maintenance;
 - iii. Being moderated by the GSSN to screen practices and build consensus about the most efficient, cost-effective, and environmentally conscious practices;
 - e. Developing a Safe Transport Monitoring System (STMS), based off current standards of the IAEA Regulations on Transport of Radioactive Material, to ensure the safe transport of nuclear material to trans-national repositories by IAEA officials until a state is deemed proficient at this task and to ensure

107 all states involved in the transportation network are aware of the routes and content of any radioactive
108 cargo;
109

110 f. Providing educational and technical assistance for state entities tasked with the decommissioning of
111 unsafe or outdated nuclear facilities by synthesizing details from the specific frameworks used by the
112 IAEA to deal with decommissioning of the Chernobyl, Fukushima Daichii, Ignalina and A1 nuclear
113 power plants, and creating plans for the transport of waste associated with the decommissioning;
114

115 6. *Suggests* that the NWRFP also adopt best practices and principles of waste management consistent with
116 technical cooperation and capacity-building by encouraging states to share successful policies with those
117 Member States seeking to improve their waste management practices in order to relieve the burden on the
118 technical capacity of states through:
119

120 a. Inviting Member States with successful domestic waste legislation or programs to share their practices
121 with all Member States on the NWRFP platform so that the most successful practices can be shared
122 with desiring Member States in the Country Programme Frameworks developed by the IAEA and
123 individual Member States;
124

125 b. Encouraging Member States to introduce domestic waste management principles requiring the private
126 producers of radioactive waste to be held legally and economically responsible for the safe
127 management and disposal of any waste they generate;
128

129 c. Suggesting the creation of a special fund dependent upon domestic legislation and administered by the
130 competent state authority that private corporate creators of nuclear waste are required to pay into in
131 order to utilize waste-producing nuclear technology, earmarked for the inevitable cleanup and
132 decommissioning costs of the nuclear technology, and requiring, wherever possible, the initial creators
133 of nuclear waste be responsible for the disposal and storage of this waste, but with ultimate
134 responsibility resting with the relevant state authority;
135

136 d. Utilizing the technical expertise and resources provided by the NWRFP in decommissioning nuclear
137 facilities, transporting, and storing radioactive waste;
138

139 e. Sharing technical specifications of the facilities under operation by cooperating with the competent
140 national authorities and engaging in bilateral collaboration with neighboring countries and encouraging
141 the producers of waste to purchase insurance and be liable for nuclear damage resulting from the
142 installation, operation, or decommission of nuclear facilities;
143

144 f. Utilizing existing storage infrastructure wherever possible, but investigate the possibility of utilizing
145 and creating regional repositories and joining the NWRFP;
146

147 7. *Supports* the implementation and transmission of national nuclear energy reports to the United Nations
148 Scientific Committee on Effects of Atomic Radiation (UNSCEAR) and the NWRFP, available to Member
149 States and providing them with access to information that furthers knowledge and understanding on the
150 environmental impacts of nuclear materials and allowing the international community to collaboratively,
151 consistently, and continually develop safer policies for global standards of waste management, with the reports
152 including:
153

154 a. The location of nuclear fuel cycle-related research and development facilities and associated storage
155 repositories and the methods of transport utilized for radiological materials;
156

157 b. Information on the types and quantities of waste present, the methods of management utilized, the
158 sourcing of uranium used, and a complete accounting of the supply chain;
159

160 c. No information that is of concern to a state's sovereignty or security;
161

- 162 8. *Suggests* that access to these reports is implemented through regional based bi-annual workshops, within the
163 existing IAEA cooperation agreements of African Regional Cooperation Agreement for Research,
164 Development, and Training Related to Nuclear Science (AFRA), Regional Cooperative Agreement (RCA),
165 Regional Cooperative Agreement for the Promotion of Nuclear Science and Technology in Latin America and
166 the Caribbean (ARCAL) and The Cooperative Agreement for Arab States in Asia for Research Development
167 and Training Related to Nuclear Science and Technology (ARASIA), aiming at increasing the collaboration
168 and harmonization of neighboring states in matters of logistical, technological and scientific information
169 sharing;
170
- 171 9. *Encourages* Member States to share any relevant information acquired from regulators, scientific organizations,
172 or the operators of nuclear facilities with the NWRFP, the international community, and relevant partners, such
173 as neighboring countries, in these aforementioned regional workshops and other forums like the NWRP's online
174 platform in order to increase the efficacy and international harmonization of waste management practices.



Code: IAEA/1/14

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*
2

3 *Guided by General Conference resolution 60/9 (2016) for measures to strengthen international cooperation in*
4 *nuclear, radiation, transport and waste safety; clear Waste Disposal Concepts, which can lighten the burden on*
5 *individual Member States to deal with their nuclear waste,*
6

7 *Recalling the need to close the fuel cycle in order to reduce nuclear waste, as stated in the many 123 Agreements*
8 *between the United States and other Member States,*
9

10 *Emphasizing that technical cooperation can reduce potential disasters such as those who happened in Fukushima,*
11 *Chernobyl, Three Mile Island, and Polygon, as well as limiting the potential impact of future incidents,*
12

13 *Noting with satisfaction the efficiency of the Nuclear Fuel Cycle Simulation System (VISTA), a computer program*
14 *to simulate the operation of nuclear facilities, which allows for states to change parameters to simulate disasters and*
15 *potential response protocols,*
16

17 *Conscious of the weighty role of training and the significance that technology has on training, as Director General*
18 *Yukiya Amano stated on 2 March, 2015, in his Introductory Statement to the Board of Governors,*
19

20 *Taking into account the need of extra budgetary contributions such as the Peaceful Uses Initiative (PUI) programs*
21 *and the Renovation of Nuclear Applications Laboratories (ReNuAL) and the significant contributions they have*
22 *made in regards of efficient IAEA's response programs such as the "Regional coordination of coastal emergency*
23 *preparedness and response arrangements" in the Mediterranean region of Africa and the Middle East,*
24

25 *Recognizing the assistance provided to Member States in management of regulatory control programs in accordance*
26 *with IAEA safety standards and guides through the Regulatory Authority Information System (RAIS),*
27

28 *Acknowledging the success that "Shelter" programs have had in effectively containing nuclear radiation following*
29 *incidents involving nuclear fuel, as has been the case in Chernobyl,*
30

31 *Recognizing the efforts that have been made by the IAEA in constructing the first Low-Enriched Uranium bank in*
32 *Oskemen for the purpose of creating a consistent supply of energy separate from the market,*
33

34 *Stressing the vital role of the Department of Technical Cooperation in ensuring energy safety and security for*
35 *developing nations, as stated in the IAEA 2018-2023 Medium Term Strategy,*
36

37 *Appreciating all the contributions made in the assistance of establishing nuclear energy for least developed countries*
38 *(LDCs),*
39

40 *Keeping in the mind the underlying goal of providing nuclear power to benefit the quality of life of citizens, while*
41 *ensuring their safety and security will not be compromised,*
42

43 *Fully aware of the current shortcomings that are present in the ability of the IAEA's Incident and Emergency Centre*
44 *(IEC) to anticipate and preemptively address the possibility of incidents involving nuclear fuel,*
45

46 1. *Encourages the creation of regional nuclear waste storage facilities, similar to the International Nuclear*
47 *Radiation (UNSCEAR), the International Commission on Radiological Protection (ICRP), and other relevant*
48 *organizations in the development of safety standards, by:*
49

- 50 a. Determining the optimal geographical location within Member States, who have volunteered their
51 candidacy, for the construction of deep-seated nuclear-waste depository facilities;
52
- 53 b. Having all Member States who want to use the facility contribute funding for building and
54 maintenance, based on the percentage of waste they will put into the facility;
55
- 56 c. Having a coordinated research program between developed and developing countries to enable the
57 transfer of technical information and data, using existing regional networks similar to the Network of
58 E-Government Leaders of Latin America and the Caribbean;
59
- 60 d. The IAEA providing technological information and background research;
61
- 62 e. Working within IAEA standards to implement domestic legislation to address nuclear waste and
63 radioactive material storage and disposal;
64
- 65 2. *Recommends* the further implementation of programs similar to the Foreign Research Reactor Spent Nuclear
66 Fuel Acceptance Program, in which uranium producing countries distribute uranium to LDC's using nuclear
67 energy for peaceful purposes and receive the generated waste, to further promote regional and international
68 cooperation, in addition to the peaceful application of nuclear energy and safe disposal of radioactive waste in
69 order to ensure the closure of a fuel cycle;
70
- 71 3. *Encourages* the utilization of new technology, such as the Virtual Reality Toolkit and the Nuclear Fuel Cycle
72 Simulation System (VISTA), along with sessions run by experienced personnel, in order to:
73
- 74 a. Provide training to employees as this:
75
- 76 i. Reduces costs in the long run by reducing the need for people to travel for training
77 workshops;
78 ii. Encourages team-work;
79 iii. Improves access to internships for students graduating in nuclear engineering;
80 iv. Can provide training for hypothetical situations that would be too dangerous to reenact in real
81 life, for instance organizing crisis simulations;
82
- 83 b. Be used by scientists to predict the benefits and detriments of new nuclear technology for energy
84 purposes without having to physically perform the experiment in question;
85
- 86 4. *Recommends* Member States to continue to fund and support programs such as ReNuAL, and other regional
87 PUI's, in order to advance within functional and infrastructural areas that could require further improvement in
88 each region;
89
- 90 5. *Encourages* Member States who are determining how to appropriately reduce the spread of radioactive
91 materials following incidents involving nuclear fuels; to consider the construction of containment structures,
92 such as those currently being built in Chernobyl;
93
- 94 6. *Recommends* Member States to consider improving current high-enriched uranium banks in regards to safety
95 operations and transitioning to the use of low-enriched uranium strictly for public use and serve as a supply
96 mechanism, not to impede the market;
97
- 98 7. *Supports* the continued expansion of the Regulatory Authority Information System (RAIS) which has
99 successfully assisted Member States in maintaining and expanding their domestic regulatory environments for
100 nuclear fuel;
101
- 102 8. *Recommends* the establishment of Ensuring Safeguards Prior to Networking program (ESPN) that will:
103
- 104 a. Be implemented as a strategy in order to ensure specific Safeguard By Design frameworks (SBD) are
105 being met prior to and during the sharing of technology; Be implemented as a strategy under the

106 Department of Technical Cooperation in close collaboration with the Regulatory Authority
107 Information Systems (RAIS);
108

109 b. Consist of three pillars:
110

- 111 i. directing regionally focused groups, in coordination with the regional bodies and IAEA
112 regional officers, to facilitate the monitoring process under the Department of Technical
113 Cooperation;
- 114 ii. consistently monitor states in terms of their application of the SBD;
- 115 iii. creating reports for the Department of Technical Cooperation recommending or discouraging
116 the sharing of science and technology for the member state based on their consistent and
117 responsible implementation of SBD monitoring;
118

119 9. *Encourages* that the Department of Technical Cooperation work with the Department of Nuclear Energy in
120 order to:
121

122 a. Aid the facilitation of annual meetings which will review the previous year's scientific advancements
123 in nuclear fuel management;
124

125 b. Restrict the activities of the departments and the department's involvement in, or with respect to, any
126 Member State such that:
127

- 128 i. the spectrum of assistance provided by the departments at the sole-discretion of the requesting
129 Member State;
- 130 ii. the departments will respect and agree not to disclose any sensitive information which may be
131 inadvertently exposed to them;
132

133 c. Organize a nuclear-incident task force which will deploy to assist Member States in the event of a
134 nuclear emergency in order to:
135

- 136 i. appropriately respond to requests for assistance by the Member States that the incident has
137 occurred within;
- 138 ii. arrange training courses for already existing regional and state designated response teams;
139

140 d. Create a prevention and reaction plans to nuclear accidents on a regional scale. This would imply
141 strengthening safety standards and proceeding to regular on-site inspections by regional experts.



Code: IAEA/1/15

Committee: The International Atomic Energy Agency

Topic: Improving Science and Technological Activities through Technological Cooperation

1 *The International Atomic Energy Agency,*
2

3 *Recalling* General Conference resolution 60/11 on “Strengthening of the International Atomic Energy Agency's
4 (IAEA) technical cooperation activities” and General Conference resolution 60/12 on “Strengthening the IAEA’s
5 activities related to nuclear science, technology and applications,”

6
7 *Noting with satisfaction* the IAEA’s contribution to the implementation of the *2030 Agenda for Sustainable*
8 *Development*, particularly through the Technical Cooperation Programmes (TCP),
9

10 *Conscious* that nuclear technology is not readily available to less developed countries (LCDs) due to lack of funding
11 and training,
12

13 *Realizing* efforts to fully identify and address lessons from the Fukushima nuclear disaster of 2011,
14

15 *Expressing its concern* that failure to follow necessary nuclear safety procedures could lead to major radiological
16 disasters like the 1986 Chernobyl accident which could hugely affect the global community,
17

18 *Recognizing* that the Technical Cooperation Programmes continue to contribute to the achievement of national and
19 regional goals for sustainable development, particularly in developing countries,
20

21 *Recalling* that the financing of technical cooperation (TC) should be in line with the concept of shared responsibility
22 among all Member States towards financing and enhancing the TC activities of the Agency,
23

24 *Noting* that the high expenditures which arise from the construction of nuclear power plants can cause constraints
25 when developing countries lack financial resources,
26

27 *Expecting* Member States to financially and informationally contribute to the advancements of peaceful nuclear
28 initiatives throughout the global community,
29

30 *Observing* that over thirty countries are currently using, developing or wanting to develop nuclear power in their
31 country,
32

33 *Reiterating* its respect for some countries' concerns regarding the safety of nuclear energy as well as countries' or
34 regions' decision to form nuclear-energy free zones,
35

36 *Recalling* that maintaining and expanding nuclear power programs require the development, implementation and
37 continuous improvement of appropriate infrastructure to ensure the safe, secure, efficient and sustainable use of
38 nuclear power under IAEA’s standard of nuclear safety,
39

40 *Noting* the progress achieved in several Member States in the development of innovative nuclear energy system
41 technologies, as well as the high technical and economic potential of international collaboration in the development
42 of such technologies,
43

44 *Noting* that the membership of the IAEA’s International Project on Innovative Nuclear Reactors and Fuel Cycles
45 (INPRO), which was launched in 2000, continues to grow and now comprises of 41 Member States and the
46 European Commission,
47

48 *Recognizing* the necessity for effective methods of disposal for spent fuel and radioactive waste in avoiding
49 imposing undue burdens on future generations or on countries not using nuclear energy in their national energy
50 framework,
51

52 *Emphasizing* the need for safe and efficient methods of disposal for spent fuel and high-level waste, which can be
53 fostered through agreements among several Member States that have used nuclear energy to use storage and
54 disposal facilities in one of them for their mutual benefit,
55

56 *Noting* the important role that the IAEA plays in assisting Member States in the establishment, preservation and
57 enhancement of nuclear knowledge and in implementing effective knowledge management programs at national and
58 organizational levels, and confirming the important role of nuclear knowledge management programs in
59 strengthening nuclear education, training and networking capabilities,
60

61 *Recognizing* that national nuclear and other entities are crucial partners in the implementation of TC programs in
62 Member States and in promoting the use of nuclear science, technology and innovation for achieving national
63 development objectives,
64

65 *Keeping in mind* the role that safe, secure, reliably operated and well utilized research reactors can play in national,
66 regional and international nuclear science,
67

68 *Recognizing* the importance of the IAEA's international peer reviews and international support programs to improve
69 the nuclear safety framework of Member States,
70

71 *Recognizing* that the specific requirements of national infrastructures which are associated with nuclear power
72 exceed the expertise associated with conventional energy and industrial planning,
73

74 *Noting* that the high expenditures which arise from the construction of nuclear power plants can cause constraints
75 when developing countries lacking financial resources,
76

77 *Commending* the IAEA's effort to provide support in the areas of human resource development, which continues to
78 be a high priority to Member States that are working in expanding its nuclear development programs,
79

80 *Highlighting* the success of the technological assistance provided through IAEA Technical Cooperation Programmes
81 (TCPs) in helping Member States to develop national capabilities for conducting future national energy studies and
82 rigorous strategic planning, through the transfer of training, analytical tools, expertise and advice,
83

84 *Emphasizing* the effectiveness of the IAEA's systemic approach, energy planning tools and analytical use of
85 computer based models for further developing national energy strategies in regards to energy and electricity demand
86 analysis and projection, least-cost electric system expansion analysis, energy resources allocation to power and non-
87 power sectors, and environmental impact analysis,
88

- 89 1. *Stresses* the IAEA's contribution to the implementation of the *2030 Agenda for Sustainable Development*,
90 particularly through the TCP;
91
- 92 2. *Encourages* the promotion, in close consultation with Member States, of TC activities supporting the self-
93 reliance, sustainability and further relevance of national nuclear and other entities in Member States,
94 particularly in developing countries;
95
- 96 3. *Requests* to strengthen the IAEA's TC activities through the development of effective programs with well-
97 defined outcomes aimed at promoting and improving peaceful and safe technological research as well as
98 regulatory capabilities of Member States, taking into account the infrastructure and level of technology in the
99 respective countries, by measures including, but not limited to:
100

- 101 a. Multi-Stakeholder platforms where scientific communities present and promote late nuclear
102 technology that can be applied to social and economic cases;
103

- 104 b. Utilization of Member States training courses and fellowships, Cyber Learning Platform for Network
105 Educational and Training Program (CLP4NET) to increase the individual capabilities of professionals
106 working within nuclear facilities;
107
- 108 c. Capacity building in the management of nuclear waste through organizing visits and exchanges of
109 professionals into countries already operating storage and disposal facilities;
110
- 111 4. *Suggests* that it is necessary to develop a fund with the purpose of building nuclear infrastructure in less
112 developed states, which do not have the financial means to develop sufficient nuclear technology, and calls for
113 donations from multiple sources including developed IAEA Member States, non-governmental organizations,
114 and affluent members of the private sector;
115
- 116 5. *Encourages* the activities undertaken by the Secretariat to promote cooperation between Member States
117 between established nuclear power programs and those who recently gained nuclear capabilities;
118
- 119 6. *Recommends* that Member States ensure the development of appropriate methods for making nuclear
120 technology available to all Member States upon request as one step towards enabling a high level of
121 development;
122
- 123 7. *Recommends* that Member States expand technology and knowledge transfer under the auspices of the IAEA in
124 the field of nuclear transportation and storage, including fuel rods for nuclear power plants, fissile isotopes used
125 in medicine, and material used for research, while ensuring that transportation and temporary storage is in line
126 with the highest applicable safety standards in all countries to protect the local population and the environment
127 and respecting countries and regions sovereignty regarding external nuclear material being introduced into,
128 transported through or stored in their territory;
129
- 130 8. *Encourages* Member States to participate in collaboration with the Site and External Events Review Service
131 (SEED) to implement fourth-generation reactors in order to make the development of nuclear technology more
132 energy efficient and safe, due to higher efficiency and reduction of the amount of high level nuclear waste
133 produced;
134
- 135 9. *Further encourages* Member States that are engaging in nuclear development to update their nuclear energy
136 sources;
137
- 138 10. *Requests* that the Secretariat continue its support to interested Member States, in particular through
139 strengthening their knowledge, experience and capacity in the management of all stages of a nuclear plant's life
140 cycle, including older and decommissioned plants;
141
- 142 11. *Encourages* countries with older forms of nuclear power reactors to plan a new energy strategy that will include
143 the option to use more renewable energies to both ensure a balance of power and allow some Member States to
144 not only depend on imported energy, while exchanging information on relevant experiences and good practices
145 in safe and effective nuclear power plant operations;
146
- 147 12. *Further encourages* developed Member States to grant researchers from less developed countries access to their
148 research reactors, to ensure that all countries conveniently benefited from the scientific progress achieved in the
149 more developed countries such as the systems of study at Kaunas University of Technology in Lithuania;
150
- 151 13. *Urges* Member States, NGOs and the UN system to work together on the establishment of a global database on
152 the management of nuclear power plant and nuclear waste, in order to obtain comprehensive supervision and
153 management;
154
- 155 14. *Calls* upon the Secretariat to facilitate, as necessary, 'soft coordination' among Member States for the more
156 efficient implementation of multilateral and bilateral assistance to countries considering or planning for the
157 introduction or expansion of nuclear power;
158

- 159 15. *Suggests* that Member States individually adopt a Nuclear Safety Council composed of professional experts
160 from Member States and Non-Member States, officials from Member States government organs, and
161 experienced employees of nuclear power plants (NPPs);
162
- 163 16. *Further recommends* that members of a Nuclear Safety Council meet regularly with relevant Member State
164 ministries/organs to advise member state leaders;
165
- 166 17. *Calls for* Member States to take greater strides to inform their citizens about how to react to nuclear or
167 radioactive disasters through public awareness and communication channels;
168
- 169 18. *Calls for* relevant government organs to require all licensees for nuclear power facilities;
170
- 171 19. *Encourages* Member States to have robust standard operating procedures to fulfill the need for an immediate
172 response plan for any potential nuclear or radioactive disaster in compatibility with current IAEA safety
173 standards;
174
- 175 20. *Recommends* that all Member States take robust measures for identifying lessons from the operational and
176 regulatory experiences of other Member States to modify their emergency response protocols;
177
- 178 21. *Asks* that all Member States individually review and ensure that all national regulatory and legal framework for
179 occupational radiation protection, medical exposure control, and transportation of radioactive materials is in
180 compliance with current IAEA safety protocol standards;
181
- 182 22. *Recognizes* the need for Member States to establish and adopt policies that demonstrate long-term commitments
183 to nuclear safety;
184
- 185 23. *Expresses its hope* that Member State governments provide state ministries/organs with sufficient financial and
186 human resources to address planned design lifetime extensions for current operating nuclear power facilities;
187
- 188 24. *Suggests* Member States to consider the possibility of introducing tax incentives for further stimulation of
189 private sector involvement pertaining to the development of renewable energy projects for improving energy
190 self-sufficiency and as a means to benefit the environment;
191
- 192 25. *Suggests* that Member States should consider using the surpluses as a potential means to help cover the cost of
193 investing in the decommissioning of older and obsolete units once nuclear power plants begin to generate
194 surplus revenues;
195
- 196 26. *Calls upon* Member States to immediately rehabilitate existing Combined Heat and Power (CHP) units,
197 hydropower and thermal plants;
198
- 199 27. *Strongly* supports research and development in the field of nuclear technologies, both in the branch of effective
200 energy production and in the management of nuclear waste and effectively implementing the results of that
201 research;
202
- 203 28. *Recommends* that the existing international organizations concerned, in particular the IAEA and the Nuclear
204 Energy Agency (NEA) of the Organization for Economic Co-operation and Development (OECD) shall ensure;
205
- 206 a. To determine with clarity which technologies can be used for the construction of new power plants;
207
- 208 b. Strict observance of the safety rules by the countries lacking experience with the nuclear industry;
209
- 210 c. To contribute to staff training and to monitoring of the entire process of nuclear energy production in
211 these countries, especially in terms of compliance with nuclear safety rules.



Code: IAEA/1/16

Committee: International Atomic Energy Agency

Topic: Improving Science and Technology Activities through Technical Cooperation

1 *The International Atomic Energy Agency,*

2
3 *Welcoming* the outcomes of the seventeenth session of the commission on Sustainable Development regarding
4 issues on agriculture, rural development land, drought, and desertification in Least Developed Countries (LDCs),
5

6 *Expressing* its appreciation of the close collaboration between the International Atomic Energy Agency (IAEA) and
7 the Nuclear Energy Agency (NEA) of the Organization for Economic Co-operation Development (OECD),
8

9 *Emphasizing* the importance of achieving the Sustainable Development Goals (SDGs), in particular goal 2 which is
10 working towards zero hunger, and goal 3 which is working towards good health and well-being,
11

12 *Emphasizing* the importance of the *Addis Ababa Action Agenda* endorsed to find finance sustainable development in
13 order to fund further activities and programs regarding technical cooperation,
14

15 *Recalling* General Conference resolution 60/9 of 2016 and previous resolutions on matters relating to measures to
16 strengthen international cooperation in nuclear, radiation, transport and waste safety, and emergency preparedness
17 and response,
18

19 *Further recalling* the outcome document of the United Nations (UN) Conference on Sustainable Development, *The*
20 *Future We Want* of 2012,
21

22 *Stressing* the possible benefits that future research on cooperation in nuclear technology can have on the fulfillment
23 of SDGs, especially Goal 3, which focuses on good health and wellbeing, and the training programs that have taken
24 place during recent outbreaks in affected areas,
25

26 *Fully alarmed* that many citizens in Member States are not receiving adequate medical care for diseases such as
27 cancer, as discussed by the World Health Report 2013 published by the World Health Organization (WHO),
28

29 *Reaffirming* the importance to make every effort to accelerate the achievement of local training programs such as
30 “Cancer Care” to diagnose diseases effectively and quickly to decrease preventable deaths,
31

32 *Acknowledging* the works done by Program of Action for Cancer Therapy (PACT), which builds on the Agency’s
33 experience in radiation medicine and technology and enable developing countries to introduce, expand, or improve
34 their cancer care capacity,
35

36 *Noting* the difficulty for developing countries to establish and grow their medical programs without assistance, as
37 stated by the IAEA Human Health Programme as well as SDG 17, which focuses on global partnership,
38

39 *Paying tribute to* the efforts of the Regional Cooperation Agreement (RCA) to promote, coordinate and implement
40 cooperative research, development and training projects in the peaceful application of nuclear science and
41 technology,
42

43 *Fully alarmed* by the condition of cancer centers in developing countries, since statistically in 2030 more than 70%
44 of cancer deaths are expected in those countries,
45

46 *Recognizing* the devastation of disease outbreaks, such as Zika and Ebola, and the role of nuclear technology in
47 addressing this problem, such as using nuclear-derived techniques such as the reverse transcription polymerase chain
48 reaction (RT-PCR) and the enzyme-linked immunosorbent assay (ELISA) for the detection of such viruses in animal
49 carriers,
50

51 *Regretting* that radiotherapy treatment for cancer is not affordable nor accessible for the majority of rural
52 populations, which are faced with a lack of facilities or outdated facilities, and a lack of trained staff and expertise to
53 meet the growing need for treatment, especially in the low and middle income countries according to the Advisory
54 Group on increasing access to Radiotherapy Technology in low and middle income Countries (AGaRT),
55

56 *Aware* of the difficulties that low-income countries face in establishing healthcare monitoring systems within their
57 own countries, and the role SDG 10 which focuses on reducing inequalities can play with this,
58

59 *Observing* severe differences between the quality of health care available in developing and developed countries, the
60 lack of nuclear medicine and radiotherapy facilities in many countries leading to a decrease in medical care to the
61 population, particularly in detection and treatment of cancer, obstacles to increased cooperation between countries
62 with nuclear technology in the field of medicine,
63

64 *Recognizing* the work undertaken by the International Fund for Agriculture Development (IFAD) and the World
65 Food Programme (WFP) on agriculture development and enhancing food security,
66

67 *Recognizing* the collaboration between IAEA and the Food and Agriculture Organization (FAO) in efforts such as
68 the establishment of more than 3000 crop varieties of almost 170 different plant species,
69

70 *Deeply concerned* that according to WFP 800 million people still suffer from hunger around the world,
71

72 *Fully alarmed* by the fact that a growing threat of soil degradation affects two-thirds of the world's soil resources,
73

74 *Noting with alarm* the threat that contaminants and insects, such as the Mediterranean Fruit Fly, the South African
75 armyworm and contaminating bacteria, pose to food and agriculture,
76

77 *Acknowledging* the importance of a sustainable development in regards to agriculture in LDCs,
78

79 *Acknowledging* to the devastation caused by terminal illnesses and other health-related issues, such as but not
80 limited to multiple types of cancers, coronary artery disease, and chronic obstructive pulmonary disease,
81

82 *Deeply alarmed* by the lack of access to clean drinking water especially in Sub-Saharan Africa,
83

84 *Gravely concerned* by the persistence and proliferation of infectious diseases transmitted through arthropod vectors,
85

86 *Reaffirming* the IAEA Report “Trends in Radiation Sterilization of Health Care Products” in its extensive evaluation
87 of the use of gamma radiation to sterilize water,
88

89 *Acknowledging* that the seas are heritage for mankind, giving them a special need to prosper from protection,
90

91 1. *Calls for* the reorganization of the International Conference on the IAEA Technical Cooperation with the
92 purpose of enhancing the cooperation among Member States, and the promotion of the advantages of the
93 peaceful uses of nuclear technologies, which will:
94

95 a. Be comprised by willing Member States of the IAEA, Private Sector, Civil Society, Academia,
96 Religious Organizations and cooperate and promote the successful efforts and advantages of nuclear
97 technologies in areas such as: Agriculture, Water Management, Sea Preservation and safety, Health,
98 Research, among others;
99

100 b. Have the subject and holder of each convention be determined by a nomination process to the General
101 Conference of IAEA, taking into consideration the efforts made regarding the specific subjects
102 proposed and their relevance for international cooperation;
103

104 c. Host workshops in the designated state, three months prior to the conference and in collaboration with
105 the IAEA, to introduce the specific issues that should be addressed in the International Conference on

- 106 the IAEA Technical Cooperation such as the Climate Smart Agriculture (CSA), and the International
107 Center for Tropical Agriculture (CIAT);
108
- 109 2. *Calls upon* all Member States to share responsibility for funding to create broader capacities for all TC
110 programs by:
111
- 112 a. Transferring their appointed share of funds in the appropriate time;
 - 113
 - 114 b. Encouraging more countries to contribute voluntarily based on the positive outcomes they received
115 from technical cooperation;
 - 116
 - 117 c. Distributing their knowledge and experiences with technical cooperation within the Board of
118 Governors of the IAEA;
 - 119
 - 120 d. Including the private and semi-private sector in the national donations;
 - 121
- 122 3. *Encourages* regional cooperation through the establishment of annual meetings led by the Director General of
123 the IAEA and the Executive branch of Regional Organizations such as the African Union, Association of
124 Southeast Asian Nations, the Caribbean Community and The Arab League, held in the respective headquarters,
125 relating to technical cooperation in fields such as agriculture, water management, health and research, which
126 could be extended to further fields of cooperation in the future;
127
- 128 4. *Calls upon* Member States to increase their support towards and to contribute to the RAC so as to:
129
- 130 a. Expand the action already taken by the International Mission Programme of Action for Cancer
131 Therapy (imPACT) review team in rural and regional cancer centers through assessing all components
132 of cancer control including registry, prevention and early detection, diagnosis, treatment and palliative
133 care;
 - 134
 - 135 b. Enhance data integration among these centers in and between Member States in accordance with their
136 Country Program Framework (CPF), for the purpose of making treatment technology accessible to all
137 Member States;
 - 138
- 139 5. *Affirms* the need to support developing and least developed countries in improving their cancer diagnosis and
140 treatment programs through:
141
- 142 a. The creation of creative, innovative, and interactive online teaching, such as simulations, and training
143 modules in order to:
144
 - 145 i. Create hypothetical situations for research and training purposes to experiment with new
146 prevention and treatment measures;
 - 147 ii. Give surgeons the opportunity to practice with tumor removal and chemotherapy
148 administration, without the risk of harming patients;
 - 149 - 150 b. An online database of images that doctors in developing and least developed countries can use as a
151 guideline when diagnosing patients with cancer or other diseases;
 - 152
 - 153 c. Research to develop new radiotherapy treatment methods that will be more accessible to people living
154 in rural areas, such as:
155
 - 156 i. Chemotherapy treatments that can be administered once a week instead of daily;
 - 157 ii. Brachytherapy treatments, which are seed of radiation implanted in a patient to treat cancer
158 and can be controlled remotely by a doctor;
 - 159 - 160 d. Assistance in creating radiology residency training programs in collaboration with PACT and willing
161 Member States through:

- 162
163
164
165
166
167
168
169
170
171
172
173
- i. Partnerships between existing academic institutions and community hospitals with a need for physicians, which helps to expedite the establishment of the residency program;
 - ii. An exchange of doctors between countries and hospitals that can promote the creation of residency training programs;
 - iii. Technical cooperation projects to help countries and medical institutions find suitable locations for a training site that is large enough for facilities, patient volume, and a teaching faculty, and to develop a budget and secure funding for the program;
 - iv. A ten-year timeline for application, accreditation, recruitment, and initiation of the residency program;
 - v. A curriculum approved by the IAEA and based on the needs of the hospital in question;
- 174 6. *Suggests* that Member States support collaboration among regional technical experts and the radiotherapy
175 industry for the purpose of enhancing technological development within low income areas in order to:
176
- a. Reduce the cost of manufacturing radiotherapy equipment;
 - b. Maintain safety standards and promote the simplification of operating equipment in order to decrease the cost for additional training;
- 177
178
179
180
181
- 182 7. *Encourages* the promotion and expansion to developing countries of the WHO Non-communicable Diseases
183 Progress Monitor to developing countries, which will monitor and evaluate treatment processes and the results
184 of said treatments through a:
185
- a. Finalized list of indicators and symptoms;
 - b. Sustainable system for surveillance;
 - c. Periodic review at state and national level of the monitoring progress;
 - d. Record of successes and failures of treatment methods that medical professionals can access;
- 186
187
188
189
190
191
192
193
- 194 8. *Recommends* an oversight and support, with collaboration with the Nuclear Energy Agency (NEA), on medical
195 nuclear research development in the private sector by:
196
- a. Providing IAEA Safety Standards guidelines to development;
 - b. Maintaining both sustainable and economic benefits of development;
 - c. Facilitating the exchange of technical and scientific information and research as explained in operative clause 1;
- 197
198
199
200
201
202
203
- 204 9. *Calls upon* cancer centers to provide more economically conscious treatment, especially regarding developing
205 countries by:
206
- a. Encouraging Member States to provide used radiotherapy equipment with assistance from the IAEA as needed, which will:
207
208
209
 - i. Redistribute radiotherapy equipment that is no longer in use from developed countries to less developed countries;
 - ii. Create a system that tracks the technology in transit until later disposal or deconstruction of;
 - iii. Provide legislative assistance cooperated with the Agency's Office of Legal Affairs;
- 210
211
212
213
214
215
216
217
- b. Exchanging expertise and providing training program under the Programme of Action for Cancer Therapy and World Health Organization in order to build national capacity of cancer treatment;

- 218 c. Suggests expanding technology transfer on the establishment and safe operation of hospital-based
219 reactors that are used for the creation of nuclear isotopes (such as ^{99m}Tc) for use in medicine;
220
- 221 10. *Reaffirms* the need for the mobilization of resources for the increasing productivity of crops and seeds including
222 the review, approval and adoption of biotechnology and other new technologies and innovations that are safe,
223 effective, and environmentally sustainable;
224
- 225 11. *Recommends* the expansion and usage of nuclear technology and techniques towards improving food safety,
226 such as the techniques recommended in the 2014 IAEA and FAO International Symposium on Food Safety and
227 Quality, including isotopic technology to fingerprint and detoxify irradiated food;
228
- 229 12. *Encourages* the implementation of a program in collaboration with the Food and Agricultural Organization
230 (FAO) called the Sustainable Nuclear Agricultural Techniques (SNAT), to find and perfect crops to provide
231 much needed food supplies to countries in crisis by:
232
- 233 a. Improving contaminant residue testing;
234
- 235 b. Enhancing capacity building in the management of food and water hazards;
236
- 237 c. Routine food and water safety monitoring;
238
- 239 d. Proving economic growth to agricultural working classes;
240
- 241 13. *Encourages* Member States to establish Dryland Farming methods that utilize nuclear technologies, such as drip
242 irrigation, and nuclear research methods examining soil erosion and land degradation, in order to allow less
243 developed countries struggling with arid climates, to develop techniques relevant to the development of their
244 nation;
245
- 246 14. *Further encourages* Member States to put in place the method of Mutation Indication, radiating plants in order
247 to produce high-yielding plants that can sustain through harsh climate conditions such as droughts, floods, low-
248 temperature, and sometimes resistant to multiple disease and pests that could affect it;
249
- 250 15. *Emphasizes* the need to make agriculture more sustainable by being aware of the careful stewardship of raw
251 materials, by:
252
- 253 a. Using isotopes such as phosphorus-30 to mark fertilizer and water to measure the amount that is being
254 used by the plants;
255
- 256 b. Determining how much water and fertilizer are necessary to have robust yields of crops, yet not using
257 more than is needed;
258
- 259 c. Promoting efficient and sustainable use of water and fertilizer, which will likewise protect the
260 environment;
261
- 262 16. *Suggests* the expansion of the Education and Training Review Service (ETRES) to work in more developing
263 countries to assist member States to develop and to maintain a sustainable and adequate Education and Training
264 program;
265
- 266 17. *Endorses* the provision and increase of financial support of IAEA projects through the Peaceful Use Initiative
267 (PUI), the Water Availability Enhancement Program (IWAVE), the Program of Action for Cancer Therapy
268 (PACT), and the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO);
269
- 270 18. *Further invites* the use of Gamma radiation sterilization in regions affected by water-borne diseases through
271 means such as, but not limited to:
272
- 273 a. Building new water processing plants equipped with Gamma Irradiation Facilities;

274
275
276
277
278
279
280
281

- b. Adding Gamma Irradiation Facilities to existing water processing plants;
- 19. *Urges* Member States to increase funding for the research on sterile insect techniques using nuclear technology (joint IAEA and Food and Agriculture Organization Program on Nuclear Techniques in Food and Agriculture);
- 20. *Suggests* international cooperation on the cross-border employment and regular international evaluation of these techniques under the auspices of the IAEA.