Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Implementation of the Action Plan Agreed at the 2010 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons

Report submitted by Australia**

Action 20 of the Action Plan contained in the Final Document of the 2010 Nuclear Non-Proliferation Treaty (NPT) Review Conference calls on States parties to submit regular reports on their implementation of the Action Plan as well as of the 13 Practical Steps towards disarmament contained in the 2000 NPT Review Conference Final Document, and of Article VI paragraph 4 (c) of the 1995 NPT Review Conference decision entitled "Principles and objectives for nuclear non-proliferation and disarmament". Action 21 of the Action Plan contained in the Final Document of the 2010 NPT Review Conference stated that, as a confidence-building measure, all nuclear-weapon States are encouraged to agree as soon as possible on a standard reporting form and to determine appropriate reporting intervals for the purpose of voluntarily providing standard information without prejudice to national security. Australia submits this report in accordance with these commitments, and using the reporting template attached to the NPDI working paper on transparency (NPT/CONF.2020/PC.II/WP.26).

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Nuclear Disarmament

1 Australia's longstanding commitment to the Treaty and the objective of achieving a world without nuclear weapons remains undiminished. We hold ourselves to the highest standards of compliance with our non-proliferation obligations. As outlined in Australia's 2017 Foreign Policy White Paper, we advocate a patient and pragmatic approach in a complex security environment. Australia's advocacy of nuclear disarmament and non-proliferation has included a comprehensive ban on nuclear tests (the CTBT, which Australia ratified in July 1998), commitment to negotiations on a treaty to cap the production of fissile materials and efforts to address the technical requirements for verifying nuclear disarmament. We co-author (along with New Zealand and Mexico) the annual UNGA CTBT resolution, and co-chair, with Japan, the Friends of the CTBT. We are active participants in the International Partnership for Nuclear Disarmament Verification, and a member of the High-level Fissile Material Cut-Off Treaty (FMCT) Expert Preparatory Group (EPG).

* Reissued for technical reasons on 14 May 2018.

** The present document is being issued without formal editing.





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Australia has continued its prominent and active role on non-proliferation and disarmament through membership of the 12-nation Non-Proliferation and Disarmament Initiative (NPDI), which Australia and Japan founded in 2010. The NPDI's key objective is specifically to take forward the 64-point action plan from the 2010 NPT Review Conference, which was agreed by consensus and includes most of the steps required to advance the disarmament and non-proliferation objectives encapsulated by the NPT.

Having submitted 17 working papers at the Preparatory Committee meetings of the 2015 NPT Review Conference, and a comprehensive working paper across all three pillars at the Review Conference itself, the NPDI is once again engaging constructively with a range of working papers for the 2017-2020 review cycle. To date, these include papers on CTBT, FMCT, disarmament and non-proliferation education and awareness-raising, promotion of peaceful uses, safeguards, NPT review reform, DPRK, and transparency.

Australia is Chair of the 2018 UN Disarmament Commission (UNDC). Australia participated in the 2016 Open-Ended Working Group on Disarmament (OEWG), where we highlighted the need to pursue the practical, realistic measures necessary to achieve nuclear disarmament. Both at the OEWG and at the UNDC, Australia drafted and coordinated support for papers on the progressive approach to nuclear disarmament.

Australia supports and promotes the role of women in disarmament, non-proliferation and arms control as part of its broader women, peace and security agenda which continues to be a key value and foreign policy priority for Australia. Gender is an issue of direct relevance to strengthening the NPT and has the potential to enhance the capability and effectiveness of NPT processes and their outcomes.

Australia proposed an East Asia Summit (EAS) Statement on Non-Proliferation (co-sponsored by Myanmar) which was adopted by leaders on 8 September 2016. To give effect to this statement, Australia and Thailand co-chaired an EAS Seminar on Non-Proliferation in the Indo-Pacific in Melbourne in October 2017.

2 Australia reaffirms its commitment to apply the principles of irreversibility, verifiability and transparency in relation to the implementation of its NPT obligations. Australia's support inter alia for the CTBT, the negotiation of an FMCT, IAEA safeguards, nuclear-weapon-free zones and transparency through reporting are consistent with that commitment.

Transparency has long been a key focus of the NPDI, including over the 2015 NPT Review Cycle when we prepared a draft reporting template for NWS. The NPDI also submitted a working paper on NNWS transparency to the 2015 NPT RevCon, which included a draft reporting template for NNWS, and working papers on transparency by all States Party to the NPT for the 2017 and 2018 NPT PrepComs — with a template that Australia continues to use (see response to Action 19).

Australia participated in several rounds of NPDI outreach to the P5 in Geneva (2014), New York (2014), London (2015), Washington (2016) and Geneva (2017 and 2018). This afforded further opportunities to underline the importance of transparency. Australia also conducted joint representations with Japan in Moscow, as part of coordinated NPDI outreach to all the P5 capitals to discuss P5 national reports to the NPT.

Australia plays a leading role in the work of the International Partnership for Nuclear Disarmament Verification (IPNDV). We co-chair, with the Netherlands (and previously Poland) one of the IPNDV's working groups and contribute expert input to each of the groups. Australia also prepared working papers on inspections to verify the dismantlement of a nuclear weapon; and, with Japan, a joint working paper on transparency. Australia also co-sponsored the Norwegian-led "nuclear disarmament verification" resolution at UNGA71 (2016).

6 Australia has consistently called for the adoption by the Conference on Disarmament (CD) of a program of work which would provide for the implementation of this action. Australia participated constructively in the CD's 'Way Ahead' working group in 2017 in an effort to find practical ways to unblock the CD. Australia continues to support efforts within the CD to resume substantive work and welcomes the establishment of five subsidiary bodies.

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7 As a member of the CD, Australia supports the discussion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, within the context of an agreed, comprehensive and balanced program of work.

Australia has consistently called for the adoption by the CD of a program of work which would provide for the implementation of this action. Australia continues to support efforts within the CD to resume substantive work.

The NPDI produced a working paper on 'Nuclear-weapon-free zones and negative security assurances' for the 2013 PrepCom. That paper underlined the legitimate interest NNWS have in receiving unequivocal and legally binding security assurances.

9 Australia is a strong supporter of nuclear-weapon-free-zones freely arrived at by Member States.

Australia was an early champion of the South Pacific Nuclear Free Zone Treaty and ratified the Treaty on 11 December 1986. To give effect to its obligations under that treaty, Australia enacted the *South Pacific Nuclear Free Zone Treaty Act 1986*, which, inter alia, prohibits possession of or control over nuclear explosive devices and the stationing of nuclear explosive devices in Australia.

Australia advocates for all countries of the region to join the Treaty and continues to encourage the United States to ratify the Treaty's protocols without reservation.

Australia supports dialogue between ASEAN members and the NWS on signature by the NWS of the Protocol to the South East Asian Nuclear Weapons-Free Zone. Australia also welcomed the establishment of the Central Asian Nuclear Weapons-Free Zone and the signing by the NWS of the protocols to that treaty.

Australia participated in the third Conference of Nuclear Weapon Free Zones (NWFZ) in New York in 2015.

Australia has continued to co-sponsor the annual UNGA resolution (most recently 71/26 of 2016) on the African Nuclear-Weapon-Free Zone (Pelindaba) Treaty since the resolution was made open to non-African States for co-sponsorship at UNGA 65.

Australia continues to support the establishment of a Middle East zone free of nuclear weapons, and other weapons of mass destruction, freely arrived at among States of the region. Australia encourages all interested parties in the region to engage in a spirit of genuine and constructive cooperation with the aim of finding a resolution to the Middle East Weapons of Mass Destruction Free Zone issue.

We, as part of the NPDI, submitted a working paper on 'Nuclear-weapon-free zones and negative security assurances' to the 2013 PrepCom, and a working paper on 'Establishing a weapons-of-mass-destruction-free zone in the Middle East' to the 2014 PrepCom. These papers underlined that NWFZs are an important means for enhancing global and regional peace and security.

11 Australia has enacted national legislation (the *Comprehensive Nuclear Test-Ban-Treaty Act 1998* (the CTBT Act) and the *Non-Proliferation Legislation Amendment Act 2003*) implementing the obligations of the CTBT, in preparation for its entry into force. In addition, Australia enacted the *South Pacific Nuclear Free Zone Treaty Act 1986*, which, inter alia, prohibits the testing of nuclear explosive devices. Through these statutes, a ban on nuclear testing is in force.

The NPDI delivered a statement at the 20th Anniversary CTBT PrepCom in 2016 on Strengthening the Norm against Nuclear Testing, which called on all States "to acknowledge and continue the global de facto moratorium on nuclear weapon test explosions and refrain from any action that would undermine the CTBT's object and purpose."

12 Australia's Minister for Foreign Affairs outlined Australia's activities in pursuit of CTBT entry into force in our national statement to the 2017 CTBT Article XIV Conference in New York on 20 September 2017.

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13 The Ministers for Foreign Affairs of Australia and Japan co-chaired a biennial "Friends of CTBT" Ministerial meeting in New York in 2016 during UN Leaders Week. The meeting endorsed a joint ministerial statement which demonstrated the international community's resolute opposition to nuclear testing and called upon all states to sign and ratify the CTBT without delay. Australia is working closely with Friends of the CTBT in preparation for the 2018 Ministerial meeting, which will aim to give further impetus to these objectives.

With Mexico and New Zealand, Australia is lead sponsor of the annual UNGA resolution, which stresses the fundamental importance of the CTBT to nuclear disarmament and non-proliferation and urges its earliest entry into force.

Australia underlined the importance of maintaining international momentum towards CTBT entry into force at the 20th Anniversary CTBT PrepCom in 2016 and at the Article XIV Conference in New York in 2017.

Australia, as a member of the Vienna Group of 10, submitted a working paper on 'Vienna Issues' to the 2018 NPT PrepCom which covered, inter alia, CTBT issues. Australia, as a member of the NPDI, submitted a working paper on CTBT to the 2017 NPT PrepCom which also strongly supported the Treaty's entry into force.

Australia's support for CTBT entry into force also extends to contributing to capacity-building exercises for countries considering signature or ratification of the CTBT, especially countries in our own region. For example, in 2015 we worked with Myanmar and the CTBTO through a workshop in Myanmar ahead of Myanmar's ratification of the CTBT.

14 Australia hosts the third largest number of facilities in the CTBT's International Monitoring System, comprising 20 monitoring stations and a radionuclide analysis laboratory. Australia also actively supports the CTBTO in developing other aspects of its verification regime, including a leading role in developing on-site inspection procedures.

Australia works with the CTBTO, through technical workshops and other outreach measures, to promote development of and cooperation between National Data Centres.

Australia consistently calls on all states to provide strong financial, technical and political support to the CTBTO for its work on the CTBT verification regime.

15 Australia is a strong proponent of the commencement of negotiations for a treaty banning the production of fissile material for use in nuclear weapons or other nuclear explosive devices, commonly known as the Fissile Material Cut-Off Treaty (FMCT). Australia, through its membership in the NPDI, submitted a working paper on FMCT to the 2017 NPT PrepCom.

Australia is a member of the High-Level FMCT Expert Preparatory Group (EPG) established by UNGA resolution 71/259 of 2016 and is playing an active role in the group's deliberations. Australia was also a member of the Group of Governmental Experts (GGE) on an FMCT, which produced a report in 2015. That report is the most thorough inter-governmental analysis to date of the issues surrounding an FMCT and will be built on by the 2017-18 EPG.

19 At their 9th Ministerial meeting in September 2017, Foreign Ministers of the 12-member NPDI endorsed a joint statement on the current challenges to nuclear disarmament and the non-proliferation of nuclear weapons and reaffirmed the critical importance of concerted action to work towards the shared goal of a world free of nuclear weapons.

Australia, as a member of the NPDI, presented a number of working papers on transparency during the 2015 NPT Review Cycle, and has continued this focus in the current NPT Review Cycle. NPDI working papers on transparency submitted to the NPT PrepCom sessions held in 2017 and 2018 highlighted Actions 5, 20 and 21 of the 2010 NPT Action Plan, encouraged the regular submission of transparency reports by

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the nuclear weapon states and promoted the use of a standard reporting template by all States parties to report on their implementation of NPT commitments (especially the 2010 NPT Action Plan).

Australia actively supports and contributes to the work of the IPNDV, including by drafting a joint working paper on transparency with Japan to stimulate discussion in working group 1 of Phase 1 of the IPNDV. That paper is now available on the IPNDV website. Australia also co-sponsored the Norwegian-led "nuclear disarmament verification" resolution at UNGA71 (2016).

- 20 This document updates the following reports by Australia: written reports on Australia's activities in support of the 2010 Action Plan submitted in 2017, 2015 and 2014; a verbal update in 2013 and a written report in 2012. Prior to this, Australia reported on implementation of article VI, paragraph 4 (c) of the 1995 decision entitled 'Principles and objectives for nuclear non-proliferation and disarmament' in NPT/CONF.2010/36 of 7 May 2010.
- 22 The NPDI, in September 2011, announced it would actively promote disarmament and non-proliferation education to achieve a world free of nuclear weapons. The NPDI produced separate working papers on this issue for the 2012, 2013 and 2017 PrepComs.

Australia joined Japan, along with 30 other countries, as a co-sponsor for a statement on disarmament and non-proliferation education delivered to the 2013 NPT Prepcom. We again supported Japan's initiative in 2014.

The Australian Government takes every opportunity to encourage informed community debate on disarmament and non-proliferation issues, for example through speeches delivered by Government Ministers and senior officials at numerous forums (including in academia, civil society and think tanks).

Nuclear Non-Proliferation

23 In bilateral exchanges and statements in multilateral forums, Australia has consistently called for all non-NPT states to join the NPT as non-nuclear-weapon States and without preconditions. Australia has also conducted regional outreach activities promoting adherence to and fulfilment of NPT commitments, including through hosting capacity-building courses and workshops in Australia.

The NPDI submitted a working paper on 'Addressing Withdrawal from the NPT' to the 2014 NPT PrepCom. Both the NPDI and Vienna Group of 10 working papers submitted to the 2015 NPT RevCon also include consideration of Article X. The Vienna Group of 10 working paper submitted to the 2018 NPT PrepCom includes a section on "discouraging withdrawal from the NPT".

24 Australia was the first country to sign and ratify the Additional Protocol (entry into force on 12 December 1997), the first to make it a condition of supply for uranium exports and the first for which the IAEA was able to draw the 'broader conclusion' that all nuclear materials and activities of safeguards relevance had been appropriately declared and accounted for. Australia not only promotes universalisation of and adherence to Comprehensive Safeguards Agreements (CSA) and Additional Protocols (AP) for all NPT non-nuclear-weapon States, but provides practical support to other States through assisting in workshops and training sessions.

Australia, along with the other members of the Vienna Group of 10, has submitted a working paper to the 2018 NPT PrepCom which included the issues of compliance and verification. In this paper and all relevant forums, Australia advocates that the CSA and AP represent the current verification standard pursuant to Article III.1 of the NPT and for all States party to conclude and bring into force an AP as soon as possible.

25 Australia encourages all States that have not yet done so to bring into force a Comprehensive Safeguards Agreement with the IAEA, together with an Additional Protocol. Australia has facilitated discussions, provided expert advice and hosted workshops and study tours that assist States to bring into force these agreements. Action

Number Australia, along with the other members of the Vienna Group of 10, submitted a working paper to the 2018 NPT PrepCom which included the issues of compliance and verification. Australia holds itself to the highest standards of compliance with its non-proliferation commitments and 26 obligations, and cooperates fully with the IAEA. Australia consistently and strongly promotes universal compliance by states with their non-proliferation obligations, under the NPT and under their agreements with the IAEA, including through regular statements at the IAEA Board of Governors meetings. Australia, through the Vienna Group of 10, has presented a working paper covering, inter alia, compliance and verification issues to the 2018 NPT PrepCom. 27 Australia holds itself to the highest standards of compliance with its non-proliferation commitments and obligations, and cooperates fully and proactively with the IAEA. Australia consistently calls on all states to cooperate fully with the IAEA and to comply with their international safeguards obligations. Australia provided an extra-budgetary contribution for the IAEA to carry out verification activities in support of the P5+1/Iran Joint Comprehensive Plan of Action. 28 Australia signed the Additional Protocol on 23 September 1997, with entry into force on 12 December 1997. Australia actively encourages all states that have not yet done so to bring into force an Additional Protocol to their safeguards agreements with the IAEA. Australia consistently advocates that a CSA together with an AP represents the current verification standard under Article III.1 of the NPT. 29 Australia is a founding member of the Asia-Pacific Safeguards Network (APSN), an informal network of safeguards authorities, ministries and other organisations responsible for implementing safeguards in the countries of the Asia-Pacific region. The objective of APSN is to promote safeguards best practice in the region. The Director-General of the Australian Safeguards and Non-Proliferation Office chairs the IAEA Director-General's Standing Advisory Group on Safeguards Implementation. Australia has hosted and assisted in safeguards courses run by the International Atomic Energy Agency (IAEA) and other partners in the Asia-Pacific region. For instance, in late 2016 Australia hosted a regional training workshop on Small Quantities Protocols (SQPs). Australia continues to engage with and support South-East Asian and Pacific Islands States on safeguards issues, particularly those States which have yet to conclude and bring into force Comprehensive Safeguards Agreements, Additional Protocols (AP) and the modified Small Quantities Protocols with the IAEA. Australia has offered assistance to some States in the development of their safeguards agreements and arrangements with the IAEA. 30 The NPDI presented a working paper on Nuclear Safeguards Standards under the NPT to the 2018 NPT PrepCom. The NPDI also presented a working paper on 'Wider application of safeguards in the nuclear weapons states' to the 2013 NPT PrepCom. 31 Australia has never been eligible for a SQP. Australia consistently encourages all NPT States parties with older Small Quantities Protocols which have not yet done so to amend or rescind them, as appropriate, as soon as possible. Australia conducts outreach to states, where appropriate, to amend or rescind SQPs. 32 As a member of the IAEA Board of Governors, Australia supports the Director-General's and Board's efforts to continually strengthen the effectiveness and efficiency of IAEA safeguards, including through the use of the State-Level Concept. Under the State-Level Concept, the IAEA has developed new State-

level approaches for Australia. Australia welcomes the fact that new State-level approaches enhance the

IAEA's ability to draw conclusions about Australia's implementation of safeguards obligations.

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33 Australia always pays its assessed contribution and provides additional extra-budgetary contributions and in-kind support.

Australia is a strong proponent of the IAEA carrying out its functions with the full cooperation of all States. One of the key elements of Australia's support to the IAEA is its active participation on the IAEA Board of Governors and participation in the IAEA's Member State Support Programme since 1980.

Australia maintains two diagnostic laboratories as part of the IAEA network of analytical laboratories.

34 Australia maintains a strong technology base and technical capabilities, which it makes available to contribute to international safeguards efforts. It also maintains an IAEA Member State Support Programme (MSSP) to support the Agency's technical safeguards capabilities. In November 2017, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) hosted an IAEA Robotics Challenge under the MSSP, involving research groups from nine countries testing their customised robotics devices in landbased and water-based simulated IAEA inspection scenarios.

Australia also maintains two diagnostic laboratories as part of the IAEA network of analytical laboratories.

35 Australia's uranium is exported for exclusively peaceful purposes and only to parties with which Australia has a bilateral nuclear cooperation agreement. Australia's bilateral nuclear cooperation agreements include treaty-level assurances that Australian nuclear material will be used for peaceful purposes only, and that this material will be subject to IAEA safeguards. These agreements ensure that Australia's nuclear exports remain in exclusively peaceful use and may only be retransferred to a party with a bilateral nuclear cooperation agreement with Australia. Australia currently has 25 such bilateral agreements in force covering 43 countries plus Taiwan.

Australia has ratified the 2005 amendment to the Convention on the Physical Protection of Nuclear Material, which is implemented by the *Nuclear Non-Proliferation Safeguards Act 1987* and the *Non-Proliferation Legislation Amendment Act 2007*, and is implementing Revision 5 of IAEA INFCIRC/225 (The Physical Protection of Nuclear Material and Nuclear Facilities).

36 Australia ensures that nuclear-related exports do not assist the development of nuclear weapons or other nuclear explosive devices. Australia's export controls are based on multilateral best practice. In addition, Australian nuclear agencies cooperate closely with law enforcement and customs agencies to enhance Australia's capability to detect, deter and disrupt illicit trafficking in nuclear materials.

Australia is a member of both the Nuclear Suppliers Group (NSG) and the Zangger Committee. The *Customs (Prohibited Exports) Regulations* of the *Customs Act 1901* states that any item on Australia's control list, the Defence and Strategic Goods List (DSGL), requires authorisation prior to export. The DSGL incorporates the NSG control list (parts I and II), the Zangger Committee Trigger List and Annexes 1 and 2 of the IAEA Additional Protocol.

Australia advocates that states not members of the NSG adhere to the NSG's export control Guidelines.

The Australian Government has also enacted the *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995* ('WMD Act'). The WMD Act and the associated Regulations enable the Government to control the export or transfer of any goods and services that may assist a WMD program and which are not controlled under other legislation.

The Vienna Group of 10 submitted a working paper to the 2018 NPT PrepCom which covered, inter alia, export controls. The NPDI also submitted a working paper on export controls to the 2013 NPT PrepCom.

- 37 See response to Action 35.
- 38 Australia has consistently affirmed its support for the development of nuclear energy and technology for peaceful purposes, within a framework that reduces proliferation risk and adheres to the highest international standards for safeguards, security and safety.

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	The Vienna Group of 10 submitted a working paper to the 2018 NPT PrepCom which covered, inter alia, cooperation in the peaceful uses of nuclear energy.
39	Australia facilitates the transfers of nuclear technology and international cooperation among States Parties through arrangements such as: the Regional Cooperative Agreement for Research, Development and Training in Nuclear Science and Technology for the Asia and Pacific Region (RCA); the Forum for Nuclear Cooperation in Asia (FNCA); the IAEA Technical Cooperation Program; the IAEA Peaceful Uses Initiative; other IAEA programs; and bilateral arrangements.
40	Australia maintains the highest possible standards of security and physical protection of nuclear materials and facilities, as was recognised by Australia's number one ranking for security of its nuclear materials from theft in the 2012, 2014 and 2016 Nuclear Threat Initiative (NTI) Nuclear Materials Security Index.
	Australia was an active participant in the series of Nuclear Security Summits (NSS) focused on implementing measures to improve the global nuclear security regimes, particularly against international terrorism, and has continued to promote implementation of NSS commitments through the post-summit Nuclear Security Contact Group (NSCG).
	Australia has contributed over AUD 2.4 million to the IAEA's Nuclear Security Fund since its inception, including support for the IAEA's activities in the Indo-Pacific region.
	In November 2013 Australia hosted an IAEA International Physical Protection Advisory Service (IPPAS) mission and a follow-up IPPAS mission in November 2017. Australia has also provided experts to a number of other IPPAS missions.
	Australia has hosted and supported a number of table-top exercises in support of the Global Initiative to Combat Nuclear Terrorism. Australia also chairs the GICNT Nuclear Forensics Working Group.
	Both the NPDI and the Vienna Group of 10 (of which Australia is a member) have submitted working papers covering nuclear security.
41	At The Hague Nuclear Security Summit, Australia committed to realise or exceed the objectives of INFCIRC/225/Rev.5 as part of the joint statements on strengthening nuclear security implementation.
42	Australia ratified the Amendment on 17 July 2008. As a member of the IAEA Board of Governors, we consistently draw attention in our statements to the importance of the 2005 Amendment and call on those who have not yet done so to become party to the amended CPPNM.
43	Australia has implemented the principles of the revised IAEA Code of Conduct on the Safety and Security of Radioactive Sources, as well as the Guidance on the Import and Export of Radioactive Sources approved by the IAEA Board of Governors in 2004. Australia has fully implemented the revised Supplementary Guidance on the Import and Export of Radioactive Sources approved by the IAEA Board of Governors in 2011.
44	Australia takes a leading role to actively contribute to the Incident and Trafficking Data Base (ITDB), through the detailed analysis, reporting and sharing of lessons learned when dealing with Material Out of Regulatory Control (MORC). These lessons greatly enhance international awareness and support the enhancement of international frameworks for nuclear safety and security. Australia encourages all States to continue to actively share lessons learned in order to support awareness and the strengthening of nuclear safety and security for MORC.
	The Australian Nuclear Science and Technology Organisation has a research program seeking to improve capabilities to detect illicit trafficking in nuclear materials, and has engaged in exchanges with regional partners in that regard.
	Australia enforces effective domestic controls to prevent the proliferation of nuclear weapons and works to enhance international cooperation to combat nuclear proliferation, including as a member of the Nuclear

Suppliers Group (NSG) export control regime.

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45 Australia deposited its instrument of ratification of the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) on 16 March 2012. To implement its obligations under ICSANT, Australia enacted the *Nuclear Terrorism Legislation Amendment Act 2012*.

Australia has implemented its requirements under UNSCR 1540 and plays an active role in the UNSCR 1540 Committee. Also, Australia has taken every opportunity in its outreach on non-proliferation to inform Asia-Pacific countries of the goals and obligations of 1540 and to offer to work with them to further improve and strengthen their capacity to implement the resolution where possible.

46 Australia, as an IAEA Board of Governors member, affirms its support for this recommendation. Australia further broadens its support for IAEA programs through participation in the IAEA's Member State Support Programme.

Australia, through mechanisms such as support of IAEA Technical Cooperation projects and the Asia-Pacific Safeguards Network (APSN), has assisted regional countries in strengthening their national regulatory controls of nuclear and other radioactive materials.

Australia has requested and will host an IAEA Integrated Regulatory Review Service (IRRS) mission in 2018.

Peaceful Uses of Nuclear Energy

- 47 Australia respects each country's choices and decisions in the field of peaceful uses of nuclear energy and engages in extensive cooperation with other States parties and international organisations in the further development of nuclear energy for peaceful uses.
- 48 Australia has shared its experience with neighbouring countries in the safe application of nuclear science and technology through arrangements such as: the Regional Cooperative Agreement for Research, Development and Training in Nuclear Science and Technology for the Asia and Pacific Region (RCA); the Forum for Nuclear Cooperation in Asia (FNCA); the IAEA Peaceful Uses Initiative (PUI); other IAEA programs; and bilateral cooperation on the peaceful uses of nuclear science and technology. The RCA was extended indefinitely in 2017. Australia was one of the first states to accede to the 2017 version of the RCA.
- 49 As a member of the IAEA Board of Governors, Australia is involved in deliberations relating to all aspects of the peaceful uses of nuclear energy (as noted elsewhere under Actions 32, 33, 46 and 58).

The Australian Nuclear Science and Technology Organisation (ANSTO) participates in the IAEA's Standing Advisory Group on Nuclear Applications (SAGNA) providing high-level input on priorities for the IAEA's research programs in nuclear technology.

ANSTO has participated in the Sahel Project, educating IAEA fellows from the Sahel region in isotopic techniques for ground water research and management.

ANSTO was designated an IAEA Neutron Scattering Collaborating Centre from 2009 to 2012, and as a Collaborating Centre for Multi-analytical techniques for materials research, environmental studies and industrial applications in 2016. These designations provide access for scientists and researchers from the region to facilities and expertise at ANSTO.

Australia joined the Generation IV International Forum (GIF) in 2016. ANSTO entered into a Cooperation Agreement with the International Thermonuclear Experimental Reactor (ITER) in the same year.

- 50 See response to Action 48.
- 51 See responses to Actions 35, 36 and 38.

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52 Australia is a longstanding contributor to the IAEA Technical Cooperation Fund (TCF). In 2011, Australia provided AUD 100,000 in an extra-budgetary Peaceful Uses Initiative (PUI) contribution to the IAEA for a Study on Marine Impacts of Radiation from the Fukushima Power Plant, and in 2012, contributed AUD 15,000 to the IAEA PUI to study Ocean Acidification. In 2014, Australia also contributed EUR 20,000 to the IAEA Programme of Action for Cancer Therapy (PACT). In 2015, Australia made a USD 20,000 in-kind contribution to the Sahel Project, hosting two fellows from the Sahel region. In 2015, Australia contributed EUR 600,000 to the Peaceful Uses Initiative to upgrade the nuclear applications laboratories at Seibersdorf as part of the IAEA's ReNuAL project.

Australia's policy and practice has been to pay its annual TCF contribution in full and on time, and to encourage other States to do the same.

In addition to the TCF, Australia plays a key role in co-operation on the peaceful uses of nuclear energy in the Asia-Pacific region. Australia's nuclear-related agencies, the Australian Nuclear Science and Technology Organisation (ANSTO), the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and the Australian Safeguards and Non-Proliferation Office (ASNO) continue to provide experts to the IAEA and to hold a range of meetings with regional counterparts, as part of bilateral cooperation agreements and IAEA projects.

Australia, through the Vienna Group of 10, presented a working paper on 'Cooperation in the peaceful uses of nuclear energy' to the 2013 NPT PrepCom; and on 'Vienna issues' to the 2014 NPT PrepCom, the 2015 NPT RevCon, and the 2017 and 2018 NPT PrepComs covering, inter alia, cooperation on peaceful uses.

- 53 See response to Action 52.
- 54 See response to Action 52.
- 55 In 2011, Australia contributed AUD 100,000 to the IAEA for a Study on Marine Impacts of Radiation from the Fukushima Power Plant. The study was administered by the IAEA and conducted under the Regional Cooperation Agreement for Research, Development and Training Related to Nuclear Science and Technology for Asia and the Pacific Region, a treaty level agreement to which Australia is a party.

In 2012, Australia contributed AUD 15,000 to the IAEA Peaceful Uses Initiative to study Ocean Acidification. In 2014, Australia contributed EUR 20,000 to the IAEA Programme of Action for Cancer Therapy (PACT). In 2015, Australia made contributions totalling EUR 600,000 to the Peaceful Uses Initiative.

- 56 Australia in cooperation with the IAEA, and bilaterally, has provided training for international participants on a range of topics related to the peaceful uses of nuclear energy, including specialised areas such as radiological crime scene evaluation, nuclear forensics, reactor decommissioning, ground water management, neutron scattering research, medical physics and the regulation of uranium mining.
- 57 See responses to Action 38 and Action 40.
- 58 Australia recognises the potential for proposals relating to multilateral fuel assurance mechanisms and multilateralisation of the fuel cycle to reduce the risk of nuclear proliferation.

Through its position on the IAEA Board of Governors, Australia has supported IAEA managed multilateral fuel cycle projects and proposals.

Australia supports further discussion of this issue in appropriate international forums.

59 Australia is a party to the Convention on Nuclear Safety, the Convention on Early Notification of a Nuclear Accident, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, the Convention for the Suppression of Acts of Nuclear Terrorism, and the Convention on the Physical Protection of Nuclear Material (and its amendment).

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60 Australia took an active part in the 2011 IAEA Action Plan on Nuclear Safety, which took forward lessons learned from the Fukushima nuclear accident. At the conclusion of that plan, we supported the integration of relevant work into the regular program.

ARPANSA participates in the development of the IAEA's Safety Standards, including senior representation on the Agency's Commission on Safety Standards through the CEO of ARPANSA, and representatives on all the Safety Standard Committees. With ASNO, ARPANSA has supported the establishment of the IAEA Nuclear Security Series by contributing to the development of the publications and attending meetings of the Nuclear Security Guidance Committee.

Dr Geoff Williams of ARPANSA will be the vice-president of the Sixth Review Meeting of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management in May 2018.

The Deputy CEO of ARPANSA is a member of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) and is a rapporteur for the June 2018 session of UNSCEAR. In 2017, Australia contributed AUD 10,000 to the UNSCEAR Trust Fund to further the work of the Secretariat.

In the margins of the IAEA General Conference, Australia has hosted a Friends of Responsible Uranium Mining (FoRUM) activity with industry involvement that provides a forum to share best practices in uranium mining.

ANSTO played a role in the 2016 Nuclear Industry Summit, which brought together leaders of the nuclear industry to strengthen efforts in areas including cyber security and reducing the use of HEU in the civilian sector.

Australia, through the Vienna Group of 10, presented a working paper on 'Vienna issues' to the 2018 NPT PrepCom, which covered, inter alia, nuclear safety issues.

Australia coordinates the annual IAEA General Conference resolution, 'Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety'.

Australia participated actively in the series of Nuclear Security Summits culminating in 2016 and continues to promote implementation of summit commitments through its membership of the Nuclear Security Contact Group (NSCG).

Through its membership of the Global Initiative to Counter Nuclear Terrorism (GICNT), and its chairing of the Nuclear Forensics Working Group, Australia hosts and participates in practical discussions and exercises to address potential nuclear security events (see also Action 40).

Australia regularly requests IAEA peer review missions and will host an IAEA Integrated Regulatory Review Service (IRRS) mission in 2018.

61 Australia has minimised its possession and use of highly enriched uranium through the exclusive use of low-enriched uranium (LEU) for its nuclear research reactor fuel and for targets used in the manufacture of medical radioisotopes. This year, Australia expects to increase its capacity to supply the main nuclear medicine isotope, molybdenum-99, to approximately 25% of global needs. Australia's success in this regard has demonstrated that there is no technical reason for the use of HEU in radioisotope production.

Australia has also reduced its remaining stocks of highly enriched uranium.

Australia is sharing its experiences in the use of LEU in research reactors and radioisotope production, both bilaterally and by participating in IAEA and OECD Nuclear Energy Agency (NEA) initiatives, including the High-Level Group on the Security of Supply of Medical Radio-isotopes (HLG-MR). In June 2014, Australia signed a Ministerial Joint Declaration to support the OECD initiatives. Australia is actively participating in preparations for the HEU Minimisation Symposium in June 2018.

Australia, through the Vienna Group of 10, presented a working paper on 'Vienna issues' to the 2018 NPT PrepCom, which covered, inter alia, the issue of HEU minimisation under the heading of nuclear security.

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62 Australia works to meet the highest standards of safety, security and environmental protection in the transport of radioactive materials through its stringent regulation of nuclear activities, including uranium mining, which takes into consideration all IAEA requirements and recommendations.

In 2015, Australia oversaw the safe return from France of Intermediate Level Waste arising from the reprocessing of spent fuel from our first research reactor, HIFAR.

Australia also participates in the IAEA Shipping and Coastal States Transport Dialogue.

63 Australia supports the principles enshrined in the nuclear liability conventions adopted in 1997 and 2004: the 1997 Vienna Convention; the Convention on Supplementary Compensation for Nuclear Damage; and the 2004 Protocol to the Paris Convention.

Australia has signed the Convention on Supplementary Compensation for Nuclear Damage and is working towards its ratification.

At the invitation of the Director-General of the IAEA, an Australian expert chairs the IAEA International Expert Group on Nuclear Liability (INLEX).

64 Australia abides by this decision.