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20 Feb 2009

Mr Kelvin Thompson
Chair, Joint Standing Committee on Treaties
Parliament House
Canberra ACT 2600

Dear Mr Thompson

Re: Inquiry into Nuclear Non-proliferation and Disarmament

Attached please find ICAN Australia's submission to this important Inquiry, with attachments as follows:

1. Securing our Survival: the case for a Nuclear Weapons Convention. Cambridge, MA; IPPNW, IALANA, INESAP, 2007 (SOS). This has been sent under separate cover both in printed and DVD format. The book contains the updated model Nuclear Weapons Convention submitted in 2007 by the governments of Costa Rica and Malaysia to both the nuclear Non-proliferation Treaty Preparatory Committee (NPT/CONF.2010/PC.1/WP.17) and the United Nations General Assembly (UN Document A/62/650). The text is also available on our website: www.icanw.org
2. A 4 page summary of SOS
3. Nuclear weapons abolition and nuclear power – ICAN's perspective
4. Parliamentary endorsement of the Nuclear Weapons Convention. Statement endorsed by 73 multi-party members of the European Parliament, 1 July 2008. www.pnnd.org
5. ICAN letter to ICNND Co-chair Ms Yoriko Kawaguchi, 2 Oct 2008.
6. Toon OB, Robock A, Turco RP. Environmental consequences of nuclear war. *Physics Today* Dec 2008: 37-42.
7. Helfand I. An Assessment of the extent of projected global famine resulting from limited regional nuclear war. *Royal Society of Medicine, Physicians for Social Responsibility, International Physicians for the Prevention of Nuclear War*, 2007.
8. Williams WM, Ruff TA. Proliferation dangers associated with nuclear medicine: getting weapons-grade uranium out of radiopharmaceutical production. *Medicine and Global Survival* 2007; 23(4): 267-81.
9. Williams B, Ruff, TA. Getting nuclear-bomb fuel out of radiopharmaceuticals. *Lancet* 2008; 371(8 March): 795-797.

10. California Medical Association House of Delegates Resolution 705-08: Highly enriched uranium in radiopharmaceutical production.
11. Malaysian Medical Association Resolution: Eliminating highly enriched uranium from radiopharmaceutical production. Approved 31 May 2008.
12. Committee on Medical Isotope Production Without Highly Enriched Uranium, [US] National Research Council. Executive Summary, National Academies Press, Jan 2009.

I and other representatives of ICAN would be pleased to discuss in hearings any of the matters raised or any questions the Committee may have.

Yours sincerely,



Assoc Prof Tilman Ruff

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Chair, Australian Management Committee and International Physicians for the Prevention
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ICAN Australia Submission to Joint Standing Committee on Treaties Inquiry into Nuclear Non-proliferation and Disarmament

20 Feb 2009

Inquiry Terms of Reference

- The international treaties involving Australia which relate to nuclear non-proliferation and disarmament.
- How these treaties advance Australia's objectives in this field.
- How the treaties might be made more comprehensive or effective.
- How inter-parliamentary action can assist in strengthening treaty-based aspects of the nuclear non-proliferation and disarmament regime.
- How the Committee and the Parliament can contribute to the work of the International Commission on Nuclear Non-proliferation and Disarmament.

Dedication

"Ten years from now, [President Reagan] would be a very old man. He and Gorbachev would come to Iceland and each of them would bring the last nuclear missile from each country with them. And they would give a tremendous party for the whole world ... He would be very old by then, and Gorbachev would not recognise him. The President would say, 'Hello Mikhail.' And Gorbachev would say, 'Ron, is it you?' And then they would destroy the last missiles."

Account by the rapporteur, in the official memorandum of conversation, of comments made by President Ronald Reagan to General Secretary Mikhail Gorbachev at their summit meeting in Reykjavik, Iceland, on October 12, 1986, when, for a moment, they appeared to have agreed to the elimination of all their nuclear weapons within ten years. Cited in Schell J. The seventh decade. New York; Metropolitan Books, 2007.

This Inquiry is welcome and timely, and its terms of reference appropriately broad. This submission will focus principally on the third of the Inquiry's terms of reference, with additional comments and recommendations under the fourth and fifth terms of reference.

1. Making disarmament treaties more comprehensive and effective

1.1 Background and context for a Nuclear Weapons Convention

ICAN's position is that the most effective and practical way to achieve and sustain the abolition of nuclear weapons is through negotiation of a Nuclear Weapons Convention (NWC) – a comprehensive, irreversible, binding, verifiable treaty. Negotiations could and should commence soon – within no more than 1-2 years, and it is feasible for nuclear weapons abolition to be achieved within a timeframe of no more than 15-20 years. Once commenced, such negotiations should progress in good faith and without interruption until a successful conclusion is reached.

The Australian government came to office committing to explicit, strong support for a NWC. In a major speech on 14 Aug 2007, Shadow Foreign Minister Robert McClelland stated:

“The case for eradicating nuclear weapons is a compelling one.

“The proposal to establish a Nuclear Weapons Convention is timely and responsible.

“What is important is commencing the process.

“Ultimately the question to be asked is not why there should be a nuclear weapons convention but why the international community has not yet agreed to start negotiating one.

“There is no more important an issue to international security than nuclear non-proliferation and disarmament.

“Australia has previously had an excellent record of achievement in this area. A Rudd Labor government will once again take up the cause.”

Robert McClelland, A new agenda for Australia in nuclear non-proliferation and disarmament, Speech to UNAA and MAPW, Canberra 14 Aug 2007

In a 15 Nov 2007 speech to the National press Club, Mr McClelland reinforced:

“[An ALP government would be] committed to driving the international agenda for a nuclear weapons convention.”

This commendable position is firmly supported by ALP National Policy:

71. “... Labor will energetically support and pursue appropriate initiatives, such as those recommended by the Canberra Commission ..., the Tokyo Forum ..., and the New Agenda Coalition, to achieve further significant reductions in nuclear armaments and strengthen non-proliferation regimes as steps towards the ultimate objective of a nuclear weapon free world ...

74. Labor supports exploration of potential legal frameworks for the abolition of nuclear weapons, including negotiation of a Nuclear Weapons Convention ...”

National ALP Platform, Chapter 14

However, the promise of these commitments largely remains to be fulfilled. As one of the first-ever NGO representatives to be included in an Australian NPT delegation, at the 2008 PrepCom in Geneva, considerable effort on my part, opposition from some senior Australian diplomats, and more than one round of consultation with Canberra preceded the first heavily-qualified reference to a NWC in an official Australian statement to a nuclear disarmament and non-proliferation forum was able to be uttered:

"And at an appropriate time, the international community will likely need to consider complementary legal frameworks, including a possible Nuclear Weapons Convention, for the eventual abolition of nuclear weapons."

Caroline Millar, Ambassador for Disarmament. Statement on Cluster 1 issues. Australia, NPT PrepCom 30 April 2008

In response to a question on notice from Senator C Milne on 12 Feb 2008, Senator John Faulkner replied:

"The Government supports exploration of possible legal frameworks for the eventual abolition of nuclear weapons, including at an appropriate time the possibility of negotiation of a nuclear weapons convention. The Government sees the negotiation of a possible nuclear weapons convention as a longer-term priority."

Senator John Faulkner, Senate Question No. 109 in response to Senator Christine Milne, 2008

This hardly constitutes "driving the international agenda on a nuclear weapons convention". One contributing factor has been a high level of continuity at a departmental level from the previous government; and the substantial erosion of independence, profile, interest, resources and capacity in Australia's nuclear disarmament diplomacy which occurred over the almost 12 year term of that government. It is vital that the priority, capacity, expertise and resources for Australia's disarmament diplomacy be significantly increased and that this investment be sustained.

It is also important that the policy review and development work, political leadership and diplomatic work required to fulfil the government's commendable pre-election commitments be accelerated and progressed expeditiously, and not languish or be placed on hold until the International Commission on Nuclear Non-proliferation and Disarmament completes its projected work in late 2010, by which time the current term of the government will end.

To our knowledge, the Australian government has not to date undertaken a comprehensive analysis of the model Nuclear Weapons Convention; been actively engaged in any of the international discussions on a NWC (such as through the Middle Powers Initiative and the Parliamentary Network for Nuclear Non-proliferation and Disarmament); actively explored or promoted an NWC approach among other governments or intergovernmental forums; produced any public document examining the advantages, disadvantages, requirements and possible paths to such a convention; nor promoted or conducted research or parliamentary or public debate on a NWC. It should undertake all of these, and this Inquiry could make a major

contribution by undertaking a detailed examination of a NWC, particularly addressing the following questions:

- What are the merits and disadvantages or risks of a NWC in relation to other approaches to break the current deadlock in disarmament and to achieve nuclear weapons abolition?
- What should be the key elements of a NWC?
- What are the strengths and weaknesses of the 2007 model Nuclear Weapons Convention?
- In what ways could negotiations on a NWC best be pursued and what are the relative merits, timeframes, requirements, risks and determinants of success for each of them eg through the NPT, Conference on Disarmament, other UN forum, or dedicated international conference of interested parties as occurred with landmines and cluster munitions?
- Should the approach be step-by-step, comprehensive, or incremental-comprehensive? (ICAN would argue for the latter- incremental steps can be important but will be most effective if contributing a comprehensive roadmap with the clear and explicit goal of abolition.)
- What conditions would need to be fulfilled for such negotiations to commence, progress and reach a successful conclusion?
- How can all the states possessing nuclear weapons - both signatories and non-signatories to the NPT – be engaged in the process?
- How can Australia be most effective?
- How can Australia best align its nuclear-related military, foreign and domestic policies so they are synergistic rather than fragmented or conflicting, to serve the paramount security objective of nuclear weapons abolition most effectively?
- How can Australia collaborate more effectively with groupings of governments, most particularly its near Pacific and Southeast Asian neighbours, to advance nuclear weapons abolition?

In a major speech to the East-West Institute on 24 Oct 2008, UN Secretary-General Ban Ki Moon stated:

“First, I urge all NPT parties, in particular the nuclear-weapon-states, to fulfil their obligation under the treaty to undertake negotiations on effective measures leading to nuclear disarmament.

They could pursue this goal by agreement on a framework of separate, mutually-reinforcing instruments. Or they could consider negotiating a nuclear-weapons convention, backed by a strong system of verification, as has long been proposed at the United Nations. Upon the request of Costa Rica and Malaysia, I have circulated to all UN member states a draft of such a convention, which offers a good point of departure.”

Ban Ki Moon. The United Nations and security in a nuclear-weapon-free world. East-West Institute, New York 24 Oct 2008

This is endorsement at the highest level for the model Nuclear Weapons Convention developed by a collaboration of International Physicians for the Prevention of Nuclear War, the International Association of Lawyers Against Nuclear Arms, and the International Network of Engineers and Scientists Against Proliferation; the 2007 updating and publication of which was coordinated and funded by ICAN.

There are a number of reasons why there is a critical window of opportunity over perhaps the next year or two for serious progress towards a world freed from nuclear weapons:

- The threat of nuclear weapons use is growing. One of the most authoritative assessments of this growing threat was provided by the Boards of Directors and Sponsors of *The Bulletin of the Atomic Scientists* – which include 18 Nobel Laureates – in January 2007 when they moved the hands of the ‘Doomsday Clock’ forward from seven minutes to midnight to five minutes to midnight:

“We stand at the brink of a second nuclear age. Not since the first atomic bombs were dropped on Hiroshima and Nagasaki has the world faced such perilous choices. North Korea’s recent test of a nuclear weapon, Iran’s nuclear ambitions, a renewed US emphasis on the military utility of nuclear weapons, the failure to adequately secure nuclear materials, and the continued presence of some 26,000 nuclear weapons in the United States and Russia are symptomatic of a larger failure to solve the problems posed by the most destructive technology on Earth. ... We seek to warn the world that this level of danger has escalated precipitously.”

- In parallel, recognition and alarm are increasingly widespread that disarmament is stalled, proliferation risks escalating, and business as usual constitutes a continuing inexorable slide towards disaster. A growing chorus of powerful voices supporting a nuclear weapons free world and widely-supported measures to help achieve it – most notably George Schultz, Henry Kissinger, William Perry and Sam Nunn in the US – but echoed by statespeople in many other countries – signal a change in the political climate around nuclear weapons.
- President Barack Obama has come to office with an enormous reservoir of domestic and international goodwill, with the goal of a world free of nuclear weapons explicit and central to his foreign policy, and with a detailed suite of specific commitments, in a number of cases timebound, of incremental steps towards this goal. In the first month of the new administration, we have already seen hopeful evidence of real commitment to delivering on reducing nuclear danger. Reconsideration of planned European missile defence deployments, a commitment to extend START, new engagement with Russia, a willingness to engage with Iran, high level engagement with vice-president Joe Biden taking the running on nuclear disarmament, appreciation of the importance of ratification of the Comprehensive Test Ban Treaty, increased support for the IAEA, and a positive response in Washington to the initial proposals of the Australian-initiated International Commission on Nuclear Non-proliferation and Disarmament are all hopeful signs.
- There is widespread appreciation that the May 2010 5-yearly NPT Review Conference represents a critical watershed, after the complete failure of the 2005 NPT Review Conference and severe strains on the international non-proliferation regime posed by widespread inconsistency and duplicity, for example in nuclear agreements with

India which effectively reward its development of nuclear weapons by affording more generous access to nuclear technology and materials than if it were a compliant NPT member state, and exempting it from export controls under the Nuclear Suppliers group which were established precisely because of alarm at India's use of nuclear technology provided for peaceful purposes, to develop and test its first nuclear weapons in 1974. Access to nuclear materials and expertise is becoming more widespread. Security of fissile materials in many locations remains inadequate. Unless major progress on both disarmament and non-proliferation are soon made, nuclear risks can be expected to escalate.

- It is increasingly recognised that unrestricted access to the means to produce fissile material, either by enriching uranium or reprocessing spent nuclear fuel to extract plutonium, is incompatible with preventing proliferation and abolishing nuclear weapons.

The current window of opportunity for real movement towards nuclear disarmament is the best such opportunity in a long time – certainly since the end of the Cold War- and perhaps ever. It is uncertain how long it may last, and it is vital that the opportunity is not squandered as the opportunity at the end of the Cold War was. It is therefore a time to pull out all stops, to search widely to find partners and build coalitions, to deliver on fine promises, and to lead rather than follow by advancing a bold vision backed up by a practical, well-considered plan and a serious investment of government priority, energy and resources.

Finding willing partners should be quite feasible: in the 2008 UN General Assembly, 127 nations – Australia unfortunately not among them - voted in support of Resolution A/C.1/63/L.19, calling for the commencement of multilateral negotiations leading to the early conclusion of a nuclear weapons convention. They included all the countries of Southeast Asia, New Zealand and Fiji.

We would argue that advocating early commencement of negotiations on a NWC and working energetically, including in the Australian parliament and community, with as many partners as possible to identify and address the obstacles, would be the most useful approach for Australian disarmament diplomacy. The Committee could make important contributions to this process through its deliberations and hearings, report and recommendations, parliamentary processes, and follow-up. For example, the Committee could recommend that the Australian government each year provide to the parliament a report on its policies and work for nuclear disarmament over the past year, and its plans for the next year, including identifying opportunities for parliamentary and public engagement.

There are 3 broad areas relevant to Australia's role in nuclear disarmament and non-proliferation:

- Our role as a **major exporter of uranium**, which is both the feedstock for nuclear power generation but also the raw material for nuclear weapons, and can only end up either radioactive waste or in nuclear weapons. ICAN's position and recommendations in relation to uranium mining are detailed in the paper included as Attachment 3.

- Our **alliance relationship with the nuclear-armed USA**, involving reliance on the 'extended nuclear deterrence' provided by the US, and complicity by Australia in US willingness, threats and plans to use nuclear weapons. If US nuclear weapons were used particularly in Asia or the Middle East, it is likely that Australian facilities and personnel would be involved, with or without the knowledge or consent of the Australian government and parliament. This is a fundamentally immoral and counterproductive situation, which undermines the security of Australians and is inconsistent with Australia's stated support for nuclear disarmament. ICAN's position on this matter is outlined in Attachment 3.

Australia should 'walk the talk' on reducing the role of nuclear weapons in our security policies – as we urge nuclear weapon states to do – and decisively shift the balance towards contributing to the solutions to nuclear dangers and away from being part of the problem. Australia's diplomatic efforts towards nuclear disarmament, some of which have been and are commendable, are compromised by our continued reliance on the 'extended nuclear deterrence' of the US 'nuclear umbrella'. Consistently rejecting the use of nuclear weapons in our defence and foreign policies would very likely be the most effective measure Australia could undertake to help de-legitimise these genocidal weapons and the military policies that support them. Such a principled position would apply the most effective possible political pressure on our nuclear-armed ally, dramatically raise our profile and credibility on disarmament, and enhance the security of Australians by reducing the likelihood of Australia being a nuclear target. Australian facilities and personnel should not contribute to any possible use of nuclear weapons, as they currently do.

- Our role in **disarmament diplomacy** regionally and internationally, the major focus of this submission. One key issue we want to address is the view that somehow a NWC would conflict with or undermine the NPT. This view is held by some strong supporters of nuclear disarmament, including the governments of Norway and New Zealand. ICAN argues strongly that on the contrary, a NWC would build on, complement and fulfil the promise of the NPT. Alyn Ware has written a useful recent paper addressing this topic¹.

1.2 Why a Nuclear Weapons Convention would support and strengthen the NPT

1.2.1 The disarmament and non-proliferation regime is in serious trouble

Prime Minister Kevin Rudd has called for a renewed focus on nuclear weapons to combat the "collapsing consensus" around the NPT. In a major foreign policy speech in 2006 he stated:

¹ Ware A. A Nuclear Weapons Convention and the NPT: Is it a diversion or an enabler? Aotearoa Lawyers for Peace, August 2008. Available at: www.disarmsecure.org

"...the Nuclear Non-proliferation Treaty disintegrates before our very eyes ... the current non-proliferation regime is fundamentally fracturing. The consequences of the collapse of this regime for Australia are acute, including the outbreak of regional nuclear arms races in South Asia, North East Asia and possibly even South East Asia."

Kevin Rudd, Shadow Minister for Foreign Affairs, Trade & International Security. Leading, not following. The renewal of Australian middle power diplomacy. Sydney Institute, 19 Sep 2006

- The Comprehensive Test Ban Treaty has not received the necessary ratifications to enter into force.
- Negotiations on the proposed fissile material treaty have been stalled for over a decade.
- The Thirteen Practical Steps towards disarmament agreed at the 2000 NPT Review Conference are almost wholly not being implemented. There is disagreement whether Review Conference declarations such as the 13 Practical Steps are binding.
- The NPT legal obligation to disarm (reinforced by the International Court of Justice advisory opinion in 1996) has not been fulfilled. No disarmament negotiations are currently underway.
- A UN General Assembly resolution calling for commencement of negotiations towards a nuclear weapons convention has been supported by a total of 135 states over the years, but like many other UN disarmament resolutions, has not been implemented.
- In addition to not preventing Israel, South Africa, India or Pakistan developing nuclear weapons outside the treaty, the NPT has not prevented nuclear weapons programs in Iraq or Libya, nor prevented North Korea developing nuclear weapons and leaving the NPT.
- A extensive international Pakistan-based nuclear black market headed by A Q Khan, selling uranium enrichment technology and Chinese nuclear weapons designs, involved over 20 countries and operated for many years.
- Well-resourced and organised international terrorist organisations have committed to and made serious efforts to acquire nuclear weapons and fissile material.

1.2.2 Both the disarmament and non-proliferation aspects of the NPT need strengthening

- The NPT is the main international instrument for nuclear non-proliferation and disarmament, and has been partially successful in limiting the further spread of nuclear weapons. However, the promise of disarmament has not been fulfilled in its 40 year history.
- The NPT does not establish a program for achieving nuclear disarmament: no agreed path of action towards complete disarmament, no effective or ongoing forum for negotiating disarmament, and no benchmarks or timelines to measure progress.
- The most specific statement of the steps required to fulfil the Article VI disarmament obligation under the Treaty was the agreement at the 2000 Review Conference by all states party to the Treaty to **13 "practical steps** for the systematic and progressive efforts to implement Article VI of the Treaty". These included:
 - 1. The early entry into force of the Comprehensive Test Ban Treaty (CTBT).

- 2. A moratorium on nuclear test explosions pending entry into force of the CTBT.
 - 3. The immediate commencement of negotiations in the Conference on Disarmament (CD) of a non-discriminatory, multilateral, effectively verifiable treaty banning the production of fissile material for nuclear weapons, with a view to their conclusion within 5 years.
 - 4. Establishing a subsidiary body within the CD to deal with nuclear disarmament.
 - 5. All arms control and nuclear disarmament measures should be irreversible
 - 6. "An unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States Parties are committed under Article VI."
 - 7. "The entry into force and full implementation of START II and the conclusion of START III as soon as possible while preserving and strengthening the ABM Treaty..."
 - 8. Completion and implementation of the Trilateral Initiative between the USA, Russia and IAEA.
 - 9. Steps by all the nuclear-weapon states leading to disarmament:
 - Further efforts to reduce nuclear arsenals unilaterally
 - Increased transparency by the nuclear-weapon States regarding their nuclear weapon capabilities and implementation of agreements pursuant to Article VI
 - Further reduction of non-strategic nuclear weapons
 - Concrete agreed measures to further reduce the operational status of nuclear weapons systems
 - "A diminishing role for nuclear weapons in security policies to minimise the risk that these weapons ever be used and to facilitate the process of their total elimination."
 - "The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons."
 - 10. All nuclear-weapon states to place fissile material no longer required for military purposes permanently outside of military programmes.
 - 11. Reaffirmation that the ultimate objective of disarmament efforts is general and complete disarmament under effective international control.
 - 12. Regular reports by all States parties on the implementation of Article VI.
 - 13. Further development of verification capabilities required for the achievement and maintenance of a nuclear-weapon-free world.
- With minor exceptions of some modest reductions in weapons numbers (offset by new weapons development being undertaken by all the nuclear weapon states, hopefully except for North Korea), and some increased transparency regarding nuclear capabilities, these important, almost universally agreed measures remain unfinished business now 9 years later. In a number of respects, we have gone backwards. Some states, notably the US under the GW Bush administration, have disputed these agreed measures as ongoing obligations. START II has not entered into force, START III languishes, and in an alarming precedent, a major arms control treaty, the Anti-Ballistic Missile (ABM) Treaty, has been abrogated. The NPT by itself is clearly insufficient to achieve nuclear disarmament.
 - Like the recommendations of the Canberra Commission over a decade ago, these 13 practical steps are still cogent and relevant because they remain almost entirely unfulfilled. It is vital to the integrity of the NPT and future progress that they be affirmed as the agreed and expected incremental steps to which NPT

States parties are held. Not surprising, these steps mesh closely with the recommendations of the Canberra Commission, the early priorities established by the International Commission on Nuclear Non-proliferation and Disarmament, and with the priorities and commitments to reduce the nuclear threat identified by now-President Barack Obama.

- The NPT lacks a permanent body, office or secretariat to continue work between Review Conferences every 5 years and the annual Preparatory Committee meetings in the 3 years before each Review Conference. The closest organisation to being a possible secretariat, the International Atomic Energy Agency, has no disarmament mandate, and is inadequately resourced to perform the conflicted task of monitoring non-proliferation, while also promoting non-weapons uses of nuclear technology.
- The Weapons of Mass Destruction Commission chaired by Hans Blix stated:

“In fact, the NPT is the weakest of the treaties on WMD in terms of provisions about implementation.”

Weapons of Mass Destruction Commission. Weapons of Terror. Final Report. WMD Commission, Stockholm, Sweden, 1 June 2006: 63.

- The NPT does not specifically prohibit the renewal or expansion of nuclear arsenals, providing no specific barrier to nuclear weapon states (NWS) modernising their nuclear arsenals, including for example, under the rubric of reliability.
- The NPT has no mechanism for enforcing compliance or punishing those states that do not comply, and compulsory IAEA safeguards and verification measures are only applied to non-nuclear weapon states (NNWS).
- IAEA safeguards are only designed to detect diversion of “significant quantities” of nuclear materials (8 kg of plutonium or 25 kg of highly-enriched uranium), with a 90-95% probability, within specified timeframes. They cannot prevent such diversion. Moreover, the quantities and timeframes on which the safeguards regime is predicated have not kept up with technological developments and are inadequate (please refer to the MAPW/ACF safeguards report “An Illusion of Protection” included with the MAPW submission to this Inquiry and available on the MAPW website – www.mapw.org.au). The experience of South Africa, Iraq and North Korea have put paid to the expectation of timely detection of diversion. The technical limitations of monitoring mean that the most proliferation-sensitive facilities, particularly plutonium reprocessing plants, are essentially impossible to safeguard effectively.
- The NPT excludes the four unofficial nuclear weapons states (Israel, India, Pakistan and North Korea) from involvement in the disarmament and non-proliferation regime. Repeated calls (including by Australia) on these states to accede to the NPT as non-nuclear weapons states are unrealistic and counterproductive. Other mechanisms will be needed to include them. The importance of this has been recognised by the International Commission on Nuclear Non-proliferation and Disarmament.
- The NPT can be weakened by withdrawal, which is easy if a state decides their “supreme interests” are threatened. Only 3 months notice is required. There are currently no mechanisms to prevent a state withdrawing from the Treaty and using materials, technology and expertise acquired under the NPT for weapons.
- The UN Conference on Disarmament (CD) has limited membership and operates on the basis of consensus, so progress has regrettably been easily stalled. The CD has failed to achieve any new measures in the last decade, including the task assigned to it by the UNGA of creating four new committees relating to the Fissile

Material Cut-off Treaty, prevention of an arms race in outer space, formalising negative security assurances (assurances by states with nuclear weapons not to use them against states without nuclear weapons), and to discuss nuclear disarmament itself.

1.2.3 A Nuclear Weapons Convention could reinforce and build on the NPT

- A Nuclear Weapons Convention would make the development, testing, production, stockpiling, transfer, use and threat of use of nuclear weapons illegal. It would unequivocally establish abolition of nuclear weapons as the goal which all incremental steps along the way should bring closer.
- A NWC would build on the NPT and fill the gaps in the current inadequate non-proliferation and disarmament regime. It could act as a vehicle and set a detailed program and timelines for achieving the goals set out in the NPT.
- A NWC would deal with non-proliferation and disarmament in a mutually reinforcing and complementary way.
- A NWC could offer a way past the deadlock in other forums, help generate the political will and focus momentum to achieve disarmament.
- A NWC could provide the infrastructure, negotiating forum, and legal framework needed for sustaining permanent disarmament.
- A NWC would establish an organisation to monitor progress, verify compliance and achieve and preserve transparency and consistency between states. It could create verification measures for all states, and make disarmament gains irreversible.
- It also offers a formal process for recognising and incorporating all disarmament and non-proliferation measures, including nuclear weapons free zones and negative security assurances.
- A NWC would eventually enable elimination of all nuclear weapons, removing a major motivation for states to develop nuclear weapons.

1.2.4 Should we abandon a step by step approach for a comprehensive agreement that could take decades?

- Negotiations towards a NWC could incorporate both a step-by-step approach and a comprehensive approach under the overarching goal of complete nuclear weapons abolition.
- Current exclusively step-by-step processes have been easily stalled by competing priorities, bad faith, conditionalities and derailing tactics, and without an overarching, inclusive framework, conflicting views as to what step should come first can be used to prevent any action being taken. This has been particularly evident in the CD.
- A NWC would allow groups of issues to be negotiated together, and concessions traded between states parties to enable progress.
- A convention could allow initial steps to be taken before the overall package of which they become part is concluded. Indeed progress on implementing incremental steps can facilitate a larger agreement. It is very difficult to fit together the pieces of a jigsaw puzzle without knowing what the final picture should look like.
- An NWC can provide a framework and roadmap for an ongoing negotiating process which, once commenced, should continue without interruption until a successful conclusion is achieved.

- Whether nuclear weapons abolition is best achieved by a single treaty or an interlocking set of agreements is an open question – what is clear is that a comprehensive approach is needed.

1.2.5 How can a NWC be more effective than the NPT, which has near universal membership?

- There is widespread support for the negotiation of a NWC. In the UN General Assembly, in recent years a total of 135 states have supported commencement of negotiations for a NWC, 29 opposed it, and 28 abstained. Many of the states that have not explicitly supported the resolution do support the concept of a comprehensive agreement on nuclear disarmament, but prefer a step-by-step approach initially. As noted above, there is no intrinsic conflict, and potentially significant synergy, between incremental steps which can create political momentum as well as achieve important tangible outcomes, and a comprehensive framework within which such steps can fit and which they can help implement.
- The NPT is not only not achieving much in the way of new concrete gains, but is under great strain, and there is a widely-recognised need to revitalise and reconstruct the nuclear disarmament and non-proliferation regime, which could likely be done most effectively through a NWC.
- The NPT took many years to achieve its current near universality, and while it has no doubt curtailed the number of states with nuclear weapons, it has failed to effectively prevent proliferation both among countries inside, and among all of the 4 states outside the treaty.
- The NPT is a discriminatory treaty and the four states - all nuclear armed - which are not signatories must be included in efforts to abolish nuclear weapons. Three of these states (India, North Korea and Pakistan) support a NWC. Negotiations for a NWC would allow all states to participate and work towards disarmament without preconditions.

1.2.6 We already have an established regime under in the NPT, shouldn't we be looking to improve the current regime?

- Precisely – the NPT is in essence a nuclear abolition treaty, hence its value, but after 39 years and under serious strain it has proven insufficient to deliver on both the intertwined aspects of disarmament and non-proliferation. While a substantial reason for the failure to achieve decisive progress towards a nuclear weapons free world is not the weaknesses of the NPT but lack of political will, the NPT was only ever intended to be a temporary treaty. On its own it lacks the comprehensive plan; ongoing structures and processes for negotiation, verification, sanctions against non-compliance; supporting organisation; consistency and universality required to abolish nuclear weapons. As recognised in the commitments of 1995 and the 13 practical steps agreed at the 2000 Review Conference, additional measures were always going to be required.
- Negotiations on a Nuclear Weapons Convention – a comprehensive process dealing with all aspects of nuclear disarmament and non-proliferation - provides the most feasible framework and process envisaged under Article VI.
- A NWC would reinforce and strengthen, not contradict or undermine the other aspects of the NPT.
- A Nuclear Weapons Convention would necessarily build on, complement and fulfil the promise of the NPT. A piecemeal approach is prone to founder on conditionalities, competing priorities, inconsistencies and gaps, and fail to inspire

- A NWC applies the lessons of the successes in nuclear disarmament (such as the verification provisions of the START and INF treaties which have proven effective) with the comprehensive, universal treaty-based approach which has been the logical approach for all the successes towards abolishing other major classes of weapons to date– including biological and chemical weapons, landmines and cluster munitions.
- Chemical weapons provide an instructive parallel. The 1925 Geneva Gas Protocol prohibited use of chemical weapons but provided no implementing mechanism. Real progress in abolishing chemical weapons was not made until the Chemical Weapons Convention was negotiated in 1993, developing mechanisms for implementation; with a supporting organisation, industry involvement, verification provisions, and a phased program for elimination of existing stockpiles. This process also strengthened the global norm against chemical weapons. Australia made a significant contribution to the success of the Chemical Weapons Convention, and could do so again in relation to nuclear weapons.

1.2.7 Doesn't a NWC require the agreement of all NWS? What if one holds out?

- We already have a regime in which progress is blocked by some members, and does not include four countries which have nuclear weapons.
- Negotiations for a NWC already have the support of a number of states with nuclear weapons, including India, Pakistan, China and North Korea, while the UK supports this as an end goal. Applying a consistent set of rules and standards to all states – unlike the inherently discriminatory nature of the NPT – has moral and political force and can be expected to be the only approach which could gain the support of all states.
- As has been observed with negotiations on chemical weapons, landmines and cluster munitions, once negotiations commence, the norm against possession of nuclear weapons will be strengthened, and other states are likely to alter their behaviour and be drawn in over time.
- This norm would eventually be reinforced by other international bodies such as the International Criminal Court and most importantly, the UN Security Council. Non-possession of nuclear weapons will become part of international law, applicable to all states.
- Much work needs to be done in developing a NWC, particularly its verification and enforcement mechanisms, before it entered into force. The sooner this work can begin in earnest, the better.
- Progress towards a NWC would diminish some important drivers for armed conflict, such as pre-emptive wars, as undertaken against Iraq, and the incentive for states to develop nuclear weapons or keep this option open as a hedge against attack.
- Negotiations for a NWC could foster a positive international climate favourable to cooperation and agreements in other important areas.

1.2.8 Would a NWC detract from other processes and agreements?

- A NWC would be all-encompassing, and would reinforce and incorporate other agreements such as the CTBT and FMCT and existing disarmament treaties. Agreement on and implementation of incremental steps could occur before

negotiations on a NWC were completed and would indeed assist progress. A convention could also unite multiple negotiating forums under a common goal.

- A NWC could be achieved as a single treaty or a package of agreements.
- Multiple negotiations on non-proliferation and disarmament already take place in diverse fora, and negotiations for a NWC could create a more constructive environment for events such as the quinquennial NPT review conference.
- Other processes are not producing significant developments, and new initiatives to break the current logjam in nuclear disarmament are needed for real progress to occur.
- The development of many treaties – most recently on landmines and cluster munitions – has initially involved new dedicated processes, such as separate conferences, to get the ball rolling and enable willing states to undertake substantial work free of the constraints of existing fora and ever-present opposition. The Comprehensive test Ban Treaty was negotiated in the CD, but because of the difficulties of reaching the required consensus, was then taken to the UN General Assembly (by Australia). Preparatory conferences leading to negotiations for a NWC, or other dedicated processes initiated by committed states could facilitate progress, without detracting from existing forums such as NPT conferences.
- In ICAN's view, the most important contribution the International Commission on Nuclear Non-proliferation and Disarmament could make would be to facilitate the commencement of negotiations on a NWC.
- In our view, the most productive way to grasp the current opportunity for major progress on nuclear disarmament would be to harness and direct political will and momentum towards commencing and progressing negotiations on a Nuclear Weapons Convention. These negotiations should be carried forward without interruption.

1.3 New science and the stark consequences of failure to abolish nuclear weapons

It is critical that any consideration of nuclear weapons and disarmament be firmly informed by and anchored in the cataclysmic reality of what happens to real human beings, other living beings and their environment when a nuclear weapon is detonated. New scientific evidence reinforces that the stakes could not be higher. It is not the character of their owners but the nature of the weapons which is at issue. Increasing knowledge of how to construct nuclear weapons, increasing availability of the materials with which to make a bomb, increasing numbers of people desperate enough to use the bomb, and, most important, a lack of international resolve to banish them from the arsenals of the world, make the use of nuclear weapons inevitable if we do not act decisively.

The 15-kiloton bomb detonated over Hiroshima – by today's standards a small tactical weapons - decimated the city and created ground temperatures that reached about 7,000 degrees Celsius. Of the 76,000 buildings in the city, 92% were destroyed or damaged. There were more than 100,000 deaths and approximately serious 75,000 injuries among a population of nearly 250,000. Of the 298 physicians in the city, 270 died or were injured and 1,564 of 1,780 nurses died or were injured.

The 21-kiloton bomb detonated over Nagasaki three days later levelled 6.7 square kilometers. There were 75,000 immediate deaths and 75,000 severely injured, with destruction of medical facilities and personnel and health consequences for the

population of the city that were similar to those of Hiroshima. Rates of cancer among the survivors of both bombings continue to rise, 64 years later.

A 2002 study published in the *British Medical Journal* estimated the casualties from a 12.5 kiloton nuclear explosion at ground level near the port area of New York City. The model projected 262,000 people would be killed, including 52,000 immediately and the remainder from radiation injuries. Caring for survivors would be difficult, if not impossible, with the loss of 1,000 hospital beds in the blast and another 8,700 beds in areas of high radiation exposure.

Despite being reduced to almost a third of its obscene Cold War peak, the current global arsenal of 25,000 weapons still represents 300,000 Hiroshima bombs.

Recent evidence (Attachment 6) shows that even a limited regional nuclear war in South Asia involving 'only' 100 Hiroshima-sized (15-kt) weapons – 0.03% of the global arsenal – and within the capacity of all the nuclear weapon states except for North Korea – targeted on megacities would not only kill immediately 20 million people, but cause unprecedented global climate disruption much more severe and prolonged than previously thought. Smoke from urban firestorms caused by multiple nuclear explosions would rise into the upper troposphere and, due to atmospheric heating, be lofted high into the stratosphere. The resulting soot cloud would block the sun, leading to significant cooling and reductions in precipitation lasting for more than a decade. Within 10 days following the explosions, there would be a drop in average surface temperature of 1.25° C. Over the following year, a 10% decline in average global rainfall and a large reduction in the Asian summer monsoon would have a major impact on agricultural production. These effects would persist over many years. The growing season would be shortened by 10 to 20 days in many of the most important grain producing areas in the world, which might completely eliminate crops that have insufficient time to reach maturity.

To make matters even worse, such amounts of smoke injected into the stratosphere would cause a huge reduction in the Earth's protective ozone. A study published in April 2008 by the US National Academy of Sciences, using a similar nuclear war scenario involving 100 Hiroshima-size bombs, showed ozone losses in excess of 20% globally, 25–45% at mid-latitudes, and 50–70% at northern high latitudes persisting for five years, with substantial losses continuing for five additional years. The resulting increases in UV radiation would have serious consequences for agriculture and human health.

There are currently more than 800 million people in the world who are chronically malnourished, and several hundred million more live in countries that depend on imported grain. Even a modest, sudden decline in agricultural production could trigger significant increases in the prices for basic foods, as well as hoarding on a global scale, making food inaccessible to poor people in much of the world. While it is not possible to estimate the precise extent of the global famine that would follow a regional nuclear war, even without allowing for synergistic effects caused by disruption of transport, trade and agricultural inputs, it seems reasonable to anticipate a total global death toll in the range of one billion from starvation alone (Attachment 7). Famine on this scale would also lead to major epidemics of infectious diseases, and would create immense potential for mass population movement, civil conflict and war.

These findings have significant implications for nuclear weapons policy. They are powerful evidence in the case against the proliferation, retention and modernisation of nuclear weapons. Any use of nuclear weapons would result in uncontrollable and unknowable risks of retaliation and escalation and would likely be suicidal. Such weapons cannot serve any legitimate military purpose. Threat and willingness to use nuclear weapons are incompatible with international law; criminal, inhumane and immoral in any and every circumstance. Nuclear weapons undermine the security of all, most of all for those possessing them, because they become lead targets for the nuclear weapons of others. Even possession of 1, 2 or a handful of nuclear weapons by one state would act as an inevitable driver for others to acquire them. The only sustainable approach is one consistent standard for all: zero nuclear weapons.

Particularly as we head further towards a warming, climate-stressed world with increased risks of population displacement and armed conflict and increased access to the means to produce nuclear weapons, the only viable response to make possible global survival and sustainability is the complete and sustained abolition of nuclear weapons.

1.4 Dealing with highly-enriched uranium

One nuclear danger in need of being urgently addressed by international including treaty mechanisms is the widespread but readily avoidable use of highly enriched uranium (HEU, $\geq 20\%$ U-235) in a various civilian and military applications. HEU, used in the Hiroshima bomb, is directly usable in the simplest (gun barrel design) nuclear weapons and would be the most suitable fissile material for terrorists to construct nuclear bombs. The International Panel on Fissile Materials estimates that in mid 2008 the global stockpile of HEU was 1670 tons². The IAEA regards 25 kg of HEU as a significant quantity, though a knowledgeable weapons designer could construct a nuclear weapon with explosive yield of 1000 tons TNT equivalent with as little as 8 kg of HEU. Indeed it has been revealed that the fissile material for the first several of Israel's nuclear weapons came from material missing from a US naval nuclear fuel plant (IPFM, 2008). Apart from nuclear weapons, HEU is used in research reactors, radiopharmaceutical production (reactor-based production of isotopes used for medical diagnosis and treatment), naval and icebreaker propulsion. In all of these applications, low enriched uranium (LEU), not usable in weapons without further enrichment, can effectively substitute for HEU.

There are still 140 HEU-fuelled nuclear reactors worldwide, 71 in Russia, which still has no policy for domestic clean-out of HEU. HEU is present in 40 countries, 28 with enough to make at least one nuclear weapon. Any uranium enrichment facility can make HEU, and clandestine enrichment would be difficult to detect. Tens of tons of HEU reactor fuel is located at civilian facilities, frequently without adequate security.

While the new Opal reactor in Sydney will use LEU to produce isotopes for medicine, HEU is used to produce over 90% of the world's medical radioisotopes, and none of the major producers have firm plans to convert to LEU. Spent HEU targets which have been placed inside reactors to produce isotopes are still weapons-usable.

² International Panel on Fissile Materials. Global Fissile Material Report 2008. Available at: www.fissilematerials.org

Attachments 8-12 include recent papers on these issues, resolutions from the Malaysian and Californian Medical Associations calling for removal of HEU from radiopharmaceutical production, and the summary of a very recent US National Academy of Sciences report which supports these conclusions and recommendations.

An international instrument to compel and accelerate removal of HEU from civilian, and later military non-weapons uses, is needed and would meet widespread support, including from President Obama – who has committed to remove HEU from the civilian sector, and from the IAEA. Australia has already taken a supportive position, and could usefully drive and help lead such an initiative.

2. TOR 4. How inter-parliamentary action can assist in strengthening treaty-based aspects of the nuclear non-proliferation and disarmament regime

2.1 Parliamentary inquiries

The UK House of Commons Foreign Affairs Committee is currently conducting an Inquiry into Global Security: Non-proliferation, examining the British government's role in countering weapons proliferation and its causes. The Committee will consider the proliferation of nuclear, chemical and biological weapons, and the role of ballistic missiles.

In particular, the UK inquiry will examine:

- The British Government's non-proliferation approach, as set out in its National Security Strategy;
- The effectiveness of the current rules-based international system in curbing current weapons proliferation;
- The potential merit of forthcoming diplomatic initiatives on non-proliferation, for instance the 2010 Nuclear Non-Proliferation Treaty Review Conference.
- The role of arms control and disarmament, including nuclear disarmament, in non-proliferation efforts.

These terms of reference overlap considerably with JSCOT's, and if this is not already in train, communication and exchange between the respective committees might benefit the work of both.

Given the importance, urgency and universality of the threat posed by nuclear weapons, JSCOT could usefully encourage other parliaments, such as through the Inter-Parliamentary Union, to undertake similar inquiries and share their findings.

2.3 Parliamentary monitoring and review of the Australian government's policy, performance and plans

As previously noted, accountability and transparency of government action in this crucial field; and informed, ongoing and active parliamentary and public engagement with nuclear disarmament could be promoted through annual reporting to the Parliament by the Australian government on its policies and work for nuclear disarmament over the past year, and its plans for the next year, including identifying opportunities for parliamentary and public engagement. The Committee could usefully so recommend.

2.4 Multiparty parliamentary forum on nuclear disarmament

An important global initiative of parliamentarians worldwide in the field of nuclear disarmament is the Parliamentary Network for Nuclear Non-proliferation and Disarmament. Such multiparty forums can provide a valuable point of continuing focus, education, dialogue and parliamentary initiatives engaging with the government, diplomatic representatives, civil society organisations and the public, as well as contact with parliamentarians in other countries.

The Medical Association for Prevention of War (MAPW), ICAN's hosting organisation, has previously had fertile collaborations with Parliamentarians for Nuclear Free Future, a multiparty group, for example jointly hosting a forum in 2005 on the nuclear Non-proliferation Treaty in Parliament House, including senior diplomats from the US, Russian and other embassies, senior DFAT officials, academics and civil society organisations. In August 2007, MAPW, ICAN and PNFF collaborated in the launch in Parliament House of the updated model Nuclear Weapons Convention.

It is a matter of regret that currently no PNND group or other multiparty forum on nuclear disarmament is active in the Australian parliament. The Committee should explore ways to encourage and facilitate the establishment and activities of such a group. Inviting parliamentarians leading such groups in other countries, such as New Zealand, to meet with Australian colleagues could be one useful approach. Members of the Committee could assist such an initiative.

2.5 Promoting civil society engagement and dialogue with government on nuclear disarmament

Promoting civil society engagement in as vital an issue as addressing the dangers posed nuclear by nuclear weapons is highly desirable. There is a great reservoir of passionate interest and concern, energy, diverse ideas, expertise and perspectives on nuclear disarmament in Australia and throughout the world, which should be an important support and resource for government action when effectively tapped. An example is the development of the model NWC by doctors, lawyers and scientists. The Committee should examine ways in which such engagement can be supported, strengthened and utilised, including:

- **Strengthening public education on disarmament matters**, both through schools, colleges and universities and more broadly. Currently the Australian government expresses its support for the importance and benefits of community disarmament education in international including UN forums, but we are not aware of any current government programs or resources in this area. This is a field in which a range of community and educational organisations, appropriately supported, could make a major contribution.

- Consistently **including civil society representatives in Australian delegations** to NPT conferences, the UN General Assembly, and other important disarmament-related international forums. Councillor Jenny Farrar, Australian Coordinator of Mayors for Peace, and I were included in the Australian delegation to the 2008 NPT PrepCom. This was the first time civil society representatives were included in an Australian NPT delegation. Several of our proposals were included in official Australian statements, including the first reference in an Australian diplomatic statement to a NWC; an explicit statement encouraging States to work towards the minimisation of highly enriched uranium (HEU) in civil applications, including radiopharmaceutical production; and urging African states to ratify the African Nuclear Weapons Free Zone Treaty to enable it to enter into force. Disarmament Ambassador Caroline Millar expressed to us her support for regular inclusion of civil society representatives in Australian delegations. It would greatly assist such participation and constitute a much-appreciated sign of serious intent and goodwill if at least partial funding support could be offered, as regularly occurs in some other countries such as Norway.

- **Regular exchange and dialogue between disarmament officials and civil society organisations.** For the past several years, ICAN has coordinated an annual roundtable meeting in Canberra between disarmament officials and civil society organisations in the lead-up to NPT meetings; in 2006 departmental officials visited various centres for a similar purpose. Such exchange and dialogue should be encouraged and expanded, could include members of the Committee, and should include periodically include relevant Ministers.

3. TOR 5. How the Committee and the Parliament can contribute to the work of the International Commission on Nuclear Non-proliferation and Disarmament

The Commission (ICNND) is a welcome initiative, and Associate Professor Tilman Ruff is pleased to serve as one of 2 NGO advisors to the Commission Co-chairs (the other being Mr Akira Kawasaki of Peaceboat in Japan). ICAN's general approach to the Commission is reflected in the letters written to each of the Commissioners upon the announcement of their appointment – as an example the letter to Co-chair Ms Yoriko Kawaguchi is attached (Attachment 4).

ICAN would offer the following recommendations to the Committee:

- ICAN supports the Commission taking an approach that is clearly independent of the hosting governments or the governments of the countries of origin of the Commissioners.
- ICAN is pleased to learn that Commission Co-chair Mr Gareth Evans will appear before the Committee, and ICAN would encourage the Committee to seek regular briefings and dialogue opportunities with the Commission over the course of its life and work.
- The Committee could undertake the important task of thoroughly examining and stimulating parliamentary and public debate on the implications of the Commission's reports and action plans for Australian government policy
- The Committee could have an important role in helping ensure that the work of the Commission is carried forward in Australia and internationally, and that this Commission does not suffer the same fate as the Canberra Commission,

the outcomes and excellent report of which were effectively shunned, sidelined and buried following the change of government in Australia in 1996. In what constituted considerable disrespect to the distinguished Commissioners, the opportunity was regrettably squandered to take forward on a world stage what should have been regarded as an important national contribution above party political machinations.

- The Committee should encourage other parliaments and relevant parliamentary committees such as the UK House of Commons Foreign Affairs Committee to actively engage with the Commission and follow-up on the fruits of its labours.
- The Committee should explore with the Commission Co-chairs how the outcome of the Committee's current inquiry could best be shared and utilised by the Commission.