



THE
DEAKIN
ORATION

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Thank you very much, President of the Legislative Council the Hon. Bruce Atkinson and Speaker of the Legislative Assembly the Hon. Colin Brooks, I am honoured to have been invited to deliver the third Deakin Oration in this magnificent space. I too wish to acknowledge the Wurundjeri people of the Kulin nation as the traditional custodians of the land and waters where we gather, and express my respect and gratitude to their elders past and present. I also want to thank the parliamentary staff team led by Andres Lomp who have made preparing for this Oration such a pleasure.

I am pleased to stand before you for a number of reasons. Firstly, as the son of Templers, a small group of free-thinking German Christians living in Palestine, who were deported to Australia by the British in 1941 and detained behind machine-gun posts and barbed wire at Tatura in northern Victoria until 1947. They bore the scars of World War II, but were grateful to be able to rebuild their lives here. The humanity, inclusiveness and tolerance which enables people to make such transitions from the tragic carnage of war, and to flourish, is of great value, and is to be fiercely defended and constantly nurtured.

Secondly, it was on 23 April 2007 that the International Campaign to Abolish Nuclear Weapons was first launched in this very room, including by Judge Christopher Weeramantry, and former Prime Minister Malcolm Fraser, speaking from where I now stand. Malcolm Fraser became ICAN's founding

patron. The compassion, leadership and vision of this wise elder is sorely missed, and I am honoured to acknowledge here today his wife Tamie Fraser.

From little things big things grow. We all are transient custodians of the genome that is our most precious inheritance and the most crucial legacy we pass to the next generations. Transient custodians of the living Earth and all that humanity and our ancestors have built and strived for over countless millennia. As Kokatha elder and nuclear test survivor Sue Coleman-Haseldine says, the future forever belongs to the next generation. So I am very pleased that the average age of those in this room is considerably less than mine. The most compelling emotional driver for me in the long labour to rid the world of the scourge of nuclear weapons is my responsibility to the generations that follow, including as a parent of these two, then and now, and recently so happily, as a grandparent.

As a physician, professionally obligated to relieve suffering, treat disease, and safeguard health through health promotion and disease prevention, there are also responsibilities that flow from the privilege of life circumstances, knowledge, choice and capacity; and the unprecedented nature of our existential peril. I can do this work, so I must.

I will speak about our current predicament with regard to nuclear weapons, those instruments of cataclysmic destruction that bring the awesome power that fuels the stars in the midst of fallible human hands on a fragile, interdependent Earth. First, considering the consequences of their use, underscoring just how crucial a hospitable climate is to planetary health and sustainability. I will then say something about the growing danger of nuclear war, before turning to progress and opportunities in the race against time to end nuclear weapons before they end us: the Humanitarian Initiative on nuclear weapons, bearing fruit in the historic United Nations Treaty on the Prohibition of Nuclear Weapons. And I perhaps should say a few words about the first Nobel Peace Prize awarded to an entity born in Australia.

First a few nuclear numbers. Hard to comprehend, but we need to. Single nuclear weapons have been built and tested which contain four times the explosive power, in one bomb, as all the explosives used in all wars throughout human history. There are still an estimated 14,485 nuclear weapons in the world, 92% of them Russian and American. Almost 4000 are currently deployed, and 1800 are on error-prone high alert, ready to be launched within minutes. The largest warheads now deployed are on Chinese land-based missiles, up to 5 megatons, 5 million tons, of high explosive equivalent. If a war between China and the United States, for example starting in the South China Sea or the Korean peninsula, escalated to nuclear use, some of these may well be fired towards the high priority nuclear targets and cities in Australia. Indeed the only Chinese missiles which can reach Australia have nuclear warheads.

In the 1980s, after producing detailed reports on the effects of nuclear war on health and health services, the World Health Organisation (WHO) concluded that nuclear weapons constitute the greatest immediate threat to human health and welfare. They are the only weapons which loom as an acute existential threat to planetary health, every moment of every day that they exist, launch ready.

We are the first humans in our long evolutionary history to face twin existential dangers of our own making – ecosystem disruption, particularly through rampant global warming; and nuclear weapons. Global warming is evolving and partly reversible; the effects of nuclear war would be acute and largely irreversible.

The consequences of any use of nuclear weapons would be cataclysmic

It is the unequivocal conclusion of WHO, the UN Development Program, and the Red Cross and Red Crescent movement, the world's largest humanitarian organisation, that no effective health and humanitarian response is possible to even a single nuclear detonation on an urban centre. The only cure is prevention.

As catastrophic as the direct effects of blast, flash burns, fires and ionising radiation would be, we now know that it is the climatic impacts of nuclear war that would exact the greatest toll.

Nuclear weapons are extremely efficient at igniting fires over large areas. The fires ignited by the nuclear bomb which destroyed Hiroshima released about 1000 times as much energy as the explosion of the bomb itself.

If one of those 5 megaton nuclear warheads on a Chinese ballistic missile headed for this fair city, of course we would all be vapourised and this mighty building cease to exist. Such a warhead would also ignite hundreds of thousands of fires that would rapidly coalesce into a massive firestorm 45 kilometres across, releasing many times more energy than the explosion itself. Everything flammable within that 1600 square km area would ignite – wood, cloth, paper, petrol, oil, plastics, rubber, many chemicals, trees, asphalt, rubbish. In an area spanning to Springvale, Wantirna, Warrandyte, past Greenvale and to Point Cook, temperatures would exceed 800°C, oxygen would be consumed and every living thing would die.

We now know that even a relatively small-scale regional nuclear war would have severe global consequences. Let's consider the example of a nuclear war between

India and Pakistan. This is not an unrealistic scenario. Pakistan and India have been to war three times since independence, mobilised up to 1 million troops across their contested border in Kashmir on two further occasions, and shooting across that volatile border occurs almost on a weekly basis. Both governments have policies for early use of nuclear weapons should it come to war between them. An India-Pakistan war involving 100 Hiroshima-size bombs, less than half of their current nuclear arsenals, targeted on each others' cities, would loft more than 5 million tons of dark sooty smoke high into the stratosphere, way above where clouds, rain and snow would wash it out. This smoke would quickly spread over the globe and persist for decades. The smoke would block sunlight, and precipitously cool, darken and dry the climate worldwide. In the most recent and sophisticated of the analyses of such a scenario, by Dr Mike Mills at the National Centre for Atmospheric Research in Boulder, Colorado, these effects had not yet returned to baseline after 26 years.

While temperatures on land would fall, the lofted black smoke in the stratosphere would heat the upper atmosphere by 50 to 80°C. These hot smoky conditions would drastically deplete the ozone layer which protects us from harmful ultraviolet radiation. We would have Antarctic ozone hole conditions over most of the Earth. This would increase ultraviolet radiation around the world to levels not seen since life crawled out of the oceans. This would have adverse consequences for human eyes, skin and immune systems, and also profound effects on plants and animals, both on land and in the water, especially the plankton which are at the base of the marine food chain.

While average global surface temperature would drop by 1.5°C, much larger declines, between 5 and 8°C, would occur on the large Eurasian and North American landmasses where most of the world's food is grown. Growing seasons in most important agricultural areas would be shorter by around one month. The effects of these colder, darker and drier conditions on the major grain crops in the world's largest producers, China and the US, have been evaluated. Studies available to date have not yet examined the likely substantial additional effects of increased ultraviolet radiation; productive land no longer able to be tilled because of radioactive and toxic contamination; and disruption to fertiliser, fuel, seed, pesticide, and other inputs in the complex global system of food production and distribution. In the first five years, the colder, darker and drier conditions alone would see production of major grain crops drop by 15 to 40%. Over the second five years, reductions of 10 to 25% would persist. At higher latitudes, food production would essentially cease.

Humanity is not well positioned to withstand sustained declines in food production of this magnitude. The United Nations Food and Agriculture Organisation estimates that 815 million people already do not get enough to eat and are chronically malnourished. More than 300 million additional people are

dependent for more than half their energy intake on imported food, supplies which would invariably cease if a nuclear war occurred. Global grain stocks oscillate between 60 and 100 days consumption. In such a situation following a limited regional nuclear war, upwards of 2 billion people would be at risk of death through starvation; even if the war occurred on the other side of the world. Disease epidemics and further conflict within and potentially between nations would inevitably increase the toll of such severe and widespread famine.

One hundred Hiroshima size weapons represents less than 0.5% of the global nuclear arsenal, and less than 0.1% of its explosive yield. Thus each of the smaller nuclear arsenals – of China, France, India, Israel, North Korea, Pakistan, and the UK are a global threat, not only the massive arsenals of Russia and the US.

The warheads on a single US or Russian ballistic missile submarine could cause such global climate catastrophe and nuclear famine several times over; the US has 14 of these and Russia 11. The Russian and US nuclear weapons currently on high alert would suddenly produce temperatures typical of Ice Ages, and use of the current strategic Russian and US weapons would plummet temperatures as much again, risking human extinction. Plans to execute nuclear war in any circumstances are blind to these facts.

The evidence is plain that nuclear weapons cannot keep anyone secure, but rather are a globalised hazard jeopardising everything and everyone. They are, in reality, global suicide bombs.

The dangers of nuclear war are growing

Disarmament is stalled; for the first time in over 30 years, there are no nuclear disarmament negotiations underway or planned. Rather than disarming, as they are legally obligated to do, all nine nuclear-armed states are investing massively, over US\$105 billion annually, not just in retaining nuclear weapons for the indefinite future, but in modernising their weapons to make them more accurate, more usable.

Combinations of technical malfunction and human error have brought us repeatedly within a hair's breadth of nuclear war. They will, inevitably, continue. The first use of nuclear weapons has been countenanced and threatened repeatedly by almost all nuclear-armed states; by the US alone on at least 25 occasions, as Daniel Ellsberg has documented in his remarkable 2017 book "The Doomsday Machine".

In recent years, we have seen frighteningly irresponsible escalation and brinkmanship in explicit threats to use nuclear weapons, not only from leaders in North Korea and the United States, but also from President Putin and senior Russian officials, Prime Minister May, and leaders in India and Pakistan. These threats have been accompanied by increasingly provocative and hazardous exercises, deployments and policies for early and first use of nuclear weapons.

The Bulletin of the Atomic Scientists, with 15 Nobel laureates on its Board of Sponsors, has since 1947 provided authoritative annual assessments of our proximity to an existential chasm. This year for the first time since 1953, when both the Soviet Union and US tested hydrogen bombs within 6 months of each other, they moved the hands of the Doomsday Clock forward to 2 minutes to midnight, as close as they have ever been.

UN Secretary-General Antonio Guterres, in a major report released this May titled “Securing our Common Future”, states plainly that we are living in dangerous times, with arms control agreements abandoned or disrupted, on the brink of a new cold war.

New dangers loom: as climate disruption starts to bite and food and water insecurity spread, the number of internationalised armed conflicts, including involving nuclear-armed states, is escalating sharply. Every armed conflict involving a nuclear-armed state, as many of the current ones do, poses a risk of nuclear escalation.

Many nations – and no doubt some “non-state actors” - are investing in the ungoverned morass that is cyberwarfare. As David Sanger documents in his new book “The Perfect Weapon”, cyberweapons have already been used offensively between nations at least hundreds of times: US attacks on Iranian uranium enrichment centrifuges and North Korean missiles; North Korean attacks on US banks, Sony and the UK health care system; Russian attacks on Ukraine, Europe and US elections. Even the computers of the US National Security Agency were extensively hacked late last year.

The landmark Joint Comprehensive Plan of Action, better known as the Iran nuclear deal, is successfully placing the most stringent constraints ever negotiated on any nation’s nuclear program, verified by the most intrusive and demanding safeguards provisions ever implemented. The US walking away from an agreement the International Atomic Energy Agency has confirmed now more than eight times that Iran is complying with bodes ill for an effective agreement with North Korea, and adds to the corrosive effects of nuclear hypocrisy - those demanding others disarm and forego nuclear weapons, while expanding their own nuclear arsenals and continuing to defend some claimed special right to wield weapons that jeopardise all – what South African ambassador Abdul Minty termed “nuclear apartheid”.

Eradicating nuclear weapons

Eradicating nuclear weapons has been urgent and unfinished business since the UN was formed in 1946 “to save succeeding generations from the scourge of war”. The very first resolution, number 1.1 of the United Nations General Assembly, on 24 January 1946 called “for the elimination from national armaments of atomic weapons”. The nuclear non-proliferation treaty (NPT), which entered into force in 1970, requires all states to in good faith negotiate nuclear disarmament. The judges of the world’s highest legal authority, the International Court of Justice, have unanimously concluded that all states have an obligation not only to negotiate in good faith, but to bring to a conclusion negotiations leading to nuclear disarmament – that is, to finish the job.

We have made substantial progress in controlling other kinds of indiscriminate and inhumane weapons. Treaties which prohibit and provide for the elimination of biological and chemical weapons, anti-personnel landmines and cluster munitions have dramatically reduced the production, stockpiling, financing and use of these weapons. In each case, the approach which has proven effective is to establish unequivocally that these weapons, however they are used, can only have indiscriminate, unacceptable consequences; and codify their rejection in an international treaty that provides the same legal standard for all states. Consistency - one law for all - is crucial to an effective and sustainable regime. This prohibition then provides the agreed basis and motivation for the weapons’ progressive elimination. The key common elements in each case have been: stigmatise – prohibit – eliminate.

Everything that is horrendous and indiscriminate about landmines, cluster munitions, biological or chemical weapons is writ large with nuclear weapons.

Enter ICAN

In 2005, many of us were despairing that nuclear disarmament was moribund. At the same time we were inspired by the success of the International Campaign to Ban Landmines. Working initially with Canada; joined by Norway, Austria and others, and international organisations like Red Cross; a treaty banning landmines was achieved in less than a decade. And this proved possible despite the opposition of the major users and producers of landmines and the largest states – China, Russia and the US.

Distinguished Malaysian obstetrician Datuk Dr Ron McCoy proposed to colleagues in International Physicians for the Prevention of Nuclear War (IPPNW) that we apply this approach through developing a new International Campaign to Abolish Nuclear Weapons - ICAN. A few of us in Melbourne

involved with the Medical Association for Prevention of War (MAPW), the Australian affiliate of IPPNW, were struck by Ron's idea. Just as the threat of nuclear weapons spares no one, wherever they live, and the responsibility to remove this unacceptable danger is also universal, we decided we could establish and launch such an international campaign from here as well as anywhere. We began to plan and build ICAN. The founders included Dimity Hawkins and Torquay GP Dr Bill Williams, who died way too young in 2016 and is sorely missed. Professors Fred Mendelsohn and John Langmore who are here today have made marvellous contributions. Other founding board members were Dr Sue Wareham, Dave Sweeney and Professor Joe Camilleri. Our first Campaign Coordinator was the mercurial Felicity Ruby.

ICAN was conceived as a global campaign coalition of diverse organisational partners, working for a treaty to prohibit and eliminate nuclear weapons, based on the unacceptable catastrophic consequences of any use of nuclear weapons. We needed to engage young and old; with horror, humour, hope and humanity. We needed to mobilise citizens, and also work with governments. MAPW and IPPNW initially hosted and nurtured the campaign until it was robust enough to fly the nest and stand on its own. The wider Melbourne-based Kantor family – Eve Kantor and Mark Wootton, including on behalf of the late Tom Kantor; and Anne and Milan Kantor, believed in us enough to generously provide funds vital in enabling us to start and grow a global campaign in Melbourne. ICAN was the right idea at the right time. It struck a chord and filled a need globally, and has grown into a campaign coalition of over 500 partner organisations in more than 100 countries.

The Humanitarian Initiative

In 2010, the International Committee of the Red Cross (ICRC) kicked off what became known as the Humanitarian Initiative on nuclear weapons. ICRC president Jakob Kellenberger called together the Geneva diplomatic corps a few weeks before the 2010 five yearly Review Conference of the NPT. He laid on the line that prohibiting and completely eliminating nuclear weapons was an urgent humanitarian imperative, unfinished business which would henceforth become a major priority across the world's largest humanitarian organisation, the Red Cross Red Crescent Movement. This galvanised some governments, especially the Swiss, to insist that the consensus outcome document of the 2010 NPT Review Conference, for the first time, express "deep concern about the catastrophic humanitarian consequences of any use of nuclear weapons".

This encouraged the governments of Norway, Mexico and Austria to organise a series of landmark intergovernmental conferences in 2013 - 14, the first ever dedicated to the humanitarian impacts of nuclear weapons. The evidence

about nuclear weapons consequences was authoritatively updated, essentially unchallenged and widely accepted: that any use of nuclear weapons would be a catastrophe; that no effective humanitarian response is possible to even a single nuclear explosion in a city; that the risk of nuclear weapons use has been underestimated, is growing, and exists as long as the weapons do; and that there is a legal gap that sees the most destructive of all weapons as the only weapon of mass destruction not yet prohibited by international treaty. ICAN established its credibility as the lead civil society partner for each of the governments hosting these conferences.

Between 2012 and 2015, a resolution affirming that nuclear weapons must never be used again under any circumstances, and that their abolition was the business of all states and an urgent humanitarian imperative, emerged from every major UN and nuclear-related conference, with the number of states signing on increasing from 16 to 159 – more than 80% of the world's governments. Momentum was gathering, and the UN General Assembly (UNGA) in 2015 established a Working Group, open to all states, to report the following year on the legal steps needed to achieve and maintain a world free from nuclear weapons. A clear strategy for the next best feasible step emerged. While the states that do not own nuclear weapons cannot eliminate them, they could try to break the logjam in disarmament by filling the legal gap that saw nuclear weapons not explicitly prohibited in international law, if they used a forum which could not be blocked by nuclear-armed and nuclear-dependent states, such as through power of veto or a requirement for consensus. A requirement for consensus on any outcome has stymied the NPT with either no agreed outcome, or lowest common denominator. In the Conference on Disarmament, the consensus requirement has resulted in failure to agree even on an agenda for the last 22 years.

Health and humanitarian evidence are at the core of the Humanitarian Initiative. The leading global federations of health professionals – the World Medical Association, International Council of Nurses, and World Federation of Public Health Associations - joined with IPPNW in joint working papers, commentary, oral testimony and presentations, laying out with united voice the evidence underpinning the urgent planetary health imperative to prohibit and eliminate nuclear weapons. This was influential.

Negotiating the nuclear weapons ban treaty

In December 2016, the UNGA acted on the Working Group's recommendations and voted more than 3 to 1 to mandate negotiations for a new treaty prohibiting nuclear weapons, leading towards their elimination. It was an ambitious order: a ground-breaking treaty to be achieved over 8 months with just 4 weeks of

formal negotiations. Importantly, UN General Assembly rules provide for a two-thirds majority to take substantive decisions if consensus cannot be reached. These negotiations in New York were ably chaired by Ambassador Elayne Whyte Gómez from Costa Rica. Civil society organisations and experts had unprecedented access to the negotiations, including my colleagues Professor Alan Robock and Dr Ira Helfand, scientific leaders in the science of nuclear winter and nuclear famine. Others of us also had opportunities to remind diplomats of the consequences and risks of nuclear war in panels and side events in collaboration with delegations of various nations. Much of this evidence is reflected in the treaty's preamble, an eloquent statement of the humanitarian basis and purpose of the treaty.

The enormity of nuclear weapons can be difficult to comprehend, confronting to grasp, painful to consider. Avoidance and denial are common psychological responses. Powerful in making the evidence real and reaching heads and hearts was combining the scientific and medical facts and data with the power of lived human stories, the testimony of the survivors of the nuclear bombings of Hiroshima and Nagasaki, and of nuclear testing around the world. Indigenous survivors of the British nuclear tests in Australia, Kokatha elder Aunty Sue Coleman-Haseldine, or second generation test survivor Karina Lester were present and heard at every key international event from 2014 towards the negotiation and adoption of the ban treaty. When they spoke, you could hear a pin drop. They touched hearts. They reminded diplomats why they were there, why their work mattered. They cut through the obfuscation and myths about nuclear weapons. Why nuclear weapons are not some abstract great power chess game of self-protecting deterrence, strategic balance and parity; but inflict an intolerable lived daily reality of indiscriminate, transgenerational ill-health, suffering, and loss; contaminated lands and waters, and displacement.

The historic UN Treaty on the Prohibition of Nuclear Weapons was adopted on 7 July 2017, by a vote of 122 to 1. Ambassador Elayne Whyte Gómez has described that prominent among the factors that made her feel during the challenging negotiations that a treaty could be achieved were “the strength of the humanitarian evidence” about nuclear weapons; and “looking into the eyes of the survivors each day and knowing that we could not fail”. For very many people, especially the survivors of Hiroshima and Nagasaki, this was a moment for which they had been yearning and striving for decades. Setsuko Thurlow, who survived the atomic bombing of Hiroshima as a 13-year-old girl and co-accepted the Nobel Peace Prize on behalf of ICAN said “I never thought I would see this moment ... I’ve been waiting for this day for seven decades, and I’m overjoyed that it has finally arrived.” She felt it was “the beginning of the end of nuclear weapons”.

Every diplomat and UN official I have heard or spoken with has volunteered that this Treaty would not have been achieved without the work of ICAN, working in partnership with governments.

This Treaty is anchored in humanitarian evidence. It is the first disarmament instrument to recognise the disproportionate impact of nuclear weapons on Indigenous people, and on women and girls, who are 40% more vulnerable to dying from cancer from a given dose of radiation than men and boys. The Treaty provides a categorical and comprehensive prohibition of everything to do with nuclear weapons. It complements existing treaties, and supports and strengthens nuclear safeguards. It provides, for the first time in a nuclear weapons treaty, obligations for joining states to assist victims of nuclear use and testing and help with feasible environmental remediation of areas contaminated by nuclear use and testing. It provides pathways for all states to join, whether they currently possess nuclear weapons, had them in the past, have weapons of another state deployed on their territory, or - like Australia - assist in military preparations for use of nuclear weapons. The treaty thus provides a pathway - the only currently defined pathway - for all states to fulfil their obligation to achieve a world free of nuclear weapons. All governments should take that path.

The Red Cross Red Crescent movement stated on the day of its adoption: “The historic significance of this treaty cannot be overstated.” ICRC President Peter Maurer added: “Today, the world has taken a historic step towards delegitimising these indiscriminate and inhumane weapons, which is a crucial basis for their elimination”.

The fact that the Treaty matters is clearly evidenced by the ferocity of the opposition of some nuclear-armed states to its negotiation, adoption and states joining it. A notable example is the October 2016 US admonition, before the UNGA vote on ban treaty negotiations, to its NATO allies to vote “no”, and if negotiations started, not to join them. Their stated reasons bear no resemblance to their public pronouncements that the ban would be ineffective, divisive, untimely and counterproductive. They recognize that a ban treaty “aims primarily to stigmatize nuclear weapons and ... delegitimize the concept of nuclear deterrence”, that it “could impact non-parties as well as parties, and could even have an impact prior to its entry into force”, and interfere with NATO preparations to use nuclear weapons. That is, they object because they recognize that the Treaty would work as intended.

South Africa ambassador Mxakato-Diseko described “incredible pressure” on African (and other) states by nuclear-armed France, Russia, UK and US to discourage them from supporting the treaty. This pressure however failed to de-rail the negotiation and adoption of the Treaty. The majority of the world’s nations broke the stranglehold of the nuclear-armed states. Not surprisingly, the nuclear-armed states don’t like it one bit.

The immediate dismissive angry response of France, UK and US when the treaty was adopted: “We do not intend to sign, ratify or ever become party to it. ... Accession to the ban treaty is incompatible with the policy of nuclear deterrence” is at odds with their obligation and purported commitment to nuclear disarmament, and the immutable fact that prohibiting nuclear weapons is an essential part of any comprehensive elimination regime. Clearly the Treaty is not something the nuclear-armed states can ignore, and has put them on notice and on the defensive.

In addition to its substance, the new ground broken by the process of achieving the Treaty is significant. The treaty process was led by states without nuclear weapons. This changed the status quo of nuclear disarmament steps being largely in the hands of the states that threaten all humanity with indiscriminate nuclear violence; and the rest of the world being sidelined to wait for whatever crumbs of tweaks of nuclear weapons numbers or policy the nuclear-armed states might deign to agree to from time to time. As the Treaty preamble emphasises: “... these risks concern the security of all humanity, and ... all states share the responsibility to prevent any use of nuclear weapons.”

More than any other nuclear treaty, this one has an unequivocal basis in humanitarian evidence and norms. The level of participation of civil society organisations and experts was unprecedented in the nuclear field. The International Committee of the Red Cross (ICRC), made seminal contributions on behalf of the world’s largest humanitarian organisation to a strong final treaty.

Those harmed by nuclear weapons had prominence and a voice unprecedented in intergovernmental forums regarding nuclear weapons: Japanese hibakusha and nuclear test survivors, mostly Indigenous. This had the powerful effect of constantly grounding discussions and negotiations in the reality and lived experience of what nuclear weapons actually do, and lent the process legitimacy, moral weight and humanity.

The negotiation of the Treaty through the UNGA was highly effective. This was the first time in 21 years that the UN was the forum in which a nuclear disarmament treaty was negotiated. Being adopted in the most inclusive global forum by such an overwhelming majority also affords the Treaty credibility.

Not only was the UNGA process effective in negotiating a comprehensive prohibition of nuclear weapons, it was efficient. The Treaty was able to traverse from negotiating mandate to adopted text in just eight months, with only four weeks of face-to-face negotiations. There was a remarkable determination by most of the world’s governments to seize this landmark opportunity, and put aside much of the national and parochial agendas that often beset

international negotiations. Each successive draft of the treaty was strengthened. In 36 years of working internationally for the eradication of nuclear weapons, I have never previously witnessed such a level of commitment of governments in a nuclear negotiation.

The Treaty in both process as well as substance thus represents a seismic shift in bringing global democracy to nuclear disarmament, and in asserting the interests of shared humanity. This disruption of the hegemony of nuclear-armed states is no doubt one of the reasons why these states oppose the Treaty so vociferously. Their pressure was coordinated and included diplomatic demarches, and political, economic and aid threats. For example, the US reportedly threatened one heavily landmined least developed country with withdrawal of its funding support for clearance of landmines (mostly laid by the US) if the country voted in support of the UNGA resolution supporting banning nuclear weapons. However the majority supporting the Treaty was so overwhelming that nuclear-armed states failed to derail the Treaty's negotiation or adoption.

How does the Treaty affect states not yet supportive?

The boycotting of the negotiations and opposition to the Treaty by all 9 nuclear-armed states, and the states that claim protection from US nuclear weapons (the 29 NATO members, Australia, Japan and South Korea) throws into sharp relief their current commitment to retaining and modernising nuclear arsenals, and continuing to justify and plan for the use of nuclear weapons, rather than implementing their obligation to eliminate them. Many of these governments claim to be good international citizens, to respect and promote human rights and the rule of law, to support disarmament, and have joined other treaties to prohibit and provide for the elimination of inhumane and indiscriminate weapons. The Treaty provides a moment of truth. States that are serious and sincere about nuclear disarmament will join. Those that do not, whatever they say, remain more part of the nuclear weapons problem than the solution. Boycotting multilateral negotiations to ban the worst WMDs and opposing the resultant international treaty is not consistent with their NPT Article 6 obligation “to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament”.

The ban treaty powerfully codifies in international law a rejection of the legitimacy of nuclear weapons in any hands. As we have seen with other prohibited weapons, norms are powerful. Angela Kane, when UN High Representative for Disarmament Affairs, commented in 2014 on the strong stigma against chemical and biological weapons: “How many states today boast that they are biological weapon states or chemical weapon states?” she asked.

“Who is arguing now that bubonic plague or polio are legitimate to use as weapons under any circumstance, whether in an attack or in retaliation? Who speaks of a bio-weapon umbrella?” The strength of the norm against chemical weapons led to the Syrian government being rapidly forced by Russia and the US to join the Chemical Weapons Convention in 2013, and the removal and destruction of 1260 tons of chemical weapons.

Despite states like China, Russia and the US opposing the treaties banning landmines and cluster munitions and failing to sign them, they no longer export these weapons, and their manufacture and use have declined substantially. In the same breath as US diplomats condemn the treaty banning nuclear weapons as undermining international security, they boast that the US is in virtual compliance with the landmine ban, even though it opposed hasn't joined that treaty either.

Over time, as weapons prohibition treaties enter into force and become international law, become reflected in states' domestic law, more and more states join and meet regularly to promote treaty implementation, their normative, moral and political force grows. Civil society has a crucial role to play in promoting the Treaty and its implementation. Military personnel of integrity in nuclear-armed states, mindful of international law and the principle affirmed by the 1946 Nuremberg Trials that superior orders are no defence when it comes to complicity in war crimes and crimes against humanity, should become less likely to consider, recommend or carry out an order to launch nuclear weapons.

Since the Treaty's adoption, even before it enters into force, we are already seeing money move. A growing number of financial institutions are divesting their funds from companies making nuclear weapons. This year, the world's largest sovereign wealth fund, the Norwegian Pension Fund with over USD 1 trillion; Europe's largest pension fund – Holland-based ABP; Deutsche Bank, Belgian bank KBC, and US-based Amalgamated Bank have divested from makers of nuclear weapons on humanitarian grounds. All financial institutions with policies of not investing in other prohibited and inhumane weapons should now divest from nuclear weapons.

Australian financial institutions have a way to go. ICAN's 2018 “Don't Bank on the Bomb” report documents that between January 2014 and October 2017 four large Australian banks made a total of \$6484 million available to companies engaged in the production of nuclear weapons. For ANZ the figure is \$2445 million, for Macquarie \$1938 million, for Westpac \$1584 million, and for CBA, \$517 million.

Currently 60 states have signed and 14 have ratified the Treaty. It will enter into force when 50 states have ratified it. We hope that milestone will be reached next year.

Australia's role

Sadly, our own government was the most active among those claiming protection from other's nuclear weapons, in opposing and seeking to undermine at every stage of the processes that led to the Treaty. Among diplomats as well as civil society the term "weasel" became common parlance for the states claiming to support nuclear disarmament while also claiming nuclear weapons are crucial to their security, being willing for another state's nuclear weapons to be used on their behalf and to assist in their use. Australia was chief among the weasels. In documents obtained under Freedom of Information, Australian diplomats boasted doing "heavy lifting" for the US in disrupting the final stages of the 2015-16 UN Working Group.

When it was adopted, Foreign Minister Julie Bishop quickly stated that Australia would not join the Treaty. These were the first multilateral disarmament negotiations ever boycotted by Australia, and this is the first weapons prohibition treaty which Australia has repudiated. The reason is the fundamental inconsistency between being serious about nuclear disarmament, while claiming that US nuclear weapons are essential to Australia's security and prosperity, and assisting in preparations for their possible use. This position is deeply immoral and makes us more part of the problem rather than the solution to the most acute existential danger we face. We have work to do to bring our country on the right side of history.

Banning and eliminating the worst of all weapons should be urgent humanitarian business, above party politics. Alfred Deakin's focus on policy before party, on non-partisan leadership and civil conduct, his adept management of minority government, and his sharp sense of transient moments of political opportunity, could very usefully be brought to bear in large measure on this paramount issue.

The first Nobel Peace Prize born in Australia

On 6 October, the Norwegian Nobel Committee announced the awarding of the Nobel Peace Prize for 2017 to ICAN "*for its work to draw attention to the catastrophic humanitarian consequences of any use of nuclear weapons and for its ground-breaking efforts to achieve a treaty-based prohibition of such weapons*". This has provided timely and needed attention to this urgent danger. It gives great encouragement to the many people and governments who work for the end of nuclear weapons. It is living proof of the difference that a few people can make, working together with a vision and a plan and persisting. That is indeed usually how things happen.

This is the first Nobel Peace Prize awarded to an entity born in Australia. While reaction to this not insignificant recognition from the government and from the opposition leadership in Canberra have been disappointing, I draw encouragement from the fact that ICAN's work is having an effect. Changing the status quo and challenging powerful forces and vested interests inevitably creates discomfort and resistance. All of us in ICAN have been chuffed and encouraged by the warm gratitude, goodwill and congratulations extended to us by people around Australia, and particularly in Victoria and in Melbourne, where ICAN was born. I am delighted to share our official Norwegian replicas of the Nobel diploma and medal with you here today. It is your prize too.

Albert Einstein said: "Those who have the privilege to know have the duty to act." This duty is a weighty responsibility. But it cannot be ignored or avoided. Nuclear weapons will not go away through denial or inattention. While our predicament is unprecedented, so is the opportunity to do good for this and future generations.

There can only be one answer to the question: will it be the end of nuclear weapons or the end of us? We all have a part to play to make sure it's the right answer. The Treaty on the Prohibition of Nuclear Weapons provides a path we should take, and soon.

Thank you.



TILMAN RUFF

Dr Tilman Ruff is Co-President of International Physicians for the Prevention of Nuclear War (Nobel Peace Prize 1985); and co-founder and founding Chair of the International Campaign to Abolish Nuclear Weapons (ICAN), awarded the Nobel Peace Prize in 2017 “for its work to draw attention to the catastrophic humanitarian consequences of any use of nuclear weapons and for its ground-breaking efforts to achieve a treaty-based prohibition of such weapons”. Dr Ruff is Associate Professor in the Nossal Institute for Global Health, University of Melbourne; and international medical advisor for Australian Red Cross. He was appointed a Member of the Order of Australia in 2012 “for service to the promotion of peace as an advocate for the abolition of nuclear weapons, and to public health through the promotion of immunisation programs in the South-East Asia – Pacific region”.