THERE has never been a better time to achieve total nuclear disarmament; this is necessary, urgent and feasible. We are at the crossroads of a nuclear crisis. On the one hand, we are at an alarming tipping point on proliferation of nuclear weapons, with a growing risk of nuclear terrorism and use of still massively bloated arsenals of the worst weapons of terror. On the other, we have perhaps the best opportunity to abolish nuclear weapons.

For the first time, a US president has been elected with a commitment to nuclear weapons abolition, and President Barack Obama has outlined a substantive program to deliver on this, and shown early evidence that he is serious. He needs all the support and encouragement in the world. We do not know how long this opportunity will last. Unlike the last one, at the end of the Cold War, it must not be squandered. An increasingly resource- and climate-stressed world is an ever more dangerous place for nuclear weapons. We must not fail.

Like preventing rampant climate change, abolishing nuclear weapons is a paramount challenge for people and leaders the world over - a pre-condition for survival, sustainability and health for our planet and future generations. Both in the scale of the indiscriminate devastation they cause, and in their uniquely persistent, spreading, genetically damaging radioactive fallout, nuclear weapons are unlike any other weapons. They cannot be used for any legitimate military purpose. Any use, or threat of use, violates international humanitarian law. The notion that nuclear weapons can ensure anyone's security is fundamentally flawed. Nuclear weapons most threaten those nations that possess them, or like Australia, those that claim protection from them, because they become the preferred targets for others' nuclear weapons. Accepting that nuclear weapons can have a legitimate place, even if solely for "deterrence", means being willing to accept the incineration of tens of millions of fellow humans and radioactive devastation of large areas, and is basically immoral.

As noted by the Weapons of Mass Destruction Commission headed by Dr Hans Blix: "So long as any state has nuclear weapons, others will want them. So long as any such weapons remain, there is a risk that they will one day be used, by design or accident. And any such use would be catastrophic." The only sustainable approach is one standard - zero nuclear weapons - for all.

Recent scientific evidence from state-of-the-art climate models puts the case for urgent nuclear weapons abolition beyond dispute. Even a limited regional nuclear war involving 100 Hiroshima-sized bombs - just 0.03 per cent of the explosive power of the world's current nuclear arsenal - would not only kill tens of millions from blast, fires and radiation, but
would cause severe climatic consequences persisting for a decade or more. Cooling and
darkening, with killing frosts and shortened growing seasons, rainfall decline, monsoon
failure, and substantial increases in ultraviolet radiation, would combine to slash global food
production. Globally, 1 billion people could starve. More would succumb from the disease
epidemics and social and economic mayhem that would inevitably follow. Such a war could
occur with the arsenals of India and Pakistan, or Israel. Preventing any use of nuclear
weapons and urgently getting to zero are imperative for the security of every inhabitant of our
planet.

The most effective, expeditious and practical way to achieve and sustain the abolition of
nuclear weapons is to negotiate a comprehensive, irreversible, binding, verifiable treaty - a
Nuclear Weapons Convention (NWC) - bringing together all the necessary aspects of nuclear
disarmament and non-proliferation. Such a treaty approach has been the basis for all
successes to date in eliminating whole classes of weapons, from dum-dum bullets to chemical
and biological weapons, landmines and, most recently, cluster munitions.

Negotiations should begin without delay, and progress in good faith and without interruption
until a successful conclusion is reached. It will be a long and complex process, and the sooner
it can begin the better. We agree with UN Secretary-General Ban Ki-moon that the model
NWC developed by an international collaboration of lawyers, physicians and scientists is "a
good point of departure" for achieving total nuclear disarmament.

Incremental steps can support a comprehensive treaty approach. They can achieve important
ends, demonstrate good faith and generate political momentum. Important disarmament next
steps have been repeatedly identified and are widely agreed. They remain valid but
unfulfilled over the many years that disarmament has been stalled. The 13 practical steps
agreed at the nuclear Non-Proliferation Treaty Review conference in 2000 should be upheld
and implemented. They include all nuclear weapons states committing to the total elimination
of their nuclear arsenals; entry into force of the Comprehensive Test Ban Treaty; negotiations
on a treaty to end production of fissile material; taking weapons off extremely hazardous high
alert "launch on warning" status; and negotiating deep weapons reductions. But at the same
time a comprehensive road map is needed - a vision of what the final jigsaw puzzle looks
like, and a path to get there. Not only to fit the pieces together and fill the gaps, but to make
unequivocal that abolition is the goal. Without the intellectual, moral and political weight of
abolition as the credible and clear goal of the nuclear weapon states, and real movement on
dismantlement, the NPT is at risk of unravelling after next year's five-yearly review conference
of the treaty, and a cascade of actual and incipient nuclear weapons proliferation can be
expected to follow.

Achieving a world free of nuclear weapons will require not only existing arsenals to be
progressively taken off alert, dismantled and destroyed, but will require production of the
fissile materials from which nuclear weapons can be built - separated plutonium and highly
enriched uranium - to cease, and existing stocks to be eliminated or placed under secure
international control.

The International Commission on Nuclear Non-proliferation and Disarmament announced by
Prime Minister Kevin Rudd in Kyoto last June and led with Japan is a welcome initiative
with real potential. It could most usefully direct its efforts to building political momentum
and coalitions to get disarmament moving, and promote a comprehensive framework for
nuclear weapons abolition.
Australia should prepare for a world free of nuclear weapons by "walking the talk". We should reduce the role of nuclear weapons in our own security policies, as we call on nuclear weapon states to do. To ensure that we are part of the solution and not the problem also means that the international safeguards on which we depend to ensure that our uranium does not now or in the future contribute to proliferation, need substantial strengthening and universal application. Our reliance on the "extended nuclear deterrence" provided by the US should be reviewed so that Australian facilities and personnel could not contribute to possible use of nuclear weapons, and we anticipate and promote by our actions a world freed from nuclear weapons. Canada championed the treaty banning landmines, or Ottawa Treaty; Norway led the way on the cluster munitions with the Oslo Convention. Why should the Nuclear Weapons Convention the world needs and deserves not be championed and led by Australia and become known as the Canberra (or Sydney or Melbourne or Brisbane) Convention?

*Malcolm Fraser (former prime minister), Sir Gustav Nossal (research scientist), Dr Barry Jones (former Labor government minister), General Peter Gration (former Defence Force chief), Lieutenant-General John Sanderson (former chief of the army and former governor of Western Australia) and Associate Professor Tilman Ruff (national president of the Medical Association for Prevention of War Australia).*