

# Is a nuclear-weapons-free world achievable?

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Where is the world heading – towards disaster, or towards reasonable solutions?

The violence a country uses can destroy its power, the author Hannan Arendt once said. The United States is moving rapidly along this road in Iraq and Iran. All empires disappear sooner or later – that is what we have learned from history – either through giving up power without using their capacity for violence, as the Soviets did under Gorbachev, or by letting violence destroy their power.

It seems that the leaders of the United States do not understand that the peoples of the world, who abolished the empires of the last centuries, are unwilling to be bound together for the supremacy of the US. The United States is at war in Iraq and Afghanistan, and seems to be planning an urgent attack on Iran, possibly with nuclear weapons.

In January 2007, prominent scientists moved forward the atomic Doomsday Clock, from seven minutes to five minutes before midnight. Midnight will be the end of civilisation. One of the reasons for this change was the increased threat of nuclear weapons.

The scientists warned of a second nuclear-weapons age. Serious threats include the 25,000 nuclear weapons in the United States and Russia, of which 2,000 are on high alert and can be discharged within minutes. Other serious threats include the ambitions of Iran and North Korea to go nuclear, increased terrorism, unsafe nuclear materials, for example, in Russia, and demands to increase civil nuclear power, which can increase the risk of spreading nuclear weapons.

In his Nuclear Posture Review of 2002, President Bush changed American nuclear-weapons doctrine in a very dangerous direction. He identified seven countries against which nuclear weapons can be *used*; five of those countries do not have nuclear weapons. Preventive attack, which in fact is forbidden in the UN Charter, was proposed in the new US nuclear weapons doctrine.

## **Risk of war in Iran**

A recent study by Dan Plesch and Martin Butcher ('Considering a war with Iran', September 2007), using open sources, demonstrates that an attack on Iran can be massive and launched with surprise, rather than merely a contingency plan that needs months, if not years, of preparation. The study concludes that the United States has made military preparations to destroy Iran's weapons of mass destruction, nuclear energy, regime, armed forces, state apparatus, and economic infrastructure within days, if not hours, of President Bush giving the order.

Any attack is likely to be on a massive scale on many fronts, but avoiding a ground invasion. Nuclear weapons are ready, but most unlikely to be used by the United States, the United Kingdom and Israel. The human, political and environmental effects would be devastating, while their military value is limited.

The United States is not publishing the scale of these preparations to deter Iran, tending to make confrontation more likely. The US retains the option of avoiding war, but using its forces as part of an overall strategy to shape Iran's actions.

In the study the authors also point to eight arguments currently in circulation that deny the idea of a looming war.

## **How did we come to this current nuclear crisis?**

For a couple of years, the nuclear energy ambitions of Iran have become an issue in world politics. What is true? Is Iran moving to become a nuclear-weapons power, or is Iran developing an exclusively peaceful nuclear energy industry? Iran has for some time been encouraged to cancel parts of its nuclear industry. This has been done by diplomatic pressure, which has lately been upgraded to gunboat diplomacy. The UN Security Council has enforced political sanctions against Iran. A military intervention has been discussed. These policies are unfortunate, unfair, and beside the point, says Jan Prawitz\*, a Swedish scientist working on nuclear-weapons-free zones.

Today, Iran is criticized on three counts. One is that Iran has not complied with some of its reporting commitments to the International Atomic Energy Agency. Some reports were incomplete, delayed or just absent. Secondly, it was criticized for constructing an ultracentrifuge facility for enriching uranium. And, thirdly, it was criticized for constructing a nuclear reactor fuelled with natural uranium, and for producing a heavy water moderator for that reactor.

Primarily, it is the two latter projects that have attracted suspicion, because these facilities could be rearranged for production of weapons-grade uranium and plutonium. Even if Iran's nuclear activities are today exclusively peaceful, once these facilities are fully completed, the lead time from a future decision to make nuclear weapons until fuel for a first explosive device will be available would be dramatically shortened.

According to 'worst-case-analysis', assuming that Iran has already decided to go nuclear, sufficient uranium for a first explosive device would be produced late

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\*On Iran and the current nuclear crisis in 'A Note on the Proposed Zone Free of Weapons of Mass Destruction in the Middle East', London, September 2007, Jan Prawitz, the Swedish Institute of International Affairs, Stockholm.

in the year 2010, if nothing goes wrong. To go from there to establish itself as a militarily significant nuclear power, would require an expensive and time consuming effort, says Prawitz.

The criticism for incomplete reporting by Iran is formally correct but still overemphasized. Incomplete reporting is not unusual among the Nuclear Non-Proliferation Treaty parties. Today, 31 of 185 non-nuclear states party have delayed concluding their reports by many years. Thus, while formally in error, Iran's behaviour is not extraordinarily dramatic.

It is more important for purposes of comparison that ultracentrifuge enrichment of uranium has gone on for several years in two non-nuclear-weapon states, Germany and Netherlands, and a new facility is being constructed in Brazil. Canada's whole nuclear power industry is based on natural uranium heavy water reactors. Some 50 tons of surplus plutonium is stockpiled in Japan. But these facts have caused no raised eyebrows in the UN Security Council.

Obviously, the current Iranian nuclear crisis is a substitute for other and wider political ambitions. Preventing the proliferation of weapons of mass destruction is a fundamentally important objective. But it is beside the point to approach that problem indirectly by requiring the limitation of fuel cycle elements on the part of non-nuclear-weapon states. The Security Council's demands are legally correct, but unfortunate. What Iran is doing is legally correct according to the Nuclear Non-Proliferation Treaty, which was agreed after careful negotiations and compromises during the years 1966 to 1968, says Jan Prawitz.

Are there no positive signs? Yes, there are – first, on Iran.

The Middle Powers Initiative pointed to the need for intensified diplomacy in a recent statement (20 September 2007). They say:

‘Since 2003, Iran has met reporting requirements. In his report of 30 August 2007, International Atomic Energy Agency Director General ElBaradei stated that the Agency “is able to verify the non-diversion of declared nuclear material in Iran”.

The Agency and Iran have reached agreement on a work plan to clear up outstanding questions about Iran's past nuclear activities. This plan must be given time to work.

Iran has repeatedly indicated its openness to the operation of limited enrichment facilities in Iran under heightened Agency monitoring and with foreign participation.

Finally, the United States and other nuclear weapon states can more credibly insist on Iranian compliance with its international obligations if they meet their own nuclear disarmament obligations ... The nuclear weapon states have, pursuant to their duties under the Nuclear Non-Proliferation Treaty, committed to a diminishing role for nuclear weapons in their security policies, and ... made commitments to the non-use of nuclear weapons against non-nuclear-weapon states that have signed the Treaty.’

Another interesting and positive sign appeared at the beginning of 2007. On 4 January, in the *Wall Street Journal*, there was an article by four architects of the Cold War – Republicans Henry Kissinger and George Schultz and Democrats William Perry and Sam Nunn – who demanded that the United States take a lead in the total abolition of *all* nuclear weapons. Their proposals were not new: in 1996, the Canberra Commission had proposed something similar, and, later on, so

did the Blix Commission – taking nuclear weapons off alert; reducing the amount of nuclear weapons drastically; abolishing tactical nuclear weapons, and so on. I will come back to these proposals later. What is new is that these four politicians, who were formerly in favour of, and responsible for, nuclear weapons, now have an interest in common with the opponents of nuclear weapons and with civil society.

Arthur Schopenhauer, the philosopher, said that all truth passes through three stages; first, it is ridiculed; then, it is strongly counteracted; and, finally, it is suddenly accepted as obvious. Getting rid of all nuclear weapons has now, through these four politicians, reached the stage of being ‘accepted as obvious’. The question is whether this truth has reached the American administration.

### **Why were these weapons developed?**

More than 100 years ago, Dr Marie Curie discovered the radioactive elements radium and polonium. This was a big breakthrough in the medical area. Two decades later, it was possible to use the new discovery in heart diagnosis and other fatal diseases. In the beginning radioactivity saved lives. But, 47 years later, the same knowledge was used to produce the first nuclear weapons that destroyed Hiroshima and Nagasaki, killing then, and in the years to come, more than 200,000 people. This was a totally new way of warfare. The nuclear arms race that followed was unbelievable – the capacity could kill human beings not only once but several times over. Marie Curie’s discovery turned out to be the biggest threat to world peace and security.

During the Second World War, the world feared that Hitler would develop atomic weapons. Nuclear scientists, among them Joseph Rotblat from Poland who lost his wife in a concentration camp, gave their knowledge to the Manhattan Project in order not to let the Nazis conquer the world. When they recognised that Hitler could not produce nuclear weapons, Joseph Rotblat proposed immediately that the project should stop, because there was no use any longer for such a horrible weapon. Politicians and the military rejected his proposal. When you could develop such an effective weapon, you could not stop it, even if the motive for it had disappeared. Rotblat lost his promised American citizenship and decided to devote his life to ridding the world of nuclear weapons. He became, in fact, the first opponent of nuclear weapons.

### **Nuclear weapons today**

Today’s stockpile of nuclear weapons has 700 times more explosive force than that used during the last century’s big wars, which killed 44 million people. Today, there are thousands of nuclear weapons on missiles, submarines, ships and aircraft that are *on alert* all round the world. They are ready to be used within a minute. There exist today nuclear weapons so small that they can fit in a suitcase, beyond any treaty control.

Long after the end of the Cold War, around 30,000 nuclear weapons remain. Since 1945, more than 8 trillion dollars have been spent on nuclear weapons. In

the shadow of the Cold War, the nuclear arms race increased.

The current destructive capacity of nuclear weapons is enormous. Any use would lead to catastrophe. The risk that nuclear weapons might be used by mistake or through miscalculation has increased. Political instability, unsafe control, and lack of proper management of nuclear weapons could lead to disaster.

On 25 January 1995, the world came close to the accidental use of nuclear weapons when the Russian military detected an unidentified ballistic missile over Norway, possibly heading for Russia. The order was given to Russian ballistic missile submarines to go to battle stations. Disaster was averted by only a few minutes when the missile was reassessed as harmless. Its identity and research mission had not reached the Russian early warning system. If such an incident were to occur when relations between the United States and Russia were not good, disaster might not be averted.

In April 1998, *The New England Journal of Medicine* published a special report which concluded that, despite the end of the Cold War, the risk of an accidental nuclear attack has increased. It pointed to the alarming number of US military personnel who had to be removed from involvement with nuclear weapons because of alcohol, drug abuse or psychiatric problems. The former four star General and Commander in Chief of US Strategic Air Command, Lee Butler, who had responsibility for all US Air Force and Navy nuclear deterrent forces and literally had his finger on the button to release nuclear weapons, told the same story during the work in the Canberra Commission. He was absolutely convinced that the world needed to be free of all nuclear weapons.

### **What to do? Two examples**

What has happened and what can be done to get rid of nuclear weapons? First of all, everyone has the responsibility and possibility to work to that end. I will give you two examples how one can work in order to move forward: the story of Joseph Rotblat, Pugwash and the Canberra Commission; and the story of getting nuclear weapons declared illegal.

Joseph Rotblat was one of the founders of the Pugwash Movement, which brought together scientists from East and West in order to build a bridge between the two opponents after the Second World War. After several years of work, Joseph was convinced that, in order to reach a world free of nuclear weapons, a plan had to be developed containing measures to reach this goal. All nuclear weapons must be forbidden and, step by step, destroyed, in the same way as other weapons of mass destruction such as chemical weapons and biological weapons.

And it *is* possible to abolish all nuclear weapons, technically, politically and economically – if the will exists. This was later confirmed in the report of the Canberra Commission, which was presented in 1996. The Prime Minister of Australia, Paul Keating, was made aware of a book written by a group of scientists and others in the Pugwash movement – I was one of them – on the initiative of Joseph Rotblat.

The book was called *A nuclear-weapons-free-world – desirable, feasible?* Not everyone – nuclear scientists most of them – believed in Rotblat's goal that a

nuclear-weapons-free world was feasible. Some of them saw Joseph as a dreamer. It was not possible to reach a nuclear-weapons-free world. The discussions were very hot and deep and Joseph argued well for his case – patient, dogged, but kindly. And, to the surprise of some of them, we managed to agree and the book was printed. It became the starting point.

### **The Canberra Commission**

In December 1995, the Prime Minister of Australia, Paul Keating, asked a group of experts to present a *realistic* plan of how *all* nuclear weapons could be abolished – not a dream but a realistic plan. We were sixteen men and one woman on the Commission. We had the best scientists providing us with excellent basic material, and many non-governmental organisations sent us their opinions. We had a full-time secretariat at our disposal. And we had nine months to prepare and deliver our Report.

The Commission members had different backgrounds and experiences: there were two four-star generals, Generals Lee Butler and Michael Carver; former US Secretary of Defence Robert McNamara; the former Prime Minister of France, Michel Rocard; several ambassadors and scientists and, of course, the 1995 Nobel Peace Prize Winner, Joseph Rotblat.

We based the case for the elimination of nuclear weapons on three main arguments:

The first was that the destructiveness of nuclear weapons is so great that they *have no military utility* against a comparably equipped opponent, other than the belief that they deter that opponent from using nuclear weapons. Use of those weapons against a non-nuclear opponent *is politically and morally indefensible*.

The second argument was that the indefinite *deployment* of the weapons carries a high risk of their ultimate *use through accident or inadvertence*.

The last argument was that the possession of the weapons by some states *stimulates other nations to acquire them*, reducing security for all.

### **Immediate steps**

We demanded that the nuclear weapons states at the highest political level should, once and for all, unanimously declare that they want to abandon all nuclear weapons, even if this is already stated in article 6 of the Nuclear Non-Proliferation Treaty, which they have all signed. Such a commitment would change instantly the tenor of the debate, the thrust of war planning, and the timing of, or indeed the necessity for, modernisation programmes.

This commitment must be accompanied by a series of practical, realistic and mutually reinforcing steps. As a start, without any negotiations, the nuclear weapons states can do several things which will immediately decrease the threat of nuclear weapons under which we all live. The first steps we proposed were:

- Taking nuclear weapons off alert
- Removal of warheads from delivery vehicles
- Ending deployment of non-strategic nuclear weapons

- Further reduction of United States and Russian nuclear arsenals
- Agreement among the nuclear weapon states of reciprocal no-first-use undertakings, and of a non-use undertaking by them in relation to the non-nuclear-weapon states.

To take nuclear weapons off alert will dramatically reduce the chance of an accidental or unauthorised launch of nuclear weapons. All nuclear weapons must be taken off alert. This could, in the first instance, be adopted by the nuclear weapons states unilaterally.

Separation of nuclear warheads from their delivery vehicles is a must, and they should be placed far from each other so that they cannot easily be put together again. The physical separation of warheads from vehicles would strongly reinforce the gains achieved by taking nuclear forces off alert.

The nuclear weapon states should unilaterally remove all non-strategic nuclear weapons from deployed sites to a limited number of secure storage facilities on *their own territory*.

A full stop for testing must be decided.

The nuclear weapon states should agree and state as soon as possible that they would not be the first to use or threaten to use nuclear weapons against each other, and that they would not use or threaten to use nuclear weapons in any conflict with a non-nuclear-weapon state. This would lead to an important and total change in the nuclear weapons strategy of the nuclear weapons states. All this can be done without delaying negotiations.

### **Reinforcing steps**

Many other proposals are to be found in the report:

- Action to prevent further horizontal proliferation
- Developing verification arrangements for a nuclear-weapon-free world with an international ban on research, storing, selling and the use of nuclear weapons
- Cessation of the production of fissile material for nuclear explosive purposes.

Effective verification is critical to the achievement and maintenance of a nuclear-weapon-free world. Concurrent with the central disarmament process, there will be a need for activity to build an environment conducive to nuclear disarmament and non-proliferation. The spread of nuclear-weapon-free zones world-wide could progressively codify the transition to a world free of nuclear weapons.

The Canberra Commission Report was not a dream but a *realistic* way of eliminating all nuclear weapons. Joseph Rotblat had really come close to his faith. The issue had left the academic world and turned onto the political level.

Even if the Canberra Commission Report did not directly have a result, the Non-Proliferation Treaty conference of 2000 included in its thirteen practical steps the proposals of the Canberra Commission (see box). The Non-Proliferation Treaty is the most important international treaty on nuclear weapons, in which nuclear weapon states commit themselves to getting rid of nuclear weapons, and non-nuclear-weapon states commit themselves not to seek nuclear weapons. Every fifth year the Treaty is up for review.

### **Summery of the thirteen practical steps for nuclear disarmament agreed at the NPT Review Conference in 2000**

1. Early entry into force of the Comprehensive Nuclear Test-Ban Treaty (CTBT)
2. A moratorium on nuclear tests pending the CTBT's entry into force.
3. Conclude negotiations in the Conference on Disarmament on a verifiable fissile materials treaty within five years.
4. Establish a subsidiary body in the Conference on Disarmament to deal with nuclear disarmament.
5. Apply the principle of irreversibility to nuclear disarmament and arms control.
6. An unequivocal undertaking by the nuclear-weapon states to eliminate their nuclear arsenals.
7. Entry into force of the Strategic Arms Reduction Treaty (START II); conclusion of START III; preserve and strengthen the Anti-Ballistic Missile Treaty.
8. Completion and implementation of the Trilateral Initiative between the United States, Russia and the International Atomic Energy Agency.
9. Steps by the nuclear-weapon states leading to nuclear disarmament in a way that promotes international stability, based on the principle of undiminished security for all:
  - unilateral reductions;
  - increased transparency;
  - the further reduction of non-strategic nuclear weapons;
  - de-alerting;
  - A diminishing role for nuclear weapons in security policies;
  - The engagement by all the nuclear-weapon states in disarmament as soon as appropriate
10. Arrangements by nuclear-weapon states to place fissile material no longer required for military purposes under IAEA supervision or other relevant international verification.
11. Reaffirmation that the ultimate objective is general and complete disarmament under effective international control.
12. Regular reports within the NPT: strengthened review process.
13. Improved verification of compliance with nuclear disarmament agreements.

The Non-Proliferation Treaty 2000 is signed by all Member States, including the nuclear weapon states, which committed themselves to this action programme to rid the world of nuclear weapons and is still valid. All signatories to the NPT should be made aware of their duty to fulfil what they promised. We have to remind them.

The Canberra Commission Report, the Non-Proliferation Treaty 2000, and the report entitled 'Weapons of Terror' (with the subtitle 'Freeing the World of Nuclear, Biological and Chemical Arms' – the Blix Report of 2006) reflect Joseph Rotblat's ideas and proposals of ways towards a world free of nuclear weapons. All of them are still valid and represent sound and realistic ways of ridding the world of all nuclear weapons.

## **Illegality**

In July 1996, at the end of our work in the Canberra Commission, the International Court of Justice in The Hague gave its response to a request from the General Assembly of the United Nations for an advisory opinion on the legality of the threat or use of nuclear weapons.

For a long time, the International Association of Lawyers Against Nuclear Arms (IALANA) had tried to get the question of illegality of nuclear weapons on the agenda. In the 1980s, my own civil servants in the Swedish Foreign Ministry told me when I was an ambassador responsible for our disarmament policy that it would be impossible to obtain a response that made nuclear weapons illegal.

The international lawyers decided to try to bring the question to the General Assembly of the United Nations, and formulated a resolution requesting an advisory opinion from the International Court. It was taken on board by some states. A full-scale war almost broke out in the UN. I was there and could see with my own eyes how the United States went into the room of the non-aligned states and put pressure on many small countries that relied on the US for economic or other support. Such a resolution was unacceptable for US.

The first year, the resolution was not put forward. But the next year the resolution was brought to the General Assembly, even though the United States had, in the meantime, used all its power to threaten many small countries. And to the surprise of many, the resolution was adopted by the General Assembly with a clear majority. Sweden, which then had a Conservative government, abstained from voting. Now began the next step for those of us who wanted to see a positive answer. We had to influence the International Court and our own governments.

When the International Court received the request, it turned to its member states and asked for their opinion before the Court could give an answer. As my government had lost the election, I had to do the work in the Parliament. I put forward a resolution, signed by all political parties except the Conservatives, demanding that the Swedish government respond to the Court that the position of Sweden was that the use or threat to use nuclear weapons was illegal. Of course, the Parliament adopted the resolution, and in the very last minutes, with the help of some political pressure, we managed to get the government to respond that 'the Parliament – not the government – has the opinion that the use of nuclear weapons is illegal'.

This work in Sweden, and the efforts of many other people in lobbying their own governments, achieved a result. In July 1996, the Court declared that the use or threat of using nuclear weapons was not in accordance with international law. This was a very important victory for public opinion!

The declared illegality of nuclear weapons is a result of pressure from public opinion, experts and scientists, and the involvement of engaged politicians. It is a good example of how we can work in the future.

There are many more examples of the pressures exerted by ordinary people which have changed nuclear policy – stopping the deployment of medium-range nuclear weapons in different European countries; stopping the development of the neutron bomb, which leaves houses and property standing but kills human beings; stopping nuclear testing by France through a boycott of French wines, just to mention a few examples. In Sweden our boycott of French wines led to a 50 per cent decrease in sales, and even involved restaurant owners who threw bottles of champagne into the street in front of the television cameras.

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Where is the world heading? Towards disaster, or towards reasonable solutions? Towards war in Iran, or towards diplomatic solutions? Towards a new nuclear arms race, or towards nuclear disarmament? Towards mass murder with nuclear weapons, or towards the UN Charter's provision that peace shall be created by peaceful means? It depends on us – if we are willing to take responsibility and act with persistence and conviction. Everyone can do something. International law, the facts, and realistic programmes are already there – the UN Charter, the Canberra Commission Report, the Blix Commission Report, and the Nuclear Non-Proliferation Treaty action programme in 13 steps.

With facts and determination we can change the world. I am convinced that, one day, Joseph Rotblat's dream and our dream – a nuclear-weapon-free world – will come true.

## **Common Sense and Nuclear Warfare** by Bertrand Russell

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