



Select Committee on International Relations

Corrected oral evidence: Nuclear Non-Proliferation Treaty and nuclear disarmament

Wednesday 13 February 2019

10.40 am

Watch the meeting

Members present: Lord Howell of Guildford (The Chairman); Baroness Anelay of St Johns; Lord Grocott; Lord Hannay of Chiswick; Baroness Helic; Baroness Hilton of Eggardon; Lord Reid of Cardowan; Baroness Smith of Newnham; Lord Wood of Anfield.

Evidence Session No. 11

Heard in Public

Questions 102 - 112

Witnesses

I: Ms Beatrice Fihn, Executive Director, International Campaign to Abolish Nuclear Weapons (ICAN); Dr Nick Ritchie, Lecturer (International Security), University of York.

USE OF THE TRANSCRIPT

1. This is a corrected transcript of evidence taken in public and webcast on www.parliamentlive.tv.

Examination of witnesses

Ms Beatrice Fihn and Dr Nick Ritchie.

Q102 **The Chairman:** Good morning. Thank you for sparing your valuable time to be with us and sharing your views with us in our inquiry on the, frankly, quite disturbing international arms control/nuclear disarmament scene, where it is going and what can be done about it in constructive ways. I think you are familiar with this, but I am obliged to remind you at the beginning that the session is recorded and there is a transcript—of course you are free to alter the transcript afterwards if it does not reflect what you feel you have said. I also remind my colleagues around the table to declare any interests relevant to questions that they ask.

I repeat that the scene is a concerning and worrying one. Here in the politics of this building our minds are on other things at the moment, but it may be that what we are going to discuss is more important than all the rest put together. I shall start with a general question. I emphasise that we want to come on later to the details of the TPNW,¹ the NPT,² the INF³ and so on, but first I want to ask you considerable experts a general question. How do you assess the current level of nuclear risk? Where is it going with the rather worrying stories that we are hearing? The INF issue has come up; it is between Russia and America but it affects us all. Where is the trust coming from to try to get a real advance in this whole field? Or is it inevitable that we have to go much more cautiously step by step, given that if there is no trust, once one party takes a step, that makes it very much worse by destabilising the whole structure? That is our worry and we would like your help with it. I would like to begin with you, Beatrice Fihn, as Executive Director of ICAN.

Ms Beatrice Fihn: Thank you, it is really nice to be here. I appreciate the opportunity to speak to you. I am extremely concerned about the current risk. Just a few weeks ago, we had the Bulletin of the Atomic Scientists announcing its annual doomsday clock, putting it at two minutes to midnight. That is the closest to midnight that it has ever been; only once, at the height of the Cold War, has it been as close. That risk is real. Very often we look at nuclear weapons as an abstract theoretical issue, but the developments over the last few years have reminded us that the threat is real. These weapons exist, they are stationed in places, they are exercised with and they are being prepared for use. The latest developments in particular—ripping up a number of international agreements and violating such agreements—are extremely concerning. They show a withdrawal from multilateralism and trust in international law. This is an extremely dangerous time.

At the same time there are a lot of positive developments—the Treaty on the Prohibition of Nuclear Weapons is one such development. Sometimes the positive impact of this treaty is underestimated. The fact that the

¹ The Treaty on the Prohibition of Nuclear Weapons

² The Nuclear Non-Proliferation Treaty

³ The Intermediate-Range Nuclear Forces Treaty

majority of states in the world do not have or want nuclear weapons should be welcomed by everyone; they do not rely on them, and they ensure their security without nuclear weapons. Many of those countries are now making a legally binding commitment to forgo that option for ever. That is extremely encouraging news in today's security environment and it is something that should be supported.

I underline that we see the risk increasing in terms not only of threats to use nuclear weapons and the unravelling of the legal structure around nuclear weapons but also of new developments in technology. First, we are seeing the threats change. It is not about two blocs any more; it is a multipolar world with many different threats and a rapidly changing security environment. We do not know what is going to happen in 10 years. Five years ago we could not predict where we would be today and I think that things could change just as much in the next five years. That makes the situation very unpredictable and unstable. Secondly, we have developments in cyberwarfare—autonomous weapons are on the horizon, for example, as artificial intelligence in the military is developing—and therefore we see how the calculations made around nuclear weapons may not be relevant in a few years. That situation might drastically change and this might drastically increase the risk of accidents, sabotage of a facility or just miscommunications. The decision-making process would be sped up to such a degree that conflict might very quickly be escalated. So I see a lot of worry. We have been very lucky that for over 70 years we have not had the intentional or accidental use of nuclear weapons, but we might not be so lucky for the next 70 years.

The Chairman: Thank you for that opening comment. Dr Ritchie, I ask you in the same vein to give an opening overview of how concerned we should be.

Dr Nick Ritchie: Certainly. I, too, thank you for inviting me to speak to you; it is a real pleasure to be here. The first thing to acknowledge when we are talking about nuclear risk is that it is very difficult to estimate it. People are notoriously incapable of estimating probability realistically, but—fortunately—we do not have any database of nuclear use, the collapse of nuclear deterrence and so on, so it is inherently subjective to try to assess the level of nuclear risk. That is the first thing to note.

The second thing to note is that the risk of nuclear use is undoubtedly a symptom of changes in hostile relations between nuclear armed adversaries. We have seen levels of hostility, particularly between the US and NATO on the one side and the Russian Federation on the other, ratchet up since the mid-2000s or so, really since Putin's quite forthright speech at the Munich Security Conference in 2007. That trajectory of hostility has continued, although there was a bit of pause in the Obama/Medvedev overlap. We have also seen hostilities increase quite markedly between the US and North Korea over 2016-17. That is now being managed somewhat but how that plays out over coming years remains to be seen. The situation between India and Pakistan is similarly at a constant high level of hostility and tension. The relationship between

the US and China started to change around 2007 and 2008, with the empowerment of China meaning that it is more insistently pressing its territorial claims in its vicinity. So we have these ongoing adversarial relationships between major nuclear armed powers and in the Asian subcontinent, and the extent of the hostility waxes and wanes. As hostility increases, the risk of that conflict escalating to a violent conflict, to nuclear use and to all-out nuclear exchange necessarily increases as well. The point to make is that the risk of nuclear use is symptomatic of where underlying hostilities are going.

I shall make one more point. The risk of nuclear use is inherent to the practice and logic of nuclear deterrence. So long as we maintain a system of national and global security that rests on nuclear deterrence, there is necessarily a risk of nuclear use. The efficacy and credibility of a nuclear deterrent threat requires there to be some possibility of those nuclear weapons actually being used, so the risk of use is permanent. It is just a question of—and these are often subjective assessments—what level the probability or possibility of the risk of use is. That is a permanent condition that we live with.

The Chairman: That is very sobering and clear. Thank you both for your opening statements.

Lord Hannay of Chiswick: This is a small factual point that I would like to put to Beatrice Fihn. I also declare an interest as a member of the European Leadership Network for nuclear disarmament and non-proliferation. You have mentioned that the Ban Treaty, obviously correctly, has self-imposed legal restraints on the countries inside it not to develop nuclear weapons. Is it not the case that so far every signatory to the Ban Treaty is already a signatory to the Non-Proliferation Treaty and is therefore bound by international legal obligations not to develop nuclear weapons?

Ms Beatrice Fihn: Yes. So far only states parties to the nuclear non-proliferation treaty have signed it, but it goes beyond the legal obligations of the NPT. It also prohibits assisting in the development, use and possession of nuclear weapons, which in some states is not always illegal under the NPT. It imposes positive obligations such as providing assistance to the victims of nuclear detonations and environmental remediation, which is also a requirement of the NPT. Most of all, it contains a complete rejection of all nuclear weapons. The NPT still temporarily allows five states to have nuclear weapons, but this treaty rejects all of them for all states. There is an additional obligation within it.

Q103 **Lord Reid of Cardowan:** I am interested in the nuance of emphasis between the two of you. When we look at risk or threat, to put it crudely, we can look at tension and at nuclear capability. Dr Ritchie has stressed the tension and hostility between active partners whether in the pact or not, whereas Ms Fihn has emphasised technological change—capability rather than potential. How do you see the relationship between these two—that is, the circumstantial hostility that rises and falls depending on the circumstances, such as for instance the rise in hostility between the

US and North Korea, but because of political activity a reduction of that harm, risk and threat, and on the other hand the apparently inexorable rise of technology in the form of cyber autonomous weapons and so on which you mentioned? I suppose that it is too crude to ask which of these you think is the most important in increasing the threat over the next 10 or 20 years. Is it the technology and the risks associated with that or is it a flare-up of hostilities? Obviously it is both, but to me at least one of them seems to be inexorable in increasing the risk while the other is more likely to be managed politically.

Ms Beatrice Fihn: It is hard to choose between the two because they are both extremely problematic. After the Cold War, we had a period of good relations between states and a security environment that was changing for the better. I think the fact that we did not more aggressively pursue nuclear disarmament at that point was a huge missed opportunity. When times are good, we assume that everything is fine, but it is important to remember that in the future there will be good times and there will be bad times. Conflict is within our human nature and I do not think that we will see a paradise world in the future where everyone always agrees. However, what we can do is remove the most lethal and destructive weapons from that kind of conflict. Right now we are going through a period of serious hostility and that is why the risk is increasing. I think that that is extremely dangerous.

I do think that technological developments will drastically change how we look at these weapons. Nuclear weapons are extremely clumsy, impractical and expensive. They do not really provide the security we want in the 21st century against climate change, terrorism and extremism. We see attacks on democracy and trends towards authoritarianism. You cannot fight any of those things with nuclear weapons. You cannot deter terrorists with nuclear weapons. You are right to say that the exponential rise of new technologies can bring about change very quickly so it is hard to predict the future. But threatening to mass-murder civilians as a method of defence does not fit into the perspective. It can very quickly develop into an incredible risk and liability in terms of our security interests.

Dr Nick Ritchie: I would add that it is absolutely both if we accept that not the only, but the most plausible, pathway to nuclear use is through the deliberate or inadvertent escalation of a conflict. As I say, that is the most plausible pathway. Not many theorists or practitioners who have been involved in nuclear practices think that we are going to suffer a nuclear strike as the result of a bolt out of the blue with absolutely no prior warning. If we accept that the most plausible pathway is through the deliberate or inadvertent escalation of a conflict, that is where you have what has been called the increasing entanglement of nuclear and non-nuclear systems that can increase the misunderstanding, misjudgement or misperception of an adversary's actions in a particular context. Work by James Acton in the US looks at the effect of the targeting of command and control systems in what could be a conventional war. However, those command and control systems for

conventional weapons can provide exactly the same infrastructure that is necessary for the command and control of nuclear forces. Similarly, if you have long-range conventional global strike weapons that are essentially the same weapon which in other versions is nuclear armed, you may think that you are attacking conventional weapons but in fact you are attacking the adversary's nuclear weapons. In a crisis, that can lead to all sorts of developments. We can speculate, but we can plausibly imagine, based on previous nuclear crises, particularly the Cuban missile crisis, how they could lead to different types of escalation which could lead to the first use of nuclear weapons and then retaliatory nuclear strikes.

We have the new technologies of cyber, advanced missile defences, conventional global strike and potentially the ways in which artificial intelligence will automate the detection of strikes, potential responses and so on. As these technologies develop and are fielded inexorably in the future, the real concern is the extent to which they simply complicate the fog of war, if you like, in a crisis before it turns violent, and then at the point at which it might turn violent. We should note too that mercifully in the nuclear era we have not yet engaged in a direct general war at the conventional level between major powers at the heart of the international system. We got pretty close with the Korean War, but we have not really gone there. But even speculating at what might happen at the level of a conventional war between major powers, let alone how that might escalate to nuclear use and the use of the new technologies, one can see how these new technologies could create radical complications in ways that we do not yet comprehend as regards how such a conflict might unfold. That, I think, necessarily increases the possibility of nuclear use either deliberately or inadvertently.

Q104 Lord Grocott: This is an observation in passing rather than a question. In the last 74 years, while mercifully no one has been killed by nuclear weapons, huge numbers of people have been killed by conventional weapons, millions have been displaced from their homes, and so on and so on. That is a remark that does not require a response.

In both your pieces of evidence, and in much that we have heard before, there has been reference to the increased dangers and risks—'We live in a more dangerous world', which may or may not be true. One of the reasons why it is suggested that the situation is more dangerous is the possibility of terrorist groups becoming involved in the use or the malfunctioning of nuclear weapons through techniques that could be developed. It seems to me that all your comments are aimed at reducing nuclear weapons at state level. If it is true that terrorist organisations are increasingly likely to present a risk, what are you saying about them? How do we deter them? Is there anything to be said about that?

Dr Nick Ritchie: Thinking broadly about what is at stake with the use of nuclear weapons, the thing that we all want to avoid is a major nuclear war that has severe effects on the climate, let alone the immediate effects on those in the region where nuclear warheads are detonated. If there is a central exchange between the US and Russia, we will see multiple cities being targeted. Over the longer term, though, the work

that has been done on nuclear winter scenarios using modern climate change software and programmes shows that even a relatively small nuclear war, modelled between India and Pakistan using 100 Hiroshima-sized nuclear warheads, would loft enough soot into the atmosphere from the firestorms that would follow to cause pretty significant global cooling and potentially the collapse of global food systems and so on. It is that level of immediate regional effects in a nuclear war and then the secondary but just as significant long-term climate effects that we absolutely must avoid. When you are thinking about the risks of nuclear conflict, you can escalate all the way to potentially omnicidal scenarios—that is, scenarios of civilisation collapse.

It is a different order of magnitude when you look at what may plausibly be achievable through an act of nuclear terrorism. It is probably less plausible than escalation, as I say, deliberately or inadvertently in a crisis between nuclear armed states. The key for thinking about nuclear terrorism is the possibility of a non-state actor getting hold of a workable nuclear weapon. We can speculate, but the most obvious scenario is a Government deciding to clandestinely arm a non-state actor to act as their surrogate, but that seems highly unlikely. Otherwise we are looking at the potential acquisition of weapons-usable or weapons-grade fissile material. Even in such a situation it is possible but, I think, more implausible that a terrorist group would be able to develop a workable primitive basic nuclear device and be able to detonate it in, say, a city where it would be even anywhere near, say, a Hiroshima or Nagasaki-sized blast. That is incredibly unlikely. We can imagine it and we can plot the pathways by which it might happen, but it is incredibly unlikely. Even if it were one-half or one-tenth the size of a Hiroshima detonation, by modern nuclear weapon standards even the Hiroshima and Nagasaki bombs were primitive low-yield weapons, the harm that could be inflicted by the terrorist use of an improvised nuclear device is orders of magnitude less than even a small-scale nuclear confrontation between nuclear armed states.

Ms Beatrice Fihn: On the comment that no one has been killed by nuclear weapons in 74 years, obviously Hiroshima and Nagasaki are the only times when we have used them in warfare, but we have carried out over 2,000 nuclear tests, with devastating consequences for local communities. This is not often talked about because they did not test these nuclear weapons on the capitals of the countries that had them; they tested them on indigenous and marginalised communities in former colonies and places far, far away, and in those times those communities did not matter so much. Even today people in the Pacific, in Nevada in the US, in Algeria where France tested, in regions in China, and in Kazakhstan where Russia tested are suffering tremendous health problems and deaths caused directly by nuclear weapons. This affects women in particular; radiation impacts women differently from men. We are much more susceptible to radiation; we have more soft tissue so we absorb more of it. We see that in Semipalatinsk, the area where the Soviets tested their nuclear weapons, where today one out of 20 children is born with a disease that can be traced to nuclear testing; we see

women in the Pacific having stillbirths and giving birth to kids with birth defects; and there are huge rates of cancer that can be linked to this. So significant harm and impact from the nuclear testing is still ongoing in those communities today. If nuclear weapons are used again, there will not just be victims at the time; the effect will continue for decades.

Lord Wood of Anfield: I have a small follow-up to what Dr Ritchie said about the trajectory by which you might get an accident or a use of weapons. You think that terrorism is a low risk, and your argument seems to be that in the event of a conflict involving nuclear states there is a danger, with an escalation in tensions, that those weapons might get used. My question is: is there not a more plausible route to it involving military doctrines that deliberately blur the line between conventional and nuclear weapons—the idea that some people in the Kremlin, for example, think that limited nuclear use could be part of the ordinary portfolio of military combat? Is the doctrinal shift not the prime mechanism by which the likelihood is increased, or is that wrong?

Dr Nick Ritchie: I do not think that this is anything particularly new. Certainly throughout the Cold War experience and the way in which Soviet and US nuclear doctrine involved, planning to fight and win nuclear wars was always a part of the doctrine. At the political level we often heard about mutually assured destruction, but at the operational and planning level that was not the case; there were standing plans to use nuclear weapons early in a crisis and to use them extensively. Through the 1960s and 1970s it was US operational policy to be able to launch on warning of attack, so systems were configured to use nuclear weapons early and, if necessary, extensively in a crisis. That has changed in different ways as different Administrations and leaderships in the Soviet Union and the US have come and gone. It is contested as to whether talk of using small, limited tactical nuclear warheads to de-escalate a conflict is an accurate representation of Russian doctrine, but I would not suggest that it is an accurate representation of the current Russian nuclear posture.

Q105 **Lord Hannay of Chiswick:** Could you, as it were, compare and contrast the objectives of the Ban Treaty, which I suppose can be legitimately described as a 'great leap forward' approach, and that of the NPT, which sets out similar objectives but seeks to achieve them by incremental means through the process of review conferences and preparations for those conferences, the next of which is to take place in 2020; and suggest how the two treaties interact with each other, since both now exist? As an additional point—this is directed more to Beatrice Fihn—could you say something about the efforts made by proponents of the Ban Treaty to engage nuclear armed states in discussion?

Ms Beatrice Fihn: Most treaties on nuclear weapons are based on the idea that no one wants to see them being used. No one wants a nuclear war. The NPT and the Ban Treaty have a shared goal of preventing nuclear weapons from being used. The Ban Treaty came about by being based on other experiences of prohibiting weapons such as biological weapons, chemical weapons, landmines and cluster weapons. These arms

have a disproportionate impact on civilians in that they can cause unacceptable harm. They would mean violating the Geneva Conventions and the rules of war and therefore they should be specifically prohibited. That is perhaps separate from the ideas of the NPT, which was much more about preventing proliferation. It is all in the name: the non-Proliferation Treaty. It was meant to stop the spread of nuclear weapons to more countries and required a commitment by the states with nuclear arms to pursue nuclear disarmament.

What we see as the main difference between the two treaties is that the Treaty on the Prohibition of Nuclear Weapons rejects the legitimacy of these weapons, whereas the NPT, while trying to achieve disarmament, still acknowledges that these weapons are important for security. That was what we could get in 1970 when the treaty first entered into force. However, today we know more about the humanitarian consequences. We have developed the rules of war and human rights treaties along with an approach to international security which means that civilians are not targets. That is why, according to us, the Treaty on the Prohibition of Nuclear Weapons should be seen as a complement to the NPT. It is a way of implementing Article 6 covering the commitment to pursue nuclear disarmament. That is why Article 6 is relevant not only to states with nuclear arms; all states have an obligation to pursue effective measures for nuclear disarmament. This is a way of doing that.

We can see that it is going to be hard to achieve nuclear disarmament as long as we hold on to the idea that these weapons are valuable and provide us with security. If we think that they are beneficial to our security, it will be hard to get anyone to give them up. Given that, we have to do what we have done with biological and chemical weapons: reject them, declare them to be inhumane and stigmatise them. We must make them shameful and dishonourable and not what a state that believes in human rights and upholds humanitarian values and the Geneva conventions should ever threaten to use. That is why it is meant to drive the steps towards disarmament. It does not mean that work should not continue on the NPT, but disarmament does not happen in that treaty. States such as the US and Russia, for example, negotiate bilateral treaties or take unilateral initiatives through cutting or modernising their nuclear arsenals. The NPT provides a framework and this is just an additional framework that sets a boundary that works to stigmatise these weapons. It makes these weapons less attractive for states to possess. That is how we hope the Ban Treaty will contribute to practical disarmament.

In terms of what efforts have been made to engage the nuclear states, the entire process has been open from the beginning to states with nuclear arms. They have been invited to participate in the previous conferences about the humanitarian consequences. They have been invited to participate in the working group that explores the different options for moving forward and to participate in the negotiations. Also, of course, the treaty is open for everyone to sign. The meetings of states parties will be open to observers and we would hope that a country such

as the UK could participate in those meetings as an observer until it joins. This is very much open to engagement and we continue to work with the nuclear states in the NPT. That work is ongoing and all states can participate in the forums. It is also where the dialogue is taking place. We would strongly encourage the UK to engage with the treaty along with organisations such as ICAN, which is working on the treaty. For example, later this year the UK will host the next P5 meeting. We would love to be invited to talk to the P5 members about the treaty and our views on nuclear weapons. We would encourage that kind of dialogue.

Dr Nick Ritchie: I echo what Beatrice has said. The basic principle of the humanitarian initiative over the past seven or eight years that generated the Ban Treaty is that nuclear weapons are inhumane, indiscriminate weapons of extraordinary violence and thus should be banned for the same reasons that chemical and biological weapons have been banned. What this treaty does that is different from the NPT is that it explicitly delegitimises nuclear weapons and by extension the practice of nuclear deterrence. There is no reason why nuclear armed states could not participate in that process or indeed in the negotiations of the Ban Treaty itself, but they chose to exclude themselves for that reason. Nuclear armed states necessarily, because they have nuclear weapons, practice nuclear deterrence. They believe and assert that the practice of nuclear deterrence is essential to their security. It was therefore highly unlikely that they were going to engage meaningfully in a process that challenges the legitimacy of nuclear weapons and nuclear deterrence. For me, at least, that is the key difference between this treaty and the NPT.

I stress that this has been consistently framed and understood by the states and NGOs that have driven this process forward: the Ban Treaty is not in any way an alternative to the NPT; it is a supplement to it. It has been framed primarily in terms of non-nuclear weapons states, principally but not exclusively from the global south, working collectively to advance effective measures towards nuclear disarmament under Article 6 of the NPT. That is where the legitimacy of the humanitarian initiative has come from. Since the treaty was negotiated, the five nuclear states as recognised by the NPT have said consistently that the process and the treaty are not legitimate and they do not recognise it. That is understandable, because it explicitly challenges that which they hold dear.

Lord Hannay of Chiswick: Perhaps I may follow that up. How would you deal with the argument that, if it proves difficult to make progress towards the disarmament provisions of the Non-Proliferation Treaty, is it not likely to be even more difficult to ask a nuclear weapons state to make the commitment that is in the Ban Treaty? Are you not simply polarising an already existing argument in a rather unhelpful way?

Dr Nick Ritchie: I do not think so. The narrative of the nuclear states and many of their supporters has been just that: this treaty is creating polarisation when in fact the whole process has been a symptom of already existing dissatisfaction, frustration and polarisation within the

politics of the NPT and a collective perception of a lack of sustained progress on the part of the nuclear weapons states towards nuclear disarmament. I know that you are familiar with those arguments and with the politics of that within the NPT. This is not a matter of creating polarisation; it is a symptom of it. One can argue that perhaps it further exacerbates it. That may be so, but this is seen very much as a collective attempt by a majority of states⁴ through a multilateral and legally binding instrument to change the globally legal and normative context of nuclear weapons in the expectation or the hope that, over time, that will contribute to more positive conditions for states with nuclear weapons to reduce their value and eventually take serious steps towards their elimination. Whether the treaty will have that effect or make a contribution to the wider dynamics that will undoubtedly be necessary for states individually or collectively to relinquish nuclear weapons remains to be seen. To be honest, for a collective majority mainly from the global south who are deeply concerned about the creeping permanence of nuclear weapons in global politics and deeply concerned about the intrinsic risks of use that come with that, this is one of the few ways in which they can channel collectively the power that they have to try to change the discourse and set it within a legally binding instrument under UN auspices.

Q106 The Chairman: The puzzle for me is whether you regard the possession of nuclear weapons as 'valuable', a word that has certainly been used, or 'necessary', which is very different. The original nuclear weapons of the Manhattan Project and so on were born out of a belief that the Germans would get there first, and out of that the necessity was to go forward. Ever since then the possession of nuclear weapons argument has been that while no one thinks they are valuable—they are the most revolting weapons of all time—they are necessary because the trust has not existed or, where the trust had existed, some kind of stability had to be established and now the trust is breaking down. Dr Ritchie, you said a moment ago that the root of this lies in the hostility between nations, which means a lack of trust. How do you get from that to believing that something can be done other than by tackling the issue of trust? I do not really understand your position.

Dr Nick Ritchie: You are right that it is well recognised that reducing tensions and establishing some degree of predictability in strategic relations between the current nuclear armed powers is an essential process. There are various ways in which that has happened historically and may happen again. In terms of necessity and value, the necessity argument is that we need these weapons because we understand the threats to our security in ways that necessitate nuclear weapons and nuclear deterrence. They are valued because of that and it is a security value, if you like. That is the way in which nuclear weapons are valued.

⁴ By Resolution 71/258, the General Assembly decided to convene in 2017 a United Nations conference to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination. The Treaty on the Prohibition of Nuclear Weapons was adopted by the conference (by a vote of 122 States in favour, with one vote against and one abstention) at the United Nations on 7 July 2017. It will enter into force 90 days after the fiftieth instrument of ratification, acceptance, approval or accession has been deposited. As of February 2019, it has 270 Signatory States and 21 States Parties.

The question more broadly is that the deterrent value of nuclear weapons is essentially one of war prevention. The argument is that the nuclear deterrent threat is necessary to prevent general war between the major powers—a rerun of World War II and a potentially nuclear World War III. That is to be avoided. Thus the question is whether nuclear weapons are still necessary to prevent general war between the major powers at the heart of the international system. The jury is out when we look historically at the evidence of how nuclear armed states interact with each other compared with non-nuclear armed states. There is no conclusive evidence. That is not to say that nuclear deterrent threats can never work, but it questions whether such threats will always work as intended across all cases and across time, or whether there is a risk of things escalating out of control to the point of major nuclear conflict.

The question I put to the Committee in my submission is whether you think that nuclear deterrence is sustainable at the global level. By that I mean sustainable in terms of preventing what we do not want to see: some sort of nuclear World War III with all the attendant and foreseeable consequences that would follow. If you think that it is sustainable, you ought to spell out the basis on which you think that. If you do not think it is sustainable over the long term, what will we do about it? What is our programme for reducing the value of nuclear weapons, for reducing warhead numbers and for devising ways in which states can confidently relinquish their nuclear weapons? Part of the process is certainly the delegitimising of nuclear weapons as we have done with chemical and biological arms.

The Chairman: Miss Fihn, what is your answer to that?

Ms Beatrice Fihn: I want to follow up on the point about necessity. It is important to remember that more than 150 countries do not have any role for nuclear weapons in their security doctrines. They ensure their security without threatening to mass-murder civilians with weapons of mass destruction. That is not because they do not have any threats to their security but because they do not think that nuclear is a beneficial way of ensuring their security. States such as the UK, for example, will think that it is necessary to have these weapons only for as long as the people think that it is necessary to have them. When the people say no, the Government will change their mind. I think that that is already happening to some extent. Nuclear weapons are weapons of the past. We have seen from polls undertaken all over Europe that the younger generations do not support these weapons at all. In some cases, they might not even know that the UK still has them.

The treaty provides a way out of dependency on these weapons. It challenges the belief that they provide security. It challenges the status quo of opinion. That is already having an impact on the UK. For example, last year the Church of England decided to support the Treaty on the Prohibition of Nuclear Weapons, which is a part of the change in what people think is necessary for this country. We have cities in the UK that are committing to the treaty and calling on the Government to do so. The

belief that these weapons are necessary is just that, a belief, and that belief will change progressively over time.

Q107 Lord Reid of Cardowan: It will be obvious from your previous comments that you believe that the United Kingdom, like other nuclear states, is somewhat curtailed in the paths that it is likely to pursue out of self-interest, enlightened or otherwise, in terms of global nuclear diplomacy. Bearing that in mind, how would you assess the UK's role in global nuclear diplomacy?

Ms Beatrice Fihn: I have watched reactions to events over the last years. I think the UK's work with France and Germany on supporting and strengthening the Iran deal has been extremely helpful and important, and that urgently needs to continue. At the same time, though, we are disappointed in the UK's modernisation programmes of its nuclear weapons and its sometimes direct support for shifts in US policies on pulling out of treaties and undermining the international security situation. We need more progressive diplomacy and support for nuclear disarmament. We need to highlight the role of the UK as a potential leader on this issue that could drive progress. We need the UK to step up to try to salvage the INF treaty. It would be extremely helpful to make it clear that the treaty is in the interests of European countries because these weapons are meant to be used here—to impact on this continent. I think there is disappointment in the silence of the UK in not promoting disarmament at a time when the world desperately needs it.

Dr Nick Ritchie: Comparing the UK to other nuclear weapons states in the NPT context, the UK has a pretty positive record. More recently, in terms of initiating the P5 process in the first place and committing to it, the work that we have done on nuclear disarmament verification that has been rolled into the wider US State Department programme now but we have invested a lot in that valuable and important work on verifying the disablement of nuclear warheads. Our contribution to the Iran deal, as Beatrice said, and our work supporting the development of the verification modalities of fissile material cut-off treaty that will hopefully one day be negotiated are all very positive.

The UK likes to paint itself as a responsible nuclear weapons state and the most forward-leaning of the five on disarmament, and to a certain extent the evidence supports that. However, from the perspective of the majority of global south states—I am thinking in particular of the non-aligned movement—in the context of NPT diplomacy, there is not much to separate the UK and the US. I think our reflexive commitment to P3 unity between the US, Britain and France in a NATO context means that we stay very close to the US position, so as that changes then we tend to change too. That can be unhelpful when the UK might want to stake out a more progressive position on disarmament in the NPT context. More fundamentally, the fact that we are recapitalising our Trident SSBN programme and recommitting to nuclear deterrence for another generation, talking of being a nuclear armed state into the 2070s and 2080s and revalidating the importance and centrality of nuclear weapons for our security, cannot but undermine anything that we may do to show

that we are taking short-term to long-term nuclear disarmament seriously. We say that we are but I think the evidence speaks for itself, particularly the ongoing commitment to the necessity of nuclear deterrence from a UK perspective. You can argue whether that matters at all in the context of NPT politics, but to be honest it is a difficult circle to square.

Q108 The Chairman: In your view, is the motivation behind what the UK might be doing that we are trying to stop the present situation deteriorating even further because of all the new dangers such as cyber, China and so forth? After all, as Lord Grocott was saying, since Hiroshima no one has been killed by nuclear weapons, so the age of deterrence has worked to some extent, but it is collapsing. Is that the starting point, or is the starting point that we want to move on and build a path towards the removal of these weapons from the face of the earth? Those are two very different approaches and I do not get a sense from either of you which one should inspire our efforts in the coming NPT RevCon or in other arrangements.

Dr Nick Ritchie: At the risk of repeating myself, over the long term we face two choices, both of which are currently seen as politically unacceptable, although they are the only real long-term choices that we face: on the one hand, further nuclear proliferation and nuclear deterrence until it fails; and, on the other hand, the elimination of nuclear weapons and non-nuclear deterrence until at some point that fails. Those are the choices that we face over the long term. I go back to my previous point: if you think that nuclear deterrence on a global scale is sustainable—that is, that it will permanently hold in check war between nuclear armed states across different cases, across contexts and across time, in not necessarily bilateral but in multilateral nuclear crises with, as we have discussed, other technologies coming online that will complicate the management of nuclear crises—and if you think that nuclear weapons will consistently and always induce such a level of fear and caution that conflict will never escalate to the nuclear level and then a general nuclear level, we will just have to manage these changes in hostilities and we can do so with confidence that nuclear deterrence will work. However, if you do not think that—if you think there is a risk or a probability, however small, that we will see conflicts that escalate to the level of general war and then nuclear war, with all the foreseeable attendant consequences—in my view we have only one choice, which is to work deliberately towards global elimination of nuclear weapons. But that is not the position of the United Kingdom at all; it is committed to retaining nuclear weapons for the foreseeable future, based on the practice of nuclear deterrence. So this country is not in that place yet; we do not think in those sorts of long-term cycles.

We have been talking about changing technologies. To put this in the context of other global existential risks—there is a lot of work being done on this now—major nuclear warfare is one of the very few global existential risks that we can eliminate, not just manage, change or shift. We can eliminate that risk by eliminating nuclear weapons. That is to put

this issue in the global context and to ask questions about the long-term sustainability of nuclear deterrence as a basis of security.

Ms Beatrice Fihn: Obviously I agree with what Nick said. We know that the risk is there that the weapons will be used, either by intent or by accident, which means that, if we keep them for ever, nuclear weapons will be used. That is something that you as representatives here need to be faced with and consider: if you want to keep these weapons for ever, they will be used one day and the consequences of that could be catastrophic on the national and global scale. This does not mean that anyone believes that nuclear disarmament will happen overnight. It is a long process, but there need to be efforts to start that process. We believe that the Treaty on the Prohibition of Nuclear Weapons is an effort to create the conditions for nuclear disarmament to happen by stigmatising and delegitimising these weapons. People made the same arguments back in the day for chemical weapons, landmines and cluster munitions, but then perceptions of those weapons changed and people realise that they did not provide enough security given the risk and the impact on civilians. The calculation around the weapons changed. We see that is something that could possibly happen here. That is a long-term process, but we see how perceptions of nuclear weapons could change and that the perceived benefits of having nuclear weapons will be outweighed by the risks and threats of those weapons.

Q109 **Lord Reid of Cardowan:** I want to follow up on Dr Ritchie's point. You have made a powerful case by positing the unlikelihood of an indefinite sustainability of deterrence in a particularly multipolar world. You posit that against getting rid of nuclear weapons without considering, if I might put it to you this way, the likelihood of the sustainability of a policy of, in practical terms, achieving the elimination of nuclear weapons but more importantly the sustainability of maintaining that position with no one ever coming along and breaching it. You are not comparing like with like, because it could be argued, to continue the discussion, that that is as unlikely and unsustainable, given what we know about human beings, national states, past history and so on, as the idea that you will not only accomplish elimination but sustain it indefinitely in the face of the possibility that some state will come along and try to develop a technology that will remain with us, at least in the knowledge of it, even if it is not applied. That is equally as unsustainable as the idea that we will maintain an indefinite deterrence.

Dr Nick Ritchie: It is an argument that has been developed and thought through, particularly in terms of a serious conflict between denuclearised major powers even with robust verification systems. However, no verification system is ever going to be perfect. Would there then be irresistible pressures to rapidly renuclearise and potentially then use nuclear weapons first in such a conflict, having previously disarmed? That is a plausible scenario which of course cannot be ruled out. There are no safe and predictable nuclear futures. Whatever we do, there are major risks. As long as we live within a system of heavily armed states, there will always be the risk or the probability of war between major powers.

Lord Reid of Cardowan: Perhaps I may come back on that. Where this is leading us to is saying that it is not sustainable to have a policy of deterrence without at least contemplating that it will break up under the use of nuclear weapons. However, it is not sustainable either to maintain a position of elimination and continual and indefinite prohibition. In practical terms, it is a rather despairing conclusion. Neither of the paths open to us, given all that we know about human beings and states, is sustainable.

Dr Nick Ritchie: I am looking at this through the lens of the risk of a major nuclear war and the foreseeable consequences that would come from that—accepting that there are serious consequences at lower levels of nuclear use. The only way to foreclose that possibility is through a total or near total elimination of nuclear weapons. Studies conducted in the US suggest that, if there were no more than 50 nuclear weapons in the world of the size of the Hiroshima bomb and they were all detonated at once, they would not cause the nuclear winter scenarios that are the most devastating. Essentially we are talking about nuclear elimination to permanently foreclose that situation. If we got to that world at some point in the future, you are right to say that the technologies and the knowledge will exist and there may be programmes in place or processes to follow that lead to some form of renuclearisation. But, again, we are talking about probabilities, not certainties. Looking at the long term, the question comes down to a judgment of where we should be aiming in terms of mitigating the risks of massive indiscriminate nuclear violence that will not affect just those in the immediate conflict. It would have global climatic effects as well. Working towards nuclear elimination and achieving it, along with putting in place verification processes to the greatest extent we can, is the best path, accepting that there are no certainties associated with that.

Q110 **Baroness Helic:** I declare my interests as set out in the register. I want to ask a question related to the beginning of your presentation. You have just shared your belief that we might be at risk of a major nuclear confrontation—a third world war. I think that there are a lot of competing priorities which are much more visible, present and closely related to the people who might normally kick up a fuss, such as global warming, for example. Also, I have heard more about the #MeToo movement than about nuclear weapons over the past 24 to 48 months. Frankly, if I went out into the street today and said that we are close to nuclear confrontation, people would think that I am probably slightly off, given the priorities of the world we are living in. At the moment there are 68.5 million refugees around the world, not a single one of whom has been displaced either internally or externally because of a nuclear weapon. It has happened mainly because of the AK-47 and a bunch of bullets. How are you going to address this?

You have also said that 150 countries are without nuclear weapons. If I was in one of those countries, I would like to have one because I see what happens to those who have given up their nuclear capability or the programme to develop a capability. They end up in a really

uncomfortable place. There are a lot of issues out there which need to be addressed. This does not mean that I do not believe that we are not being exposed to what are disgusting weapons, but I almost feel that since Hiroshima a whole generation of people have grown up forgetting about the Cold War, the Second World War, the sacrifices and the bloodletting. It is therefore really difficult to make the case because of all the other issues. I could give you 10 reasons right now why nuclear weapons and proliferation are not visible to people, although it is not that they do not care. I have put out there a lot from the thoughts that have been going through my head while you have been talking in such an interesting way about this issue.

Ms Beatrice Fihn: Obviously there has been a lack of attention paid to this issue. In many ways that is because it has been removed from the public conversation; it is a conversation that gets extremely technical very quickly so it goes far above people's heads. We talk about security policies, deterrence, the kinds of missiles and how many of them there are, but we do not talk about what happens to human bodies when these weapons go off. That is what ICAN, the treaty and the humanitarian initiative that we have been working on are about: bringing it back to what really matters. It is not that complicated an issue; it is yes or no to weapons of mass destruction. We have raised a lot more awareness of that and got more attention.

I feel as if, with the developments over the last few years, that awareness is increasing again, particularly with the INF Treaty now being under attack and potentially withdrawn from. Particularly in the European region, many people are waking up again and thinking, 'Oh, we need to do something about this'. It took a long time with climate change as well. Another problem is that it is also an abstract threat; people do not see it as much as they see threats such as #MeToo, healthcare or financial issues. However, it is becoming more and more obvious. The actual security challenges that we are meeting are not connected to nuclear weapons; those weapons are quite irrelevant. It is a theoretical issue for many people, not a practical one, and maybe that prevents us from being able to address those actual security threats. It is like a radioactive security blanket that we hold on to tightly; it does not actually help us to fight the security challenges that the people of Britain face today.

I had a conversation with a representative from Bangladesh who had been thinking about the migration flows that would result from an India-Pakistan nuclear war. Their country is already being flooded because of climate change and there is no more space. Where would all these people go? The migration impact would be enormous in the case of nuclear war. So it is very important to connect these things. If you want to address this issue then base it on the humanitarian impact of any use of nuclear weapons. Finding a human angle is what has driven any progress on nuclear disarmament. It is what drove concerns about the environmental impact and the impact on people of atmospheric testing, which is why atmospheric testing was stopped in the 1960s, while the environmental impact on the Pacific led to the Comprehensive Test Ban Treaty. The INF

Treaty, the whole nuclear freeze movement, the awareness that, 'Oh, we are close to nuclear war'—all progress on nuclear weapons has been based on the fear of their use and their impact on people. So if you want to address the issue, you need to make your starting point what will happen if they are used. If that is the foundation, it will be much easier to make progress.

You mentioned that, if you were one of these 150 countries, you would want nuclear weapons. That is also one of the major security risks that the UK is kind of encouraging: proliferation. If the UK needs nuclear weapons to protect itself, you are implicitly encouraging other states to do the same. If you believe that nuclear weapons prevent war, other countries are going to listen to you and want the same. It would be a huge security risk for the UK to see the proliferation of nuclear weapons. So nuclear disarmament is not just something that nuclear armed states have to do because they promised to do so in the NPT; it is a security strategy. You enhance your security by ensuring that you do not become a target for nuclear weapons or suffer from a mistake, a misunderstanding or an accident, and by making sure that you do not see further proliferation. It is hard to ensure that no country will ever have one nuclear weapon left, but the process of stigmatisation and delegitimation is meant to provide just that. We cannot disarm these weapons by forcing countries that still want them to give them up; we have to make countries not want them. In the same way as with other weapons that have been banned, we have to make countries realise that it is not in their security interests. Norms are very powerful like that; that is how we regulate human behaviour at both individual level and state level. We cannot prevent every person from committing a crime, but we have the laws to create the norms to pressure people and move them into behaving in a certain way. We can do the same thing at the international level.

Q111 Baroness Smith of Newnham: I have the wrap-up question, but I think we have already covered a lot of what is in it. What steps could nuclear armed states, including non-NPT-recognised states, take to reduce nuclear risk? At one level, we have talked about that all morning. At another, assuming that we are not going to get an immediate break-out of sanity and multilateral disarmament overnight, are there any intermediate positions that you think existing nuclear states could be taking that would make the world safer?

Ms Beatrice Fihn: Absolutely. I repeat: making the humanitarian consequences of any use of nuclear weapons the starting point of action. Bringing up that perspective and supporting that conversation as a motivator for taking action would be very powerful if the UK used that. The UK can do a lot more on promoting nuclear disarmament conversations with the other nuclear armed states, including the states outside the NPT—at the P5 summit, for example, or in other venues beyond that. I should also mention ICAN in relation to participating in these conversations. As a campaigner I will always say that the UK should sign and ratify the treaty, but we all know that that is a bit further

down the line. I would also say that the UK should stop being so hostile to the treaty. It should stop undermining it by trying to prevent other countries from signing it. The UK has put pressure on other countries not to sign it, which is completely counterintuitive. If you do not want other countries to have nuclear weapons, it would be great for you if other states signed the treaty. You should encourage that. The UK should welcome the treaty as a contribution. You might not be in a position to join the treaty right now, but it is a contribution to creating a world where it would be possible further down the line to develop—

Baroness Smith of Newnham: Let us move beyond the UK. Deterrence might not work globally but in some ways—for example, for India and Pakistan—there is still effectively the idea of mutually assured destruction. How would you persuade them to change their position?

Ms Beatrice Fihn: By talking about the impact of nuclear weapons. Even in that situation—a rapidly changing security environment, the instability of the Government, military control of nuclear weapons, accidents—the consequences of something going wrong are so great that it might not be worth the benefit. Sometimes we think the benefit of nuclear weapons is that other countries get scared of us, but that is a bit like laying landmines in your garden to prevent a burglar coming in: maybe a burglar will come into your garden, but it might also be the postman or your kid. At some point the perceived risks outweigh the benefits. We have to push the notion that non-use will not last for ever and you will have to live with what the impact will be. We know from research by the ICRC and the UN's humanitarian agencies that there is no response capacity in the event of a nuclear war. They could not help and would pull out their staff. The people who are supposed to help us, give us water and provide hospital care to survivors would not be able to help; they would pull out and leave the survivors. So having that kind of conversation to make people, governments and politicians understand what it is that they are doing right now would be a starting point.

Q112 **The Chairman:** I am going to put a final question to Dr Ritchie. I think I heard you say that there was not all that much difference between our posture and that of the Americans on the general approach to disarmament and so on—although perhaps you did not say that—but are you sure about that? You may have heard the news regarding Assistant Secretary Ford and the plans for creating the conditions for disarmament and so on. America regards China as the enemy and Russia as the enemy. We have President Trump's decision that Russia had violated the Intermediate-Range Nuclear Forces Treaty and that America is going to go ahead with a new arms race. We need not think like that, do we? Are you sure that we are so aligned with America?

Dr Nick Ritchie: My comment was in the context of NPT diplomacy, where we tend to align ourselves with the US in that particular context, rather than the broader set of nuclear policy issues, threat assessments and so on.

May I make a brief response to Baroness Smith's question? Beyond the UK, looking at a global level and accepting that nuclear disarmament is not around the corner at that level any time soon, I think that states should look seriously at reducing the alert status of nuclear forces—at de-alerting. This has been discussed and developed in many iterations over the years and it is something that the UK could look at seriously. It would not have to commit to do it but at least, even in classified form with a declassified summary, it should look seriously at what that might mean for the UK.

More broadly, where there is the serious potential of a nuclear conflict, we need to invest in long-term diplomatic strategies of reassurance and conflict mediation. We know historically that conflict tends to be driven by fear rather than greed, and fear of losses in particular. In those contexts, if we can have a strategy to put that fear to rest, particularly where there is the possibility of nuclear use, then we need to invest seriously in that. Again, the UK could look at how it along with other partners, including non-nuclear weapons states, might be able to work collectively to respond to, say, the next India-Pakistan crisis, or even to respond in ways that put much more emphasis on long-term reassurance regarding the relationship between NATO and Russia. I think we could change our declaratory policy, and encourage others to do the same, to one of last resort—we are already close to that now—where we would consider using nuclear weapons only as the most extreme response to the most extreme case, which essentially is the existential survival of the state. We and others should reiterate repeatedly Reagan's mantra that a nuclear war can never be won and must never be fought. That is essential messaging. So there are intermediate steps that we can take.

The Chairman: We have kept you for well over an hour. You have raised all sorts of rather disturbing thoughts in this Committee and I think you are right to see the situation, as you do, as dangerous. Although the general understanding among the public is very remote on all this, conditions have changed after 70 years of mutual deterrence working—roughly speaking—and we are entering a new and dangerous phase. Obviously we would like to go on, but we are going to have to thank you now for your contribution. It has been extremely useful to us. Thank you very much.