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JOINT STANDING COMMITTEE ON TREATIES

**Reference: Nuclear nonproliferation and disarmament**

WEDNESDAY, 25 MARCH 2009

MELBOURNE

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**JOINT STANDING  
COMMITTEE ON TREATIES**

**Wednesday, 25 March 2009**

**Members:** Mr Kelvin Thomson (*Chair*), Senator McGauran (*Deputy Chair*), Senators Birmingham, Cash, Farrell, Ludlam, Pratt and Wortley and Mr Briggs, Mr Forrest, Ms Hall, Mr Murphy, Ms Neal, Ms Parke, Mr Simpkins and Ms Vamvakinou

**Members in attendance:** Senators Birmingham, Ludlam and McGauran and Mr Briggs, Ms Hall, Ms Parke and Mr Kelvin Thomson

**Terms of reference for the inquiry:**

To inquire into and report on:

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

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**Committee met at 1.02 pm****CAMILLERI, Professor Joseph Anthony, Private capacity**

**CHAIR (Mr Kelvin Thomson)**—I now declare open the public hearing for the Joint Standing Committee on Treaties inquiry into nuclear non-proliferation and disarmament. Today the committee will receive evidence from a number of expert witnesses and non-government organisations. The committee will hear first from Professor Joseph Camilleri. Two roundtables will be conducted. It is the hope of the committee that the roundtable process will encourage discussion and debate. I would indicate for the convenience of members, senators and also witnesses that 3CR community radio is taping proceedings. Although the committee does not require you to give evidence under oath, I should advise you that this hearing is a legal proceeding of the parliament and warrants the same respect as proceedings of the House and the Senate. The giving of false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. If you nominate to take any questions on notice, please ensure that your written response to questions reaches the committee secretariat within seven working days of your receipt of the transcript of today's proceedings. Thank you for your submission and I now invite you to make an opening statement.

**Prof. Camilleri**—It is my honour and privilege to share a few ideas with you about what is obviously a very important issue. Indeed, it is one of the most important issues facing the world at this point in time. It is not the only major issue, but it is certainly one of the very large ones. In fact, it is reasonable to say that the whole question of nuclear weapons—the proliferation of nuclear weapons—poses one of the world's major dangers today, but in addition to this it is also a period of unparalleled opportunity.

If I were to make an opening comment it would be that the timing of your inquiry is absolutely splendid. One could not think of a more timely pressing context in which to consider these very important and complex issues, and when there seem to be new opportunities for thinking about them at this time. In a sense, I think the eyes of many who are interested in these questions are very much on the work of this parliamentary inquiry.

As you would know, I have written a fairly lengthy submission and I do not propose to go over all of that. I propose instead to concentrate on a few key points and then would be very happy to enlarge by answering questions and so on. I would like to start off from the question of the nuclear Non-Proliferation Treaty. The NPT regime as it is usually referred to. There is no question that it is in serious jeopardy. Indeed, it is in greater jeopardy now than at any time since 1975. Many factors have contributed to this, and I have named a number of them in the written submission. The general view amongst policymakers and certainly analysts around the world is that were we to have a repeat of the Review Conference of 2005 that would come very close to spelling the end of the NPT regime as we have had it. It is true that the NPT regime has gone through difficult times right through this period, but probably nothing quite as acute as what happened with the totally abortive Review Conference of 2005.

I want to explain what I think are the two central issues to do with NPT. The nuclear Non-Proliferation Treaty is the result of a bargain constructed in the late sixties and early seventies between the nuclear haves and the nuclear have-nots. At the time there were five declared nuclear weapons states, although it was primarily the United States and the Soviet Union at the

time that took the initiative. Basically they asked those that did not have nuclear weapons to agree never to acquire them in perpetuity—forever—which, of course, is a tall order. How could you get the rest of the international community to agree to this? To make that possible they offered two carrots. In a sense, the way those two carrots were offered expresses the fundamental weakness of the NPT regime, which is why it has been in trouble on and off for most of this period. The two carrots were, firstly, you cannot have nuclear weapons but you can have nuclear energy for peaceful purposes, and you can have it with our blessing and, indeed, with our support. The second carrot is that those of us that do have nuclear weapons pledge ourselves, under Article 6, to progressively do away with them so that eventually we will end up with a world in which there are no nuclear weapons. If you like, you will not have that asymmetry or inequality forever; it is a temporary situation. Both of these carrots, well intentioned though they were, have run into very considerable difficulty and that is the impasse where we find ourselves today.

The point is that the materials that are used for the development of nuclear energy for peaceful civilian purposes can be diverted in certain circumstances for military purposes. It has always been known that this is so and therefore it was felt necessary to devise some kind of system whereby you could monitor that those developing nuclear energy for civilian purposes are not, in fact, diverting those materials or facilities for military purposes. That is a huge undertaking and that has been central to the crisis points that have emerged in the last 10 or 15 years—Iraq, North Korea and Iran. What was the problem? The possibility that they might use what they called civilian nuclear facilities for military purposes.

The other question, of course, was nuclear disarmament, which made some headway in the latter part of the Cold War period right at the end and in the early years of the post-Cold War period, with some agreements, particularly the United States and the Soviet Union. Cutting a long story short, some of those agreements have been honoured. Some have gone into limbo, particularly the comprehensive test ban treaty, and no substantial new progress has been made for at least 10 years and probably longer. Therefore, the patience of those who said, ‘We entered into a bargain that we would agree not to proceed with nuclear weapons so long as you, in good faith, proceeded to move towards nuclear disarmament’ is wearing thin. Some of them, of course, have their own agendas and want to expose what they call double standards.

Unless we have progress on both fronts, come 2010, which will be with us very soon, there is the very real prospect that there will be no nuclear disarmament to speak of in the foreseeable future and indeed that the NPT system itself will begin to unravel. The stakes are very high. It is not at all surprising that a great many governments are paying a lot of attention to this question now, which includes, of course, the Australian government, and that we have the International Commission for Nuclear Non-proliferation and Disarmament, which Japan and Australia are co-chairing. This is primarily an Australian initiative. And of course there is this inquiry. That is evidence of this emerging global concern, which has reached the highest levels of policy making in the United States, both within this administration and indeed in Congress as a whole.

Let me make a few very brief comments about the nuclear proliferation aspect, namely, the question of the possible diversion of nuclear materials for peaceful purposes. Of course one could make the argument—and I have been known to make it in the past, but I am not making it here—that one simple solution to that one would be to say, ‘No nuclear energy’, but I do not

think we are going to entertain this possibility here so I am not going to spend any time on it. That is a perfectly legitimate, credible and highly rational position to take, and many do take it.

But leaving that to one side, there is the question of what to do with many aspects, but in particular two aspects, of the nuclear fuel cycle. That is the production of enriched uranium, on the one hand, and the production of plutonium, on the other, which are part and parcel of the use of nuclear power for civilian purposes. We know that if you enrich uranium at a sufficiently high level that then becomes readily usable for military purposes, and we also know that, if reprocessing takes place, plutonium can be acquired in more than enough quantities to produce not one but several weapons.

May I bring to your attention the fact that Japan currently sits on an enormous plutonium stockpile and one of the underlying tensions in the region is undoubtedly that, but it is a taboo subject. But it is the case. The time it would take for Japan to convert even a fraction of that plutonium stockpile, which is the result of its civilian nuclear energy program developed over many years, would be more than enough to develop not one but several nuclear weapons, and if it wanted to—and I am not saying it wants to, it could do that within less than six months. Of course, everyone in North-East Asia knows that this is so.

There are plutonium stockpiles and more and more plutonium is being produced so very serious attention needs to be given to that. It is not just that it is produced; it travels long distances. Much of the Japanese plutonium is reprocessed in Europe and then shipped back to Japan.

Someone who is strongly concerned, as I believe Australians and the Australian governments are, about this question will need to support proposals—and several of these I mentioned here—that would deal substantially as opposed to cosmetically with this problem. One way of doing that is to reduce—and indeed to eliminate—the production of fissile materials able to be used for nuclear weapons purposes, and insofar as there are countries that can make a claim that they need low levels of enriched uranium—the proposal has been around for a long time—you construct one single fuel bank in the world under the control of the International Atomic Energy Agency and it monitors every transaction; no-one has uranium enrichment—not just not Iran but nobody. If you need uranium enrichment you have to enter into a transaction with the IAEA and enter into all the safeguards that they might ask of you, which presumably would need to be much stricter than they are now.

In addition to those proposals there is a need for the strengthening of the safeguard system and for countries to pursue a number of additional protocols that would allow the IAEA to develop a much more stringent safeguards system than the one that currently obtains. Of course, this would have enormous implications for Australia, because presumably Australia, insofar as it is a supplier of uranium, would not wish to sell uranium to anybody who does not agree with that policy. It must be made conditional on the buyer telling the supplier what its safeguards policy is not just in relation to itself but in relation to the global system of safeguards. Is it up to the required standard? This would apply to anyone, whether they are nuclear weapons states or non-nuclear weapon states.

The main part of my submission has to do with the second aspect that I have alluded to, which is the second carrot or incentive, namely, if we are to have a nuclear non-proliferation system we

have to move, Article 6, in good faith towards nuclear disarmament. That means the nuclear weapon states, of which there are eight or nine at the moment depending on whether you include North Korea.

I am not going to go over all of this, but I have simply put before you some 40-odd proposals that have been around for a considerable time. Very few of those are my own invention. They are widely discussed and in many cases proposed and promoted by governments, analysts and experts in the field. What I have done is basically look at them in terms of initiatives of five kinds. That is to say, initiatives that some countries could take unilaterally. In some cases it might be no more than announcing what their preferred policy is and have the Prime Minister make a statement to the parliament, 'This is what Australia's disarmament policy is. This is what we would like to see happen over the next 10 to 30 years.' You can consult, but at the end of the day it is your own initiative. Any number of unilateral initiatives is possible. Some initiatives are bilateral and require some kind of agreement with somebody else. A safeguards agreement can be a bilateral agreement. Some are regional. They involve an entire region. We have a South Pacific nuclear weapons free zone, like every other regional agreement. Some of them I call—excuse the jargon—'plurilateral'; they involve many, but not necessarily in a region, and they do not involve the world. It could be a cluster of some kind, but not regionally based. Finally, of course, there is global. We have five possibilities.

To assist us to think about these 40-odd proposals I have graded them in terms of difficulty, relatively easy to conceive and able to be introduced over the next five years or so, but some would take longer because they are more difficult, with a lot of negotiation and a lot of agreement required, so it might take 15 years. This is notional. This is just to assist us to think about it. Some might even take as long as 30 years.

I want to emphasise that, whatever you come up with, do not just concentrate on what we should do in the next two years. There has to be a program. Where are we heading? Where should we aim to be in around 2040? We cannot foresee the future in detail, but then we would be able to say, 'To get to that position, if that is the destination, what do I need to do in the next three to five years?' That would then make sense. I hope that you will adopt, if not the particular scheme that I am proposing, then the underlying rationale; that we need to think a long time ahead, because these agreements take an awfully long time.

I have shown this submission to a number of other people who are very knowledgeable. They argue that some of my proposals are too conservative in terms of timing. What I suggest might take up to 10 or 15 years they think might be done in five. You might think that you want to move things ahead a bit more quickly—all strength to your elbow. That little diagram shows you a string of proposals, around 40, some unilateral, some bilateral, and so on, stretching from what might be able to be done in the next five years to what might be able to be done up to the next 30 years. Of course, we are concentrating on Australia. My comments in the next five or six minute are going to be about Australia and then hopefully I will be able to stop.

In thinking about what is possible I have done quite a bit of research on other agreements, not specifically to do with nuclear weapons, but two are to do with conventional weapons and one to do with the establishment of the International Criminal Court. All three were unbelievably contentious. All three have been talked about in one way or another for decades, but somehow when certain favourable factors came together progress was possible in rather quick fashion.

While the International Criminal Court had been talked about ever since Nuremberg in fact in the nineties over a period of six years it got established and won international support despite US opposition in the initial stages. In different ways the same happened with the cluster munitions convention and the landmines convention. Why do I say this? I think the 30-year destination can only be one—the complete elimination of nuclear weapons, agreed to as part of a legally binding convention. Once you state that as your objective, even though it might take quite a while for it to come about, that at least relieves the pressure on the part of those who are saying, ‘We are making no progress.’

I think there are two ideas there. One that we must put on the table the idea that nuclear weapons are here to be eliminated, which now has wide support in many parts of the world, including importantly in the United States, both Republican and Democrat. That is as a principle, but the principle is worthless unless eventually it gets translated into a tight legally binding document or set of documents. It might be more than one. I am proposing that the Australian government should commit itself to that proposition and should lend its resources and its energies together with others over time to bring that about. That is one thing.

The second thing that I think is most important is that, if we look at these three other examples that I have given of relatively quick success after a long time of complete paralysis, a number of factors and players came together—of course governments prepared to take initiatives, which is very important. Hopefully that includes Australia, and many others. The second point, which is very important—and I hope you will emphasise this—is that Australia on its own at the end of the day cannot do very much. We are important. We are wonderful, but we do not rule the world. If we are going to make headway it will have to be in concert with others. We will have to take initiatives together with others. It does not have to be the 190-odd members of the UN, but it could be half a dozen or a dozen governments that are thinking in relatively like-minded ways.

Thirdly, governments at the end of the day will not move in this direction successfully unless they feel they have the public behind them and that various groups and organisations that have an interest in this question within the community. That does not mean anti-nuclear groups, but it can include them and we will accept them. Fundamentally it means the major professions in society—the medical profession, the legal profession, the social workers of countries, the educators—and many others who have played an important part historically and must continue to play an important part. Government must be in conversation with them, not just Australia, but everywhere. That was critical to the achievement of all three conventions that I referred to—the very close consultation, cooperation and strategising between major global coalitions of interested parties and a range of governments. And then, of course, international organisations had to play a part, whether it is the UN body or a number of other international disarmament and related security institutions—the International Atomic Energy Agency and so on. There has to be a coming together. All of them have a role to play.

What does all of this mean for Australia? I suggest the following, very quickly. Firstly, the commitment to a nuclear weapons convention as the ultimate objective. Secondly, a strong advocacy in concert with others for a number of measures that fall short of that over the next five to 10 years—and I have listed a number of those, many of which Australian governments have, in fact, supported previously, but I am suggesting not an ad hoc. It would be nice to have a comprehensive test ban treaty fully crystallised and in force. But not just one here and one there; it needs to be a concerted program. Here is a suite of initiatives over the next five, 10 or more

years that we are going to put energy behind, not just ourselves but with others. Clearly we want one of those to be a much more rigorous international nuclear safeguards program with mechanisms, processes and standards.

We would want to see government engaged in an ongoing way with society at large over these issues. May I suggest we would need to hear from your inquiry a strong recommendation for government to devote resources—never mind the global recession; minimal resources in the grand scheme of things—to allow a process of ongoing consultation, discussion, crystallisation of ideas and exchange of ideas to take place within the Australian community. Any government that wants to act in this field would be able to do it so much more effectively if it can confidently say it is doing it with the full support or at least the overwhelming support of the community, but the community needs to be informed, and these issues are complex.

Secondly, there are the bilateral issues. I am not going to go into the detail. We need to have a very detailed and sustained dialogue, on the one hand, with the United States because of our special relationship, but we also need to have a sustained dialogue with a number of key countries of two kinds, including important Asian partners. Four stand out—Japan and China, two great powers—and Indonesia and Malaysia because they have taken a strong stance on this question and have been largely instrumental in the establishment of the South-East Asian nuclear weapons free zone. Then with other countries, a little bit like ourselves, the Norways, Swedens, Irelands, Canadas and the New Zealands of this world, who have a longstanding interest in this area. We need to be working with them. We need to be working with our Asian partners, and of course a very close dialogue with the United States because of our special relationship.

Because we have taken the initiative in the past to establish a nuclear weapons free zone I propose that the Australian government should take the initiative and call a meeting of all parties of all nuclear weapons free zones in the world, and that the meeting take place in Australia. Australia would host it as one of the key participants of one such nuclear weapons free zone and a very interested observer and encourager of another one on its doorstep, the South-East Asian nuclear weapons free zone. But there are several others. I am sure you will hear more from others on the question of a nuclear weapons free zone.

Thirdly, we need to use the forums that are available to us in this region to press this issue. ASEAN and our relationship with ASEAN is one opportunity. The ASEAN Regional Forum and the East Asian Summit are others. It would be extraordinarily well received. This is not a hunch. I have discussed it in detail with many people in Asia, if Prime Minister Rudd's proposal for an Asia Pacific community were to integrate into that proposal the kind of security dialogue which would move towards the elimination of nuclear weapons. I have had that discussion in Indonesia, Malaysia, Japan and China, and it would be nice to have that raised profile. After all, it is just two initiatives which the Prime Minister has already established, so one needs to put the hyphen between them to link them.

Globally, the Australian community and the Australian government need to place clearly on the table the critical importance for a successful NPT 2010 Review Conference. We need to do that not only in Australia but in all our dealings. We cannot put all our eggs in that basket, so what if, in spite of our best efforts and other people's efforts, it does not work? What if the NPT Review Conference is at best a modest flop? It is quite possible. In fact, some people think that is the most likely outcome unless an enormous amount is done over the next 15 months. We

must have a fallback position. What happens if the Review Conference disbands with very little to show for it? What is our next trick? Clearly, while we do not want to flag the possibility of failure, we need to have this program of initiatives that can move ahead, preferably with a successful NPT Review Conference, but if need be in the absence of one. I think that again should be part of what is proposed. That is why I am proposing to this inquiry the need for Australia to establish a long-term national action plan on nuclear non-proliferation and disarmament with short-term, medium-term and long-term objectives and that to help make that possible we have two mechanisms. It is not that these two mechanisms will make it possible on their own, but they would be very helpful. We need to have an interdepartmental committee. In my view, because of its importance, it should be placed in Prime Minister and Cabinet, but it does not matter; it could be Foreign Affairs. It needs to include several departments, including, of course, the Attorney General's Department. Education would be another one. We have to have an educational program for disarmament. There needs to be an interdepartmental unit that thinks about this question holistically for Australia, for our region, and for the world. It may not be such a bad idea to see an appointment. It does not matter what the label is. In the past people have appointed ambassadors for disarmament. There needs to be some person who has a very special role to link government, parliament, community and the diplomatic world around issues of disarmament. It needs to be some person who is the focus of attention, who can divert his or her entire time, energy, with some resources made available by government for this purpose. It would be a sign of the good intent of Australia that it means business and it would be a useful way of bringing many of these ideas and initiatives closer to fruition than might otherwise be possible.

**CHAIR**—Thank you. In the interests of giving everyone a go without completely blowing our schedule out of the water I am going to restrict everyone to one question. Gareth Evans also talked about short-term, medium-term and long-term objectives when he gave evidence in Canberra. His medium-term was 2025 and he talked about a base camp where the number of warheads was dramatically limited, all nuclear armed states were involved, there were limitations on operational deployment—so things were locked away and separated into bits—and finally there was a commitment by everybody to no first use of nuclear weapons. How do you see that as a medium-term or as a 2025 objective?

**Prof. Camilleri**—He, of course, has his ear to the ground in terms of certain political constraints which, no doubt, one has to take into account. The way I would put it is, yes, all of those things. I would want to put it probably a little earlier than 2025. I think most of those things would be achievable without too much difficulty if there was sufficient goodwill, of course, by the next 10 years or so, but I would want to put a few more things in. The first step is that the major nuclear powers must put, by the end of this period, a complete stop to all further developments with respect to both nuclear weapons and their delivery. All non-strategic nuclear weapons should have been removed by then, and not just the reduction of them. Let us say by 2025—or perhaps we could do it earlier—that those who have nuclear weapons, whoever they may be, to the extent that they still have some, have brought them back on their own territory. There is no need for Russian nuclear weapons outside of Russia and there is no need for American nuclear weapons in Europe. It is a step in that direction. They can still have them, but bring them back home. There are a few other things that I think would be important as part of the staged approach to what I would say would be a nuclear weapons abolition convention.

**Senator LUDLAM**—Thank you for your submission and your evidence this morning. You mentioned earlier that if the civil nuclear industry is to continue or expand you would need to multilateralise the fuel cycle, create a fuel bank and concentrate enrichment and reprocessing. Firstly, that entrenches very widespread transport of nuclear fuel. What do you think would become of the waste? Wouldn't such a system merely entrench that perception or that reality of the haves and the have-nots, which you already indicated is a problem in these negotiations?

**Prof. Camilleri**—Yes. In my view, there is no way you would sell anything remotely like this idea unless there was tangible evidence of progress towards nuclear disarmament, because then it would reinforce this idea of a kind of apartheid of nuclear haves and nuclear have-nots. If there was such progress I think this would be a pill that many would be prepared to take. In part, it would be because the development of some facilities and access to some materials is not within reach for a great many. It might be within reach as time goes on for Iran, but there are many others for whom it would not be within reach.

Yes, I concede there is a problem about transportation of such materials and that would need to be thought through very carefully. Obviously, there would need to be a very intensive, rigorous monitoring process and it will need to be intrusive. If you do not like that intrusion, do not go ahead with it; find alternative sources of energy.

**Senator BIRMINGHAM**—Thank you for your time today. I have two issues. Both go to dealing with realities that confront us. One is a very immediate reality, and that is how you propose we tackle those nuclear weapons states that sit outside the current NPT framework and how you would successfully engage bringing them into dialogue and discussion. Secondly, in the longer term you talk about capability in countries such as Japan or others, which you raised, to proceed in quick form to the development of weapons. In the end is there anything in the long term that we can do to eliminate that capability? Countries still have the capability to develop landmines, cluster bombs and so on; they have just agreed not to.

**Prof. Camilleri**—We are a much better world for having agreed to do that. We would want to do something likewise. You have mentioned Iran, which is one obvious example. North Korea might be another. There may be others. We must not be mesmerised by NPT. This is another issue that I have raised in the written submission, but I have not talked about it. At the moment you can be in the NPT, but within a few months you can be out legally. You can legally withdraw with just a few months notice, which is very disturbing. North Korea has threatened it more than once and done it once. North Korea could be in the NPT today, but six months down the track it is not. In the treaty as it current stands that is legal. The treaty needs to be reviewed. There is no question. This is what the Review Conference should be about.

There are two things that should be done. Firstly, you cannot just withdraw by saying, 'I'm withdrawing.' You should have to show cause for withdrawing and it should be open to the Security Council and perhaps another body to look at the case and to see whether the case for withdrawal is a legitimate one. It is complex, but we need to have more obstacles placed in the path of withdrawal. It relates to the Koreas and Irans because Iran, of course, is a member of the NPT but could withdraw. We need to make the withdrawal option much more difficult and put obstacles/hurdles in its way more than currently exist.

**Senator BIRMINGHAM**—I will just interrupt there. What sanctions would you propose?

**Prof. Camilleri**—The Security Council ultimately can take whatever sanctions it sees fit. It has the powers to do that with economic sanctions and whatever.

**Senator BIRMINGHAM**—You can do that now.

**Prof. Camilleri**—Yes, of course, and that has been done. That is why it is a matter of such discussion. There is no foolproof way of achieving anything. There is no proposal that I have made or anyone else can make: ‘You do what I say and the world will be beautiful.’ There is no such proposal and I do not claim that for any of mine. The question is raising the level of probability such that if we pursue this path we will end up being a bit better.

To come back to your question, we need to move towards two positions. The first is to make it more difficult to withdraw than is currently the case, and even if you withdraw your nuclear facilities, declared and undeclared, should still be under safeguards. We need to get that kind of agreement reached, which we have not got at the moment.

**Ms PARKE**—Thank you for your very comprehensive submission and for offering practical suggestions for the way forward. In particular, your illustration of the experiences with the landmine and cluster munitions treaties and the International Criminal Court show how important it is to have a clear vision, and then to build momentum through actions at various levels. It is also important, as you have shown, to have countries that are willing to take the lead on these matters in moving the agenda forward. What kind of additional resources do you think the Australian government will need to commit in order to contribute in a meaningful and positive way to the disarmament and non-proliferation agenda, and what role do you think the parliament can play?

**Prof. Camilleri**—It does need to commit resources. I understand the situation is that because of the establishment of the international commission, which Australia current co-chairs, some additional personnel or human resources have been established within the Department of Foreign Affairs. Of course, that commission will not last forever. It could be a year or 18 months, whatever it may be. My proposal is for that unit to not only be maintained but also brought together to service the international commission and be expanded. Not tenfold, but if it has six people working on it we could do with a dozen. It is such a critical complex issue. The Iranians, the Koreans, the Japanese, the Chinas, the future Iraqs—we should also mention Venezuelas—are very complex. It affects all our relationships in so many different ways. I would suggest that we have a strong unit with an interdepartmental committee. The third thing I would suggest, and have suggested in the written submission, is an ongoing consultative process that involves the community at large and in which parliament plays an ongoing role.

I would like to see a greater parliamentary role in relation to the government’s initiatives and the proposals I have mentioned, and also an ongoing parliamentary role that somehow engages civil society, the community, in the periodic consideration of these issues. If there were such an interdepartmental committee and if there was such a thing as an ambassador for disarmament, they would be making reports that would be tabled in the parliament, considered, and further initiatives could flow from those.

**Ms HALL**—Similar to Ms Parke, I think your submission is outstanding. I like the way you have the staged approaches looking at so many different levels and how Australia needs to

approach this in very many different ways. That is a very important message. There was one thing that concerns me and I do not know how we can ensure this. You said that Australia must not sell its uranium to any country that does not accept Australia's safeguards. My question is: how can we ensure that the countries we do sell uranium to will actually accept the safeguards once the uranium leaves our shore?

**Prof. Camilleri**—That is a very important and difficult question. In light of the NPT review conference, we need to review our own safeguard arrangements, because they are arrangements over which we have some control. We can only advocate what other people's arrangements should be. Hopefully, to the extent that we get international agreement as to what they should look like, the pressure on any one country to monitor and police becomes less. There is a great deal to be gained from securing international agreement, because then everyone is moving more or less in the same direction.

My direct respond to your question is this. We need to re-examine our general safeguards policy, and in particular our bilateral safeguards, of which agreements we have a number, to make sure that we have a degree of leverage for asking difficult and probing questions with the other country, and that the agreement is one in which the other country allows for this to happen. They agree to difficult, probing and embarrassing questions being asked and, at some point, for a request from us, perhaps through the International Atomic Energy Agency, for the matter to be taken further in relation to some specific concerns that we may have. There needs to be an agreement on the part of the other country that is engaged in this bilateral agreement for this to happen—an agreement that this could happen—and then that the IAEA inspection system, including the more intrusive inspection system that I am recommending, would be able to come into effect in relation to any concerns or misgivings we may have about what may be happening to Australia's uranium.

It would be both an international and a bilateral approach with a common aim of strengthening the capacity to be intrusive. The reality is that, if you are going to have a nuclear fuel cycle at the present level, let alone expanding it, those engaged in those activities have to accept the principle of increasing intrusion. It is as simple as that. We have to be able to intrude.

**Senator McGAURAN**—Just picking up on that very point, or on the term 'intrusion', given that you have explained how easy it is to turn nuclear material from peaceful to military, and you are seeking a greater global undertaking, and intrusion, I would like your wealth of experience and comments with regard to the world's actions—certainly the actions of the United Nations, Europe and the United States—towards Iran and the process they are undertaking towards Iran, because it has been more than conferences, education, travelling ambassadors and let alone more than treaties. It has gone beyond that, as you know. They have basically given Iran an end point. I would like your comments in regard to those actions of the world being highly intrusive against Iran?

**Prof. Camilleri**—The only thing is that we must aim for a system that does not appear to target one country and not others, because that country will say, 'Why are you looking at me? What about them?' It needs to be a system that ideally has global applicability.

**Senator McGAURAN**—Cutting to the chase, because time is against us, as to giving Iran an ultimatum, do enriching facilities and deny global world scrutiny and there will be military action, what is your view?

**Prof. Camilleri**—I do not think military action to prevent this possibility, not just with Iran—

**Senator McGAURAN**—But particularly Iran.

**Prof. Camilleri**—It could be North Korea. It is just as serious. I would not recommend it. Why? Because I think the sequence of events may well be worse than what it is trying to prevent.

**Senator McGAURAN**—It is the last point to reach. We all know that.

**Prof. Camilleri**—My understanding now is that Europe is not committed to using a military response to Iran's uranium enrichment policy, and we now have the beginnings of serious doubts as to whether the United States would be willing to do that, either. We are likely to see over the next 12 months attempts to apply different kinds of pressure on Iran, whether they will be more successful than other pressures that have been used in the past I cannot comment on.

**Senator McGAURAN**—In short, that military action should never be taken?

**Prof. Camilleri**—No. Military action to prevent nuclear diversion leads only to very unpleasant consequences. Iraq has already shown us that more than 20 years ago. The more effective way of dealing with Iran and with North Korea is to create conditions in which uranium enrichment beyond certain levels is just not entertained by anybody. That is not just Iran, but all of its neighbours. That is why we should be moving towards a nuclear weapons free zone in the Middle East and a nuclear weapons free zone in North-East Asia.

**CHAIR**—Thank you very much for attending today, for your comments and answering our questions today. If the committee has any further questions the committee secretariat may seek further comment from you at a later date.

**Prof. Camilleri**—Thank you.

[1.54 pm]

**HAMEL-GREEN, Associate Professor Michael Eric, Private capacity**

**MACLELLAN, Mr Nicholas James, Private capacity**

**CHAIR**—We will now conduct the first of the roundtables concerned with regional nuclear free zones. I invite each witness to make an opening statement of around five minutes before we go to questions. After we have had questions from members of the committee witnesses will be offered the opportunity to either make a closing statement or briefly raise any relevant matter they would like to mention. I now call our first two roundtable participants, Associate Professor Michael Hamel-Green and Mr Nicholas Maclellan. Although the committee does not require you to give evidence under oath, I advise you that this hearing is a legal proceeding of the parliament and warrants the same respect as proceedings of the House and the Senate. The giving of false or misleading evidence is a serious matter and may be regarded as a contempt of the parliament. If you nominate to take any questions on notice, please ensure that your written response to questions reaches the committee secretariat within seven working days of your receipt of the transcript of today's proceedings. I now invite you to make opening statements.

**Prof. Hamel-Green**—My submission is related to Australia and regional denuclearisation treaties. There is a special emphasis on the South Pacific Nuclear Free Zone Treaty, and I am aware Mr Maclellan will be talking in more detail about that. I will just concentrate on some of the general aspects.

Australia has generally been a very strong supporter of the UN and regional nuclear weapon free zones and other nuclear disarmament measures as a partial and complementary approach to constraining nuclear proliferation and contributing to our nuclear disarmament objectives. Of course, in the first place Australia adopted a regional leadership role in establishing the South Pacific nuclear free zone in the context of French nuclear testing and a number of other nuclear issues in the Pacific region.

The treaty also has a symbolic importance in terms of Australia's own non-proliferation commitment and sending that message to our South-East Asian neighbours, who then have established their own nuclear weapon free zone. There is a mutual reassurance there on non-proliferation commitments.

These zones not only involve regional states entering into binding commitments not to develop and acquire nuclear weapons but also prohibit the stationing of nuclear weapons by the nuclear weapon states. There is both a horizontal and a vertical aspect to controlling nuclear weapons. The hope of the original architect, Garcia Robles, for the first Latin-American nuclear weapon free zone in 1967 was that such zones would gradually broaden the areas of the world from which nuclear weapons are prohibited to a point where the territories or powers that possess these terrible weapons of mass destruction would be something like contaminated islets subject to quarantine. Much of that vision has already been established and we now have zones covering almost all of the southern hemisphere, plus one now in the northern hemisphere. We

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have the Latin-American, South Pacific, South-East Asian and African nuclear weapon free zones, and now we also have the Central Asian nuclear weapon free zone.

Professor Camilleri has referred to the proposal for a Middle East nuclear weapon free zone and that is, in part, because you need to build in the special regional features to reassure states within the region of sufficient compliance and particular needs in a particular region.

Despite all this progress there are still a number of important things that can be done to strengthen existing zones and to promote new zones. In the context of the South Pacific zone there is a possibility for periodic reviews. It has not yet been used, but Article 10 Annex 3 talks about consultation and cooperation 'on any matter arising in relation to this treaty and for reviewing its operation'. It is a committee that can operate on a two-thirds majority vote. If it fails to reach consensus then it can put up proposals for amendments of the treaty.

There is an opportunity here that South Pacific states, including Australia, can use to try to strengthen that treaty. In what ways could it be strengthened? It could be strengthened by extending the zone to cover all weapons of mass and indiscriminate destruction; so not only nuclear weapons but also chemical and biological weapons. I am sure that many of you are aware that the biological weapons convention has a number of deficiencies in terms of its verification and compliance system, and building bans on biological weapons into regional zones would be an important step forward there.

There is also a need for a strengthened verification organisation similar to OPANAL for the Latin-American nuclear weapon free zone, in terms of monitoring all aspects of compliance with the treaty. One of the aspects that Australia should be interested in is that South Pacific nuclear weapon free zone may also ban the supply of nuclear materials, such as uranium, to non-parties of the NPT, which is an issue at the moment in terms of India.

The South Pacific nuclear weapon free treaty also needs strengthened provisions against theft of materials. With small states there is a possibility of corruption and activities occurring, particularly in biological and chemical areas. It would be important to try to strengthen the provisions of the existing treaty.

There is a further role of nuclear weapon free zones. Professor Camilleri referred to having a conference. Mexico is a member of the Latin-American zone, which held such a conference in 2005. We now have over 100 countries that are members of nuclear weapon free zones. Such a grouping could play an enormous role on the international forums for disarmament. Of course, we have the 2010 NPT Conference coming up. A crucial step could be for Australia to host a conference of all members of nuclear weapon free zones and all prospective countries interested in such zones. That could be a major step forward in terms of preparing ourselves for the 2010 NPT Review Conference, and also in promoting the notion of a wider nuclear weapons convention.

We are in a new stage now with the change of administration in America and also the British government. Just a few days ago Gordon Brown gave a major speech on disarmament policy for the UK and pledged that the UK:

... would be at the forefront of the international campaign to prevent nuclear proliferation and to accelerate multilateral nuclear disarmament. It would be hosting a recognised nuclear weapons states conference on nuclear disarmament issues and confidence building measures, including the verification of disarmament.

We are seeing the nuclear weapon states themselves organising to become more serious about nuclear disarmament, and we are seeing the possibilities for non-nuclear weapon states, particularly those in nuclear weapon free zones, to act also in terms of getting greater progress.

I mentioned a few other things in my submission. One of them is the Central Asian nuclear weapon free zone, the newest zone, signed in 2006. I have been very disappointed that Australia did not vote in favour of that zone at the UN General Assembly last year. There are issues about how consistent it is with the Tashkent treaty, the Collective Security Treaty, a bit analogous to our ANZUS Treaty with America. It seems to me astonishing why we are not supporting a major initiative of that kind with a region like Central Asia, which has been the host of Russian nuclear activities in the past, has uranium mining and all the facilities to redevelop nuclear weapons. In particular, the UN called for assistance. It is hosting a conference on the effects of cleaning up the contamination caused by previous testing there. I think it would be very appropriate for Australia to be providing its technical assistance in terms of that appeal. Of course, these are all very underdeveloped countries and need great technical assistance.

In conclusion, regional measures such as nuclear weapon free zones are only part of a wider picture in which we need to work for the nuclear weapons convention, a framework that allows graduated steps and maintains the security of all states while we taking those steps. I am seeing a commitment to expanding nuclear weapon free zones and to working with other nuclear weapon free zone countries as part of a wider process of bringing into being that convention and to achieve those phases, beginning with the de-alerting of nuclear weapons but progressing on to the control of fissile materials, the reduction of all the nuclear weapon stockpiles and their eventual elimination. That is absolutely crucial, and I will finish on that point.

**Mr Maclellan**—Thank you for the opportunity to speak here. As you know, my submission focuses particularly on the Rarotonga treaty, the treaty between Australia, New Zealand and many of the independent island countries in our region. The Rarotonga treaty was signed first in 1985 and came into force in December 1986. For some time it has lain on the table. I suggest that in the context of the government's current initiatives around nuclear disarmament and non-proliferation it is a good time to review and expand that treaty. Australia, as a leading player in the South Pacific region, could play an important role in that process.

My background includes living and working in the Pacific for over 30 years and I have done a lot of work with the survivors of nuclear testing in the region—the Marshall Islands, French Polynesia, Fijians who went to the British tests at Christmas Island, and indeed people in Australia from Maralinga and so on. I think the regional context is vitally important, because Australia is a major player in the islands region, and what we do around the Rarotonga treaty could be amplified, as Professor Hamel-Green has mentioned, to other treaty zones in Asia, Africa and potential zones in more hotspot areas in South Asia, Pakistan and India, in North-East Asia, around Japan, China and Korea, in the Middle East and so on.

Nuclear weapons free zones themselves are part of a broader process of nuclear disarmament and non-proliferation. The first speaker, Professor Camilleri, raised the context of the long-term

objective of the abolition of nuclear weapons and the creation of these zones as significant as a building block towards that broader process. It seems to me that Australia, within its own region, can contribute by strengthening a building block to a broader global process.

Nuclear weapon free zones operate at multiple levels—legal, diplomatic and political—and it seems to me that is a very important element in the package. While we are looking at global disarmament in terms of legal treaties and verifiable instruments to enforce nuclear disarmament and nuclear non-proliferation, it is a political process and a diplomatic process as well about creating confidence building measures. There are steps that can be taken to build confidence about international security on the path to the ultimate aim of the abolition of nuclear weapons.

Australia is well placed as a mid-level power to contribute to this process. It is vitally important to stress that we should not simply be waiting for action by the declared big five nuclear weapons states and the non-declared states—India, Pakistan and so on—but that non-nuclear countries can take initiatives and actions at a variety of levels that contribute to the global process. That was what happened with Rarotonga in the mid-1980s. For those of us in the room old enough to remember that time, the Reagan-Gorbachev area, the whole concern around nuclear weapons with the deployment of the Euro missiles, SS20s and the MX. There was enormous foment and debate around the world in the 1980s. It was small and indeed marginal states that took a stand and said, ‘We don’t want to be part of this.’ Vanuatu declared its territory nuclear free on gaining independence. New Zealand did the same in 1987. Palau developed the world’s first nuclear free constitution. Sure, one can laugh at these micro states, and yet they are very prescient about the things that they were saying that at the time seemed controversial but are now commonplace.

Yesterday, the French Defence Minister, Monsieur Morin, announced that France will compensate the victims of nuclear testing in the South Pacific. For the first time France is going to pass a law next month through its parliament granting compensation to the nuclear victims. For those of us who have been through this debate, for 30 years the French have said these tests were innocuous, yet the Rarotonga treaty was created at a time when small countries said, ‘No. We don’t want to be part of the development of nuclear weapons.’ The Pacific has been at the forefront of that with our Western allies—the United States, Britain and France—testing nuclear weapons on their territories or indeed in Australia at that time.

There are a number of concrete things that Australia could do very quickly to advance this process. I have outlined them in detail in the submission and I would be happy to discuss them in our roundtable. The first is diplomatic initiatives with our ally the United States. The United States is the one declared nuclear power that has refused to ratify the protocols of the Rarotonga treaty. All the other nuclear powers, including France, Britain, Russia and China, have both signed and ratified the protocols to the treaty, making pledges about their action. We should be using the opportunity of the new Obama Administration to advance this issue diplomatically as a springboard to addressing this question with other nuclear free zones in more contentious areas, and to take action in our region, the Pacific, which relatively on a global scale provides a precedent and an opening for action that could be replicated in other more contentious parts of the world.

Secondly, as Professor Hamel-Green has suggested, there is an opportunity to establish formal links and to strengthen the capacity of mid-level states that are members of nuclear weapons free

zones. That is half the membership of the United Nations. We can strengthen the sharing of knowledge, technical expertise and experience on these. There are slight variations between the different zones in Latin-America, the South Pacific, South-East Asia, Africa and the Antarctic, which we should mention. There is also the Outer Space treaty. There are verification differences, boundary differences and so on, but we should bring together the different countries of the world—half the membership of the General Assembly—to share their experience and to strengthen each of these zones. This would be an important building process.

On that basis Australia could take the lead with its partners in the Pacific Islands forum to convene a regional conference—and I take on board the suggestion that it could be broader than that, bringing in people from other zones—to strengthen and amend the Rarotonga treaty. In my paper there are a number of suggestions about the ways the treaty could be brought up to date, given it is nearly 25 years old. There are a number of issues that were not addressed in the mid-1980s but which could be added to in the current political context. I would be happy to elaborate on those in our discussion. Three concrete areas—diplomatic initiatives with the US, setting up formal links with other nuclear free zone areas, strengthening the capacity of Australia and our neighbours to do so, and convening a regional conference to review and strengthen the treaty—are all things that could be undertaken almost immediately.

**CHAIR**—Mr Maclellan, you said in your submission concerning the Rarotonga treaty that its environmental provisions are surprisingly limited. Could you comment more about that and what aspects you think need strengthening?

**Mr Maclellan**—At the time of the treaty there was a debate about how much it should focus simply on nuclear weapons and how much on the broader nuclear issues, given that within our region there is a whole range of experience related to nuclear weapons. One particular concern from our island neighbours was the question of nuclear wastes. Right through from the 1970s there have been proposals to dump low-level and indeed high-level nuclear wastes within the area currently bounded by the Pacific region. For example, proposals from Japan and other countries to dump nuclear waste in the Marianas Ocean Trench or even in countries such as the Marshall Islands in the North Pacific and other suggestions.

There is also the presence of nuclear wastes in areas where there has been testing in the Marshall Islands and in French Polynesia. For example, in 1998 the International Atomic Energy Agency convened a scientific study looking at the radiological impact of French testing at Mururoa and Fangataufa atolls, and during their clean-up and dismantling of the Mururoa base France buried nuclear wastes in two shafts that were used for nuclear testing. They covered it with concrete. There is nuclear waste stored on Mururoa beyond the general pollution.

There are areas where this question about nuclear waste dumping is very important. At the moment the Rarotonga treaty bans the dumping of nuclear wastes in the ocean of the treaty zone, but it does not ban its dumping on land, paradoxically, yet there have been a number of proposals for the dumping of nuclear wastes on land. Since the time that the treaty was signed in the mid-eighties there has been an agreement called the Waigani Convention, signed in 1995, between Australia, New Zealand and members of the Pacific Islands Forum, which covers the transboundary movement of hazardous and nuclear materials in the Pacific. There are some other treaties that could be integrated into Rarotonga on these environmental questions that were not conceived of in the mid-1980s. Basically, there has not been a review of Rarotonga for nearly 25

years. This is an opportunity to bring together a number of these strands and strengthen the treaty.

Other treaties have addressed this question in more depth. The South-East Asia and Africa treaties have elements that are not present in Rarotonga. I think the sharing between the different regions gives us real potential to address some of these environmental issues beyond the actual question of the threat and use of nuclear weapons.

**CHAIR**—I have a second question for Professor Hamel-Green. Dr Marion Hansen from the University of Queensland has suggested that a nuclear weapons free zone might be negotiated in the Middle East region. Do you have a view about that?

**Prof. Hamel-Green**—Yes. That has been a longstanding proposal at the United Nations, from 1980 onwards. It was actually Iran and Egypt that jointly proposed the Middle East nuclear weapon free zone. Even more astonishingly, Israel after a certain point—I forget which year—has also joined the consensus position that they support a nuclear weapon free zone in the Middle East in principle. However, Israel said that it will not negotiate such a zone until there is a peace settlement with its neighbours. Unfortunately the Arab states have taken the diametrically opposite position of saying that they will not consider resolving those issues unless something is done in terms of Israel's nuclear capability. You have a deadlock there.

In principle, it has re-emerged again as part of the NPT Review Conference and prep conferences that this is something that needs to be pursued in great depth, and there is a phased approach by which both Israel and its neighbours can be assured that each other's security would not be jeopardised as they move towards a nuclear weapon free zone.

There are new efforts by the international community and new expert studies that suggest it is quite workable. The IAEA has also held conferences and looked at how to verify such a zone. There has been a lot of work done theoretically and a lot of work done in terms of addressing the political obstacles, and I think the 2010 NPT Review Conference will provide an opportunity for moving forward on that concept, which all the states of the region endorse in principle.

**Ms HALL**—I have a couple of questions. Is it achievable?

**Prof. Hamel-Green**—It is most certainly achievable. Looking at the various phases, the first steps might be simply Israel agreeing to freeze its present nuclear facilities and put them under IAEA inspection. There are various ways in which both Iran and Israel could do that. If Israel is able to take certain small steps, it might also be a great reassurance and put greater pressure on Iran to accept the kind of international control over reprocessing that Professor Camilleri was referring to. There are opportunities there. The international community has been working independently, but there are also ways in which you can propose arrangements and phased in processes that would reassure all parties in the Middle East. It is not as hopeless as it looks, even though it has been deadlocked for some while.

**Mr Maclellan**—I would add to that something that Professor Camilleri raised in the earlier session—about tipping points. There is a lot of work done by civil society in the academic sphere and by technical experts on these questions of nuclear weapons free zones, confidence

building measures, verification measures and so on. There is often a lack of political will over trying to bring those together.

In the case of Rarotonga there were initiatives coming from the 1960s, indeed from Australia and New Zealand, about creating a southern hemisphere nuclear weapons free zone. The idea had been kicked around for a long time before it ever came to fruition. From the mid-1970s citizens groups in the Pacific were actively engaged in raising this question. The Pacific Conference of Churches, student groups, a whole range of citizens groups around the Pacific were putting forward and pressuring governments on this question. The individual states took initiatives. As I mentioned, Vanuatu, in 1983, after gaining independence in 1980, declared its whole country nuclear free and took the initiative. We have seen that at moments, say, after the Cold War. South Africa gave up its nuclear weapons. Kazakhstan, Ukraine and Belarus have said, 'We no longer will have nuclear weapons on our territory.' There have been international efforts, but there have also been unilateral national initiatives. At some point that mixture of citizens movements, technical development of these concepts, independent unilateral initiatives by countries, come together at a moment to form a multilateral treaty. We saw that with Rarotonga; a whole range of initiatives that had gone on for a decade or more came together at a point. The *Rainbow Warrior* was a sort of tipping point, with many people saying, 'What's going on here?', and the Pacific came together to act on it.

As to other examples, in Asia and Africa the same thing happened. These ideas were tossed around for a long time and then, because of a particular political moment, they came together. I would argue that we are at a similar moment now on the international stage, given the change in the US Administration and the opening to discussion about this, the growing concern about proliferation by non-declared states, India and Pakistan—and the security of weapons in Pakistan—concern over Iran, Israel and so on. We are at a moment now where we can take those initiatives and, as I mentioned, strengthen the building blocks that already exist. The nuclear weapons free zones in the southern hemisphere can help translate that into the northern hemisphere, which is where many of the hotspots are.

**Ms HALL**—As to Rarotonga, how can we ensure that any review and movement forward from where we are now is actually positive, enhances the agreement in place at the moment and does not lead to it falling apart?

**Mr Maclellan**—It is an internationally binding treaty already. I do not think any of the parties are saying, 'Let's get rid of it.' The context, in looking at the declared policies of every member, is to strengthen it. It is worth stressing that Australia helped weaken the treaty in the mid-1980s. A number of our Pacific Island partners wanted a much stronger treaty in the 1980s and it was our current reliance on the United States and our link with ANZUS that meant Australia moved to weaken the original drafts that were put forward by neighbours such as Papua New Guinea on issues, for example, such as the United States nuclear warships. The Rarotonga treaty at the moment, for example, does not ban the transit of nuclear armed warships through the region, which was a big issue in the 1980s, and that is because of pressure from Australia. I do not think we should worry about the treaty weakening. It is a question of how far it would be strengthened; and, if you look at the policy of our neighbours, that is pretty clear.

**Ms HALL**—The point of my question was not so much about any weakening but the positive steps that we need to take now to move it forward and your idea on that. I have read somewhere

in the papers that I have before me today that any review could have gone either way at different times. What I am interested in is the positives, how you move it forward, strengthen it, and maybe how we look at some of those things such as the passage of nuclear ships.

**Mr Maclellan**—Since the 1980s we have had the examples in Asia and in Africa. The ASEAN Bangkok treaty has provisions that are not present in Rarotonga. For example, the ASEAN treaty covers the exclusive economic zones. Those are the 200-mile exclusive economic zones around the ASEAN countries. That is not the case for Rarotonga. It would cover another three million square kilometres of Kiribati's area if the provisions were extended to exclusive economic zones. The interplay between Latin America, South Pacific, Asia and Africa would be a very important process to look at the strengths of each of the treaties, because there are some slight differences.

We had the opportunity as Australia to participate in a conference convened by OPENAL, which is the Latin American agency responsible for this. They have a specific agency responsible for their nuclear weapons free zone. Australia declined the opportunity to participate in that conference a few years ago. It seems an enormous shame that we are not interacting with people who are working as mid-level powers on these sorts of actions at the same time.

**Ms PARKE**—Do you know why the Western nuclear powers, including the UK, refused to support nuclear non-use assurances for two out of the five established nuclear weapon free zones?

**Prof. Hamel-Green**—There are separate reasons for each zone. In the case of the Bangkok treaty, the South-East Asian Nuclear Weapon Free Zone, that zone, as Mr Maclellan just mentioned, covers the exclusive economic zone, the 200-mile limit, and the treaty is stronger than our Rarotonga treaty for the South Pacific. It is stronger in the sense that it says that no country may use nuclear weapons within the zone. Our South Pacific treaty says, 'Nuclear weapon states undertake not to threaten to use or use nuclear weapons against countries in the zone', but it does not say anything about, say, a warship in transit within the zone firing off nuclear weapons to some other part of the world. America has said openly that the reason it is not ratifying the protocols of the South-East Asian Nuclear Weapon Free Zone is that it is not prepared to agree with that restriction on its military forces transiting through the ASEAN zone.

In the case of the Central American nuclear weapon free zone, that is a bit more complex and is something that Australia should take much greater interest in. It seems to have rather unthinkingly followed the previous American Administration's view that they should not ratify the protocols. The Central Asian treaty includes the provision that the obligations of previous treaties are not affected by the new Central Asian nuclear weapon free zone treaty. One of the provisions of that Tashkent treaty is that the members of the Tashkent—four out of the five Central Asian states—can call upon military assistance from Russia to assist them if they are facing aggression. It does not say 'nuclear', it just says 'military assistance'. America's interpretation is that that could include nuclear weapon assistance and nuclear weapon deployment in the Central Asian states. They take the view, quite correctly, that that would be a total contradiction of a nuclear weapon free zone.

However, Article 12 is the offending provision in the Central Asian nuclear weapon free zone treaty. It has a second clause that has been generally ignored. It was put in there by the Central Asian states because they were aware of this concern. The clause states:

The parties shall take all necessary measures for effective implementation of the purposes and objectives of this treaty in accordance with the main principles contained therein.

Legal articles analysing this problem have said that, in fact, means that any military assistance furnished under the Tashkent treaty cannot include acceptance of nuclear weapons on Central Asian territory. In other words, it is a legal issue as to how you interpret that previous clause. The Americans are putting the worst interpretation on it and so are Britain and France. China and Russia have agreed to the protocols, but the Western nuclear powers have said, no, they are not going to agree.

The protocols have not been opened up for signature yet. There are still negotiations going on, so there is still a possibility of trying to resolve this. For me it seems quite ironical. Here you have a group of countries that can easily proliferate. They have uranium mining. They have all the expertise to develop nuclear weapons. They are in a strategic area of the world. Why not support them in their non-proliferation? Why not guarantee them that they will not be attacked or threatened with nuclear weapons? If you are worried about this particular provision, put in a reservation to that effect. Say that any commitment to non-use, non-threat of use commitment is not valid if there is any transfer of nuclear weapons under a previous agreement. Aside from that, the Geneva Convention on Treaties actually also reinforces the legal interpretation that the new treaty supersedes the previous one in relation to whether nuclear weapons can be brought into the area.

**Mr BRIGGS**—What would you say have been the key achievements of the Rarotonga treaty since 1986?

**Prof. Hamel-Green**—The key achievement that I see is that it has locked external nuclear powers that have territories within the region from any further nuclear testing anywhere in the region, so there could be no resumption. We certainly have France now locked into that. We have Indonesia, which may well develop a nuclear power industry. It provides mutual assurance to Indonesia and South-East Asian countries that we are not going to develop nuclear weapons and, similarly, their nuclear weapon free zone does the same for us. There is a concrete benefit in terms of mutual reassurance. There are the actual requirements about signing up to the safeguards. Professor Camilleri was talking about some of those safeguards. That is another way in which the Rarotonga treaty can be strengthened by requiring the additional protocols that the IAEA now has. It also locks us into not exporting our nuclear materials. We are a uranium miner and we export uranium. The treaty prevents us from exporting it to countries that are not locked into the safeguards through the NPT. There is obviously a profit incentive to do so, but the treaty prevents that profit incentive operating.

**Mr Maclellan**—I would add one other element to this, and that is the political context in which the treaty was signed. The mid-1980s was a time when there was a global debate about nuclear disarmament and the nuclear threat. There was major debate in Europe about the deployment of short-range nuclear weapons, the SS20s from the Eastern Bloc and the cruise missiles, the debate about the growth of Trident, of MX and so on. Politically at the time the

signing of Rarotonga was a very important symbolic step, which Australia was a party to, to say, 'Enough is enough.' It amplified the steps that New Zealand took unilaterally with the ANZUS Treaty, which at the time in 1987 was very controversial in terms of New Zealand's ban on nuclear issues but which is now quite commonplace and has been accepted by the US Administration; that is, New Zealand will maintain its nuclear free policy and still play a role in ANZUS, and so on.

The political context in which the treaty was taken, remembering that not much had happened since the Latin American Treaty in 1967, which was nearly 20 years later, and yet we have seen since that time the growth in bigger areas, South-East Asia, Africa and now in Central Asia, in the development of more nuclear weapons free zones. This is a process where the building blocks around the world, and now all the land areas of the southern hemisphere, are covered by nuclear weapons free zones. It is not yet implemented in the case of Africa, or fully ratified, but we are on the way.

I think the question about using these global building blocks towards more contentious areas—South Asia, India, Pakistan, the Korean peninsula in North-East Asia and the Middle East—and it is obviously going to be harder, but it seems to me that we should not lose that political dimension as well as the legal and diplomatic one.

**Mr BRIGGS**—Surely the difference between the South Pacific forming a nuclear free agreement like we have and India, Pakistan and all the Middle East, for instance, forming a nuclear free agreement is a completely different kettle of fish, so to speak. You are talking about countries that verge on war constantly forming an agreement, as compared with our reasonably friendly area. We might disagree about the All Blacks occasionally, but we are never at war or at threat. We are not going to invade Fiji or anything like that.

**Mr Maclellan**—That is why these are so important in terms of being confidence building measures. They provide a model as one element of broader programs of nuclear disarmament, such as first use pledges, to get countries to pledge that they will not use their nuclear weapons first.

**Mr BRIGGS**—Didn't Java and Russia have a no first use pledge in 1939?

**Mr Maclellan**—All of these things are open to the broader political context. The fact that there is a nuclear weapons free zone may mean that when it comes to the crunch governments that hold nuclear weapons will act regardless of the legal treaties that they have signed. What we are talking about, though, is making a contribution to a broader program where people pledge towards the goal that was mentioned by the previous session, the abolition of nuclear weapons. That seems to me to be part of the package.

**Mr BRIGGS**—You mentioned in your opening remarks the French nuclear testing sites. You said that they have left waste in two concrete bunkers. Do they look after that waste or do they literally put a cap on it?

**Mr Maclellan**—There is not enough monitoring of that.

**Mr BRIGGS**—When you say 'not enough', is there monitoring?

**Mr Maclellan**—There is some monitoring.

**Mr BRIGGS**—By the French?

**Mr Maclellan**—By the French government. There was an International Atomic Energy Agency, IAEA, study in 1999. However, there is a need for much more work on that.

**Mr BRIGGS**—Such as?

**Mr Maclellan**—For example, international monitoring, verification and clean-up programs. In the Marshall Islands there has been a massive attempt to clean up some of the radioactive pollution from the US tests between 1946 and 1958 at Bikini and Eniwetok, just as Australia contributed several tens of millions of dollars to rehabilitation programs at Maralinga. Ultimately, it is very hard to clean up what are essentially sacrifice zones. There are a lot of areas still on Mururoa and Fangataufa with barriers around them—‘Don’t go there’. There is enormous need for rehabilitation work there, which France and other countries could contribute to. For example, the IAEA has found that there is five kilograms of plutonium in the sediments of Mururoa lagoon. There is three kilograms of plutonium spread in the sediments of Fangataufa lagoon. With sea level rise there are really important scientific questions about what happens to the spread of those nuclear materials. That is the IAEA speaking, not Greenpeace. These have been studied for a long time and I think there is a greater role for environmental monitoring of the nuclear test sites. That is why the Pacific has been so supportive of this question, because they bore the brunt of nuclear testing by the Western powers.

The same problem has been found in Kazakhstan and so on, which had the Russian testing, and it is true in India. Fiji was the first country in the world to sign the comprehensive test ban treaty and ratify it—for that very reason. This is part of a broader process about stopping the proliferation of nuclear weapons and the testing of nuclear weapons by countries outside our region.

**Senator BIRMINGHAM**—In regard to the prohibition in the Rarotonga treaty on dealing in or selling uranium to non-NPT states, and particularly India, is it a prohibition that in reality now is a 20-year old prohibition that unnecessarily ties our hands from perhaps taking measures that could bring India into a tighter, more scrutinised nuclear framework, even if that was not within the exact parameters of the current NPT?

**Prof. Hamel-Green**—In the previous session Professor Camilleri identified the problem of making special arrangements for individual states. India is not a signatory to the NPT. The new deal between the United States and India signed just before the present administration came to power involves some safeguards, but it does not involve full-scope safeguards or the additional protocol safeguards that the strengthened safeguards require.

I was an observer at the Geneva Conference on Disarmament. I interviewed both the Indian and the Pakistani ambassadors at the time that this new deal was being discussed. It was quite interesting to me that the Pakistani ambassador was opposing the fissile material control treaty. They were getting very close to consensus and Pakistan was one of two or three countries opposing the consensus to actually negotiate the fissile material control treaty. The reason was that this new deal with India would allow India to have some of its reactors not covered by

safeguards at all. The peaceful nuclear exchange envisaged by America actually frees up uranium to be used in certain reactors in India that are not covered by safeguards. In other words, there is a distinction between some reactors and others. There are those aspects and weaknesses.

For Australia to change its policy on this would be a grave mistake. It would be giving a signal to countries that have the capacity to make nuclear weapons that, if they are not party to the NPT, they can still be rewarded, and there is no benefit to being a member of the NPT. You are losing the whole basis for the non-proliferation region, which could cause a total unravelling of that regime. It is absolutely crucial that Australia sticks to its guns. It would have to withdraw from this Rarotonga treaty in order to do anything otherwise. It needs to stick to its guns and refuse to sell uranium to any country that is not under NPT safeguards and a member of the NPT.

**Senator BIRMINGHAM**—We have canvassed why the United States and other countries may resist the Central Asian treaty and the South-East Asian treaty. What is your understanding of the grounds on which the US has refused to ratify the Rarotonga treaty? Presumably, the decision not to ratify was taken back in the Clinton years and has been continued through subsequent administrations?

**Prof. Hamel-Green**—I disagree with you that the decision not to ratify was taken in the Clinton years. You had a situation where the majority of the Congress was Republican and very resistant to ratifying any nuclear free zone treaty. We may be in a different era now. As Mr Maclellan was saying, Australia should take the option now to have a fresh effort to get America to ratify the Rarotonga treaty. I think there might now be a different stance on this.

**Senator BIRMINGHAM**—Can you give me some reasons? It is one thing to say that Republicans in Congress blocked it, but presumably they have given some reasons.

**Mr Maclellan**—There were reasons. For example, at the time of the Rarotonga treaty there was a major debate about the transit of US warships that potentially might carry nuclear weapons, and the United States had and has a neither confirm nor deny policy. In the 1980s at the time Rarotonga was being signed there was a major deployment of cruise missiles on US warships for the first time. Previously cruise missiles had not been deployed on naval forces, and during the years that Rarotonga was centrally being located the US was putting cruise missiles on its naval ships. That was controversial at the time because it provided a long-range strike capacity for the navy rather than for other armed forces. In the late eighties/early nineties that was a central part of the US reluctance.

Secondly, the US territories at the time, under the Trust Territory of the Pacific Islands, which is today the nations of the Marshall Islands, the Republic of Palau and the Federated States of Micronesia, were in the early eighties negotiating a compact of free association with the US. At the time they had not signed that compact, which came into force for two of the countries in 1986 and for Palau in 1990, so they had a lot of concerns about what it would mean for their trust territories in the northern Pacific at the time. Those three countries have not yet signed on to Rarotonga. That has changed. Those countries, having now signed the compact back in 1986 and 1990, are active members of the Pacific Islands Forum. They are much more actively involved in regional affairs, and it is reflected in changes. I can give you an example. The South Pacific Regional Environment Program, SPREP, is the intergovernmental body that links all the

countries and territories in the region. It changed its name recently to PREP to reflect the growing involvement of these northern Pacific countries that were former US territories. In the 20 years since that has happened there has been a big shift; that some of the concerns that were raised at the time are not as valid. US policy has changed and they no longer have nuclear weapons on their surface ships. That is declared policy. Things that were relevant in the late-eighties and early nineties have changed substantially.

There are still complex issues—the deployment of Trident submarines through the Pacific. The Americans maintain a nuclear weapons first strike capacity on their Trident submarines. Strengthening the Rarotonga treaty would raise significant issues for the US and that is where this has to be seen as part of a broader package; some of the reasons they did not sign on in the 1980s are tied to changed conditions.

**Senator LUDLAM**—On the subject of nuclear weapon free zones I would like to get your thoughts on whether you think it is time for Australia to re-evaluate passage of potential nuclear armed warships through our ports, be they United States, French or whoever, and whether that be a helpful initiative. Secondly, do you agree with Professor Camilleri's model of the staged initiatives leading to a nuclear weapons convention, and where do nuclear weapon free zones fit in with that framework?

**Prof. Hamel-Green**—On the issue of ships hosting nuclear weapons, it has become a less urgent issue as the United States and Russia have agreed to remove nuclear weapons from their surface vessels. There is still a continuing issue of having nuclear reactors that could cause accidents on nuclear powered ships. That has certainly been an issue in New Zealand. There are probably enough concerns there to warrant a re-evaluation in Australian policy to allow nuclear powered ships and nuclear armed ships. It is contrary to the spirit of the treaty. It is not contrary to the letter of the treaty. The treaty does allow each individual state to make up its own mind about whether it wants to have nuclear weapon armed ships in its ports, so there could be a re-evaluation there.

In terms of the relationship to the nuclear weapons convention, nuclear weapon free zones represent a way in which there can be confidence building region by region so that we actually shrink the problem areas. The other function of nuclear weapon free zones is the mobilisation of the international community in terms of supporting a nuclear weapons convention. It is absolutely vital that you have that mobilisation. The fact that you have a majority of the members of the United Nations now members of nuclear weapon free zones is an opportunity that we have not fully exploited. We are members of such a zone. We have the opportunity to work with other members and other coalitions working for disarmament in the United Nations context. There is the New Agenda group. That is a group that does not have military alliances. They are generally neutral independent states. In our case, like Norway, we are part of an alliance. Working with other nuclear weapon free zones is a way in which we can work internationally to put pressure for the introduction of a nuclear weapons convention.

**Ms HALL**—I apologise for referring previously to Rarotonga. I was actually referring to the NPT and the review committee there. What impact do you think the global financial crisis will have on the whole issue of nuclear disarmament, the treaties that are in place at the moment and the forming of further treaties?

**Mr Maclellan**—It obviously has positive and negative effects. The negative effects are going to be the impact on the poorest people in the world and the potential ways in which the development crisis that we are facing is going to impact on the vast majority of humanity in our region of Asia and the Pacific. However, the positive opening it creates is that there is a lot of discussion about global institutions and architecture that can contribute to addressing these global challenges. Many of the problems we are talking about are global. The climate change issue, the economic integration globally, the military and security links and obviously the global threat of nuclear war are ultimately only going to be solved at the global level. What we have been suggesting today is that the building blocks that we need to move towards that involve international cooperation. The potential for nuclear weapons free zones is that they engage powers that are outside the big powers. We have seen the shift in global architecture, say, from the G7 to the G20, with the recognition that new players need to be brought into this process of addressing the global financial crisis. It cannot simply be left to the G7. It is not a neat analogy, but I think the same can be said for the nuclear disarmament process. If we simply leave it to the declared nuclear weapons powers we may be waiting a long time for action, and there is a need for other countries to be building towards a broader process.

I would also agree with the point that Professor Camilleri made about the role of civil society in this process. Governments sometimes need to be kick started into action. That was certainly true for the Rarotonga treaty. It was churches, trade unions, women's groups and so on that elaborated the idea of the nuclear weapons free zone in the South Pacific right through from the sixties and particularly since 1975 and the creation of the Nuclear Free and Independent Pacific Movement. I think the same question is before us today: how do governments engage with the range of players, particularly academic and civil society groups, that are engaged in these questions? What are the mechanisms for drawing on the expertise of civil society groups, technical experts and academics who are working on these questions? I hope that the inquiry might think about some mechanisms that can draw on that.

It is the same with the global financial crisis. It cannot simply be solved by governments. It involves drawing on the private sector, trade unions and other players. The analogy with these security questions seems to me pretty central. It cannot be done by governments alone. We have to be working with a broader range of players. The things that we have been articulating have been that there are people out there very eager to participate in this process.

**Prof. Hamel-Green**—There is a practical dimension to this as well. There may be less money or funds available for destabilising military technologies, and I am thinking of the missile defence program, which has the potential for provoking other states into rearming and increasing the number of warheads on missiles and that sort of thing. There may be savings there. Also, to me, multilateral approaches to disarmament are very cost effective. When I was in Geneva talking to diplomats in terms of the negotiations on the fissile material, I think it was Italy that said, 'We spend the cost of one tank.' That is what it costs per year to have that delegation negotiate a major treaty that will be of enormous benefit to non-proliferation for decades to come. For the cost of one tank Italy is able to participate in this. I think there can be positives and negatives. It is very complex in terms of how the financial system works.

**CHAIR**—Thank you very much for attending and for giving evidence today. If the committee has any further questions the secretariat might seek further comment from you at a later date.

**Proceedings suspended from 2.50 pm to 3.08 pm**

**CAMPBELL, Reverend Doctor Wesley Neil, Private capacity**

**GREEN, Dr Jim, National Nuclear Campaigner, Friends of the Earth**

**LANGMORE, Professor John Vance, National President, United Nations Association of Australia**

**NOONAN, Mr David Joseph, Nuclear Free Campaigner, Australian Conservation Foundation**

**RUFF, Associate Professor Tilman Alfred, Chair, Australian Management Committee; Chair, ICAN Working Group, International Physicians for the Prevention of Nuclear War**

**WAREHAM, Dr Susan Jane, President, Medical Association for Prevention of War**

**CHAIR**—We will now conduct the second of the roundtable hearings with representatives of non-government organisations. It is the aim of the roundtables to encourage discussion and debate. To enable witnesses to fully participate I would ask witnesses to limit opening statements to five minutes. Towards the end of proceedings I will offer witnesses the opportunity to make a closing statement or raise any issues that they believe are relevant but have not yet been discussed. Obviously, it would be helpful if witnesses are mindful of providing others with an opportunity to participate in any debate or discussion that may arise.

Although the committee does not require you to give evidence under oath I advise you that this hearing is a legal proceeding of the Parliament and warrants the same respect as proceedings of the House and the Senate. The giving of false or misleading evidence is a serious matter and may be regarded as contempt of Parliament. If you nominate to take any questions on notice please ensure that your written response to questions reaches the committee secretariat within seven working days of your receipt of the transcript of today's proceedings. I now invite each of you to make a five-minute opening statement.

**Mr Noonan**—The Australian Conservation Foundation sees no net benefit to the nuclear industry. While we believe that the nuclear industry should be phased out globally, including the phase-out of Australian uranium exports, we certainly wish to see the strongest nuclear safeguards in place in any interim period. In that respect, I would like to speak to some of the aims that we believe the committee should be able to present in the recommendations that you may collectively agree to.

On the term of reference on what role the parliament and the inquiry can take in supporting the International Nuclear Commission, you should look to a parliamentary motion in Australia. The Australian parliament should make a clear call for nuclear disarmament. That call should include for Australia to take a lead role in bringing a nuclear weapons convention to fruition, and that we should champion a nuclear weapons convention before the UN. We believe the Australian parliamentary motion should reference the International Court of Justice position that the threat or the use of nuclear weapons is illegal under international humanitarian law, and also

should address at least two of the key measures needed to build confidence and lessen intentions. One is the de-alerting of nuclear warheads. The second is the no first use commitment.

As a committee with your different party representations you could act within the inquiry to make such a recommendation but also act within the parliament and the political system to help bring your own political parties on board so that the call for nuclear disarmament would hopefully be a unanimous position of the Australian parliament.

We would like to provide an electronic copy and table an ACF policy briefing on strengthening nuclear safeguards in the lead-up to the 2010 NPT review. We believe it is absolutely imperative for us to take safeguards and nuclear disarmament as seriously as we say we take non-proliferation. There should be at least a doubling of the IAEA's safeguards budget. We understand the new US administration has expressed an interest in the doubling of the IAEA resources over a four-year period, and we believe Australia should be calling for that doubling of resources for the IAEA. Have a lead Australian position and commitment to make a significant financial contribution to resourcing the IAEA to be fit for its purpose in terms of nuclear safeguards.

We also believe there is a necessity in this era of the threat of nuclear terrorism to take up a formal mandate by the IAEA for nuclear security. At present, the role of the IAEA is very much less than what the public or maybe even the parliamentarians are aware of it being. The IAEA does not have a mandate for nuclear security. They may provide guidelines, recommendations, advice and assistance, but they cannot require, verify and enforce equal security measures around the world. They should take up that mandate. Australia should strongly support that the IAEA take up that mandate.

We should also look for mandatory nuclear security measures within our own bilateral uranium export agreements. Those nuclear security measures would need to encompass all of the weapons using fissile materials, all of the nuclear facilities and reactors that are now, to be honest, all terrorist targets. They should include the Australian nuclear waste throughout the nuclear fuel cycle. Much of that waste has the potential to be used in so-called dirty bombs, weapons of mass economic and social disruption. Australia does not have mandatory measures through our bilateral arrangements for nuclear security. We should require the IAEA to do so but also be willing to act and be happy to do so ourselves.

In taking the best of the Joint Standing Committee on Treaties inquiries, we should look to the recent recommendations in report No. 94 as preconditions to proceeding with the proposed Russian treaty. Many of those recommendations would make very good generic preconditions on all of our bilateral uranium export agreements; for instance, the proposed complete separation of the military from civilian nuclear sectors. That should be a mandatory requirement on Australia doing business with any country in terms of nuclear cooperation, particularly in terms of uranium sales. There are a number of countries that would seriously and clearly fail that test. China is an obvious one. Just as in Russia, the nuclear sector is not differentiated between the military and the civilian in China. France would also have an interesting answer to whether they have completely separated their military from civilian nuclear sectors. We should not do business with a country that is not willing to demonstrate that separation.

Report No. 94 on Russia recommended, essentially, that Australian obligor nuclear material should only ever go into IAEA safeguarded facilities. That is very different to the ASNO and DFAT policy and practice and different to the provisions under some of Australia's bilateral agreements where we do allow under the Russia 1990 agreement and China treaties, for instance, Australian material to go into non-IAEA safeguarded nuclear fuel cycle facilities. We should disallow that practice if we expect internationally to have any credibility. We are asking the rest of the world to take on stronger safeguard regimes and we even allow our material to go outside of the IAEA regime. We should not allow substitution in a similar way.

We should also look to the international behaviour of candidate countries that we accept for nuclear cooperation on uranium sales. Last year we had the experience of Russia threatening to use nuclear weapons against Poland, a non-nuclear weapons state. The International Court of Justice's position, which Gareth Evans strongly recommended to you in your first hearing, makes it clear that the threat of the use of nuclear weapons is illegal under international humanitarian law. Australia should back that position and not look to do business with countries that threaten to use nuclear weapons against their neighbours.

We should look to a range of transparency measures. We could speak to that in detail perhaps during questioning. We should be looking to bringing forward fissile material control. If we are to be serious about non-proliferation and about disarmament in the same way that we look to have a comprehensive nuclear test ban treaty to end the testing of all nuclear weapons for all time, we should be looking to a comprehensive fissile material treaty that would end the production of all weapons usable fissile material for all time, that would bring all of the stockpiles of any weapons usable fissile material under international control, and that would not differentiate between military and civilian sectors and uses.

I understand a so-called fissile material cut-off treaty is a strong priority of the Australian government and the Department of Foreign Affairs. At best it is a partial treaty. It is restricted to production of fissile materials deliberately for express military purpose and it has not yet decided whether they wish to take into account the existing stockpiles even in the nuclear weapon states. Australia is asking for it to be a verifiable treaty on fissile materials, which is a good step, but equally we should take the steps that we should not distinguish between weapons usable fissile materials said to have been produced for a military or a civilian purpose and we should be fully bringing in all the stockpiles of all those weapons usable materials into any acceptable fissile material treaty that this committee would look to recommend the progress on, or that the Australian government should be championing to the world.

**CHAIR**—Thank you. Professor Langmore.

**Prof. Langmore**—Thank you. I have said in my submission how serious I think the threat of nuclear weapons is, but that there are some encouraging signs that suggest this is exactly the right moment to be holding this inquiry, that support for nuclear disarmament is growing, and that there is a growing belief that nuclear proliferation cannot be stopped without progress to nuclear disarmament.

In my submission I recommend a number of incremental steps towards outlawing nuclear weapons, many of which Mr Noonan has mentioned. The most obvious one is taking nuclear weapons off high alert status. The second is deep reductions in the numbers of weapons, though

that is an agreement that has to be achieved bilaterally between the US and Russia, but it affects all nuclear countries.

**Senator McGAURAN**—Which one did you just mention?

**Prof. Langmore**—Deep reductions in the number of weapons. It is vital and essentially important that Russia and the US negotiate major reductions. That seems to be on President Obama's agenda and he apparently is receiving some encouraging signs from Russia about that. As Mr Noonan said, it is crucial that negotiations start on a fissile material cut-off treaty, that ratification of a comprehensive test ban treaty be completed and so on. The point of these incremental steps is that they all build up confidence that movement towards disarmament might be a possibility, and I am sure all of those steps are familiar to you.

I especially want to draw attention to the book by George Perkovich and James Acton, of which I gave you a summary in my submission. The process of moving towards nuclear disarmament is extremely complex. He handles the complexity of that better than anyone else that I know and they do not despair by the end but they do rigorously examine what achievement of a comprehensive and complete disarmament treaty would involve, which is obviously a major task. With them the UN association considers that unless you move towards complete nuclear disarmament and start that process as a conscious process, prevention of nuclear non-proliferation really is not possible.

In conclusion, I would like to mention the idea of a special session of the General Assembly on disarmament. I think that could have a useful role in this. There is absolutely no reason why you could not recommend that and the Australian government could not take it up, and to support the recommendations that Mr Noonan has made on behalf of the ACF in some more detail than I have put them in our submission.

**CHAIR**—Thank you. Dr Wareham.

**Dr Wareham**—The Medical Association for the Prevention of War greatly appreciates this opportunity to again present some of the evidence that we have presented in our written submission and to take part in this discussion. We want to congratulate the government, again, on this initiative in highlighting and bringing greater attention to this issue, which has been overlooked in the Australian parliament and in policy generally for a very long time. It is encouraging to have this discussion.

Humanity has had many warnings about the risk of nuclear weapons and the fact that they will be used again if they are not abolished. We have had warnings enough over a long period of time. Former UN Secretary-General Kofi Annan, not many years ago, talked about humanity sleepwalking to disaster on the issue of nuclear weapons. In 2007 the *Bulletin of the Atomic Scientists* told us that we are five minutes to midnight. The doomsday clock was set at five minutes to midnight in 2007. That is the closest the hands of the clock have been to doomsday since the early 1980s and before that in the early 1950s.

The current UN Secretary-General, Ban Ki-moon, in a major speech on this topic in October last year, urged the international community to work to nuclear disarmament. He emphasised that strongly and he referred specifically to prospects for a nuclear weapons convention. The

message has been repeated in a multitude of other forums, and the message is that it is not good enough to aim for non-proliferation. As has been said, that will not work and we must abolish nuclear weapons.

Nine countries are perpetuating this problem. The nuclear weapons states have failed to comply with their legal, ethical and political imperatives to abandon these most terrible of all weapons, and their failure is the primary stimulus to proliferation. Australia is showing initiative, which is extremely good and promising. In addition, the election of President Obama in the United States has extended to us, in the words of the writer Jonathan Schell, the gift of time. But we do not have a lot of time to resolve this issue. We certainly do not have decades. If we squander what time we do have, our children will live with the consequences and we are unlikely to receive another allocation of such time.

I would like to make an analogy with the problem of climate change. Climate scientists have been warning for decades that our climate is changing, that it is going to lead to disastrous results, and that we need to avoid global temperature rises. They have largely been ignored. The clear evidence now is that it is too late to avoid global warming. Global warming is here. It is happening. It is not a matter of whether it happens. It is a matter of how bad it is going to be. On the issue of nuclear weapons are we going to make the same mistakes? Clearly, Australia is taking action, which is extremely good, but the question is: how much action? Are we going to fall into the error of some degree of complacency, believing that catastrophes cannot happen? The question for us is: are we going to fall into the trap of doing too little too late? Will we wait until the big powers, those who have created this problem, agree with our course of action or will we do whatever we can and whatever is possible to delegitimise and stigmatise these worst of all weapons so that the nuclear weapon states themselves become the new rogue states?

This has implications for Australia's defence. We cannot, at the same time, claim benefit from the United States nuclear weapons so-called 'umbrella' for ourselves while rejecting the same alleged benefit for other countries that might aspire to nuclear weapon status. Such a position is logically untenable. Australia's defence policy will need to change if we want to be a powerful and a credible advocate for nuclear disarmament.

I will run through very briefly some of the MAPW's recommendations from our written submission. MAPW recommends that the Australian government make a clear statement globally and to the Australian people that nuclear weapons abolition is absolutely fundamental to the security of all people, and that we reject nuclear weapons in our defence policy and practice.

We recommend that the obligations of the ANZUS Treaty, in particular what it does and does not require of its partners, be cited in support of the rejection of nuclear weapons and associated technologies such as missile defence. We recommend that Australia promote the removal of all nuclear weapons from high alert status with the governments of the United States and Russia as a matter of urgency. We recommend that the government clearly and explicitly state a commitment to a nuclear weapons convention as the most logical and unambiguous route to nuclear weapons abolition, and that we work with other countries committed to this goal. At the 2010 NPT review we recommend that the nuclear weapon states be held accountable for their failure to comply with Article 6 of the NPT and that they be called to demonstrate time-bound plans for nuclear disarmament.

Also at the NPT, we recommend the ‘inalienable right to develop research, production and use of nuclear energy’, as stated in Article 4 of the treaty, be reviewed, with particular reference to the security dilemmas that this so-called right is already causing. We recommend that no Australian uranium be sold to any country that has failed to support or comply fully with the NPT, including Article 6, or the CTBT or IAEA safeguards and additional protocols, or any country which does not have excellent standards of nuclear regulation and safety, materials accountancy and physical security of nuclear facilities and materials. We recommend that the Australian Safeguards and Non-proliferation Office, ASNO, be subject to a major overhaul. We recommend that Australia withdraw from the Global Nuclear Energy Partnership, that efforts for a fissile materials treaty be reinvigorated, and that Australia take steps to strengthen the South Pacific nuclear free zone treaty. Thank you very much.

**CHAIR**—Associate Professor Ruff.

**Prof. Ruff**—I thank the committee. Like others, I welcome the opportunity for this important and timely inquiry. I want to confine my remarks to summarising some recent developments—and the overwhelming support there is in the civil society community—for a comprehensive approach embodied in a nuclear weapons convention. I want to highlight some of the factors that emphasise that approach has very much got legs on it and needs all the encouragement, support and work that it can get.

Others have outlined the extraordinary time of crisis that we are in. It cannot be reiterated too strongly that there is considerable danger with disarmament being stalled, non-proliferation not under control, the failure of the last NPT review conference adding extraordinary pressure and urgency on next year’s review conference and, essentially, a continued slide towards the law of the jungle and a weakening of international law in relation to non-proliferation and disarmament. In the first abrogation in recent years of a major arms control treaty, the Anti-Ballistic Missile Treaty, a major pre-emptive war in which Australia contributed ostensibly on the basis of essentially being about non-proliferation, the pre-emptive attacks on alleged nuclear facilities in Syria—where the first international response should have been to call in the IAEA and investigate, not notify the IAEA five months later—and ‘exceptionalism’, as evidenced by the special arrangements in the bilateral United States-India deal that give privileges to India that arguably are more generous than those if it were a compliant and signed up member of the NPT, must seriously raise questions for many other countries about the benefits of staying in the treaty. It is abundantly clear that business as usual is really not good enough.

At the same time, there is this extraordinary opportunity with widespread recognition in civil society and increasingly from some unexpected and very high-level political quarters in many countries arguing that nuclear weapons need to be abolished, with the arguments shifting more towards how that can be done. There is also new science that as a physician I feel obliged to mention, applying the state-of-the-art climate science that we now have courtesy of all the concern and work that has been done on climate change modelling. Applying those models to even relatively small-scale regional nuclear war, such as could occur between India and Pakistan or involving Israel in the Middle East, less than 0.03 per cent of the total global nuclear arsenal—100 Hiroshima sized weapons—would result in a global climatic catastrophe in which at least a billion people are estimated would starve. The case for abolition has never been stronger or more compelling.

Now we have this extraordinary opportunity with a president elected in the United States with both national and international goodwill on a very specific platform of nuclear weapons abolition, with a whole series of articulated steps, some of them time bound, as to how that is to be achieved. We have already seen in the first two months of the administration major indications in several areas that this administration is serious.

We also have a significant opportunity in an Australian context, with a government that was elected in November 2007 with a national party platform supporting negotiations on a nuclear weapons convention and a specific policy articulated especially by shadow minister Robert McClelland at that time, saying that Australia really wanted to lead in promoting a nuclear weapons convention. The question to be asked is not how it might happen but why has it not happened already? Nationally there is also a strong political mandate to follow through on those promising election commitments.

I would like to quote from former UK Foreign Secretary Margaret Beckett, when she argued in a very important speech to the Carnegie Endowment in Washington about a year ago regarding the importance of combining both specific incremental steps making measurable progress now with the vision of abolition being politically necessary to drive a process credibly and with adequate interest and motivation. She stated:

A parallel can be drawn with some of those other decades long campaigns conducted as we have striven for a more civilised world. When William Wilberforce began his famous campaign, the practice of one set of people enslaving another had existed for thousands of years. He had the courage to challenge that paradigm; and in so doing helped, with many others, to bring an end to the terrible evil of the transatlantic slave trade. Would he have achieved half as much, would he have inspired the same fervour in others if he had set out to 'regulate' or 'reduce' the slave trade rather than abolish it? I doubt it.

This is really an extraordinary opportunity where bold visions need to be articulated that seize this opportunity. Who knows how long Barack Obama's political honeymoon will last in a time of serious economic crisis globally? It may not be particularly long. It is really important to offer him as much support as possible and to try to lock in progress when it is most feasible.

The practical experience from all of the classes of inhumane and indiscriminate weapons that we have either abolished or are substantially on the way to abolishing is that uniformly what has in the end done the job has been a comprehensive treaty framework. It started in various ways, with Canada, for example, and Norway respectively becoming the first governments to substantially support the landmines and cluster munitions treaties. That was initially criticised for not involving the major players, but all involving a process that led to comprehensive treaties, which are having major effects even on those states that are not parties to them.

It is very difficult to put a jigsaw puzzle together with many different complicated interrelated pieces without knowing what the final picture actually looks like. It is very difficult to get somewhere if you do not have a roadmap for how to get there. We believe a nuclear weapons convention with a comprehensive treaty approach provides the best framework for doing that.

Let me outline some of the developments that indicate that interest in a nuclear weapons convention is growing and is a really viable political approach. When non-government groups, medical, legal and scientific, updated the Model Nuclear Weapons Convention in 2007 it was

very easy to convince the governments of Malaysia and Costa Rica to sponsor its submission both as a formal NPT PrepCom document in Vienna in 2007, and then also as a General Assembly document. It is now a formal UN document translated into the six UN languages. It has also been translated into Japanese and Norwegian. The annual resolution in the UN General Assembly that argues for early commencement of negotiations on a nuclear weapons convention achieves support from the majority of the world's countries—135 in total. One can argue that talk is cheap, but that provides a significant opportunity and base which can be built on. I particularly mention a couple of nuclear weapon states, including two outside the NPT—India, Pakistan and China—voted for that treaty. India has repeatedly issued an open invitation and made explicit statements. In our world congress in Delhi last year the vice-president made a very explicit statement about Indian support for a nuclear weapons convention. That was repeated at the Munich conference just a couple of weeks ago by the Indian National Security Advisor, challenging others and saying essentially, 'Are we the only nuclear weapons state that supports this treaty approach?' It is an important door to be pushed at, hopefully without too much resistance.

As Dr Wareham mentioned, the UN Secretary-General, Ban Ki-moon, in his first major and very important disarmament speech a couple of months ago, specifically flagged the nuclear weapons convention in his first priority. In urging countries to fulfil their obligations for disarmament under the NPT he said:

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

This is commendation at the highest possible level internationally, and for Australia, with a welcome commitment to be a much more actively engaged multilaterally committed, middle power, diplomatically much more active nation, this is also an invitation to support the Secretary-General and promote this approach.

There have been other approaches through parliamentarians. On the day of that speech, the Parliamentary Network for Nuclear Non-proliferation and Disarmament had a major forum in New York, including former Australian Ambassador Richard Butler, to try to discuss how that might be progressed.

The Middle Power Initiative organises regular forums on the Article 6 obligations of the NPT. The most recent one at the end of January was hosted by the German government in Berlin. It had a dedicated panel on the nuclear weapons convention, with active engagement particularly from the German and British governments. The European Parliament in July was presented with an endorsement of the approach of a nuclear weapons convention, which was attached to the ICAN submission, and which I commend to you. It was signed by MPs from almost every European country—cross-party—with more than 100 European Parliamentary MPs saying that the nuclear weapons convention is the way to go and that it does not conflict with but fulfils the obligation and can incorporate, reinforce and link with existing treaties, including the non-proliferation treaty.

On Monday more than 300 prominent physicians globally issued an appeal to Presidents Obama and Medvedev on the eve of the Prime Minister's visit with President Obama. It includes four recent Australians of the Year and one of Australia's living Nobel Laureates in Medicine. Gus Nossal, Fiona Stanley, Peter Doherty and Ian Frazer were among the signatories of that letter. Among other things, it was calling for early commencement of negotiations on a nuclear weapons convention. This initiative has the highest of support in my profession.

I would argue that a comprehensive approach that clearly is aimed at zero is not just intellectually but morally and politically compelling. It is probably the only thing that is going to be sufficiently credible with the non-nuclear weapon states to want to keep their side of the bargain of the NPT. I think that is a really critical point. Anything less than a clear roadmap to abolition, whether it is pitched as a vantage point, a base camp, a minimum; however it is put, anything less than zero is simply not going to be politically compelling or inspire people sufficiently to really have traction.

There is one interesting experience I want to close with. I believe that the first negotiations on a Model Nuclear Weapons Convention in the world were conducted—chaired by myself actually—with students from the University of Hamburg and the technical university in Darmstadt in Germany on the periphery of the NPT PrepCom last year. The students took it very seriously. They spent the PrepCom talking to the national delegations whose personas they were to take on in the model negotiation. They did their homework so diligently that the negotiations collapsed, despite my best efforts as chair. Business as usual ain't good enough. In the new thinking that is required on how we prepare for a nuclear weapons free world, I would strongly urge the committee to look at the merits of a comprehensive approach, the same way that Australia played a leading role in the chemical weapons convention. Why shouldn't the nuclear weapons convention eventually be known as the Canberra convention, the same as we have the Ottawa convention and the Oslo convention? Thank you.

**CHAIR**—Dr Green.

**Dr Green**—I would firstly thank and congratulate the non-coalition senators for your report on the Howard-Putin agreement. I would like to invite the coalition senators to rethink your support for that agreement on the basis of the following two facts. Firstly, it is now an acknowledged fact that there has not been one single IAEA safeguards inspection in Russia since 2001. Secondly, there is now agreement that there is no requirement whatsoever for there to be one single IAEA safeguards inspection in future under the provisions of the Howard-Putin agreement.

In support of that second fact I will quote a question on notice put by Senator Ludlam to ASNO, the safeguards office. The question is: was there any requirement under Howard-Putin for there to be any IAEA inspections in future? The answer from the safeguards office, ASNO, is: the Australia-Russia nuclear cooperation agreement does not contain any such requirement. Again, I would ask the coalition MPs and senators to rethink their support for the agreement, given that the safeguards arrangements could hardly be weaker.

The problems with safeguards are not limited to Russia. They apply globally. Hence the importance of this inquiry. In fact, I would contend that the issue of safeguards, uranium and weapons proliferation is too important for this inquiry, given the scope of your terms of

reference and the tight timeframe that you are operating under. I would ask this committee to consider recommending that a separate dedicated inquiry be established by the government to look specifically at the issue of uranium safeguards and weapons proliferation risks. That could be carried out by this committee or by some other forum.

The centrepiece of safeguards are inspections by the IAEA. Those inspections are periodic and partial. It is essentially an audit rather than a comprehensive evaluation of all facilities and stockpiles. At best, safeguard inspections are periodic and partial. At worst, they are cursory as in China or non-existent as in Russia. In addition to partial and periodic inspections there are safeguard activities such as conventional video monitoring and environmental sampling, but these activities can at best detect proliferation after the horse has bolted. There are other safeguard activities, such as real-time 24-7 video monitoring, which are welcome, but they are the exception rather than the rule. Real-time video monitoring certainly is not a requirement of Australia's bilateral uranium export agreements. Other aspects of safeguards are of limited value, for example, getting reports of nuclear materials accountancy from Australia's customer countries. That is of limited value for the obvious reason that any country diverting Australian obligated nuclear materials is hardly likely to acknowledge that diversion.

The Australian Uranium Association claims that 'Australian uranium has not been diverted from peaceful purposes'. That is an indefensible assertion from the AUA. We simply do not know whether Australian uranium has been diverted for weapons production and neither does the AUA or the safeguards office. We would hope that customer countries would have some knowledge as to whether there has been any diversion, but even in Australia's customer countries there can be widely divergent knowledge and views between national governments, on the one hand, and nuclear utilities and nuclear research agencies on the other hand. South Korea is a clear-cut example of that last point.

We do not know whether Australian uranium is being diverted, but we do have lots of facts to hand, a lot of which are quite alarming. We do know that there are routine accounting discrepancies, known as 'material unaccounted for'. We do know that Australia has never once prohibited the stockpiling of Australian obligated plutonium—its separation from spent fuel and the stockpiling of plutonium. We do know that Australian obligated plutonium has jumped quite significantly in recent years and now amounts to 1.3 tonnes, which is enough for 130 nuclear weapons. We do know that Australia sells uranium to nuclear weapon states and to states blocking progress on the CTBT, the fissile material cut-off treaty, and so on. We do know that Australia does not even require that all facilities processing Australian obligated nuclear materials are subject to IAEA inspections, let alone that those inspections actually occur or that the inspections occur frequently.

The Australian Uranium Association makes some elementary factual errors in its submission. It asserts that weapons grade plutonium is not produced in commercial power reactors. In fact, it is produced in commercial power reactors as a routine aspect of their operation. After some weeks and months you have weapons grade plutonium. In the normal course of events that will be degraded to reactor grade plutonium over a period of time. It is certainly produced in commercial power reactors as a routine aspect of the operation of those reactors. It is also quite simple to produce very large volumes of weapon-grade plutonium in power reactors. It could hardly be simpler. You simply reduce the irradiation time from some years to some months, and there you have it—large quantities of weapons-grade plutonium.

The AUA also asserts that to be usable in weapons, uranium must be enriched to over 90 per cent uranium 235. That is plainly false. The South Africans were using uranium enriched to about 80 per cent, and theoretically you could use uranium enriched to as little as six per cent, although that would be entirely impractical—that is the theoretical limit. There is that whole grey area between South Africa on the one hand at 80 per cent, six per cent as the theoretical minimum, and so a country with, for example, 50 per cent enriched uranium could potentially use that material for a nuclear weapon. It would be quite a clumsy and bulky nuclear weapon, but it could be done.

Lastly, there is the secrecy associated with Australia's uranium agreements. There were several examples of this. Firstly, we are not given country-by-country information on the stockpiling of Australian obligated plutonium. We know that it is stockpiled in Western Europe and in Japan, but we ought to have details on which countries are stockpiling and how much. Secondly, there are the administrative arrangements that accompany bilateral uranium agreements. It sounds like nuts and bolts stuff that we do not need to know about, but in fact those administrative arrangements are crucial and ought to be made public. Thirdly, there is material unaccounted for. We are not given information on those figures, and that is indefensible. Fourthly, the quantities of Australian obligated nuclear materials held in each country is confidential, and ASNO acquiesces to that secrecy. Fifthly, there are provisions in some, if not all, of Australia's bilateral uranium agreements for secrecy on the basis of state secrets or national security and those provide loopholes that limit our confidence in safeguards agreements.

One final example concerns the secrecy regarding investigations of suspected breaches of safeguards agreements. Essentially, there is a protracted and secret process between the IAEA and the country in question. Australia is not privy to those deliberations, even when we suspect that Australian obligated nuclear materials might be involved.

All of Australia's uranium exports agreements are shrouded in many levels of secrecy and I would invite the committee to make some strong recommendations to address this situation. I know that the committee's recommendation into the Howard-Putin agreement said that the issue of secrecy of material unaccounted for should be further investigated and considered by the government, and I would invite you to make a much stronger recommendation that those figures should simply be released, because we know there is no justification for that secrecy. It is simply convenience on the part of the Safeguards Office and the uranium companies. I am particularly keen to discuss further the issue of Australian obligated plutonium, but I will leave that for the discussion period.

**CHAIR**—Thank you. Reverend Doctor Campbell.

**Rev. Dr Campbell**—Thank you very much for including me in this conversation and I would like to add my voice of congratulations to the government on this inquiry being held. While it is true that I am making a personal submission, I have been involved in Uniting Church discussions since 1982 and earlier, and there has been consistent Uniting Church attention to these issues. I am aware that Elenie Poulos in Sydney will make the formal Uniting Church submission. What I am attempting to do in my submission is to raise fundamental conceptual questions that I believe undergird much of the discussion we have heard. That is because I believe the fundamental character of nuclear weapons needs to be taken into account as the basis for any consideration of treaties concerning non-proliferation or disarmament.

What I am trying to do is take a theological view. I would argue that a theological view holds that abolition must be the fundamental assumption for all work on these weapons. That means that, while it is important to consider pragmatic and utilitarian arguments, there needs to be a fundamental base from which this takes place. My argument would be that, if the fundamentally destructive character of these weapons is taken seriously, their abolition must be the presupposition and the basis on all treaty making and discussion for disarmament. In fact, I think the word 'weapons' is seriously understating the case. We need to find something that describes much more clearly the mass character of destruction produced by these means. Another way of describing them would be 'means of mass destruction'.

I am convinced that the so-called realist stance that argues that nuclear weapons exist and therefore it is necessary to learn to live with them in a nuclear balance is unsustainable. It runs with such danger; nevertheless, it is certainly in opposition to the case that I am putting. My approach is informed by Christian theology, but I do not believe that means it either disqualifies it from these discussions or is just a sectarian view. I think it can assist the whole community to clarify our common mind. If people are unhappy with the word 'theology' we could talk about ontology and an ontological approach.

Simply put, the destructive character of these weapons in production, testing and use is in effect the unmaking of created life. The annihilation at work here serves the nihil—the nothingness. It gives up the human responsibility for fostering life and preserving the planet for future generations. Learning to live with such threat serves to diminish and destroy the human spirit.

In my submission I remind the panel that since 1945 the church, in both international councils as well as in a whole variety of countries and traditions, has repeatedly resolved against the nuclear means of destruction. I want to draw on the two traditions that have informed this opposition, the first being pacifism and then the second being 'just war'. The pacifist approach, of course, is against violence and war in principle and therefore opposes nuclear weapons along with all other weapons. The just war tradition, though, is coming under greater scrutiny because no-one has really ever adopted the just war principles. However, if applied rigorously, the tests for the conduct of a just war show that the use of nuclear weapons cannot be sustained. There are two tests that belong within the range of questions that are put within just war doctrine. These two would show that nuclear warfare is not permissible.

Firstly, the violence used in war must be proportional to the injury suffered. States are prohibited from using force not necessary to attain the limited objective of addressing the injury suffered. Secondly, the weapons used in war must discriminate between combatants and non-combatants. Civilians are never permissible targets of war, and every effort must be taken to avoid killing civilians. The deaths of civilians are justified only if they are unavoidable victims of deliberate attack on a military target. Clearly here we are talking about mass warfare that is not simply nuclear but which addresses the impact of nuclear destruction.

I would argue that a theological view also understands that nuclear weapons are not to be viewed in isolation from the process of destruction with the risks and costs of radiation and the economic costs of producing and maintaining these weapons. We have heard the arguments earlier regarding such things. We are not talking about nuclear weapons in abstraction but must really consider the whole cycle and the human agony that is being produced here and is

continually produced from radiation through to the results, even now, from Hiroshima. The human agony that is being produced can have no justification. It is worth considering what costs there are to civic life and to statecraft because the secrecy, deception and fear associated with this complex of production and threatened use also have profoundly distorting effects on our civic and communal life.

In conclusion, there are two other considerations, which I also named in the submission—the issue of human rights, and ecology. If we were to take seriously the charter on human rights, to consider that nuclear weapons are usable is entirely in contradiction to any charter and understanding of human rights, particularly those which seek to protect children. Any means of destruction and threats to destroy humanity is in basic opposition to such rights.

With reference to ecology, humanity exists in complex coexistence with other life. Human actions which employ such means of destruction of irradiating a planet, destroying other species and ultimately threatening the future planet do not deal merely with the human question, it is really looking at the whole ecological issue and bears on all life.

Just to reiterate, I submit that any process of inquiring into the process of treaties for non-proliferation and nuclear disarmament must take as its first principle the unacceptability of these weapons, and the underlying assumption will therefore be the necessity of seeking urgent and universal abolition of all nuclear weapons.

**Mr BRIGGS**—I thank you all for your contributions to the discussion. Dr Wareham talked about the challenge of climate change and a few people have reflected on it. China and India are developing very quickly. They are obviously using nuclear energy, which is reducing the impact on the amount of carbon that they are emitting in their development. Do you think it is a good or bad thing that they are using nuclear energy?

**Dr Wareham**—That is a question that comes up often. There are some assumptions in what you stated which we would not agree with for a start, although I will not dwell on those. I think you stated that nuclear energy reduces the amount of carbon that is emitted by our energy use generally.

**Mr BRIGGS**—It does.

**Dr Wareham**—A number of us here would disagree strongly with that statement, if one takes into account all of the phases involved in the production of nuclear energy, right from the uranium mining here in Australia or elsewhere, uranium milling, enrichment processing, the transport in all of those phases, the decommissioning at the end and the waste that we do not know what to do with—all of those stages involve energy and they are mostly fairly carbon intensive processes. We would disagree with you on that point.

When we look at energy use, whether it is by Australia, India or China, it is often compared with coal. We talk about nuclear being better than coal because it does not put out so much carbon, but lost in the equation is the role of renewable energies and energy efficiencies. It does not matter which country we are talking about, including India and China; these things have not been given the recognition that they need, although China is probably doing better than Australia

in that respect, in that China is focusing more on renewable energies. But even in India and China there is a big role for renewable energies and for efficiencies.

We would make the point, too, that an expansion of nuclear energy in these two particular countries is probably the last thing we want, given that they are both nuclear armed. We know from evidence that has been presented that we do not have assurance in those countries that the civilian and military nuclear sectors are kept separated. We would argue that there is an even greater imperative to phase out nuclear power for those countries.

**Ms PARKE**—Carrying on from that point, your submission and indeed many submissions have pointed out the link between the development of a nuclear power capacity, the capacity to produce fissile materials usable in nuclear weapons, and the inherent tension with the NPT article concerning the inalienable right of countries to develop nuclear energy, and also the IAEA's mandate to promote nuclear power, and in Australia ASNO's mandate to promote use of nuclear power. How feasible do you think it is to wind those back and to review the NPT right to develop nuclear energy? What is your view of the idea of an international enrichment facility as an alternative?

**Dr Wareham**—It is entirely feasible. Like most of the issues that we are discussing, it is a matter of the political will. There are no technological or other reasons why Article 4 of the NPT cannot be reviewed, challenged, revised and so on. It is a matter of member states such as Australia determining that is what is needed.

One of the compelling arguments in favour of doing that is the example of Iran. The example of Iran has caused a lot of tension, as we know. Iran's nuclear program has been used to up the ante against Iran. Under the previous US Administration there were serious concerns that the situation possibly could have developed into warfare. Under the current administration that seems much less likely, of course. I think this shows the degree to which governments, if they wish, can manipulate situations so that a nuclear program can become a point of contention, as the previous US Administration wished to do in relation to Iran.

We see the IAEA's dual roles of both promoting nuclear power and also promoting nuclear disarmament as being incompatible for all the reasons that have been mentioned. With military and civilian nuclear fuel cycles it is very difficult to separate them, and to know that they are separated where they both exist. For the IAEA to have those dual roles really is placing an impossible burden upon the organisation. What we would advocate at the NPT review in 2010 is that the mandate of the IAEA be reviewed so that it is no longer in the game of promoting nuclear power, it is solely looking at the goals of nuclear non-proliferation and disarmament. I think that would strengthen the NPT, because the example of Iran, as others, is one of the factors that is undermining the NPT.

**Ms PARKE**—Is the statute of the IAEA part of the NPT or is it separate?

**Dr Wareham**—The IAEA was set up as the means by which the NPT would be enforced.

**Ms PARKE**—It is part of the NPT Review Conference as well?

**Dr Wareham**—Yes.

**Ms PARKE**—I thank all the contributors for your submissions today. It has been very interesting. We have a lot of material to work with. Professor Langmore, thank you for your submission, in particular for including the poem by Judith Wright, especially the line, ‘In one stroke we win the world and lose it.’ I think that sums it up. You have suggested that Australia could advocate for the holding of a forced special session on disarmament. Could you expand upon how this would fit in with Australia’s other efforts in this area?

**Prof. Langmore**—When the commission has finished its work it will make a whole series of recommendations, and they have to be considered by governments, but really they have to be considered by the international community as well. The most comprehensive and most inclusive forum is the General Assembly and it would make absolute good sense for the commission report to be presented to the GA and discussed there. The recommendations that the commission will make can be debated and negotiated there. It would not automatically be easy to get agreement on all of them, but it would provide the best possible global forum. ‘Best possible’ in the sense that it has legitimacy and comprehensive membership for a discussion like that. To the extent that agreement can be achieved, it means that the global community is locked in to the recommendations that are being proposed.

It is very important to do that. That is not to say that it is going to be automatically easy or straightforward, but the lack of such a discussion has greatly weakened other reports like the commission report. The Canberra Commission report was not tabled at the UN. The Blix commission report did not have a global forum to discuss it. Both of those are excellent reports and have had some influence on opinion but no influence on global policy. It is very important that we learn that lesson.

**Senator BIRMINGHAM**—Professor Ruff, thank you for a very clear presentation today in presenting some of the challenges and hurdles, as well as the idealism. In your submission you have a statement regarding the four unofficial nuclear weapon states—Israel, India, Pakistan and North Korea—where you say that repeated calls, including by Australia, on these states to accede to the NPT as non-nuclear weapon states are unrealistic and counterproductive. I am taking it from that that you think the new frameworks and nuclear weapons conventions you discussed are a better chance to bring such states into the fold. In doing so, are we really looking for a new world in which we say, ‘The NPT was constructed on a paradigm and a situation of 40 years ago. It served us very well for maybe 30 of those 40 years and the ship has sailed in the last 10. We now need to adjust to the realities of the situation that we are in, rather than trying to cling to making something that is potentially dysfunctional now fit a framework that no longer exists’?

**Prof. Ruff**—That is a complex question and you have obviously provided some significant insight to its answer. I think the NPT is clearly important. There is no doubt it has curbed nuclear proliferation. Lots of experts were suggesting that there would be tens of nuclear powers by the end of the treaty’s 25-year life originally when it was signed, and that did not happen. It also enshrines a binding legal obligation on the recognised five nuclear weapon states for disarmament, which I think is important. Clearly, it has been the architecture for the international safeguards regime, which although limited in its effectiveness is an important base on which to build and which needs to be strengthened.

Particularly in relation to disarmament, the NPT was only ever viewed in temporary terms: ‘The problem is going to be dealt with in 25 years.’ It has no organisation. It has no implementation mechanisms. There is no timeframe. There is no program for disarmament. The IAEA, in a sense, administers the Article 4 obligations, but there is nothing to deal in detail with disarmament. It is simply incomplete and bereft in that regard.

There are two things that I would like to say about important misconceptions with the nuclear weapons convention approach. The first thing is that the model that we have prepared is not in any sense intended as being, ‘This is the deal. Either take it or leave it.’ This is not intended in that sense. It is intended as a best effort to highlight some of the aspects of what a convention could look like, but it particularly makes the point, quite compellingly, that this is possible to consider, and that the lessons that have been applied in the successful implementation of verified nuclear disarmament treaties that we have—START and the INF treaties, for example—and the lessons from other weapons types that a convention approach has worked; it is simply applying those to nuclear weapons and saying, ‘Here’s a reasonable place to start.’ It still seems to be the best place to start. If it is not the best place to start, tell me what is.

I think the idea that somehow a blank slate has to be drawn and that all of the current architecture, some of it pretty important, should be discarded and we should start again from scratch and negotiate a nuclear weapons convention is not what I have heard anybody that either developed it or is advocating it suggest. I see it very much as fulfilling the obligation of Article 6 in part, and subsuming the NPT, but going broader with a detailed program of work.

I think the fact that a number of the nuclear weapon states outside the treaty have voiced support for that approach consistently over a long period provides a door that needs to be pushed to get them involved. The requests that many countries repeat that they should just accede to the NPT as non-nuclear weapon states is simply not going to happen. They are not going to put their nuclear weapons aside and say, ‘Sorry, we were wrong. We want to be part of the club now.’ It is just not going to happen.

The two options are either to continue to make completely unrealistic requests, which I think are fruitless, or to try to induce them in some other way to accede to the treaty, which is going to be more difficult now that India has been afforded nuclear commercial privileges and access that normally would have been confined to NPT member states. It is going to make that harder. The alternative would be to recognise them as nuclear weapon states in some way to embrace them in the treaty. But it seems to me that there are so many other compelling reasons why a nuclear weapons convention is a good idea that to me it seems the most effective way of addressing those states that are currently outside of it but that everybody recognises have nuclear weapons.

**Senator BIRMINGHAM**—The comments you made in your opening statement regarding India’s statements about willingness to talk about the possibility of a nuclear weapons convention are interesting and it might be helpful for the committee. We can look them up ourselves. If you have them to hand, perhaps you can take that on notice and provide them to us at a latter stage.

**Prof. Ruff**—Yes.

**Senator BIRMINGHAM**—The idea of subsuming the NPT is where my question was premised. I am pleased to hear you say that. I think you have done that which not a lot of others have done. They have referred to the 13 steps from the 2000 review. You have actually provided a summary of the 13 steps, which is very useful. I note that they propose a framework, in a sense, for taking the pathway towards disarmament out of the NPT review framework and shifting it to the conference on disarmament and so on. Do you think that is an appropriate mechanism or should we be advocating for an even more specialised mechanism in which to pursue discussions around a possible new treaty?

**Prof. Ruff**—I would have to say that I do not have any really firm views about what would be the best forum. Lots of potential fora can be considered and could make a useful contribution. The initiative that Australia has undertaken with Japan for the International Commission on Nuclear Non-proliferation and Disarmament is a useful approach. The special session that Professor Langmore has mentioned with the UN General Assembly is another approach that could be very helpful to try to raise the issues, to discuss them, be inclusive and comprehensive, and provide some sense of ownership and obligation on the member states that contribute.

If one looks at the lessons of the landmine, cluster munitions and other recent treaties, it has largely been outside the official UN fora that the most fruitful negotiations have begun, and then been brought back in. The last thing that the Conference on Disarmament negotiated was the CTBT. Because of the paralysis of the CD that relates to its consensus decision-making requirement, it could not be passed in the CD, and was then taken by Australia to the General Assembly. I guess I am a bit nervous about the CD given its non-productivity. It has produced nothing useful in the last 10 years and it has been talking about a fissile material cut-off treaty for all of that time and produced essentially nothing—not even an agreement about how to proceed with an agenda. While it is hamstrung by that consensus requirement you would have to say it is not looking particularly like the most fruitful framework.

I would not want to be too prescriptive. I think multiple different approaches are important. Bilateral approaches, if there is significant agreement between the Russians and the Americans to reduce their nuclear arsenals dramatically, to de-alert and to collaborate in securing fissile materials globally as President Obama has committed to do, and removing highly enriched uranium from civilian commerce—if all of those things happen, those bilateral or even unilateral steps could also make a very significant contribution to a more fertile and productive international climate and some political momentum. I would not want to prescribe any particular forum, particularly one like the Conference on Disarmament, which has a pretty poor track record in recent times.

**Senator BIRMINGHAM**—Thank you.

**Prof. Langmore**—Chair, can I just make a point in relation to Ms Parke's question?

**CHAIR**—Yes.

**Prof. Langmore**—One is that it is perfectly reasonable for the committee to propose to the government that it table the report and the recommendations from the committee at a General Assembly special session on disarmament. That would be one way of getting wider coverage for your recommendations and giving them some international influence. Secondly, one significance

of the General Assembly is that it can make decisions with two-thirds majority, whereas the Conference on Disarmament has a unanimity rule, which makes it very difficult to operate.

**Senator LUDLAM**—I have a couple of questions for different witnesses. Dr Wareham, in your opening statements you mentioned that you thought ASNO deserved a serious review. Can I tease out your reasons for believing that?

**Dr Wareham**—A number of organisations and individuals have had major concerns about ASNO for quite some time in Australia, and Dr Green has outlined a number of them. In summary, I would say that the major concern is that we do not get the information that we need from ASNO. The Australian community, parliament and decision makers do not get the information that is needed from ASNO. The information that is provided by ASNO often is wrong and can be very misleading. It has been particularly falsely reassuring in a number of situations, in particular on the treaty to sell uranium to China and the proposed treaty to sell uranium to Russia. The information that has come out of ASNO in relation to those treaties has been frankly extremely misleading. The concerns in relation to those treaties or proposed treaties have been highlighted mostly by non-government organisations. ASNO, frankly, is not doing its job.

One example of some of the false information that ASNO has put out includes: can reactor-grade plutonium be used to fuel weapons? The answer to that is, yes, and that is fairly clear from weapon scientists around the world, including senior ones. Yes, reactor-grade plutonium can be used to fuel weapons. ASNO says it cannot. They have no basis for saying that and yet ASNO consistently makes that statement. It is failing to inform the Australian people and decision makers about important issues. In addition, one of the concerns is having ASNO as part of the Department of Foreign Affairs and Trade that is aiming to promote trade. That is not the right place to have a subsidiary body that is trying to control our uranium trade and keep it out of weapons. There is a conflict of interest there.

**Senator LUDLAM**—We are seeing the Australian Uranium Association tomorrow in Sydney. They recently awarded the ASNO's Director-General with some kind of an industry promotion award, which I found entirely curious. Mr Noonan, I believe ACF has conducted polling on attitudes in the Australian population to uranium sales to nuclear weapon states. What were the results of that?

**Mr Noonan**—Late last year ACF conducted a national Newspoll. The findings of that national Newspoll were that 62 per cent of Australians opposed the export of uranium for use in nuclear power in countries with nuclear weapons that were signatories to the NPT. We are talking about our allies now, not the parties outside of the NPT. Sixty-two per cent of Australians were opposed, compared with 31 per cent in favour. It was a clear two to one majority. The Newspoll checked a majority of Australians in every state. It included three out four Australian women. Seventy-three per cent of Australian women opposed the export of uranium to countries with nuclear weapons. It included one in two males. It was a very strong outcome in Newspoll's consideration in terms of the clear majority against the export of uranium to nuclear weapon states. It included some 40 per cent of Australians opposed to the export of uranium to any state, but added then an additional 22 per cent of Australians opposed to the export of uranium to countries with nuclear weapons. It was specifically opposed to that. There is a majority of Australian opinion then that Australia should not be exporting uranium to countries with nuclear

weapons. That is a very strong lever and a very strong driver for how your committee could view the strength, for instance, of a parliamentary motion for nuclear disarmament. We believe it is a very strong measure in which ASNO should be representing the Australian opinion and putting the strongest possible measures of safeguards on the sale of Australian uranium to those countries. As the ACF, we believe that all the nuclear weapon states are failing to honour their NPT nuclear disarmament obligations. If we took nuclear disarmament as seriously as we say we take non-proliferation, we would not be selling uranium to those countries. If there was a non-proliferation breach, ASNO would have a clear order of events in which they would respond and that would bring it through to the point of Australia withdrawing supply of uranium from a country that was involved in a non-proliferation breach under the NPT, but for decades we have allowed the nuclear weapon states to continue to ignore the nuclear disarmament obligations.

By ASNO and others it is unfortunately misleading that they should suggest that a reduction in number of warheads is realising nuclear disarmament. It is not. It is a move in a positive direction, but we have heard the US and Russia talking about reducing the number of warheads down to about 1,000. We have also heard the Russian President Medvedev commit to strengthening their strategic nuclear forces and spending some tens of billions of dollars to make nuclear war fighting more effective at that 1,000-warhead level. Realising a reduction only in nuclear warhead numbers is not our aim. Abolition is the aim. ASNO should be reflecting that aim, but also the view of the majority of Australian against the sale of uranium to nuclear weapon states.

**Senator LUDLAM**—Thank you. Professor Ruff, I would be interested in your views on ASNO as well, but I wanted to pick you up on something that you put in your submission. In your submission you asked, ‘How can Australia best align its nuclear related military, foreign and domestic policies so that they are synergistic, rather than fragmented and conflicting?’ Can you have a crack at answering that question for us?

**Prof. Ruff**—Yes. I think Australia is in some ways in a difficult situation and an inconsistent position. If, as we argue—and I very much welcome and all of the civil society groups in this room strongly support—Australia is serious about its support for nuclear weapons abolition, there are certain implications of that. At some point all of our ducks should line up. The ones that are not lined up with that is that, if President Obama is successful, say, and wins a second term of office and by the end of his first term of office there have been significant weapons numbers reductions in place with the Russians—highly enriched uranium is getting out of civilian commerce, nuclear weapons have been de-alerted by Russia and America, and a number of the other measures that he has committed to, securing fissile materials, no nuclear weapons production and development, as well as a new architecture for global nuclear energy—if there is significant progress towards that, as I believe we should be supporting and very much hoping, it is important that we play our role.

One of the things that Australia calls on—and I hear a lot on the NPT delegation and so forth, as I was last year and maybe again this year—is for nuclear weapon states to reduce the role of nuclear weapons in their security policies. If we are serious about that, we need to reduce the role of nuclear weapons in our own security policies. That means that at some point, sooner rather than later I would argue, the commitment to a world free of nuclear weapons does not square with claiming defence and foreign policies that are based on having extended nuclear deterrence by the United States as the cornerstone and the bottom line in Australia’s national

security. At some point if we stick with that position, are we going to tell President Obama, ‘We think you need to slow down a bit on disarmament. We want you to continue extended nuclear deterrence’? That is clearly a caricature of a position, but it highlights the tension that will inevitably arise, particularly if we see significant progress. I would argue that tension already exists. Further, like many others, we are concerned about Australia’s uranium exports occurring for relatively little commercial gain in a context where non-proliferation internationally is not under control and the regime is in serious trouble. As to confidence in the effectiveness of international safeguards to prevent the use of Australian uranium now and over the extraordinarily long geological timeframes for which this material will be weapons usable and dangerous, we do not have confidence in that capacity.

There will come a point when Australia’s commercial interests in selling uranium under inadequate safeguards will conflict with the need to control access to fissile materials as an essential non-proliferation and disarmament measure in achieving a nuclear weapons free world. I would argue that there would be merit in Australia taking on those particular aspects of its domestic policy sooner rather than later as a comprehensive approach to try to develop a consistent approach to nuclear weapons. I think that Australia should take a position that we strongly support international disarmament initiatives and really want to be engaged multilaterally, take new initiatives in that regard, and be a much more active player and contributor than we have been in the past. If we are serious about doing that, it would seem to me logical that a very careful review be undertaken of the other aspects of our policies that may be inconsistent with achieving a nuclear weapons free world.

The fundamental question should be: how can we prepare now and what do we need to do to prepare and help to pave the way for the achievement of a world free of nuclear weapons? I believe that is going to require us to look very long and hard at both our uranium exports and our policy for relying on extended nuclear deterrence. I would argue that examination should happen sooner rather than later.

**Senator LUDLAM**—Thank you. Dr Green, I would like you to explain in as non-technical language as you are able about minimum threshold quantities that are sufficient to build a nuclear weapon. I gather there is some ambiguity about what those quantities are.

**Dr Green**—You have defined significant quantities. One significant quantity is the amount that it would require to build one nuclear weapon. It might require some further processing before it is in a weapons usable form, but that is the definition. For plutonium it is eight kilograms. The problem is that you do not need eight kilograms of plutonium to build a nuclear weapon. It can be as small as three or four kilograms, depending on the plutonium grade and the sophistication of the weapons proliferator. We are basing all safeguard arrangements on unrealistic ideas about how much nuclear materials are required to fabricate nuclear weapons. That feeds directly into the issue of timeliness, because the timeliness depends on the amount of material that is produced. The idea is that the IAEA wants to be reasonably confident that it has detected a diversion of nuclear material before there has been enough time for that material to be converted into a nuclear weapon. They are both out of whack. The significant quantities figure is too high and they have unrealistically high ideas about how long it is going to take to fabricate nuclear materials into a nuclear weapon. That is the underpinning of the safeguards arrangements. Also, it needs to be pointed out that IAEA has its timeliness goals for inspections, but it does not meet them. It does not have the resources to meet them. As to how far it falls

short of meeting those timeliness objectives, that would be an excellent question for the committee to press the Safeguards Office on.

**Senator LUDLAM**—What would be the process for changing if that needed review and if it was agreed technically that was the case?

**Dr Green**—The process would be that we would make more realistic assumptions about how much nuclear material was required for weapons. We could say three or four kilograms for plutonium. For uranium 233, which is produced from thorium, it is eight kilograms. For enriched uranium it is 25. Those figures need to come down, and the effect of that will be that they have to have more frequent inspections. In order to have more frequent inspections they will need more resources and they will also need to overcome the political, commercial and sometimes even military objections and obstacles to a much more rigorous safeguards system.

**Mr Noonan**—One of the consequences of a recognition that the significant quantities and the diversion times are currently too high and realistic is effectively that you cannot safeguard a reprocessing facility, for instance, because the quantities of plutonium that may be indistinguishable from the normal operations of the plant and the amount of time it would take for a person to be aware that such a small quantity was absent would mean that a state could have diverted that material, and essentially a state that is a threshold nuclear weapons state could have realised the weaponisation of that material before the IAEA could intervene to attempt to stop that. You would not practise reprocessing and the separation of weapons usable plutonium in recognition of the lack of capability of recognising when it may have been diverted.

Contrary to the ASNO advice, Australia should get out of the program of allowing reprocessing. We should not allow any further production of weapons usable fissile material in the world. Australian obliged nuclear material that is weapons usable should not be allowed to continue in the world and we should bring all of that material that does exist under international control. The consequence of that is that there would be no reprocessing in future. The consequence of that recognition would be that there should be no MOX plutonium fuel cycle in future, and we would not be entertaining the development of breather reactors that would be producing such large amounts of plutonium, institutionalising plutonium fuel cycles in ways that would be contrary to the capacities of any international safeguards regime to respond.

**Ms HALL**—Mr Noonan, you may have partly answered this question in your last answer. In your presentation you emphasised the need for the doubling of financial assistance for the IAEA and also you stated that it was a necessity to take up nuclear security. Would you like to expand on the nuclear security issue, how that can be achieved, if it can be achieved, whether there is such a thing as nuclear security, and what our obligations are as an exporter of uranium? I think you have touched on that a little bit along the way.

**Mr Noonan**—Australia is the second largest uranium exporter in the world. We think we have a very significant obligation and responsibility to potential nuclear risks. Australia is deliberately maximising some of those nuclear risks, for instance, through allowing reprocessing and allowing the use of Australian obliged nuclear materials in plutonium fuels. Australia should be looking to minimising the nuclear risks that we face. We believe that nuclear risks are inherent in the nuclear fuel cycle, but we have an obligation to at least minimise those risks, to give the most resources to the agencies that would look to counter that risk, such as the IAEA, and to give

proper mandates to the IAEA. The public may expect that the International Atomic Energy Agency conduct inspections on not just safeguards but also on equal security and waste management. That is not the case. The IAEA is limited to inspections on safeguards and can only offer advice on nuclear security and advice on nuclear waste management.

Australia should be calling for that international inspectorate mandate on nuclear security to be taken up by the IAEA. In any case, Australia should be looking to put requirements in our bilateral nuclear treaties that address the nuclear security issue. Just as we have requirements that address safeguards and proliferation concerns, we should have requirements that address nuclear security, whether it is a terrorist risk to a reactor or a facility, or the risks that fissile material could be stolen and used on the black market by terrorist groups to make their own weapons—the non-state threat—or the simpler but perhaps broader threat that the radioactive waste that has come from the use of Australian uranium in the nuclear fuel cycle could be taken and used in a dirty bomb. It is very simple technology, and simple matters of access because of the lack of nuclear security in many of those nuclear fuel facilities around the world. That is very apparent in Russia. Australian obligator nuclear material could then contribute to a dirty bomb and have very significant destabilising effects globally in economic and social terms, and it would be an unnecessary manifestation of our not having exercised those responsibilities early enough.

**Ms HALL**—I do not know whether anyone else wants to add anything to that. The other issue that you raised was in relation to transparency measures. What sorts of transparency measures need to be put in place?

**Mr Noonan**—An obvious one would be that when an agency such as ASNO comes before the committee they are open as to what the state of play actually is with the practice of international safeguards. They could have told the committee about the lack of safeguards in Russia, for instance, and you could have had that in your first session and not had to realise that over the course of your previous inquiry.

**Ms HALL**—So, being accountable for the information?

**Mr Noonan**—The Australian government should be as open as it possibly can with the information that it already has at hand. That would be very informative to not only the parliament committee but to civil society's engagement in these issues. That transparency should include what they call the administrative arrangements or what might be called an MOU now, that come with the exercise of Australian bilateral uranium export agreements. As to the actual arrangements that apply in following Australian obligate nuclear material internationally, what are the rules of engagement at a reactor or at a nuclear fuel cycle facility in relation to the Australian material? How may those rules differ from what the IAEA would do there? The IAEA is not specifically following Australian obligate nuclear material. They do not have that mandate either. We are relying on their overall powers, which are limited and voluntary in terms of nuclear weapon states. We are relying on them, with an operational budget of half of what they need at best. Mohammed ElBaradei, the IAEA Director-General, has said, 'The budget for safeguards of my international inspectorate is about equal to the budget of the Vienna Police Department, the city in which I am based, but I have hundreds of nuclear facilities which I am supposed to safeguard.' It is a completely unrealistic rejection that the IAEA is fit for that purpose.

There are many examples where, with true transparency, we could test the veracity of the considerations being put before us; for instance, if we had made public the administrative arrangements that came with the proposed uranium sales to China, or if we had made public the administrative arrangements that may apply to proposed uranium sales to Russia or, to be honest, the administrative arrangements that apply to the existing 1990 Russia agreement, which does allow the processing of Australian uranium for on-sale internationally. Why do we not know what those administrative arrangements are? Your previous report No. 94 asked questions on secrecy and transparency in Russia, but those critiques apply equally to the existing 1990 agreement. ASNO holds that sort of information but it apparently chooses not to give it to your inquiry, nor to the Australian public, to come to an informed view.

**Ms HALL**—Dr Green, in your evidence you said that there this poor record keeping in relation to Australian uranium and stockpiling. Would you like to set out for the committee what form you think the record keeping should be and how it can be monitored to ensure that it is accurate?

**Dr Green**—We get reports from our customer countries saying they hold this much depleted uranium, natural uranium, enriched uranium and so on.

**Ms HALL**—What do we need to do?

**Dr Green**—As I pointed out, that is of very limited value, because the country that hypothetically diverts Australian uranium is not going to admit to the fact. We need verification, which gets us straight back to the IAEA safeguards system. Keep in mind that Australia has zero independent inspection and verification capabilities, so we are entirely reliant on the IAEA. We are lucky, in a sense, that the current Director-General of the IAEA is remarkably frank for someone in his position. It certainly makes for a stark contrast with the Australian equivalent. Dr ElBaradei says that their basic inspection rights are fairly limited, the safeguards system suffers from vulnerabilities, efforts to improve it have been half-hearted and, as others have mentioned, they are seriously underresourced. That is coming directly from the Director-General of the agency responsible for safeguarding Australian obligated nuclear materials.

There have to be vastly tighter inspections. You could make it a condition of Australian uranium exports that there is full-scale application of each and every possible safeguards technique available. That includes very regular inspections. It includes real-time 24/7 video monitoring. It includes regular routine environmental sampling. It includes a range of other techniques as well. That would be a minimum condition. I am not sure whether you asked about it, but I am going to tell you about Australian obliged plutonium, anyway.

**Ms HALL**—I definitely asked about that.

**Dr Green**—Others have mentioned this. It is arguably the most damning single fact about the civil nuclear industry that stockpiles of separated civil plutonium have increased year after year, decade after decade, and now amount to at least 270 tonnes, which is enough plutonium to build about 27,000 nuclear weapons. That is damning and alarming, firstly, because of the size of the problem, but also because it is easily redressed. To redress that you would simply reduce or suspend reprocessing operations until such times as those separated plutonium stockpiles were drawn down. You have a big problem and a simple solution, which is way too much for the

nuclear industry to achieve. We get no support at all from John Carlson and others, and no attempts to have this problem redressed.

That is the global problem. In Australia we can certainly do something about Australian obligated plutonium, if there was the political will. I mentioned that Australian obligated separated plutonium now amounts to 1.3 tonnes and that has doubled in the past few years. That is enough plutonium to build 130 nuclear weapons. We should simply refuse permission for any country to reprocess Australian obligated spent fuel and to separate that plutonium. That is a simple step. Not least among the problems here is that we allow countries such as Japan to stockpile Australian obligated plutonium when Japan is the last country that should be allowed to do that because it has such a disgraceful plutonium policy and program. It is swimming in separated plutonium already without us contributing to that problem.

This problem goes way back. In 2002 there was a small but growing bomb lobby in Japan, which needs to be pointed out. In April 2002 the then leader of Japan's Liberal Party said Japan should consider building nuclear weapons and suggested a source of fissile material:

It would be so easy for us to produce nuclear warheads. We have plutonium at nuclear power plants in Japan, enough to make several thousand such warheads.

This problem of Japan's plutonium program was also addressed in diplomatic cables from the US back in the mid-1990s and in a March 1993 diplomatic cable from the US Ambassador in Tokyo, Warren Christopher, which stated:

Can Japan expect that if it embarks on a massive plutonium recycling program that Korea and other nations would not press ahead with reprocessing programs? Would not the perception of Japan's being awash in plutonium and possessing leading edge rocket technology create anxiety in the region?

That was 1993. Since then the stockpiles have grown dramatically. The political and military situation in North-East Asia has deteriorated significantly, and Australian obligated separated plutonium has doubled. We still allow Japan to stockpile that plutonium. We have never once refused permission to Japan or any other country to separate and stockpile plutonium, which is totally indefensible. I would strongly urge this committee to do something about it. The simplest and strongest recommendation would be to recommend that there be no further permission given to separate plutonium from spent fuel by any of Australia's uranium customer countries.

**Ms HALL**—Thank you.

**Rev. Dr Campbell**—I would like to make a linguistic point. A lot of the language in the discussion normalises the existence of weapons. The language of security was a good point, that is, to talk of nuclear security is in fact dealing with a situation where there is heightened insecurity. Every number of decades that insecurity breaks out and then you have a popular movement against nuclear weapons, but then there is this sort of amnesia that sets in again. A language that disguises the reality of that threat is important to uncover. I would encourage the committee, when using the language, to put the spectacles of suspicion on and to ask: are we really talking about nuclear security or a fundamental insecurity? I raise the question of the language of weapons, which is similar. I think that suggests we are dealing with something that

arises out of a long military history and has limited effects, when we are talking about something remarkably different.

**Ms HALL**—You are making a really good point. By our use of language we can actually change what we are dealing with when we are looking at this issue.

**CHAIR**—Reverend Campbell, you talked about the Christian theological arguments supporting or making up the case for abolition of nuclear weapons. I appreciate that I might be taking you outside your area of expertise or comfort zone, but what do you think about other theologies or other religious convictions? Do you think they also support a case for abolishing nuclear weapons?

**Rev. Dr Campbell**—There are clearly Christians who have supported the existence of nuclear weapons, either for practical reasons, that is, mutually assured destruction, or because they believe that nuclear weapons belong to something like God's will that is to bring on the end times.

**CHAIR**—I was asking about other religions/convictions.

**Rev. Dr Campbell**—It would be good for the committee to explore that with other traditions. I do not think I should claim to speak for them.

**Prof. Langmore**—The Medical Association for the Prevention of War in Melbourne had a very interesting dinner speaker, Richard Tanter, who was discussing nuclear power in Indonesia and reported to us that a group of Islamic leaders had met to debate exactly that question in relation to nuclear power and had decided that its use was inconsistent with their faith. I think he has put in a submission to the committee and you might be able to ask him about that. It was quite a striking conclusion.

**Rev. Dr Campbell**—I am aware of a movement in the United States that includes multi-faced leaders who are themselves active against nuclear weapons. I am trying to draw the name back and I cannot get it. It uses 'faith' in the title. I will find that and let the committee know.

**CHAIR**—That would be good. Professor Langmore, when we heard from Gareth Evans he said that the 'nuclear weapons convention is an attractive proposition, but the notion of even negotiating a starting point treaty that enough countries are satisfied with to get out and seriously endorse will be a labour of Hercules'. Do you have any thoughts on how you overcome the obstacles?

**Prof. Langmore**—My understanding of Mr Evans's position is that he is in favour of a nuclear weapons convention as a long-term goal, and he sees a lot of incremental steps along the way. I would agree with him about that. As in this booklet that I referred you to, the complexity of moving from where we are to zero is an enormous labour, but one of the great attractive features of Perkovich and Acton and others who have written about it is that they describe quite concretely the steps that would be required. They include, for example, very strikingly building up the International Atomic Energy Agency and the inspectorate service so that it could verify not only what countries are reporting but also examine things they might not be reporting. Both are necessary if countries were going to have confidence that steps as promised/negotiated were

being taken. I do not think it is an exaggeration to say that it is a major/huge task, but I do think that does not mean it is impossible.

**CHAIR**—I would like to tease out this step-by-step approach compared with what you might call the comprehensive approach to a nuclear weapons convention. The ICAN submission talks about the advantages of a comprehensive approach and the nuclear weapons convention compared with step by step. Professor Ruff talked about needing to have the final picture in order to work on a jigsaw puzzle. Do you have a view about that?

**Prof. Langmore**—I do not see the two approaches as inconsistent at all. If you were going to adopt the goal of a nuclear weapons convention as the 135 states that voted in favour of it in the General Assembly do, then you still not only have to negotiate the convention itself but you are most unlikely to succeed in that negotiation without the confidence building measures that a step-by-step approach involves. One is a negotiating task; the other is a political confidence building approach, and they are absolutely mutually reinforcing.

**CHAIR**—We have about 10 minutes left. I said I would give witnesses the opportunity to make closing remarks. We have covered a lot of ground and some witnesses gave quite comprehensive introductory remarks so it is not mandatory, but if people have things they would like to say in conclusion then here is the opportunity.

**Mr Noonan**—The Australian Conservation Foundation certainly wants to see the most possible progress towards the 2010 NPT review. We also believe that there are Australian obligations and responsibilities that cannot be put aside in regard to that timeline or certainly not put aside in any longer term.

Australia should act decisively to disallow the export of uranium from countries that fail to honour their nuclear disarmament obligations or that may fail to honour what we believe is an equal NPT obligation to ratify the comprehensive test ban treaty and to bring the CTBT into effect. If a state, for whatever reason, is not willing to comply with those international norms, we believe that past that 2010 NPT review they should be on clear notice that we will not continue uranium supply to them. We believe that is the sort of recommendation that your committee could consider.

Similarly, there is the extension of the requirements for not exporting uranium to countries that have military links to their civil nuclear sectors. We should be putting states on notice that past that NPT review in 2010 Australia will not further provide or consider provision of uranium to those states. Candidates are clearly Russia, China and potentially France in terms of those military and civilian linkages. Thank you.

**Prof. Langmore**—The only single point that I would make is the point that numbers of leaders in international relations in the US are making, that is, if we are serious about non-proliferation then the only way of achieving that is to move towards complete disarmament. To move towards complete disarmament is a political choice. Of course there are great technical difficulties, but if the political motivation is there, it is highly likely that those technical difficulties can be overcome.

**CHAIR**—Dr Wareham.

**Dr Wareham**—I have two or three comments. In relation to the nuclear weapons convention, if we compare it to what has been called a step-by-step approach, in itself the proposal set out for a nuclear weapons convention really is a step-by-step approach. There are a lot of implicit steps along the way, but the difference is that a convention has a clear goal and everybody knows that the goal is abolition. If we have, say, a CTBT that is good, but it does not give assurance that there will be no nuclear weapons. It gives assurance that they may not be tested, but it does not give assurance there will not be weapons. It is the same with the fissile material treaty. That is very good. It is important that we have one, but again it is not going to give the assurance that we are working to zero nuclear weapons.

I think it is the notion that the goal of abolition is there, and it is clear, that is the difference with the nuclear weapons convention. In addition, the fact that it is equitable, inclusive and it would include, as has been mentioned, two or three countries, at least India and Pakistan, who are not currently party to the NPT, I think it is the possibility of including all nations and not just most of them that is very important with the nuclear weapons convention.

Before finishing, I would like to refer to a couple of things. I am actually looking at documents from the 1970s Ranger uranium inquiry and the report of that inquiry. One thing that I think is important in relation to the NPT and Article 4, which as we have stated is seen by some as a guarantee of nuclear power, is that some would interpret that as a guarantee of receiving Australian uranium. The report of the Fox inquiry, the Ranger uranium inquiry, stated:

We have been advised and we accept that this article, Article 4, does not create a binding legal obligation and in particular does not bind Australia to mine its uranium and sell it to any particular country or at all.

I think that is important in relation to our uranium exports.

The final point I would like to make is in relation to terrorist access and use of nuclear material, which we have not talked about a lot this afternoon. Again, from the Ranger uranium inquiry and some background papers, including a summary statement of the use of reactor-grade plutonium in a nuclear explosive device, which we did talk about earlier, our inquiry at that time in the 1970s looked at various scenarios of bomb equivalent, noting that the Hiroshima bomb was about 13 kilotonnes or about 13,000 tonnes of TNT equivalent. One of the scenarios looked at here was for terrorists making a bomb with an unpredictable yield less than 1,000 tonnes of TNT equivalent. That is smaller than the Hiroshima bomb, but it is still unprecedented since 1945 and far greater than anything we have seen since then. The commission has concluded that using commercially available reactor grade equipment and a nuclear explosive device with a probability of exploding—that is, it would not be a dud—with an unpredictable yield less than 1,000 tonnes of TNT could conceivably be developed in less than a year and perhaps considerably less by a small group of people, at least one of whom would need to have a working knowledge of nuclear physics or engineering. So, a small group of people, only one with a nuclear engineering background, perhaps in less than a year. That is one of the concerns in relation to Australia's uranium and the nuclear industry generally that most of us here would share.

**Prof. Ruff**—I would like to comment on the issue of Gareth Evans's testimony to the committee, which I am concerned may have discouraged you from really having a serious look at the merits of a comprehensive approach and a weapons convention. Gareth Evans has

certainly been a valued advisor and strong supporter of the ICAN campaign and in a number of conversations with him has made extremely positive comments recognising the merit and the technical calibre of the document. In fact, he was surprised how good it was; that was his comment at one point. I would very strongly put the argument that I see no contradiction and I in fact see a lot of synergy between an incremental approach and a comprehensive approach. I think it is mutually reinforcing and in some ways it is like the synergy between disarmament and non-proliferation. You are not going to get traction on one without the other. They are inseparable.

The incremental steps are important to achieve important results, to put in place pieces of the jigsaw, to establish momentum and political goodwill, to achieve important gains, and to create the momentum that can produce further gains. But unless it is combined with a very clear vision as to what the eventual goal is and how to get there, it is simply not going to be either credible politically or compelling and be able to get the sort of universal buy-in that it needs.

I really do think there is no fundamental contradiction at all between those approaches. In serving as one of the advisors to the co-chairs of the commission, with my Japanese colleague Akira Kawasaki, there is absolute unanimity from the broader NGO constituents in both countries about that; that a comprehensive incremental approach or, if you like, this synergy is really the way to go.

However, I was really disappointed at a number of statements that Gareth Evans made that were I think somewhat misleading about the model convention. The first was the implication that it was somehow trying to advocate for a blank slate; that the existing disarmament and arms control treaties would need to be put aside while the new umbrella framework nuclear weapons convention was negotiated, and that is not how any of its drafters or advocates see it. It would very much build on and fit in with the existing treaty architecture.

The second was that he conveyed the implication that it was inconsistent with continued use of nuclear power and was politically not viable because of that. While there is an optional protocol in the model treaty that recommends technical support for countries for benign sustainable renewable sources of energy development rather than technical assistance for nuclear energy as is currently the case through the IAEA, there is nowhere else anything in the model convention that is incompatible with continued operation of nuclear power plants, albeit under very changed circumstances with essentially no production of fissile material, either highly enriched uranium or plutonium. I would argue very strongly that is a condition for achieving and sustaining a nuclear weapons free world.

I think that Gareth's final invitation to the committee to offer suggestions and to propose potentially a very simple declaration around the issue of nuclear weapons being incompatible with international humanitarian laws is really no substitute for a comprehensive treaty approach that would be verifiable and have binding legal obligations. The nuclear field has been beset for decades with far too much talk that has not been followed up and implemented. That approach perhaps has its own merits, but I am not sure that it is in any way an alternative approach to a comprehensive treaty.

If I look at what he outlined and what the commission seems to be heading towards in terms of a short and medium term agenda, there are no surprises. They are all measures that were there in

the Canberra commission report and the Blix commission report. What is there for the long term is currently not specified, and that is a serious gap. I think it will be very important for those who argue against the nuclear weapons convention approach to put a very clear alternative that still has abolition as a credible goal at its core. I will have the opportunity to present to the commission with my NGO co-advisor at their Moscow meeting in June. In this conversation I am not telling you anything I have not told Gareth Evans, so this will certainly continue. Thank you.

**CHAIR**—Thank you.

**Dr Green**—There were a number of questionable and false comments in submissions from AUA and ASNO, which we will be addressing in our supplementary submission. Also, there are some questions that we would really like ASNO to answer. I would appreciate the committee considering putting those questions to ASNO. The simple reason is that I am not going to be able to get a direct answer from ASNO to these questions and certainly not in the timeframe of this committee.

**Rev. Dr Campbell**—I have two comments. The World Council of Churches over the last 20 or 30 years has spoken about the need to develop positive ways of thinking about relationship of nations and the global community. Common security was one they drew from United Nations language as well, and another was justice, peace and the integrity of creation. These were attempts to say that a vision would provide the basis for then removing these instruments of fear.

The other comment would be around the language of terror. Whether non-state or whether state agents, these are instruments of terror, and for global security or global life to be dominated by terror, either smaller or larger parties, is not sustainable, that is, we need to find a way out of terror. The possibilities of thinking of common security, where nations live in a relationship where they can trust their neighbours, would be a fundamental basis for taking some of these steps away from the nuclear threat.

**CHAIR**—Thank you all for attending and for the evidence you have given today. It is greatly appreciated by the committee. If the committee has any further questions the committee secretariat may seek to contact you again at a later date.

Resolved (on motion of **Senator Ludlam**; seconded by **Ms Hall**):

That the committee authorises publication of the proof transcript of the evidence given before it at the public hearing this day.

**CHAIR**—I now declare this public hearing closed.

**Committee adjourned at 5.02 pm**