

INTERVIEW

Face to Face with Patricia Lewis:

Reflections on Gender, the CTBTO and the Nuclear "Danse Macabre"

ANNIKA THUNBORG, CHIEF OF PUBLIC INFORMATION AT THE CTBTO, TALKS TO PATRICIA LEWIS, DEPUTY DIRECTOR OF THE JAMES MARTIN CENTER FOR NONPROLIFERATION STUDIES AT THE MONTEREY INSTITUTE OF INTERNATIONAL STUDIES



What kind of challenges have you encountered as a nuclear physicist and arms control expert in a field that tends to be predominantly male?

As a physicist, I worked almost exclusively with men from a very young age. That has remained true in my work in disarmament – less so, but I still work primarily with men. I think essentially we're the same but we use language in a different way, which can lead to misunderstandings but it can also be very enriching. I think of myself as bilingual in my profession so that I can understand what both men and women are saying.

What do you think will change if you have more women involved in non-proliferation and disarmament and the nuclear sciences?

It's an issue of gender but I also think it's an issue of diversity. It's about

not having a particular culture, be it a masculine culture or a white Western culture. It's about what we call cognitive diversity, i.e. the different ways in which brains think and approach problems. People bring not only their problem-solving approaches but also their experience to any discussion. If you have a lot of people from a similar culture in the discussion, you'll get a number of different approaches but you won't get as full a range as when you're in a situation with people from different backgrounds and a gender blend of roughly 50:50. If you have a really difficult problem to solve as we do [the issue of nuclear disarmament], the best way to go about solving it is by bringing in many different viewpoints, experiences, creativity etc. which you won't have in a monocultural approach.

Do you think the increased diversity in this field both in terms of gender and culture has led to progress?

Yes. I've also worked at the United Nations where you can see the impact of having many different cultures. You have a wide range of personalities as well and it's an organization that's striving for gender equality. I've lived around the world and every time I've been exposed to new ways of thinking and cultures, it's opened up my mind and allowed me to think about new approaches to various issues.

As well as the importance of gender balance, if everybody feels that they have the right to speak or be listened to, you get so much more out of people. The frustration is that it can take a lot longer. But as every engineer will tell you,

everything's in the preparatory work. If you don't put the time into the design or discussions, you end up with a product that won't stand up. So it's actually worth putting time into the preparatory work.

What would be your message to the leaders who are participating in the Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) – or the Article XIV conference – in New York on 23 September?

The emphasis has to remain on getting full ratification. I've proposed several times that we should consider provisional entry into force if it appears that we're not going to see ratifications by all of the nine outstanding States¹. Certainly if the United States ratifies and then a few others do but then we get stuck again with other countries that don't ratify, I would definitely push that. But given that everybody is hoping the United States will ratify, we're not there yet. The focus on U.S. ratification is very good. I think the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) does as much as it possibly can to make sure that outstanding States ratify the Treaty.

I also think it's important to stress the connection with earthquake monitoring, tsunami warning, volcanic eruption monitoring – or using CTBTO data for a range of other civil or scientific applications. The International Monitoring System (IMS) is such an important resource for Earth scientists. It's not just about monitoring the test ban. I think that developing countries, in particular, need to have that communicated more and more. Obviously with Fukushima and tsunami warnings, the CTBTO has demonstrated its worth. I think Fukushima also showed the CTBTO's global reach and the ability of the IMS to detect radionuclides. Of course, one never wanted nuclear tests by North Korea or a nuclear accident in Japan. But being able to help populations with this technology has been an amazing demonstration of what the CTBTO can do.

[1] The nine States are: China, the DPRK, Egypt, India, Indonesia, Iran, Israel, Pakistan and the United States.

»The CTBTO has done an amazing job in developing new technologies and approaches and placing emphasis on science and creativity«

With regard to the nuclear accident in Fukushima, I don't think that our profession should exaggerate the risks but we shouldn't downplay them either. We need to talk about the radiation levels in a realistic and credible way because there is sometimes a tendency, I believe, in the international community and the scientific community to dismiss the public fears and to say that there's no danger. We need to be much more honest about the risks without fear mongering.

I completely agree with you. I was very much engaged in the scientific discussions on Fukushima. I've been shocked by the readiness of scientists to accept what was told to them by the people who we now know were withholding information, and their readiness to dismiss any concerns over the levels of radiation. Here I think we saw the wisdom of civil society. They don't believe all this nonsense! We need a much more open discussion. I always compare it to the airline industry. Every time there's a crash, they can't pretend it didn't happen. So they investigate and produce a report. I feel the same way with the nuclear industry. They need to be open and honest about the risks and address them and stop denying them. If we look at the chemical weapons negotiations, the industry made it very clear that they were distancing themselves from the past when they'd supplied chemicals for chemical weapons or for even worse things like gas chambers. And they were the biggest supporters of the Chemical Weapons Convention. If the nuclear industry could do that for nuclear disarmament, it would really help. They could make a difference to their own industry and to the debate as well as being seen to promote something good.

How do you see the role of civil society, the media and parliamentarians during the Article XIV conference in terms of promoting ratifications?

Civil society's role is not something that should be the final paragraph in a conference report. It's actually one of the most central aspects of our work. In democracies or even in countries that aren't democracies, the views of the population are paramount. But it's more than that. It's about the way in which government is structured, the whole meaning of what we now understand as human security, where we put the people right at the centre of our security decision-making. So if we're putting people at the centre in terms of their protection, we need to do the same in terms of their views. And our representatives need to take heed of the range of views of the population in the decision-making processes.

I think it's positively connected as well with problem-solving approaches and new ideas, which can really take things forward. So civil society and the representatives of civil society – the voices of ordinary people – are essential to how we might progress.

One of the things I think we've seen over the last few years is the importance of partnerships between governments and civil society organizations. The Mine Ban Convention, the Convention on Cluster Munitions and the Biological Weapons Convention processes have all involved such partnerships. The one forum where the role of civil society has been almost completely excluded is the Conference on Disarmament (CD) and, in stark contrast to other processes, there's absolutely no movement in the CD. I'm not saying that it's the only reason but it's certainly an important factor.

The nuclear issue is often seen as more complex than the land mine or cluster munitions issue. Do you think that the complexity of the nuclear issue both politically and technically makes it more difficult for civil society to influence the process?

I don't actually think it's a more complex issue. Nuclear weapons are very big, dirty, nasty weapons that go bang and make a lot of mess. Then they've also got this sort of magic associated with them in that they're supposed to prevent conflict, although there's not much evidence of that. My feeling is that the discussion is connected with power, the type of power that we think of as belonging only to the elite, so it's a kind of magical power. It's fraught with emotions such as obtaining power, wanting to have a dominant power over others and so on. So it's got all of these different layers and in that way, it's complex.

But if you look at other weapons systems such as landmines and cluster munitions, these are weapons that are actually used every day. In some ways it's much harder than getting rid of weapons that are not used and will not, we're told, be used. So there's something else going on. We've got ourselves stuck in a dance where the governments and civil society know the steps of the dance very well and they're not changing the rhythm and it keeps going on. A *danse macabre* if you like.

One of the things I think we could do is look at successful processes. It's especially inspirational to see how these processes put the people at the centre of decision-making. In the case of land mines and cluster munitions, it's very important to show the direct daily

impact of these weapons on people to those who are making decisions about them. In the case of nuclear weapons, we can show them what happened in the past because we've had some experience of nuclear testing and the impact of it. We can also imagine what will happen in the future. What we need is the preventive principle, similar to what we have for climate change, to prevent complete and utter disaster in the future. We need to start focusing on the humanitarian or human rights principles in which human beings and civil society are at the centre of decision-making.

The CTBT turns fifteen on 24 September. Briefly, what has been accomplished in the last 15 years and what remains to be done?

It's such an important date – one of so much hope and such a sense of accomplishment. The CTBT had been the prize of so many for so long.

India had blocked it in the Conference on Disarmament and that was certainly a bad omen. But we had just been through the indefinite extension of the Nuclear Non-Proliferation Treaty, the Cold War was over, and the Chemical Weapons Convention had been signed. And there we were signing off the Comprehensive Nuclear-Test-Ban Treaty. And it was a truly comprehensive treaty. Not a treaty with limits, not a treaty that allowed

some amount of testing to still go on etc. etc. It was a great accomplishment, absolutely fantastic.

The fact that the CTBT hasn't entered into force is very frustrating. Even if the United States does ratify, others still have to do so to fulfill the Treaty's Annex 2 requirements (see page 4). But it will be harder for them to explain their failure to ratify if a country like the United States does so. That is the great prize and we need to make it happen. It will take enormous leadership and quite a lot of determination to get the CTBT ratified but we must have it.

In the meantime, the CTBTO has done an amazing job in developing new technologies and approaches and placing emphasis on science and creativity. It's also made great headway in setting up the IMS, which is now 80 percent operational. Although we've had the tragedy of two nuclear tests by North Korea, at least the CTBTO has shown itself at the forefront of being able to detect these tests. That should put to rest any concerns that countries have about verification. And as I mentioned earlier, it's important to raise awareness about the use of monitoring data for disaster mitigation purposes. This potential that the CTBTO can provide in terms of disaster mitigation for earthquakes, tsunamis and volcanic eruptions for ordinary people is fundamental for people living in all corners of the world.

An aerial view of damage caused by the March 2011 earthquake in the Tōhoku region, Japan. CTBTO data can also be used for disaster mitigation.



BIOGRAPHICAL NOTE

PATRICIA LEWIS

is the Deputy Director and Scientist-in-Residence of the James Martin Center for Nonproliferation Studies at the Monterey Institute of International Studies in the United States. Previously, she was the Director of the United Nations Institute for Disarmament Research and of the Verification Technology and Information Centre. In 2009, Dr Lewis received the Joseph A. Burton Forum Award for "outstanding contributions to the public understanding or resolution of issues involving the interface of physics and society."