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Transcript

A GLOBAL STANDARD FOR NUCLEAR COOPERATION?

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MARY BETH NIKITIN

Good afternoon [unclear]. Thank you for coming, and we hope to keep you all awake after a rich lunch, with our exciting topic of nuclear energy and how international standards in 2015 and going forward can work to ensure the goals of non-proliferation, security and safety primarily, as nuclear energy use will potentially expand with countries and across to new states. We are pleased to have three eminent guests with us – Ambassador Hamad Alkaabi who is permanent representative to the IAEA, as well as special representative for nuclear security in the United Arab Emirates, and we have Cécile Maisonneuve who is a senior advisor at the Institute for Foreign Relations (IFRI) in Paris, and we also have Ambassador Van der Kwast who is a special representative of the Netherlands to the conference on disarmament, as well as ambassador at large for disarmament.

We will first go forward with some opening questions, and then I will monopolize the conversation slightly, and then we'll go fairly soon to open the floor for Q&A so we get a great discussion going.

First, Ambassador Alkaabi, it would be interesting at this point, a couple of years into the nuclear power program at the UAE, to hear your thoughts on what lessons may have been learnt for the non-proliferation community, for your experience in how the UAE case could apply more broadly. We'd appreciate your thoughts.

AMBASSADOR HAMAD ALKAABI

Thank you very much. I think the main point that we see in this area is that nuclear technology is a sensitive technology. If we like it or not, it is sensitive technology when it comes to safety, when it comes to security, and when it comes to non-proliferation. That's why it requires special circumstances or special arrangements that need to be in place. Whether a country is intending to develop it or whether a country is to supply it, I think it goes without saying any mishaps or any incidents anywhere, it always affects the global nuclear industry. This goes for both the safety but also when it comes to non-proliferation compliance issues.

That's why the UAE government, from day one of the program, established a policy that's transparent, that's committed to high standards of safety, security and non-proliferation. In developing this programme, this is in our view the way to ensure a sustainable and successful program.

What is a successful program and a sustainable one? It's a program that can generate enough commercial profit. It's a program that enjoys domestic and international acceptance. It's a program that ensures there is a good safety regulation to ensure the safe development but, also it's a program that will enjoy the transfer of the latest technology and nuclear materials without any interruption.

When we look what the definition of a successful program is, it was clear that you need to have the right framework to support it. This is where the UAE established its standards for safety and security and non-proliferation, but also developing the program in partnership and in cooperation with the international partners. As a result of this, the UAE program today has been moving steadily in the construction of the program, but also enjoying a wide international acceptance, both regionally and internationally.

Progress of the project; today we have four nuclear power plants under construction – they're all on time – we have established a robust infrastructure when it comes to safety regulator or it

comes to legislation, institutions, but also robust international partnerships. That allows us to get the latest technology, the full support, but also build on the international experience, as opposed to starting something from scratch.

The point of international cooperation is the key for success of the program. This international cooperation should be governed by principles. These principles are transparency, safety, security and non-proliferation. Then, given the unique part of the technology, it goes without saying that achieving the high standards of all these elements is optimal for the wellbeing of not only a specific nuclear program but the global nuclear industry.

MARY BETH NIKITIN

Thank you. Ms. Maisonneuve, do you have any thoughts maybe, from the nuclear industry side, how this expansion of nuclear energy is best played out?

CÉCILE MAISONNEUVE

When we reflect on the possible global standards, which are – and I don't think there is any debate on that – highly desirable, we immediately have to ask the question whether they are feasible, and are the conditions met in order for those standards to emerge from this situation.

That's why it's important to have a clear view of what the market looks like currently. It has been said, when we talk about the nuclear industry and nuclear market, we have always talked about a very global industry. This is nothing new actually, and since the beginning of the civilian nuclear era this has been a fact, whether you look at the reactor side or the dual cycle side.

What seems very new currently is what I would call the tougher competition between suppliers, which you can witness on the market. Why are tougher competitions first? Because, for many countries, their domestic markets are mature, so they need to find new markets abroad, the suppliers. If you think about this country, if you think about France, if you think about Russia, they are mature markets with new build projects but in far less proportion than it was the case before.

I think we have to ask the question; what are the effects of this competition on safety and non-proliferation? This competition, to be frank, has been reinforced, especially for the fuel services, by the Fukushima accident. In terms of market, it means that immediately two markets were closed, or one was half-closed, which is Germany, and Japan was totally closed, whether you think about the new reactors or fuel services. There, again, another reason for increased competition between the suppliers.

Currently we have a market on the fuel cycle, if we can call it other capacities – when you look at conversation, when you look at enrichment. This is the state of the market.

On the demand side, what about the customers? We all have in mind those international maps about the reactors being built, planned reactors or proposed reactors, and it's not always obvious to have a clear idea which reactors will really come out of the ground and which projects will remain projects.

When we study the history of nuclear projects, it's full of very beautiful projects but which never turned out to be true. To have a better idea of the projects which will come out, I think it's also important to look at the uranium market because it tells a lot about the expectation of the market, of how important these nuclear new builds will be.

You also have to look at the conditions for those projects to take place, and especially if the electricity market regulation enables such a large investment to be made, and to also clarify the map of which projects are real projects and other... We have to look at the financing. What we need, to come back to the fourth point of my exposé, we see that financing is currently one of the points where competition is harnessed. We saw recently some offers by Rosatom to offer packages, including the financing.

In this situation, what does it imply in terms of finding a global standard for safety, to start with safety? It could play in both directions. You could consider that, with this competition, you have to listen better to your customer, to your customer demand, and therefore it doesn't go in favour of standardisation. For safety, this can be a problem because standardisation helps getting, on the side of the vendor, building more and then building maybe better and, on the side of the operator, having a larger experience with a wider base.

It could also mean that, when there is competition, you have to offer the best prices, and then it implies more standardisation. It's not clear yet to see what this competition will have as an effect on safety. The point I want to make though is there is one reason why safety, in my view, shouldn't be compromised by this fiercer competition. This reason is Fukushima.

Before Fukushima, we could see that some vendors had the temptation to, let's say, plan safety in order to have a competitive edge on the other vendors. This is over with Fukushima. I think Fukushima has put in place a better leveled playing field in terms of safety, and now everybody is clear, whether in China, in South America, in the Middle East, about the importance of safety.

On non-proliferation, I think we have not seen yet any signs that this competition has had any consequence. Here the point I want to make is that, when you look at this market currently, besides South Korea, who is reflecting about building an enrichment plan for its own fleet, I don't see any countries who are really seeking acquiring some technology, whether in enrichment or reprocessing. This is what I wanted to start with, this view of the market today.

MARY BETH NIKITIN

Thank you so much. Ambassador Van der Kwast, how do you see the international rules and, in fact, the non-proliferation treaty as guiding the future of nuclear energy cooperation?

AMBASSADOR VAN DER KWAST

Thank you, and although I'm Dutch, I'm not double Dutch. I understand the network we're working on is double Dutch and, as some of you may know, that has the meaning of being something like a drunken Dutchman.

Anyway, we did that yesterday. Now, today, on this; what are the rules? We think, as soon as there become more players in the field, it is important to have the regulations very clear. That will be very difficult, on the one hand. We have a relatively good system in place. That is, first of all, the MPT, secondly, the NSG and, since 2010, we also have the process to the Nuclear Security Summit, where I think we have made some progress.

First of all, on the MPT, that will be the big challenge for 2015. Let me be clear; there is a lot of talk on nuclear disarmament and, of course, that is important, but it does not imply that nuclear security is not important. Precisely because the trend you indicated, it is quite important that we also have a look at how we can strengthen nuclear security.

Now, if you see to the action program that we agreed in 2010, and Professor Evans, in his book, gives an overview on what we've done on security, we haven't done so badly. He indicates that there have been 24 actions. On eight of them we had significant progress. On 14 we had some progress. On one we had minimal progress and on one we had no progress. The latter is important, I think. That is, mainly, how do we deal and do we make secure our nuclear material.

There, I think, the NSG can make quite some progress, although those of you who were in the session before this one, on the US-India [?] deal, will have noticed that some of the speakers there indicated that, although we made progress, this is limited. There's always attention between three trends.

One, the commercial trend, which is the market. Let's be very clear about it. It's playing a role. The second one is the political drives that play into this filter [?] relations between states. A third one is what I would call the legal approach. What sorts of things have we? Now, we have to balance between those three. I think that the NSG has been, to a large extent, successful, although it is needed to strengthen that further.

We had some agreements in Buenos Aires, during the last summit, which is more attention for transparency, greater cooperation, and also looking into good practices with regard to brokering and transit.

Finally, the Nuclear Security Summit, there too I would like to look at an external approach. There was also, by Professor Evans, in his report, a comparison of the different elements of it, and it was overall quite positive. He indicated that there are 92 commitments in this summit, in the last summit. On one we had full progress. On 25 we had significant progress. On 63 we had some progress. On three we had minimal progress. Overall, you can say that, indeed, this Nuclear Security Summit has brought things further. I think the best results of that summit were the so-called gift baskets – this is linking to what our colleague from the UAE said – where states themselves want to go further in guaranteeing security, will make a number of commitments that they will live up to, in order to improve the system.

For the time, I would leave it there, but we can go on later with that.

MARY BETH NIKITIN

Sure. Opening it up to any of you, one of the main challenges with the future of nuclear cooperation is how to manage the further spread of fuel cycle technologies. We mentioned that, so far, there's not a rush of states looking to that, but there are states who are pursuing it. In those cases, there are often sensitive regional dynamics, as well as other concerns. The NSG rule change, now almost three years ago, was meant to somewhat address that. Of course, this is for states who are not willing to just come out and say we don't need enrichment or reprocessing, we are concerned just with power plans. They may be, for different reasons, wanting to keep that option open for the future, either as a political statement or even a hedging statement toward neighbours, or for scientific reasons etc. How do you think that this NSG rule change has impacted the situation, and do you anticipate problems with that in the future?

AMBASSADOR HAMAD ALKAABI

As you mentioned, the UAE has, on a voluntary basis, decided to forego enrichment and reprocessing capabilities. That decision came after full evaluation on the need for such technology to pursue nuclear power. In our view, developing a nuclear energy program is one. Having additional sensitive technology is another issue.

We believe, today, the international market is a reliable market when it comes to fuel supply. We believe the confidence in a nuclear program is associated with how much assurance that program provides for the international community. As you mentioned, there are sensitivities around this technology. Sometimes it's driven by regional issues, sometimes international issues, but it goes without saying it is a sensitive technology. That's on the politics or policies side.

When you think about the commercial viability, the developing of a nuclear energy program is a huge undertaking. It requires a lot of resources to develop it but, also, it was developed to a certain purpose, which is to provide electricity. This is associated with viability and commercial sense, to produce electricity viably.

If you are a nuclear newcomer country that's just starting its program, having a full-fledged fuel cycle capacity is not the most commercial way of developing a program. This is because the enrichment capabilities are expensive, not only sensitive from a non-proliferation perspective, but they are really expensive, and you cannot have commercial viability for having a programme of one or a few reactors, enough justification to develop that technology.

That's why I feel that the NSG role to limit the spread of sensitive technology was good. For one, it allows the countries to pursue nuclear power without raising concerns. Secondly, most of the countries will not develop sensitive technologies to start with because, if they're really serious about nuclear power, it's not a requirement for that purpose.

CÉCILE MAISONNEUVE

Yes, I think that the UAE is a very interesting example of what could be, I would say, a model approach of what a nuclear program is. It's interesting because it's a country which is used to dealing with international energy markets. Oil and gas markets, energy markets are international and they have this habit.

The way they've applied this way of considering the fuel from nuclear as a commodity you can find in well-working markets is, in my view, a model approach because it's a market-driven approach. In this way, it's important to have a kind of finalisation of this kind of project. I'm not saying that they are not sensitive technologies, but the fuel for nuclear plants is only fuel. It's a way to have, and it was just reminded, to produce electricity.

Beyond the UAE, the example of the Middle East is extremely interesting because it's a region which is very rich in terms of oil and gas but which has a development of its electricity consumption, which is huge. For Saudi Arabia, it's more than 10% per year of increase. So it's nearly as big as we can see in China. This part of the world will need to develop its capacity to produce electricity and, if possible, low carbon ones because the CO2 emissions per capita are extremely high, even higher than in this country. It's very high.

The question then is how to make this UAE example a role model, and it is possible. To be very frank – I'll be a bit provocative – if you are a newcomer, and if you look at the history of non-proliferation regime, and even with the current situation, you could consider that those who have refused to play the rules or to have violated the rules have benefited from à la carte, tailor-made status, while those who respected the rules were asked to follow a standardised model.

I think the international community may have sent a rather blurred message to newcomers in the past and that it's high time this message is clarified. From that point of view, the NSG, I think, was the right direction in pointing out this issue.

To come back to what was said also, to repeat it, it's important to keep a market-driven approach and, when you keep this approach, you see that there is currently no need for developing further capacities, in terms of fuel cycle.

There is, as I said, in some parts of the market, other capacities and, in other parts, absolutely no need because, considering the importance of the program e.g. in east Saudi Arabia, for them it's a programme of 16 gigawatt. Even with such a big program, the economic necessity of such a program is highly questionable.

AMBASSADOR VAN DER KWAST

Yes, I think, as you said, the process in the NSG, from 2011 on, has been useful, in the sense that it has strengthened. I think the last meeting in Buenos Aires, in June 2014, has given some further push to that. They looked at a review of the control lists. There was a technical expert group established, and there was a programme made for more outreach. I think that is particularly important to the point you are referring to.

Of course, I do agree that, for some states, it's not attractive because it's very expensive to develop their own fuel cycles. On the other hand, there are states that are, for different reasons, quite interested in doing that. Now, there it is important to see how we can strengthen those points and how we can reach out and link the NSG rules, first of all to other regimes. The 1540 regime has been quite successful over the last years. I think it would be good if we were to establish more coordination, where possible, there, and to see whether there is more cooperation possible between the NSG and the participating states, but also with other states.

Now, that brings you to the question; what do you do with states that want to become a member. There we see, in the history of the NSG, when it was started with seven countries, the so-called London Club, it was quite a unified group and a really likeminded group. That has changed. If you see now, there are even members who are not very keen on nuclear energy in general, and they decide over these rules, which is a bit odd, to a certain extent, in my view.

Then you have the question of extension. There I would very much agree with what was said by Bob Einhorn in another session. The only way forward, if you want to go that path, and it is that we are preparing for going that path, is that you do it through a criteria approach that would, one, help the NSG because it does not give the image that the NSG is just a political club and whom we like can come in, but you really have to live up to a certain number of criteria. It would also, for the countries concerned, be much better because they can show themselves, well, we were able to become part of this group because of the fact that we have lived up to a number of criteria.

Now, we tried that very hard. I was involved, myself, in the 2008 exemption for India, and there was a very strong political push then by the then president of the US, who personally was very much involved in this. A number of countries proposed a certain number of criteria. We had that to a certain extent, but I think that was left up to a limited level.

I think it is quite important, if we get to that question again, that we really will do that through the approach of a criteria-based approach.

MARY BETH NIKITIN

Thank you. I think there's been a lot of attention to raising the standards on the fuel cycle side and on the safety side, after Fukushima, and to some extent through the Nuclear Security Summit on the security side, but I'm not sure that that has crossed all the way over into the business side. I'm wondering, in the era where we see possible cyber security threats and more

advanced, basically hacking, if that's possible, how does the business and the governmental community prepare a new nuclear energy state, to be ready, to have a nuclear power programme on its territory? Do you think that there are the resources available? Say there's a state that doesn't have the financial resources that the UAE has to gain a lot from the NRC experience, for example, or from others? How will this happen in the future? Is it all through the IAEA? Is the business community side looking into this and, in the state of play where you have fierce competition for contracts? I'm wondering, on the security side, how that would be affected?

AMBASSADOR HAMAD ALKAABI

Sure, I can comment on this. I think, when you look at the big picture, the requirement or the internationally accepted standards are continuously evolving. They have been upgraded not only on the non-proliferation side but also on the safety and security side.

The unfortunate issue is that it always happens after a major accident or something major happens. That's, again, both on the safety or non-proliferation. We had Chernobyl. Then the international community got together, started looking into conventional nuclear safety. We had Fukushima. They started again looking into new, additional measures to improve safety.

Similarly, talking about the non-proliferation, the comprehensive safeguard agreement was standard, and then we realised that it has some gaps in it so additional protocol was introduced. Today the Additional Protocol is almost universal.

Similarly, security issues have been upgraded over the years. Now, there's a new amendment that's under consideration by the international community. My point is international standards 20 years ago are not necessarily the best standards we have for going forward today. That's why, when it comes to safety or it comes to non-proliferation, we should always look for ways to improve it and strengthen it.

What the UAE provides is a model to introduce a nuclear program after more than 27 years, where there were no nuclear programs, and we were consumed with this debate internationally about who has the right to what, but there weren't actual projects starting up, in terms of developing a nuclear program.

Taking this perspective, I think, yes, there are certainly some different views on what standards should apply in every area, but I think we clearly see all standards being improved, in terms of debate and discussion going forward. I think this is a collective responsibility for both the international community, governmental side. The IAEA, as an international organization, has certain responsibility to promote higher standards of safety, for example.

The IAEA has certain responsibility to promote non-proliferation measures and security measures. The business and industry side also has responsibility. Just taking the fact that any supply of a reactor to a country, without ensuring that they have, for example, a robust nuclear safety regulator, that means jeopardizing the safety, and then also it has a reputation issue associated with the industry and also the industry at large.

When you look at this big picture, it is not the interest of both international and governmental side and the industrial global industry to pursue or expand nuclear power, without ensuring that all these standards are met at the highest levels.

CÉCILE MAISONNEUVE

To come back to your question about the link between industry and security, I would say that industry feels very much concerned, of course, about safety, whether you consider the vendor side or the operator side. It is part of their job to ensure safety, along with, of course, safety regulators and governments.

When it comes to security, I think there is an important work to do in order for them to feel as concerned as they are in safety. It's true that, after Fukushima, the amount of lessons to be integrated in the operations but also in the design is so important that there could be a temptation to consider that there are priorities, in terms of safety, and that security, after all, it's a business of governments.

This pedagogy is still to be made. It doesn't mean the industry is not part of those reflections on security. I think that in the recent three years we have seen huge improvement on that side.

To make a specific focus on what you raised, cyber security, when you look at industry as a whole, I'm not talking only about nuclear industry, you see that it's totally under the radar of all industrial sectors, except for those who are victims of cyber security. It's exactly what Hamad said. When you are directly touched by a cyber attack, then you start putting the real means, fighting this.

There is this problem and, when you look at national levels as well, the awareness about how important this threat and how growing this threat is, is not always very present. At the international level, there are some arenas where this question is tackled. I'm thinking about the NATO Centre of Excellence in Estonia, about cyber security, but we are truly-speaking only at the beginning of the awareness of this growing threat.

AMBASSADOR VAN DER KWAST

I would, in general, agree with that. The primary responsibility is, absolutely, with states and governments. That is for sure. On the other hand, it is important to make people in the industry also aware of the risks involved in the things they are doing. That is why, for instance, during the Hague Nuclear Security Summit, we also had an academic forum and we had an industry summit, which was meant to make people more aware of the things they are dealing with.

We think their awareness of the risks, awareness of the rules is of the essence but, again, finally, it's the government that should take that responsibility. For us, that's a double responsibility. It is one responsibility for its own government and what is happening there but, secondly, there is also a responsibility for the international rule-setting. There we see some countries that are quite easy on that one. I think it's quite, in the running up to the NPT and to other things. It's quite important that, together, we try to strengthen the good system we have.

MARY BETH NIKITIN

I think we're going to open it up to questions now, from the floor. Even if I've known you for 15 years, please still introduce yourself and give your affiliation. Appreciate that.

UNKNOWN MALE SPEAKER

Thank you [overtalking]. I have a question for the representative from the Netherlands. In the context of sensitive nuclear technology, there is interest from part of the owners of Urenco to sell part of their shares. This has been a discussion going on the last two years most probably, or even longer than that. I understand that the Dutch parliament has been discussing this issue as well and has had some hearings, because of the sensitivities of such an action. In the context of assurances of supply, for example, there might be countries like the UAE interested in acquiring

some shares of the company, which [unclear] to technology is just a pure commercial transaction. My question to you is; what is the status of these discussions from the Dutch side. As I understand, it is the Dutch parliament who are more concerned about this than any of the other parliaments, like in Germany or the UK.

AMBASSADOR VAN DER KWAST

The point is absolutely true. There is quite a discussion on that. First, my general remark again. We all have responsibility, as states, not only for our national things but also for the wider things. I can assure you that the discussions over this are still going on but, from our side, and I've been partly involved in that, we are precisely looking very carefully into the non-proliferation issues, because for our ministry, that is very fundamental. So that has been, in all discussions, for us, has been an essential element.

MARY BETH NIKITIN

We'll stay tuned, I guess. Yes, please.

GEORGE DRAGNICH

Thank you. I'm George Dragnich, a retired American diplomat. Three years ago, I helped launch a nuclear insurance brokerage on Lloyd's of London. My question is for Ambassador Alkaabi. You mentioned, Sir, the need for a robust regulator, and in this room yesterday afternoon we heard regulators say that the benchmark is if the regulator is able to shut down any nuclear power plant that they deem unsafe. I have to admit that I thought about the UAE. I'll try to be as diplomatic as I can, but your political class and your political system does not engender immediate confidence that that regulator would have that power. Can you tell us a bit more about your robust regulator and would they, indeed, be able to meet that standard? We have the Finnish former regulator right here. He's one of the ones who made that comment.

AMBASSADOR HAMAD ALKAABI

Yes, definitely. When you look at what the UAE established, it's a nuclear law, which is the law that established the nuclear safety regulator. We had very strong provisions in this law that gives the regulator, but also the board of management of the regulator, a very special mandate or power that allows them to take, when it comes to safety, independent decisions. In fact, the law goes even one step forward, preventing the removal of any members of the board for any decision they made when it comes to nuclear safety.

As a result of this, I think the structure of the UAE regulator is well suited for such scenarios as you mentioned. If there was a safety issue, the regulator actually has the capacity to order a shutdown of the reactor immediately, without waiting for some other governmental decision on this issue.

In addition to that, the UAE nuclear safety regulator, but the nuclear safety infrastructure in general, has been subject to comprehensive review by the IAEA, in terms of the measures in place, the implementation processes, but also the legislation and regulation that's put the frame for the safety in the UAE. The results of these reviews are available publicly, actually, and everybody can look at them and see how the international teams of experts reviewed the UAE regulation and appraised the UAE framework, including the specific provisions of ensuring independence but also ensuring the resources available for the regulator.

MARY BETH NIKITIN

Thank you. Does anyone else have a comment on independent regulators and perhaps different cultural contexts in different countries for establishing that?

CÉCILE MAISONNEUVE

I think you just pronounced the right word, culture, because safety is the product of three things. It's the product of safe technology, it's a product of institution – exactly what was explained – and it's also, I would say, there is a cultural aspect. Safety is a mindset. It's not only ticking boxes and you know that you have all the requirements. I think we should also think about the Fukushima accident in terms of this triangle, safety being the production of a complex interaction between those three dimensions.

This is why the answer session in this room yesterday was very important. This is why the cooperation between regulators is absolutely key and it's important that, in each country, safety regulators are well funded, in order to deal with their domestic area, but also that those regulators, in countries which have a long experience in regulating nuclear power plants, that they have an important cooperation budget, in order to really cooperate on a daily basis with those newcomers. This will be this culture which goes beyond pure regulations, goes beyond technologies.

ALI MUSTAFA

I am a student of non-proliferation at Monterey. My question is to the representative from the Netherlands. When it comes to the global standard for cooperation, I think that's a farce, and I think you put it quite well that there's the commercial aspect to it, there's a political aspect to it, and then there's the legal aspect to it.

When you talk about cooperation, even amongst the non nuclear weapon states, under the NPT, who gets ENR is dependent on what political position they hold in the global order of things. When it comes to states outside the NPT, it's then again the same. India gets the deal because both it's in political interest, it's in the commercial interest, and Pakistan doesn't because it's neither a political interest nor a commercial interest.

When we, as students, are told the mantra of non-proliferation, there is only the legal argument made. Me, as a Pakistani, if I go and tell my people that non-proliferation is very important, based on these legal principles, why would people in Pakistan listen to me when they say that, even with the legal principles which govern the norms of non-proliferation and who gets what, that is not being followed?

Now, just imagine how difficult a position it is for me, or any person in non-proliferation, to justify that. Why do we not have the official standard, which takes into account the de facto things? That is, for any country to get technology, it has to be dependent on commercial aspects, on the politics, as well as the legal side of it. Why are we hiding behind the bush? Everybody knows that these are the main reasons why some countries get something and why others don't. Why is it only the legal standard or the norms of non-proliferation which are told to us, which is an incomplete picture? The complete picture is the global order of who gets what, who doesn't.

Just imagine how difficult it is a sell, in my country, to preach non-proliferation when especially the developed nuclear supplier countries aren't upholding the same standards. Thank you.

MARY BETH NIKITIN

Thank you. That's a challenging one.

AMBASSADOR VAN DER KWAST

First of all, my compliments for the fact that you are working on the importance of non-proliferation. I think it is very essential.

Then, on the three elements; we live in a real world, and I did not say and then there are the legal aspects. No, I said there are commercial, political and legal aspects. All those are important. For us, the legal things are fundamental for the non-proliferation system. That is the treaty, that is the rules of the NSG. Particularly when you refer to the India exemption, I see your point there. I argued that we should have a criteria-based approach, because that is an objective. Then you can say, well, country X has done so and so, they have joined the CTBT, this is their track record on IAEA cooperation, this is what they have done with incidents in the past. So there is a very clear criteria-based approach. That is very important.

I have to say, with regard to Pakistan, and let me make very clear that, for us, both countries are good partners internationally, in many ways, Pakistan is not helping itself currently, by the politics it's pushing. If I look at the GTE on an FMCT, which is going on right now, Pakistan was invited to be a partner of that. It said, no, thank you very much, we don't want to be invited there. India is sitting at a table. Now, with all respect for your important work, what does that mean for the position how other countries look upon Pakistan's position?

We get, in Geneva, almost every week, a very clear statement from the Pakistani delegation why they cannot agree to this and this and this. This is not helping the case but, again, and there I fully share your point, we need to have a criteria-based approach on the criteria we agreed on internationally.

MARY BETH NIKITIN

Thank you. Would the other panellists like to comment on whether states that have nuclear weapons should be treated differently in the nuclear energy market?

AMBASSADOR HAMAD ALKAABI

When you look at the Non-Proliferation Treaty, which was mentioned earlier, it's a cornerstone for both international cooperation but also limiting the spread of sensitive technologies and nuclear weapons. The NPT is a great treaty but we all know it's not perfect. This is why the exception shouldn't be held as a standard for the international cooperation or for the full implementation of this treaty. I think the efforts should continue to address any gaps or any lack of implementation, when it comes to the NPT or its universalisation, but it shouldn't stop us from setting high standards when it comes to international cooperation.

AMBASSADOR VAN DER KWAST

I think this is a very fundamental question, and this comes also a little bit in line with what our colleague from Pakistan said. There is a serious question with regard to fissile material that is used for what we call non-civilian issues.

Now, on the Nuclear Security Summit, I gave the overall view, we spent 85% of the time on about 90% of the fissile material. We're not able to talk about the non-civilian material. We think that is not right, and we have tried to push that one forward, and I say in all honesty it was not possible during the Nuclear Security Summit to do that. I see, however, good signs that, for the next Nuclear Security Summit, President Obama has indicated that he is ready to look into this issue as well. So it will be on the table. I cannot judge yet in what form or how. It will be an issue that needs to be discussed, and that was precisely why I made this link to an FMCT,

because I think this is a very important and very fundamental question, which deals with a lot of material, and it's important for us to address that question.

MARY BETH NIKITIN

Just to clarify, the fissile material that's now dedicated to weapons programs in various states has not yet been on the agenda?

AMBASSADOR VAN DER KWAST

Not on the nuclear security side.

BEN ABTAHABI

Ben Abtahabi [?], Harvard University, and I promise that my question will be less challenging. I want to go back to the gold standard. Ambassador Alkaabi mentioned earlier that the UAE has an assessment, that your government has an assessment that the market for nuclear fuel is a reliable and credible market, after which the UAE has decided to forego the right of enrichment and reprocessing. Clearly, other governments have different assessments in the world. My question would be; how could such a standard be incentivized? Do you think that, just the three panel members, how do you think that could be incentivized and, more specifically, do you think that incentivising a gold standard could be connected to the export of the nuclear power plants, the nuclear technology that is being exported by the seven countries to the rest of the world? Could that, one way or the other, be connected to that, that a country would accept additional limitation, would get access to the nuclear energy reactors, or is that an improper way of putting pressure on other countries? I just want to know your assessment, or is it maybe in violation with the NPT that allows countries to have access to civilian nuclear technology, which also includes reprocessing and enrichment, as it is right now? I would like to know your thoughts on this issue. Is the connection with the exporting of nuclear technology a fair connection?

AMBASSADOR HAMAD ALKAABI

I think this issue has been debated extensively in the international, governmental and NGOs, in multiple form. When you talk about the development of a nuclear energy program, you're not necessarily talking about the development of enrichment capacity. Your question, how to incentivize relying on international market, I think there is an ongoing debate internationally, or initiatives, to support such intensive initiatives.

We talked about the multilateral fuel assurance mechanisms, and this is part of the ongoing discussion of international, based both in IAEA and other fora. The fuel bank initiative was also meant to increase confidence in the international market. I believe there are additional measures we can put in place that allows countries to feel more confident that the international market is a reliable market.

Today we believe the international market is a reliable market. It has multiple suppliers. There is no shortage of capacity. We haven't seen cases where supply has been interrupted for reasons beyond non-proliferation concerns or issues related to noncompliance. We have seen the industry competing fairly with this element.

Now, your question in terms of whether this is fair to be linked, I think it shouldn't be referred to as a limit. It should be referred to as opportunity, as opposed to ensuring that there is no further spread of sensitive technologies or a technology that could contribute to non-proliferation in general. I think, anytime you see a link between incentivising the foregoing of

such sensitive technology, it's an opportunity for setting new standards that will contribute to the spread of nuclear technology, without jeopardising the non-proliferation.

I don't necessarily see it as a limitation. I see it as an opportunity to benefit many of the developing countries to use nuclear energy, without really having any concern associated with that.

CÉCILE MAISONNEUVE

Just to follow on, as you said, there is no record in history of interrupting the fuel services for political reasons. Up to now, the market has proved reliable for countries which didn't choose to develop their own facilities. There have been many proposals in the last 15 years about suppliers' guarantees, originating from groups of countries, IAEA. This is, I would say, an ongoing reflection. If you see how it happens when a country decides to build nuclear power plants, how it deals with this question of fuel supply, what we see is that there is no special appetite for packaged offers – the reactors and the fuel.

Very often, the operator of the plant, the people who decide for the reactors and those who decide for the fuel cycle are not the same, basically, when negotiating. They want to keep open options. When a country chooses a vendor, the collaboration will last for decades. When you choose a fuel supplier, even if it's a long term contract, you are not speaking beyond ten years. It's not the same logic. I think we have to make a clear differentiation between both.

BEN ABTAHABI

As you just mentioned, there have not been cases of fuel supply being stopped because of political reasons. I am afraid that is not exactly correct. In the Iran example, the last couple of years, we have seen that happen a couple of times, actually, both for the research reactor in Tehran that uses 20% rich uranium – that fuel supply has been stopped – and also for the Bushehr reactor, the power plant, the fuel supplied by Russia has been stopped for political reasons, which is exactly the reason that different governments have different assessments of the reliability. It's not that they don't trust the market to be reliable and there is enough uranium. It's more like they are very much afraid that discussion will be so politicized that the fuel supply will stop at the moment that the discussion gets into a political area, rather than the technical issues. That is actually my question and my question is how could you incentivize, understanding this reality, governments actually foregoing their rights.

AMBASSADOR VAN DER KWAST

Your point is right. That is true, but you call it political reasons, and there I don't agree with you. There was and there is a serious problem with Iran, and I think it was linked to debt. Okay, you can call that a political reason but I wouldn't agree with that.

There is a serious problem, from a legal perspective, with Iran on what was happening, and that was why there were discussions about further supplies.

MARY BETH NIKITIN

With apologies, I will be right back to you, but I can't resist asking Ambassador Alkaabi why did the UAE think the market will be fine, and you're perfectly assured.

AMBASSADOR HAMAD ALKAABI

When you look at the market, you have to evaluate both in terms of security of supply, capacity, number of suppliers, potential arrangement from different sources with different services. Our assessment of the market continues to be both have enough capacity to support the UAE fuel, no envisioned interruption for such services, but also there are different suppliers that allow the suppliers such market. With that, it was clear for us to see that there is enough confidence in such markets to allow us to pursue a nuclear programme without developing enrichment capacity.

Additionally, commercial viability of developing enrichment capacity internally will add to the cost of producing electricity, which will question the viability of the nuclear program at all. The point here is, if you're pursuing nuclear power for commercial reasons, you have to look at all these details. You have to evaluate the risk, yes, but then also evaluate the commercial viability.

If you talk about a country that has one or two nuclear power plants, thinking about developing enrichment capacity, that's just a nonstarter for the commercial production of electricity.

UNKNOWN MALE SPEAKER

Thank you very much. I fully endorse what Ambassador pointed about political, economic and legal. I think we have to add three more things. International treaties, in the literature we find that, when states join, they focus on the reciprocity as well. When I am joining a treaty, what am I getting back?

The second important thing is that, especially in the treaties which have linkages with a strategic weapon or any kind of weaponry, they are very much responsible to the jurisdictional environment. Here comes my question then. With reference to Pakistan and FMCT, the Shannon Mandate, 95 onwards, Pakistan started behaving or misbehaving in 2009 and post.

AMBASSADOR VAN DER KWAST

I didn't say misbehaving. It's your word.

UNKNOWN MALE SPEAKER

Whatever you say, but the point was how can you blame simply Pakistan when Pakistan say, because the Netherlands fissile material, Pakistan says what will you do with the existing fissile material. If we can go to the history, the biggest debate started in 1946 between the Americans and the Russians. That was to address the existing weapons. If the FMCT is to raise the limit and, on the one side, within the region, if you are putting up with different indirectly fissile material, how can you expect from the other state then if they don't respond? At least you can say that it has no right to play its role in the conference of disarmament. Is there any thinking about it that we can change the Shannon Mandate and come up with this that the future treaty should address both existing as well as future fissile material? Thank you.

AMBASSADOR VAN DER KWAST

Thank you, and you're absolutely right on the reciprocity. Of course, that is for every state.

The other thing, and that point I also take from Pakistan, when there is a security interest, there is an understanding. What I do not understand is that, if we say we want to discuss a certain treaty, why not enter into that, and then you can bring up any point you want in the negotiations or the discussions, and you can at the end say even if it doesn't bring you what you wanted. Pakistan is not going to sign this for the following reasons, A, B and C. Pakistani people are very clever people, and I'm sure you can bring that message.

That is why I mentioned the FMCT. While it is difficult for me to understand that, when you are invited to become part of such a thing that is as informal as a GGA, a group of experts, that you say no, thank you very much. Again, I do not want to blame Pakistan. Let me be very clear about that, because we're not on issue.

The question I put to your colleague, who had very good points too, is what does it mean for the image of Pakistan if you say no, thank you very much, we're not going to do that, and if you repeat every week more or less the same statement. You have great diplomats. I have great respect for them, but I find it difficult to hear every week the same thing.

UNKNOWN MALE SPEAKER

There is only one reason behind it. During the CTBT, our neighbouring state was a part of a negotiation, and it took a U-turn. I think Pakistan is very straightforward in its stance. If we enter a negotiation, then we should be part of that until the culmination of the negotiation as a sincere party. Why do we waste the time here? It's a slippery road. If we enter, maybe we hit somewhere. In 2008 and 2007, we were not opposing the amendment of the... Indirectly or directly, of course, one can lobby in the NSG, thinking that we will be treated fairly. Then the government changed, precious games, things happened differently. Those are the fears, which I think Pakistanis are very much taking stress on.

MARY BETH NIKITIN

I think this discussion goes back to one of the roots of non-proliferation, which is production of fissile material, both for peaceful use or for weapons use. In fact, it's going to be 69 years since the Acheson-Lilienthal Report, this month. I think the debates are very similar, in fact. Thinking about reducing the civilian use of weapons, useable material, is key to this future of global standards and maybe at the root of some of the NSG changes that were able to pass by consensus. Related to that is this idea that black box enrichment plants can be acceptable, from a non-proliferation point of view, because you're not transferring the knowledge of how to build that in a clandestine way.

We only have a few minutes left, so I'm indulging myself with that issue, but I wonder if there's something that can be said about knowledge transfer. As the suppliers of power plants grow, as the recipients of power plants grow, there'll be potentially a larger amount of people with different perspectives on the world, who will be using this science and this technology, hopefully for energy use. How does the knowledge transfer piece of this fit in, as a closing remark?

AMBASSADOR HASAN ALKAABI

Knowledge transfer is an important part of development of society, development of the economy, but it's also part of why many countries are developing a nuclear energy program. It's part of a bigger picture for development of the science in general and the capabilities, human resources development and so on.

Now, technology transfer is not necessarily only linked to these in terms of technology. Having a reactor operator, having safety experts, having security experts; all this is part of knowledge transfer. International cooperation is key when it comes to transfer of the technology but also transfer of the knowledge, to sustain a successful programme. When we discuss these issues, it shouldn't link only to these very sensitive technologies. It's a really wider picture where, I believe, any country that's pursuing nuclear energy will be interested to see more of the

knowledge transfer through training, through expertise, but also through many arrangements that can be done through this bilateral cooperation that exists between the countries.

MARY BETH NIKITIN

Knowledge transfer in the very positive sense of cooperation?

CÉCILE MAISONNEUVE

Yes, I think it's true that, for many newcomers, enhancing skills in the country diversifies not only their energy mix but, broadly speaking, their industry. It's one of the reasons why they could choose nuclear energy. When you consider the country which had the least choice in the past, it's true that it has been very structuring for the R&D system. That being said, you mentioned the black box mechanism, which actually proves rather successful and interesting, in terms of developing those cooperative international solutions. I think it's important to say that it's not only for newcomers or for non-supplying countries. I just want to remind this audience that this system has been applied in two cases for Areva, when they built these enrichment plans in the south of France. It was with the technology from Urenco, and the same for the one in the US. It's not a system which is specifically dedicated to newcomers and countries to whom there would be a reluctance to do some technology transfer. It already exists for existing suppliers.

AMBASSADOR VAN DER KWAST

I have little to add. I think most of the points have been made.

MARY BETH NIKITIN

Thank you very much for your perspectives and for your questions that were both challenging and woke us up a bit. We look forward to adding a fissile material panel to the conference next year maybe. Thanks so much, everyone.