Energy and Climate Change Committee

Oral evidence: Linking emissions trading systems, HC 739, Tuesday 11 November 2014

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Written evidence from witnesses:

- UNFCCC

Watch the meeting

Members present: Mr Tim Yeo (Chair); Mr Peter Lilley; John Robertson; Sir Robert Smith; Graham Stringer; Dr Alan Whitehead

Questions 94-150

Witnesses: **Professor Sir David King**, Foreign Secretary's Special Representative for Climate Change, Foreign and Commonwealth Office; **Niclas Svenningsen**, Manager DSI, Sustainable Development Mechanisms Programme, UNFCCC Secretariat, gave evidence

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Examination of Witnesses

Witness: **Professor Sir David King**, Foreign Secretary's Special Representative for Climate Change, Foreign and Commonwealth Office, gave evidence.

Q94 Chair: Good morning. As you know, you are extremely welcome here in whatever capacity.

Professor Sir David King: Thank you very much. Good to know.

Chair: You might like to know some of us have just been in China where we were very well supported, as usual, by our posts, particularly in Beijing and Guangzhou, but we also visited Wuhan for the first time, where we are just opening a new consulate. At the end of the visit I wrote to the Foreign Secretary to express strong support for the amount of resource that is devoted to the whole climate change agenda in those posts. I thought it was extremely good value for money and achieves considerable influence, much more than people recognise unless they go there and see the access we have to people and the seriousness with which they listen to our views, particularly on carbon trading, which they understand was more or less invented in the UK.

Could I start with a general question? Feel free to enlarge because I know this is a subject you have thought about a great deal. One of the reasons we have decided to address it at this time is in the wake of the "IPCC Fifth Assessment Report" and the concept of maximum level of emissions that will be safe over all time, and that therefore some people like me would think points naturally towards eventually a global cap and trade system in some form or another. It might be an amalgam of lots of individual ones but at any rate cap and trade seems a logical response if there is a cap on the emissions that can safely be emitted. From your perspective and with your great experience of the subject—and before we talk about carbon markets— how important is carbon pricing for tackling climate change?

Professor Sir David King: Thank you. First of all, may I thank you for the letter to the Foreign Secretary, which is greatly appreciated? The work of our people in post is not often as appreciated as it might be so we are grateful to you for that.

I would like to add personally that the support I am getting from people in our embassies and so on as I travel around the world is tremendous. We do have a significant number of climate attachés giving particular support to this work but the science and innovation network is also very helpful.

Your question goes right to the heart of the matter of cap and trade and carbon pricing. The first thing I would say is that carbon pricing is not the only tool we have and that regulation, obligation, is a crucial part of the process. For me what is most important about carbon pricing is that it does send out a very clear signal, particularly to the private sector that understands these matters very clearly, and if it is seen to be a long-term signal all the better because investment, particularly in the infrastructure, requires that sort of signal. At the same time that is a concern about a carbon trade scheme in which prices can rapidly fall to close to zero because then that certainty is no longer given to the marketplace. I feel that perhaps the greatest advantage of the cap and trade scheme is in the negotiating process in the sense that it ties governments into a process that is written into the law in the countries concerned and is long range. For example—and I have read the papers—you have come back from China. One of the big concerns, of course, is carbon leakage through the Chinese factories producing manufactured goods that come to the West. Estimates are that this has been about 20% of the emissions from China accounted in terms of manufactured goods going abroad. Putting up a trade barrier in the form of a price at borders is not a very attractive alternative and certainly the WTO would not see it that way. So moving and evolving towards a global cap and trade scheme to me is a very attractive way forward. If we just take the European Union, by introducing an ETS in the European Union we engage the 28 nations of Europe in that process. So moving it on to an international level is clearly desirable from every point of view. It therefore is important that individual countries' trading schemes, if we are going to evolve into a single scheme, are developed in a way that is compatible with other trading schemes. I am sure you investigated that in China.

Q95 Chair: Yes, we did. It is a bit of a moving target but we did. I absolutely take the point you make at the start that of course carbon pricing is not the only way to address climate change. We have to have other instruments and regulation has been quite effective in things like driving up vehicle engine standards and so on.

If you looked at the choice between prioritising carbon markets or carbon taxes as a way of trying to take forward the whole carbon pricing agenda, which do you think is likely to be the most effective?

Professor Sir David King: You are asking a very big question there. The problem with the trading scheme in Europe has been very clearly demonstrated twice now: the first time the collapse in price was complete; this time it is not exactly to zero. What this indicates is that at least a floor price in carbon, a carbon tax floor, is a good idea, because again it gives that sort of certainty that is required but it also ought to be a lesson to us that the issuance of allowances needs to be very carefully watched and governed. Surpluses—and you know the British position on this—ought, in our view, to be eliminated. At the same time, if a downturn occurs in the economy as compared with what was expected, then we need a re-examination of the caps. There is the problem. It requires political appetite to maintain caps at a level that keeps the carbon prices high enough to produce the outcomes that we all need and €3 a tonne is certainly not even close to high enough. I would have thought that we would be talking about €25 to €35 a tonne and that is what the economic modellers are saying is required to really roll out proper responses.

Q96 Chair: On that point about the need to reform or make changes to the EU ETS, we have seen recently what I think Britain can notch up as a success over the 2030 target: setting the 40% target for cutting emissions but leaving the specific things about renewables and so on to be done on a voluntary basis at national level. That was exactly the outcome that I wanted to see and that the UK wanted to see and we have achieved that. You can notch that up as a success for Britain, I am sure with some help from our partners. Do you think that if we press hard enough on the reforms that are needed to the ETS we have a similar chance of success? Or against the opposition to making those changes—which again I would entirely agree with you are needed and needed urgently if they are going to drive any kind of meaningful price—do you think we have a chance of getting those changes made?

Professor Sir David King: I think that because of the importance of achieving that we need to examine every mechanism for making it more attractive. Taxes are never attractive and it might be important to indicate that other taxes would be reduced in order to accept that carbon taxes are replacing other taxes. It is creating a revenue stream and I can see no reason why it should not replace other taxes. However, this would have to be done country by country. There is a discussion for example in the States—I have just come back from Boston—about exactly that point: how do we deal with public opposition and hence political opposition and that would be by saying we will see a counterbalancing of taxes. I do not think we should ever underestimate this difficulty that perhaps was thought with the cap and trade that since the word “tax” did not appear the appetite would be there. It is simply a chimera, I am afraid.

Q97 Chair: Realistically how do you see carbon markets expanding in the next few years, if at all?

Professor Sir David King: You have just come back from China; I have very close contacts in China, I have been out there quite frequently and I have just this last week been speaking to Chinese colleagues who are very much involved. I think everything is going to depend on the Chinese cap and trade process. I say that because this is going to be a far bigger carbon market than the European market even and for us to link in with them would create a much better assurance of prices, provided allowances were properly distributed and I think they would be. If we then could stretch that to California and Quebec and the other nations—

Mexico is coming into the frame—that are introducing this, I think the bigger it becomes, the more likely it is to succeed. But political appetite is the overriding requirement.

Q98 Chair: On what we saw in China—like you, having been there fairly regularly in the last five years—all I can say is what seemed to me the determination of Chinese policy makers to get on with this now was infinitely greater than I would have predicted on any of my previous visits. I was very encouraged by that.

Professor Sir David King: I had exactly the same impression. While 2020 is the time when they hoped to have a countrywide ETS, as you know they are now aiming towards 2016 and I think it is feasible that they will introduce it countrywide. The pilot schemes have been surprisingly quick in coming into place.

Chair: Just as an observation, I think it is easier to implement changes in policy quickly in China than it is among 28 nations in the EU.

Professor Sir David King: Yes, a top-down political system helps.

Q99 Sir Robert Smith: I should remind the Committee of my entries in the register of members' interests, in particular to do with the oil and gas industry and a shareholding in Shell.

In evidence we have had so far, Robert Stavins from Harvard University said that cap and trade systems have emerged as the preferred policy instrument around the world. Would you agree with that?

Professor Sir David King: I think that is a premature statement.

Q100 Sir Robert Smith: You were talking about the relationship of cap and trade and taxes. In China they were suggesting that they would use the carbon taxes for those areas not in the trading market. Is that something you can see working: cap and trade for the large emitters and a carbon price for sending a signal through taxation for those users who are not in the trading system?

Professor Sir David King: I would have to say yes but from a relatively slim knowledge of the economics underlying that.

Q101 Sir Robert Smith: One piece of feedback we got from China—or some of our witnesses—was that they preferred cap and trade because the market finds it the most efficient, whereas the carbon tax hits those that can adapt and those that cannot adapt.

Professor Sir David King: So the carbon tax is a blunter instrument?

Sir Robert Smith: Yes.

Professor Sir David King: Yes. That is one of the big arguments in favour of a general cap and trade scheme.

Q102 Sir Robert Smith: In terms of confidence, China seems, in the pilots, to be looking at intensity rather than absolute caps. Obviously for linking it would have to be on the same basis.

Professor Sir David King: China's rate of economic growth is the driver behind using intensity measures but the discussion in China is now moving towards absolute emissions. That is one of the advantages of the international negotiating process because we have been discussing with the Chinese policy makers the importance of China being able to declare when it will see an absolute peak in its emissions, and what its intention is in absolute emissions, by mid-century and beyond. So moving from intensity to absolute emissions is certainly now under discussion in China. I believe that will feed through into their trading scheme. If we are going to link our scheme—the ETS in Europe—to theirs, then I think this becomes a very important factor.

Q103 Sir Robert Smith: Do we have any lessons to pass on about the interaction? The purist economist would say where you have a cap and trade system, if you use any other levers you are not going to affect the outcome because you have a cap. So if you go in with regulation and carbon taxes under a cap and trade system, you are just altering how it is going to apply but because of the absolute cap you are not going to impact on the emissions.

Professor Sir David King: Yes. I would not be a purist in that argument.

Q104 Sir Robert Smith: Do you think you can achieve both?

Professor Sir David King: Yes. For example, the Chairman mentioned vehicles: I think differential congestion charges in favour of vehicles that emit no carbon dioxide are absolutely good. Even the road tax, which is a relatively small cost compared with the cost of purchasing a car—people hate taxes—is driving people much more than you would expect on an economic basis to go for cars where they do not have to pay a tax. So these other instruments, as I said at the beginning, can play a very important role alongside the carbon pricing.

Q105 Sir Robert Smith: I am going to show my ignorance here, but vehicle emissions are not part of the EU cap and trade, are they?

Professor Sir David King: Vehicle emissions, exactly so. I am simply saying therefore you can deal with the emissions from vehicles by separate instruments.

Q106 Sir Robert Smith: Yes. But once something is in the cap and trade that is starting to interfere with carbon emitters that are within the cap and trade—

Professor Sir David King: Yes. I would not argue with that point. My point is—

Sir Robert Smith: There are other sectors?

Professor Sir David King: Yes.

Q107 Sir Robert Smith: DECC has suggested that despite the benefits of linking, active negotiations to develop links are limited. Do you think that is a fair summary?

> ***Professor Sir David King:*** Active negotiations are taking place and you have benefited from the people in post. For example in China we had a significant number of climate attachés in our embassy in Beijing working together with the Chinese policy makers on the development of their ETS, and a big part of that was about the possibility of linkage, creating a scheme that is compatible for linkage. At the same time I think it is critically important that each of these trading schemes is given enough time to mature before we start talking about linkages. It could develop very rapidly in China, it could develop rapidly in Korea as well—a country that we have not mentioned—but we want to see some maturity before we start talking about linkage.

Q108 John Robertson: Does the UK have a leadership role to play in promoting carbon markets in other countries?

> ***Professor Sir David King:*** Yes. I believe it is fair to say that the UK together with Germany have played the most important leading role in negotiating and talking to other countries and assisting them. For example in Mexico, the Mexican Act of Parliament in 2012 was very much based on the UK model and our discussions with Mexico proceed on a very friendly basis on the development of a trading scheme there.

Q109 John Robertson: So how do we go about doing that?

> ***Professor Sir David King:*** It is largely through people in posts and through my own position, which is full-time climate change representative of the Foreign Secretary, travelling around the world. It is constantly on our agenda.

Q110 John Robertson: Where would you say our position was in relation to other countries and particularly the UNFCCC? Are we in a position to help, meet, promote? Where are we in that?

> ***Professor Sir David King:*** For the last decade Britain has played quite possibly the lead role globally in negotiations, bilaterals in particular. That is where we have been very effective with countries around the world. More recently I would say other countries in the European Union have stepped up to the plate as well.

Q111 John Robertson: From your conversation with the Chair at the beginning, I got the impression that you would want to strengthen ETS from where it is today. Would that be the correct assessment?

Professor Sir David King: I would like to see it strengthened particularly with the outcome being a higher price, simply because the current price is too low to create the right behaviour.

Q112 John Robertson: You particularly mentioned taxes and decreasing other taxes. Would that have an effect in other markets in that you would have to be very careful which taxes you were lowering otherwise you may give advantage to one group of people against another? How are you going to work out which ones to do?

Professor Sir David King: I am going to pass on that question.

John Robertson: I have some concerns.

Professor Sir David King: It is a very good question.

Q113 John Robertson: Maybe one day we will get Treasury in to answer these questions. You have mentioned China a lot and that has raised some concerns for me because, if I understand correctly, what you are saying is that in effect China should be a partner for the UK much more than the EU. Did I get that right?

Professor Sir David King: No. I am talking about partnership between the EU and China.

Q114 John Robertson: Okay, sorry, I obviously misunderstood that. Being conservative with a small "c" I had some worries about that. I know some of the Conservatives with a large "C" would not be too unhappy about it.

What other actions are necessary to strengthen the investment signals and to improve the resilience of the EU ETS, particularly over the long term?

Professor Sir David King: I think the problem of allowances is the key issue that needs to be addressed but we have had difficulty in extending the Emissions Trading Scheme for example to include international air travel. All of these are important issues that have to be grasped in the longer term so the negotiations in Europe will continue over a long period to come.

Q115 John Robertson: So it would be fair to say then that you consider the EU ETS has been very important in meeting our targets in the future.

Professor Sir David King: I would not exaggerate that point. I come back to my opening comment. First, the European decision on at least 40% reduction in greenhouse gas emissions by 2030 is very welcome—it was the British Government's desire to see that as the outcome—and each country in Europe is going to use its own instruments and methods to achieve the reductions required. So there is an overriding obligation and ETS should be one of those important instruments, but we need to get it right before it becomes an effective instrument, in which case we need to make sure that other instruments are properly used.

Q116 Chair: You mentioned aviation. Again the impression I formed in China was that they do want to include aviation if they get a national system going, which would be an enormous boost to the EU's efforts in this regard.

Professor Sir David King: That is right.

Chair: Given that most, not all, of the opposition came from well to the East it is interesting that China may now come in on our side.

Q117 Dr Whitehead: Turning to COP 21, a leading question: what will constitute in your view a successful outcome to COP 21?

Professor Sir David King: What will constitute a successful outcome to the Paris COP meeting in December 2015? I am a scientist, as you know, so I would take my cue on this from the latest "Synthesis Report" of the Intergovernmental Panel on Climate Change, which has just been published. At the moment, over the last 10 years on average, greenhouse gases globally are increasing at about 3% per annum. If we continue at an increase of 3% per annum into the future, by about 2040 we will have run out of our carbon budget to stay below a 2°C temperature rise compared with the pre-industrial period and obviously we are not then suddenly going to drop to zero emissions.

Let's suppose Paris is a successful agreement, what is required? Starting in 2020 a decrease of 2% per annum would stay just within the carbon budget for a 2°C temperature rise. I would use that as a measure of the success of the agreement in Paris. That is a very big demand, to go from a 3% increase per annum exponential growth to an exponential decay of 2% per annum, but that is the measure put down by the United Nations agreement on 2°C. In my view the likelihood of achieving that in Paris is relatively small. So what I am now going to say—and it is the British negotiating position in this comment—is it has to be a ratchetable agreement: it has to be capable of ratcheting up after December 2015, when we can integrate what every nation is contributing to reduction proposals, and then see what that means in terms of that 2°C reduction. So after December 2015 the process has to continue. We have the period from 2015 to 2020 before this new agreed mechanism comes into place and I see that as an active period of continued bilateral and multilateral negotiations. Even beyond that period I can see the need for quinquennial meetings—meetings every five years—of the full body to discuss how well or badly we are doing and what new has to be done to change the trajectory.

Q118 Dr Whitehead: In that context and particularly then in the context of, as you say, ratchetable agreements, how do you think carbon pricing, particularly carbon markets, might be embedded in that agreement? Indeed in terms of your view that you think Paris itself is not going to produce the mechanism, how central do you think pricing and markets are likely to be to the possibility of moving forward from 2015?

Professor Sir David King: The reality of the situation is that the Kyoto proposal was a top-down mechanism attempting to put a global carbon market in place. That has not reached consensual agreement and we should not think that we can go back down such a route. In other words, I do not believe it is even possible to include a global regulatory process on carbon markets in what is agreed in Paris. Initially the reason would be the United States Senate and Congress political positioning on this issue, particularly after the recent elections. This means the American President cannot go into Paris and sign an agreement that has internationally imposed obligations on the United States. If that was the case the United States would be put back into the position of Clinton and Gore and may sign but be unable to ratify. That is the first reason. The Chinese will not sign up to an agreement if the US does not sign so that is the first reason why we should not even think of going down that route. But I think the second reason is the notion of evolving through national ETSs—and through the European ETS—to a global ETS is in any case a better route forward so that no country feels that this is being imposed on them but they will want to join, just as countries want to join the WTO, because carbon markets will become part of the global market system.

Q119 Dr Whitehead: Yesterday when we spoke to Professor Stavins he mentioned his conceptualisation of the process is perhaps taking the form of a hybrid agreement where you had some top-down, some bottom-up, but with the top-down essentially acting as a sort of clearing house for the bottom-up becoming much more focused and widespread and therefore, as you say, coming to the position where you effectively had a global agreement. He suggested that there should be some form of wording in the Paris agreement that would not necessarily lay top-down in concrete but would enable that process to move forward. Do you think that is right and is it achievable?

Professor Sir David King: The answer to both your questions is yes. I think it is right and is achievable. In a sense that is the position I am also describing, this evolution towards a global process.

The phrase "in the negotiations' nationally determined contributions" is a very carefully worded phrase that is a mix of top-down and bottom-up. Each country will put in its own nationally determined contribution. Contributions should all be in before Easter next year—ours is already in—so there can be bilateral and multilateral discussions between countries with the view to some top-down influence on the NDCs. The top-down influence is going to be from the British Government's modelling. We are already very capable of very quickly putting together the nationally determined contributions and integrating and saying where that is going so we can feed that into our bilateral discussions, but it can also mean that different nations are responding by looking at what their own contribution is doing towards the international objectives. We have to be extraordinarily careful with our wording on this as the US Supreme Court is going to be the adjudicator on the process.

Q120 Dr Whitehead: Do you think if you had that extraordinarily careful wording— which presumably because we are having to be very careful is not entirely in concrete form and will be the basis of considerable further discussion leading up to COP—the ability of that system you describe to bring about linking of systems would be enhanced? Would that be the sine qua non of getting from the bottom-up to the equivalent of an international system?

Professor Sir David King: In addition to the Supreme Court in the United States there are the very important issues of trust with, in particular, the G77 group of nations. This sense of potential distrust arises from the belief, for which there is a factual basis, that it is the wealthy countries that are creating the problem and therefore it is for the wealthy countries to take action. If you want to see where the focus of that is, it is in the position of the United States. The European Union is seen to be playing a major role in attempting to deal with these issues but the G77-US tension is another key part of this and these pull in different directions on this very issue. So the G77 nations would be very much in favour of a more top-down process and in order to be realistic about not going back into a Copenhagen situation, we know that we can't achieve that outright. So it is a very sensitive balance.

Q121 Sir Robert Smith: You mentioned how momentum would build up and people would want to join the carbon markets like they wanted to join the WTO. I would like to share your optimism but what would be the incentive for Australia in its current mindset, or Canada in its current mindset? I can see why you would want to join the WTO because you want to trade without barriers but why would you want to—

Professor Sir David King: I mentioned the WTO as an aspirational body for countries to join. When Pascal Lamy was running the WTO I certainly heard him say that multiple carbon dioxide prices around the world would be the very opposite of a global trading system. I believe it is quite possible even for the WTO to intervene with multiple trading schemes to push them together. I am not suggesting that countries that are not introducing trading schemes would then want to join. It is that existing trading schemes would have an incentive to pull together under a single carbon dioxide price.

Sir Robert Smith: Unless you do eventually get to a tipping point where those inside are big enough to start to have a carbon price at the border.

Professor Sir David King: Even the threat of a carbon price at the border might be enough. But much more importantly this is a matter of countries making their own national decisions about coming on board a given scheme and if the scheme is seen to be attractive and working around the world I believe it will become an exemplar and other nations are more likely to join. This is the advantage of an evolving procedure rather than an international agreement imposing a procedure.

Q122 Chair: The emergence of different ETSs in different parts of the world with different caps is entirely compatible with the principle of common but differentiated responsibility, is it not?

Professor Sir David King: Entirely. Absolutely.

Q123 Chair: One of the concerns that Profession Stavins mentioned yesterday was the risk that the outcome of the Paris COP might be to create some new obstacles to the spread of emissions trading. He said if we get some sort of overriding commitment towards sustainability that is not always helpful in terms of how we might want to use carbon markets to a greater extent in the future. Did you share that concern at all?

Professor Sir David King: Not at all. Perhaps I ought to read what he said to you. I do not wish to be seen to be disagreeing with him.

Chair: I may not have described it quite accurately but certainly one of the pieces that he co-authored recently identified sustainability. My sense of it, in the COPs I have attended, has been that there is quite a strong element of the developing world thinking the concern about climate change and the response is an opportunity for us to get a bigger share of aid. What I think of as fringe meetings in these COPs—a bit like a party conference only on a bigger scale—are full of very well-intentioned NGOs with begging bowls out and that is a distraction from the agenda. It is difficult enough to get agreement on the way forward anyway without having this other element floating around in the background.

Professor Sir David King: I think the way the negotiations in the COP process are proceeding with this key phrase "nationally determined contributions" the implication is that each nation or group of nations will achieve their contributions by mechanisms they introduce independent of the international negotiating process and that is a key difference between Kyoto and the process that is now emerging. What was determined after Copenhagen through the Durban platform is this alternative process. So that is why I am a little puzzled. I do not think that the agreement will deter the evolution of trading schemes.

Q124 Chair: Right. I have just found what he wrote. He says, "First, there are a number of design elements that the 2015 agreement should avoid, because they would inhibit linkage." He included among those, "including too many objectives that linkage might be required to achieve"—so it is a rather narrower point than I have described—"for example, adding 'sustainable development' as a condition for international recognition of linkages." So he is confining his comment to saying if we are working to encourage linkages and if you establish sustainable development as one of the pre-conditions for international recognition linkages, that could be an obstacle rather than a facilitator. That was the phrase I was trying to find in his work.

Professor Sir David King: It does not quite match up to how I see the negotiations going.

Q125 Chair: By way of finishing, you just mentioned very briefly the US elections and the difficulty that undoubtedly would now exist in terms of getting confirmation of any international agreement. Do you think that the results will have any wider impact on US domestic climate policy?

Professor Sir David King: The President is of course using federally one major instrument to achieve climate objectives and that is the Environmental Protection Agency. There is a very interesting factor emerging from that, which is using a regulatory system—the EPA—to create a requirement for any electricity production that there should be no more than X grams of carbon dioxide produced per kilowatt hour of electricity. What that means in practice is that a coal-fired power station at the moment may continue operating but would have to capture about 20% of the carbon dioxide emitted. The indication is that that percentage will be ratcheted upwards with time so that any company producing electricity with coal-fired power has to look forward in time to seeing how they can improve carbon capture and storage if they want to keep their coal-fired power stations going. The alternative is early retirement of the coal-fired power stations, which obviously also achieves the EPA's objective and frankly, I think, that is more likely than the carbon capture and storage route. For new coal-fired power stations, the carbon capture and storage has to be built into the process, which is much more efficient if it is built in from the beginning. So the instrument is the EPA and I see no change in that instrument. The real question, of course, is going to be the outcome of the next presidential election.

Q126 Chair: So the composition of the Senate in the short term does not really affect the use of the EPA? Good. Right. Was there anything else you wanted to say to us about the subject?
Peter, did you want to make a contribution?

Mr Lilley: I have made my contribution.

Chair: Was there anything else you wanted to say about our work on emissions trading and linking?

Professor Sir David King: No. I think I have been given plenty of chance to say what I came to say. Thank you very much.

Chair: Thank you.

Examination of Witness

Witness: **Niclas Svenningsen**, Manager DSI, Sustainable Development Mechanisms Programme, UNFCCC Secretariat, gave evidence.

Q127 Chair: Good morning, welcome to the Committee. Thank you for coming along and giving us your time. You will have heard the previous exchanges as well.

Could I ask to begin with, what is your assessment of the success of the UNFCCC and the Kyoto Protocol in working towards the objective of limiting the increase in average temperatures to 2°C?

Niclas Svenningsen: First of all, good morning and thank you for having me here. It is a pleasure to have this opportunity to share a little bit of the work we are doing at UNFCCC.

As to the success of the UNFCCC and the Kyoto Protocol, they are two separate instruments of course. UNFCCC is successful in the sense that it is the one place where we are able to bring together all the voices of all the parties in the world. We have basically universal membership in UNFCCC. We have two more members in UNFCCC than we have in the United Nations itself.

When it comes to the Kyoto Protocol, as you know this was designed as a top-down instrument. At the surface you could say that its success has been that it has over achieved its target to reduce emissions by 5%, which is a very modest figure today, among the parties that participate in the Kyoto Protocol. It has certainly not been enough. I do not think nobody would say that Kyoto Protocol has been enough, but there is one more side to the

Kyoto Protocol that is easily forgotten, that is that it has essentially amounted to an enormous capacity building exercise over the last 10 years. Much of what we see in market measures, in different kind of climate policies that are being put in place in different countries around the world is really thanks to the experiences that have been gained through the Kyoto Protocol. So it has contributed positively, I believe.

Q128 Chair: What lessons do you draw from the experience we have had of the Kyoto Protocol about how a global carbon market might be developed, particularly given the fact that Dave King reminded us that we have to reverse an annual 3% increase in emissions from 2020 into an annual 2% decline, which is a pretty substantial challenge?

Niclas Svenningsen: That is absolutely true. That is a major challenge, but it is a challenge that we will have to deal with. I am certain that we will deal with it sooner or later. I think the lessons learned from the Kyoto Protocol in terms of a global carbon market is first of all that the global carbon market was never regulated by the Kyoto Protocol. The Kyoto Protocol allowed for emissions trading and a number of flexibility mechanisms, CDM and the joint implementation. But the actual policy makers for markets have been the governments and the parties that have participated in these markets, in particular the annex 1 countries, the developed countries that have been purchasing allowances.

In that perspective what you could say is that the market will only function as well as ambition functions among parties. I think the reasons that we see very, very low carbon prices down in general is that there is simply no demand at current ambition levels for markets. That is also what we hear in negotiations, that it is used a little bit as a possibility to increase ambition if they get access to different means of support, both for developed and developing countries.

Q129 Chair: Turning to the Clean Development Mechanism, and the subject of offsets generally: do you think there is a future for the CDM after the European Commission's decision not to accept them?

Niclas Svenningsen: Yes. Again, it is a very good point because it is very easy to criticise the European Commission if you are a friend of the CDM. But the fact is that there are many more parties that should be part of the Kyoto Protocol and are not part of the Kyoto Protocol. I believe—if I understand this correctly—that the CDM was originally seen in the European Emission Trading Scheme as a price containment mechanism. So if the price of offsets or of emission allowances in the EU Emission Trading Scheme went too high you could supply CDM credits from the outside to keep the price down. With the design of the European Emission Trading Scheme and the oversupply that we see now of allowances, there is not much of a need for an offset mechanism as such. But, again, this also depends on what kind of ambition levels that you look at.

But I also believe that there is one point that is important to make here and that is that while the CDM is maybe a price containment mechanism for the European Union, it is also a climate financing mechanism for all parties, it is a sustainable development tool for many developing country parties. It is a capacity building tool for other parties. So it is a tool that has many benefits but often is just judged on one or two of the characteristics that it has.

Q130 Chair: If you were starting again from scratch, are there things that you might do differently in terms of how to develop a global carbon market?

Niclas Svenningsen: Yes, many things. There are a couple of things. First of all, it is important to understand that CDM is not a market, it is a tool that is supplying offset credits into a market and the markets are governed by the parties. I believe that politically it is very difficult to change that. I do not think that any party will ever agree to cede control over their own carbon prices or their own domestic carbon markets. However, there are a couple of things here. First of all, the issue of using something like CDM in a market where you do not have enough ambition is not very helpful. What we are seeing is that the ambition among parties has been very rigid, there has not been a lot of flexibility since the Kyoto Protocol was adopted. There have been processes to increase ambition among parties but, for political reasons mostly, we have not seen much of ambition increase and that ambition increase may come at the COP 21, the 2015 agreement in Paris next year.

So that is one thing. A more nimble or flexible way of controlling the cap of the market overall would be nice. Another thing is that the bureaucracy in administration, in particular with the mechanism, has been quite burdensome for many project developers. The CDM Executive Board has worked diligently in the last couple of years trying to cut the red tape in the mechanisms. But I think this type of mechanism needs to be more predictable in the future so that when you develop a product you know if it is eligible or not and you have clear criteria that you compare it against.

Maybe the last thing is about sustainable development, because for G77, for developing countries, CDM is very much a sustainable development mechanism. There is a weak side in the CDM in that way because sustainable development was never defined in the Kyoto Protocol and, therefore, there is no way of properly monitoring or reporting on the sustainable development from the CDM. But you also see today that offsets that come from projects that have a high sustainable development benefit—that can prove that they have that—have higher prices than the general offsets. So I think those three areas—a more flexible way of controlling the cap, more predictable routines and recognition that sustainable development has a role to play here—are probably very important.

Q131 John Robertson: I would like to look at where we are going. You mentioned Paris next year. The new market mechanism, NMM, and the framework for various approaches, the FVA, are still being negotiated yet it is hoped that something will be put forward at Paris. What is your current understanding of the role and its purpose?

Niclas Svenningsen: First of all, apologies for the acronyms. We are not terribly good in UNFCCC in coming up with good names. The new market mechanism was adopted in Durban three years ago and the parties, including the European Union who were proposing this, were seeing this as a replacement of the CDM. They were looking for something that was more large scale, that was simpler to approve and simpler to handle. However, since then parties have simply blocked the development of modalities and procedures for how this mechanism should work. So today it is only a mechanism in name, it does not really exist.

Although it is still there, we do not see the enthusiasm that we saw a couple of years ago among parties to move this forward. The focus now is more on the FVA, the framework for various approaches. The background for the framework for various approaches is basically that at COP 13 in 2007 parties adopted the Bali Action Plan, which was seen as a plan to increase the implementation of the convention, the idea was to increase the use of market-based measures. But there were other parties that also said, "We also want to see an increased us of non-market-based measures" and for that reason the name came up, framework for various approaches.

The understanding of this framework has evolved quite a lot in the last couple of years. I have personally had the pleasure to support negotiations on the FVA and NMM for the last three years. I would say that today there is by and large an understanding that the framework is seen as a set of rules and guidelines, an umbrella, that would allow linking of Emission Trading Schemes and the use of different kinds of market-based tools that result in the transfer of offsets across borders, to be recognised under UNFCCC. Today if you are not a Kyoto Protocol party you cannot do that.

Q132 John Robertson: Let me just bring that together. What I think you are saying is NMM is dead in the water, that is not going to happen?

Niclas Svenningsen: Not much is happening right now.

Q133 John Robertson: So does that mean CDM will continue?

Niclas Svenningsen: The jury is still out on that, I would say.

Q134 John Robertson: But FVA is likely to come forward?

Niclas Svenningsen: Yes. There are three areas that are discussed here. On one hand you have the existing mechanism, you have the CDM there, and you have some very, very strong supporters for CDM who would like to see CDM continue and also to be transplanted into the 2015 agreement as the mechanism. This is the position of some parties.

Other parties would rather see that CDM is left where it is—it will continue until 2020, but with current prices not much is going to happen—and that there are new mechanisms coming in instead. You have the NMM, the framework for various approaches, and the non-market-based approaches, NMA, that are negotiated together in one bucket, that have to be negotiated together in one bucket because parties have different interests and they do not want one of these items to move faster than the other items. But having said that, the framework for various approaches is the approach that all parties can see something in. You cannot say the same for the two other mechanisms.

Q135 John Robertson: Do you think the FVA—which seems the most likely one to be adopted—will help to facilitate the linking of Emissions Trading Systems?

Niclas Svenningsen: It should. I think it absolutely should.

Q136 John Robertson: How will it do that?

Niclas Svenningsen: In the sense that it puts up a number of criteria. The market mechanism, say that is a Japanese joint crediting mechanism, or the EU ETS, or the Chinese upcoming ETS; if they somehow want to link together they would eventually generate offset units or emission reduction units that are perhaps generated in Japan and used by the European Union, for example, to meet their mitigation targets. In order for these units to be acknowledged in the UNFCCC accounting framework and in the biannual reports that are being done there, there would be certain criteria that the FVA would define. If you have certain calculation criteria, certain sectors or gases, or certain methodologies for calculating the emission reductions, if you use this criteria or these standards to make sure that a tonne is a tonne, that you have environmental integrity and that you do not have double counting then this would be acknowledged under UNFCCC.

If you tried to do that today, for example, between Canada—which is not any longer a Kyoto Protocol party—and the European Union, which is a Kyoto Protocol party, that would not be acknowledged by UNFCCC because you do not have any rules that tell you want you need to do.

Q137 John Robertson: Dirk Forrister, the president of the International Emissions Trading Association, said—and he was talking about NMM and FVA, although from what you say that probably just means FVA now—they are ripe for either breakthrough or fizzling out and being replaced with something else. It sounds like one is fizzling out and one might be going forward. What do you think is most likely: they will both be replaced or a compromise somewhere?

Niclas Svenningsen: It is very, very difficult to speculate about this. All scenarios are still possible. The default scenario is that you will have a number of natural emission trading schemes that are maybe linking bilaterally, which would not be acknowledged under UNFCCC, and is, frankly speaking, going to generate a big mess. The second best is probably that you would have a number of regional emission trading schemes that are not linked. That still would not be recognised under UNFCCC. The third one is that you would have a proper global set of rules and standards where you would have anybody who would like to participate in the emission trading schemes. That would be recognised under UNFCCC.

I think that the need to have those kind of rules is very well acknowledged in the negotiation process. Most parties see those rules emerging under FVA negotiations. In terms of specific tools, the CDM, the new market mechanism and the joint implementation, as well as other domestic emission trading offset generating tools, that is really very difficult to say anything today. I could express that it would be a big shame to lose all the experience and all the benefits built over the last 10 years in the CDM and other market tools. But ultimately this is a political decision.

Q138 John Robertson: Mr Forrister also suggested that much of the detail could be sort of put together during Paris next year. Do you think that is likely? From what you say it does not sound as if it is going to be likely. If it is not, then what is a sensible approach to all this? I have been to a couple of COPs and the postulating by people is just ridiculous, I just wonder if we will get any agreement.

Niclas Svenningsen: Yes, our negotiations are very painful. I believe that what most parties and most market participants are looking for is a long-term stable signal about what is going to come into the future. It is probably unrealistic to believe that you will have a full new mechanism with all the models and procedures adopted in Paris. That is probably very difficult. Although technically it could be done, there is a number of political issues that need to be gone through. But it is quite possible that you will have a decision that acknowledges the views of markets and market mechanisms and decides that by the time the Paris agreement comes into force in 2020 the specific rules will have to be elaborated. How specifically that will be expressed in the Paris agreement is very difficult to say.

There is clearly, among almost all parties, a strong wish to have clear rules for what will happen in the future, not only on market mechanisms, but everything. The current situation and environment where we are right now with a lot of uncertainty is damaging politically, financially and economically for public and private sectors.

Q139 Sir Robert Smith: I think maybe you answered this question when you talked about a big mess. Looking at linking up an emissions trading system, you can have a top-down approach of, "This is how it should be done" or bottom-up approach of places like California and Quebec coming together, the EU as a unit and then maybe the EU and China. What do you think are the relative merits of the top-down or bottom-up?

Niclas Svenningsen: I think the holy grail is somewhere in between. The merit of having standards, certain common rules, minimum rules top-down is really necessary. We do not see a lot of bottom-up linkage happening today. You discussed with Mr King about China. What is happening in China today is we have seven or eight pilot schemes. They are never going to link, they are going to be replaced with a top-down national emission trading scheme. This is very clear now.

From the experience we have from the Kyoto Protocol, and what we have seen in markets today, having the minimum standards top-down is very, very helpful. But then also to strive for a very high level of flexibility for each party to first of all decide if they want to be part of these emission trading schemes and adhere to these standards, and to operate the different emission trading schemes and tools according to their own preferences. What we have seen in the negotiations is that there are a handful of issues that parties wish to define commonly. This is what the negotiations are about when it comes to markets—it is the level of flexibility versus the level of central control that different parties like. You will see the umbrella group, Australia, Japan, United States, like to have a very high level of flexibility, basically saying, "Trust us, we know what we are doing, we are going to play nicely". Then on the other hand you have AOSIS, the small island developing states, a large part of G77, saying, "We will not accept anything less than central control by UNFCCC" as has been the case for the Kyoto Protocol.

But we have also seen parties moving their position towards the middle in the last couple of years. So it is moving forward, but very slowly.

Q140 Sir Robert Smith: Do you think a move to come from the bottom-up would make a deal more difficult?

Niclas Svenningsen: It would be very damaging for the international process if a number of parties went out and linked and started to count their emission reduction across international borders unilaterally. That would basically amount to stepping away from the UNFCCC process. I think that would be politically very, very risky because that would crash everything else that is happening in the negotiations. Having said that, linking for the purpose of learning and capacity building—but without counting the units that are being traded—is a possibility and could be positive.

Q141 Dr Whitehead: We have discussed the question of carbon pricing, and carbon markets in particular, to some extent but we have had evidence that perhaps the most important part of the process is the potential move on process after COP 21. To what extent do you think that signals on carbon pricing and carbon markets in COP 21 can enable that move on integrating the top-down and the bottom-up process together? How significant do you think that may be and how feasible do you think that is to have that kind of wording in the COP agreement?

> ***Niclas Svenningsen***: I believe it would be very helpful. The whole idea about carbon pricing is to internalise an external cost that is today is worn by the environment and which science tells us is long term not feasible: it is simply not possible to not pay the cost for internalising the emission reductions. Carbon markets is a way of setting a price. In a well functioning carbon market it is a way of setting the price for carbon. We have heard many people say that there should be a top-down price saying that a tonne of carbon costs $25 or $30 or €30, whatever it is. That is probably politically completely impossible to impose.
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> Carbon markets where you have voluntary participation, at least at the international level, could really facilitate that price discovery. I believe that would be a helpful move. But of course the need for moving on is something that comes from science. This is what science tells us, and the ability to move on is a political issue.
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> I wanted to comment on something that was discussed here earlier today, which is to what extent national policymaking will be facilitated by an international agreement, and the case of the United States was mentioned. I believe it is very clear that an international agreement will facilitate that very much. Of course what you have heard from the United States, for example, in the Senate and the Congress has been, "Well, China is not doing anything, India is not doing anything, why should we do anything?" But when we have an agreement where all parties in one way or another commit to do something, it should also help the domestic policy makers to argue for a sensible climate policy at home.

Q142 Dr Whitehead: But isn't there then a potential row about what "doing something" then means?

> ***Niclas Svenningsen***: Yes.

Q143 Dr Whitehead: I wanted to perhaps focus a little bit on that point in as much as you mentioned that if, as it were, linkage takes place prematurely and the countries unilaterally link and, therefore, start incorporating each others' commitments, nationally determined contributions, in advance of the framework you described, that could be damaging. But presumably after that framework has been introduced the opposite then takes place, which is that potential pooling and sharing of nationally determined contributions would be a good thing in terms of moving forward. At what point does that axis change?

> ***Niclas Svenningsen***: The parties have in the last couple of years also talked about a period of learning. When the Kyoto Protocol was established, it was also a period of learning through activities implemented jointly—it was called—which was sort of the pre-runner to CDM as a market mechanism. There was a very dedicated effort in COP 19 in Warsaw last year among parties to establish a period of learning where exploration, I would say, of how different linkages could work was discussed. Unfortunately it was not agreed and I think the reason for that was, in particular, that there was a diverging view between parties whether achievements in that test period should be accounted for or not be accounted for. So whether it would recognise that we are reducing in one country and accounting for another one or how would it function in reality.

An interesting story about this, by the way, is also that when the European Union and Australia were negotiating and setting up a link between Australia and the European Union—as you know, because of the new Australian Government that is not moving anywhere at the time being—there were discussions about this. I was in one very interesting debate where somebody from the European Commission said, “Well, it is nothing strange about linking with another country, you just see it as another European Union member state”, which of course the Australians were not so happy to hear about. But the point I want to make is that there are some very deep political issues that need to be resolved if you wanted to move ahead before you have some kind of standards. But, yes, again, a period of learning may be the way forward.

Q144 Dr Whitehead: The post-2015 regime under those circumstances would have to presumably have a pretty robust monitoring, reporting and verification system and some combination of agreement on compliance at an international level but also national compliance agreements that were fed into some form of clearing house. Is that the sort of structure that you would envisage as moving on from COP in terms of bringing together this top-down, bottom-up formulation that you have discussed?

Niclas Svenningsen: I believe that when it comes to national reporting of emissions and national inventories, this is a process that is being strengthened. In the past it was really only developed countries that had a rigorous way of reporting their natural emissions. Now also through the biannual update reports we will have developing countries, non-annex 1 countries, reporting similarly and that is all fine.

If you are thinking about a future global carbon market and you compare it to the Kyoto Protocol, it is important to remember that Kyoto Protocol had a number of parties that had absolute caps, and when you did trading between these caps you subtracted an amount of emission reduction from one cap and added into another cap. If you look into the future it is uncertain, I would say, if we are going to see that kind of world. It is probably more likely that we will see these nationally determined contributions—which are nationally determined as the name implies—as a different character for different types of countries. Larger emitters, China, United States, European Union, would probably have other types of commitments than the least developed countries, Laos or Guyana or Yemen, for example.

What that means in terms of how an international carbon market would work means that it is not enough only to have the caps defined. You also need to have some rather reliable methodologies for calculating what it is that is removed from one party or from one cap to another cap, if you like. So the case of the CDM has over the past 10 years developed more than 200 methodologies in 28 sectors, I believe, that is verifying a tonne is a tonne. So you know that an offset from CDM is representing one tonne of emission reductions. In the future—where CDM is at least not yet part of the future agreement, as of now it is only part of the Kyoto Protocol—we will need to have something similar in the global agreements to allow countries to exchange those kinds of units between parties with different kinds of commitments. That is something that probably would not be developed at COP 21 but something that could be developed in the period from 2015 up to 2020 possibly.

Q145 Dr Whitehead: But presumably in that system you would need to not just have the question of agreement on terms but agreement on what was the equivalent to something else?

Niclas Svenningsen: Yes.

Q146 Dr Whitehead: Which I guess would be rather more difficult to come by?

> ***Niclas Svenningsen***: Well, it depends, and it depends also if we are looking at a global market that includes everybody or if we are looking at a global market that includes the parties that wish and are able to meet certain criteria. Some parties simply do not want to be part of carbon markets, they do not believe in carbon markets and they will not be part of carbon markets under current political leadership. In the same way that nobody would probably come to the UK and impose that you have to be part of this carbon market, they probably would say, "Here are the rules if you want to be part of it, these are the rules you should adhere to" and hopefully the UK would be part of negotiating those rules.

Q147 Mr Lilley: You said earlier that you could not see any country giving up control of its carbon markets and I can see that may be the case. But then you said they should not link their carbon markets until there is a uniform system agreed internationally. I was just wondering what happens if two countries do, even with uniform systems, link their carbon markets, one is a rich country that thinks it can bear the costs of a high carbon price and so sets the emissions cap at a limit that imposes a tax of $20 a tonne. The other is a poor country and feels it cannot impose a high cost on its energy and so it has a lower cap, which sets a price at $10 a tonne. When the two link the price is going to be somewhere in between, that is higher than the poor country wanted. Is that a good thing?

> ***Niclas Svenningsen***: That is the beautiful science of demand and supply, I guess. I know that when the European Union and Australia were looking at linking their markets there were different measures proposed to contain how much that influence would be in terms of what percentage of your domestic market can be supplied by emission reductions from the other scheme. The same thing with price control measures where you either put a ceiling or a floor to try to control the influx or outflux of emission reductions.
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> The World Bank has proposed an international carbon central bank that would have the role of controlling the price internationally. It is a project they are exploring and I think that it is a difficult idea just for the reason that while the European Union as one body certainly can agree on co-operation, there are other countries that will be much less favourable to having anybody outside their country borders decide what the price of carbon would be in their countries. The case of the United States and China are both good examples.

Q148 Mr Lilley: There is essentially a choice between setting a carbon price by fixing the quantity and letting the market fix the price, or imposing a tax and letting the market fix the quantity. When we were in China there was some debate about that and I asked one Chinese official who supported what side of the argument. She said people who want to control things in detail are in favour of emissions permit regulations because then they can allocate it each to different companies and so on, it gives them control. People who are not particularly interested in that or simply want to raise revenue, like the Ministry of Finance, are in favour of a tax. A tax is so much more simple. You just have to tax coal, oil and gas at the point it is produced at the mine, at the well, or at the port where it is imported. Whereas permits give you a tremendous detail of control over a thing that you are never going to get international agreement on, and then leave you with huge problems of verification and NMM and all these things that I cannot remember the initials for. Why is everybody so stuck on emissions control permits?

Niclas Svenningsen: On the carbon markets, on market-based energy, yes—

Mr Lilley: Yes, they are both market-based.

Niclas Svenningsen: Yes, they are both economic instruments. A tax is not necessarily market based and I think that is the real difference. You said you talked with international emission trading associations so you probably have heard this from them also that for the private sector, having an opportunity to make investments and redirect investments to where you can get most return on investments in terms of emission reductions is preferable over a tax where you simply have to pay up.

It is a matter of perspective. From a governmental perspective taxation is probably—

Q149 Mr Lilley: Hang on, no, if you build a windmill you do not pay a tax. If you build a coal-fired power station you pay the tax because you have to pay the tax on the coal you buy. So it gives you the same choice of investing in carbon intensive or low carbon things, whether the price is set by imposing a tax or imposing emissions.

Niclas Svenningsen: There are different views for that. One thing that complicates this is that in the perspective the UNFCCC is talking about that is not domestic, you are talking about international. I do not think anybody is proposing that you should choose in what country you are paying your tax. This deserves to be reiterated: the CDM as a carbon instrument has been able to raise several hundred billion of US dollars in climate finance. That is something that has been quite acceptable, it has been seen as positive, the finance has been coming mainly from project investors both in developed and developing countries, and also generates sustainable development benefits.

It is difficult to see that a tax would have exactly the same effect, but it is a policy choice. Carbon markets are certainly not the only policy instrument available, but internationally a carbon tax is the equivalent of carbon pricing, which is theoretically a very good idea and something that in the long run anybody would hope would be here so these costs are internalised. Politically, that is still very difficult to achieve.

Q150 Chair: That probably concludes our questions. Thank you very much for coming in, a very interesting and useful session for us.