GOVCOMMS PODCAST

EP#160: CLIMATE SCIENCE AND THE DANGER OF MAKING COMMS TOO SIMPLE

- WITH DR BORGFORD-PARNELL TRANSCRIPT

Dr Nathan Bordford-Parnell:

I don't care why you are coming to the table to eat, so long as you're willing to accept all of the multiple benefits and impacts of action. If you are coming because you are interested in protecting child welfare and reducing the number of diseases in in young adults due to exposure to air pollution, you're welcome at the table. You're going to get that and you're going to get climate mitigation at the same time, right? You show up to the buffet and maybe you're coming for the for the air pollution salad, but maybe you're going to stay for the climate change lobster tails, right? Or you're interested in protecting labor rights, right? Or you want to reduce, you know, climate impacts, or you want to improve the resiliency of populations. You get all of those things.

Voiceover:

Welcome to the GovComms podcast, bringing you the latest insights and innovations from experts and thought leaders around the globe in government communication. Now here is your host, David Pembroke.

David Pembroke:

Hello everyone and welcome to GovComms, a podcast about the practice of communication in government and the public sector. My name is David Pembroke, thanks for joining me. Well, today a special episode of GovComms, which is a co-production with the Climate and Clean Air Coalition Secretariat, where we feature the science lead Doctor Borgford-Parnell. It's a fascinating conversation, and it does go again a little bit longer than normal because Dr Borgford-Parnell has a lot of answers and I have a lot of questions. Does go a bit longer, so enjoy the program today.

As we begin today's program, I'd like to acknowledge the Ngunnawal people and pay my respects to their elders, past, present, and emerging, and indeed pay my respects to any First Nations people who may be listening to our podcast today.

Well, I think it's fair to say that effectively communicating the challenges of climate change and net zero is, at times, elusive. Rising cost of living pressures, competing political views and subject matter complexity means attention is scarce and action often underdeveloped. The barriers to understanding, appreciation and action are real.

And now with the Paris Agreement, which is a legally binding international treaty on climate change, now 8 years old, the race to achieve targets is now well and truly on. And with that, the pressure on communicators to get the story straight, get the story out, get the story understood and most importantly, get the story acted upon.

Well, someone who has been toiling away in this space for many years now is Dr Nathan Bordford-Parnell, the science lead with the Climate and Clean Air Coalition Secretariat. The Climate and Clean Air Coalition Secretariat is a United Nations environment program that targets the reduction in compounds known as Short Lived Climate Pollutants, or SLCP's, which include methane, black carbon, hydrofluorocarbons, and something called tropospheric ozone. Around 2012 It was agreed that reducing these SLCP's would slow the rate of global warming much faster than action on carbon dioxide alone.

Well, joining me is Dr Borgford-Parnell on the line from Paris. Dr Borgford Parnell, welcome to GovComms.

Dr Nathan Bordford-Parnell:

Thank you very much. Thank you for having me.

David Pembroke:

So listen, if you might just give us a little bit of background about the work of your organization and specifically what it is and what is that problem that you're trying to solve?

Dr Nathan Bordford-Parnell:

Well, again, thank you for for having me, this is a very exciting conversation. This is where I spend most of my time, so it's always a pleasure to discuss this topic. So the Climate and Clean Air Coalition, as you said was formed in 2012. We are a voluntary coalition of Governments, intergovernmental organizations, other UN agencies, we ourselves are hosted within the UN Environment program as you mentioned and in some private sector entities and academic institutions. We're now up to currently 88 country members in the CAC, along with over 100 NGO's and intergovernmental organizations such as the World Health Organization, the World Meteorological Organization, the World Bank, UNDP and others.

What we do on a day-to-day basis, I lead the science affairs program so I lead our science based decision making and assessment program. I coordinate our scientific advisory panel, which is a panel of luminous scientists from a broad range of academic backgrounds who advise our countries on science-based decision making around SLCP's and integrated climate and clean air action. But beyond my program, we provide direct support to governments to help build their capacity to integrate their climate and air pollution planning and action in a way that achieves multiple benefits in the in the near term that are consistent as well to with our long term climate stabilisation objectives as you mentioned. We do highlight in large part the importance of mitigating short lived climate pollutants as a necessary co-reduction along with the required efforts to reduce carbon dioxide emissions to net zero in the second-half of this century.

David Pembroke:

So if we might just before we get into that this challenge around integration and support and awareness and adoption, if you could just give us a little bit of the science, the science behind the challenge of the short lived climate pollutants, because I understand it was back the I think maybe that it was the World Meteorological Organisation that first identified these specific challenges and just indeed, what is the challenge and how can they be reduced?

Dr Nathan Bordford-Parnell:

Well, it's a good question. I mean we, I mean, in all honesty, we've known that these short lived climate pollutants are impacting the climate for as long as we've known the carbon dioxide is impacting the climate. And in fact that's one of the reasons why it's so exciting to be talking to you today. As you mentioned the climate system is the most complex thing any of us as human beings are ever going to interact with.

That makes communicating in ways that are intelligible to human beings and even experts, communicating how to impact and how to interact with that system really quite challenging. And some of the ways that we have for the last 40 years, particularly in the climate space selected communications tools and metrics to simplify this issue have presented challenges when it comes to really understanding, in particular how long SLCP's have been a problem and how they do, and are different from, and really quite unique and important independent of carbon dioxide.

So as you mentioned, the World Meteorological Organization back in 2011, along with the UN Environment program came together, the chief scientists of those programs came together and said, you know what, we know that one, we only have one atmosphere. We don't have multiple atmospheres. Everything that we put up into the air from human activities and even from nature itself, is all going to the same place. It's not like we have one atmosphere over here that that only greenhouse gases go into and we have another one, you know, in a different you know universe where the air pollutants go, we also know that often these pollutants are coming from the same sources. So, you know, for example, in the transport sector, it's not like we have one fleet of vehicles that only emits carbon dioxide and an entirely different fleet of vehicles that only emit PM2.5 or air pollution. Right? It's coming from the same vehicles, which means that if we change that vehicle, that it will change both of those things, right? It'll impact all of the pollutants that come out of those vehicles and

those net impacts when you add them up produce a number of really quite significant impacts across multiple time frames and for multiple constituencies. Layering on top of that that you know that each of these, particularly these climate impacting gases, and climate impacting particles have very different lifetimes in the atmosphere which means that if we look at them individually and we and we consider how long they last in the atmosphere, if we were to change, again going back to a car, if we were to switch out, for example, a very old diesel-run off road construction vehicle, which emits a lot of air pollution and a lot of carbon dioxide. If we were to convert that over to an electric vehicle, we'd be eliminating the air pollutants and the CO2.

Air pollutants in general have an atmospheric lifetime of about two weeks and carbon dioxide has a very complicated lifetime in the atmosphere. It's non linear, some of it, some of the CO2 that we put into the atmosphere will be up there for hundreds to thousands of years. So what that means is that if we eliminate that vehicle, we switch it over to an electric vehicle, for example, we will have within a matter of weeks, all of the benefits of reducing those air pollutants, we will see the health benefits, the agricultural and the climate benefits from those air pollutants because they go away very quickly, but we will not see the benefits from carbon dioxide reduced from that same vehicle for a number of decades, because of just how long it lasts up there.

So we need to reduce both emissions from these, from the vehicles and every other source of emissions that that human beings interact with, and they will have impacts over multiple time frames and over multiple different stakeholder groups. So you know layering together that somewhat simple but indeed really quite complex set of thoughts, right, we set about to see if we could identify a set of actions which would one reduce warming within the near term, so focused on pollutants that have a relatively short lifetime in the atmosphere, unlike CO2 as I mentioned, and also impact human health through the Nexus of air pollution. And if we could identify actions which achieve both of those benefits simultaneously. And from that, that set of initial questions, we identified a set of 16 actions which focus primarily on what we now call short lived climate pollutants. So actions which address significant methane emissions in the agriculture, in the waste and in the fossil fuel sector and actions which impact black carbon rich sources of air pollution, which also commits CO2.

That was the original crux in the thinking around the formation of the CCAC and the originating concept of SLCC's and what we did find was if we can focus on and reduce methane emissions by approximately 36% compared to 2020 levels by the end of this decade, and in addition, reduce air pollution and co-emitted CO2 by about 80%, all of these things being possible because we have the technological capability to do it, what it would deliver is 1/2 a degree of avoided warming by the end of the century. It would cut the rate of warming within the next couple of decades in half and it would deliver on an annual basis starting in about 2040 2.4 million avoided premature deaths because of the reduced air pollution.

Now and all of this is the scientific basis on which the CCAC was originally formed, was this conception that air pollution and climate change are intimately linked, that the pollutants have different lifetimes in the atmosphere, and if we can select for those different lifetimes and the sources of the pollutants and we look at the net impact we can select for a set of actions which deliver benefits in the near term while also being consistent with our long term climate stabilisation objectives. And I have to say you know, I mean I don't have to say it, it's really quite evident from the success of the CCAC that that messaging and framing really turned out to be really, really gelled with policymakers and the broader community because there's a lot of attention now on SLCP's and this integrated approach to climate clean air.

David Pembroke:

It one of the successes that you were able to pull out the story as it relates to human health, pull out the story as it relates to agriculture and the SLCP's, and making the story relevant for those particular interested audiences.

Dr Nathan Bordford-Parnell:

Absolutely. Yeah. I really see this as, I mean the way the way I frame it, it's like a buffet. I don't care why you are coming to the table to eat, so long as you're willing to accept all of the multiple benefits and impacts of action. If you are coming because you are interested in protecting child welfare and reducing the number of diseases in in young adults due to exposure to air pollution, you're welcome at the table. You're going to get that and you're going to get climate mitigation at the same time, right? You show up to the buffet and maybe you're coming for the air pollution salad, but maybe you're going to stay for the climate change lobster tails, right? Or you're interested in protecting labor rights, right. Or you want to reduce, you know, climate impacts or you want to improve the resiliency of populations. You get all of those things once you start recognising and really working with the concept of this integrated multiple benefits approach and understanding the unique components of all of these co-emmitted pollutants, you can bring your own metrics and your own goals and ambitions to the table, and deliver on everyone else's at the same time.

David Pembroke:

So if I might just sort of just pull you back to something that you did say in in an earlier answer to the question, and given that you have been around in this space for a long time, you said that there were mistakes made around trying to take the complex and move it into too simple actions or responses and that was a that that created some sort of challenges. Could you explain that to me a little bit more?

Dr Nathan Bordford-Parnell:

Good question. I don't know if I would frame it as a mistake necessarily. Everybody comes at this, I mean, as I said, it's a very complex issue. The most complex system any of us will ever interact with, that we need to simplify it in different ways and we have different objectives, policy objectives in particular which dictate how we communicate these issues. But if I do say with the ability to look back at the last 40 years of climate action, I would say that the initial conceit of that, all greenhouse gases are fungible, that they can all be compared to carbon dioxide and converted into carbon dioxide was, it's a very effective communications tool and a metric in some communities, but the ones that we work with, in particular, the ones that are worried about, for example, sustainable development, public health, the temperature pathway that we take through this century, not just the end point, the temperature that we reach at the end of the century, for those communities, the concept of converting everything into carbon dioxide equivalents through a variety of different climate metrics presents as much of a barrier as it does a facilitator of action. Just one example for this is that methane, right? One of the key short lived climate pollutants that we work on, methane has caused to date, human beings emitting methane has caused to date about half a degree of warming. So in the net it's about 1/3 of the total warming we've experienced to date is caused by human driven methane emissions. Methane is a short lived climate pollutant, but it also contributes to the formation of tropospheric ozone, which the troposphere is the is the ground level atmosphere, so ground level ozone.

Ground level ozone is a greenhouse gas in its own right, it's also an incredibly powerful air pollutant, which harms human health and ecosystems, right. The increase in methane is responsible for about half of the increased globally of background tropospheric ozone around the world, since pre industrial times, right. Ozone, one of the things that it does, in addition to impacting human health, is it actually physically damages plants when it comes into contact with plants and that has a cascading set of impacts. That impacts food security, ecosystem health. But one of the things that it does that I think it's very poorly understood is when a plant is damaged, it has less of an ability to sequester CO2. Carbon dioxide is an important component of photosynthesis and when plants are damaged, they are unable to draw down as much carbon dioxide, which actually leaves that carbon dioxide up in the atmosphere, causing more climate change. So if you if you follow that train of thought, emitting methane causes warming, right, because it's a greenhouse gas. It also causes the formation of ozone. Ozone causes warming because it's a greenhouse gas. It also damages plants, which causes warming by leaving more carbon dioxide in the atmosphere. Whereas carbon dioxide causes warming because it's a greenhouse gas. But it's also, in many ecosystems, a fertilizer for plant growth because it is a

component of photosynthesis. So some of the climate impact of emitting carbon dioxide is offset, a very small amount, but some of it is offset by its fertilizing effect on biomass. But that's not true for methane. Methane actually helps kill and damage plants right, so it enhances climate change through that nexus. When you convert methane into carbon dioxide equivalent, right, you are ignoring that nexus of impacts, because methane is not carbon dioxide and plants do not absorb methane and they do not absorb tropospheric ozone. There are some instances, particularly in climate finance, where it is absolutely reasonable, I think, and in fact valuable to make that conversion and say OK, let's let's try to get one unit that we all work with to facilitate climate finance. But if you are interested in ecosystems impacts, if you're interested in public health impacts, if you are interested in avoiding near term warming, then then in in all reality, methane is not equivalent in any way to carbon dioxide. The only thing equivalent to carbon dioxide, is carbon dioxide ultimately.

And so one of the things that we do advocate for very strongly in the CCAC is that, and I realize that there's a lot of complexities to this in the communication space, particularly for policymakers, is that we first need to treat all of these pollutants as unique and individual pollutants because the unique elements of them have cascading impacts which one make life more complicated from a communication standpoint, but do also allow you to access, communicate with and engage with other stakeholder groups and other communities that are impacted by climate change and want to have an impact on a beneficial impact on sustainable development and climate change, who may not see themselves reflected in a world where we only communicate in terms of carbon and long term climate goals.

David Pembroke:

So the risk of this CO2 equivalence is what in particular from a communication point of view. If we distill the whole thing and try to push it all into this CO2 equivalence, what are the risks?

Dr Nathan Bordford-Parnell:

Well, one of the risks is that we continue to misunderstand all of the impacts that happen throughout this century. Climate change is happening now. That's more evident today than it's ever been in the past, right. And the pathway that we take through this century is probably more important than the end point that we reach from a from a temperature standpoint. So when you're only looking at carbon dioxide, as I mentioned, CO2 has a non-linear lifetime in the atmosphere. Some of it will be up there, let's say, for example, in celebration of this podcast, each of us throws 100 molecules of carbon dioxide into the atmosphere. In 100 years, 40 to 50 of those molecules will still be up there, right? If we did the same thing with methane, it'll be gone. All of it will be gone in 10 years, right? So if we think that if we convert everything into carbon dioxide, then really what we're saying is that the most important objective that we have - policy objective, development and human objectives, societal objective that we have is protecting ourselves from long term climate stabilisation and what we have found from the policymakers that we work with is that's not the case that they have very complex sets of objectives over multiple time frames and a lot of constituents that they have to work with and using just this one metric that is tied to a very long term climate stabilisation objective is not necessarily the most effective way to engage with those communities and activate them to make the changes that are necessary to achieve a sustainable pathway through this century to 1.5 or two degrees Celsius.

David Pembroke:

So that is a that is a reasonable and obvious concern with the state that we're in at the moment, given that the you know, the call to net zero is very much a, you know a target by a particular point in time. There is that sort of drive to simplicity which is hoping to try to overcome some of the resistance because people have some sort of understanding about carbon dioxide and emissions. But clearly what you're arguing for is that we really need to take the additional step of working a little harder to try to actually explain the science behind it, which is a lot more complex than just net 0 by 2050.

Dr Nathan Bordford-Parnell:

Yes. In fact I started my career not in science affairs, but as an environmental attorney and that has benefited me in in a number of ways. One of them, I read legal, I read documents like an attorney. So if you go back to the Paris Agreement, I sense that a lot of people look at the Paris Agreement and do not read it with attorneys eyes. If you go to the Paris Agreement, where we established the temperature targets well below 2, and trying as hard as we can to get to 1.5 right, but the preceding paragraph says that we will take we will engage in activities which achieve our climate objectives, but within the context of sustainable development and efforts to eradicate poverty. So my contention is from my reading of the Paris Agreement is that our temperature targets are always within the context of sustainable development, right? And any pathway, any set of activities that we take for climate objectives which do not achieve or do not work to achieve our sustainable development objectives, ultimately are failing at what the countries of the world agreed to do in the Paris Agreement, right?

So the net zero targets are very important. It's incredible framing, I would never poo poo the concept of net zero, but in many ways it is for a great many of our constituencies who are interested first in sustainable development. In much of the world that is the primary concern over long term climate stabilisation, in many ways, net zero actually can be detrimental to a lot of the constituencies that we work with, and I'll give one concrete example. So again, you know, recalling the Paris Agreement - In 2018, the IPCC published a report, 1.5 special report, where they really had to grapple meaningfully with the temperature target within the context of sustainable development and what they determined in that report was that the only temperature pathways which are consistent with both our long term temperature targets and sustainable development were ones where either we never crossed the 1.5 threshold or we only barely go above it and then come back down as quickly as possible, right? And within that context, short lived climate pollutants in particular are incredibly important and we really do need to understand how all of these different pollutants impact the pathway that we take, which means that all of them need to come down at different rates and different amounts. And I really do challenge everyone following along at home. I know this is a this is a podcast, so you know there are no visuals, but please do, I encourage you to go to the that report and look at figure 3A. It shows the pathways in terms of emissions that these different pollutants need to take to be consistent with 1.5 and what that shows, it's a very complicated figure, but in in very simple terms, what it shows is literally the only greenhouse gas that needs to go to zero, and in fact go beyond zero to net negative is carbon dioxide.

It's the only one, and it's because carbon dioxide is a little like nuclear waste in the atmosphere, it accumulates. It's going to be up there forever. We need to go to net zero because we actually have to physically pull it out of the atmosphere if we're going to stabilise our climate. Methane is short lived. It's not accumulating. It's not an accumulation problem, it's a flow problem we need to reduce the amount of it that's going up into the atmosphere, so if you look at that figure, methane never goes to 0. Ever. Ever. Nitrous oxide, another really important, somewhat long lived greenhouse gas, never goes to zero. They go down, they have to go down quickly. Methane, for example, needs to come down by about 45% by mid-century and then it needs to stabilise, but it never goes to 0. And that's important for, you know, coming back to your original question, I apologize for the secureness route I've taken but the concept of net zero is challenging because it is fuzzy. It's ill defined. The only thing that goes to 0 is CO2. It needs to go to zero. We cannot miss the mark on that, or we are threatening our future. Now and going forward, but simultaneously, methane has to come down by about 45% by 2050 and then it needs to stabilize. And one of the reasons why it's important that we recognise that methane never goes to 0, right is if you is that we can't go to 0, there's no such thing as net zero methane. The only thing, the only way we know to get to 0 right now in an industrial scale is through the brilliant natural technology of photosynthesis, right, it's our plants.

And plants as I mentioned before, they don't interact with methane other than being harmed by ozone. So if we frame net zero as being net zero, all greenhouse gases, that is actually, I would argue very counterproductive because we don't know how to do it. We can't do it, and net zero CO2 on its own is already an enormous herculean -- It's going to require efforts of of all economies and all people forever, right. It is really about helping people understand that that when we talk about net zero, we're talking about carbon dioxide alone. But the other greenhouse gases are critical particularly in the near term for stabilising the

climate and creating a sustainable pathway through this century, they need to come down at the same time as CO2 and then stabilise at lower levels, but certainly never 0.

David Pembroke:

So that's a that's an interesting point, isn't it? In terms of positioning, because if you make the story larger and it's not just about net zero, or greenhouse gases, and you split it out and you explain it all, you could probably demonstrate progress because you were saying before that the technology is there to achieve a number of the targets with the other greenhouse gasses not just carbon dioxide, but you could tell a bigger story which would give people hope that the change and the activity and the behaviour that they are putting in place is actually having some sort of benefit because the risk is, if it's all tied up with net zero everything and we don't get anywhere near those targets, which everyone is already starting to speculate that we're miles from it, particularly the pathway to 2050, that people will become disenchanted and, you know, throw their hands up and say, well, this is all hopeless. We can't do it anyway, so why should we even bother?

Dr Nathan Bordford-Parnell:

100% and, you know, that's another one of the things that I really enjoy about working with the Climate and Clean Air Coalition. We're all about benefits. We're all about benefits to as many people as we can possibly deliver to them over multiple time frames. For the longest time, the climate community, for the most part, and I'll be a little facetious here but have been in myopically focused on a deliverable that we will only know if we've achieved it in, you know in 70 years or 80 years, right. And from a policymaker standpoint, I don't you know, I'm from the United States I sense that I have a pretty good understanding of how your government works there in Australia, but I have a pretty, I think I can make a pretty well educated guess that you don't have any policymakers that are elected on a Centennial timescale. Usually they have to deliver benefits to their constituents relatively frequently and much sooner than within 80 years, right? And that is where this multiple benefits approach really provides value. I mean, in all honesty, climate change, the simple way I describe it is it's caused by everything we do everywhere, all the time, forever. Which is a sad fact. And if we're going to solve this, it's going to require all of us changing everything in a in a sustainable way forever, and that is an enormous lift. And I think it is really important, one that we consider realistically what we're asking, right. So the most ambitious climate target we have is 1.5, and 1.5 does not require us getting methane to zero. It doesn't, right. And, you know, and that's a good thing because we don't know how to do it. But we do know how to get to 45%. We've added it all up. We know how to get there and not only do we know how to get there step by step with individual communities, but those actions that will deliver those reductions deliver multiple benefits for public health, ecosystem health and the climate. And those are only just three, three communities that we work with most frequently. They have, you know, spiralling benefits for a great number of other constituencies that we're always trying to you know, expand our communications to but we really do focus on the things that you can do, today, which reduce emissions in ways that are truly and realistically consistent with our greatest climate commitment 1.5 pathways that also deliver benefits that policymakers or any other member of the community can see and leverage for additional action and ambition within a matter of weeks or years, when it comes to air pollution.

David Pembroke:

OK. So in terms then of that framework, so it sounds like it's there, it's articulated, what's your best advice to people about the way to go about communicating complexity because you know generally in the communications game, you know, we accept the, you know the famous saying that there's genius in simplicity. Well, in this case, there's not. How then do people go about in their roles? As you know, public sector communicators, how do they go about taking on this opportunity of communicating complexity?

Dr Nathan Bordford-Parnell:

It's a good question. It's something that we're constantly testing in the CCAC. We don't always get it right, but I think we do, we do get a lot of things right and that is by one, focusing on individual pollutants and communicating that those pollutants are different and the differences, if you can simplify those down enough. There's a lot of power in recognising the differences, and in particular with methane, for example, I know I poopoo a lot the concept of trying to convert or compare methane to carbon dioxide, but from a simplicity standpoint, I do think it's valuable. Well, not just for methane, but for all of the other greenhouse gasses to be able to say, you know it is, uh, you know, in within the 20 year time frame, 85 times more powerful than carbon dioxide. I do think that's a useful way to describe it. But communicating methane as carbon, is stealing a lot of the nuance that I think can be really quite powerful for policymakers. So making sure that you are describing these as unique pollutants and understanding that you can communicate their impact as it relates to carbon dioxide from a climate perspective, but then really lean into the other impacts that are closer to the ground, that are closer to constituents, that are more meaningful to the communities you want to engage with, right. So, methane, we have a lot of tools that allow policymakers, well, any, any constituency to understand what a change in a ton of methane would mean in terms of a ozone concentrations and the public health impacts. So if you have an agricultural policy, for example in Australia or any other country, and there is a methane component to that and instead of just communicating it in terms of contribution to tons of carbon reduced, you know, also talk about how much methane specifically is reduced and what that potentially is going to mean in terms of the public health impacts that would be delivered from the methane mitigation as well as the ecosystem impacts. We have tools that allow you to immediately make those conversions. And and by at least communicating both the climate and the public health implications of those actions, you are doubling the communities that you that you can mobilize to sustainably put effort into, you know, ensuring that those targets are those different policies are implemented and those targets are met.

David Pembroke:

So you mentioned 88 countries, a number of NGO's, other contributors, private sector organisations as well. How many of them have adapted or adopted the dashboards that you're talking about there?

Dr Nathan Bordford-Parnell:

Oh, that's a good question. I so at this point, well, there are a lot of different metrics for that. So one of the ways that one of the primary ways that countries are communicating their climate commitments are through the nationally determined contributions that are submitted every five years to the Paris Agreement. Next year is, every country is looking to submit their NDC 3.0, which will set their new climate ambitions to 2035. And in the current NDC's as we see them now I mean, we work with all 88 countries and we provide capacity building to over 40 developing countries and countries in transition to give them to support them, to build their own internal capacity to integrate their climate and air pollution policy making, their modelling and their planning, and we provide direct engagement for NDC creation and planning. Right now, 92% of NDC's include methane specifically about half include hydrofluorocarbon refrigerants. I know we haven't spoken about those but they are among the category of short lived climate pollutants that that you mentioned in the opening and that's really heartening. We're working right now to expand with those countries to not just include those pollutants in their targets, but actually articulate transparently the specific actions they're going to take, in a quantified and measurable and transparent way in their NDC's. And we're working with over 50 countries right now to do that, so that's one of the metrics that we use to show that you know our impact and it’s really quite been significant. I mean I guess I should say in the first NDCs, the number of countries that included methane was somewhere in the 70s, so we saw a really quite significant change from NDC 1.0 to NDC 2.0. We're looking for full coverage and NDC 3.0, and we're working with a great number of countries on that every day. There are also a growing number of countries that are producing integrated planning and in particular, inventories of emissions is sort of the first step in a science based planning and policy process and a growing number of countries are now integrating both their greenhouse gas and their air pollutant inventories so that they're treating them as an integrated problem, not as separate management problems that need to be managed by

different communities and and legal structures. And I think Australia actually has an integrated inventory, the United States, most of the EU and a growing cohort. I don't have the number in front of me, but I believe it's over 45 countries outside of the OECD now have and are working towards these integrated inventories. Yeah. So there are a lot of different metrics there and they're all pointed in the right direction.

David Pembroke:

So, you know, listen, I know this is not your responsibility, but what are your views as someone who has been in the climate space to the challenges of misinformation and disinformation, and really the complexity and the broader contextual challenges around, you know, cost of achieving progress around climate and other greenhouse gas emission reductions, carbon dioxide reductions. How do you observe that and how does that impact the way that you go about your business? That there's a an unstable, but you know often hostile environment to which you're seeking to influence with a science based approach.

Dr Nathan Bordford-Parnell:

It is a really good question. I do have to say in all honesty I have the great benefit of working in a community where I do not interact with on a very frequent basis, real disinformation beyond disinformation around particular smaller scale elements of the science but broad scale disinformation which does exist out there about climate change in these commitments is not is not a space where I thankfully have to work on a day-to-day basis. I will say though, I mean I do have an answer. One of the things that we really value our partnership really values and I think is one of the ways to inoculate against this, and keep the pressure on regardless of a political change, for example, that that maybe would down, maybe deemphasize climate is to really lean into this multiple benefits and impacts right. For the longest time, the climate community has really stuck to itself, particularly through the nexus of carbon dioxide equivalence and this focus on long term climate stablilisation.

Those are metrics that that are exclusionary. They're important in a lot of they have a lot of uses. I don't want to poo poo them, but they are exclusionary for a lot of different constituencies, which do have a stake in changing this climate problem, which is everything all the time everywhere, forever, right. The public health community, the air quality community, the food security community, the public resiliency communities. These are communities which every day work on climate issues, that are impacted by climate, that emit climate pollutants, and can engage in in ways that that the traditional climate community cannot and while it does make our lives more complicated to communicate to these other communities and work with them in ways that they understand coming to them speaking their language instead of forcing them to try to speak our language, that is a way that we can inoculate ourselves from disinformation and changes in in political will. Right? Because maybe climate stops being the number one issue, or even a top issue in some countries, maybe, maybe from a policy perspective, you get a you know you, you get policymakers who are antagonistic to that concept. That doesn't necessarily mean that they're antagonistic to public health.

I mean right now, just as an example, it is estimated that 600,000 babies babies every year die from pneumonia caused by exposure to fine particulate matter air pollution in their homes. And those babies are dying from air pollution caused by, in large part the fuels that their parents are using to cook their meals. And those babies are dying not just from the air pollution that's being emitted from the fuels, but, but carbon dioxide is also a being emitted, right. And some methane is being emitted, right. And we need so, those children every year are dying because of unsustainable development. But they're also dying because of climate change.

And maybe the climate change element is weaker, or maybe the community doesn't want to work on climate change, but they do want to save those children still and that that remains an issue that they will probably, I would assume want to continue to work on. I'm more than happy, as I mentioned before, it's a buffet if you're showing up for the public health benefits, fantastic. You're going to get the climate benefits at the same time. Let's recognize it, right. If you only care about those climate benefits, great. You're going to get the health benefits too, right? And if you recognize that those things are coming together, or at least that you could deliver those things to together if you make the right decisions from a policy and a technological standpoint,

you are creating a more sustainable and resilient infrastructure for long term action that's consistent with both our development and our climate objectives.

David Pembroke:

Do you have any recommendations on where people can go? People working in government communication who want to take on this challenge of communicating more effectively around some of the policies that where they can see best practice, learn new tools and become just more effective in their roles? Where would you point them to?

Dr Nathan Bordford-Parnell:

That's a good question. We have an enormous number of resources within the Climate Clean Air Coalition. We have a resource library on our website and it's ccacoalition.org. I encourage everyone to go there. We are constantly providing trainings on communications and capacity building and resource development. We also provide support multi-level governance support. So while our one of our main constituencies are national governments, we do work at every level of government. We do have sub national government working groups. We have a lot of different mechanisms for support and I would encourage anyone to reach out to myself or our CCAC listserv or our communications team and we will link them in with our communities. We have 6 sectoral hubs, which are working groups where our partners at every level, you know governments at every level and NGO's and IGO's come together to identify and highlight best practice. Identify new and explore new technological and policy options and create projects for collaboration and resource mobilisation. So we have a lot of resources that we try to make more and more accessible and usable to a greater number of constituents every day but the first step I would say is reaching out . Australia, just speaking to the constituency where you are right now, is a partner in the CCAC, so it any policymakers within Australia are absolutely more than welcome to join. If you are a mayor or you know someone who's supporting a municipal government anywhere on Earth, even if you're not in a partner country. We have resources, communications, and capacity building resources and tools that are tailor made for you. So our website and our engagement communities are the first stop for all of this.

David Pembroke:

Now just a final question and it's your job to really, you know, articulate to evangelise, to explain, but on the optimistic scale of 0 being not very optimistic, pessimistic to 10, being optimistic. Where do you place yourself at the moment? Eight years after the Paris Agreement was signed? Where is your optimism meter?

Dr Nathan Bordford-Parnell:

You can't work in this space unless you're optimistic. I'm going to say but the but the numbers I mean, if I'm being honest, the numbers are going in the wrong direction right now. Methane and nitrous oxide in particular are increasing at rates which are higher than all of our worst case scenarios. CO2 is actually not going too badly in the wrong direction, but right now if we're looking at emissions into the atmosphere, they're going in the wrong direction. If you look at the commitments that have been made, those commitments would put us on a stable path to 1.5. They really would, but the trick is getting it done. And uh, being in the CCAC, you know there is a benefit there, we are all about benefits. We are all about focusing on the things that can be done and lining those up to what we actually committed and I and one of the reasons despite the fact that methane and nitrous oxide in particular, going up at at really quite staggering rates, despite the fact that it's very likely that my home country is going to be on fire this summer like it was last summer and Australia as well during your summer, that that much of the world is lighting on fire. Despite that, I know that we can do it. We have the technologies today. We don't have to rely on carbon capture and storage industrial technologies. Those will be very useful if they're ever fully monetised and at an industrial scale, but we don't need them. We could, we can do it. And not only can we do it, but we can do it in a way that delivers benefits to people who are suffering right now.

It's not just about doing things that hurt us now so that we can deliver benefits in the future. We can deliver truly transformative and meaningful benefits not just from the public health and the agricultural nexus, but also economic benefits to people from doing the things we know how to do today and those things are enough, they are truly enough to get us on a 1.5 pathway. So I would say, you know, back to your 10-scale, I I'm normally hovering around eight, I think maybe right now given you know you know for seeing what this summer is going to look like, maybe I'm going to, maybe I'm at a 7.2, but I know we can do it and I'm committed to helping countries of the world understand that they can do it too.

David Pembroke

Well, Dr Nathan Bordford-Parnell, who is the science lead at the Climate and Clean Air Coalition Secretariat, thank you so much for speaking with us today for sharing your enthusiasm, your wisdom. I love that idea of multiple benefits, multiple times, multiple time frames. So I think there's something in that, I think the taking on the challenge of complexity is something that we have to do, I think to connect with people because in this case I don't think there's genius in simplicity. I think there's risk in simplicity, so. I also like the fact that there is so much resource there that people can take the time to go and read and to understand, read the case studies, see the resources, participate, improve themselves and to get better. Because really, if the if the task is going to be done, everyone gets a job and everyone has to complete a job. So thank you so much for joining us on GovComms today.

Dr Nathan Bordford-Parnell:

Thank you very much. It's been a pleasure.

David Pembroke:

And thank you audience for coming back once again, what a fantastic conversation there with Dr Nathan Bordford-Parnell, obviously one of the great experts in this field. I think he really explained it well. It is complex, it is complex, but I think the other compelling point he made is that we just have one atmosphere and we really owe it to ourselves to really understand. What is it that is going into the decay of that atmosphere and what indeed can we do at what time to deliver some benefit, so some great information there for all of you.

Listen a rating or review of the program. I know I do ask every week, but it does help us to be found. The numbers are good, they're going up. And so please if you do have time for that, that's fantastic, but we'll be back at the same time in a fortnight with another leading expert about the world of government communication. But for the moment, my name is David Pembroke, and it's bye for now.

Voiceover

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