Title: Global Governance for the Anthropocene

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Speakers:

Introducer – Nick Wheeler, Director of Institute for Conflict Cooperation Security

Speaker – Tony Burke, Senior Research Fellow for ICCS

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Nick Wheeler

OK, good afternoon everybody and welcome to I guess this is the first seminar in the 2016/2017 ICCS Seminar series. This is organisation by the Institute for Conflict Cooperation Security which I'm the Director of; my name's Nick Wheeler and it gives me great pleasure this afternoon to introduce our speaker, Tony Burke, who's been with us for the last couple of months as a senior research fellow in the ICCS where he's been working with me on a project that we jointly lead on, on nuclear ethics and global security, reforming the nuclear non-proliferation regime. We've been working together for the last couple of months on this project. Tony's been to Birmingham a few times before and it's been great to have him here for a longer period and I hope he'll come back in the not too distant future. His most recent book is actually one that he's finished while he's been here, which is called Uranium and it's basically everything you wanted to know about uranium and it will be published next year with Policy Press in their series on resources and the book talks about the whole kind of story of uranium and in particular its impact

on issues like nuclear weapons and nuclear non-proliferation, which I'm sure he'll say more about in the talk. His most recent books of ethics and global security – published books as against ones that are in press – A cosmopolitan Approach with Katrina [0:01:31] and Matt McDonald, which was published in 2014 and Ethical Security Studies, edited with Fiona Nyman who was a PhD student here at Birmingham in 2016. Tony's a reader in politics and international relations at the University of New South Wales based in Canberra where he's been for several years. He's going to talk today about his own research project, not anything that we're actually doing together although I think it touches on things that we're doing together and indeed may well be something that we'll take forward as we take our project together, but his title for this afternoon is Global Governance for the Anthropocene, Nuclear Weapons and the Global Ecology. I'd like to invite you to give a warm Birmingham welcome to Tony.

[applause]

Tony Burke

Well thank you very much, Nick. It's great to be here. I'm just going to get straight into this. You may have noted that in August this year a scientific working group of the International Commission on Stratigraphy presented its recommendation that new geological epoch, the Anthropocene, be declared to have superseded the [Holocene - 0:02:42], the climatically mild unstable period of the last 10,000 years. The argument is that we should name the new epoch 'The Age of Man' because humanities collective impact on Planet Earth has been so profound that it would be found in the geological record. They assessed that this epoch begins in approximately 1950 and that one of its key signatures, along with plastic pollution, increased atmospheric carbon dioxide, nitrogen in soils and chicken bones, was the global redistribution of radioactive elements from nuclear weapons testing. In many ways the provenance of the nuclear age in the scientists' recommendation is apt. Indeed, you could argue it doesn't go far enough. Atmospheric nuclear

testing has left concentrations of the radioactive isotope, Strontium 90, in the bones of almost every human being and by the 1980s, earth system scientists were publishing papers arguing that not only would a major nuclear war destroy much of Europe, the Soviet Union and the US, it would cause such intense global cooling that it would create a new Ice Age. This was termed 'Nuclear Winter' and it marked not just a devastating global humanitarian impact of nuclear war but an unprecedented potential for human activity to affect life at a planetary scale and produce something like a mass extinction event. So this is a gesture to something that I think is important about the Anthropocene, that it takes us well outside the normal and does so on quite an extraordinary scale.

Since the atmospheric chemist, Paul [0:04:36] suggested the term in his very short 2002 nature article on the geology of mankind, the Anthropocene has emergence of key idea, shaping earth system science and its account of society and ecosystem interaction at the planetary scale, especially set out in what's called its Planetary Boundaries Model. It's also turned into somewhat of an industry in the humanities and social theory, however its impact on politics – either the study or the practice of politics – so far has been almost negligible although there is a new issue of the Millennium Journal of International Studies that you'll find it has a lot of prominence and we had our planet politics manifesto in that issue.

So today I want to talk about why the Anthropocene matters and what its implications are for politics and global governance and I'll do that through some of my more recent work on nuclear weapons and the politics of uranium and global environmental governance and international relations and my theories of security cosmopolitanism.

Firstly I will talk about the Anthropocene concept itself, second moving to its implications for the governance of nuclear weapons and thirdly its implications for international security and global environmental governance and here I'll be drawing on the manifesto of planet politics that I published in Millennium with

four other colleagues earlier this year. In particular I want to touch on some more concrete proposals for the development of an ecological international law that [0:06:32] outlined in a conversational article in July.

So what does the Anthropocene concept do for us? I think it does two things. One is that it tells us that industrial human kind collectively is a new kind of geological and planetary force. [0:06:54] sites the Italian geologist, Antonio Stippani, who spoke in 1873 about a new [telluric - 0:07:01] force which in power and universality may be compared to the greater forces of earth, and he referred to what he called the 'Anthropozoic era'. The second thing it does is that it forces us to confront the post-human. This is the idea – and I would say it's also a fact – that the human is not the sole or the ultimate measure of things and that it must give ground, ethically, ontologically and practically, to the non-human and to the planetary ecology. So it's a profound challenge to Western humans and it suggests that we probably need to buy anthropocentrism but not before developing a sophisticated understanding of how powerful and structuring the anthropocentric point of view has been for multiple fields of knowledge and global practice. I'll emphasise that I'm not trying to use the Anthropocene as some kind of [0:08:04] concept, a global concept that somehow generates a perfect understanding of everything that it might be used to describe or reflect on. There is a tendency in some humanities debates to demand that it explain everything from capitalism to the destruction that ensued after that European discovery of the New World. I don't think it makes sense to demand that a concept with such relatively thin origins explain all our grand social structures or modern history as such. I would say it's a useful heuristic amongst others, if a very portentous one.

The Anthropocene is also a brute, material fact, even if there are differing views about when it begins. The commission on stratigraphy which is focused on these universal geological trace markers replays an argument that the Anthropocene begins with the great acceleration of post-war industrialisation and growth and the global addition of radioactive isotopes in the soil and the bones of mammals. Yet [0:09:17] in his piece speculated that it could be said

to have started in the latter part of the 18th Century when analyses of air trapped in polar ice showed the beginning of growing global concentrations of carbon dioxide and methane. And it's a date, he said, that coincides with James Watts' design of the steam engine in 1784.

Now why would I argue that the Anthropocene is a brute reality? Let's look at what earth systems science is telling us. There are now 120 more parts per million of CO^2 in the earth's atmosphere than there were at the start of the Industrial Revolution. Since 1870, our civilisation has emitted some 1,465 billion tonnes of CO^2. The concentration of CO^2 atmospherically passed 400 parts per million in 2015 and is as high as it has been for a million years. Global greenhouse emissions trends show the planet hurtling towards a world in this century that could be three to five degrees Celsius warmer than the pre-Industrial era and that especially into the 22nd Century is a world of melted ice caps and permafrost, flooded cities, oceans that are so acidic they can barely support life and the loss of the Amazon's rainforest. There is one study that predicts that ocean acidification pollution over fishing could cause the collapse of all major marine fisheries by mid-century and a massive corresponding reduction in marine biodiversity. In terms of that, we know that there is at least 617 species of vertebrates that have become extinct in the wild since 1500 and that exceeds what's called the 'background rate of extinction' by over 100. Half the earth's wild animals have disappeared in the last four decades so we are, in short, in the realm of the unprecedented.

One way of trying to think about this situation is in terms of enormity, both physical and moral. In the introduction to Uranium I wrote that a submerged and recurring theme throughout this book is this kind of enormity and the implications that are [0:11:57] for human societies and our systems of national and global governance. The physical enormity of being able to unleash forces that hitherto had operated only in the [0:12:08] stars; the planetary enormity of creating weapons systems that in their most extreme hours of interaction could destroy much of the biosphere and change the climate. The moral enormity of machines that alone could destroy a city and together imperil the very life of the planet. And now it seems that the routine interaction of industrial capital to humanity and the global ecology will have a similar impact – just on a slower timescale.

So these give rise to some profound questions. If we have these kind of powers, who is allowed to decide to use and manage them? Who will manage them? Should it be small groups of politicians, bureaucrats, scientists and military officers? Or will it be some kind of democratic global policy, the communities and life forms that they're most going to affect. Who can manage the contradictions when these purposes clash or give rise to profound harms in the cause of utilising a mineral like uranium or conducting normal industrial and economic affairs? Can a global system based on the

sovereign rights and powers of states be trusted to manage these potentials and dangers? Or will a new cosmopolitan global governance architecture need to be created? The question I asked was, are we as a political species truly capable of managing the ethical, environmental strategic and political complexities unleashed by the modern exploitation of the uranium atom and our collective impact on the biosphere?

So let me talk through what I think are four key implications. In general I would say that the challenges of the Anthropocene pushes towards these cosmopolitan and post-human perspectives because they take humanity and the biosphere as the fundamental moral reference points and they suggest that the claims and even the agency of the non-human and the climate should be put more centrally into politics and governance. They challenge the state and the human-centric world order. It is possible to see elements of these perspectives already in things like the humanitarian implications of nuclear weapons initiative and the 2030 agenda for sustainable development which has got the seventeen sustainable development goals that was adopted by the UNGA last year. The first of these key implications is that we face a kind of temporal stretching of horizons; a long range responsibility. Species extinction and climate change, much of it will be irreversible. Sea level rise will continue for hundreds of years because of the embedded thermal expansion of the oceans. Radioactive isotopes in nuclear waste will remain dangerous to life for hundreds of thousands and indeed millions of years. This is why when I was developing my theory of security cosmopolitanism I stated two fundamental key responsibilities of all states and security actors. One was that they had to create deep and enduring security for all human beings in a form that harmonises human activity with the integrity of global ecosystems. And the second was that those actors had responsibilities to future generations and the long-term survival of global ecosystems. They had to consider the impact of their actions and choices through long periods of time and we know that our political horizons often don't extend far beyond the next parliamentary term and it's hard to find state or global governance bodies that project priorities and commitments out beyond a decade or two. Even the sustainable development goals are talking about 2030. In the nuclear space, even as there's a demand for the abolition of nuclear weapons and public discussion of this process suggests it will take decades. It's hard to find policy makers and institutions that are committed to this kind of extended process, even just for exploring its technical and strategic complexities now.

The other three I'm going to talk through together. The second is that we have an incredible level of complexity in the management task and in global governance for these kind of processes. Second, there's a problem of radical normative pluralism in the international order and third is that arguably we are facing a failure of the state centric and neo- [0:17:41] global order as it now stands. On normative pluralism we can consider that on the one hand we've got one of the most extraordinary documents that the UN has ever produced which is this 2030 agenda for sustainable development. It's a profound challenge to our current models of the world economy and industrial development to current ideas and structures of international security and to the structure and purposes of global governance – even if implicitly. It talks

of a common global aim to free the human race from the tyranny of poverty and to heal and secure our planet and our specific goals to sustainably conserve and use the oceans and terrestrial ecosystems and to halt biodiversity loss. In contrast, an excellent recent study of the UN framework convention on climate change argues that it has in fact been structured to institutionalise unsustainability. Now, you can say that the Paris agreement last year gave us some hope but even the text of that agreement minuted the pledges made by states will still lead us into dangerous levels of climate change. We know that powerful economic interest and their allies in many states are strongly opposed to strong action on climate and any kind of politics that would work harder to preserve the biosphere.

The 1.5 degree goal that climate scientists now say is our threshold of safety has been pushed aside to a group of scientists for more discussion. So in short you could say that we don't yet have a global governance regime that is based upon the best advice of earth system scientists and committed to protecting humanity or the biosphere. Maybe we have half a one. You can also say that the biodiversity convention lacks [0:19:55], that the UN convention on the law of the sea gives states enormous freedom to plunder and damage marine ecosystems within their exclusive economic zone, without accountability. And then as many other scholars have noted, global economic, environmental and security governance systems are strongly disconnected. They're unable to deal with the complex and systemic interactions that shape global politics and especially our own interactions with the biosphere. The global economic governance we had through the WTO, the Bretons Woods Institutions and the G20 is not committed to sustainable development, or the SDGs. The UN security council's never passed a resolution relating to the global environment. On nuclear weapons we can see that governance failure and radical normative pluralism is in evidence in the current impasse in the nuclear non-proliferation regime. It's clear that there are fundamental contradictions emerging in its architecture. Firstly the circled MPT [0:21:17] of disarmament on the part of nuclear weapon states and non-proliferation on the part of the others has been exposed as a situation in which the NUS brought non-proliferation with a false promise to disarm. Now only the Obama administration amongst the nuclear weapon states has shown any commitment to nuclear abolition but it doesn't have a strong national consensus behind it and its commitment to nuclear force modernisation and missile defence is muddying the waters. It's possible to acknowledge that nuclear weapon states have legitimate security interests but it's just as obvious when you look at the failure of the NP2 review conference last year and the nuclear states' consistent efforts to prevent momentum on multilateral disarmament negotiations. That disarmament is not something they support. Disarmament in terms of abolition. And there are other impasses in the regime. The CGBT negotiations on a fissile materials cut-off treaty and efforts to advance the multilateralization and nuclear fuel cycle. This is why in part the humanitarian initiative on nuclear weapons has gathered so much steam, which is now manifest in the creation of an open-ended working group that has recommended that the general assembly begin negotiations on a treaty separate from the NPT to ban nuclear weapons.

So what I would say is that these fractures in the NPT regime – and they reflect both its state-centric ethics and architecture and also the perseverance of dangerous ideas about the broad utility of nuclear weapons – highlight the regime's failure to deal with the complexity – moral, structural, security – of the nuclear Anthropocene. My view is that the regime will only survive and the planet security be protected if the moral implications of the nuclear Anthropocene are heeded and we make collectively more conservative efforts to reduce the risk of nuclear use and steadily and cooperatively move to nuclear abolition. It's not something that nuclear weapon states do alone, it's got to be a task for the entire regime.

I also think that the regime collectively will have to restructure its global governance system to support this transition to zero which mean revisiting the peaceful uses side of the NPT [0:24:18]. It may mean softening this view about the sovereign right to the nuclear fuel cycle and bring about strong international control over enrichment and fissile materials. At the point where we're heading towards nuclear zero, we are going to need very intrusive and strong systems of surveillance and verification. Now this may or may not approach the full idea of world nuclear government but it will require that the sacred cow of state sovereignty is set aside.

So that's the nuclear side. It's complex enough but the challenge of reversing biodiversity loss and preventing dangerous climate change and fixing the oceans is even greater indeed, especially when we consider the need to change many of the key logics and freedoms of global capital and to integrate normatively and institutionally disparate systems of global governance that affect the health of the biosphere. Now I can't even begin to touch on that complexity here but I will discuss some of the new thinking that some of us are doing about some more radical reforms to the global governance of the environment and here I'm going to in a sense refer to a couple of the key ideas that we've put in our conversation article which was called Politics for the Planet. The key argument there is that global environment governance should be focused less on the needs of human beings and human societies than on the needs of the global ecology because we're so bound up and intertwined with that ecology that there'll be clear benefits for human societies. The global environmental governance should also be open to creating new kinds of legal personhood and representation for the non-human and for ecosystems. Now one of the ideas we had was for a coal convention. I won't talk about that at length but the concept was it would be like the chemical and biological weapons conventions, completed ban the mining of and burning of coal and that this would have enormous benefits for combatting climate change given that the burning of coal is 43% of annual global emissions and it's also a highly toxic substance.

What I'll spend more time, I guess the next ten minutes talking about, is two other ideas we had. One is for an earth system council and the other is for the development of some kind of statute of crimes against biodiversity. The concept of the earth system council is that it would function much like the UN security council – it would in effect be a kind of ecological security council. Its mandate would be to preserve, protect and repair global ecosystems. It could

respond to immediate crises but also stimulating action of systemic environmental degradation and ecosystem repair. It would have binding resolutions on all UN member states, although we're not sure it needs the same kind of coercive powers. It could be an interesting debate. Every meeting would be briefed by the Head of the UN Environment Programme and by those system scientists or ecologists, particularly those with expertise in the discussion. We thought that it could have 25 voting seats and this is where it gets interesting, 13 of those go to state representatives elected for fixed terms so they're allocated amongst the major world regions. The other 12 would be permanent seats held by what we'd call the 'Eco Regions', major ecosystems that bind together large human and non-human communities that are crucial to the planetary biosphere. So we thought here of the Arctic and the Antarctic, the Pacific and Indian Oceans, the Amazon basins, Tropical Africa, or major river systems like the Mekong and Congo. Each eco region might be represented by democratic assembly and have a constitution that's focused solely on the preservation or repair of its ecology. Its main task would be to appoint representatives to the earths system council but it would also have the power to make recommendations for ecosystem protection to regional governments. Every state with territory that overlaps that eco region would have one seat; other seats in this democratic assembly would be elected democratically from communities in that region, especially indigenous communities.

A crimes against biodiversity law would be a kind of Rome statute for the global environment and it could actually add much needed teeth to efforts to preserve global biodiversity and prevent large-scale environmental harms. We envisage that this law would outlaw and punish three kinds of activity. Actions that contribute to the extinction of endangered species by poaching, illegal whaling, destruction of habitat; actions that involve the unnecessary large-scale killing or death of species groups that's happened in the Gulf of Mexico after the deep water horizon disaster – massive dolphin mortality there; or activities that destroy ecosystems like the dumping of mine tailings or toxic waste into rivers. We don't see criminalising farming of animals or the catching of fish but it could apply if these practices involve the grave mistreatment of animals or large-scale collateral damage to biodiversity through overly destructive fishing methods such as deep bottom trawling. We imagine that it's a kind of global level regulation that would in a sense be an ultimate backstop to better regulation and enforcement at local and regional levels.

Now, unlike the convention on genocide, we don't see that this law would require proof of intent to commit the crime, but rather a strong nexus between the activity and the destruction of biodiversity or industrial and systemic harm to animals. There are interesting legal precedents in the United States which has a legal doctrine of depraved type murder which individuals are liable for death caused by wilful indifference rather than an express desire to harm. Now there's a kind of philosophical question here that you may have in your mind. Why is the destruction of biodiversities as morally appalling as genocide or other crimes against humanity? What's the analogy here? Now Hannah [0:32:30], the philosopher, argued that the distinct evil of crimes

against humanity lays simply not in mass murder but in the destruction of human diversity. It was an attack on the very conditions of our peaceful coexistence on this planet and now in our view, if we become more and more aware of the complex enmeshment of human and non-human life in the planetary biosphere, the human cause extinction of species is likewise an attack on a common ecological existence, but what is morally interesting is that this is not an attack that had an intent or one actor and that's what we have to grapple with.

So let me just conclude by tying this back into what kind of picture of international security is being put forward here and this comes from some post-human thinking like [0:33:30] who developed a notion of worldly security where you have to secure the worlds in which humans and non-humans coexist. My theory of security cosmopolitanism argues that the global and planetary scales on which ecological and human and nuclear insecurities are manifesting has to be matched by both our theory and with some caution, our governance. So you can see where that headed me. So if I define security and that theory of security cosmopolitanism as a coordinated and multi-layered effort to eliminate serious and avoidable harms to humanity and the biosphere to create legal and structural frameworks that will build that kind of security and ward off disastrous outcomes in a systemic fashion, we can see that there is a mode of international security that is not modelled around state interaction and conflict, it is not modelled around military affairs, but it's modelled around, I guess, this complex enmeshment of societies and ecologies.

Thank you for your attention.

[applause]

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