

**“Rethinking International Security
in a Climate-Disrupted World” – Draft Full Text**

**Presentation for NATO Parliamentary Assembly
Political Committee, 18 November 2018
Halifax, Nova Scotia**

I. Good morning. Thank you for the opportunity to speak with you.

Last weekend, world leaders assembled in Paris on the 100th anniversary of the end of World War I to recall the sacrifice so many made to defend liberty and democracy. Amid the remembrances, there also were reminders of the nationalistic fervors that contributed to sparking two world wars. French President Macron noted the dangers of backsliding into that dark history, warning: “Nationalism is a betrayal of patriotism.” This has become truer over time as the nations of the world have become more interconnected. The weekend’s events were a powerful reminder of the need for a global frame through which to respond to mounting global challenges.

Today we face an existential threat no less dangerous than those that catalyzed the two world wars. The warning signs of this crisis are everywhere, but the world is dangerously unready to meet this challenge. To fight it effectively the world must be mobilized as if its own survival is at stake. Today’s looming climate disaster needs to be seen as a global security threat, a threat calling for changes in our traditional ways and mindsets. Unfortunately the sense of emergency is non-existent where it is needed most: in the U.S. Administration and in the worldwide business community.

Our faltering response globally and nationally to this threat is a preeminent danger. We need to reframe this security issue through a broader global lens inclusive of earth sciences and diverse worldwide expertise. Indeed eminent earth and global change scientists are asking, “Can our interconnected network of complex civilizations stay one step ahead of the problems it is creating?”¹

II. In my remarks today, I’d like to:

- A) Present the implications of the latest scientific reports on climate change impacts
- B) Consider whether “national” or “international security” adequately frames a global threat such as climate change? Or whether a new global compact is necessary.
- C) Suggest some needed responses

By way of background, I’ll observe that my national security career spanned the last decade of the Cold War and the aftermath of 9-11. Since the mid-1990s I have dedicated my career, including of late in academia, to anticipating strategic issues that are potentially destabilizing to global security. Alongside nuclear war, climate change is foremost.

¹ Simon L. Lewis and Mark A. Maslin, **The Human Planet: How We Created The Anthropocene**, Pelican Books/Penguin Random House, 2018, p. 387.

A.) Scientific Reports. The day before I was invited to do this presentation last month, the world's scientific authority on climate change, the United Nation's Intergovernmental Panel on Climate Change (IPCC), released its special report in response to a request of the Paris Climate talks in 2016.

- The contents of this report are acknowledged by its authors as a dire warning that the world must have reduced carbon pollution by 45% by 2030 to keep the worst-case climate change scenarios in check in contrast to earlier estimates for this time period. This report changed everything I previously would have presented this morning.
- It's not that the content of this report was entirely new. But the timeline for effective and unprecedented action has been dramatically condensed. This report was followed by other alarming reports on biodiversity loss, permafrost loss, and surprisingly overheated oceans. They all paint a more immediately alarming picture, including one of scientists surprised by their own findings. While not traditionally considered security concerns, all these warnings intersect with issues of international, national, and human security. [Slide]

The implications of the IPCC report are profound in a way we've never faced before. And, now, everyone and especially policymakers have an imperative to act. The last decade's discussion into "**what are the security implication of climate change?**" must be superseded by the recognition that mankind, without delay, must remake the global economy and update its thinking for a new global context. We cannot make the needed changes within the context of inherited worldviews.

These warnings show that our inherited frameworks of "national security" and "international security" are no longer appropriate lenses through which to view the looming climate change disaster. What is "security," after all, if we can ignore such warnings? What is "security" if we do not act on a now fleeting opportunity to save human civilization and the planet for future generations?

If we take these recent reports together, an urgent reexamination of our assumptions around "security" becomes clear. For instance, "whose security?" is it we are talking about? Who defines "security?" These are issues we have discussed in our seminar but now we must confront them beyond the so-called "ivory tower" of academia.

Let's take a closer look:

- **First, the IPCC's Special Report** released last month warns us that the world must immediately implement "rapid far-reaching and unprecedented changes in all aspects of society" to cut carbon pollution by 45% by 2030, just 12 years from now. Carbon pollution would need to be cut to zero by 2050. The authors found that avoiding an increase of a half-degree Celsius (to 2 degrees) in global warming would make a huge difference in avoiding worst-case scenarios.

- The authors found that if greenhouse gas emissions continue at the current rate, the atmosphere will warm up by as much as 1.5 degrees Celsius (2.7 degrees Fahrenheit) above preindustrial levels by 2040, inundating coastlines and intensifying droughts and poverty. This continued uptick in emissions would mean a world of worsening food shortages and wildfires, and a mass die-off of coral reefs as soon as 2040—a period well within the lifetime of the majority of the global population today.
- Prior work had focused on estimating the damage if average temperatures were to rise by a larger number, 2 degrees Celsius (or 3.6 degrees Fahrenheit), because that was the threshold at which scientists previously considered for the most severe effects of climate change. The new report, however, shows that many of those effects will come much sooner, at the 1.5 degrees Celsius/ 2.7 degree Fahrenheit mark.
- Avoiding the most serious damage requires transforming the world economy in just a few years, write the authors. They estimate that damage at a cost of USD\$54 trillion. “It’s telling us we need to reverse emissions trends and turn the world economy on a dime,” according to Professor Myles Allen, a contributor to the report. Global model pathways limiting global warming to 1.5 degrees C are projected to involve the annual investment needs in the energy system of around USD \$2.4 trillion (2010) between 2016 and 2035 representing about 2.5% of the world’s gross domestic product (GDP), according to the IPCC report.

Secondly, the World Wildlife Fund’s Living Planet Report warns that global wildlife populations have fallen, on average, by 60% in just over four decades, as accelerating manmade factors, including pollution, deforestation, and climate change, have created what it calls a “mind-blowing” crisis.

- The total numbers of more than 4,000 vertebrate species—including far larger numbers of populations of mammals, fish, reptile, and amphibian species—declined rapidly between 1970 and 2014, according to the **just-released report**. Current rates of species extinction are now up to 1,000 times higher than before human involvement in animal ecosystems became a factor. (CNN) Marco Lambertini, Director of the World Wildlife Fund, says that humans are facing an “unparalleled, yet rapidly closing, opportunity to rethink how they value nature, and called for a “new global deal.”

Third, in its annual Global Risks report, **the World Economic Forum (WEF)** earlier this year warned that environmental risks are topping the charts of (most-likely & most-impactful) business risks. Derived from global risks perceptions surveyed among hundreds of business leaders worldwide, the report adds that “We have been pushing our planet to the brink and the damage is becoming increasingly clear. Biodiversity is being lost at mass-extinction rates, agricultural systems are under strain and pollution of air and sea has become an increasingly pressing threat to human health,” wrote the WEF’s Founder and Executive Director Klaus Schwab in the report’s introduction.

- The **Global Risks** report includes maps of the interconnected landscapes of global risks, showing us how dealing with any of the various security issues inevitably intersects with issues of extreme weather and climate change. [Slide]

Fourth and finally, the report commissioned in 2015 by the G7 called “**A New Climate for Peace**” warned that “Climate change is a global threat to security in the 21st century...Climate change is the ultimate “threat multiplier:” it will aggravate fragile situations and may contribute to social upheaval and even violent conflict.

- The problem is the compound risks that emerge when the impacts of climate change interact with other problems that weak states already face.” The report adds: “But even seemingly stable states can be pushed towards fragility if the pressure is high enough or shock is too great.”

B) Are existing “security” paradigms still fit-for-purpose concepts?

Most of us are familiar with a wide range of security-related impacts already evident around the world. They are international security issues in that they affect all nations and their interrelationships and current and future security. These include warming temperatures, intensifying storms, rising sea levels, extended drought, more frequent and dangerous wildfires, melting permafrost releasing potent methane gases, spikes in food prices linked to geopolitical instability such as the “Arab Spring” and forced migration, changing patterns of precipitation, shocking rates of species loss known as the “Sixth Extinction,” and new vectors of disease and invasive species.

These impacts are felt disproportionately by the most vulnerable people, often in developing countries that had little to do with causing the problem, as well as by struggling and marginalized populations in developed world countries. Such disparities aggravate already serious issues of inequality and social justice.¹

- The latest IPCC report has sweeping implications for everyone: absent aggressive action, many effects once expected only several decades in the future will arrive by 2040, and at a lower temperature of global warming.

“National security,” the concept, has different meanings in different countries but is associated with state-centric military and defense priorities arrayed against perceived threats and adversaries. In the last decade, however, the U.S. military, for example, has begun viewing climate change as a “threat multiplier.” This is a helpful framing, as some note, but it is insufficient to the task of confronting climate change in a way that enhances global security.

- One must consider the implications of looming climate change disasters being framed mainly within a national security, military or traditional defensive lens.

The drawbacks of viewing climate change through a "national security" or even an "international security" issue have received insufficient attention to date. Addressing a

¹ Dalby, Simon, “Peace, Violence and Inequality in a Climate Disrupted World,” Professor of

problem like climate change effectively requires a more comprehensive approach that integrates knowledge of causes, effects, nonlinear systems behaviors, and consequences for biodiversity and socio-economic realities. But, who *is* responsible for anticipating and dealing with the consequences that such sweeping and rapid changes portend?

Developing Needed Responses: Who, What, How, and When?

Typically those who think the most about the needed responses to our new climate-disrupted reality are not in positions of traditional state power and influence. They are not policymakers and often they are not in government. Some are in academia, business, think tanks, or elsewhere.

There is not a specific field to turn to for resolving this existential and intergenerational challenge. Existing “silos” of expertise, operations, and analysis do not reflect the interdependent realities of global systems on which our modern economy and life itself rely. Methods for risk analysis itself are limited oftentimes by the overconfidence of experts, as seen in the failures of the best minds to forecast the near disintegration of the global financial system in the run-up to the financial crisis of 2008-2010.

For the NATO Parliamentary Assembly, opportunities and imperatives of climate change involve strengthening and broadening existing partnerships between NATO and other intergovernmental organizations, such as UN, and non-traditional partners. Such expanded partnerships could take the form of new networks or even a strategic “ecosystem” of climate change-centric global security cooperation. Tremendous convening and mobilizing capacity exists with the potential to catalyze huge leaps in understanding and readiness for a climate disrupted world. Some things to consider include:

- **A strengthened partnership** with the United Nations using as springboards the tenets of the Paris Climate Summit in 2015, the Sustainable Development Goals, and the Shared Socio-economic Pathway scenarios of the IPCC Special Report.
- **A semi-autonomous inter-institutional strategic foresight platform** serving at a summit-like level and connected to NATO, the NATO Parliamentary Assembly, the UN and young professionals’ organizations (e.g. in foreign policy, diplomacy, international security, food and agriculture, renewable energy technologies, etc.) both inside and outside these institutions.
- **An anticipatory risk assessment function**, enabling early warning, recognition, and response capabilities among all stakeholders, including the UN [Slide]

The focus of such a strategic ecosystem connecting the NATO Parliamentary Assembly with other entities could be characterized by:

- **Communicating with constituents** on climate change matters, such as on individual legislators’ websites, and thereby amplifying the voices of citizen experts

- **Putting NATO's concerns into a larger global context**, raising awareness among member states and affecting policy and budgetary decisions at a national level

At the big picture-level, such an inter-institutional approach would:

- **Adopt a global framework**, inclusive of earth systems science and diverse participation, for charting a way forward
- **Boost international cooperation** through institutions already working in this arena, accelerating actions already underway, enhancing national readiness, citizen awareness, and grassroots mobilization around the issues & economic opportunities
- **Oversee strategic global change assessments (including climate change)** at the level of open source unclassified collaboration, rapidly collating and sharing data among and between publics about impacts on earth systems, biodiversity and societal resilience
- **Emphasize systems literacy** in the science and behavior of interconnected systems (a.k.a. "complex adaptive systems"), and "complex adaptive systems," especially in the phenomena of non-linear change, cascading effects, and tipping points
- **Accelerate/scale up innovation breakthrough potential**
- **Update risk assessment capabilities to deal with both expected and unexpected consequences**
- **Increase spare capacity** emergency and resiliency capacities
- **Build climate-smart infrastructure**, including hospitals, nursing homes, schools, hazardous materials storage, airports and other transportation and shipping facilities with a warming climate in mind
- **Expand public health preparedness** for rising incidence of heat-related diseases and aggravated and widespread cases of asthma and other lung and respiratory diseases
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Looking Ahead

Nations today are becoming inwardly focused at a time when global challenges are mounting and threaten collapse. Nationalist leaders ridicule the very concepts of international cooperation much as their predecessors did before the deadly 20th century wars. As Simon Dalby, a Canadian academic expert on environmental security, has observed: "Earth system analysis makes clear that, quite literally, the decisions made by [the] rich and powerful are shaping the future of the planetary biosphere."

In a relatively obscure document, the Trump administration admits that the planet is on course to a “disastrous” future within this century. An environmental impact statement issued this past August notes that “On its current course, the planet will warm a disastrous seven degrees [Fahrenheit, or about 4 degrees Celsius] by the end of this century.”² The Trump administration’s position is that it is too late to do anything about our warming climate, so we might as well continue with business as usual.

The question is “Where do we go from here?” Dominant inherited worldviews hinder effective global action. We have not been here before so we need new frames through which to chart our way. It depends, in the end, on what we value as humanity.

²The conclusion appeared in 500-page impact statement (by the National Highway Transportation Safety administration) used to justify freezing fuel efficiency standards for cars because it’s too late (they claimed) to stop global warming. (See, for example: https://www.washingtonpost.com/national/health-science/trump-administration-sees-a-7-degree-rise-in-global-temperatures-by-2100/2018/09/27/b9c6fada-bb45-11e8-bdco-90f81cc58c5d_story.html?utm_term=.970c9cf05fd2)