



## **SECURITY AND CLIMATE CHANGE: CHALLENGES AND ISSUES**

**Date:** January 18, 2024

*Disclaimer: This briefing note contains the encapsulation of views presented by the speaker and does not exclusively represent the views of the Canadian Association for Security and Intelligence Studies.*

### **KEY EVENTS**

On January 18, 2024, Dr. Simon Dalby presented *Security and Climate Change: Challenges and Issues*. The presentation was followed by a question-and-answer period with questions from the audience and CASIS Vancouver Executives. The key points discussed were the complex relationship between climate change and conflict, the ability of climate change to redefine global security strategies, and the importance of implementing long-term initiatives before more significant amounts of resources are needed to address immediate climate crises.

### **NATURE OF DISCUSSION**

Dr. Dalby examined the links between climate change and global conflicts, advocating for an integration of climate considerations into security and peace-building strategies. He emphasized the need to address the root causes of climate change, such as fossil fuel consumption, questioning the direct impact of climate phenomena like droughts on events such as the Syrian Civil War. Dr. Dalby underscored the complexity of attributing conflict to climate change directly, citing scholarly skepticism and calling for a more nuanced understanding of such correlations. He also stressed the importance of studying and regulating geoengineering initiatives that will become increasingly common as part of efforts to combat the effects of climate change.

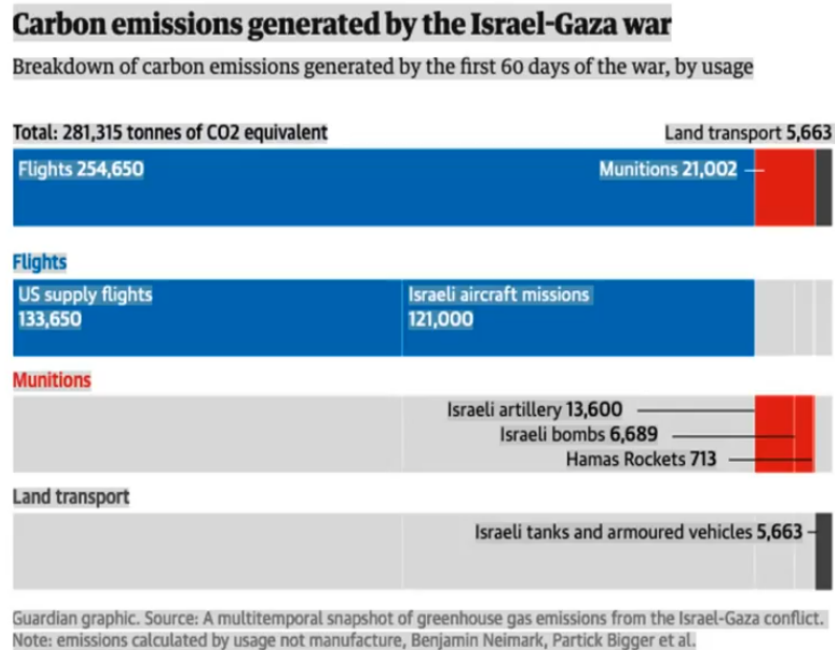
## BACKGROUND

### Presentation

Dr. Dalby asserted the importance of integrating climate into discussions on security and conflict, pointing to the case of Syria where some theorize that rural drought brought about large-scale migration to cities has significantly influenced the social unrest that led to the Syrian Civil War. Experts are working to establish verifiable correlations between climate change and conflict in places across the world, and Dr. Dalby argued that if these links can be found, it is imperative to begin to address them as part of the contemporary security agenda.

Dr. Dalby stated that the narrative of climate change as a major cause of the Syrian Civil War is highly dubious, citing research that suggests it is difficult to link the events directly to climate change. He pointed prior research regarding a previous drought in the same region that did not correlate to any specific conflict. Referring to the film *The Age of Consequences*, Dr. Dalby conceded that while there are certainly connections between climate change and conflict, they are likely to be more subtle and unconventional than those seen in media headlines.

Dr. Dalby argued that conflicts themselves are likely to be contributing to the issue of climate change, with reference to the carbon emissions generated during the first 60 days of the Israel-Gaza war illustrated in Figure 1. He noted that the U.S. military is the largest institutional user of fossil fuels and, by one initial estimate, may have emitted 133,650 tons of carbon during supply flights to Israel in the first 60 days of the war. Dr. Dalby asserted that, in order to consider the effects of climate change on conflict, we must also consider the effects of conflict on climate change.

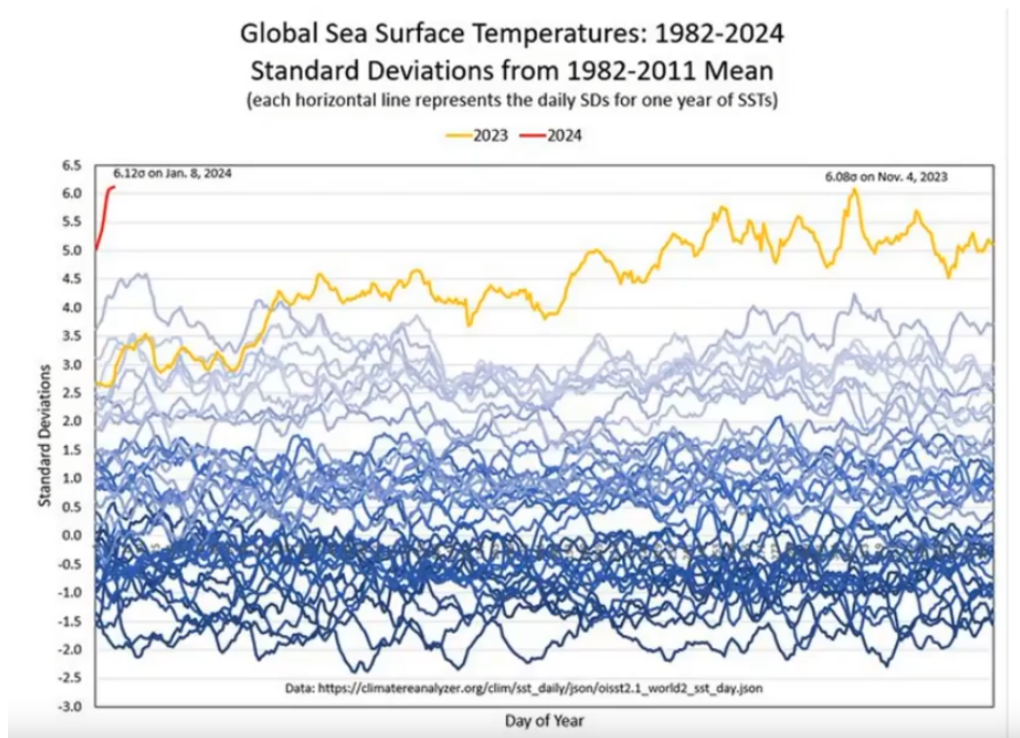
**Figure 1***Carbon Emissions Generated by the Israel-Gaza War*

Dr. Dalby suggested that, in addition to considering the relationship between climate and conflict, it is imperative to look at climate as a route to building peace. At COP28—the 28th annual meeting of the Conference of the Parties of the UN Framework Convention on Climate Change—peace and security issues related to climate change were addressed in the program for the first time, and the rapidly growing body of scholarly literature examining environmental issues as peace-building mechanisms was also referenced. Additionally, this was the first year that the parties directly acknowledged fossil fuels as a driver of climate change, marking a shift from previous years which primarily focused on emissions. Dr. Dalby suggested that this demonstrates COP moving from a symptom-based strategy to a root-cause strategy, a significant change in the political discourse surrounding this issue.

Dr. Dalby asserted that we are entering an era of new climate circumstances, referencing global sea surface temperatures (Figure 2). There was a new record standard deviation for global sea surface temperatures set on January 7, 2024, at  $6.10\sigma$  above the 1982-2011 mean. This figure beat the previous record of  $6.08\sigma$ , which was set on November 24, 2023 and this anomalous trend is highly alarming to scientists and researchers.

## Figure 2

*Global Sea Surface Temperatures: 1982-2024 Standard Deviations from the 1982-2011 Mean*



There has been a recent shift in attitudes toward climate change across the world, resulting in an increased use and declining cost of renewable energy, growing alarm about pollution and climate change, renewable energy targets, new green energy innovation, and corporate and investor action. An important question to consider as the effects of climate change become known is whether diverting resources and manpower to emergency response could better be spent on long-term initiatives. Dr. Dalby suggested that this argument is a real risk and highlighted the importance of acting quickly to begin long-term initiatives like

building renewable energy infrastructure before a significant number of resources are needed for immediate crises.

In considering long-term initiatives, some geoengineering proposals exist already; they include afforestation, the direct capture and storage of CO<sub>2</sub> and increasing reflectivity from crops, deserts, oceans, and clouds. Since efforts like these in one area can pose spillover effects to the environment in other areas, Dr. Dalby stated that it is important that governance of geoengineering be regulated immediately. He added that this is a major point of discussion in international politics that holds potential to become a source of conflict.

In closing, Dr. Dalby suggested that the security sector may have useful input in the climate change discussion given the COP process's failure to effectively reduce the use of fossil fuels. Some suggest that there may be a way to deal with the climate crisis that's modeled on the security sector and non-proliferation treaties, namely a fossil fuels non-proliferation agreement between nations. He suggested that we, as a global society, need to rethink our relationship with fire and combustion while remaining ready to adapt security strategies as our world continues to change.

### **Question and Answer**

*Could we soon see warfare tactics that target climate resilience infrastructure in states? Much like information warfare targets human infrastructure, could this be an evolution in tactics?*

Targeting infrastructure is not new; there have been all sorts of attempts at it, and such a proposition is not unbelievable. If one is determined to continue using fossil fuels, does it make sense to sabotage renewable energy facilities? In a conflict-ridden world, perhaps it does. The lines of conflict over fossil fuel are increasingly tense, and the world shows no sign of abandoning the use of fossil fuels within the next few decades. As many countries and corporations continue to build fossil fuel infrastructure such as pipelines, there is a possibility that clean initiatives may become targets.

*Have you done any research on climate refugees? Do you anticipate them to further strain resources on refugee-acceptance nations as they compete for limited resources reserved for political refugees?*

There is no category for a climate refugee. In New Zealand, a claim was made that refugee status should be granted to someone who is forced to move from one of the Pacific Island nations, and the courts rejected it as they require a refugee claimant to be in danger of persecution or violence. This, obviously, is not what a climate refugee is and it's incredibly difficult to distinguish what might be a refugee versus a migrant or an immigrant. For example, in considering the hundreds of millions of Chinese people who moved from rural areas to urban areas, it's incredibly difficult to ascertain which of those made the move for economic reasons and which made the move for climate-related reasons. Although the term is used frequently in alarmist rhetoric, there is skepticism about the concept of climate refugees.

*Will the urgency of military need for energy lead to novel energy systems and sustainment?*

The military takes an interesting stance on this, as, for a long time, it has been alarmed about climate change both because of the increased need for emergency humanitarian intervention, but also because many military facilities are in areas that are vulnerable to extreme weather and sea level rise. For example, an F-22 in a base in Florida incurred more damage during a hurricane than it ever did in combat. Militaries are considering renewable energy innovation as a way to eliminate some of the vulnerabilities introduced by a reliance on fossil fuels.

*Do you predict that militaries in the future will set a carbon standard? Further, how can militaries move toward more green initiatives? Do such initiatives begin with the defense companies who are supplying the "gas-guzzling" machines, or do they begin with the government bid process?*

A bit of both; if buyers insist on high levels of fuel economy, that is what companies will produce, but procurement also plays a key part. For example, there's no reason why most vehicles driving around military bases should be anything except electric, with the limited range on bases. It also makes sense to not be reliant on long fuel supply systems. In terms of climate change being a very serious problem, all sectors of society will need to grapple with it.

### KEY POINTS OF DISCUSSION

- Research challenges direct causality between climate events and conflict, advocating for a nuanced understanding.

- At COP28, the connection between peace-building and mitigating climate change was recognized. This COP28 saw a shift toward addressing root causes of climate change such as fossil fuel consumption, suggesting a new approach in international climate policy.
- Geoengineering should be immediately regulated in order to avoid unforeseen environmental consequences and geopolitical instability.
- It's important to begin long-term initiatives like building renewable energy infrastructure now, before a significant number of resources are needed to address immediate climate crises.
- Climate change has the potential to redefine global security strategies. A potential solution is a fossil fuel non-proliferation agreement inspired by security sector tactics as a novel response to the climate crisis.

### FURTHER READING

Dalby, S. (2020). *Anthropocene Geopolitics: Globalization, Security, Sustainability*. University of Ottawa Press.

Dalby, S. (2022). *Rethinking Environmental Security*. Edward Elgar Publishing.

Dalby, S. (2024). *Pyromania: Fire and Geopolitics in a Climate-Disrupted World*. Agenda Publishing.

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