



## Science for Peace

September 20, 2024

### President's Column



Dear Members,

A few days ago, president Joe Biden met with the UK prime minister, Keir Starmer. One of the main topics was the request by Ukrainian President Volodymyr Zelensky for permission to allow the Ukrainian army to fire long-range missiles into Russia. Despite the expectation that this request would be approved, no decision was communicated at the end of the meeting. Prior to this event, Russian president, Vladimir Putin, said that the permission to fire long-range missiles will be taken by Russia as a direct involvement of NATO in the war, and that Russia could respond by directly attacking NATO. Moreover, former Russian President and current Deputy Security Council Chairman Dmitry Medvedev recently stated that the use of Western-donated weapons to strike deeper into Russian territory would result in a major escalation of the war, and that the Russian response might include the use of nuclear weapons. Medvedev said that Kyiv could be turned into a “gray melted spot”.

Many politicians in the UK, including the former Secretary of Defence Ben Wallace, are of the opinion that the Russians are bluffing. But what if they are not bluffing? Several Russian security experts have been talking about the use of “tactical” nuclear bombs in Ukraine. Their warheads are smaller than those designed to be used in intercontinental missiles. These experts speculate that smaller nuclear bombs will not push the West to respond with nuclear weapons. However, it’s impossible to predict what the Russians will do if they are hit by Western-made long-range missiles, and what the West will do if the Russians use “tactical” nuclear bombs.

The world has never been so close to a nuclear war since the Cuban missile crisis.

The leaders of the nuclear-armed countries have been defending their possession of nuclear weapons by arguing that they generate “deterrence” and that nobody will start a war that could end civilization. However, the dangerous situation created by Russia’s invasion of Ukraine starkly illustrates the fact that the mere existence of nuclear

weapons opens the possibility of their use. Only the complete elimination of these weapons will assure humanity that nuclear war will not happen.

In 2017, the UN adopted the Treaty on the Prohibition of Nuclear Weapons (TPNW). So far, this treaty has been signed by 97 countries, but Canada is not one of them. Science for Peace calls on all Canadians to demand the government adhere to the TPNW.

Last month, the Toronto Star published an article by Alex Ballingall that emphasizes how relevant the danger of nuclear war is for Canadians. The article discusses recent scientific papers by Alan Robock, and his collaborators. Robock is a Professor of Environmental Studies at Rutgers University in New Jersey. Robock and colleagues have been studying the impact on different countries of the “nuclear winter”. In 1983, American and Soviet scientists showed that, in addition to a catastrophic direct damage, a nuclear war will send large amounts of soot to the atmosphere that will block sunlight and produce a “nuclear winter”, also described as an “instant climate change”. This nuclear winter could be triggered by the use of only 100 nuclear bombs (a small proportion of the currently available 15,000 bombs). It will generate earth surface temperatures below freezing even in summer for years. The lack of sun and the extremely low temperatures could lead to the collapse of world agriculture and starvation even in countries located in regions not involved directly in the war.

In a paper published by Robock and collaborators in the prestigious journal Nature Food in 2022, the proportion of the population in the world and in each country that will starve to death was calculated for war scenarios generated by various numbers of bombs. For example, the paper shows that the launching of 250 nuclear bombs with a yield of 250 kT will send 37 Tg of soot to the atmosphere. This war will produce 127 million direct fatalities and it will starve 2 billion people in 2 years. Thanks to our cold climate, and with assumptions such as the end of international trade and use of half of livestock feed for human consumption, about 95 % of the Canadian population can be expected to starve to death 2 years after the war.

The “nuclear winter” scenario predicted by American and Soviet scientists helped to end the nuclear arms race in 1980s. Today we know even more about the catastrophic consequences that a nuclear war could have for our climate. How is it possible that the nuclear-armed nations are about to embark in a new nuclear arms race, and that the use of nuclear bombs is being considered in the Ukraine-Russia war?

Science for Peace is one of the sponsors of “Walking Together For Peace” in Nova Scotia. This walk, which started in Pugwash and finishes in Halifax, draws inspiration from the Pugwash Conference of 1957, where American and Soviet scientists agreed on promoting nuclear disarmament at the height of the Cold War. The final event of this Walk will be held on September 21 in Halifax (please see poster below). I invite everybody to register for on-line participation.

*Jorge Filmus*  
*President*  
*Science for Peace*

## Upcoming Events

# WALKING TOGETHER FOR PEACE:

Climax of the 8-day Peace March, ending at Dalhousie University

SEPT. 21  
12 PM-4 PM  
EST

Featuring discussions, motivational speeches, music and lunch, embodying the spirit of peace and unity



## Notable Participants and Speakers:

- **Dorene Bernard:** Mi'kmaq grandmother, water protector, and cultural teacher
- **Rajagopal PV and Dr. Jill Carr Harris:** Gandhian social movement leaders
- **Dr. Reva Joshee:** Mahatma Gandhi Foundation for World Peace
- **Ellen Woodsworth:** Co Pres. Women's International League for Peace & Freedom Canada
- **Lyn Adamson,** National co-Chair, Canadian Voice of Women for Peace

## Collaborating Organizations:

- [Canadian Voice of Women for Peace](#)
- [Women's International League for Peace & Freedom - Canada](#)
- [Jai Jagat International](#)
- [Science for Peace](#)
- [Canadian Pugwash Group](#)
- [Canadian chapter of International Physicians for the Prevention of Nuclear War](#)
- [International Campaign to Abolish Nuclear Weapons](#)
- [Peace Quest](#)
- [Reverse The Trend](#)
- [Nova Scotia Voice of Women for Peace](#)

Support the  
abolition  
of nuclear weapons  
worldwide!

## REGISTER HERE:

<https://vowpeace.org/walkingtogether4peace>

## Recent Publications



[Richard Sandbrook: Canada must continue cutting emissions regardless of the actions of other polluters](#)

Canada must continue reducing carbon emissions despite the actions of major

emitters like China and India. Wealthy nations must lead by example, promoting global cooperation. Expanding fossil fuel production undermines efforts, highlighting the need for shared responsibility and investment in the Global South.



### [Richard Sandbrook: A 'green new deal' is Canada's best hope of achieving a just carbon-zero transition](#)

A radical Green New Deal, focusing on renewable energy and social equity, is essential for a just net-zero transition. Current strategies like green growth are inadequate, while degrowth poses political challenges. The Green New Deal offers a practical path to address ecological crises amid significant political obstacles.



### [Arnd Jurgensen: True Realism v. the Crackpot Type and How to Tell the Difference](#)

The article critiques realism in international relations, emphasizing its focus on state power and survival at the expense of addressing existential threats like nuclear war and climate change. It argues for the need for global governance to tackle these challenges, highlighting that current state-centric approaches are inadequate and potentially catastrophic.



### [Judith Deutsch: Water, Climate, Violence](#)

The article critiques "pastel environmentalism" for oversimplifying climate issues while ignoring the severe impacts on human lives, particularly in the context of water scarcity and violence. It highlights capitalism's role in exacerbating environmental degradation and human suffering, calling for awareness and systemic change to address these intertwined crises.

## [RECENT WEBINARS](#)

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