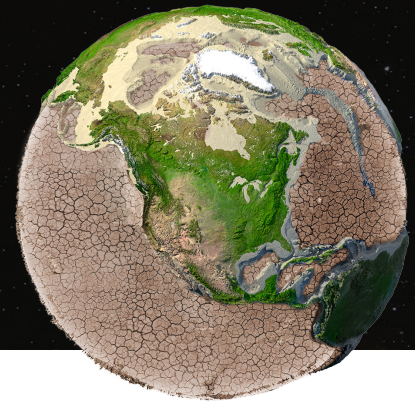


“INTERNATIONAL SCIENTISTS SIGNAL SIGNIFICANT GAP IN GLOBAL CLIMATE TARGET CALCULATIONS”

MISSING OCEAN DATA IS GREATEST “MISCALCULATION” IN CLIMATE POLICY



(Halifax, Nova Scotia, Canada), October 1, 2021 – As global leaders prepare for CoP 26 meetings in Glasgow, international scientists have raised alarm that the climate math is wrong, because it is missing a critical variable: the impact of changing ocean carbon on the climate is not included.

In a workshop convened by the Ocean Frontier Institute, **Mark Carney, United Nations Special Envoy on Climate Action and Finance** highlighted the urgency of understanding key ocean inputs driving the climate/carbon balance. He underscored his support for strong Canadian leadership, particularly in North Atlantic observation.

The ocean is the most important storage depot of carbon on earth. It holds 50 times more carbon than the atmosphere and soaks up more carbon than all global rainforests combined. Yet today’s climate targets do not include the impact of our changing ocean – taking its capacity for granted.

The workshop opened with remarks from the **Honourable Jonathan Wilkinson, Minister of Environment and Climate Change**, who said “The world’s ambitions for a net-zero-carbon future depend on the ocean’s ability to continue to absorb carbon. That’s a huge, life-altering bet – that the ocean will continue to act in the same way and continue its current capacity to absorb carbon. We need better data so governments can make more informed policy choices on the climate crisis.”

The North Atlantic Ocean is the most intense carbon sink on the planet, accounting for approximately 30 per cent of the global ocean Carbon Dioxide (CO₂) uptake. There is compelling evidence that the biogeochemical carbon pump supporting the North Atlantic carbon sink is changing, with commensurate concern that climate estimates may not be valid if they do not incorporate this. However, the North Atlantic’s vital

carbon-absorbing function remains critically under-observed.

“Incomplete data harms the credibility of global climate targets,” says **Dr. Anya Waite, CEO, Ocean Frontier Institute**. “Recent science shows changes in the ocean that indicate its carbon absorption may be slowing significantly – and some regions we once thought were carbon sinks may also turn out to become areas of emission. These are of serious concern.”

Canada is poised to lead an international effort to close this gap with a focused ocean observation effort which will build scientific knowledge and apply near real time assessment of how ocean changes are impacting the global carbon budget.

Concurrently, observation data can create the baseline to measure the effectiveness of technologies. For example, important to ocean Carbon Dioxide Removal technologies will be the ability to credibly quantify the results. For governments and financial institutions, this is a key component to ensure investments are happening in the right place to ensure climate targets are met.

“Global investors and policy-makers need confidence in the climate calculations, and that confidence cannot be guaranteed unless the impact of ocean carbon is factored into climate targets,” added Dr. Waite.

Participants of today’s workshop included representatives from G7 and Asian nations, the UN, industry leaders, global philanthropists and environmental organizations.

The Ocean Frontier Institute (OFI) was established in September 2016 through a partnership led by Dalhousie University, Memorial University and the University of Prince Edward Island. An international hub for ocean research, OFI brings together experts from both sides of the North Atlantic to explore the vast potential of the ocean. <https://oceanfrontierinstitute.com/>