











SCOTIABANK NET-ZERO RESEARCH FUND (NZRF) 2024

Scotiabank's \$10 million Net-Zero Research Fund provides annual grants to registered charities and non-profit organizations conducting climate and decarbonization research exploring public policy, science and technology solutions to advance the net-zero transition. Scotiabank congratulates the following organizations from Canada, Colombia, Mexico and Peru who will collectively receive grants totalling approximately CAD \$1 million for their net-zero transition research.

	<p>1</p>	<p>ALLIANCE FOR RESPONSIBLE MINING: Colombia</p> <p>The Alliance for Responsible Mining's research project on Carbon Footprint Reduction in Artisanal and Small-scale Mining (ASM) aims to identify approaches to reduce greenhouse gas emissions and support the transition to low-carbon ASM operations. Research will help identify and apply sustainable practices -such as energy efficiency, environmental rehabilitation, and medium-term financing strategies, while fostering community engagement and supporting landscape restoration.</p>
	<p>2</p>	<p>AMAZONÍA EMPRENDE: Colombia</p> <p>The Native Seed Center in the Colombian Amazon carbon capture and storage project plans to provide high-quality vegetal material for restoration projects, which, not only capture CO2, but also support greater biodiversity. Research will analyze selected native species to assess their CO2 capture and storage capacity to advance the design and implementation of large-scale restoration projects.</p>
	<p>3</p>	<p>BEYOND21 ACADEMY: Canada</p> <p>The project aims to identify, measure and analyze key factors influencing carbon sequestration in engineered micro forests across Ontario including quantifying the carbon storage potential of these forests, and developing strategies to optimize carbon uptake. Beyond21 Academy's enhanced understanding of nature-based carbon sequestration, below and above ground, will support effective and scalable climate action for organizations and communities in urbanized areas.</p>
	<p>4</p>	<p>FARMERS FOR CLIMATE SOLUTIONS: Canada</p> <p>Funding will support the "You can't be green if you're in the red" project - a collaboration between Farmers for Climate Solutions, the Smart Prosperity Institute and the Nature Investment Hub. Research seeks to explore the feasibility and impact of a climate and nature-smart Beneficial Management Practices (BMP) insurance program for Canadian agriculture. This project aims to support adoption of BMPs while reducing potential financial risks faced by farmers transitioning to low-carbon agriculture, reducing insurer payouts, and enhancing on-farm outcomes.</p>
	<p>5</p>	<p>GREEN IGLU: Canada</p> <p>Green Iglu is a charitable organization committed to innovative approaches to improving food security in Canada, particularly in the north, where access to fresh produce is limited and costly. This project will help develop the skills to construct and sustainably operate season-extending greenhouses, offering training, and undertaking research to explore new technologies and processes. So far, Green Iglu has teamed up with over 15 communities, built more than 15 greenhouses, and trained over 150 people to support them.</p>

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	6	<p style="text-align: center;">LiCORE: Mexico</p> <p>The LiCORE initiative aims to scale development of APIS, a real-time platform that gathers data from solar photovoltaic (DPV) facilities and publishes it on an open-access website. The APIS technology will establish a public data repository and utilize blockchain for carbon bond tracking while leveraging AI for performance modeling for the renewable energy sector in Mexico.</p>
	7	<p style="text-align: center;">NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY (NAIT): Canada</p> <p>Expanding the Agri-food Waste Enhancement (AWE) program, NAIT will work with Plantae Technologies to formulate a peat replacement product to support plant growth. Comprised of agricultural and forestry material by-product, the new peat replacement will be used in a wide range of plant growth applications. Through the research, NAIT will gain insights to help facilitate decarbonization efforts, satisfy the needs of an emerging market, and support environmental sustainability.</p>
	8	<p style="text-align: center;">SIMON FRASER UNIVERSITY: Canada</p> <p>The Laboratory for Alternative Energy Conversion at Simon Fraser University is developing zero-emission Sorption Heat Transformers. The Transformers will provide sustainable heating and cooling for buildings and greenhouses using readily available, and often free, waste heat and no harmful materials or refrigerants. The technology, essential for decarbonizing buildings (which contribute ~28% of global emissions), will be tested in local district energy networks and could provide significant cost-savings over other energy sources while providing carbon-free heating/cooling year-round.</p>
	9	<p style="text-align: center;">UNIVERSITY OF BRITISH COLUMBIA: Canada</p> <p>The University of British Columbia's (UBC) Faculty of Land and Food Systems is investigating methane inhibitors that will reduce emissions in cattle. The research explores the relationships between gut microbiomes, feed efficiency, and methane emissions. UBC aims to develop sustainable solutions that enhance both cattle production and environmental health and support the Canadian beef and dairy industries in achieving their carbon reduction goals.</p>
	10	<p style="text-align: center;">UNIVERSIDAD DE INGENIERÍA Y TECNOLOGÍA – UTEC: Peru</p> <p>NZRF funding will support research for a project to transform wastewater sewage into usable microalgal biomass to produce biofertilizers and livestock feed. UTEC will design and manufacture an open cultivation system connected to a Wastewater Treatment Plant (WWTP) in the Andean urban region of Arequipa, Peru. It will allow UTEC to analyze the potential of these systems as a source of decarbonization in urban and rural communities.</p>