SCOTIABANK NET ZERO RESEARCH FUND 2022 RECIPIENTS

WRI MÉXICO	1	**CENTRE FOR SUSTAINABLE TRANSPORT OF MEXICO** **Centre for Sustainable Transport of Mexico** has been granted $100,000 to support decarbonization of the State of Mexico's automotive cluster (CLAUTEDOMEX) that includes 230 member companies, including Toyota & Ford. As CLAUTEDOMEX lacks the capacity to define and assess potential options to decarbonize its operations, the project will analyze the energy consumption and greenhouse gas emissions of selected companies and will provide a cost-benefit analysis and recommendations for abatement, including required technologies for decarbonization. The Centre for Sustainable Transport of Mexico will partner with World Resources Institute (WRI) México to assess energy efficiency, fuel shifting and electrification with clean technologies; increased use of renewable energy; and opportunities to incent CLAUTEDOMEX members to commit to the SBTi to ensure positive environmental outcomes and reporting.
COIL Circular Opportunity Innovation Launchpad	2	**CIRCULAR OPPORTUNITY INNOVATION LAUNCHPAD** **Circular Opportunity Innovation Launchpad (COIL)** has been granted $100,000 to research and develop a circular economy (CE) assessment methodology to identify, evaluate and validate the best innovations and practices to accelerate the transition to a new climate-smart circular economic model in Canada. Currently in the agricultural sector, there is no methodology available for firms, NGOs, investors and policymakers to recognize, assess and incent the development of innovative practices to accelerate a low-carbon circular future. The research project, focused on regenerative farming, will be field-tested in the Guelph-Wellington area of Ontario. The methodology will then be replicated in other sectors to ensure that efforts and funding are supporting only the strongest climate-smart CE ideas, innovations, products and practices.
CTEC INNOVACIÓN EN LA CONSTRUCCIÓN	3	**CONSTRUCTION'S TECHNOLOGICAL INNOVATION CENTRE** **Construction's Technological Innovation Centre** has been granted $100,000 for research that will contribute to establishing a baseline of embodied and operational carbon for the residential construction sector in Chile in compliance with the requirements of Chile's Long-Term Climate Strategy (Estrategia Climática a Largo Plazo, ECLP). The research will also assess the energy performance and carbon intensity of construction materials currently in use to help inform emissions reduction approaches for this sector, which produces 23% of the country's total GHG emissions.
Fundación CON VIDA	4	**CON VIDA FOUNDATION** **Con Vida Foundation** has been granted $100,000 to conduct research into the impact of avocado farming across the tropical Andes. Tropical Andean forests are global biodiversity hotspots, and an overlooked carbon sink opportunity. This research will study the "negative effect" of extensive avocado crops on water yields at the watershed level and their "positive effect" as a new carbon sink. Key outputs include computational tools for crop planning and management, and research-sharing workshops with agricultural community stakeholders to improve planning strategies and ecological management.

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	5	**EAN UNIVERSITY** **Ean University in Bogotá, Colombia** has been granted $100,000 to design a specific methodology that analyzes and disseminates the best urban sustainable agricultural practices assisted by technological tools and detection of indicators of change in student diets, crops and soil. Sustainable practices will be promoted through the monitoring of urban living labs that include agriculture models in schools for the cities of Bogotá and Manizales, benefiting and advancing environmental education. A final project report will promote the adoption of best practices for energy, food and water to advance carbon reduction in urban agriculture.
	6	**POLLUTION PROBE** **Pollution Probe** has been granted $100,000 to support the first-ever electric school bus (ESB) pilot project in the City of Calgary. The project will involve monitoring key performance and cost data from the ESB as it is used in regular service over the course of a school year. Outputs will include a business case for ESBs in Canada, a technical brief for school bus fleets, and a research report.
	7	**PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE** **Pontificia Universidad Católica de Chile**, together with the University of California, Berkeley, and DUOC UC, has received $100,000 to study the factors that influence consumer adoption of electric heaters as substitutes for wood-burning stoves. Research will test consumer willingness to purchase electric heaters following a public information campaign on the benefits of replacement, as well as providing, through a non-profit institution, low-cost credit for purchase. Research will help inform public policies encouraging consumer adoption of new products to enable increased decarbonization.
	8	**REEF AQUACULTURE CONSERVANCY** **Reef Aquaculture Conservancy** has been granted $100,000 to develop their project titled: “Mesoamerican coastal decarbonization efforts: An innovative, integral and ecosystem approach” as part of the Blue Ocean Credits Program (BOCP) implemented in the coastal area of Mexico. This research studies the benefits of AragoReef material designed to restore coral reefs and lagoons with aquacultured corals and seagrasses in the coastal area of Mexico. Research will also explore alternative proteins for marine wildlife feeds, plant biofertilizers, and biochar to help reduce the release of carbon from sargassum in the Caribbean. Findings will help with development of other large-scale blue carbon projects for sustainable ecotourism, coastal protection, and conservation
	9	**TECNOLOGICO de MONTERREY** **Tecnologico de Monterrey, Mexico** has been granted $100,000 to conduct research within the Institute of Advanced Materials for Sustainable Manufacturing to assist in the development of efficient technologies for carbon dioxide (CO_2) utilization. Specifically, this research will study the direct conversion of CO_2 into methanol through thermocatalytic processes. The research findings will serve as a feasibility assessment for the implementation of the process as a larger-scale alternative decarbonization pathway for the cement industry in Mexico.

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	**10**	**UNIVERSITY OF CHILE** **The University of Chile's** Energy Center (CE) and Center for Climate and Resilience Research (CR)2 has been granted $100,000 to work with Chile's Carbon Neutrality Observatory to implement a tool for updating regional GHG inventories and develop protocols for monitoring mitigation actions in the country's territories. This will include monitoring of GHG emissions and sectoral carbon budgets. As part of the monitoring, the research team will assess compliance with Chile's Climate Change Commitments (peak emissions, carbon budget and carbon neutrality by 2050), along with an assessment of the development and feasibility of compliance with the Climate Change Law sectoral reduction commitments.