

COVID-19 Economic Impacts and GAC's Role in the Green Recovery

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Issue

Canada was not on track to meet climate commitments prior to the COVID-19 crisis and now faces further economic constraints. The recovery from COVID-19 is an opportunity for Global Affairs Canada (GAC) to support export potential and trade infrastructure that increase Canada's participation in the green economy and progress on climate goals.

Background

Current modelling of progress on global climate and green economy commitments shows that Canada is not on track to meet climate mitigation targets, even considering new policy commitments or technology (Mulvaney 2019; Singh 2019), and the policy situation has become more challenging given the economic fallout from COVID-19. Since March 2020, COVID-19 has disrupted domestic and global economies while focusing government attention on immediate relief efforts and essential sectors. From 2019 to 2020, Canadian GDP fell by 5.4% and unemployment doubled to 14% (Statistics Canada 2021), with women, youth, low-income workers and people with disabilities particularly affected. Canadian exports declined by 10.7%, with losses concentrated in the automotive, electronic and energy industries (Blanchet and Sekkel 2020). Further, a rebound in global trade is being hindered by economic nationalism in countries such as the United States, China, Germany, India and France (Jackson et al. 2021).

At the same time, trends indicate a green shift in global economic activity. Carbon intensive options such as fossil fuel demand are forecast to decline over 60% by 2050 (IEEFA 2020). In fact, the most recent International Energy Agency report calls for immediate and large-scale deployment of clean and efficient energy technologies and no new oil and gas fields or coal and mining extensions to achieve a path to net zero by 2050 (International Energy Agency 2021).

International investment in environmental stimulus has reached +US\$3 trillion by key trade partners and unions such as the EU, France, Germany, South Korea, Japan, China, India and the United States (Vivid Economics and Finance for Biodiversity Initiative 2020). In the current stimulus packages of countries with net-zero emissions targets, there are similar measures being adopted alongside requirements for divestment from carbon-intensive and polluting industries:

Key sectors: energy, transportation, buildings and housing, agriculture, industry and other non-carbon-intensive sectors such as childcare

Key subsectors: EVs, hydrogen, digital technologies, carbon capture methods, batteries and other emerging technologies

Labour force support: transitions and job creation for green sectors, re-skilling and helping businesses create green opportunities

Green financial tools: investment, product and industry subsidies, green home and business grants, loans, industry bailouts and stipulations or safeguards

Other trends: Investment in research, development and innovation; adjusting regulatory measures; and aligning stimulus packages with environmental plans

Yet the recovery packages of OECD countries also contain unsustainable economic recovery initiatives, including subsidies for harmful activities, harmful infrastructure investments, deregulation of environmental standards, environmentally related bailouts without green stipulations and subsidies or tax reductions for harmful products (Vivid Economics and Finance for Biodiversity Initiative 2020).

Of note also is that global actors have committed to an ‘inclusive multilateralism’ that aligns the sustainable transition pathways toward a green recovery through information sharing, regulatory alignment and technical support (Annex 2). Global economic cooperation has underpinned trade in environmental goods and services, innovation, sustainable finance and technical support between countries, and rules-based trading. Canada, particularly GAC, is active in multilateral groups which uphold these standards (GAC 2020).

Of particular interest for Canada is the new Biden administration’s ambitious plan to cut emissions by 50% below 2005 levels by 2030 and achieve net zero by 2050. The ‘Made in America’ approach would dedicate US\$3 trillion towards efforts to build sustainable infrastructure, stimulate the economy and create job growth by investing in domestic industries (Tankersley 2020). Emphasis is being placed on the electric vehicles (EVs) and charging infrastructure, batteries, rare earth metals and critical minerals (Biden 2021).

Canada shares policy strategies with other key trading partners. Germany is promoting renewable energy transitions through public subsidies for SMEs via the Energiewende program (World Nuclear Association 2020), in order to achieve a 55% reduction in emissions by 2030 with an investment of 130 billion euros (Nienaber and Hansen 2020). China is a major player in cleantech and global supply chains, pursuing renewable energy, digitalization and critical minerals (Campbell 2019;

Dagnet and Jaeger 2020). They have committed to reach 25% renewable energy by 2030 by investing \$380 billion (Xu and Stanway 2021).

In this context, in April 2021, Canada has ramped up its greenhouse gas emissions target to a 40–45% reduction below 2005 levels by 2030 and is developing an ambitious plan to achieve net zero by 2050 (Trudeau 2021). However, continued investment in unsustainable oil, gas, mining and coal threaten Canada’s climate goals. Key actors such as Export Development Canada have committed long-term investment in cleantech while still investing in unsustainable industries supported through GAC’s trade commissioners. Environmental standards for trade negotiations were developed in 2020, resulting in improved trade negotiations (e.g., an environmental chapter was included in CUSMA), and yet these tend to be weak and unenforceable, underplaying interconnected environmental issues (Fawcett-Atkinson 2020).

Canada’s Outlook

Canada is well positioned in the global green economy as a leader in cleantech research, development and production, with the sector valued at \$10.6 billion and projected to be one of Canada’s top five exports by 2025 (Nye Powell and Leach 2021). By 2030 Canada’s cleantech products are projected to increase GDP from 19% in 2020 to 24% in 2030 (Navius Research INC 2019). Leading green energy products include low-carbon fuels, mined clean energy materials, clean electricity and power equipment such as photovoltaic and turbine components, non-fossil-based generators, decarbonized heat and steam processes, electric and hybrid light and heavy vehicles and trains, and energy efficiency products (Sawyer 2020). Canada has committed to fostering these industries under the Healthy Environment and Healthy Economy strategy and the Federal Sustainable Development Strategy (Government of Canada 2021).

Domestic activity on cleantech such as artificial intelligence (AI), EVs, fuel cells and renewable energy technology is concentrated in the urban areas of certain provinces, including Quebec, Ontario and British Columbia. Quebec is a leader in AI technology (Innovation Science and Economic Development (ISED) 2020), British Columbia is focusing on hydrogen and fuel cells, Ontario has their own hydrogen plan and expertise in the Smart Grid deployment and energy storage, and all three provinces are large actors in electric mobility and

water technologies. Although Alberta and Saskatchewan are active in carbon removal technology, there is less activity aimed at reinforcing provincial diverse green economy hubs and new hubs in carbon-intensive regions and the Northern and Atlantic regions (GAC 2018).

Canada's Build Back Better Plan emphasizes gender diversity mainstreaming for investments and long-term resilience of integrated, risk responsive economic systems by committing \$70-100 billion for three years. It should be noted that, despite Canada's trends toward a more inclusive economy, in 2020, the amount of women directors in cleantech companies was below 30% (Osler 2020), illustrating demographic inequalities that would be replicated in export and trade.

GAC's Role in the Green Economy

Future growth and green recovery in Canada as a small, open economy depends on enhanced global partnerships and coordination to achieve national goals for trade enhancement, ensure critical supply chains and achieve climate mitigation. GAC can contribute to strengthening domestic capacities for export, value-added production and carbon footprint-reducing activities, while at the same time reinforcing international partnerships, institutional capacity and standard setting to provide opportunities for Canadian actors and set standards (ISED 2020).

Through the Department Sustainable Development Strategy, GAC is committed to promoting sustainable development both at home and abroad. The Minister's Mandate Letter highlights two priorities: to continue the department's leadership on international efforts to combat climate change and to achieve close alignment across foreign, defence, development and trade policies (GAC 2020). GAC is also committed to supporting a green and inclusive approach to trade and export development as well as international environmental agreements through the gender-based analysis, environmental impact assessment and economic impact assessment (Government of Canada 2021).

To support effective action across government, GAC is engaged in horizontal cooperation with Environment and Climate Change Canada to provide policy and legal advice for international climate initiatives. It also works with the Minister of Innovation, Science and Industry and the Minister of Natural Resources to coordinate efforts to promote cleantech investment, critical supply chains and trade agreement standards.

In terms of specific programs, GAC supports the Mission Innovation goals to increase the value of Canada's cleantech exports to \$15.6 billion by 2025 to promote market opportunities, position global trade commissioners, launch a domestic outreach campaign and fund Cleantech Global (GAC 2021). GAC plays a role in the following key programs:

Trade Commissioner Services: Supports funding, programs and intermediary action for Canadian businesses abroad with trade commissioners in over 160 global cities

CanExport: Providing financial support, advice and connections of Canadian businesses with potential foreign partners, pursue international opportunities or attract foreign investment. Within CanExport, the Innovation Fund assists with research and development

Canadian Technology Accelerators: Direct GAC funding program focused on cleantech industrial sectors to encourage investment and collaboration in foreign markets with America, Hong Kong, Singapore and Germany

Canadian International Innovation Program: Indirect GAC funding for development and commercialization with the United Kingdom, Brazil, China, India, Germany, Israel and South Korea

Cleantech Global: Canada's partnership with the Cleantech Group to promote decarbonization and green development innovation through programs

Recommendations

The development of cleantech products is *as important as* the trade infrastructure and export potential of these products. GAC should work within its mandate to:

1. **Stimulate provincial innovation hubs for innovative research, development and production of green goods and services to increase export capacity.** Collaborate with ISED Canada using the CanExport Innovation fund and Innovative Solutions Canada programming to emulate success of provincial innovation hubs in Quebec, British Columbia and Ontario by targeting increased capacity for research, development and production. Prioritize opportunities for women, youth and racialized, rural communities and provinces such as Alberta and periphery regions, and Northern and Atlantic regions of Canada.
2. **Reinvigorate collaborative action with the US on bilateral efforts and regulatory partnerships for a North American green economy.** Through the CUSMA trade agreement and shared climate goals, emphasize joint production of EVs and critical supply chains through the US-Canada Critical Minerals Working Group and border standard alignment. Continue cooperation on shared build back better strategies by aligning trade standards that integrate supply and labour chains and renewable energy development between the US Department of Energy and Department of Natural Resources Canada, and polluter pays principles.
3. **Align with Germany's green Energiewende program to spur development on cleantech trade.** Through shared relations of bilateral Science, Technology, and Investment agreement and the Comprehensive Economic and Trade Agreement, focus trade and academic relations on EVs, batteries and hydrogen. Emulate Germany's example of SME and renewable energy-led transitions.
4. **Find inroads with China with firm-to-firm relationships and academic partnerships.** Through the shared relations of the G20, the UN, the Asia-Pacific Economic Cooperation and the Foreign Investment Protection and Promotion Agreement, build firm-to-firm relations for information and policy exchange. Canada should support academic relations between Canadian and Chinese institutions with emphasis on intellectual property and digital security, and the Canada-China Scholars' Exchange Program at the level that doesn't deter Canada-US relations.
5. **Improve environmental assessment of trade negotiations that continue to approve unsustainable international activity resulting in inadequate trade deals.** The environmental standards of trade agreements impact the foreign activity in Canada and Canadian activity internationally. GAC must uphold rigorous assessment of environmental impact of trade negotiations with meaningful enforcement measure that integrates domestic and international climate commitments.

Annex 1: Non-exhaustive List of Stimulus Plan Trends

(information sourced from Vivid Economics and Finance for Biodiversity Initiative 2020)

Stimulus Plan	Targets	Key Sectors	Green Measures	Investment
Countries with long-term Covid-19 green recovery plans				
Germany (Package for the Future)	Cutting 1990 emissions level by 55% by 2030; net zero emissions by 2020	Transportation and energy (and sub-sectors: EVs, e-mobility, batteries, hydrogen)	1. Investment in research, development and infrastructure 1. Aligning climate targets with the EU Green Deal and Germany's Energiewende 1. Green subsidies	US\$150 billion economic stimulus package (Package for the Future): US\$45 billion, 3% of total stimulus
France	Reducing greenhouse gases by 40% by 2030; net zero emissions by 2050	Energy (hydrogen, wind and solar), transportation, food and agriculture, industry, public buildings	1. Green conditions for financial support (government support for airlines, aviation and car manufacturing) 1. Investing in research and development	US\$115 billion economic stimulus package; about €30 billion allocated to green measures
United Kingdom	Net zero emissions by 2050	Energy, transportation, housing, maritime (and sub-sectors: carbon capture, hydrogen, EVs)	1. Creating 250,000 new jobs 1. Investment in research, development and infrastructure 1. Green home grants	US\$16 billion
South Korea (Green New Deal)	Net zero emissions by 2050	Energy, Mobility, Housing, Industry, Sub-sectors: EVs/HVs, Digital technology	1.-Create 230,000 energy-saving buildings, 1.13 million electric cars, invest in renewable energy, and provide unemployment insurance 1.-Create 1.9 million new jobs by 2025 with emphasis on digital technologies and transition of key sectors	US\$94.5 billion economic stimulus package, US\$48 billion in green funding
European Union (Next Generation EU)	40% reduction in emissions by 2030 32% of electricity production by renewables by 2030	Energy, agriculture, aquaculture (and sub-sectors: EVs)	1. Aligning with 'European Green Deal' 1. Just Transition Fund for re-skilling and helping businesses create new opportunities 1. Safeguards attached to recovery funding for member states 1. Investing in research and innovation 1. Regulatory measures, border adjustment	US\$830 billion economic stimulus package, 30% directed toward green initiatives
Other countries with long term Covid-19 recovery plans with which Canada has relations				
United States	Net zero emissions by 2050	EVs, batteries	1. Target automotive industry and increase production of EVs 1. Acquire rare earth metals and critical minerals for battery development	US\$3 trillion
Japan	Carbon neutrality by 2050	Energy, digital economy	1. Focus on wind development, reducing battery costs through tax incentives, and promotion of green bonds to innovate private sector cleantech	US\$708 billion, \$384 billion directed toward green economy
China	25% of total energy production based in renewables by 2030	Energy	1. Leaders in wind and solar capacity development, funding of cleantech projects around the world	US\$380 billion

Annex 2: Non-Exhaustive List of Multilateral Information Sharing and Technical Cooperation

- OECD will be enhancing and refining the monitoring of green recovery measures and expresses continued support for international environmental negotiations.
- Japan with UNFCCC support led the ‘Online Platform for Sustainable and Resilient Recovery from COVID-19: Platform for Redesign’, international tracking of green recovery measures.
- ILO has published policy recommendations for the social and economic crisis of Covid-19
- IEA has published the flagship World Energy Outlook Special Report about sustainable recovery, reports about the impact of Covid-19 on electricity and the World Energy Outlook for 2021
- WTO has published reports about Covid-19 and trade-related measures, held the WTO Trade and Environment Week 2020 and partnered with UNEP on green trade discussions
- UNEP supports information and best practice sharing for new ideas, technologies and environmental innovation to promote green COVID-19 economic recovery plans. February 22-23, 2021, the fifth session of the UN Environmental Assembly (UNEA-5) united Member States and stakeholders to take action to build a greener, resilient and inclusive post-Covid-19 world

Annex 3: Non-Exhaustive List of Horizontal Policy Coordination

- GAC should maintain and continue horizontal policy integration with other federal government actors
- GAC must work with ECC to support environmental agreements and integrate their trade needs, policy and standards alignment such as cross-border emissions standards
- GAC must work with ISED Canada to integrate environmental and equity standards into trade agreements, improving conditions for investment, innovation performance and increasing cleantech exports
- GAC must work with Natural Resources Canada for critical resource cooperation, assessing Canada’s resource assets and gaps, and supporting the US-Canada Critical Minerals Working Group
- Other important horizontal actors include Export and Development Canada, The Department of Finance, Canadian Security Intelligence Service and Canadian Intellectual Property Office

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