FREE ACCESS Research Article 26 July 2022

Environmental Aspirations in an Unsettled Time: Pierre Elliott Trudeau, the Club of Rome, and Canadian Environmental Politics in the 1970s[1]

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Publication: Canadian Journal of History Volume 57, Number 2 https://doi.org/10.3138/cjh-57-2-2021-0101

ABSTRACT RÉSUMÉ

Plagued by economic, energy, and national unity troubles, the 1970s were a tumultuous time in Canadian federal politics. Much less is known about Pierre Elliott Trudeau's environmental aspirations. This article provides an account of the ideas, policies, and actions in Canadian federal politics 1968–1982. This account demonstrates that Canadian leaders aspired to a transformative environmental agenda, including a systems approach, a critique of economic growth in favour of alternative visions of prosperity, and a shift in societal values from consumerism and greed toward sufficiency and well-being. The onslaught of problems in the mid-1970s was a significant turning point in Canadian environmental politics. Although Trudeau did not discard his holistic environmental vision, he was unable to move from environmental rhetoric to action. This analysis contributes important insights into the pitfalls of navigating unsettled times such as the 1970s and has important implications for current prospects and opportunities for change.

I. Introduction

The 1970s were a tumultuous time in Canadian federal politics. Following Trudeaumania in 1968, politics remained energized by the figure of Pierre Elliott Trudeau, while the economy, energy, and national unity were dominant concerns. The economy was troubled by persistent stagflation, and then the imposition of wage and price controls and an increasing deficit. Energy policy was punctuated by two Organization of the Petroleum Exporting Countries (opec) crises, the creation of PetroCanada, the nationalist policy of the Foreign Investment Review Agency (fira), and the polarizing influence of the 1980 National Energy Program (nep). National unity raised its head during the 1970 October Crisis, through Western alienation, with the 1976 election of the Parti Québécois under René Lévesque and the Quebec referendum in 1980.[2] These are the issues that have captivated Canadians.

This was also the era in which Canadian environmental governance formally emerged. Environmental governance is the way a society collectively directs itself in relation to the environment; this refers to the visions, decisions, policies, institutions, laws, and actions by which a society holistically directs itself.[3] According to this definition, leaders and governments do not hold ultimate power or make decisions in isolation; many other factors influence how society collectively governs itself. As such, although there are many precursors to Canadian environmental governance, academics present Trudeau's tenure during the 1970s as the formal beginning of Canadian environmental governance.[4] Indeed, the Department of the Environment (doe) was created in 1971, and more environmental laws were passed in the 1970s than in the previous 100 years.[5]

Throughout Trudeau's tenure, historians have documented the development of specific issues in Canadian environmental politics, such as Great Lakes pollution, renewable energy, and automotive pollution.[6] However, much less is known about Trudeau's role in shaping Canadian environmental governance in the 1970s. Trudeau's environmental ambition is presented as fleeting, waning after the environmental enthusiasm of the 1960s faded.[7] Doern, Auld, and Stoney argue that the Trudeau regime "did not systematically attend to environmental policy and governance."[8] They claim that under Trudeau the 1970s had promising environmental beginnings, but the effectiveness of environmental policy experienced a long decline. Thus, environmental ideas and policies in the 1970s are often treated as nascent, with little to be explained. These claims are troubling given that, as Canada is a parliamentary democracy, the prime minister and cabinet have power over the budget and are at the centre of environmental policy- making and law.[9]

Little is known about Trudeau's environmental views, their extent, and how they fit into his thinking. His ideas were complex, ranging from idealistic to pragmatic; they evolved throughout his tenure and often did not fit standard labels such as liberal, progressive, or nationalist.[10] Much attention has been paid to Trudeau's positions on national unity, the

economy, and energy, which dominated the 1970s, while others have focused on his approach to foreign policy, his political appeal, or repatriation of the constitution.[11] These works pay scant attention to the environment and have overwhelmingly concluded that the environment was not a priority for Trudeau.[12]

However, there is tantalizing evidence to the contrary. Although he was a prolific writer, Trudeau wrote nothing during his 20 years in politics. Even so, some of his earliest and latest writings suggest that the environment was important to him.[13] Studies that have looked closely at Canadian environmental politics in the 1970s suggest a surprising depth of thinking and strength of initiatives — not only during Trudeau's first term, 1968–1972, but also enduring throughout the decade. For instance, Trudeau met with the Club of Rome at least three times before the doe was created in 1971,[14] and the Trudeau administration initially attempted to implement a systems approach with the doe.[15] Trudeau was actively involved in these early debates about the doe's mandate.[16] Shortly thereafter, the Science Council of Canada (scc) developed the idea of the Conserver Society. The result, in 1978, was the largest federal investment in renewable energy to date.[17] First-hand accounts from this period also indicate that the Trudeau administration held environmental views that deeply challenged the status quo. Former Liberal Minister of Environment John Roberts viewed the Mulroney government's adoption of sustainable development as a setback and dilution of environmental ambition when compared to the Trudeau years.[18] Were Trudeau's early environmental ambitions as fleeting as some have suggested, or more persistent and profound than has been recognized? How can we reconcile Trudeau's early transformative perspective and ambition on the environment with what is often seen as the disappointing and relatively anti-ecological outcome of the 1970s? And why did the Trudeau government fail to live up to its own environmental rhetoric?

This article draws on diverse sources to illuminate environmental and economic ideas, policies, and actions in Canadian federal politics 1968–1982.[19] This evidence reveals a novel account of Canadian environmental politics, demonstrating two seemingly contradictory things: On one hand, Trudeau's environmental aspirations in the 1970s were much more ambitious, integrative, and far-reaching than previously thought. He persistently voiced, and initially supported, a transformative environmental agenda that included a systems approach, rejection of economic growth in favour of an alternative view of prosperity, and a shift in societal values from consumerism and greed toward sufficiency and well-being. With the onslaught of economic, energy, and national unity problems of the mid-1970s, Trudeau did not discard his environmental concerns, but continued to articulate this holistic environmental vision.

On the other hand, the Trudeau government's environmental policies and actions did not match its rhetoric. The 1970s were fraught with persistent problems. Following Trudeau's near electoral loss in 1972, he changed his staff and strategy, purging his inner circle of

systems thinkers. Interdepartmental tensions underlain by ideological differences, the structure of Canada's federal system, and the long-term nature of environmental problems all contributed to Trudeau's inability to move from rhetoric to action on his transformative environmental vision. While much has changed since Trudeau's tenure, we are still struggling with many of the challenges he faced at the birth of Canadian environmental governance.

II. Early Environmental Aspirations in Canadian Politics, 1968–1972

Before the 1970s, Canadian environmental governance existed as separate domains that would only be brought together under Trudeau. Canadian environmental governance is rooted in some of the earliest and most influential relationships linking Canada with the world through fish, fur, and timber.[20] But attention to the environment was implicit; Canada was largely treated as a storehouse for natural resources to be exploited.[21] During the 1900s, the environment was given explicit attention through forest conservation and national parks, as well as energy development, pipelines, and oil spills.[22] Regulations were developed to manage natural resources efficiently and protect them from overexploitation.[23]

The environmental movement emerged full force in the 1950s and 1960s as people began to notice the impacts of humans on the environment. In *Lost in the Barrens* and *Never Cry Wolf*, Farley Mowat captured Canadians' imaginations, drawing attention to environmental issues, including human arrogance toward indigenous peoples and wildlife.[24] The Canadian environmental movement was also influenced by the environmental revolution in the United States. Landmark books such as Aldo Leopold's *A Sand County Almanac* and Rachel Carson's *Silent Spring* criticized rampant post-World War Two (wwii) industrialization and the destructive ecological impacts of uncontrolled scientific and technological development, most notably ddt and nuclear fallout.[25] Prominent economists and politicians also began to question the environmental merits of industrial society and its pursuit of unbridled economic growth. In *The Affluent Society*, Canadian-born economist J.K. Galbraith criticized economic (gdp) growth as a poor measure of society's well-being.[26] In 1964, US president Lyndon B. Johnson eschewed the pursuit of growth because it measured quantity but not quality, meaning, or beauty. In 1968, US Democratic presidential candidate Robert F. Kennedy echoed this sentiment:

> gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to

> our country, it measures everything in short, except that which makes life worthwhile.[27]

When astronauts landed on the moon in 1969, the first images of the Earth as a tiny blue marble drove home the idea that the Earth was finite, fragile, and precious (**Figure 1a**).

New environmental organizations were created in the United States and Canada. President Nixon created the US Environmental Protection Agency in 1969 and the first Earth Day took place on 22 April 1970. In Canada, Pollution Probe was founded in 1969, the Canadian Environmental Law Association emerged in 1970, and Greenpeace was founded in Vancouver in 1971 to oppose nuclear testing and whaling.[28] Meanwhile, concerns about oil spills also seeped into Canada in 1970 when the tanker *Arrow* spilled oil into Chedabucto Bay, Nova Scotia.[29]

This growing environmental awareness intersected with the ideas of newly elected Canadian Prime Minister Trudeau (**Figure 1b**) about governing, providing the ingredients for a promising approach to environmental governance. Trudeaumania gave the Liberals the confidence and initial momentum to try bold new ideas and Trudeau, called the philosopher king, was an intellectual prone to engaging with ambitious, idealistic proposals.[30] Moreover, he and his inner circle (especially Michael Pitfield, Jim Davey, and Marc Lalonde) had been concerned about government disorganization and a lack of strategic planning during the Pearson era.[31] Trudeau began the 1970s with a "rational planning" mandate; this meant significant government reforms intended to realize strategic planning and integration. These changes mirrored thinking in the United States and privileged scientific knowledge, objectivity, and long-term planning.[32] Finally, Trudeau was elected in 1968 on the ideal of participatory democracy, and for the first time, each party was given a budget for policy research.[33] As the 1970s began, leaders from the three major Canadian political parties were all oriented toward developing good policies rather than partisan politics. With Trudeau's idealism, the government's rational planning mandate, and the political goodwill of participatory democracy, it is not surprising that the environment enjoyed initial enthusiasm.[34]

OPEN IN VIEWER

Figure 1: (a) View of the Earth as seen by the Apollo 17 crew on December 7, 1972, traveling toward the moon (AS17-148-22727); (b) Pierre Trudeau (1975).

Sources: (a) NASA; (b) The National Archive of the Netherlands, Rob Mieremet/Anefo.

a) Trudeau and the Club of Rome: The Problématique, Systems Thinking, and Limits to Growth

When Trudeaumania swept across Canada in 1968, the Club of Rome, which would inspire Trudeau's environmental vision, had not yet been created. The organization, best known for commissioning the 1972 publication *The Limits to Growth*, was founded by Aurelio Peccei and Alexander King. Peccei was an Italian Industrialist and King was Director-General for Scientific Affairs at the Organization for Economic Co-operation and Development (oecd). They met in late 1967 after King encountered Peccei's ideas about intersecting global problems.[35] In April 1968, Peccei and King brought together twenty leading industrialists, academics, and bureaucrats in the Villa Farnesina in Rome, after which the club would be named. In Rome, they discussed the Problématique — the idea that seemingly unrelated global problems were connected. Quantitative growth had led to overpopulation, environmental destruction, urban pollution, social discontent, and other problems. It was as yet unclear how to connect these problems.

Although Peccei and King thought the meeting was "a monumental flop," one participant, Erich Jantsch, had outlined a framework to understand the world system.[36] Building on this idea in his book *The Chasm Ahead*, Peccei articulated the Problématique and his emerging vision for how to address it.[37] The Problématique framed the global predicament of humankind in holistic terms. Individual features were inherently connected and thus required an integrated systems approach. A systems approach involved a holistic view of world problems, looking at the interconnections among those problems, and attempting to understand the long-term dynamics of the world system. This approach would begin with "a multinationally sponsored feasibility study on the systematic, long-term planning of world scope," using systems dynamics modelling.[38] Systems dynamics modelling would use innovative new computer methods to capture the nonlinear relationships among variables of the system. These methods would be able to model the feedbacks and dynamic responses that emerged from those relationships. But addressing the Problématique also required an act of political will. The Club of Rome began reaching out to political leaders to raise awareness about the Problématique and gain support for its approach to long-term planning.

As Peccei and King were formulating their ideas, they quietly reached out to Trudeau and the Canadian government. From 1969 until at least the late 1970s, there was ongoing communication with the Club of Rome, support for its activities, and consideration of its ideas by senior levels of the Canadian federal government, including Trudeau, the Prime Minister's Office (pmo), the Privy Council Office (pco), members of the Liberal cabinet, senators, and the governor general. On 15–16 June 1969, founding members of the Club of Rome, including Peccei and King, first met with Trudeau and members of the Canadian government. This meeting included members of the pmo, the pco, representatives from the Science Secretariat, the scc, the Department of External Affairs, the Department of National Defence, and Senator Maurice Lamontagne.[39] On 16 June, 1969 an informal dinner included Trudeau. Peccei and King argued, "Nothing short of a comprehensive systems approach on a world-wide basis can be fully effective."[40] They identified the need to understand these problems through forecasting and systems analysis.

Peccei emphasized the political nature of these problems and the need for an "Act of political will."[41] He specifically requested Canada's leadership to initiate global efforts to address the Problématique and provide financial support to study the problem. A memorandum for Trudeau about these meetings states, "Peccei made it clear that he and his colleagues were seeking a political initiative to create such a group. One country would take the lead and gain the moral and financial support of several others in its creation … Peccei gave a number of reasons why he believes that Canada is the optimum choice for a country to take such initiative."[42] Peccei said a Canadian-led initiative was the "best imaginable" because Canada had an "untarnished record," Trudeau was known to be open-minded, other countries looked to Canada for leadership, and it was "considered a

country of independent thinking in a constructive sense."[43] Peccei's strategy was to contact and bring together a group of "more neutral" smaller countries, not just a "club for the rich," and then bring on board Cold War superpowers the United States and the USSR. Peccei proposed that Canada approach one or two other countries to see if they were interested in co-sponsoring the work. Emphasizing Canadian leadership, "He proposed unequivocally that Canada take the primary initiative."[44]

These ideas fit well with the Trudeau government's thinking and Peccei's proposal was received with interest at the highest levels of government. Trudeau's advisors recommended to him that Canada either accept Peccei's request or agree to participate but leave the initiative to another country.[45] Program secretary to the Prime Minister J.M. Davey recommended that Canada support the Club of Rome's proposal rather than reject it, arguing "the proposed problems are real" and that "this is the type of imaginative approach that fits very well with the nature and style of the current administration."[46] Robert Uffen, chief science advisor to the cabinet (Science Secretariat in the pco) and a member of the Club of Rome, was designated as the correspondent between the Club of Rome and Canada.[47]

Trudeau's government continued to engage with and support the Club of Rome's activities. On 5 January 1970, a second meeting was held between members of the Club of Rome, the pmo, Trudeau, and senior Liberals.[48] Four attendees of this meeting (Gendron, Stadelman, Lamontagne, and Whitehead) became the first Canadian members of the Club of Rome. When Whitehead was hesitant to become a member because of potential conflict of interest, Trudeau expressed that Whitehead's membership was compatible with his responsibilities as principal science advisor in the pco because it would enable Trudeau to keep in touch with the activities of the Club of Rome. Whitehead could suggest ways the Canadian government could help the Club.[49] As a result, Canada was one of the first countries to create a national association for the Club of Rome and to host a full meeting of the Club of Rome.

On 6 April 1971, the Trudeau government sponsored the Club of Rome's second full meeting, held in Montebello, Québec.[50] Montebello was a critical moment in the development of the Club of Rome's thinking, and members of Trudeau's cabinet, the pmo, the pco, and the governor general attended the meeting. Until 1970, the Club of Rome had only articulated their thinking in three points: a long-term focus, problems of a global scope, and the Problématique as a complex of interconnected problems.[51] The Club of Rome had commissioned a team at mit, led by Jay Forrester, to model the long-term interactions of major world dynamics using system dynamics. At Montebello, the mit team presented its preliminary results.[52]

The mit team's model used system dynamics and had five variables: population, food production, industrialization, pollution, and the consumption of nonrenewable natural

resources. The model captured the nonlinear relationships and feedbacks between the variables to produce scenarios up to 2100. Without changes to historical growth trends, these scenarios predicted "sudden and uncontrollable decline in both population and industrial capacity."[53] At this meeting, the concept of limits to growth was first conceived and discussed.[54] Thus, the Trudeau government was party to and supported early Club of Rome discussions and activities even before the 1972 publication *Limits to Growth*.

b) Trudeau's Environmental Vision: Systems Thinking, Questioning Growth, and Societal Values

These early exchanges between the Club of Rome and the Trudeau government were mirrored in Canadian environmental thinking and policy. Concerns about disorganization and lack of strategic planning led Trudeau, along with senior bureaucrat Michael Pitfield, to oversee significant government reorganizations within the pco and cabinet, among other government organizations.[55] Trudeau and his inner circle, including Michael Pitfield, Jim Davey, Marc Lalonde, and Ivan Head, became increasingly interested in systems analysis and futurology as a solution.[56] Echoing ideas raised in meetings with the Club of Rome, the Pitfield–Trudeau approach reflected the belief that it was possible to plan the future rationally based on an analytical understanding of society. Trudeau's rational planning mandate recognized the interrelationships among issues and reflected holistic systems thinking that proposed a "horizontal" approach to government decision-making.[57]

Trudeau, along with Pitfield, sought to implement systems principles through government reforms, and this was especially true for environmental governance. They approached the environment not as a separate problem to be dealt with by an isolated ministry but as a systemic problem requiring society-wide efforts. Trudeau encouraged proposals for a Department of the Environment (doe) with a comprehensive mandate as an ecosystem manager that would challenge economic planning assumptions and add the "missing ecological feedback loop."[58] As C.R. Nixon initially conceived, the doe was intended to be a horizontal organization: it would review initiatives of other departments that affected the environment and report to cabinet, where its feedback would have influence.[59] The new ministry would "take a broad ecological perspective in the discharge of [its] responsibilities, and in particular … take the lead in the enhancement of the quality of our environment."[60] Trudeau emphasized that "The fight against the pollution of our environment is far beyond the capacity of one minister and his department. Indeed, it cannot be waged effectively by the federal government alone … It is a fight that must be waged by all ministers, all governments and all people."[61] Hence, as initially envisioned, addressing environmental problems required a systems approach that accounted for feedbacks as well as cooperation from all departments and society at large.

A systems approach to addressing environmental issues was reflected not only in the doe, but also in the creation of the Ministry of State for Science and Technology (mosst) and the Ministry of State for Urban Affairs (msua). Both urban issues and science and technology had risen on the public and political agendas throughout the 1960s, and ministries of state were a Trudeau-era invention that embodied system-wide integration.[62] In contrast to traditional line departments, they were to behave as horizontal agencies similar to central institutions such as the pco, pmo, and Treasury Board. For example, all federal departments involved in science activity would maintain contact with mosst, which would coordinate activities and provide overall direction. While line departments had more cumbersome administrative structures and levels of responsibility, ministries of state were intended to have power and influence, and also be more flexible and efficient by focusing on one policy area.[63] On 24 October 1969 Trudeau declared, "We intend to tackle the problem of environment … by directing our efforts mainly at the two major sources of pollution: urbanization and the invasion of modern technology."[64] For Trudeau, unplanned urbanization and the rampant use of technology were too often employed "to challenge [man's] own survival. In so doing he threatens not only his own species but also the whole life on our planet."[65] Trudeau's environmental concerns about the management of technology would lead to the establishment of mosst, with prominent businessman Alastair Gillespie as its first minister of state, while Trudeau's concerns about urbanization would lead to the creation of msua.[66] This systems view of environmental problems was realized when the Government Organization Act (Bill C-207) was tabled on 27 January 1971. It created the doe, as well as two ministries of state: mosst and msua.

mosst, in particular, was conceived of and moulded by systems thinkers and Club of Rome members J.R. Whitehead and C.R. Nixon, among others in the pco. In 1971, mosst was given the responsibility of both the Science Secretariat and the scc from the pco, and Whitehead became Assistant Secretary for mosst.[67] Gillespie himself attended the Montebello meeting and was a supporter of systems thinking and integration of economic and environmental issues. Upon reading *Limits to Growth*, he summarized its conclusions as "so far-reaching and raise so many questions for further study that we are quite frankly overwhelmed by the enormity of the job that must be done."[68] He wrote that he hoped for other people and countries "*to join us* in understanding and *preparing for a period of great transition from growth to global equilibrium*."[69] mosst became "a major sponsor of COR [Club of Rome] and CACOR [Canadian Association for the Club of Rome] initiatives," funding, for instance, a major 1978 Club of Rome report.[70] Gillespie would later attempt to integrate energy and environmental issues during a second term leading mosst.[71]

Within this overarching view of environmental problems, the economy–environment relationship and the compatibility of economic growth with the environment were central themes. On 27 January 1971, Minister of Fisheries and Forests Jack Davis — soon to be the first Minister of Environment — announced, "Our new Department of the Environment …

puts the emphasis on quality rather than quantity … It must put ecology ahead of economics whenever a choice has to be made between the two. However, ecology and economics are not always opposed. We can have economic growth and a healthy environment, too. But to have maximum economic growth and a sound environment will take a lot of doing."[72] For Davis, tensions between economic growth and the environment required a rethinking of economic growth as a primary policy objective: "Economic growth in the old-fashioned, quantitative sense is an illusion. It is shortsighted. It is narrowly conceived. It recognizes certain private costs but ignores others. It passes hidden charges onto others. And these hidden charges can later turn up in the form of barren soil, smoke laden skies and waters which are repulsive to us all. A fuller accounting of the costs and benefits over the long run, inevitably turns up a different balance sheet. Blighted landscapes and unhappy hours are negative factors that must be taken into account."[73] Thus, the Liberal government of the early 1970s explicitly adopted a systems approach, considered the relationship between economic growth and the environment, and embraced new measures of wellbeing.

Paralleling the Club of Rome's systems approach, and drawing together developments in long-established but previously siloed environmental domains, Trudeau produced an ambitious system of environmental laws.[74] Trudeau's 1969 Throne Speech initiated the creation of a system of environmental protection composed of five new environmental statues that would later be merged into the Canadian Environmental Protection Act. One example of the transformative potential of these laws was the 1972 bilateral Great Lakes Water Quality Agreement (glwqa). The glwqa set an ambitious goal of zero discharge of persistent toxic substances into the Great Lakes Basin ecosystem, making it one of the earliest international agreements to adopt an ecosystem approach. Another example that had transformative potential was the 1975 Environmental Contaminants Act, which regulated toxic substances used as manufacturing inputs rather than merely regulating end-of-pipe pollution. Indeed, as legal scholars assert, "the intensity of environmental law reform in Canada has never matched the first wave of activity in the 1970s."[75]

c) Questioning Economic Growth on Environmental Grounds

In addition to their attempts to implement a systems approach and support the Club of Rome's efforts, Trudeau and his inner circle publicly and repeatedly challenged the pursuit of unconstrained economic growth on environmental grounds. In a May 1971 speech, Trudeau expressed concern about the rape of natural resources and "decried foolish worship of the gross national product" (gnp).[76] Echoing the Club of Rome's critique of modern industrial economy, he emphasized that the government should pay attention to the negative impacts of human activity such as pollution, resource exhaustion, and the social cost of overcrowding.[77] He argued that these impacts could be better measured as net human benefit than as gnp.

At least some of the Liberal party supported Trudeau's rejection of gnp and advocacy of net human benefit. When Trudeau supported him at an all-candidates meeting in Victoria, BC Liberal Member of Parliament David Groos declared his agreement with Trudeau "that nations should stop their reckless climbing for increasingly higher production and should replace the concept of gross national product with that of net human benefit."[78] Ivan Head, special assistant to Trudeau, publicly reiterated this position: "The philosophy of unrestricted growth has been challenged by his government. Gross national product as the determining measurement of the health of a society has been called into question and 'Net Human Benefit' has been suggested as a substitute, a measurement which would take into account such factors as environmental deterioration, community overcrowding and resource depletion."[79]

Trudeau substantiated these ideas in 1972 when he appointed Sylvia Ostry as the chief statistician for Statistics Canada. She was charged with augmenting and improving the national accounts so that they would include social welfare and the environmental impacts of economic activity. A group was created in Statistics Canada to research ways to interrelate orthodox economic statistics with environmental indicators.[80]

In sum, throughout his first term, there was significant interaction between the Trudeau government and the Club of Rome. Trudeau considered and attempted to implement these ideas, including a systems approach, through government reforms, the creation of the doe, mosst, and msua, and a system of environmental laws. He also initiated development of alternative measures of well-being in Statistics Canada and called for new values in society. Together, these ideas and initiatives reflect a transformative vision of environmental governance.

III. Rising Tensions in an Increasingly Unsettled Time 1968–1973

As the 1970s proceeded, economic, energy, and national unity problems came to dominate the agenda. Chronic inflation plagued the Canadian economy throughout the late 1960s and early 1970s. Rising living costs were accompanied by rising unemployment, which, after 1970, remained higher than in the post-wwii era, stoking fears of a return to the massive unemployment of the 1930s.[81] These concerns about Canada's economy were exacerbated by the Nixon Shock when, on 15 August 1971, the United States announced its protectionist New Economic Policy.[82] From the end of wwii until the 1970s, the government's responsibility to deliver full employment through economic growth had reigned supreme, accompanied by the view that growth was good and could solve society's problems. The economy was based on economic growth and inflation and the trade-off of the Phillips curve. According to the Phillips curve, inflation and unemployment were inversely related: in the short term, reducing inflation would increase unemployment, while reducing unemployment would increase inflation. Hence, Keynesian macroeconomic

management prescribed balancing one against the other so that neither became too onerous. By this logic, economic growth and full employment were not purely good, but also had negative impacts, namely inflation.

Initially, Trudeau's Liberal government worked within the conventional wisdom of the Phillips curve, attempting to balance economic growth and employment against inflation. Essentially, from 1968 until 1972, the Trudeau government limited economic growth to reduce inflation. However, stagflation — the combination of stagnating economic growth, high unemployment, and high inflation — emerged throughout the West as a persistent problem that evaded resolution. At the end of Trudeau's first mandate, the economy continued to grow, but inflation increased even while unemployment increased. This combination of rising inflation and unemployment contradicted the conventional wisdom of the Phillips curve. How the government should handle stagflation was unclear, but it was clear that existing solutions were no longer sufficient.

Searching for solutions, Trudeau began to question both the government's responsibility for full employment and the work ethic as a central societal ideal. A report prepared by the pmo described the coming decade as a "period of transition" in which environmental conditions and economic changes such as automation would make the public expectation for low unemployment problematic.[83] The report proposed that "the time has come to realize that it is more efficient to run our economy with a certain level of unemployment" and to "accept the responsibility" for its impacts. The problem was rooted in the myth of the work ethic: society's assumption that "a man without work is a man without dignity."[84] The report recommended that government lead this change in societal values, helping through measures such as guaranteed annual income. Such a change might have allowed Trudeau to continue to limit growth in line with his environmental ideas.

Then, in 1972, unemployment spiked despite continued growth, and the Liberals reversed their policy. In the May 1972 budget, Finance Minister John Turner prioritized jobs and growth over inflation.[85] The October 1972 federal election, a race largely focused on the economy, yielded a Liberal minority. This was the closest election in Canadian history by number of seats, with the Liberals holding 109 and the Progressive Conservatives 107. After the Trudeaumania of 1968, this outcome was seen by many as a Liberal defeat and a pc success. The 1972 election resulted in a Liberal caucus retreat, which was "a brutally candid examination of the pm."[86] Some wondered if Trudeau would resign. Much weakened, Trudeau's minority remained propped up only with the support of the New Democratic Party. The ndp made its support conditional on its major policy positions.

The 1972 election drove Trudeau to change his staff and strategy. After the election, he changed his style to prove "that we were re-entering the political arena with more aggression and determination than we had ever shown before."[87] More than before, he considered the political consequences of his government's decisions. To reflect this

political approach, he changed his staff "from top to bottom."[88] While Trudeau had surrounded himself with intellectuals and systems thinkers in his first term, after 1972 he replaced them with politically minded advisers with expertise from the Pearson era. Advocates of systems thinking who had been party to discussions with the Club of Rome were sidelined: Marc Lalonde became Minister of National Health and Welfare; Jim Davey was moved to the Department of Transport; and Michael Pitfield was moved to a deputy minister post in 1973, although he returned in 1975. Other systems thinkers had already left: Whitehead to mosst, and Uffen to Queen's University. Instead, Trudeau brought on seasoned political adviser Keith Davey to run his 1974 campaign and Jim Coutts to handle the media.[89] Coutts became Trudeau's principal secretary in 1975, bringing a political focus to the pmo. Hence, Trudeau's close advisers in 1974 onward differed significantly from those in 1972. Systems thinking had been replaced with political expediency.

Another shift occurred when Turner became minister of finance in 1972. Turner's ideas about the economy, and those in the Department of Finance more broadly, contrasted sharply with Trudeau's views. Turner was strongly influenced by Milton Friedman and the monetarism of the Chicago School. Likewise, Deputy Minister of Finance Simon Reisman and the Ministry of Finance increasingly supported free market capitalism and monetarist arguments against large bureaucracies, regulations, and government intervention in the market.[90] In contrast, Trudeau was both a friend and avid reader of J.K. Galbraith.[91] He remained both critical of the free market system and committed to government intervention.

The result was a growing rift between Trudeau on the one hand and Turner and Finance on the other. For instance, after Trudeau appointed Lalonde as Minister of National Health and Welfare to solve Canada's poverty problem, Lalonde developed a guaranteed national income proposal. Turner and Reisman opposed Lalonde's proposal and convinced the cabinet that Canada could not afford it.[92] Wanting to keep his distance from the Ministry of Finance, Trudeau developed an independent system of economic advisers within the pco, within the pmo, and at the Treasury Board.[93] At the insistence of the Department of Finance, Trudeau formally disbanded the group, although he continued to meet with them privately.[94] Trudeau's change in staff and strategy, as well as Trudeau–Turner tensions, would have significant, if indirect, impacts on how economic, energy, and environmental issues would be dealt with.

Compounding Trudeau's already strained political and economic situation, the opec oil crisis of late 1973 caused oil prices to rise dramatically. The opec "oil cartel" was intended as a weapon against the oil-dependent Western countries. Oil-producing countries would benefit from the increases in the price, while oil-importing countries had to either adjust their consumption rates or borrow to maintain them in the face of increasing energy prices.[95] However, Canada did not fall neatly into one category or the other. Rather,

Canadian production and consumption of oil was split: Western provinces produced and exported oil in excess of what they consumed, while the maritime provinces and Quebec were net importers. These regional differences would cause tensions between the federal and provincial governments.

In response, the federal government prioritized energy development as a means to energy independence and security. The government would build pipelines and create PetroCanada.[96] Governments also supported high-risk exploration and development of the oil sands, as well as nuclear energy development. In 1975, the federal, Alberta, and Ontario governments together put up $500 million to purchase thirty-five percent of Alberta's Syncrude oil sands plant and prevent its closure.[97] The federal government also intervened to establish a nationwide oil price, subsidize oil imports for Quebec and the Atlantic provinces, and maintain domestic oil prices below world levels.[98]

The federal response to the energy crisis exacerbated national unity tensions and had unintended consequences. First, federal attempts to manage the oil crisis in relation to regional differences caused provincial resentment, exacerbated federal–provincial tensions, and drove Western alienation. Western oil-producing provinces wanted world oil prices, while Eastern oil-consuming provinces wanted lower prices. Second, Canada consumed more oil, imported more, and exported less than if prices had not been kept below world prices.[99]

IV. Continued Environmental Aspirations in the Context of Stagflation and the Energy Crisis 1973–1979

Trudeau continued to entertain environmental ideas and meet with the Club of Rome, albeit less frequently. For instance, on 4–5 February 1974, even in the midst of the opec crisis and with a fragile minority, he attended the Club of Rome's Salzburg Conference for Heads of State. Held in Salzburg, Austria, the conference was a meeting between members of the Club of Rome and political leaders of ten countries or their personal representatives. It focused on the political aspects of addressing the Problématique. Preparatory documents foregrounded *Limits to Growth* and problematized the "dramatic growth of the world economy and the accumulation of wealth especially in industrialized countries."[100] At Peccei's invitation, Trudeau attended the conference.

The Salzburg conference illustrates the barriers Trudeau faced, and how these issues were treated as politically sensitive within Trudeau's new strategy that foregrounded politics. The purpose of the conference was "to enable a number of leading statesmen of the world to discuss together, free from the constraints of normal intergovernmental consultation, the problems which, although affecting mankind's long-term future, need urgent consideration."[101] Salzburg was an opportunity for statesmen to consider these issues

"quietly and freely among themselves."[102] As Alexander King states, "We realized that informality and real conversations could never take place in a large assembly open to all nations."[103] King continues, "The plan was for the meeting to take place behind closed doors with the media and ministers' civil servants excluded, with a press conference at the end."[104] Peccei assured Trudeau that all presidents and prime ministers were "coming in a personal capacity" and that discussions would remain private.[105] He wrote that meetings "will be completely informal and private to make for the frankest possible exchange of views and ideas."[106]

Trudeau attended privately and considered his participation unofficial. Of his five international trips during 1974, Salzburg was the only one taken "unofficially" in combination with a family holiday.[107] Moreover, Trudeau and his staff expressed concerns about public attention and a public declaration. A restricted telegram from Ivan Head to the Club of Rome states that

> PM is concerned that idea of a common declaration and attendant publicity could inspire attn and comment which could take away from value of mtg in addition to involving participants unwelcome exercise of reaching agreement. Grateful if you would contact Peccei immed and discover his precise intentions. You may indicate PMs interest in having this info.[108]

Political survival was a major concern driving this approach. A founding member of the Canadian Association for the Club of Rome, R.J. Whitehead, observed that heads of state

> were all convinced that their political survival was at stake if they initiated the measures that are essential for global survival. Some ministers might have been prepared to make that sacrifice except for the fact that their probable successors had less knowledge of global problems and were less sympathetic towards solutions than they were, so the situation would not be improved by their resignation.[109]

According to one account, "Trudeau spoke at the end of the meeting to the effect that he certainly agreed with the critical nature of the issues identified, but if he, as prime minister, tried to implement the required action as identified by the group, he would be out of office at the next election — or before. And furthermore, if he were voted out of office, his successor would be faced with the same problem."[110] These long-term concerns about the environment and the global situation remained politically sensitive and were not voiced publicly.

a) Transformative Ambitions: Environmental Rhetoric but Not Action

Trudeau's early environmental aspirations collided with the realities of his times to produce an approach to the environment that was both transformative and politically unviable to implement. The result was rhetoric, but not action.

As the decade progressed, environmental policy became increasingly entangled with and subsumed by economic, energy, and national unity problems. Made worse by the energy crisis, ongoing economic issues evaded easy solution. In 1973, with both high inflation and unemployment, stagflation became even more pronounced. Inflation had risen steadily and wages had increased in an attempt to maintain gains or simply to catch up.[111] This inflationary spiral escalated and was accompanied by labour strikes. Stagflation presented a worsening trade-off between inflation and unemployment. The Liberals promised that Canada could address both and argued that economic growth was the solution. They rejected wage and price controls, arguing that this required "public consensus and more evidence of an emergency situation."[112] Instead, they pleaded with Canadians for voluntary restraint to halt the inflationary spiral.

Despite his preoccupation with energy security and the economy, Trudeau continued to voice his environmental ambitions. In a 12 May 1974 speech, he called for a new environmental ethic and emphasized the importance of recognizing Earth's limits: "One need not be a neo-Malthusian, or a subscriber to any of the pessimistic theories now abounding, to have learned that there are limits to the rate at which the earth's resources can be exploited, that there are limits to the ability of our biosphere to absorb pollution, that there are limits to the capacity of the globe to support human life. These truths we now know and accept."[113] For Trudeau, recognizing limits demanded responsibility and new values: "This responsibility, in short, must be universal in concept and planetary in scope. It demands a great deal of every man and woman, but it falls with particular weight on the inhabitants and governments of the developed nations for we are the ones who have amassed the knowledge; we are the ones who possess the means to alter positively the course of human destiny."[114] He continued,

> This new maturity requires new values. Foremost among them is an acceptance that economic growth and material advantage are not goals to be isolated from the general aim of mankind. The twentieth-century devotion to material gain has created an imbalance in the human condition that infects the attitudes of all too many men and women and the policies of most governments. Economic criteria to the exclusion of almost all others are employed as the measurement of individual achievement and of governmental performance. "Prosperity" is the rallying cry of politicians everywhere. But what of happiness? What of contentment? What of satisfaction? Are we to believe that these are concomitants of economic growth? To anyone who has despaired at endless traffic jams, to anyone who has encountered the obscenity of unplanned urban sprawl, to anyone who grieves over

> the despoliation of oceans and beaches by needless oil spills — to any of these persons the answer must be no.[115]

Although the Liberals continued to voice environmental ideas, they also emphasized the need for societal support. For Trudeau, the necessary changes were beyond the ability of politicians: "No single political leader, no group of political leaders, is capable of changing the values and attitudes of a whole society."[116] He called on people to "expand our consciousness and our attitude, to reexamine our value system, to discount the worth of purely economic factors as an evaluation of the human condition."[117] He called for the measurement and pursuit of net human benefit, not gross national product.

While Trudeau may have continued to voice these environmental ideas, government priorities and actions reflected his change in strategy as well as the context and challenges he faced. At the same time as Trudeau's speech, Turner's May 1974 budget presented a contradicting message, rejecting both deflation and wage and price controls in favour of continued growth, specific price controls, and helping Canadians with rising living costs.[118] Trudeau and Turner had crafted the budget so that the conservatives and ndp would trigger an election.[119] The 1974 election focused on energy and the economy. With Trudeau's new attention to political strategy and the seasoned support of Keith Davey and Jim Coutts, the Liberals soundly won the election.

Under the new Liberal majority, stagflation worsened, so that the trade- off of jobs and growth versus inflation became even more stark. The November 1974 federal budget foregrounded stagflation, vaguely calling for "good economic performance in every respect."[120] But it also proposed that deep changes were needed that went beyond economics and the government's capacity. In his budget speech, Turner linked Canada's high inflation, especially of food and oil prices, to finite ecological limits: "the sum total of all the claims on the nation's resources — however justified they may seem to be — clearly exceeds what is in fact available to be shared … We have to find a better way of reconciling the competing interests of the various groups which make up our society."[121] Each group was competing for a greater share of a limited national pie, driving inflation.

Echoing Trudeau, Turner problematized greed and unlimited consumption in the face of ecological limits, which required conservation: "As a result of the extraordinary progress made over the last several decades in developing food and energy, we came to regard them as relatively cheap and abundant. That has all changed in the space of a few short years. We have become painfully aware that our capacity to produce both these essentials is not unlimited. The growing scarcity of these resources compels us to husband them wisely."[122] Faced with ecological limits, the government felt compelled to move beyond economics and make an ethical appeal to Canadians:

> On a world scale, it is not just an economic problem. It is a moral issue, because for many people and for many countries it is survival which is at stake. Many countries haven't enough energy to meet the basic needs of their people. Millions of people haven't enough to eat. For Canadians this is not a question of economics; it is a matter of conscience. Should we live as high as we do? Should we waste as much as we do? Don't we have a duty to conserve energy? Don't we have an even greater duty to conserve food in a starving world? These aren't properly matters for a budget. But I do believe they are matters for the conscience and private conduct of 23 million Canadians.[123]

Tensions between Trudeau's interventionist tendencies and Turner's anti- interventionist monetarism are apparent in Turner's appeal to Canadians, even while he emphasized that these were private matters beyond the role of government. Despite ideological tensions, this was the first time the environment as an issue in itself had been mentioned in a budget speech. It highlights the importance the government placed on the relationship between the environment and the economy, clear recognition of ecological limits, and the need to transform societal values.

Despite having raised these environmental ideas, the Trudeau government did not prioritize the environment, but continued to struggle with the economy. At first, the Liberals insisted that they could both address inflation and deliver jobs and growth. From 1973 to 1975, Turner and the Liberal government rejected intervention through "severe measures of fiscal and monetary restraint" to curb inflation.[124] As he had in his appeal for an ethic of conservation, Turner was again reluctant to intervene: "The cost would be much too high. The hard won sense of security in our society would be replaced by a sense of fear and anxiety, and the cost in terms of lost output and lowered standards of living would be unacceptable. In human terms for me it would be unthinkable."[125] Seeking solutions, the Liberals held consultations across the country. Their consultations produced neither consensus nor support from labour unions. Without consensus, the government was reluctant to impose wage and price controls. The environment was not a priority; instead the economy was the priority and the main questions were whether and how much the government should intervene.

By June 1975, Turner admitted, "We are now faced with a dilemma. If we follow more expansionary policies at this time we run the risk of making inflation worse. If, on the other hand, we follow contractionary policies, we risk worsening unemployment."[126] He continued to call for voluntary restraint and turned to a policy of government restraint to lead by example. But stagflation persisted and politicians continued to fumble. In September 1975, Turner resigned and Trudeau announced that Canada would institute wage and price controls. Controls were reluctantly but unanimously supported by the

Liberal cabinet and implemented.[127] The Anti-Inflation Board would maintain wage and price controls from 1975 until 1978.

While this period shows that the environment received rhetoric, but little action, it also reveals how the environment fit within Trudeau's system of thought. Problems with the economic system, societal values, and ecological and natural resource limits were related. In his 1975 year-end address Trudeau admitted his thinking was influenced by Galbraith's latest book and explained the decision to implement wage and price controls. Arguing that Canada needed to develop new values and institutions that recognized finite limits, he explained, "it's a different world and you can't live in a different world with the same institutions and the same values that you had before."[128] He connected problems of stagflation, energy, and finite limits, arguing that the system was "out of joint" with reality: "there are certain basic realities which obviously are showing that the economy, the society is out of joint. When you have very high unemployment and very high inflation at the same time, obviously the system isn't working well. When you have people who know Canada is losing and lost its self-sufficiency in energy and yet people go on burning energy as if there's an indefinite supply of it … we haven't really developed the culture for the realities of our time."[129]

Faced with this mismatch, Trudeau explained that this meant the need for "a different society, a new society, one where net human benefit would be the important thing rather than gross national product, where the good life would replace the life of more, where the value of people would be judged not by what they owned but what they are and what they do."[130] He linked energy, the economy, and the environment. Referring to the context of wage and price controls and energy security, he emphasized the importance of energy conservation and expressed hope that when controls were lifted "we will have acquired new virtues of self-discipline and self-restraint and living within our means." For Trudeau, an ethic of conservation and self-restraint rather than consumption and greed was the key to living well within Earth's limits. When pressed about economic growth being a suitable alternative, he asserted, "If we can slow down a bit, that's not a bad thing." He continued, "But we have a choice … we don't have to fall over ourselves to produce industrial goods and create jobs and so on. It may give us a chance to develop a better society."[131] For Trudeau, energy problems, the economy, economic growth, and the environment were connected. Addressing these problems required systems thinking, new values, and a new direction for society.[132]

While these examples demonstrate that Trudeau had not discarded his early environmental vision, the environment had limited salience relative to other issues. Communication of Trudeau and his Liberal government with the Club of Rome continued at least until the late 1970s, but short-term problems, the political focus of Trudeau's advisers, and election pressures meant that the environment was not prioritized. After the

1974 election, Trudeau was consumed by marriage difficulties, and with Quebec separatism by 1976. These difficulties meant that the environment did not receive as much attention as it had before.[133]

In a letter to Peccei on 6 October 1978, Whitehead described how Trudeau's preoccupation with short-term economic issues and elections was the reason Peccei's invitations were not accepted: "The p.c.o. is even reluctant to approach the Prime Minister who is preoccupied with the economy and, particularly with his political future [… election concerns are] likely to intensify [the government's] pre-occupation with short-term issues. These are the realities."[134] These political frustrations were echoed by Peccei himself just before he died on 14 March 1984. From 1968 until 1984, the Club of Rome had encountered governance issues as a critical barrier, and before his death, Peccei had been preparing a document entitled *Governability and the Capacity to Govern*. This document identified the main governance problems that the Club of Rome had encountered: the limits of sovereignty in the face of global problems; the inability of siloed institutions and structures of government to address interconnected problems; and the short-term focus of electoral cycles in the face of long-term problems.[135]

b) Environmental Ambitions Reframed: An Integrated Approach to Energy, the Economy, and the Environment

If Trudeau was unable to move from rhetoric to action, others attempted to carry forward the integrative environmental vision. As former Minister of Environment John Roberts described, "The oil crisis of 1973 brought home an understanding that cheap energy supplies, which fuelled the abundant growth of the West's consumer society, could not be relied upon, and reinforced predictions of such economists as Galbraith and Heilbroner, who warned that the affluent industrial world must abandon the practices of wasteful growth."[136] The government's environmental ambitions were not completely discarded as a result of stagflation and the energy crisis, but were integrated with and qualified by these new issues.

One player that helped reframe and develop these ideas was the Science Council of Canada, a Crown corporation under mosst. Motivated by the desire for a holistic approach, the scc began developing the idea of Canada as a conserver society. The conserver society, first mentioned in 1973, was a direct response to *Limits to Growth* and was informed by systems thinking.[137] Extending systems thinking and critiques of growth, the conserver society focused on two strategies to improve Canada's environmental prospects: education to promote efficiency and conservation, and an industrial strategy to shift from long-term reliance on economic growth and resource extraction toward renewable resources.[138]

In the context of energy security and independence, one outcome of this integrative thinking was that environmental policies were framed in terms of energy conservation, efficiency, and renewable energy development, but also as the need to limit growth of energy use. In the early 1970s, the Department of Energy, Mines and Resources (emr) was transformed from a minor department to a full-fledged energy department. emr developed a coherent energy policy using a system dynamics model. For the first time, environmental costs were included in the energy sector model.[139]

The scc influenced emr, which became an advocate for renewable energy.[140] In April 1976, former minister of state for mosst, now emr minister, Alistair Gillespie announced *An Energy Strategy for Canada: Policies for Self-Reliance*. The federal energy strategy adopted an all-of-the-above approach to energy security, promising to develop not only oil and gas, but also nuclear, solar, and biomass.[141] In addition to developing its energy resources, Canada needed to conserve energy and improve efficiency to achieve energy security. The report proposed policies to develop Canadian energy resources (oil sands, pipelines, exploration) and promote energy conservation.[142] However, the report favoured conservation rather than development of renewable energy sources because renewables would take time to develop and thus would not provide short-term relief for energy shortages, while energy conservation would.[143] Hence, Canada's 1976 energy strategy was not pro-growth, but instead included targets such as "reduce the average rate of growth of energy use in Canada, over the next ten years, to less than 3.5 percent per year."[144]

Canada's energy policy had been developed alongside and was informed by the scc's reports and vision of Canada as a Conserver Society. Presciently, the scc 1975 report *Canada's Energy Opportunities* described the environmental impacts of energy use, including the potential impacts of fossil fuels on climate through the greenhouse effect. When the scc report on *Canada as a Conserver Society* was released in 1977, it acknowledged, "The concept of a conserver society … is often linked with discussions following the report, *Limits to Growth*, done for the Club of Rome."[145] The conserver society study specifically raised "concerns regarding economic growth, its measurement, and its relationship to the quality of life."[146]

Ideas about limits to growth and energy problems were explicitly linked. The scc report declared, "Perhaps most important is the emergence of the reality of limits. The era of cheap energy is over. Other material resources can no longer be taken for granted."[147] The scc extended these critiques using systems thinking and an ecological perspective to emphasize the need for conservation and renewable energy development. The report recommended developing diverse renewable energy technologies and protecting the regenerative capacity of the biosphere. Based on this thinking, the scc recommended energy efficiency and conservation, renewable energy, taking a whole system approach to materials, and new business and employment opportunities.

Influenced by scc reports, the federal government committed to renewable energy development in July 1978 when Gillespie announced a five-year renewable energy subsidy program. Gillespie promised $380 million in subsidies for solar energy and biomass.[148] Including research and joint federal-provincial funding, the total was approximately $600 million. This was Canada's largest ever single commitment to non-hydro renewable energy. This program also included fuel efficiency standards, speed limits (resisted by the provinces), and time-of-day energy pricing, which was ultimately rejected.[149] In these ways, Gillespie and the scc carried forward and attempted to realize the integrative environmental aspirations from early engagement with the Club of Rome and systems thinking.

V. Weathering the Storm 1979–1982

Canadians had grown tired of Trudeau, and in May 1979, Joe Clark's Conservatives were elected by a small minority on promises to cut taxes and stimulate the economy.[150] But Clark's government would be short-lived. Once elected, the Conservatives encountered the economic difficulties of the country and attempted to back away from their promises. Instead of stimulating growth, Clark's December 1979 budget proposed fiscal restraint and deficit reduction designed to curb inflation by slowing the economy.[151] Meanwhile, the 1979 Iranian Revolution set off a second opec price shock. Crude oil prices more than doubled in the span of several months, with effects that lasted into the 1980s. In response, the Conservatives proposed a gas tax of four cents per litre. Clark's government was defeated and was replaced by a Trudeau-led Liberal majority by February 1980.

The newly elected Liberals again faced problems that had haunted them for a decade. In the aftermath of the Quebec referendum of May 1980, the Liberals put forth a nationalist policy of resource-based industrial development. Energy was their focus. The October 1980 budget, known as the energy budget, introduced the National Energy Program (nep).[152] The nep prioritized energy security and independence from world markets, equal opportunity to partake in and benefit from the energy industry, and an energy-pricing and revenue-sharing scheme. It incentivized Canadian energy production and limited foreign ownership of oil and gas production, promoting Canadian control of large oil and gas firms and increased ownership by the Government of Canada. Renewable energy development and conservation were also part of the plan. The budget included energy conservation measures such as mandatory mileage standards for cars and announced that renewable energy programs would be stimulated through research and demonstration as well as a new Crown corporation, Enertech Canada.[153]

The nep was not well received. On 30 October 1980, Alberta Premier Peter Lougheed retaliated against the federal government, using oil as a weapon. Lougheed outlined a plan to reduce oil shipments to Eastern Canada, withhold approval for two oil sands

projects, and challenge the nep in court.[154] The standoff continued until a new round of negotiations began in April 1981. Meanwhile, world oil prices declined, interest rates rose, and from 1981 to 1982 Canada entered the worst recession since the Great Depression.[155] Alberta's reductions in oil shipments did not have their intended effect and hurt Alberta firms. By summer 1981, Alberta's economy was floundering, putting Ottawa in a stronger position.[156] The Canada–Alberta Energy Agreement, announced on 1 September 1981, was a compromise.

But oil prices continued declining and the nep became less tenable. In the spring of 1982, the Alberta and federal governments respectively announced $5.4 and $2.2 billion in fiscal incentives to support Canadian industries.[157] Still searching for solutions, in 1982 Trudeau called for a Royal Commission on the Economic Union and Development Prospects for Canada, also known as the Macdonald Commission. In 1983, with budget cuts and falling oil prices, Gillespie's solar funding and renewable energy programs were cancelled.[158]

VI. Conclusion

The 1970s was not only a decade characterized by perpetual problems, but also a unique period of environmental thinking and integration. In the late 1960s and early 1970s, Trudeau and his government met with the Club of Rome and supported its activities. And Canadian environmental governance in the 1970s embodied greater aspirations and transformative ideas than previously thought. Trudeau and his administration attempted to implement a systems approach, repeatedly questioned economic growth on environmental grounds, and proposed net human benefit as an alternative. Trudeau's approach to environmental governance embedded systems thinking through institutional reforms and environmental laws. During his first term, Trudeau was not wedded to the growth imperative. He and his administration critiqued economic growth and supported development of new ways of measuring well-being at Statistics Canada. His government also recognized the need for societal support and called for new values. Together, these elements reflect a transformative approach to environmental governance.

Trudeau did not discard his environmental aspirations after this initial phase. He attended the Club of Rome's Salzburg conference, continued to advocate net human benefit, and maintained contact with the Club of Rome at least until 1978. A systems approach endured in small instances such as the scc and Gillespie's energy policies. Tellingly, both energy development and energy conservation are mentioned in every federal budget from 1974 to 1980. Only in the 1980s were Trudeau's environmental aspirations submerged by a new wave of crises, including the 1979–80 opec crisis, the nep and Western alienation, and the 1981–2 recession.

Yet, from the mid-1970s onward, the Trudeau government's environmental policies and actions did not match its rhetoric. The initial phase of ambitious thinking and action on the environment was interrupted by persistent problems and undercut by Trudeau's change in staff and strategy. Ideological differences and power struggles between the pmo and the Ministry of Finance were additional barriers to action. With conflicting versions of economic reality in Finance and the pmo, Trudeau's interventionist ideas about how to deal with the economy and the environment were caught in the undertow that discredited Keynesianism and replaced it with monetarism.[159] Policies that had the potential to address economic problems while reducing pressure on the environment were sidelined. For instance, Lalonde's guaranteed annual income promised to ease problems from unemployment and might also have reduced environmental impacts by reducing imperatives to produce and consume.

One barrier was the scope and long time horizon of environmental problems in the face of short-term crises and election pressures. For instance, Gillespie's renewable energy programs had the potential to improve energy security and supply in the long run. However, energy conservation and fossil fuel production were favoured in the short term.

Barriers related to Canada's federal system also contributed to the failure to realize Trudeau's environmental vision throughout the decade. The federal–provincial division of powers was a major contributor in the downfall of msua,[160] while departmental infighting and resistance to integration were important reasons that explain why the initial integrative vision for the doe was never realized.[161]

This evidence provides new insight into the extent of environmental thinking and ambition on the environment in Canadian federal politics during the 1970s. Taken as a whole, Trudeau's initial institution-building and environmental laws, as well as his subsequent attempts to respond to problems in an integrative way, reflect a profound, integrative approach to environmental governance. While Doern and Conway[162] are correct to argue that Trudeau lost his initial enthusiasm for the environment by the mid-1970s, this article begins to explain why that happened. Moreover, while Doern, Auld, and Stoney argue that the Trudeau government "did not systematically attend to environmental policy and governance,"[163] a holistic systems approach was central to his thinking on environmental problems and the essence of his initial approach to environmental governance. This approach was explicit not only in environmental but also in urban, science and technology, economic, and energy policies.

In broad perspective, the 1970s were a missed opportunity. Trudeau's rhetoric on the environment was ambitious but its realization in policy and practice was lacking. At the same time, Trudeau's calls for a new ethic and ecological consciousness may have fallen on deaf ears. Were Canadians overwhelmed by persistent problems and not yet ready for the changes proposed by the Trudeau government? Trudeau ultimately failed to help Canada

renegotiate the relationship between society and nature. In the face of compounding pressures and overwhelming crises, the search for an ecologically benign economy–environment relationship was a casualty.

Much has changed in the intervening years to make the transformative environmental vision of Pierre Elliott Trudeau more feasible. The false promise that economic growth will deliver societal wellbeing and protect ecological integrity has been laid bare. Free markets, globalization, and technological innovation have proven insufficient to address environmental problems. The science on climate change is clear and we understand the long-term implications of inaction. Environmental education and public support have increased. Still, at its core, the global Problématique remains a political predicament of collective values, leadership, and action.

Footnotes

1 This research was supported by a Social Sciences and Humanities Research Council of Canada Doctoral Fellowship (752-2015-2404). Partial funding was also provided by the Economics for the Anthropocene research partnership at McGill University. The author would also like to thank three anonymous reviewers for their insightful comments.

Go to Footnote

2 Christina McCall and Stephen Clarkson, *Trudeau and Our Times, vol. 2: The Heroic Delusion* (Toronto: McLelland & Steward, 1994), 89.

Go to Footnote

3 Maria Carmen Lemos and Arun Agrawal, “Environmental Governance,” *Annual Review of Environment and Resources* 31 (2006): 297–325.

Go to Footnote

4 G. Bruce Doern and T. Conway, *The Greening of Canada: Federal Institutions and Decisions* (Toronto: University of Toronto Press, 1994), 13.

Go to Footnote

5 Andrea Olive, *The Canadian Environment in Political Context* (Toronto: University of Toronto Press, 2019), 78.

Go to Footnote

6 R. Bilder, "Controlling Great Lakes Pollution: A Study in U.S.–Canadian Environmental Cooperation," *Michigan Law Review* 70 (1972): 469–556; Henry Trim, "Experts at Work: The Canadian State, North American Environmentalism, and Renewable Energy in an Era of Limits, 1968–1983" (PhD diss., University of British Columbia, 2014); Dimitry Anastakis, "A 'War on Pollution'? Canadian Responses to the Automotive Emissions Problem, 1970–80," *Canadian Historical Review* 90.1 (2009): 99–136.

Go to Footnote

7 Doern and Conway, *The Greening of Canada*, 13.

Go to Footnote

8 G. Bruce Doern, Graeme Auld, and Christopher Stoney, *Green-lite: Complexity in Fifty Years of Canadian Environmental Policy, Governance, and Democracy* (Montreal & Kingston: McGill–Queen's University Press, 2015), 57.

Go to Footnote

9 Olive, *The Canadian Environment in Political Context*, 29.

Go to Footnote

10 Paul Litt, *Trudeaumania* (Vancouver: UBC Press, 2016), 249.

Go to Footnote

11 John English, *Just Watch Me: The Life of Pierre Elliott Trudeau 1968–2000* (Toronto: Vintage Canada, 2006); J.L. Granatstein and Robert Bothwell, *Pirouette: Pierre Trudeau and Canadian Foreign Policy* (Toronto: University of Toronto Press, 1990); Robert Bothwell and J.L. Granatstein, *Trudeau's World: Insiders Reflect on Foreign Policy, Trade, and Defence, 1968–84* (Vancouver: UBC Press, 2017); McCall and Clarkson, *Trudeau and Our Times*; Litt, *Trudeaumania*.

Go to Footnote

12 English, *Just Watch Me*, 464.

Go to Footnote

13 Trudeau wrote about nature experience as early as 1944, while climate change and the Club of Rome's *Limits to Growth* featured in a 1990 speech. See Pierre Elliott Trudeau, *Against the Current: Selected Writings 1939–1996*, ed. Gerard Pelletier (Toronto: McLelland & Stewart, 1996).

Go to Footnote

14 Doern and Conway, *The Greening of Canada,* 19–20.

Go to Footnote

15 Jason Lemoine Churchill, "The Limits to Influence: The Club of Rome and Canada, 1968 to 1988" (PhD diss., University of Waterloo, 2006), 15–19.

Go to Footnote

16 Doern, Auld, and Stoney, *Green-lite*, 57.

Go to Footnote

17 Henry Trim, "Planning the Future: The Conserver Society and Canadian Sustainability," *Canadian Historical Review* 96.3 (2015): 401.

Go to Footnote

18 John Roberts, "The Environment" in *Towards a Just Society: The Trudeau Years*, ed. Thomas Axworthy and Pierre Elliott Trudeau (Markham, ON: Viking, 1990), 148–76.

Go to Footnote

19 Archival sources include documents from Library and Archives Canada (LAC) in Ottawa and the Policy Advisory Committee to Robert Lorne Stanfield fonds (1963–1975) (PAC R.L.S) in the Trent University Archives. Documents from LAC include the Pierre Elliott Trudeau fonds (1968–1978) (PET), the Alastair Gillespie fonds (AG), and the Progressive Conservative Party of Canada fonds (1963–1975) (PCP). Other documents reviewed include party election platforms; throne speeches; budget speeches; reports from the Government of Canada, NGOs, political parties, and environmental groups; and news articles.

Go to Footnote

20 Tina Loo, "Missed Connections: Why Canadian Environmental History Could Use More of the World, and Vice Versa," *Canadian Historical Review* 95.4 (2014): 622.

Go to Footnote

21 Neil S. Forkey, *Canadians and the Natural Environment to the Twenty-First Century* (Toronto: University of Toronto Press, 2012), 5.

Go to Footnote

22 Olive, *The Canadian Environment in Political Context*, 86.

Go to Footnote

23 Forkey, *Canadians and the Natural Environment*, 34.

Go to Footnote

24 Farley Mowat, *Lost in the Barrens* (Toronto: McLelland & Stewart, 1956); Farley Mowat, *Never Cry Wolf* (Toronto: McLelland & Stewart, 1963).

Go to Footnote

25 Aldo Leopold, *A Sand County Almanac* (Oxford, UK: Oxford University Press, 1949); Rachael Carson, *Silent Spring* (New York: Mariner Books, 1962); John McCormick, *Reclaiming Paradise: the Global Environmental Movement* (Covent Garden, UK: Belhaven Press, 1989), 47.

Go to Footnote

26 J.K. Galbraith, *The Affluent Society* (New York: Houghton Mifflin, 1958).

Go to Footnote

27 Robert F. Kennedy, "Remarks at the University of Kansas," 18 March 1968, John F. Kennedy Presidential Library and Museum, <jfklibrary.org/Research/Research-Aids/Ready-Reference/RFK-Speeches/Remarks-of-Robert-F-Kennedy-at-the-University-of-Kansas-March-18-1968.aspx>, accessed 3 November 2017.

Go to Footnote

28 Frank Zelko, *Make It a Green Peace!: The Rise of Counterculture Environmentalism* (Oxford: Oxford University Press, 2013), 57.

Go to Footnote

29 Zelko, *Make It a Green Peace!*, 57.

Go to Footnote

30 Litt, *Trudeaumania*, 259.

Go to Footnote

31 English, *Just Watch Me*, 211.

Go to Footnote

32 Trim, "Experts at Work," 37.

Go to Footnote

33 Lorna Marsden, "Participatory Democracy," in *Towards a Just Society*, 262–81.

Go to Footnote

34 Doern and Conway, *The Greening of Canada*, 13.

Go to Footnote

35 Alexander King, "The Club of Rome: A Case Study of Institutional Innovation," *Interdisciplinary Science Reviews* 4.1 (1979): 54–64.

Go to Footnote

36 King, "The Club of Rome," 55.

Go to Footnote

37 Aurelio Peccei, *The Chasm Ahead* (New York: MacMillan, 1969), 219.

Go to Footnote

38 Peccei, *The Chasm Ahead*, 219.

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39 Attendees included Robert Uffen (head of Science Secretariat, PCO), J.R. Whitehead, (Science Secretariat, PCO), J.M. Davey (PMO, principal secretary for the PM), M. Lalonde, (program secretary to the PM), C.R. Nixon (PCO), F. Cadieux (PCO), H.B. Robinson (Department of External Affairs), J.C. Langley (Department of External Affairs), A.H. Wilson (SCC), G.R. Lindsey (Department of National Defence), and S.S. Peters (Canadian International Development Agency).

Go to Footnote

40 J.R. Whitehead to P.E. Trudeau, "Notes on a Meeting with Dr. A. Peccei and Members of the 'Club of Rome' — Sunday, June 5, 1969," 24 June 1969, box 230, p2, MG26 O7, Pierre Elliott Trudeau fonds, Library and Archives Canada (hereafter PET LAC).

Go to Footnote

41 Aurelio Peccei, "Facing the Emergence of Global Problems," 16 June 1969, box 230, p.6, MG26 O7, PET LAC.

Go to Footnote

42 J.R. Whitehead to Prime Minister P.E. Trudeau, "Dinner for Dr. A. Peccei and Members of the Club of Rome," 16 June 1969, box 230, p. 2, MG26 O7, PET LAC.

Go to Footnote

43 Whitehead to Trudeau, "Dinner for Dr. A. Peccei and Members of the Club of Rome," 7.

Go to Footnote

44 Whitehead to Trudeau, "Dinner for Dr. A. Peccei and Members of the Club of Rome," 2.

Go to Footnote

45 Whitehead to Trudeau, "Dinner for Dr. A. Peccei and Members of the Club of Rome," 2.

Go to Footnote

46 J.M. Davey to Mr. Lalonde, 16 June 1969, box 230, pp.1–2, PET LAC.

Go to Footnote

47 A. Peccei to R. Uffen, untitled correspondence, 16 July 1969, box 230, pp.1–2, PET LAC.

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48 Meetings included dinner with Trudeau and lunch with Governor General Roy Michener. Attendees included Alexander King, Aurelio Peccei, P.E. Trudeau, Governor General Roy Michener, R.J. Whitehead, Jean Chretien, Marc Lalonde (prime minister's principal secretary), Michael Pitfield, Senator Maurice Lamontagne, Pierre Gendron (president of the Pulp and Paper Research Association), and Bill Stadelman (president of the Ontario Research Foundation). See J.R.Whitehead, *Menoirs of a Boffin: A Personal Account of Life in the 20th Century*, <whitehead-family.ca/drrennie/chap13.html>, accessed 17 December 2019.

Go to Footnote

49 Whitehead, *Memoirs of a Boffin*.

Go to Footnote

50 According to Canadian futurist Fred Thompson, who worked for the Economic Council of Canada and PCO, the Canadian Federal Government financed the Club of Rome's Montebello meeting. See Fred G. Thompson, *Looking Back on the Future* (Ottawa: Futurescan International, 1992), 112.

Go to Footnote

51 Alexander King, *Let the Cat Turn Round: One Man's Traverse through the Twentieth Century* (London: CPMT, 2006), 332.

Go to Footnote

52 Churchill, *The Limits to Influence*, 125

Go to Footnote

53 Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, and William W. Behrens III, *Limits to Growth: A Report to the Club of Rome* (Washington, DC: Potomac, 1972), 23.

Go to Footnote

54 Donella H. Meadows, *Twenty Years Closer: A Personal Reflection on Growth, Limits, and a Sustainable Future*, last modified April 2001, The Balaton Bulletin, <donellameadows.org/archives/the-balaton-bulletin/#how>, accessed 15 June 2022.

Go to Footnote

55 Marc Lalonde, “The Changing Role of the Prime Minister’s Office,” *Canadian Public Administration,* December 1971.

Go to Footnote

56 English, *Just Watch Me*, 41.

Go to Footnote

57 Churchill showed that systems modelling gained attention in the early phase of Trudeau’s government because it fit with his rational planning mandate and introduced holistic thinking into the policy process. This approach was evident at the cabinet level as well as in the Privy Council Office, Treasury Board, and Prime Minister’s Office (see Churchill, “The Limits to Influence,” 142.)

Go to Footnote

58 Doern and Conway, *The Greening of Canada*, 18.

Go to Footnote

59 Churchill, “The Limits to Influence,” 201.

Go to Footnote

60 Canada, House of Commons Debates (9 October 1970), 35 (Pierre Elliott Trudeau).

Go to Footnote

61 Canada, House of Commons Debates (9 October 1970), 35.

Go to Footnote

62 Zachary D. Spicer, “The Rise and Fall of the Ministry of State for Urban Affairs: A Re-evaluation,” *Canadian Political Science Review* 5.2 (2011): 117–26; Trim, “Planning the Future,” 393.

Go to Footnote

63 Churchill, “The Limits to Influence,” 158–60.

Go to Footnote

64 Canada, House of Commons Debates, Trudeau, P. E. (24 October 1969), 40–41 (Pierre Elliott Trudeau).

Go to Footnote

65 Canada, House of Commons Debates, Trudeau, P. E. (24 October 1969), 41.

Go to Footnote

66 Roberts, “The Environment,” 151.

Go to Footnote

67 Churchill, “The Limits to Influence,” 165.

Go to Footnote

68 Alastair Gillespie, “Memorandum to: self Re: ‘Limits to Growth,’” 8 August 1972, box 26, p. 1, R1526-2407-2-E, Alastair Gillespie fonds, Library and Archives Canada (hereafter AG LAC).

Go to Footnote

69 Alastair Gillespie, “Memorandum to: self Re: ‘Limits to Growth,’” 1 (emphasis in original).

Go to Footnote

70 Churchill, “The Limits to Influence,” 169.

Go to Footnote

71 Gillespie and Sage, *Made in Canada*, 176.

Go to Footnote

72 Canada, House of Commons Debates (27 January 1971), 2826–27 (Jack Davis).

Go to Footnote

73 Canada, House of Commons Debates (27 January 1971), 2827.

Go to Footnote

74 Stepan Wood, Georgia Tanner, and Benjamin J. Richardson, "Whatever Happened to Canadian Environmental Law?," *Ecology Law Quarterly* 37.4 (2010): 996.

Go to Footnote

75 Wood, Tanner, and Richardson, "Whatever Happened to Canadian Environment Law?," 999.

Go to Footnote

76 "Trudeaus Visit Margaret's Granny on Sunny Sunday on Sunshine Coast," *The Vancouver Sun*, 3 May 1971, 2.

Go to Footnote

77 "Trudeaus Visit Margaret's Granny," 2.

Go to Footnote

78 D. Groos, "Trudeau 'Beating the Drums of National Unity,'" *The Martlet*, 26 October 1972.

Go to Footnote

79 I.L. Head, "The Foreign Policy of the New Canada," *Foreign Affairs* 50.2 (1972): 242.

Go to Footnote

80 D. McDowall, *The Sum of the Satisfactions: Canada in the Age of National Accounting* (Montreal: McGill–Queen's University Press, 2008), 167.

Go to Footnote

81 Roger E. Riendeau, *A Brief History of Canada* (New York: Facts on File, 2007), 342.

Go to Footnote

82 Bruce Muirhead, *Dancing around the Elephant: Creating a Prosperous Canada in an Era of American Dominance, 1957–1973* (Toronto: University of Toronto Press, 2007), 103.

Go to Footnote

83 J.M. Davey (Office of the Prime Minister) for the Cabinet Committee on Planning and Priorities, "Governing in the 70's," 19 March 1971, box 25, file 16, p. 3, R1526 25, AG LAC.

Go to Footnote

84 Davey, "Governing in the 70's," 9.

Go to Footnote

85 John Turner, *Budget Speech* (8 May 1972), Department of Finance, Government of Canada, <budget.gc.ca/pdfarch/index-eng.html>, accessed 15 June 2022.

Go to Footnote

86 Alastair Gillespie, Notes: Meech Lake: "In Search of a New Mandate," 17 November 1973, box 19, File Caucus Weekend, pp. 1–2, R1526 25, AG LAC.

Go to Footnote

87 Pierre Elliott Trudeau, *Memoirs* (Toronto: McClelland and Stewart, 1993), 160.

Go to Footnote

88 Trudeau, *Memoirs*, 160.

Go to Footnote

89 English, *Just Watch Me*, 234.

Go to Footnote

90 English, *Just Watch Me*, 245; McCall and Clarkson, *Trudeau and Our Times*, 113.

Go to Footnote

91 Trudeau and Galbraith shared similar values and Galbraith thought Trudeau was exceptionally economically perceptive. They met in Ottawa, New York, and Montreal, as well as at Harvard, Quebec winter resorts, dinner parties, and other locations. Their conversations were wide-ranging; they often discussed politics, economic policy, and ideas in Galbraith's books. Galbraith says, "I found him on our various encounters in relentless pursuit of political solutions and consideration of the intelligent course of political action. It was this that brought us together."

J.K. Galbraith, "Citizen of the World," in *Pierre: Colleagues and Friends Talk about the Trudeau They Knew*, ed. Nancy Southam (Toronto: McClelland and Stewart, 2005), 208–9. Their relationship is also mentioned in McCall and Clarkson, *Trudeau and Our Times*, 125; and Granatstein and Bothwell, *Pirouette*, 198.

Go to Footnote

92 McCall and Clarkson, *Trudeau and Our Times*, 113.

Go to Footnote

93 English, *Just Watch Me*, 215–16.

Go to Footnote

94 McCall and Clarkson, *Trudeau and Our Times*, 459.

Go to Footnote

95 John Toye, "Assessing the G77: 50 Years after UNCTAD and 40 Years after the NIEO," *Third World Quarterly* 35.10 (2014): 1759–74.

Go to Footnote

96 Bothwell, Drummond, and English, *Canada since 1945*, 346–47.

Go to Footnote

97 Marc Lalonde, "Energy" in *Towards a Just Society*, 49–77.

Go to Footnote

98 Bothwell, Drummond, and English, *Canada since 1945*, 347.

Go to Footnote

99 Bothwell, Drummond, and English, *Canada since 1945*, 347.

Go to Footnote

100 Aurelio Peccei, "A Few Preliminary Considerations for the Schloss Klessheim Meeting on Problems of World Society," 23 November 1973, box 3, file 17, pp. 1–2, MG 26 O7, PET LAC.

Go to Footnote

101 Peccei, “A Few Preliminary Considerations,” 1.

Go to Footnote

102 Peccei, “A Few Preliminary Considerations,” 1.

Go to Footnote

103 King, *Let the Cat Turn Round*, 381.

Go to Footnote

104 King, *Let the Cat Turn Round*, 382.

Go to Footnote

105 Peccei, “A Few Preliminary Considerations,” 1.

Go to Footnote

106 Peccei, “A Few Preliminary Considerations,” 2

Go to Footnote

107 Rick Butler and Jean-Guy Carrier, *The Trudeau Decade* (Toronto: Doubleday Canada Ltd., 1979).

Go to Footnote

108 Ivan L. Head, “Memorandum for the Prime Minister, ” 24 January 1974, box 3, file 17, pp. 1–2, MG 26 O7, PET LAC.

Go to Footnote

109 J.R. Whitehead, “Club of Rome Canada,” n.d., <whitehead-family.ca/drrennie/CACORhis.html>, accessed 12 March 2019.

Go to Footnote

110 Thompson, *Looking Back on the Future,* 111.

Go to Footnote

111 Paul D. Staudohar, "Effects of Wage and Price Controls in Canada, 1975–1978," *Industrial Relations* 34.4 (1979): 674–90.

Go to Footnote

112 John Turner, *Budget Speech* (19 February 1973), 8, Department of Finance, Government of Canada, <**budget.gc.ca/pdfarch/index-eng.html**>, accessed 15 June 2022.

Go to Footnote

113 Pierre Elliott Trudeau, "A View of World Order," *World Order* 9.2 (1974): 10.

Go to Footnote

114 Trudeau, "A View of World Order," 6–7.

Go to Footnote

115 Trudeau, "A View of World Order," 10.

Go to Footnote

116 Trudeau, "A View of World Order," 10.

Go to Footnote

117 Trudeau, "A View of World Order," 10.

Go to Footnote

118 John Turner, *Budget Speech* (6 May 1974), Department of Finance, Government of Canada, <**budget.gc.ca/pdfarch/index-eng.html**>, accessed 15 June 2022.

Go to Footnote

119 English, *Just Watch Me*, 233.

Go to Footnote

120 John Turner, *Budget Speech* (18 November 1974), 8, Department of Finance, Government of Canada, <budget.gc.ca/pdfarch/index-eng.html>, accessed 15 June 2022.

Go to Footnote

121 Turner, *Budget Speech* (18 November 1974), 10.

Go to Footnote

122 Turner, *Budget Speech* (18 November 1974), 10.

Go to Footnote

123 Turner, *Budget Speech* (18 November 1974), 10.

Go to Footnote

124 John Turner, *Budget Speech* (23 June 1975), 11, <budget.gc.ca/pdfarch/index-eng.html>, accessed 15 June 2022.

Go to Footnote

125 Turner, *Budget Speech* (23 June 1975), 11.

Go to Footnote

126 Turner, *Budget Speech* (23 June 1975), 1.

Go to Footnote

127 Gillespie and Sage, *Made in Canada*.

Go to Footnote

128 "What the PM Said: Hot Debate over His Comments on 'New Institutions,'" *The Calgary Herald*, 14 January 1976, 7; material in footnotes 128-131 republished with the express permission of: Calgary Herald, division of Postmedia Network Inc.

Go to Footnote

129 "What the PM Said," 7.

Go to Footnote

130 "What the PM Said," 7.

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131 "What the PM Said," 7.

Go to Footnote

132 In a conversation on 6 August 1976 with the American ambassador to Canada, Thomas Enders, Trudeau repeated these sentiments. Referring frequently to the Club of Rome's thinking on the need for new moral and political approaches to economies, he said that "the economic systems of the industrial democracies are no longer working well and must be reformed fundamentally" (English, *Just Watch Me*, 298).

Go to Footnote

133 English, *Just Watch Me*, 328.

Go to Footnote

134 J.R. Whitehead, untitled letter to Aurelio Peccei, 6 October 1978, box 5, file 2–20, pp. 1–2, R13167-76-0-E, PET LAC.

Go to Footnote

135 A. Peccei, *Governability and the Capacity to Govern* (Rome: The Club of Rome, 1984), 3–9.

Go to Footnote

136 Roberts, "The Environment," 149.

Go to Footnote

137 Science Council of Canada, "Report No.19: Natural Resource Policy Issues in Canada," 1973.

Go to Footnote

138 Trim, "Planning the Future," 393.

Go to Footnote

139 Trim, “Experts at Work,” 47.

Go to Footnote

140 Trim, “Experts at Work,” 47.

Go to Footnote

141 Government of Canada, *An Energy Strategy for Canada: Policies for Self-Reliance* (Ottawa: Department of Energy, Mines and Resources, 1976).

Go to Footnote

142 Gillespie and Sage, *Made in Canada*, 178–79.

Go to Footnote

143 Gillespie and Sage, *Made in Canada*, 176–77.

Go to Footnote

144 Gillespie and Sage, *Made in Canada*, 179.

Go to Footnote

145 The Science Council of Canada, *Canada as a Conserver Society: Resource Uncertainties and the Need for New Technologies*, report no. 27 (September 1977), 11.

Go to Footnote

146 The Science Council of Canada, *Canada as a Conserver Society*, 12.

Go to Footnote

147 The Science Council of Canada, *Canada as a Conserver Society*, 22.

Go to Footnote

148 Trim, “Planning the Future,” 401.

Go to Footnote

149 Gillespie and Sage, *Made in Canada*, 176.

Go to Footnote

150 Allan J. MacEachen, "Behind the Fall of Joe Clark," *The Star*, 11 December 2009, <**thestar.com/opinion/2009/12/11/behind_the_fall_of_joe_clark.html**>, accessed 15 June 2022.

Go to Footnote

151 MacEachen, "Behind the Fall of Joe Clark."

Go to Footnote

152 Allan J. MacEachen, *Budget Speech* (28 October 1980), Department of Finance, Government of Canada, <**budget.gc.ca/pdfarch/1980-brf-eng.pdf**>, accessed 15 June 2022.

Go to Footnote

153 MacEachen, *Budget Speech* (28 October 1980), 10.

Go to Footnote

154 Patrick James, "Energy Politics in Canada, 1980–1981: Threat Power in a Sequential Game," *Canadian Journal of Political Science* 26.1 (March 1993): 31–59.

Go to Footnote

155 Bothwell, Drummond, and English, *Canada since 1945*, 445.

Go to Footnote

156 Douglas Macdonald, *Carbon Province, Hydro Province: The Challenge of Canadian Energy and Climate Federalism* (Toronto: University of Toronto Press), 126.

Go to Footnote

157 Glen Toner and G. Bruce Doern, "Two Energy Crises and Canadian Oil and Gas Interest Groups: A Re-examination of Berry's Propositions," *Canadian Journal of Political Science* 19.3 (1986): 478; Canada, *The National Energy Program: Update 1982* (Ottawa: Supply and Services, 1982).

Go to Footnote

158 Trim, “Planning the Future,” 402.

Go to Footnote

159 William Breit, “Galbraith and Friedman: Two Versions of Economic Reality,” *Journal of Post Keynesian Economics* 7.1 (1984): 18–29.

Go to Footnote

160 Spicer, “The Rise and Fall of the Ministry of State for Urban Affairs,” 117–26.

Go to Footnote

161 Doern and Conway, *The Greening of Canada*, 18.

Go to Footnote

162 Doern and Conway, *The Greening of Canada*, 18.

Go to Footnote

163 Doern, Auld, and Stoney, *Green-lite*, 57.

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