

The Centrality of Environmental Sustainability for the Co-operative Movement and the World

Nicolas Bickford, Master of Management: Co-operatives and Credit Unions, Saint Mary's University

Abstract: This research seeks to understand whether environmental sustainability is sufficiently highlighted within the co-operative movement's Statement on the Co-operative Identity. As the threat of climate change and myriad other environmental catastrophes loom, our current economic and political systems are woefully inadequate for the task of creating an environmentally sustainable world. The co-operative movement, serving as a humane alternative to capitalist enterprise, may be a vital component in addressing the central causes of the crises. As it currently stands, the Statement on the Co-operative Identity--which offers both an explanation of co-operation and guidelines for co-operative action--references environmental sustainability as a part of the seventh principle, Concern for Community. Yet it is only within the Guidance Notes to the Co-operative Principles that environmental sustainability is explained as being one-third of the meaning of sustainable development. As the current co-operative record on the environment does not fully live up to the promise of co-operation, the primary research herein, comprised of a series of interviews with co-operative leaders, sheds light on the importance of further emphasizing concern for the environment within the Statement on the Co-operative Identity, both as something close to the essential nature of co-operation and as a crucial guideline for co-operative action in the coming decades.

Nicolas Bickford is a student of co-operative from Buffalo, New York and 2020 graduate from the Master of Management: Co-operatives and Credit Unions program in Halifax, Nova Scotia; passionate about co-operation, both as a philosophy and as a way to structure the economy; and passionate about environmental issues, both as a millennial concerned about his own future and as a human concerned about the preservation of nature--for its own sake and for the survival and prosperity of future generations.

Keywords: environmental sustainability, co-operatives and the environment, co-operative principles, concern for community, sustainable economy

Introduction

With humanity reeling from the COVID-19 pandemic, many eyes have turned away from the environmental crises the world's scientists have been giving warnings about for decades (Ripple et al., 2017; Manabe & Wetherald, 1967). The global economy may have shrunk, and emissions may have tapered off briefly due to national lockdowns and the subsequent economic downturns, yet precious attention has been taken from environmental issues in order to deal with the seemingly more immediate threat.

Environmental catastrophe is looming. Climate change, extinction of species, depletion of non-renewable resources, ocean acidification, and plastic pollution are some of the world's numerous environmental problems. Many of them have our economic systems in the vanguard, driving societies closer to worldwide ecological collapse.

The co-operative movement is an outgrowth of that eponymous trait humanity needs to survive--the ability to cooperate, to work together (Webb, 2016, pp. 89-94). It also serves as redress for many of the ills of capitalist market economies (Fairbairn, 1994, p. 2) and therefore stands in opposition to many of its environmentally destructive tendencies. The co-operative values, as laid out by the International Co-operative Alliance (ICA) (ICA, n.d.), are the foundation upon which the co-operative identity is built and the co-operative principles are crafted. The principles, then, are intended to act as guidelines for action (MacPherson, 2012, p. 2). Protection of the environment is incorporated within the ICA's seventh principle, Concern for Community, as one of the three pillars (social, economic, and environmental) of sustainable development. Yet the co-operative record on the environment may not reflect the true potential of the co-operative promise. The goal of this research is to answer the question: is a revision of

the ICA's Statement on the Co-operative Identity warranted to give protection of our shared environment its due place?

Research Design & Methodology

This research is undertaken from the perspective that historical understanding and a holistic knowledge of the current context are necessary for meaningful progress. It firstly takes a descriptive look at the myriad environmental crises humanity faces, followed by an explanatory look at various contributing aspects of our economic and social systems. It then reviews the component parts of a sustainable economy and explores sustainability as defined in the Brundtland Report (World Commission on Environment and Development, 1987, p. 41). From this, a case is built for the ways in which co-operatives meet the criteria for being sustainable economic entities capable of addressing the roots of the ecological problems the world faces.

With the foregoing context, the research shifts to a descriptive look at the current co-operative record on environmental sustainability, contrasting it with the record of investor-owned firms (IOFs). A history of the co-operative principles and values then builds an understanding of the philosophy behind the principles and what an eighth principle on environmental sustainability could look like. Other avenues for emphasizing environmental sustainability are also explored.

The literature review and analysis are augmented by primary research consisting of a series of interviews with co-operative leaders, where leader is defined as a president, vice president, CEO, or board member within a co-operative or higher tier organization. A variety of leaders were interviewed, including two graduates from the Master of Management: Co-operatives and Credit Unions program at Saint Mary's University:

- Sean Doyle - General Manager (GM) of Seward Cooperative in Minneapolis, Minnesota
- Erbin Crowell - Executive Director of the Neighboring Food Co-op Association

Other interviewees include:

- Ahsan Ali Thakur - Chairperson of the ICA's Asia-Pacific (ICA-AP) Committee on Youth Cooperation (ICYC) and board member of the ICA-AP
- Dame Pauline Green - ICA President (November 2009 - June 2015), Chief Executive of Co-operatives UK (January 2000 - October 2009), President of ICA Europe (2002 - November 2009)
- David Morgan - Former board member of the United States' Federation of Worker Co-operatives and current contractor for the Environmental Protection Agency (EPA)
- Bob Burlton - Former CEO of The Midcounties (consumer) Co-operative and former chair of The Co-operative Group, Cooperatives-UK and The Ethical Property Company
- Stephen Irvin - President and CEO of Amicus Solar Cooperative.

The purpose of the interviews was to understand how leaders conceive of the Concern for Community principle and whether environmental sustainability comes to mind when they contemplate it. Leaders were also questioned about what else they think the co-operative movement might do to address environmental problems, with particular emphasis on climate change. The interview with Dame Pauline Green was especially helpful in filling in information regarding the 2011 attempt by the ICA-Americas contingent to highlight environmental sustainability within the principles.

Grasping the Problems: The Direness of Our Environmental Crises

The Intergovernmental Panel on Climate Change (IPCC) has given 2030 as the year by which the global community must reduce carbon dioxide emissions by 45% to avoid the devastating consequences of global warming of over one and a half degrees Celsius above pre-industrial times (IPCC, 2018). If warming reaches two degrees Celsius, the limit agreed upon at the 2016 Paris Agreement (United Nations Framework Convention on Climate Change, n.d.), the differences in consequences may be very stark. If emissions continue to grow, cascading tipping points may accelerate the world towards a 'hothouse Earth' scenario leading to further warming (Steffen et al., 2018a) with dire

ramifications: lands that turn hotter than can sustain human life, displacing perhaps one third of the current human population (Xu et al., 2020); the collapse of many of the world's fisheries; flooding causing regional or global economic collapses; the loss of freshwater sources for many regions; and other apocalyptic outcomes (Steffen et al., 2018b, p. 11).

At the same time, the world is in the midst of the Holocene extinction, the sixth mass extinction event in the history of life on Earth. At the current rate, around 25% of studied species may face extinction, some within decades. And it may take hundreds of thousands to millions of years for life to rediversify (Ceballos, 2015, p. 4). As dire as this may be, the crisis may also be heading for a cliff (Trisos et al., 2020), as extinction of one species will often push other species that interact with it closer to the brink (Ceballos, Ehrlich, & Raven, 2020).

There is ample evidence that we are also depleting many of the world's non-renewable resources, including those essential to life such as phosphorus and water (Van Vuuren et al., 2010; Pacific Institute, 2013a; Pacific Institute, 2013b). Air, water, and land pollution are additional threats to the well-being of virtually all humans, plants, and animals. Overall, pollution was estimated to have killed around nine million people in 2015 (The Lancet, 2017), accounting for 16% of deaths globally (Landrigan et al., 2017) and new pollutants continue to enter our environment (Sneed, 2020).

Clearly, the world is not doing enough: our global carbon budget is being eaten away year by year, necessitating ever-steeper cuts in emissions to limit warming to one and a half degrees. Reefs continue to bleach, species continue to go extinct, and the effects of these problems are increasingly being felt, more in the world's poorest regions than in those largely responsible for the problems (Islam & Winkel, 2017). These are unprecedented global crises, and all eyes should be turned towards solving them.

Fundamental Flaws That Contribute to the Problems

Unregulated marketplaces are often touted as panaceas for most, if not all, of society's ills—a belief known as market fundamentalism (Block & Somers, 2016, p. 187). This paradigm has dominated many of the world's economies for the past several decades (Ostry et al, 2016). At its roots is the belief that no greater good can come to society than that which arises through the selfish interests of individuals partaking in market transactions (Longview Institute, n.d.). It also asserts that what is held in common is inevitably inferior to private ownership (Chomsky, 2012), thus laying the groundwork for privatization of common resources and movement away from democratic institutions. The machinery of neoliberalism, as the embodiment of deregulation and market fundamentalism, has coincided with an existential threat to the human species (Spratt & Dunlop, 2019). Though some may dispute a causal link, irrefutably our wider economic systems have not helped to address the threat. It can therefore be inferred that there are flaws/problems in the ways that modern capitalist marketplaces function.

One of the most well-known fundamental problems inherent in all marketplaces, whether capitalist or otherwise, is externalities. Insofar as market transactions take place between a buyer and a seller, they do not incorporate more than the knowledge and interests of those involved in the transactions (Rees, 2014, p. 91). Costs (such as pollution, resource depletion, and biodiversity loss) that accrue to the wider society are not taken into consideration in any meaningful way, and thus become some of the driving factors behind, “the greatest market failure the world has ever seen” (Stern, 2007, p. viii).

The notion of ‘perfect information’ is one of the core tenets of a well-functioning marketplace in neoclassical economic theory (Bjornstad & Brown, 2004, p. iii). Information asymmetries, however, are inevitable components of most parts of life and certainly most, if not all, market transactions (Stiglitz, 2009, pp. 347-348) and constitutes another inherent failing of markets. Yet beyond the inherent differences in what participants know, many companies invest considerable effort in *actively* creating ill-informed consumers who will buy products based on misleading marketing, thus exacerbating the problem.

These two examples, externalities and information asymmetries, are certainly not the only market flaws, but the problems they cause amply demonstrate that markets are not perfect forces of nature. They are human constructs, subject to human fallibility.

Beyond inherent flaws in the ways that markets function, there are problems rooted in economic theory--including the viewing of labour as a 'factor of production' (Stefano & Vera Zamagni, n.d.). Reducing the human being to a cog in the productive machine misses the ineffable value of human life and the power of labour as, "the main factor for transforming nature, society and human beings themselves" (Mondragon, n.d.).

A related problem is the dependence of the numbers inherent in GDP (in those systems that account for 'value') on a healthy environment (Tantram, 2015, p. 2). Modern economics has not factored ecosystem services into its equations, instead choosing to focus on unending growth as the sole metric of success and prosperity. Though it may not have been evident for much of history that humans could overstretch the natural bounds of Earth's systems, it is becoming increasingly obvious that the limitless growth capitalism requires is an untenable notion in a finite world (Fullerton, 2014, p. 141).

Solutions to these problems--and others, such as inequality and structural racism--are often seen as the responsibility of the public sector, of government regulation, laws, higher taxes, permitting, and subsidies (Bjornstad & Brown, 2004, p. iii). Such solutions, however, rely on a public sector that--while seemingly democratic--may be controlled by those economic elites whose financial power can massively influence political decision-making (Webb, 2016, p. 120). Yet even if that were not the case, it is less than ideal to have outside forces restrict the inherent destructive tendencies within a system (Zamagni, 2014, p. 194). Still, irrespective of the laws and regulations of a society, many corporations will continue to attempt to create profits at the expense of the general welfare on the misguided notion that, as the economist, Milton Friedman put it, "The Social Responsibility of Business is to Increase its Profits" (Friedman, 1970).

A Sustainable Economy: Addressing Problems' Roots

Given the issues inherent in our wider systems, it is useful to look at what would comprise an economy that did not degrade our natural environment--a sustainable economy. The definition of sustainable development put forth by the Brundtland Report, which was presented at the 1992 Earth Summit, says:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- *the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and*
- *the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. (World Commission on Environment and Development, 1987, p. 41)*

These two 'key concepts', meeting needs (especially of the poor) and the limits of the environment's capacity to meet needs, weave together the social and the environmental components of sustainability, which are then also framed within the continuum of successive human generations. Considering both the poverty and generational aspects, a central implication of this definition would be a shift to an economy focused on specifically meeting our core human needs and not wants and desires. One purely focused on growth, on superfluous 'needs' and manufactured wants, will likely only be capable of tending to the needs of the present and not the future, given the finite nature of many resources. Even then, the needs of the poor, which the Brundtland Report notes should be given 'overriding priority', will still often be neglected (as privatization will axiomatically push most all things out of the reach of the poorest). Making this shift would require defining development in terms of quality of life, thus decoupling economic growth from development (Rees, 2014, p. 95), as qualitative aspects of life are not dependent on scarce resources.

Excluding, for now, the lived experiences of many, there is research showing that what is most important in life is not the acquisition of things, but the qualitative sense of connection with others (Brown, 2012, p. 8). Such understanding may be coming at a pivotal time, influencing scientific domains that have previously been dismissive

of the unquantifiable (Smith & Max-Neef, n.d., p. 16). In this sense, societies could continue ‘developing’--growing their senses of well-being through better relationships--without having to put as much strain on natural systems.

While the importance of the qualitative should be self-evident, there still must be a place for grasping hard numbers--such as understanding carbon budgets and the impacts of businesses on our shared environment. One way to conceptualize a sustainable economy that incorporates both the qualitative and quantitative components of sustainability is given by Smith and Max-Neef (n.d.), who suggest a fundamental value principle for a sustainable economy: “No economic interest, under any circumstance, can be above the reverence for life” (p. 137). The notion of reverence for life succinctly encapsulates the serving of human needs, protection of the environment, the prioritization of quality of life (qualitative development), and a genuine concern for future generations.

A sustainable economy would, of course, comprise many other elements, as human society and the natural systems that sustain it are far more complex than a few simple notions can capture. Yet, the above ideas must be central components. And with these aspects in mind, this paper will look at how co-operatives may be ideally suited economic entities to tackle the serious ecological challenges our global society now faces.

Co-operation: An Abbreviated History of the Principles

Co-operation, as an economic form, is given full definition by the ICA’s Statement on the Co-operative Identity (ICA, n.d.b.). The current version of the ICA co-operative values and principles is the most recent revision of the original principles first settled on by ICA in 1937 (ICA, n.d.a.). Though there are other sets of principles, such as the ten Mondragon principles (Mondragon Corporation, n.d.), or the four USDA co-operative principles (United States Department of Agriculture Rural Development, 2011), the ICA, “is the global steward of the Statement on the Co-operative Identity – the values and principles of the cooperative movement” (ICA, n.d.).

The original ICA principles were largely a codification of the guidelines used by the Rochdale Society of Equitable Pioneers in the middle of the nineteenth century (Fairbairn, 1994, p. 26). The international co-operative community settled on seven core features of the Rochdale system that could be considered principles. Four of the seven were deemed essential aspects of co-operation, while the other three were deemed components of co-operation, yet not necessary for admission into the ICA (Fairbairn, 1994, p. 26).

A first revision of the 1937 principles took place in 1966 (ICA, n.d.a.), when five of the seven principles were kept (with minor tweaks), while two, ‘Cash Trading’ and ‘Political and Religious Neutrality’, were removed. A new principle, ‘Co-operation Among Co-operatives’, was added, thus putting forth six principles on the same footing--in contrast with the two different classes of the 1937 principles (Fairbairn, 1994, pp. 33-34).

The second and most recent revision of the principles took place at the 1995 congress, where the Statement on the Co-operative Identity was adopted. It fully defined a co-operative, its underpinning values, and provided an update the principles (ICA, 2015, p. 1). Those updates included: combining the former third and fourth principles (which spoke of share capital, surplus and savings) into the current third principle, Member Economic Participation (ICA, 2015, p. 29); resuscitating the principle dealing with neutrality in the new fourth principle, Autonomy and Independence; and adding a new seventh principle, Concern for Community, with the following definition: “Cooperatives work for the sustainable development of their communities through policies approved by their members” (ICA, n.d.).

The Development of the Seventh Principle

The idea of co-operative concern for community was previously seen as a component of the Co-operation Among Co-operatives principle (ICA, 2015, p. 85). In much the same way that democracy was taken as a given by the Rochdale Pioneers and not articulated formally in the original 1844 rules (Fairbairn, 1994, p. 7), the care that co-operatives held for their communities had, until the 1995 revision, not been deemed necessary to elevate to the level of full principle. This is despite it being, “an articulation of a dimension of the co-operative movement that has been widely honoured throughout the movement’s history” (MacPherson, 2013, p. 5).

The inclusion of the phrase “sustainable development of their communities” within the newest principle was informed by the environmental component of the Brundtland Report. It also had the social and economic aspects of the report in mind, with emphasis on the importance of meeting the needs of the poor. Thus, the seventh principle was meant to encapsulate these rather divergent but overlapping notions in the belief that “they are mutually interdependent and regenerative, [and] hence must be pursued concomitantly” (ICA, 2015, p. 87).

Ideally Suited Sustainable Economic Entities

The seventh principle is undoubtedly a prominent espousal of sustainability by the co-operative movement. But there are other aspects of co-operation, in terms of both identity and structure, that also lend themselves well to sustainable development. Identity-wise, “the co-operative principles closely [map] the social DNA of sustainability” (Dale et al., 2013, p. 7). Considering the failings of our modern economic systems, the principles help counteract some of the aspects that give rise to our ecological problems:

- the Concern for Community principle seeks to include externalities, as it articulates the notion that co-operatives should consider other stakeholders in their decision-making aside from their members, thus including those that had hitherto been external to decision-making and cost considerations;
- the Education, Training, and Information principle mitigates asymmetries of information, as members and workers are educated instead of propagandized;
- Democratic Member Control, Member Economic Participation, and Voluntary and Open Membership dignifies human life, as all three principles elevate the human element above the capital component; and
- the Member Economic Participation principle puts an inherent check on the limitless growth sought by capitalism; as the Guidance Notes stress, “in a co-operative, capital is the servant, not the master of the enterprise” (ICA, 2015, p. 30).

These are all ways in which, intentionally, the international co-operative movement has attempted to craft a framework that can stand as a bulwark against the destructive tendencies of capitalist enterprises.

Structurally, co-operatives may also be ideally suited to facilitate sustainability. Nobel laureate Elinor Ostrom supplied seminal work with her investigations into the capacities of people to successfully co-manage a commons (Allen, 2014, p. 245). Functioning ecosystems, a healthy environment, clear air, clean water, are common-pool resources (CPRs)—defined as “goods or resources where it [is] technically, economically or physically impossible to prevent people using them, but that [are] diminished by each use” (Allen, 2014, p. 242). Ostrom’s work, *Governing the Commons*, gives examples of communities successfully stewarding their CPRs and points to the possibility that co-operative institutions—as prime examples of collective self-governance—can be particularly viable ways to develop sustainable resource management. Her work demonstrates that co-operative solutions are indeed tenable: people involved in the use of resources can collaborate to supply the necessary checks on social and environmental externalities, not through privatization or external regulation, but through working together to devise solutions that maintain the resources for shared use. The CPR market is reliant on collaboration instead of competition, making it fundamentally different from typical private enterprise (Böök, 1992, p. 80). With the proper co-operative tools, people have the capacity to tend to their surrounding environment in a way that does not degrade it for future use. From this perspective, the true tragedy of the commons is not that people will inevitably destroy a shared resource, but that they do not have the right collective self-governance tools at hand.

Leaning into their democratic structure, co-operatives may also be ideal for propagating the use of sustainable energy. According to Viardot (2013), the co-operative form confers benefits in helping overcome barriers to the adoption of renewable energy through community based social marketing, “which emphasizes the relevance of grassroots engagement and provides practical guidelines for community initiatives interested in fostering sustainable behaviours” (p. 760). This has shown itself to be a particularly effective method for co-operatives to break down resistance to renewable energy (p. 761).

Co-operatives and the Environment Now

Sven Ake Book, in his run-up report to the 1992 Tokyo ICA Congress, *Co-operative Values in a Changing World*, expressed the view that co-operatives cannot be expected to be the primary means for solving large global issues (Book, 1992, p. 202). This may have been (and may still be) true at least in part due to the relatively small share of the world's economies that are comprised of co-operatives--17.5% of GDP in New Zealand and less than that in other countries (ICA, 2017) (though it should be acknowledged that they account for almost a third of GDP in specific regions, such as the Emilia-Romagna region in Italy (Duda, 2016)). Yet given the promise of co-operation, of the potential for collective self-governance to address many of the root problems within our economic systems, it would make sense for co-operatives to be in the vanguard of change; with their inherent potential as sustainable enterprises, the co-operative record on environmental sustainability should stand apart from that of IOFs.

Metrics used for measuring the sustainability of businesses vary (D'Aquila, 2018). Many firms use Corporate Social Responsibility (CSR) and the framework set up through the Global Reporting Initiative (GRI) to voluntarily report on their social, environmental, and economic impacts (GRI, 2013). Though CSR/sustainability reporting includes more than the environmental impacts of a business--incorporating the "Triple Bottom Line" of people, planet, and profit (Slaper & Hall, 2011)--it is one of the main avenues for assessing the environmental footprints of a business. Sustainability reporting has increased steadily over the past several decades, increasing from 35% of the 250 largest companies in the world in 1999 to 93% in 2017 (KPMG, 2017, p. 9). Yet, over half of those companies do not recognize climate change as a financial risk (KPMG, 2017, p. 4). Similarly, 72% of a sampling of 4,900 large companies from 49 different countries do not acknowledge the financial risks of climate change (KPMG, 2017, p. 4). Clearly, despite high rates of CSR reporting, attention to climate change is lacking in the world of IOFs.

Many co-operatives are quick to tout their record on sustainability. A study of Canadian co-operatives undertaken by Duguid and Balkan (2016) found that, of the 118 websites studied, 77 percent talked about sustainability (p. 2). The social and economic aspects were discussed more often than the environmental aspects (p. 21), however--potentially indicating that co-operative leaders are overlooking the environment. This possibility is also evident in an analysis of co-operative specific reporting tools by Duguid (2017), which found that, of 42 indicators studied, only one was specific to the environment: "reduction in greenhouse gas emissions and waste" (p. 48). Co-operative prioritization of the economic and social aspects of sustainability accords with the experiences of Sean Doyle (GM of Seward Cooperative in Minneapolis, Minnesota), who noted, when interviewed for this research, that the lobbying organization for his state's co-operatives considered it their biggest success to seek exemptions for the use of coal power for electric co-operatives. Further driving home this point, in Canada, Co-operatives and Mutuals Canada gave the award for 'Large Co-operative of the Year' to Federated Co-operatives Limited (FCL) in 2019 (FCL, 2019), despite its operation of The Co-op Refinery Complex, which can process crude oil at up to 130,000 barrels a day (FCL, n.d.). While these examples do not represent the whole co-operative movement, they do demonstrate that even regional co-operative leaders may tend to consider social and economic concerns above environmental ones.

Research indicates that a significant portion of the 300 largest co-operatives have "used less sustainability reporting than the big stock companies" (Segui-Mas, Bolas-Araya, & Polo-Garrido, 2015, p. 377). The ICA similarly notes that, in a comparison of the top 50 largest co-operatives to the top 50 Fortune 500 IOFs, the co-operatives lagged in reporting (Sustainability Solutions Group, 2016, p. 4). This does not mean that these co-operatives are less environmentally or socially responsible than most large IOFs, but it does indicate that they have put fewer resources into sustainability reporting. This suggests that many co-operatives have not emphasized environmental sustainability in a manner commensurate with the size of the problems faced. And the assertions of any business (whether co-operative or IOF) cannot be considered reliable without reporting metrics.

There is some evidence that those co-operatives doing sustainability reporting are driven by a genuine concern for the co-operative values and principles. A study of the assurances of sustainability reporting for the Spanish co-operative, Consum, found, "the cooperative's main motivation [for assuring its sustainability reports] lies in its ideology" (Seguí-Mas, Bolas-Araya, & Peiró, 2016). There are indeed other co-operatives that have led the way in sustainability reporting: the Co-operative Bank in the UK notes that it was, "the first bank in the world to produce an independently verified sustainability report in 1998" (The Co-operative Bank, n.d.). Vancouver City Savings Credit Union (Vancity), in British Columbia, utilizes several different reporting frameworks (Rixon & Beaubien, 2015), as

well as being a member of the Global Alliance for Banking on Values (Vancity, n.d.)--thus demonstrating a thorough commitment to measuring and tracking its social and environmental footprints. These examples indicate that there are individual co-operatives taking sustainability far more seriously than the average business--co-operative or otherwise. Yet there are, similarly, individual IOFs that are sustainability leaders. The clothing company Patagonia, which won the 2019 Champion of the Earth award from the UN in the category of entrepreneurship, is one prominent example (United Nations Environment Programme [UNEP], 2019).

Despite increased sustainability reporting overall, the value provided is an open question. The GRI acknowledges that:

we are still consuming increasing amounts of raw materials every year, increasing pollution and ecosystem contamination, and human rights and peace are far from being guaranteed for a large part of the world's population. (Global Reporting Initiative, 2015, p. 5)

Sustainability reporting may have become largely a means for corporations to reduce the costs of acquiring capital, as reporting can indicate lower risk (Aras & Crowther, 2009, pp. 284-285). The concept of sustainability may also be conflated with business sustainability (Aras & Crowther, 2009, p. 284) and, as Milne and Gray (2012) note, "reinforce notions that businesses first not ecological systems must remain going-concerns" (p. 24). During an interview for this research, Stephen Irvin (President and CEO of Amicus Solar Cooperative) noted that in his long tenure doing environmental work, "the word sustainability has lost a lot of its power". The overall concept of sustainability may thus have become distorted within the wider corporate culture. And it may be that while businesses may utilize the GRI framework or other means of reporting on their social and environmental impacts, true sustainability is out of reach for many businesses and possibly entire industries (Milne & Gray, 2012, p. 25). From the co-operative perspective, Erbin Crowell (Executive Director of the Neighboring Food Co-op Association) perhaps articulated the problem best when interviewed for this research: "our biggest challenge right now is the slow erosion of the co-operative identity through the use of the language and structures of mainstream economics."

CSR and other sustainability reporting initiatives are not the only means for assessing the environmental sustainability of co-operatives. For example, the Environmental Investigation Agency (EIA), in collaboration with Greenpeace, released their second report on plastics pollution by the United Kingdom's largest supermarkets in November 2019. Despite touting the environmental sustainability measures taken by Co-op Food (the Co-operative Group's supermarket business) on their website (Co-operative Group Limited, n.d.), the co-operative was ranked fifth out of ten overall on plastic pollution (Environmental Investigation Agency & Greenpeace, 2019, p. 9), lagging behind four IOFs.

The co-operative movement's mixed record on the environment has not changed in the past several decades; MacPherson (2012) noted, during the 1990s, that there were, "numerous examples of cooperatives addressing environmental issues very effectively", as well as older co-operatives that were, "developed during the time when environmental issues were not considered important", and thus still using practices that degraded the environment (p. 27). Yet, regardless of comparisons with other businesses, perhaps co-operative sustainability should be measured against their inherent potential and larger societal promise as humane economic enterprises.

Co-operative Values in a Changing World

Co-operative Values in a Changing World, Sven Ake Böök's report, serves as a foundation for understanding the thinking and rationale behind alterations of the definition and explanation of co-operatives. Böök reflects on the balance to be struck between principles close enough to the core values of co-operation that they take on a more eternal character (value-orientation) versus principles that act as guidelines for contemporary society (rule-orientation) (Böök, 1992, p. 48, p. 54, pp. 234-238). He notes that the principles should satisfy both criteria. He believes that the 1966 revision moved the principles more toward pure expression of the co-operative values (p. 235) and recommends that they continue in this direction (p. 236). He also recognizes that the principles are indeed, "the basic guidelines as to how these [co-operative] values may be put into practice" (p. 16). His reasoning rests on four points:

- the need to include more diverse regions and sectors;
- the rapidity of the changing co-operative landscape;
- not being able to infer enough “essential interpretations” from the principles; and
- the importance of keeping an open door to new forms of co-operation (p. 236).

With these considerations in mind, he proposes two sets of principles to find a balance between the value-orientation and rule-orientation: basic co-operative principles and basic co-operative practices (p. 238), with the basic co-operative practices to be set forth in a supplement that itself should be given the status of principle (p. 236). Though the ICA did not take his suggestion for a principle encapsulating co-operative practices, Böök’s conceptions offer useful insight into the philosophy for further revisions.

From this framework, we can begin to contemplate what Böök may have overlooked--that the two types of principles may not be mutually exclusive: the essential nature of what it means to work in co-operation with others can often be revealed in an ongoing manner through modern circumstances. Humanity and nature are intertwined in ways that demand the active protection of nature, and only in the past half century has this reality been illuminated by our stark violations of this reality. Therefore, it is sometimes *through* contemporary circumstances that co-operators may gain an understanding of what should be the value-oriented guidelines for co-operative action.

Another core aspect of the discussion somewhat neglected within Böök’s report is the degree to which practitioners will seek the deeper articulation of co-operation--the fullest meaning of each principle. He recognizes that the principles act, “as the bridge between co-operative ideals and co-operative reality” (Böök, 1992, p. 221), but he does not consider how many people will fully cross that bridge. For example, the current sixth principle of Co-operation Among Co-operatives is a central component of co-operation that co-operators may or may not infer from the basic notion of co-operating. As a principle, however, it serves as a prominent reminder that higher-tier co-operation is an essential part of co-operative practice.

Returning to Böök’s value-oriented perspective, he notes that--serving as the point of commonality among all other co-operative values (Böök, 1992, p. 27)--global solidarity is crucial for finding redress to the environmental damages wrought on one country by the actions of another (p. 11). The value of global solidarity, then, may find its greatest expression within concern for the environment, as few other human actions have such far-reaching and lasting worldwide impact. The expression of solidarity can counter the detrimental effects of national boundaries when environmental repercussions cross borders. The co-operative way--the co-operative concern for community--can be an integral part of global solidarity if environmental sustainability is recognized as a pivotal, foundational component of co-operation.

All this considered, concern for the environment should be more than the somewhat neglected component of the seventh principle that it currently is. It should be recognized as an articulation of something that has been, as Ian MacPherson noted, an important component of co-operation since at least the Rochdale Pioneers. Given its influence on the creation of the Concern for Community principle and the current environmental threats, it is worth considering raising concern for the environment to the status of full principle—in a way coherent both with previous thinking behind the adoption of the principles and as an imperative for the contemporary movement and wider society. Though this change, in and of itself, would not cause the movement to take more action on the current crises, it would be a good starting point with “potential both as an educational tool and in attracting public support” (Webb, 206, p. 82). It would be a guideline for action and a clarion call for co-operators and non-co-operators alike.

Previous Attempt at Emphasizing Environmental Sustainability

The idea to highlight and emphasize environmental sustainability within the principles is not new. In 2011, the ICA Americas contingent brought a failed motion to amend the seventh principle to read:

Concern for community and environmental sustainability: Co-operatives work for the sustainable development of their communities including the protection of the environment through policies approved by their members, promoting the responsible management of natural resources to ensure ecological balance (Murray, 2011).

The nature of this amendment hints at a failing of the current wording: a relative lack of recognition that all societies and all economies depend upon the natural world to survive and thrive. It has an implicit emphasis on social development--developing a healthy community--above developing financial capital, while also recognizing the importance of economic sustainability. There is little recognition of how both social and economic aspects depend upon functioning ecosystems, a healthy environment, and natural resources. This contrasts with co-operative advocate Sidney Pobihushchy's belief: "The co-operative values and principles convey a very important central message: Respect for the dignity of life, all life, not only human life but the life of nature as well" (Webb, 2016, p. 94). If Pobihushchy is correct, then the current articulation of the values and principles is woefully inadequate. Dame Pauline Green (former ICA President, Chief Executive of Co-operatives UK and President of ICA Europe) noted during her interview for this research that the Rochdale Pioneers saw the importance of, "being in tune with the natural world". Yet this has not found its way prominently into the current principles. It is also neglected within the definition of a co-operative, which says that co-operatives are intended to help people, "meet their common economic, social, and cultural needs and aspirations" (ICA, n.d.). Any mention of meeting their common environmental needs is conspicuously absent. The proposal by the Americas contingent, therefore, sought to rectify this problem.

The motion was brought forward by the ICA Americas president, Ramon Imperial, who said:

We believe we need to adapt our principles for the challenges that face us. We are not trying to change the essence, but expand it. We would like to give it further scope so co-operatives can deal with the issues. (Murray, 2011)

This explanation accords with Bööck's primary concerns about finding balance between principles close to the heart/essence of the values and being able to address contemporary issues. But perhaps Imperial missed, much as Bööck, that stressing the importance of environmental sustainability is not expanding the essence but uncovering what has been an integral component all along. Though previous generations may not have given voice to the reality that without the natural world no society can develop, it is increasingly apparent in our modern world.

According to Green (then ICA president), the motion failed largely due to the timing of the proposal. Further emphasizing ecological concerns within the principles was, she said, a relatively uncontentious idea, but it was one that occurred while substantial work was being done by the ICA with national governments to update their co-operative laws. Compounding the inopportune timing was the relatively sudden and unexpected nature of the proposal. David Button (then Chair of Co-operatives UK) noted, "we have difficulty voting for the resolution because we have not had the time to discuss this with our members" (Murray, 2011). While expressing fervent support for the motion, Button proposed the issue be referred to the ICA board, which subsequently decided on the creation of the Principles Committee. Tasked with the responsibility of recommending changes to the principles, the Committee was also intended to offer guidance on how to enact the principles--eventually giving rise to the Guidance Notes to the Co-operative Principles in 2016 (ICA, n.d.) wherein the three components of sustainability are articulated and given full definition.

Other obstacles to adopting the motion, according to Dante Cracogna (a member of the Principles Committee and author of the initial draft of the seventh principle within the Guidance Notes (ICA, 2015, p. xii)), included a belief that environmental sustainability is already encapsulated within the seventh principle, and that not all concerns co-operators bring forward are worthy of elevation to principle-status (D. Cracogna, personal communication, March 17, 2020). The latter argument seems to echo Bööck's concern about the principles "becoming too marked by contemporary practice" (Bööck, 1992, pp. 235). Yet within the context of environmental degradation posing an existential threat to all human civilization, it appears a weak argument to make; the thought and care put into finding the essential aspects of co-operation will mean very little if life support systems become so degraded that a coherent co-operative movement becomes secondary to basic survival.

Irrespective of the outcome of the 2011 proposal, it is worth noting that ICA congresses have been stressing environmental protection since at least 1984 (Bööck, 1992). It is clear, then, that not enough has been done. It is time for the Principles Committee to begin the process, with ample prior notice and without the impediment of other

important yet incompatible work, of updating the principles to give environmental sustainability its proper place--as essential to both human life and co-operative enterprise.

Making a Coherent Change

As the principles are considered by co-operators around the world as “sacrosanct and precious” (Murray, 2011), any changes should be given ample thought. They must be consistent with the philosophical underpinnings that informed their original adoption and subsequent revisions. To be acceptable to co-operators the world over, a potential new principle on environmental sustainability, “must be universal enough to embrace all essentially true co-operative organizations” (Böök, 1992, p. 237). It must also be close to the “essential nature of co-operation” (p. 238). In order to be universal, the principle would have to be broadly agreeable across the spectrum of co-operative practice; if it were perceived as a mandate that all co-operators must be vegetarian, for example, it would surely not gain wide acceptance. The principle must foster reverence, respect, and care for the natural world, while also allowing for the sustainable use of resources (whether non-living, plant, or animal) as seen fit by each society. Yet it must, pivotally, help constrain the prevalence of destructive and inhumane practices that leave societies worse off in the end.

In his interview for this research, Ahsan Ali Thakur (Chairperson of the ICA’s Asia-Pacific Committee on Youth Cooperation) noted that it would be important for such a principle to highlight how protecting the environment benefits co-operators. Sean Doyle framed this as a potential business case to be made that, “if the results of short term profits remove any potential capital development in the future because you consume one of the core sources of that, then you’re killing the business in the long run.” Thus, it may be important that a new principle concerning environmental protection makes plain that the natural world is the foundation for everything humans hold dear. Otherwise, co-operators may see the needs of the natural world as opposed to--or at the very least irrelevant to--their own needs.

Böök’s direction that the principles reflect the values-oriented perspective may be a starting point for crafting this principle and satisfying the varying concerns. Webb (2016) articulates what may be considered a universal philosophy behind co-operation (and thereby provides that values-oriented starting point) in his suggestion for an eighth principle:

Co-operatives recognize that the human species is but one part of an interconnected and interdependent universe and that respecting nature and life in all its expressions is not separable from respect for the dignity and value of each person. (p. 142)

This wording suggests that Webb embraces the idea of co-operation among different life-forms--which is the idea of mutualism: those symbiotic relationships benefiting both species. In other words, the recognition that the whole world is intertwined is at the heart of the idea of co-operation. This accurately represents Pobihushchy’s belief that respect for the dignity of all life is central to the values and principles, and it underlines that protection of the environment benefits those protecting it. This, then, could become the quintessential principle reflecting the essence of co-operation and the core value that Böök notes is behind all the others: solidarity.

Alternative Approaches

Adding an eighth principle is not the only way to highlight the importance of environmental sustainability. An alternative, which, based on her interview, Green seems to support, might be to craft within the Statement on the Co-operative Identity an acknowledgment that economies are dependent upon societies, which are themselves dependent upon the environment. Placing such recognition at the beginning of the Statement on the Co-operative Identity would align the current reality with the ideas of co-operation as presented within the Statement and the principles. Given that none of the principles can manifest without a supportive ecological underpinning, it would be appropriate to stress environmental protection prior to articulating the principles.

Another alternative would be to revisit the 2011 proposal and reword the seventh principle to specifically mention environmental protection. This may be a more palatable option for those concerned that the default response to new issues is to add additional principles. As Crowell put it in his interview:

If our solution to every challenge that we seek to address is to add another principle, we may miss the important work of clarifying the meaning behind each principle and how it is implemented within the co-operative structure. This, I think, is the purpose of the Guidance Notes.

There are many options available to the movement for how to make its commitment to protection of the natural world clear to those exploring the co-operative identity. It may even be that environmental sustainability is worthy of mention within both the definition of co-operation and the principles--thus demonstrating its imperative for any kind of human progress. Regardless, any of these methods of emphasizing the importance of protecting the natural world would be immeasurably better than leaving the Statement on the Co-operative Identity and principles as they are, as doing so would indicate that leaders of the movement view the current articulated identity as sufficient for addressing the environmental challenges we face.

Discussion

There is a case to be made that the co-operative movement has not lived up to its environmental stewardship aspirations as stated within the Concern for Community principle. Some reasons for this may (for the time being) be outside the general control of the movement, while the movement may be culpable in others. Perhaps one of the most salient reasons currently outside the movement's control is that co-operatives do not leverage the same economic power as IOFs, comprising at most 17.5% of the GDP in any individual country (New Zealand, as previously mentioned). This may reflect the concerns of Bedford et al. (1994) that to remain a sector of the capitalist economy is to give up on the potential of an economy wherein co-operation is the dominant form above and beyond capitalism (p. 23). During his interview, Doyle voiced this same concern regarding many co-operatives not doing as much as they should about environmental concerns, noting, "it's not necessarily malicious intent; it's more logistically out of their control." Yet even as a sector of the economy, the worldwide co-operative movement is a coherent force with a shared identity. Co-operatives thus have the unique opportunity to craft a unified narrative that may find purchase within both the movement and wider society, facilitating the changes needed to make headway on the myriad problems faced. As David Morgan (EPA contractor and former board member of the U.S. Federation of Worker Co-operatives) noted during his interview, this wouldn't have to require a completely co-operative economy, but (using the craft brewing industry as an example) could be accomplished with relatively minimal market penetration yet wide familiarity/recognition.

Another societal trend that constrains the power of individual co-operatives (or even regional co-operative networks) to make more substantial progress is that corporations may be supplanting nation states as the primary mode of governance in society--as nation-states may be more and more hamstrung by corporation control (Terzi & Marcuzzi, 2019). Those thinking that governments can act as a sufficient check on the reckless and harmful actions of business should recognize how often this approach fails. Global co-operation may be one of the only real countermeasures available to avoid the environmental catastrophes threatening humanity.

Concerning that which is within the movement's immediate control, is the capacity to encourage more environmental leadership, principally by addressing the inconspicuous nature of environmental sustainability within the principles. The analysis done here helps demonstrate that the seventh principle, Concern for Community, does not accurately reflect the co-operative promise on environmental stewardship and therefore does not act as a sufficient guideline for co-operative environmental action. This may, at least in part, be because the Concern for Community principle, and the phrase "sustainable development of their communities" within the definition, may encourage co-operators to consider the social and economic aspects of sustainable development--due to the explicit mention of community--in lieu of the environmental component. Compounding this is the related concern, raised both within the literature and by Irvin and Crowell during their interviews, that the concept of sustainability carries different connotations now than when it was defined at the 1992 Earth Summit. It has become more broadly popular in (and perhaps subsumed by) the predominant business culture which places profits as the bottom line. As Crowell noted, "from this perspective, sustainability is defined as the ability to generate a satisfactory return on capital over time." These concerns point strongly to the conclusion that environmental sustainability, as it currently exists within the principles, does not accurately reflect the co-operative promise.

There are arguments to be made against the idea of further emphasizing environmental sustainability--perhaps most readily vocalised by Bob Burlton (former CEO of The Midcounties (consumer) Co-operative and former chair of The Co-operative Group, Cooperatives-UK and The Ethical Property Company), who, during his interview for this research, stressed the importance of taking action above any kind of codification. He believes action is far more important than stressing environmental protection within the principles, which may be seen as "words on a dusty piece of paper". Burlton strongly advocates that co-operatives make progress through a combination of hiring the right leaders (i.e. not simply leaders from IOFs), "demonstrating clarity of purpose and thought, and clarity and consistency of action", and having a mobilizable membership that can act as "foot soldiers in the climate change war". He expresses concern that a rearticulation of the principles would largely be ignored in much the same way that his work seeking to get European co-operatives to "raise their game" on climate change was not as successful as he had hoped. Although it resulted in some policy changes, those changes did not instigate action: "Ten years later, how many current chief executives and boards have it on their radar? Probably very few if any." Recognizing Burlton's critique, it is important to recognize that a simple change to the Statement on the Co-operative Identity or principles would not by itself be sufficient to help the co-operative movement address environmental problems. Yet, conversely, if further emphasizing environmental sustainability is largely a fruitless endeavor, then it is difficult to justify the need for a co-operative identity and guidelines at all.

Regardless of the direction taken, it should be acknowledged that leaving concern for the environment as a relatively obscure part of the Concern for Community principle is out of alignment with the needs of the twenty-first century. Given the relative lack of opposition to the ICA Americas proposal in 2011--as well as the dire warnings from scientists about cutting emissions--co-operatives must make a change now that is consistent with the overall philosophy behind co-operation, appropriate for the needs of future generations, and actionable within our current context.

Though co-operation may not be the only solution to the problems the world faces, it should be given due consideration (by those both outside the movement and within it); it is a solution that goes to the roots of the flaws within our modern economies and the wider society that give rise to environmental issues in a way that may be unparalleled by any other potential solution. Co-operation is a way to bridge the gap between what is needed ethically in society and what may be workable within economic endeavors. Put more forcefully--co-operation is the missing glue that can bind humanity to itself and to the wider world.

Next Steps

If the co-operative movement is to emphasize environmental sustainability within the Statement on the Co-operative Identity or principles, ensuing steps must of course occur. During her interview, Green emphasized the importance of incorporating the co-operative movement into international business consortiums such as the G20, thus giving co-operatives a voice at the table alongside IOFs. If IOFs--as discussed above--are superseding national powers in many respects (Webb, 2016, pp. 72-73), nations may find themselves impotent to craft legislation that protects the environment, as large corporations can threaten to wreck national economies through capital flight. It may then be an imperative for international co-operative organizations to develop their own power to counter that held by those firms. This highlights the importance of the co-operative movement on the global stage.

Other connections and collaborations will also be important. For example, Thakur's work in his Go Green 3.0 campaign, described during his interview, may be vital. Inspired by his recognition that co-operatives could enlist youth in working towards the United Nations' Sustainable Development Goal (SDG) 13: Climate Action, such collaboration to align co-operatives and the SDGs may amplify the power of both. And, of course, bringing younger generations on board with co-operatives is an undeniably important task for co-operative development.

It is also important to recognize, as Crowell stressed during his interview, that the values and principles "are irrelevant if they are not reflected in the legal statutes that regulate co-operatives". In other words, to function properly, co-operatives have to exist within a legal framework that recognizes their distinct and unique approach to business; otherwise, they will be treated (and often act) in much the same way as those IOFs they ostensibly stand in opposition to. The effort, therefore, must be to both create the legislative space for co-operative action and to

allow co-operation to grow beyond any individual national constraint--thus becoming a global player capable of dictating the nature of broader economic activity.

Due consideration should also be given to how the co-operative movement would assess and manage the environmental impacts of individual co-operatives--whether internally, or via the laws governing co-operatives. This may be an even more difficult process than revising the principles or Statement, as complex decisions would have to be made in a consistent manner across the movement about what practices sufficiently protect the environment.

Opportunities for Future Research

Several areas of study follow from this paper. First is the question of how co-operative development can be strengthened by reaching out to environmental groups and social movements encountering significant corporate and political resistance. They may be particularly receptive to shifting their energies towards developing economic organizational forms aligned with their goals. Secondly, a further case could be made for emphasizing environmental sustainability within the Statement/principles. Given the relative dearth of quantitative data on the performance of co-operatives in relation to the environment, more research in this area could shed considerable light on whether co-operatives are living up to the aspirations of that part of the seventh principle. Lastly, future research could be directed towards assessing the degree to which co-operatives involved in the fossil fuel industry (or other sectors of the economy that are environmentally unsustainable) consider it important to shift to a more renewable economy and how higher level co-operation could support them and further the movement's leadership on environmental stewardship within national and international economies.

Conclusions

The arguments presented in this paper hopefully lay bare some of the poor logic of the dialogue around how we currently structure our economies and the errors that cannot find redress without systemic changes. Markets, as they currently function, have significant flaws--and the predominant economic paradigms cannot ameliorate them. Public institutions thus far have also not been the solution--and it is questionable to what extent they can ever reach the roots of the problems.

Embodying the best traits to which humans can aspire, co-operatives--as a humane alternative to capitalism--must leverage every available tool to address and ameliorate the problems the world is already seeing and to provide future generations with as much opportunity as we ourselves have been given. Currently, environmental sustainability is a minor component of the ICA's explanation of co-operation within the Statement on the Co-operative Identity. Now is the time to demonstrate how wide the circle of co-operative care truly is by rearticulating the principles to recognize humanity's inextricable links with the natural world. This must then be used to rally and guide all co-operators to become, as Burlton advocated, "foot soldiers in the climate change war"--spurring the movement on to become a major player in the world's economies and the leader in sustainable development.

References

- Allen, B. (2014). A role for co-operatives in governance of common-pool resources and common property systems. In S. Novkovic & T. Webb (Eds.), *Co-operatives in a post-growth era: Creating co-operative economics* (pp. 242-263). Zed Books Ltd.
- Aras, G., & Crowther, D. (2009). Corporate Sustainability Reporting: A Study in Disingenuity? *Journal of Business Ethics*, 87, 279-288. <http://www.jstor.com/stable/40294968>
- Bedford, D., Ford, E., & Pobihushchy, S. (1994). *Co-operatives Values in a Changing World: A Co-operative Critique* [PDF document]. Retrieved from <https://smu.brightspace.com/d2l/le/content/33702/viewContent/287115/View>
- Bjornstad, D.J., & Brown, M.A. (2004, June). *A Market Failures Framework for Defining the Government's Role in Energy Efficiency*. Joint Institute for Energy and Environment. https://www.researchgate.net/profile/David_Bjornstad/publication/254209802_A_Market_Failures_Fra

- mework_for_Defining_the_Government%27s_Role_in_Energy_Efficiency/links/00463539efac9bfff800000/A-Market-Failures-Framework-for-Defining-the-Governments-Role-in-Energy-Efficiency.pdf
- Block, F., & Somers, M.R. (2016, August 29). *The Power of Market Fundamentalism: Karl Polanyi's Critique*. Harvard University Press.
<https://books.google.com/books?hl=en&lr=&id=FSuAAwAAQBAJ&oi=fnd&pg=PR7&dq=market+fundamentalism&ots=iUk2mCqcuE&sig=2NggQtpoKfXpMp42xALKZsz8X3l#v=onepage&q=fundamentalism&f=false>
- Böök, S.A. (1992, May). *Co-operative values in a changing world*. International Co-operative Alliance.
- Brown, B. (2012). *Daring greatly: How the courage to be vulnerable transforms the way we live, love, parent, and lead*. Gotham Books
- Ceballos, G., Ehrlich, P.R., Barnosky, A.D., Garcia, A., Pringle, R.M., & Palmer, T.M. (2015). Accelerated modern human-induced species losses: Entering the sixth mass extinction. *Science Advances*, 1(5). <https://doi.org/10.1126/sciadv.1400253>
- Ceballos, G., Ehrlich, P.R., & Raven, P.H. (2020, June 01). Vertebrates on the brink as indicators of biological annihilation and the sixth mass extinction. *Proceedings of the National Academy of Sciences of the United States of America*, 117(24), 13,596-13,602.
<https://doi.org/10.1073/pnas.1922686117>
- Centers for Disease Control and Prevention. (2018, November 05). *One Health Basics*.
<https://www.cdc.gov/onehealth/basics/index.html>
- Chomsky, N. (2012, July 22). *Destroying the Commons: How the Magna Carta Became a Minor Carta*. <https://chomsky.info/20120722/>
- The Co-operative Bank. (n.d.). *Values and Ethics Reporting and Sustainability Reports*.
<https://www.co-operativebank.co.uk/values-and-ethics/ethical-banking/sustainability-reports>
- Co-operative Group Limited. (n.d.). *Responsible sourcing*.
<https://www.coop.co.uk/environment/sustainability>
- Dale, A., Duguid, F., Lamarca, M.G., Hough, P., Tyson, P., Foon, R., Newell, R., & Herbert, Y. (2013, October 23). *Co-operatives and Sustainability: An investigation into the relationship*. International Co-operative Alliance. <https://www.ica.coop/sites/default/files/basic-page-attachments/sustainability-scan-2013-revised-sep-2015-559438094.pdf>
- D'Aquila, J.M. (2018, July). *The Current State of Sustainability Reporting: A Work in Progress*. The CPA Journal. <https://www.cpajournal.com/2018/07/30/the-current-state-of-sustainability-reporting/>
- Duda, J. (2016, July 05). *The Italian Region Where Co-ops Produce a Third of Its GDP. YES!* Magazine. <https://www.yesmagazine.org/economy/2016/07/05/the-italian-place-where-co-ops-drive-the-economy-and-most-people-are-members/>
- Duguid, F., & Balkan, D. (2016). Talking the Talk: Canadian co-operatives and sustainability reporting. *Journal of Co-operative Accounting and Reporting*, 4(1). <https://smu.ca/webfiles/1-JCARTalkingtheTalk.pdf>
- Duguid, F. (2017, December). Non-financial tools and indicators for measuring the impact of co-operatives. *Journal of Co-operative Accounting and Reporting*, 5(1). <https://smu.ca/webfiles/Non-FinancialToolsandIndicatorsforMeasuringtheImpactofCo-operatives.pdf>
- Environmental Investigation Agency, & Greenpeace. (2019, November). *Checking Out on Plastics II: Breakthrough and backtracking from supermarkets*. <https://eia-international.org/wp-content/uploads/Checking-Out-on-Plastics-2-report.pdf>
- Fairbairn, B. (1994). *The Meaning of Rochdale: The Rochdale Pioneers and the Co-operative Principles* [PDF document]. Retrieved from
<https://smu.brightspace.com/d2l/le/content/33702/viewContent/287096/View>
- Federated Co-operatives Limited. (n.d.). *Overview*. <https://www.fcl.crs/our-business/overview>
- Federated Co-operatives Limited. (2019, June 20). *FCL recognized with Canadian co-operative award*. <https://www.fcl.crs/news-reports/news/article/fcl-recognized-with-canada-coop-award>
- Friedman, M. (1970, September 13). *The Social Responsibility of Business is to Increase its Profits*. <http://umich.edu/~thecore/doc/Friedman.pdf>
- Fullerton, J. (2014). Finance for the Anthropocene. In S. Novkovic & T. Webb

- (Eds.), *Co-operatives in a post-growth era: Creating co-operative economics* (pp. 134-156). Zed Books Ltd.
- Global Reporting Initiative. (2013, April 04). *GRI among the most popular CSR instruments*.
<https://www.globalreporting.org/information/news-and-press-center/Pages/GRI-among-the-most-popular-CSR-instruments.aspx>
- Global Reporting Initiative. (2015, May). *Sustainability and Reporting Trends in 2025: Preparing for the Future*. <https://www.globalreporting.org/resourcelibrary/Sustainability-and-Reporting-Trends-in-2025-1.pdf>
- Intergovernmental Panel on Climate Change (2018). *Summary for Policymakers of IPCC Special Report on Global Warming of 1.5C approved by governments*. Retrieved from <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>
- International Co-operative Alliance. (n.d.a.). *Co-operative Principles and Values – Revisions*. Archived content retrieved Sept. 16, 2020, from:
<https://web.archive.org/web/20091029163330/http://www.ica.coop/coop/principles-revisions.html>
- International Co-operative Alliance. (n.d.b.). *Cooperative identity, values & principles*.
<https://www.ica.coop/en/cooperatives/cooperative-identity>
- International Co-operative Alliance. (2014, June 09). *Co-operators pay tribute to Ian MacPherson*. <https://www.ica.coop/fr/node/9918>
- International Co-operative Alliance. (2015). *Guidance Notes to the Co-operative Principles*.
<https://www.ica.coop/sites/default/files/publication-files/ica-guidance-notes-en-310629900.pdf>
- International Co-operative Alliance. (2017, February 06). *New report: The Co-operative Economy of New Zealand*. <https://www.ica.coop/en/newsroom/news/new-report-co-operative-economy-new-zealand>
- Islam, S.N., & Winkel, J. (2017, October). *Climate Change and Social Inequality*. United Nations Department of Economic & Social Affairs. https://www.un.org/esa/desa/papers/2017/wp152_2017.pdf
- KPMG. (2017). *The road ahead: The KPMG Survey of Corporate Responsibility Reporting 2017*. <https://assets.kpmg/content/dam/kpmg/xx/pdf/2017/10/kpmg-survey-of-corporate-responsibility-reporting-2017.pdf>
- The Lancet. (2017, October 19). *The Lancet Commission on pollution and health* [Executive summary]. <https://www.thelancet.com/commissions/pollution-and-health>
- Landrigan, P.J., Fuller, R., Acosta, N.J.R., Adeyi, O., Arnold, R., Basu, N., Baldé, A.B., Bertollini, R., Bose-O'Reilly, S., Boufford, J.I., Breyse, P.N., Chiles, T., Mahidol, C., Coll-Seck, A.M., Cropper, M.L., Fobil, J., Fuster, V., Greenstone, M., Haines, A.,... Yadama, G.N. (2017, October 19). The Lancet Commission on pollution and health. *The Lancet Commissions*, 391(10119), 462-512. [https://doi.org/10.1016/S0140-6736\(17\)32345-0](https://doi.org/10.1016/S0140-6736(17)32345-0)
- Longview Institute. (n.d.). *Market Fundamentalism*.
<http://www.longviewinstitute.org/projects/marketfundamentalism/marketfundamentalism/>
- MacPherson, Ian. (2012). "... What is the end purpose of it all?": The centrality of values for cooperative success in the marketplace. In P. Battilani & H. Schröter (Eds.), *The Cooperative Business Movement, 1950 to the Present* (Comparative Perspectives in Business History, pp. 107-125). Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139237208.006>
- MacPherson, Ian. (2013, January 03). Cooperatives' Concern for the Community: From Members Towards Local Communities' Interests. *Euricse Working Paper*, 46(13). <http://dx.doi.org/10.2139/ssrn.2196031>
- Manabe, S., & Wetherald, R.T. (1967, May 01). Thermal Equilibrium of the Atmosphere with a Given Distribution of Relative Humidity. *Journal of Atmospheric Sciences*, 24(3), 241-259. [https://doi.org/10.1175/1520-0469\(1967\)024%3C0241:TEOTAW%3E2.0.CO;2](https://doi.org/10.1175/1520-0469(1967)024%3C0241:TEOTAW%3E2.0.CO;2)
- Milne, M.J., & Gray, R. (2012, November 18). W(h)ither Ecology? The Triple Bottom Line, the Global Reporting Initiative, and Corporate Sustainability Reporting. *Journal of Business Ethics*, 118, 13-29. <https://doi.org/10.1007/s10551-012-1543-8>
- Mondragon Corporation. (n.d.). *Our Principles*.
<https://www.mondragon-corporation.com/en/co-operative-experience/our-principles/>

- Murray, A. (2011, November 18). *Change to Co-op Principle referred back to ICA Board*. Co-op News. <https://www.comms.coop/36796/sector/change-co-op-principle-referred-back-ica-board/>
- Ostry, J.D., Loungani, P., & Furceri, D. (2016, June). *Neoliberalism: Oversold?*. International Monetary Fund. <https://www.imf.org/external/pubs/ft/fandd/2016/06/ostry.htm>
- Pacific Institute. (2013a). *Total Renewable Freshwater Supply by Country (2013 Update)* [Data set]. <http://worldwater.org/wp-content/uploads/2013/07/ww8-table1.pdf>
- Pacific Institute. (2013b). *Freshwater Withdrawal by Country and Sector (2013 Update)* [Data set]. <http://worldwater.org/wp-content/uploads/2013/07/ww8-table2.pdf>
- Rees, W.E. (2014). Are prosperity and sustainability compatible?. In S. Novkovic & T. Webb (Eds.), *Co-operatives in a post-growth era: Creating co-operative economics* (pp. 83-100). Zed Books Ltd.
- Ripple, W.J., Wolf, C., Newsome, T.M., Galetti, M., Alamgir, M., Crist, E., Mahmoud, M.I., Laurance, W.F., and 15,364 scientist signatories from 184 countries. (2017, December). World Scientists' Warning to Humanity: A Second Notice. *BioScience*, 67(12), 1026–1028. <https://doi.org/10.1093/biosci/bix125>
- Rixon, D., & Beaubien, L. (2015). Integrated reporting for co-operatives: A case study of Vancity Credit Union. In L. Brown, C. Carini, J. G. Nembhard, L. H. Ketilson, E. Hicks, J. McNamara, S. Novkovic, D. Rixon, & R. Simmons (Eds.), *Co-operatives for Sustainable Communities: Tools to Measure Co-operative Impact and Performance* (pp. 337-352). Centre for the Study of Co-operatives
- Seguí-Mas, E., Bolas-Araya, H.M., & Peiró, P.A. (2016). Why do cooperatives assure their CSR reports? an analysis of the motivations and benefits in a big retail cooperative. *CIRIEC - Espana*, 87, 39-68. Retrieved from <https://login.library.smu.ca/login?url=https%3A%2F%2Fsearch.proquest.com%2Fdocview%2F1900342944%3Faccountid%3D13908>
- Segui-Mas, E., Bolas-Araya, H.M., & Polo-Garrido, F. (2015). Sustainability Assurance on the Biggest Cooperatives of the World: An Analysis of Their Adoption and Quality. *Annals of Public and Cooperative Economics*, 86(2), 363-383. <https://doi.org/10.1111/apce.12073>
- Slaper, T.F., & Hall, T.J. (2011). The Triple Bottom Line: What Is It and How Does It Work?. *Indiana Business Review*, 86(1). <http://www.ibrc.indiana.edu/ibr/2011/spring/article2.html>
- Smith, P., & Max-Neef, M. (n.d.). *Introduction: The case for a new economics* [PDF document]. Retrieved from <https://smu.brightspace.com/d2l/le/content/68921/viewContent/487224/View>
- Sneed, A. (2020, June 12). *'Forever Chemicals' Are Building Up in the Arctic—and Likely Worldwide*. Scientific American. <https://www.scientificamerican.com/article/forever-chemicals-are-building-up-in-the-arctic-and-likely-worldwide/>
- Spratt, D., & Dunlop, I. (2019, May). *Existential climate-related security risk: A scenario approach*. Breakthrough - National Centre for Climate Restoration. https://docs.wixstatic.com/ugd/148cb0_b2c0c79dc4344b279bcf2365336ff23b.pdf
- Steffen, W., Rockström, J., Richardson, K., Lenton, T.M., Folke, C., Liverman, D., Summerhayes, C.P., Barnosky, A.D., Cornell, S.E., Crucifix, M., Donges, J.F., Fetzer, I., Lade, S.J., Scheffer, M., Winkelmann, R., & Schellnhuber, H.J. (2018a, August 6). Trajectories of the Earth System in the Anthropocene. *Proceedings of the National Academy of Sciences of the United States of America*, 115(33), 8252-8259. <https://doi.org/10.1073/pnas.1810141115>
- Steffen, W., Rockström, J., Richardson, K., Lenton, T.M., Folke, C., Liverman, D., Summerhayes, C.P., Barnosky, A.D., Cornell, S.E., Crucifix, M., Donges, J.F., Fetzer, I., Lade, S.J., Scheffer, M., Winkelmann, R., & Schellnhuber, H.J. (2018b, August 6). Trajectories of the Earth System in the Anthropocene [Appendix]. *Proceedings of the National Academy of Sciences of the United States of America*, 115(33), 8252-8259. <https://www.pnas.org/content/pnas/suppl/2018/07/31/1810141115.DCSupplemental/pnas.1810141115.sapp.pdf>
- Stern, N. (2007, January). *The Economics of Climate Change: The Stern Review*. http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview_report_complete.pdf
- Stiglitz, D.J. (2009). Moving Beyond Market Fundamentalism to a More Balanced Economy. *Annal of Public and Cooperative Economics*, 80(3), 345-360. <https://doi.org/10.7916/D8988HV1>

- Sustainability Solutions Group. (2016, March 16). *Sustainability Reporting for Co-operatives: A Guidebook*. International Co-operative Alliance. <https://www.ica.coop/sites/default/files/publication-files/ica-sustainability-reporting-guidebook-1575997496.pdf>
- Tantram, J. (2015). *All capitals are unequal, but some are more unequal than others* [PDF document]. Retrieved from <https://smu.brightspace.com/d2l/le/content/45433/viewContent/445637/View>
- Terzi, A., & Marcuzzi, S. (2019, June 02). *Are multinationals eclipsing nation-states?*. International Politics and Society. <https://www.ips-journal.eu/regions/global/article/show/are-multinationals-eclipsing-nation-states-3245/>
- Trisos, C.H., Merow, C., & Pigot, A.L. (2020, April 08). The projected timing of abrupt ecological disruption from climate change. *Nature*, 580, 496–501. <https://doi.org/10.1038/s41586-020-2189-9>
- United Nations Environment Programme. (2019, September 24). *US outdoor clothing brand Patagonia wins UN Champions of the Earth award*. <https://www.unenvironment.org/news-and-stories/press-release/us-outdoor-clothing-brand-patagonia-wins-un-champions-earth-award>
- United Nations Framework Convention on Climate Change. (n.d.). *The Paris Agreement*. Retrieved July 01, 2020, from <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- United States Department of Agriculture Rural Development. (2011, April). *Understanding Cooperatives: Cooperative Business Principles*. https://www.rd.usda.gov/files/CIR45_2.pdf
- Vancouver City Savings Credit Union. (n.d.). *Global Alliance for Banking on Values (GABV)*. <https://www.vancity.com/AboutVancity/VisionAndValues/ValuesBasedBanking/GlobalAllianceBankingValues/>
- Van Vuuren, D.P., Bouwman, A.F., & Beusen, A.H.W. (2010, August). Phosphorus demand for the 1970–2100 period: A scenario analysis of resource depletion. *Global Environmental Change*, 20(3), 428–439. <https://doi.org/10.1016/j.gloenvcha.2010.04.004>
- Viardot, E. (2013). The role of cooperatives in overcoming the barriers to adoption of renewable energy. *Energy Policy*, 63, 756–764. <https://doi.org/10.1016/j.enpol.2013.08.034>
- Vox. (2020, March 06). *How wildlife trade is linked to coronavirus* [Video]. YouTube. <https://www.youtube.com/watch?v=TPpoJGYIW54>
- Webb, J.T. (2016). *From Corporate Globalization to Global Co-operation: We Owe it to Our Grandchildren*. Fernwood Publishing.
- World Commission on Environment and Development. (1987). *Our common future*. Oxford: Oxford University Press.
- Xu, C., Kohler, T.A., Lenton, T.M., Svenning, J.C., & Scheffer, M. (2020, May 04). Future of the human climate niche. *Proceedings of the National Academy of Sciences*, 117(21), 11350–11355. <https://doi.org/10.1073/pnas.1910114117>
- Zamagni, S., & Zamagni, V. (n.d.). *Demand Vs Supply* [PDF document]. Retrieved from <https://smu.brightspace.com/d2l/le/content/70324/viewContent/519756/View>
- Zamagni, V. (2014). The co-operative enterprise: A valid alternative for a balanced society. In S. Novkovic & T. Webb (Eds.), *Co-operatives in a post-growth era: Creating co-operative economics* (pp. 194–209). Zed Books Ltd.