

# Fighting Climate Change

Without social entrepreneurship, we might win a battle, but  
we'll lose the war!

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## **Executive summary**

*A doomsday climate change scenario looks increasingly real. While most stakeholders recognize the role of technological innovation in this fight, there is an increasing awareness of social innovation as a critical element in mastering the challenge. Social entrepreneurship has emerged as an engine for bottom-up social innovation, but there is also a strong need for proactive top-down measures. These measures are critical in enabling social entrepreneurship to complement other measures that may be in place. The devil – as always – is in the details, and it is important that these top-down policies are differentiated from the generic policies for entrepreneurship and are specifically designed to cater to the needs of the social entrepreneurs.*

*This analysis examines why climate change needs social entrepreneurship now more than ever, and documents some of the success stories of social enterprises and the policymakers. A set of actionable recommendations are offered for governments to consider.*

## **The Right Climate for Social Innovation**

The second-warmest year on record, 2019 was close behind 2016, continuing the planet's long-term warming trend. The years 2016–2019 occupy the top four spots for the warmest years in the past 140 years. Average global temperatures are now almost 1 degree Celsius above pre-industrial levels. Extreme weather events are increasing in

frequency and the cost is piling up around the world. For instance, according to a study by NASA and NOAA<sup>1</sup>, storms in the Atlantic have increased from 93 in the 1980s to 149 in the 2010s and the number of loss events exceeding US\$ 1bn have increased fourfold – from 28 to 111 during the same time period. There can be no doubt: the climate is in crisis. The Paris Agreement and the 2030 Agenda for Sustainable Development underline the importance of innovation in the fight against climate change.

Meaningful innovation needs to be not only technological, but also social in nature. Social innovation is primarily bottom-up innovation, which is driven by society as a whole. Within the discourse on innovation and climate change, the focus may be on primary stakeholders like industry, government and academia, but bottom-up social innovation is beginning to make a significant difference in mitigating climate change. There is a disjointed, but growing, body of literature on bottom-up social innovation that addresses climate change (Horst 2008, Parrish and Foxon, 2009, Bergman, 2010, Brendan et al., 2014, and Bansal, et al., 2019 and others). This lends credence to the claim that social entrepreneurship could be the engine that makes a real difference in the fight against climate change.

## SUSTAINABLE DEVELOPMENT GOALS



<sup>1</sup><https://www.nbcnews.com/politics/meet-the-press/extreme-weather-events-costs-are-piling-n105457>

## Social Entrepreneurship: An agent for Social Innovation

Innovation is seen as often synonymous with a new product or technology. It has led to an erroneous belief that impactful or meaningful innovation needs to be technology-driven. However, in the context of climate change, there is a gradual shift in the concept of innovation. This shift has led to more interest in local communities and places as sources of innovation. Social innovation is often also an enabler of technological innovation as new norms or new models of business and new institutions lead to an increased demand for cleaner and more efficient technologies. For instance, the three-bladed “Danish concept” wind turbine, developed in the 1970s, was strongly influenced by the socially motivated grassroots movements of activist engineers. The scaled-up versions, which are the direct descendants of this technology, are among the most successful renewable energy technologies (Bergman, 2010).

To sum up so far: social entrepreneurship is a key agent of social innovation. So, what is it all about?

*The [Global Entrepreneurship Monitor](#) describes social entrepreneurial activities as any kind of activity, organization or initiative that has a particular social, environmental or community objective. It can operate in all economic and social sectors, such as economic development, environmental conservation, social welfare, human development, arts and cultural preservation, health, agriculture, education, children and youth, democratization and governance, elderly services; with program areas promoting economic opportunities, community, and rural development, market development, access in under-served markets, employment development, microenterprise development, institutional and organizational development<sup>2</sup>.*

The focus of a social enterprise needs to be on social value creation and not exclusively on value capture. This distinction between social value creation and value capture is the key differentiating element between a social enterprise and a commercial enterprise.

### **Why does combating climate change need social entrepreneurship now more than ever?**

The original focus of climate change studies was on the physical impact, with little consideration given to the livelihood and social positioning of people affected. However,

<sup>2</sup> [Global Environment Monitor, 2016](#)

in recent years, there is a growing recognition that climate change, poverty and income inequality are all inseparably linked together.

The impact of climate change on the livelihood of people living at the base of the socioeconomic pyramid is exacerbated as these stakeholders lack the financial or social safety nets to help them recover from the debilitating impact. The result is not just income inequality, but also gender inequality. This is more pronounced in poorer countries, where families depend on agriculture and labor jobs to make money, and where male migration, male-dominated labor markets and patriarchal institutions already put stresses on families – mostly female family members – that are struggling to survive.

However, climate change is not just an exogenous variable for poverty and inequalities in income and gender. Rather, it is a vicious circle in which the greater impact on economically vulnerable sections of populations encourages policies that are skewed in favor of GHG-intensive production and consumption, further hurting the already economically vulnerable or disadvantaged sections of the population (UN, 2017). This vicious cycle between climate change and poverty and inequality needs urgent attention as we enter the phase of the fourth industrial revolution (4IR).



Source: [10 Natural Disasters That Have Taken Place Around The World In 2020](#)

The phenomenon “Internet of Things” (IoT) or the “internet of all things” is expected to enable the discovery of new materials with unrestricted information. As global digital

platforms in R&D, sales, marketing and distribution grow, it will be possible to deliver improved functionality and quality of products and services at a lower cost – creating a “platform effect, where buyers and sellers are matched with a wide variety of products and services”<sup>3</sup>. This will lead to new business and organizational models with implications for employment, as fewer jobs in new industries will be created, and low-cost labor will no longer be needed for repetitive jobs.

### **Digitalizing the climate change fight<sup>4</sup>**

Several social enterprises are already leading the way in combating climate change by tackling the twin challenges of physical and social impacts. As a variety of new technologies are forming a digital toolbox of solutions that challenge the status quo and artificial intelligence and machine learning (AI/ML) are advancing exponentially, these enterprises are increasingly using digital technologies to tackle climate change and the associated societal challenges (George G, 2020).

Ant Forest leverages digital tools to communicate simple, engaging sustainability messages to large populations. It is a green initiative within the Chinese payment and lifestyle application AliPay and has now evolved into a social game that tracks and rewards green lifestyles with “energy points” representing grams of carbon saved. Energy points have become valuable commodities users can spend to plant and nourish digital trees or sponsor land conservation. The parent company, Ant Financial, plants a real-life tree for each digital tree a user raises to maturity. About 500 million trees have been planted in inner Mongolia as a result of this effort.

Efforce is a blockchain-based energy-saving trading platform seeking to revolutionize the market for energy performance contracting (EPC) for infrastructure upgrades that reduce energy costs. As an energy service company (ESCO), it proposes improvements to an industrial facility, which are then financed by a partner. The facility pays back the ESCO and finance partner based on energy savings. EPC regularly returns 20%–25% in energy savings and promises 20%–25% returns for financing partners.

Olam, an agribusiness multinational based in Singapore, is working to digitalize the origination process for crops like cocoa across its global network. By equipping small-scale farmers with mobile devices armed with a digital sales platform, Olam cuts

<sup>3</sup><https://medium.com/datadriveninvestor/why-social-entrepreneurship-is-a-solution-to-climate-change-and-tomorrows-economy-f550466c66c9>

<sup>4</sup>Adapted from *Digital Entrepreneurship and Sustainability: How Digital Innovations are helping tackle climate change and sustainable development*, Journal of Entrepreneurship Theory and Practice, Gerard G et al. (2020)

out price-setting middlemen and provides higher prices to farmers. Through this digital disintermediation, Olam can now pay farmers more, improve the stability of supply and widen margins while encouraging digital “lock-in” to its digital platform (Olam Direct).

Commown’s vision is to convert digital tech to long-term sustainability by promoting long-lasting products and avoiding planned obsolescence. Functioning as a cooperative, Commown encourages owners of digital devices to lease them to others, with the enterprise providing maintenance service, generating income and encouraging reuse of devices that would otherwise be discarded and are still often dismantled under poor social and environmental conditions. Although not impacting the actual design of devices as yet, the company aims to help push the digital industry toward the adoption of “fair” devices (e.g. the fully ethical Fairphone), based on a co-ownership model.

These are just a few examples in a growing list of social enterprises that are employing digital technologies innovatively to tackle the challenges posed to climate change and sustainability.

## **Energizing social entrepreneurship to fight climate change**

Several pillars are necessary for social entrepreneurship to thrive. These include public understanding of social entrepreneurship, government support, access to investment, ability to attract skilled staff and ability to make a living. Government support and public understanding of social entrepreneurship are probably the essential pre-requisites for the other support mechanisms to follow.

Social entrepreneurship and government have long had more than an arm’s length distance between them – with social entrepreneurship driven by bottom-up initiatives and private funding.

That trend is now changing, with governments across the world recognizing the role of social entrepreneurship in the new digital economy and accordingly investing more effort to support the social entrepreneurship ecosystem.

## Government support for social entrepreneurship success stories

A Thomson Reuters 2019 poll<sup>5</sup> documents countries where social entrepreneurship has benefited immensely as a result of government support, such as Singapore, France, Belgium, Australia and Canada. These countries were among the top five for social entrepreneurship in 2019, with Canada emerging as the leader.

### Australia

In the last couple of years and after sustained efforts in the not-for-profit sector, there is greater interest and understanding of social enterprise by government at state and local levels. Governments are slowly recognizing that social enterprises are important contributors to the economy and communities. Victoria leads the way and several local councils in Victoria, Queensland and New South Wales have social enterprise strategies in place. Social enterprises in Australia are now thriving, which is reflected in rankings<sup>6</sup>. Social Ventures Australia, a non-profit organization that influences systems to deliver better social outcomes for people by learning about what works in communities, has played a major role in ensuring that the various state and local governments recognize the growing importance of social enterprises in coming years.

### Canada

One of the primary reasons for Canada emerging as the ideal location for social entrepreneurship in 2019 is the federal government's Social Economy initiative in 2005, which was an early awareness-building effort, creating pan-Canadian relationships with groups in the social enterprise and social finance space. This in turn stimulated government interest in social enterprise and social finance, which became the foundation for multiple policy developments across the country.

### Singapore

Similarly, the success story of social entrepreneurship in Singapore, which saw a 25–30%<sup>7</sup> increase in registered social enterprises in the last few years, is due to the efforts of raiSE, which places particular emphasis on creating awareness of social entrepreneurship and their impact on Singapore's economy.

<sup>5</sup><https://poll2019.trust.org/>

<sup>6</sup><https://www.impactboom.org/blog/2019/8/4/the-state-of-impact-in-australia-how-social-enterprise-momentum-is-gaining>

<sup>7</sup><https://www.channelnewsasia.com/news/singapore/social-enterprise-sector-grew-by-32-from-last-year-raise-9138340>

## Belgium

Belgium's success with social entrepreneurship, on the other hand, is due to its focus on the youth and the women. It maintains two flagship programs: the Youth Guarantee Implementation Program and the Plan in Support of Women's Entrepreneurship, launched in 2014 and 2016, respectively. Some of the key features of the program supporting women in entrepreneurship are setting up a barometer for monitoring female entrepreneurship, improving female representation in the bodies governing professionals to better reflect the gender composition of these occupations and improving the social status of self-employed women (in particular regarding maternity and work-life balance)<sup>8</sup>.

## France

The social entrepreneurship ecosystem in France has grown largely due to extremely supportive regulatory mechanisms. The role of the Government in providing access to finance for social enterprises has been another major factor. The two main public players in the sector – the Banque Publique d'Investissement (BPI) and the Caisse des Dépôts – have in recent years set up several major funds in support of social enterprises.

## Policies for a strong ecosystem – Looking Ahead

There must be a multi-pronged policy framework for creating a strong and a sustainable ecosystem for social entrepreneurship. While many of the required policies have been well documented in the United Nations Framework Convention on Climate Change technical brief (UNFCCC 2018, TEC Brief), there is yet room for innovative policymaking to give further impetus to the role of social entrepreneurship in tackling climate change:

- While entrepreneurship is a part of curriculum in about 80% of the universities worldwide, there needs to be a more concerted effort to integrate entrepreneurship in schools. The EU, which has a policy on integrating entrepreneurship in high schools, could offer a playbook for other countries to follow.<sup>9</sup>

<sup>8</sup> <https://www.oecd.org/cfe/smes/BELGIUM-IE-Country-Note-2018.pdf>

<sup>9</sup> British Council (2018): Entrepreneurship in Education

- As a corollary to the above, schools need to transform traditional education by focusing on social enterprise principles, where learning that shared value is at least as important as shareholder value. Students must be taught to see value through a lens that encompasses internal and external facets balancing between economic, environmental and social gains. The objective of shared value is to increase value for all and not simply to redistribute value from one group to another.
- While entrepreneurship including social entrepreneurship is increasingly being made part of the curriculum in universities and colleges, these educational institutions should be encouraged to allow students to earn credits for an internship in social enterprises toward degree requirements. This internship experience will go a long way in sowing seeds of interest in social entrepreneurship among the students.
- Governments should highlight prior experience as a social entrepreneur as an essential prerequisite for various job openings. This trend is already visible in the private sector, where many companies highlight an entrepreneurial attitude as one of the prerequisites for various jobs. Such a measure would go a long way in enhancing the attractiveness of social entrepreneurship and increasing the risk appetite of aspiring social entrepreneurs.
- While the US, UK, Canada, and many other countries offer limited loans , microloans and limited grant opportunities for aspiring entrepreneurs, it is recommended that larger (one-time) government grants be made available specifically for social enterprises to hire the best talent even while in their early stages.
- The private sector should also be encouraged to provide grants and other financial incentives for social entrepreneurship as part of corporate social responsibility (CSR) initiatives. Significant tax incentives or tax exemption should be made available to corporates that provide grants to social enterprises.
- Special regulatory zones (SRZ) need to be set up where qualified social enterprises are eligible for a less rigorous regulatory approval processes. This is particularly important in countries where the cost of doing business is high.
- Governments should also introduce grant programs that support the training of social entrepreneurs not just in social entrepreneurship, but also in the

application of emerging technologies such as artificial intelligence, blockchain in climate change and related domains.

- The development of climate-centric or energy-centric incubators and accelerators, particularly in rural areas, should be encouraged with additional financial incentives, as these would then play a significant role in helping vulnerable sections of the community address the physical and social costs imposed on them due to climate change.

While entrepreneurship is often interpreted as a broader canvas that encompasses social entrepreneurship, specific efforts must be made to differentiate between the two. While entrepreneurship is in many ways driven by the same principles as the private sector in general – shareholder value – the premise of social entrepreneurship is shared value. This is a critical difference (Henderson, R, Reimagining Capitalism in a World on Fire), which is at the very center of the climate change issue, a challenge that is already destroying commonly held value at an alarming rate. It creates a need for a set of policies that specifically caters to social entrepreneurs, a subset of entrepreneurs uniquely suited to address the current and future demands of this rapidly evolving global catastrophe. Failure to do so will mean that – despite some possible pyrrhic wins or minor gains – the chances of winning the larger war on climate change will be slim indeed.

## About

[The Digital Economist](#) is a global impact organization with the mission to drive technological convergence towards a human-centered digital economy by bringing investable opportunities, in line with the Sustainable Development Goals, to the fore. For press inquiries, please reach out to [press@thedigitaleconomist.com](mailto:press@thedigitaleconomist.com). For partnerships please contact directly : [navroop@thedigitaleconomist.com](mailto:navroop@thedigitaleconomist.com).