"*No challenge poses a greater threat to future generations than climate change*" (Obama, para. 68). The disastrous effects of climate change are evident: more frequent wildfires, longer periods of drought in certain areas, and arctic ice is projected to be all but gone before the mid-century (Callery, para. 1, 1, 20). Climate change is baring its fangs and will continue to inflict devastation on the environment and to society. At the heart of society lies people and the communities they form, who are the primary focus of the social sector. This report discusses how climate change both affects and is affected by the social sector, in addition to action that is being taken to cope with the effects and prevent worsening of those effects.

One of the largest groups that is adversely affected by the increasingly unstable landscape caused by climate change are the Indigenous peoples who live in the northern and Albertan regions of Canada. Inuit tribes, whose culture, traditions, knowledge, and daily lives are heavily dependent on the resources around them (Milazzo, para. 10), are at a significant risk of becoming climate refugees. Arctic groups who have hunted and fished on the ice for generations are being forced to adapt to the changing landscape. Staples of the Inuit diet, such as berries and seals (Milazzo, para. 11), are becoming inedible because of industrial chemicals and pesticides that are carried to the North by prevailing winds. These chemicals and pesticides cannot evaporate in the frigid Arctic air (Davidson, para. 9), and instead, they are being absorbed into the local food. Climate change has exacerbated the proliferation of pollutants and its effects endanger the very health and wellbeing of Indigenous communities.

Unfortunately, that is nowhere near the full extent of the threat that climate change poses on the Inuit tribes of Canada. The thinning of sea ice and thawing of permafrost causes whale hunters, along with caribou and reindeer herders, to experience unprecedented changes in the Arctic ecosystem (Milazzo, para. 12). Climate

change is pushing animals such as caribou and reindeer out of areas where they had previously thrived, driving them to the brink of extinction (Milazzo, para. 12). For tribes that depend on these animals for meat, cultural practices, and trade, climate change poses a threat to their diet, identity, and livelihoods.

Shrinking sea ice, thawing permafrost, changes in vegetation and wildlife, and more severe extreme weather conditions caused by climate change reduce communities' livelihood options. This acts as a push factor, causing mass inland migration of the Inuit people who have lived in that area for generations. This migration forces Indigenous peoples to lose key aspects of their identity.

Climate change's devastation also touches rural communities. As temperatures rapidly rise due to human-induced warming (Callery, para. 11), climate and agricultural zones shift (Byrd, para. 2), which is devastating to local farmers. Small farmers struggle to stay in business as they try to get competitive prices for their products, protect crops and produce from weather and pests, as well as compete against large-scale companies. A shift in climate and agricultural zones brought on by climate change has the potential to render fields that consistently produced a crop worthless, as the quantity and quality of the crop drop significantly. Moreover, changing production patterns coupled with erratic precipitation patterns threatens crops, which has the potential to take families' livelihoods and source of income. By challenging the livelihood of farmers who produce the food we consume, climate change poses a threat to our food security and supply.

As wildlife habitats shift and the food chain changes in response to climate change, nature-related recreational activities that are often used for tourism, like fishing, sailing, and hunting, are adversely affected. Moreover, shifting climate patterns shift timings and durations of tourism seasons. Consequently, the rural communities that

depend on these activities as their livelihood and source of income feel an inordinate amount of stress on their community stability. Due to their remote location and limited economic diversity, an economic strain on rural communities implies a cultural and social stress. They are unable to respond effectively in the face of climate change, causing them to lose their livelihoods and income in the process.

Another one of climate change's disastrous effects is an increase in the severity of natural disasters. Severe climate swings increase the frequency of severe weather events such as droughts (Callery, para. 16). For example, slivers of southern Saskatchewan are going through "exceptional drought", chunks of British Columbia are in a period of "extreme drought", and "severe" drought conditions touch Saskatchewan, British Columbia, as well as Alberta (Tait, para. 5). The devastating effects of these droughts include lower crop yields, lighter beef cattle, and reduced herd sizes of cattle (Tait, para. 1), requiring the construction of tilting systems, the use of expensive fertilizers, and genetically modified plants. These approaches to combat the effects of climate change are sapping the financial strength of Alberta's generations-old farming communities, many of whom are already competing for lower prices. The additional costs represent a real threat to many families' livelihoods.

Rural communities are suffering intensely, being forced to adapt to the ever-changing climate and the disaster it brings with it. Unfortunately, climate change's devastation doesn't end at Indigenous and rural communities, it also affects an often-misunderstood group who are struggling to get by, the urban poor. About 1 in 7 Canadians currently live in poverty (Cattari, para. 1), and although there are systems in place to support those living in impoverished conditions such as shelters, poverty will only get worse with climate change. This is because many disadvantaged groups simply do not have resources to cope with the rapidly increasing temperatures. Poor

neighbourhoods in urban areas are at a significantly higher risk of contracting heat-related illnesses since residents are less likely to own air-conditioning and will use it sparingly (Byrd, para. 3). Moreover, trees are often cleared out for low-space, high-density apartment complexes, typically constructed out of heat-retaining concrete and brick (Allen, para. 9).

Urban poor are also affected by climate change's more indirect effects. They fall prey to the Urban Heat Island Effect, in which black and gray asphalt absorb solar radiation, warming up the ground and the air above it. The increased heat negatively affects poor neighbourhoods and one of the most vulnerable groups, the elderly and the very young. Evidence of this is clear in Toronto, where "*there is an almost perfect overlay between poor areas and hot areas*" (Allen, para. 4). What makes it evident that the heat-retaining infrastructure and lack of trees contributes to heat is that highly treed areas such as Rosedale, Forest Hill, and the ravines, are much cooler (Allen, para. 11). The effects of this disproportionate heating are fatal, contributing to an average of 120 premature deaths a year, with deaths spiking during the summer (Allen, para. 18).

In addition to the lives climate change directly and indirectly costs, the stresses put on electrical infrastructure endanger the livelihoods of homes and businesses whose dependence on electricity increases with each day. Heat waves put pressure on electricity generation and distribution systems, since much of the electricity is being lost as thermal radiation. This increases peak energy consumption, which requires more electricity to be generated. Some of the electricity is then lost in transmission, requiring more to be generated. As interconnection increases in the electrical grid, it becomes more vulnerable to blackouts when electricity demands are high. Vulnerability increases as climate change brings more extreme weather, worsening the impact of blackouts on increasingly electronic-dependent homes and businesses.

Climate change clearly affects the social sector. However, climate change can also be driven by the social sector, creating a vicious feedback loop. Society is heavily dependent on fossil fuel products; transportation is heavily dependent on oil for fuel; natural gas is used for heating, cooking, and most notably, electricity, and petroleum products, the most common being plastic, which has become a fixture of our daily lives. These fossil fuels have a high carbon content, and the dependence on fossil fuel products requires fossil fuels to be burned, releasing massive amounts of greenhouse gases, such as carbon dioxide, into the atmosphere, contributing to global warming.

This dependence of fossil fuels doesn't just pollute the atmosphere; it removes Earth's natural mechanisms to combat high levels of carbon in the atmosphere: carbon sinks. Large swaths of land must be cleared to build fossil fuel power plants, and larger areas must be devoted to mining for those fossil fuels. Trees and soil that had once inhabited that area acted as carbon sinks, by taking carbon dioxide out of the atmosphere through photosynthesis, and converting it to biomass, and some of the carbon is transferred to soil as plants die and decompose. Deforestation threatens these mechanisms, allowing more carbon to exist in the atmosphere in a much more potent form that carbon dioxide, methane, contributing to global warming and aggravating climate change.

Once the products people demand reach the end of their life or prematurely face the disposal stage, many problems occur, notably with consumer waste. Consumer waste can take on three forms; food waste, e-waste, and energy waste, usually in the form of electricity.

Forty-seven percent of food waste comes from the consumer (Mancini, para. 13), which has serious environmental ramifications. When the consumer wastes food, all the resources that went into making the food, such as shipping it, containing it, etc. are

wasted along with it. Moreover, discarded and uneaten food ends up in landfills, where the organic waste releases large amounts of methane into the atmosphere. Methane is about thirty times more effective at capturing heat than carbon dioxide (Yvon-Durocher, para. 3), greatly contributing to global warming and climate change.

The e-waste that consumers produce when they discard an old electronic device because of planned or perceived obsolescence goes on to cause great environmental damage, and contributes to climate change. In most of the cases where E-Waste is discarded, it is shipped to China. Once in China, labourers work at dismantling the electronics, trying to salvage electronic components and plastic that can be used for resale. This process pollutes the water and air of the area with noxious fumes, such as mercury and nitrous oxide, that seep into water supplies and livestock, damaging the nearby environment. Moreover, the nitrous oxide that is produced from burning plastics is many more times harmful to the environment than carbon dioxide as a greenhouse gas.

The average Canadian household used about 105 Gigajoules of energy in 2011 (Canada, para. 7). Although over three-quarters of this energy comes from energy sources that do not emit greenhouse gases, the last quarter generates large amounts of greenhouse gases. These emissions come from non-renewable resource power plants, which greatly contributes to global warming and climate change.

It has become clear that climate change adversely affects the people and communities that comprise the social sector, and that the social sector is a part of the driving force behind climate change. However, not all hope is lost. There exist multiple non-governmental organizations such as the Canadian Red Cross, the David Suzuki Foundation, and many more that are working towards aiding the population when it comes to climate change.

The Canadian Red Cross is committed to aiding those affected by emergencies and disasters. One of the most significant impacts that the Canadian Red Cross has had is in disaster relief; providing clean drinking water, food, shelter, medical supplies, and general aid to victims of natural disasters. Evidence of this is clear: from 2016 to 2017, the Canadian Red Cross came to the aid of 147,586 Canadians, and more than 2.8 million people globally (Cross, para. 13).

The David Suzuki Foundation is another organization that focuses both on helping the environment and educating the public about climate change and solutions they can implement into their own lives. Founded in 1990, the foundation helps to create a sustainable Canada through evidence-based research along with education and policy analysis. With their focus being environmental rights, climate solutions, and biodiversity, they are working to "*protect the diversity of nature and our quality of life, now and for the future*" (Suzuki, para. 5).

In summation, climate change is a multifaceted issue that alters Indigenous, rural, and urban communities in a myriad of ways that are beginning to be understood. Moreover, climate change is being driven and exacerbated by the decisions people make, from demand of fossil fuel products to consumer waste. In addition, there are organizations such as the Canadian Red Cross and David Suzuki Foundation that are focused on coping with the disastrous effects of climate change and working on the transition between climate change as despair to climate change as a possibility.

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