

Background

The intention of this document to define a set of recommendations for consideration by and to stimulate a dialog among concerned and informed members of the public with the intention that elected representatives, civil servants, and policymakers implement plans to achieve them.

This document contributes toward a Climate Action Plan that is being developed by the Climate Action Team (CAT) with public input. CAT is a collaboration of the Green Action Centre, Canadian Centre for Policy Alternatives (CCPA), The Wilderness Committee, Climate Change Connection, and Manitoba Energy Justice Coalition with financial support from the Winnipeg Foundation and contributions from other academic, environmental, and social justice organizations.

Objective of this Discussion Paper

What needs to be considered and what changes might need to be implemented in order to achieve the objective of climate change resilience for food in Manitoba? The key is local¹ food:

“All of the food that we eat must be produced without inorganic fertilizer or synthetic pesticides and without diesel for the machinery.”

This paper suggests objectives that we need to achieve. Implementation planning is subsequent and must be achieved with consideration for cultural, generational, and economic justice lenses.

The Climate Action Team welcomes your suggestions and comments.

The ideas below are offered as suggestions for consideration.

- What other areas are missing that you feel should be addressed?
- Are any of them unnecessary?
- Have we included the correct topic area but our approach is inadequate or inappropriate?
- Do you have suggestions for how to implement these suggestions?

Email us at climateaction@greenactioncentre.ca

Current State

Much of the food Canadians put on their tables comes from far away. According to Hellmanns' "Buy Canadian Local Food" video from 2006, Canada's food imports increased 160% in the previous 16 years while our population only increased by 15%. At that time, 53% of our vegetables were imported and virtually all of our fruit.

Because almost every food is available to us year-round, people have come to expect it. To meet that expectation, the food supply chain has become massive and global in reach. This reliance puts us at risk. Conflict, climate change, and politics can affect not only the price of food, but also its availability. If that global supply chain were to be

¹ i.e. Originating within the province or within 160 km (100 miles) of where consumed

disrupted, many Manitobans and especially Winnipeggers would quickly lose access to most of the foods they currently enjoy and could face real hunger.

The global food system also relies heavily on oil. Fuel, fertilizers, and pesticides are the main input components of monoculture crops that make up the bulk of our global food system². Land for both crops and livestock are now heavily degraded, experiencing compaction, salinization, desertification, and nutrient deficiencies.³

Much of the food that we put on the table comes from elsewhere and much of what we produce is for export. Much of the value-added processing is done outside of our province. Our farms have gotten larger and people have been moving off the land and into cities. We are losing essential knowledge of what to grow, where, and how.

Much of the global food system is owned by huge, global corporations. Today, just a handful of corporations dominate large shares of the market all along agrifood supply chains, including seeds and agrochemicals, farm machinery, inorganic fertilizers, and synthetic pesticides. Hence, these companies usually dictate prices, terms and conditions, and increasingly, the political framework.⁴

There have been a lot of ups and downs but since the early 1970s, the trend has mostly been toward Manitoba's farmers working at tighter margins.⁵ In order to meet the demands of this high-volume, low-cost paradigm, our producers have been compelled to use more and more mechanization and inorganic fertilizers & synthetic pesticides (e.g. anhydrous ammonia) for crop production and large herd industrial feedlot and antibiotic intensive livestock production.

We also waste a lot of food and do not make use of organic waste for soils. According to a 2017 National Zero Waste Council study of household food waste in Canada, 63% of the food Canadians throw away could have been eaten.⁶ Approximately 40 percent of residential waste and 30 percent of industrial, commercial and institutional waste that ends up in Manitoba's landfills are organics.⁷

First Nations communities without access to all-season roads face extremely high rates of food insecurity.⁸ They depend upon traditional sources of food (hunting, fishing, gathering) but in some cases the availability of game such as caribou has become less dependable.

² Bioversity International, 2017. Mainstreaming Agrobiodiversity in Sustainable Food Systems: Scientific Foundations for an Agrobiodiversity Index. Bioversity International, Rome, Italy.

³ A. Rosen, 2015, *Restoring Soil Quality to Mitigate Soil Degradation*, Ohio State University, <https://www.mdpi.com/2071-1050/7/5/5875/htm>

⁴ EcoNexus, 2013, *Agropoly – A handful of corporations control world food production*, https://www.econexus.info/sites/econexus/files/Agropoly_Econexus_BerneDeclaration.pdf

⁵ P. Blawat, P. Ag. Policy Economist MAFRI, *Manitoba Perspective on Cost of Production Trends*, "Real Farm Product Price Index (FPPI) vs Farm Input Price Index (FIPI)"

⁶ <https://lovefoodhatewaste.ca/about/food-waste/>

⁷ Made-in-Manitoba Climate and Green Plan ideas for waste: <https://www.gov.mb.ca/climateandgreenplan/index.html>

⁸ B. Kristen et al, 2017, Public Health Agency of Canada, *Retail food environments, shopping experiences, First Nations and the provincial North*, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5674764/>

Suggestions for a Future State

How might we meet this challenge: “All of the food that we eat must be produced without inorganic fertilizer and without diesel for the machinery”? We suggest that the key will be more local production, processing, & distribution of natural, nutritious food. The following pages include topics for consideration:

Consumption

What we demand as consumers will mean success or failure for this transition. When making food choices, we need to follow **the Rule of Five “N”s**:

- **Nearby** - Buy food produced by farmers that live close by, to greatly reduce the pollution created from transporting food all around the world.
- **Naked** - Choose food that doesn’t have a lot of packaging.
- **Nutritious** - Buy food that is high in nutrients and low in preservatives and other chemical additions.
- **New Now** - Eat Canadian fruits and veggies at the time of year they grow, or grow your own in your garden.
- **Natural** - Choose organic, for food that is produced through holistic means, with no chemical inputs.

Less food waste

We need to identify where food is wasted in the system and reduce its causes. For example, we can reduce a lot of food waste by changing our expectations as consumers. We need to better understand what is edible. For example, packaged food with “Best Before” dates are often treated as inedible as soon as the date passes.

Compost

Any residential, industrial, commercial and institutional organic waste that cannot be prevented needs to be collected, composted, and returned to the soil to be used as an excellent soil amendment for farming, gardening, and landscaping. This includes home composting and residential collection. Collection will also be necessary for organic waste from locations with significant volumes of organic waste such as apartment blocks, restaurants, and grocery stores. Collection vehicles must be electric.

Price

As consumers, we need to consider overall value above price. However, we need to explore strategies to enable nutritious food to be competitively priced and affordable.

Production

Organic, Permaculture, Regenerative Agriculture

We need to adopt, encourage, and enhance farming principles and practices that increase biodiversity, enriches soils, improves watersheds, and enhances ecosystem services. We need to capture carbon in soil and above ground biomass. In other

words, we need wholesale adoption of [Permaculture](#), [Regenerative Agriculture](#) and other organic farming, agroecology, and agroforestry practices.

More table food, Less primary commodities

Agricultural production needs to focus on providing more of the food we put on our table and less on production of primary commodities for export.

Home and Community gardens

People who have yards should be encouraged and enabled to produce more of their own food. We need to encourage gardening clubs like [Manitoba Master Gardeners Association](#) and other learning opportunities.

Municipalities need to allocate and provide greenspace for community gardens. They also need to provide some essential services to these gardens and gardeners:

- Spring tillage
- Compost facilities & management
- Garden club organization
- Water collection & distribution
- Security fencing & lighting
- Learning opportunities

Learning opportunities include workshops on food preservation, canning, and dehydration.

Remote Communities and Traditional foods

Indigenous people and other remote area residents need access to hunting, fishing, and gathering. We need to protect our wild spaces. We need to promote growing more food locally in remote communities. We might consider replicating the example of [Growcer](#) in Churchill or [Meechim Farms](#) in Garden Hill First Nation.

Processing

In general, and according to the Rule of Five “N”s above, we need to consume less processed food. What we do consume should be produced within Manitoba.

Transportation

Local production and processing usually means shorter transportation distances. Local producers who sell to Farmers Markets currently need to bring their goods into town every day. Transport could be reduced if there were shared facilities for temporary storage within towns. (We will have another chapter dedicated to Transportation. That chapter will include subjects such as electrification of goods transport.)

Storage & Distribution

We need to ensure that locally produced food is made available to consumers. We need to connect the producer to the customer more closely. The local food needs to be brought as close to the consumer as possible. This means going beyond the Farmers Market approach and into retail food chains and stores. This would include promotion and enhancement of the [Community Supported Agriculture \(CSA\)](#).