

# Every Bite Counts

## Climate Justice and BC's Food System

### Summary

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**THE ABUNDANCE OF THE MODERN SUPERMARKET** is the ultimate product of a post-WWII food system based on industrial-scale agriculture, cheap fossil fuels and global trade. Examining our food through a climate change lens, however, suggests a rethink is in order—from reducing the greenhouse gases produced throughout the food system, to making the food system resilient to supply disruptions. BC also needs to develop a more just distribution of food, better support farmers, farmworkers and fishers, and seek healthier nutritional outcomes from our food system.



This is not a task that can be left to market forces alone. It calls for a more coherent planning framework at all levels of the food system. The supermarket cannot ensure food security, which according to the Community Nutritionists Council of BC, “exists when all community residents obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for everyone.”

Such a systems approach to food is becoming widespread in BC and other jurisdictions. BC is starting in an excellent position to move forward, with most domestic food production occurring on small farms, while ties to local markets have been strengthening through initiatives like weekly farmers' markets, community shared agriculture projects, and home delivery services. BC also has the Agricultural Land Reserve (ALR), although its erosion in recent years is cause for concern. These ingredients point towards a food system that could be, with strong public policy actions, just and sustainable.

by Marc Lee, Herb Barbolet, Tegan Adams and Matt Thomson

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Examining our food through a climate change lens suggests a rethink of BC's food system is in order. Fortunately, the province is in an excellent position to move forward.



## ADAPTATION AND SELF-RELIANCE

The food crisis of early 2008 painted a potentially dystopic future of increasing food shortages due to (among other factors) accelerating climate impacts. While we do not know exactly how climate change will affect global food supplies over the next few decades, we have good reason to be concerned that a warming world will be one that systematically affects crop yields due to changes in precipitation patterns and higher temperatures, plus periodic extreme weather events, diseases and insect infestations that will hammer global supply chains.

BC imports about half of its food, making the province vulnerable to food supply disruptions and price spikes. A top priority is for a BC food planning framework that enhances resilience and self-reliance, while reducing dependence on imports and large global agribusiness. This must be balanced against the benefits of trade in providing a variety of foods and a diversified food supply, and that guards against domestic disruptions due to climate change.

A food planning framework must include targets related to BC production for the domestic market to be effective. If BC could shift just 1.5% of its overall consumption per year to local sources, the province would supply 80% of its food needs by 2030. Based on projected population growth, achieving this target will require a doubling of production from current levels.

Farmers are the only part of the BC food system that do not have a high degree of corporate control. That market power means farmers are often squeezed in the middle, often receiving only a small fraction of the retail sales price. History has demonstrated that public or cooperative institutions in support of domestic production can benefit farmer incomes as well as matching supply and demand. Although not without its problems, this is clearly the case in the supply-managed areas of BC agriculture (dairy, eggs and poultry), a model—with

added transparency and accountability—that could be implemented for fruits and vegetables, meat and other products.

In addition, wages and working conditions for farmworkers should be improved. An increasing number of farm workers in recent years have come into the province as temporary migrants, leading to the bizarre outcome that the aspirational 100 Mile Diet could be made possible by imported workers from as far as 3,000 miles away. Improving wages and working conditions for these workers (and giving them a real path towards citizenship) must be part of a new deal for farms. Public or cooperative institutions can improve incomes for both farmers and workers.

The Agricultural Land Reserve is a tremendous asset that other jurisdictions in Canada do not have. Removing productive farmland from the ALR to build highways and new sprawling suburbs is incredibly short-sighted. More farmland, if anything, will be required to accommodate a larger population, and challenges to the land base arising from climate change (a higher percentage of land may be made unproductive in any given year due to flooding or extreme weather events). Bolstering the ALR would also serve a double purpose as urban containment, facilitating the transition to “smart growth” or more sustainable and compact communities in urban centres.

Alternative supply networks have grown rapidly in recent years (including farmers’ markets, Community Shared Agriculture, and home delivery services) but still represent a very small share of the market. Proposals such as the New City Market food hub would serve to remove bottlenecks in processing, storage and other ancillary services in support of local farms.

The development of local and sustainable food systems can also be supported by leveraging the purchasing power of large public and non-profit institutions in urban areas, including schools, hospitals, universities, prisons, and social housing units. If a growing portion of food budgets in the public sector were dedicated to local food sources, the multi-million dollar impact would be transformational in creating a more localized food system.

A new sustainable approach to the harvesting of seafood that supports workers and communities is also needed. Creating significant marine reserves to help restore some lost stocks and ecosystems, and a return to small-scale fisheries could provide numerous benefits, including job creation, local control, reduced fossil fuel consumption and less pressure on increasingly threatened fish stocks. New models for small-scale fisheries could include the fishing equivalent of Community Shared Agriculture initiatives by linking local fishers to urban consumers (the first of its kind was started in Vancouver in 2009).

## MITIGATION AND SUSTAINABILITY

Food production is also a contributor to climate change—the greenhouse gas (GHG) emissions associated with food production in BC, and through our imports of food from other jurisdictions. While official statistics put agriculture well down the list of global warming culprits, these numbers count only a portion of agriculture’s footprint. If we add in fossil fuels used on BC farms and in tractors, the transportation of fertilizers and feed to the farm, and the movement of product to market, GHG emissions from agricultural production in BC are much higher. From a consumption perspective, which adjusts for imports and exports, emissions from the food that British Columbians eat total about 6 million tonnes of carbon dioxide equivalent, almost triple the official estimate.



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As in other parts of the economy, phasing out fossil fuels will be needed from BC's agriculture sector, including:

- Shifts in technology on farms and in the field. This is likely to be electrification, with limited and local use of biofuels (from farm organic wastes, that is; conversion of farm land to growing crops to be used as biofuels elsewhere should be avoided).
- Breaking from the industrial food chain, which uses fossil fuels to manufacture and transport synthetic fertilizers.
- Use of lower-emission modes of transportation (planes and trucks are the highest emission modes), and reduce overall distances that food travels.



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Livestock emissions are also a major part of GHG emissions associated with food. Cattle, in particular, produce large amounts of methane in their digestive processes. From a nutrient management standpoint, grazing cows for beef could reduce food system emissions if their manure is managed properly. Reducing the demand for meat would also allow for pastured animals, eating what nature designed for them to eat and returning to the land the untainted fertilizer the land requires.

## FOOD DEMOCRACY AND FAIRNESS

The term “food democracy” was coined by the UK’s Tim Lang, and refers to the struggle “to ensure that all have access to affordable, decent, health-enhancing food.” This concept challenges corporate structure and control of food, and goes beyond the adequacy of food supply, to stress “decency and social justice in the food system’s wages, working conditions and internal equity.”

BC is afflicted by hunger among its poorest citizens. Food insecurity, in addition to physical consequences, can also have a negative effect on psychological and educational outcomes for children and social functioning in adults. Community-based food initiatives—including food banks and a range of other institutional and community resources—represent an inadequate front line in Canadian responses to food insecurity.

An over-arching concern in a shift towards a more sustainable and resilient food system is the potential impact on the cost of food. The 2008 surge in prices for basic staples revealed potential vulnerabilities down the road. Existing inequalities in society are likely to be exacerbated by climate change and by climate policies—if those inequalities are not actively considered in the design of policies.



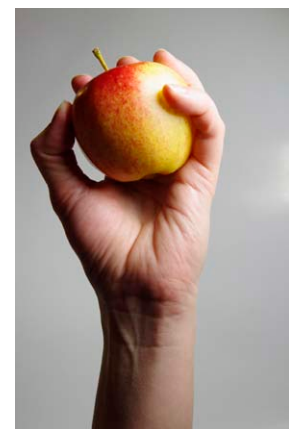


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Because adequate access to healthy food is deeply linked to its cost, any price increases in food will result in greater food insecurity and/or increased malnutrition for vulnerable populations, both in Canada and abroad. Addressing income security is therefore a key component of meaningfully addressing food security in Canada and BC. The concept of a living wage is one important piece, as individuals and families need to be able to earn enough income from work to afford decent, healthy food.

Historically, policy approaches to food, housing and health have occurred in silos—and been characterized by policy failures. Currently, taxes pay for the societal costs of food insecurity and poor nutrition through the health care system. A more integrated approach to housing and food would also make great advances in reducing hunger, improving nutrition and health outcomes, while reducing numbers at the emergency room door. New investments in social housing are needed in BC, including supported housing models for people with health, mental illness and/or addiction issues, as well as affordable housing options for the working poor. Coordinating food programs in social housing in support of local, sustainable agriculture has great potential for win-win outcomes through bulk purchasing, community kitchen and meal programs.

That said, barriers to food security for marginalized populations are numerous and complex. In addition to income, challenges include the absence of nearby grocery stores selling fresh and nutritious food, travel costs associated with accessing distant grocery stores, lack of food preparation and storage on-site. Developing nutritious food programming for individuals who suffer from mental health issues, addictions and disabilities must be sensitive to the needs and capabilities of particular individuals.



## RECOMMENDATIONS

Many of the issues we raise in this paper are being studied at the regional and municipal levels in BC. However, key policy levers are provincial in nature. We therefore recommend the following steps be taken by the BC government:

1. **DEVELOP A PROVINCIAL CLIMATE AND FOOD PLANNING FRAMEWORK.** A top priority is a rethink of BC's food system to be more just, resilient to climate impacts, and sustainable in terms of greenhouse gas emissions. The framework should build on food planning initiatives underway in Metro Vancouver and other parts of BC, and should set targets and timelines for local self-reliance, food system GHG emissions, hunger and nutrition.
2. **SHIFT TO 80% FOOD SELF-RELIANCE BY 2030.** To be more resilient to climate impacts, BC should steadily increase production for the domestic markets. This will require shifting domestic consumption away from imports, while ensuring balanced trade arrangements to guard against domestic supply disruptions.
3. **IMPLEMENT NEW INSTITUTIONAL ARRANGEMENTS.** A range of options, such as supply management or cooperatives, are possible to bolster BC's self-reliance and to ensure that agriculture is an economically viable activity. Farmers, distributors and other stakeholders should be engaged in developing the parameters for new institutions.
4. **STRIKE A BETTER DEAL FOR FARMWORKERS.** Wages, housing and working conditions for farmworkers also need to be improved. The growing numbers of migrant workers should also have opportunities for citizenship.
5. **PROTECT AND EXPAND THE AGRICULTURAL LAND RESERVE.** Removals from the ALR should cease immediately. Opportunities to bring in additional land under protection should be seized.
6. **LINK LOCAL FOOD TO URBAN INSTITUTIONAL BUYERS.** Channeling provincial public sector procurement is an essential means of scaling up local, sustainable food. A steadily growing percentage of food budgets should be allocated to the sourcing of local food, and these budgets should also be grown over time. Schools, in particular, are an ideal place to make the connections between community gardens, local agriculture, nutrition, and meal programs.
7. **CREATE SUPPORTIVE INFRASTRUCTURE.** Strategic interventions can assist small producers to overcome barriers to meeting local demand. Investments in food precincts and hubs, local processing facilities, local abattoirs, food storage and coordinated transportation networks would all foster the development of a local, sustainable food system.
8. **DEVELOP A NEW FRAMEWORK FOR SUSTAINABLE FISHERIES.** As in agriculture, supportive institutions are needed for fisheries, both in terms of the long-term viability of wild fisheries, and to ensure stable incomes for fishers. Developing robust connections to local markets is a priority.



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9. **EVALUATE AND SUPPORT RESEARCH IN GHG EMISSION REDUCTIONS IN AGRICULTURE.** Direct support for research on GHG mitigation through alternative agricultural practices, specific to the BC context, is needed (for example, UBC Farm). There are also opportunities to pioneer clean energy alternatives to fossil fuels in agricultural buildings, machinery and equipment.
10. **TAKE HUNGER OFF THE TABLE.** A range of tools are needed to raise the incomes of low-income households. Ensuring workers can earn a living wage and adequate income support programs are essential to reducing hunger. These calculations should explicitly consider food price changes that may arise from the transition to more localized and sustainable food production.
11. **SUPPORT INTEGRATED FOOD, HOUSING AND HEALTH PROGRAMMING.** Breaking out of silos presents great opportunities to improve the health and quality of life of vulnerable populations. Housing programs should build in flexible food options and infrastructure that meet the social, cultural and nutritional needs of their residents.

## THE CLIMATE JUSTICE PROJECT

The Climate Justice Project is a multi-year initiative led by CCPA and the University of British Columbia in collaboration with a large team of academics and community groups from across BC. The project connects the two great “inconvenient truths” of our time: climate change and rising inequality. Its overarching aim is to develop a concrete policy strategy that would see BC meet its targets for reducing greenhouse gas emissions, while simultaneously ensuring that inequality is reduced, and that societal and industrial transitions are just and equitable.



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