

### The Arbutus Community Garden Report

Most people are ecstatic for the accelerated modernization and urbanization, which bring various applications of intelligence and provide incredible convenience to human lives. But I also see the other side of this so-called convenience: the detachment and alienation of the relationship between products on shelves and labour due to the globalized distribution of the supply chain. In this case, most people could barely link processed food packed in colorful branded cartons with soils and sunlight at the other side of the globe.

With the Vancouver's "sustainable city" goal, I see the city's endeavor of generating a more sustainable local food system; for example, the popularity of redeveloping old vacant sites for community gardens is a great improvement. Looking at the City of Vancouver Community Gardens Map ([vancouver.ca](http://vancouver.ca)), I identify a lack of community gardens around the Arbutus community region. I find an idle grassland to be a perfect candidate for a proposed new community garden for the region; this site is next to the Prince of Wales Secondary and belongs to the Prince of Wales Park. The total proposed garden space, usable garden space, anticipated yields, etc., are summarized in the table below [Table 1].

	<b>Area (square meters)</b>	<b>Anticipated yield (kilos)</b>	<b>Yearly fed people</b>	<b>Overall value of growing vegetables (\$)</b>
<b>Total garden space</b>	10522			
<b>Garden path space</b>	1128			
<b>Total usable green garden space</b>	9394	22546	188	\$70230

**Table 1: Approximate space and yield of the Arbutus Community Garden**

Considering that the Prince of Wales Secondary locates right next to this site, the education function of the proposed garden cannot be ignored: agriculture transforms the vacant land into biologically productive space, which reinforces the idea that food is not obtained from supermarkets and trucks, but the soils in front of us. According to a research in 2016 (Rao et al.), 1 in 7 Canadian children and youth is in obesity and the rate of excessive weight has been relatively stable over the past a few decades; excess weight is a key high-risk factor for chronic disease. I find this social feature of the massive obesity problem links to our disputable food system: the globalized production and manufacturing promote the detachment of soils and food, resulting in excessive highly-processed food with appealing looking, high pleasure, high caloric density, but very little nutrient embedded. In this case, with plentiful hands-on activities contacting with soil and plants directly, children are more likely to be familiar with, identify the

nature of, and build a relationship with their food in plates through the growing process: the community garden promotes the accessibility of healthy food options.

Another specific benefit for this site can be indicated from the demography of the neighbourhood. According to the Vancouver 2011 Census tract ([data.vancouver.ca](http://data.vancouver.ca)), the Arbutus community's population has a median age of 45 years old, which is much higher than those of communities like Downtown (38 years old) and Kitsilano (37 years old); this pattern indicates the high percentage of retired people in this neighbourhood. I find a petition online about this neighbourhood's aspiration for a new community house and a senior recreation centre. This high percentage of seniors and their willingness for more interaction and communication opportunities coincide with a practical function provided by the new community garden: it creates a social space for residents to engage in healthy therapeutic physical labour while enabling fruitful viewpoint exchanges; this activity may be more beneficial comparing with most people's sedentary lifestyles. Furthermore, since a large number of residents are elders who have abundant time for activities in the garden, the continuous operation of the garden may provide considerable production. This production can further be monetized to provide support for their following gardening training and seeds purchase. This ample production may recognize the financial interests of the garden and move the agendas forward. The food production can also be beneficial to local food banks to create tremendous social values.

In addition to the older population, I also find the Arbutus community's low-density pattern due to the popularity of detached bungalows in this neighbourhood. This limited resident population indicates that the annual yields of this garden may feed a large percentage of the whole neighbourhood. A prominent concept of eating "organic" and "farm-to-table" food attracts many people recently. With these healthy and self-grown vegetables from the community garden near home in replace of food labeled "Mexico" bought from grocery stores, residents could enjoy their labours while reinforcing their connection and sense of this neighbourhood.

The increasing nutrient value of food and residents' physical labour would certainly promote their health conditions. On the other hand, if more people are engaged in growing food by themselves, the decreased margins on processed food would discourage advertisements and marketing of such manufactured food to families and children (Nestle, 2007) and contribute to a more sustainable and healthy diet. Some researchers have found that gardeners are more willing to eat vegetables than others (Alaimo et al., 2008; Carney et al., 2011); with consumption of healthy vegetables, people are less likely to consume massive sugar and fat, which are the main causes of diabetes, obesities and other chronic diseases (Blair et al., 1991). That's to say, community gardens would have directly positive impacts on residents' diet. Andreyeva et al. (2004) have shown that the level of obesity has a positive relationship with healthcare expenditure. In regard of this evident health benefit, the decreasing healthcare expenditure due to the increasing health conditions is of great social importance.

Lastly, I would like to clarify some other ecosystem functions, in respect of contributions to the local environment, as such a community garden could provide. Since the vacant land is dominated by grass right now, which has a low biodiversity with several ruderal species, reinvigorating this site for a more biodiverse garden may contribute to an increasing local biodiversity. With more micro-habitats provided by the garden, more species may reside and flourish, strengthening the connection of discrete habitats in the broader region. The garden's function of reducing stormwater runoff is also indispensable: copious plant species could increase the porosity of soils, which enhances the infiltration rates during a storm; plant leaves intercept precipitations and promote evapotranspiration, further decreasing the runoff goes to sewage systems, which hampers the hydraulic ecosystems. Leaves' evapotranspiration also cools the air: this cooling effect mitigates the urban heat island effect and decelerates the formation of ozone (Douglas & James, 2015). Vegetation's photosynthesis sequesters carbon in the air, alleviating the global climate change; this carbon reduction can also be facilitated in another manner: the decreasing food miles and ecological footprints due to the community garden's production promote extensive fossil fuels emission reduction from shipping and manufacturing.

I recognize that this site may be useful for potential future development for affordable housing, which may relieve the housing pressure due to increasing demand and population of the city. But redeveloping this site for a new community garden for now would be of great importance to the local food system, people's health, decrease the healthcare expenditure, and numerous ecological benefits to both local and the region.

Above all, as Finley (2013) said in his TED lecture, gardeners are the artists and gardening is the graffiti. It's amazing to see how a little grasp of soil can give birth to numerous incredible plants, which have strong influences on people in return. A large number of people take little time to consider that eating, the very act we conduct every day, is an agricultural act; but with the dedication for more community gardens, the Arbutus community garden, in this case, we are able to gain a more sustainable social and cultural system build on soil, the base of human lives.

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