Increasing food security in northern communities in Canada:

Food security is a complex and globally important issue, and northern communities in Canada face particular challenges in this regard, as a result of the relatively harsh climate, short growing seasons, and high import rates and shipping costs.

Food security refers the three pillars of availability, access and use, relating to a nutritious diet. <http://www.who.int/trade/glossary/story028/en/>

The scale of the challenge varies geographically within Canada, with greater issues in the northern territories. <http://www.statcan.gc.ca/pub/82-624-x/2015001/article/14138-eng.htm> The category is documented in detail. <http://www.statcan.gc.ca/pub/16-201-x/2009000/part-partie1-eng.htm> Pricing premiums in Nunavut are illustrated in this article: <http://www.theglobeandmail.com/news/national/the-north/why-is-food-so-expensive-in-nunavut-shop-for-yourself-and-find-out/article15915054/>

Considerable efforts go into lobbying and advocacy. <http://foodsecurecanada.org/>

Recent technological advances may substantially improve food security in the Canadian north by making it practical to grow food locally. These technologies will make it possible in the near future to grow food in energy-efficient, highly insulated enclosed growth chambers. The introduction of these closed growth structures will make it cost-effective to grow food locally, and therefore will substantially reduce the cost (and energy) currently expended shipping food into these communities, while also increasing the nutritional content of the food available within the communities. Many researchers, including several research groups here at UBC, are working on new technologies that will make this practical and economically feasible.

This project focuses on the possibility of improving food security in these northern communities by significantly increasing the amount of food that is produced locally. Local food production could result in considerable potential benefits (economic, social and environmental) and your analysis should cover all of these dimensions.

For the purpose of this project, you should assume that it is technologically possible to reliably and affordably produce food (for example, fruits and vegetables) that today cannot be readily obtained year-round or stored for long periods of time. In other words, do not focus your analysis on potential technological challenges related to northern food production, but rather focus on the potential non-technical barriers such as those associated with social well-being, community engagement, and cultural practices. You can also assume that it will be economically feasible to continue to ship some easily stored foods (such as grains) and that the majority of protein requirements can be met through traditional hunting and fishing practices.

Your task: Should the Government of Canada invest in a food security strategy that relies on a significant increase in local food production? If yes, what would you recommend as an implementation strategy, focusing on the primary barriers that proponents should expect to face, and the key activities that they could use to overcome these barriers? How will the Government know if its strategy has succeeded? If no, is there another approach that you would recommend for improving northern food security?

An effective analysis will clearly identify the decision-making criteria and provide appropriate quantitative justification for the conclusion and any suggested implementation plans.

Your analysis may include addressing some of the following questions:

* What are the most significant benefits of local food production, and can you quantify the value of these benefits to the community?
* What are the most significant barriers that are likely to be faced?
* Who are the key stakeholders and influencers?  Are they likely to support or oppose the initiative?  How can they be engaged?
* What makes northern communities unique and might these factors influence a food production strategy?
* What is the demographic and cultural make-up of these communities, and how might that influence the strategy?
* Are there any successful (or unsuccessful) government initiatives in Canada that we could draw on as an example, and what is the relevance of these examples to the food security challenge? How were decisions made in those examples?
* What are the potential risks or pitfalls that could impede progress?
* Is Canada facing a unique challenge in this regard? Have other northern countries taken steps to increase local food production, and if so is there any knowledge that can be translated to Canada from other initiatives?