



# Four key ingredients for planning resilient urban food systems

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# Four key ingredients in planning for food resilient cities

## On the Menu

### What is distancing?

- ✓ Justice: Centering the voices of equity deserving communities
- ✓ Breaking institutional siloes: A systems approach:
- ✓ Closing the loop
- ✓ Conclusion: The role of a food system planner

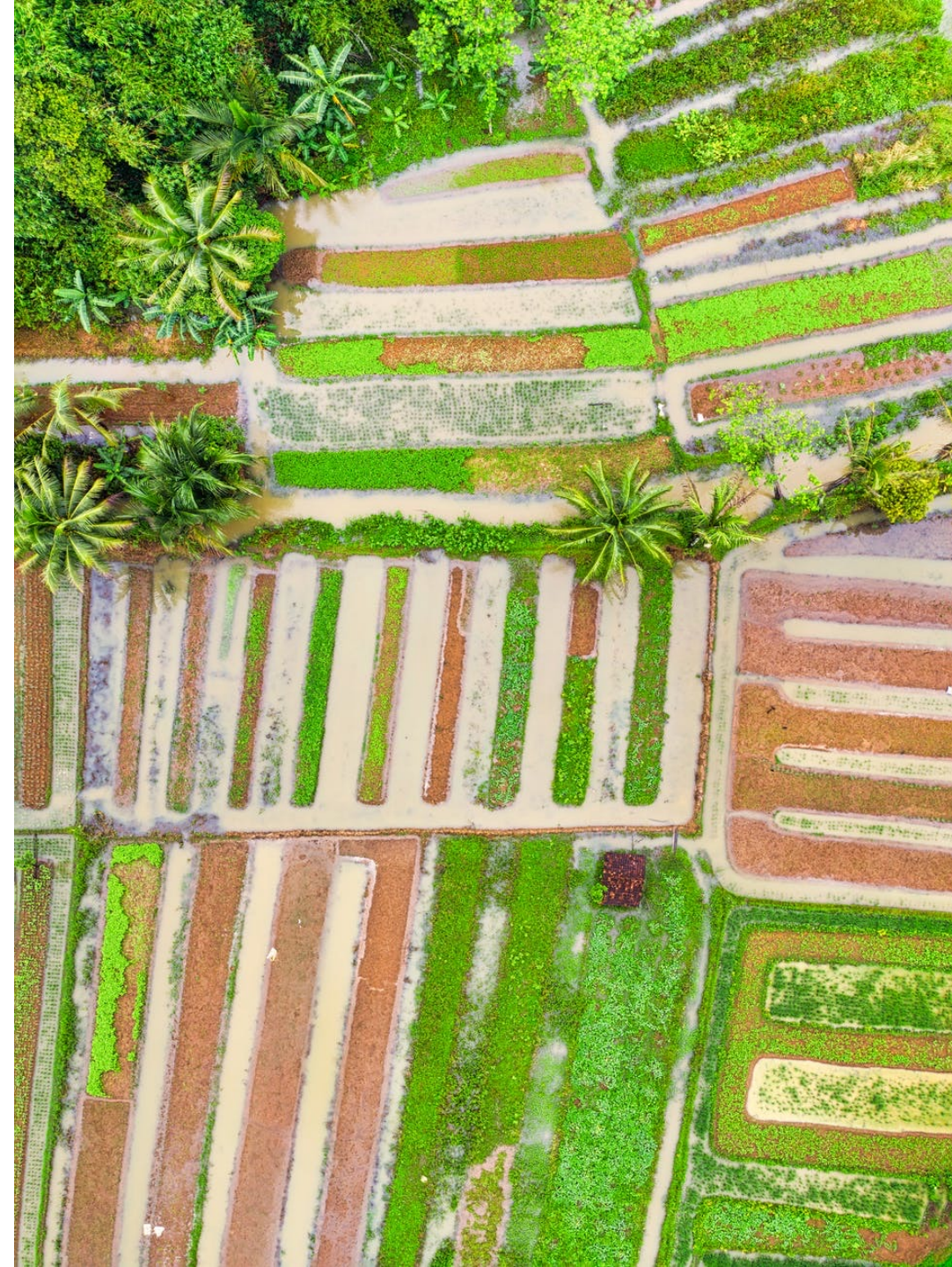




# Food system

Food system is a chain of activities that connects food production, processing, distribution, consumption, and waste management, as well as all related regulatory institutions and activities.

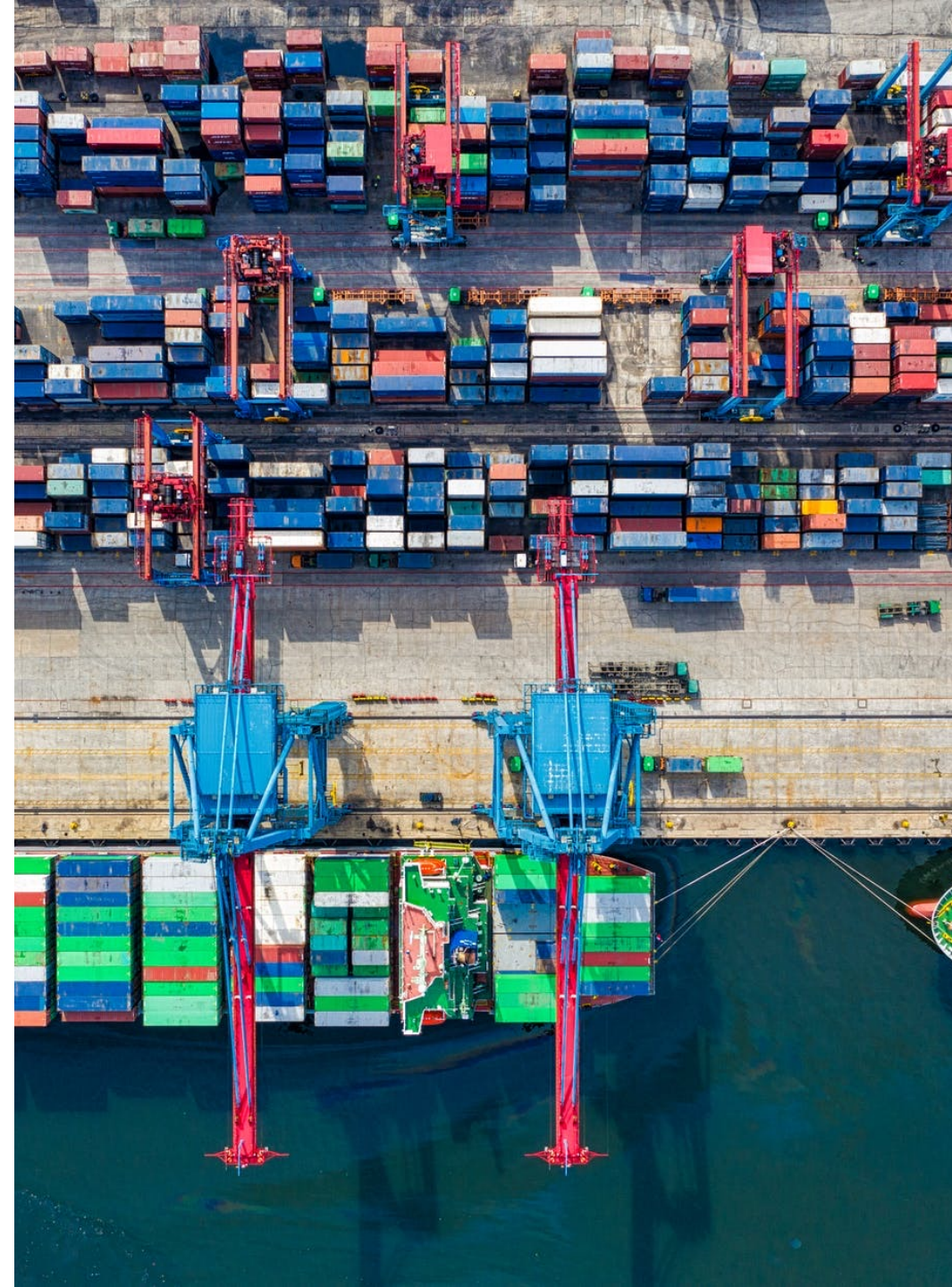
(Pothukuchi & Kaufman, 2000)





# Distancing: rapid urbanization

- The separation between primary resource extraction decisions and ultimate consumption decisions occurring along four dimensions—geography, culture, bargaining power, and agency. At one extreme, zero-distance is production and consumption by one household or individual; at the other extreme, it is global, cross-cultural, and among agents of disparate abilities and alternatives. (Princen, 1997)
  - The greater the distancing on any of several dimensions, “the greater the likelihood that ecological feedback will be severed and resource overused”
- ✓ Spatial distancing
  - ✓ Mental distancing





# Spatial Distancing

“Before I used to grow cassava, bananas, corn ... now the land has been used to build those big houses ... near my house there used to be trees, *rambutan* trees, banana trees, cassava, different types of trees, there were some folks who planted spinach, tomatoes and other vegetables. When we needed food, we just picked it. Now it’s so difficult...”

(Ayu, low-income respondent, in Soma, 2017)



## Confronting the 'perfect storm': How to feed the future



CBC Radio · Posted: Nov 16, 2017 3:50 PM ET | Last Updated: November 16, 2017



Douglas Rasugu sees a lot of food waste on bean farm in Kenya - and it's mostly due to picky consumers and their high aesthetic standards. (Stephen Dagg, [www.stephendagg.com](http://www.stephendagg.com))

Up to 60% of the French beans grown goes to waste because it does not meet the aesthetic standard of an international market.



# Mental distancing

Clapp (2002) argues that due to distancing, there is diminished accountability and responsibility on the part of the consumers, retailers and producers.

How food is curated in modern supermarkets in Asia contributes to distancing.

1. Shifting towards more complex long distance food supply chain;
2. The role of food packaging in distancing and transforming food waste management from on-site to municipal collection;
3. Lack of connection to vendors, farmers etc.





# Benchmarking cities' food system engagement (Acharya et al., 2020)

- **Proactive:** Urban food work that is forward looking to future problems or opportunities.
- **Integrative:** Urban food work that is multisectoral in scope and involves coordination. Food issues are interconnected and it's important to move beyond traditional siloes.
- **Inclusive:** Urban food work that gives priority to those disadvantaged, vulnerable etc.



# Appetizer (Setting the direction- Inclusivity)

## Justice: Centering the voices of equity deserving communities

- In Vancouver, 1 in 3 Indigenous children live in poverty
- 1 in 5 recent immigrant households face food insecurity
- 62% food bank users in the Greater Vancouver area noted that food banks were not enough to meet their daily household food needs. (Holmes et al., 2019).
- During the pandemic, Park Board nurseries and gardens and golf courses pivoted to producing food and were able to provide food for 170,000 meals, and 3500 frozen meals made of locally grown foods for communities living in single room occupancy unit.

### Journey to equity

We're dedicated to co-creating city building processes and systems that intentionally create and hold space for empowerment and honour the needs of the most excluded, on their terms. In order to carry out this work, it's essential to acknowledge existing injustices, biases, racism, and oppression—and to not only ask who is not at the table, but why aren't they and how can they be?

Equity is a global challenge that bears responsibility at all levels of government and in our community. Through a systemic view of equity, we aim to support and inform a citywide framework, to develop Park Board policies and to catalyze local action.



### G.6 RECONCILIATION

*Focus reconciliation efforts on decolonizing the Park Board and relationship building with Musqueam, Squamish and Tsleil-Waututh First Nations.*



# Opportunities

## RECREATION

### APPROACH FOR ACTION

#### R.3 LOCAL FOOD

*Support access to sustainable, local and healthy food.*

Don't only ask "who is not at the table" but "why are they not at the table?" and "how can we ensure their presence at the table?"

- Community advisory council
- Honorarium/ recognizing community's time and expertise
- Alternative approaches to facilitation (accessible and inclusive)

#	INITIATIVES	TIMELINE
R.3.1	Encourage <b>food-focused programming and infrastructure</b> for formal and informal gatherings that facilitate growing, cooking, eating and sharing of food in parks and community centres.	Underway
R.3.2	Work with Musqueam, Squamish, and Tsleil-Waututh First Nations and Urban Aboriginal communities to <b>support Indigenous food systems in parks and recreation</b> .	Underway
R.3.3	Facilitate access to local, secure, healthy food through concessions and restaurant partners (leases), community centre kitchens, farmers markets, community gardens, and field houses (Update the <b>Local Food Action Plan</b> ).	Short



Food Trucks and Street Food Festival | Park Board



# How we engage: Our commitment

We commit to listening, learning, and centering the perspectives and voices of the Host Nations. We intend to do food work in a good way.

1. Honesty
2. Accountability
3. Humility at every step of the way.

We confirm our commitment to decolonizing the food system.





# Main (Integrative) Breaking institutional siloes: A systems approach

## Vancouver Food Bank warns against unwanted donations

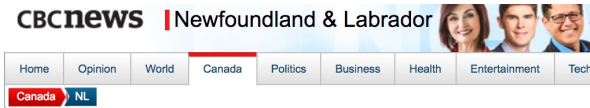


Opened bread, tinned alligator meat and spotted-dick pudding among unwanted items

CBC News · Posted: Mar 31, 2016 8:00 PM PT | Last Updated: March 31, 2016



The wall of shame at the Greater Vancouver Food Bank showcases items that are too old or not nutritious enough to be distributed to those in need. (CBC)

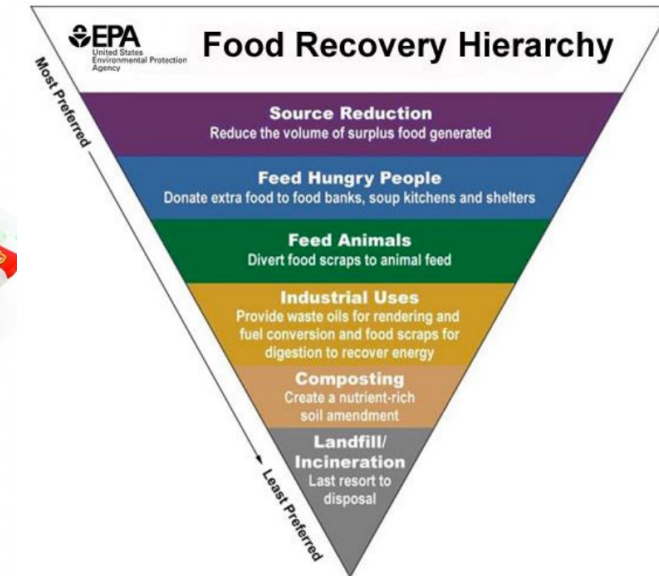


## Where's the beef? Empty meat shelves in stores

CBC News · Posted: Mar 30, 2015 6:48 AM NT | Last Updated: Mar 30, 2015 6:48 AM NT



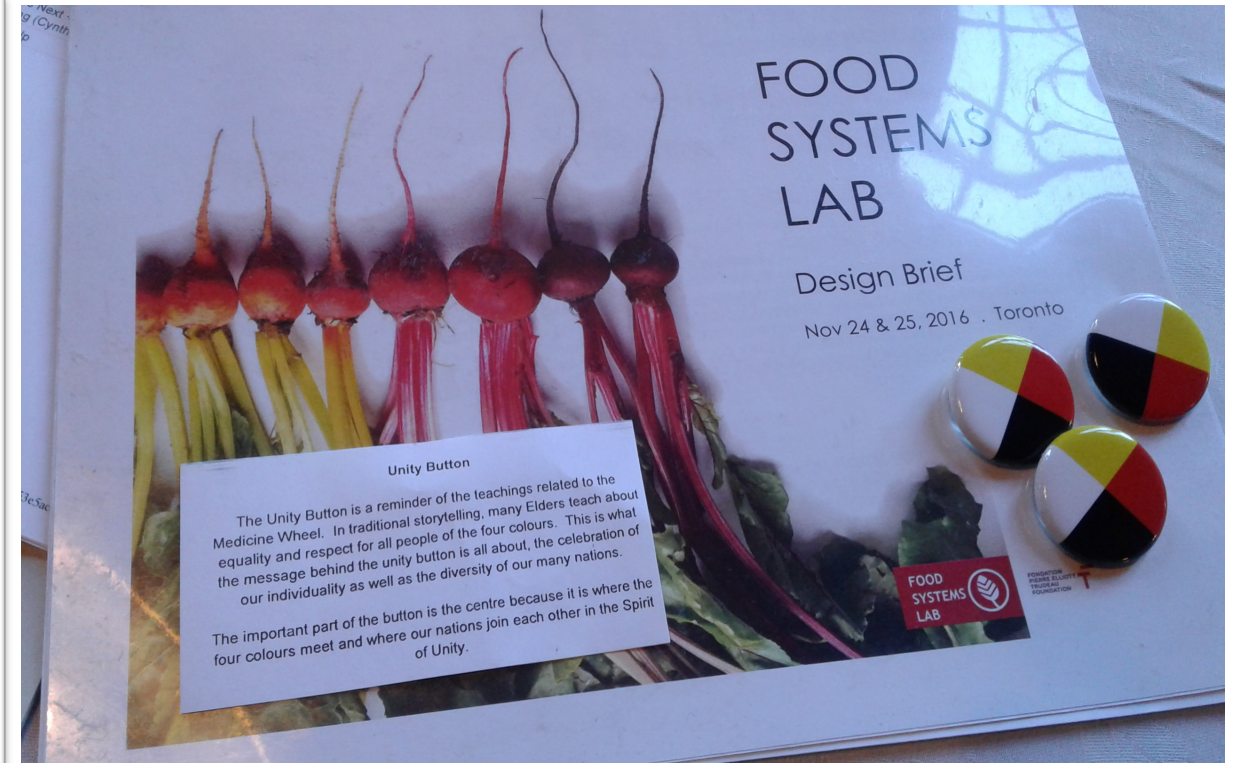
A photo shared on social media over the weekend shows empty shelves in the meat section of Dominion in Gander. (Hannah Rideout)



- 1 in 3 people throw out bananas if it has a bruise/ mark on the skin
  - 1 in 10 customers discard the fruit if there is any green on the skin
- (Source WRAP, 2013)



# Social innovation and systems thinking



A collaborative interdisciplinary research and social innovation hub based at Simon Fraser University. The Lab was established in 2016 with a vision for a just and sustainable food system for all...



# Tackling Urban Food Waste

Combining Systems thinking principles and Design Lab principles

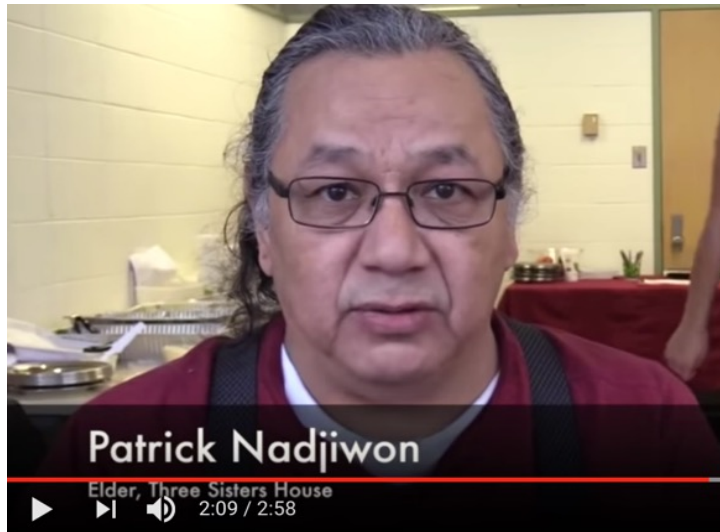
Three Lab Workshops:

1. Seeing the System (Nov 2016)
2. Designing Solutions (March 2017)
3. Prototyping Interventions (June 2017)
4. June 10<sup>th</sup> Closing the Loop Hackathon





# Breaking Siloes: Relationship Building and Food Justice





# Dessert (Proactive)

## Closing the loop: Circular food economy and FLW prevention and reduction

*“We define a closed-loop food system as a system that generates no waste and is governed with the commitment to food as a right, acknowledging the interconnectedness of all parts of the ecosystem and inculcating respect for all of its inhabitants.” (Food Systems Lab)*

### Values that feed a Closed-Loop Food System

A healthy, just, and closed-loop food system **generates no waste**, and is governed with the commitment of **food as a right**. It acknowledges the **interconnectedness** of all parts of the ecosystems, and inculcates **respect for all of its inhabitants**.

#### RESILIENT & JUST LOCAL ECONOMIES

Support financial and infrastructural investments for small and medium scale growers, fishers, ranchers, food processors, distributors, retailers, entrepreneurs and those that employ fair labour practices and operate within the principles of a sustainable circular economy.

#### RECONCILIATION

Recognize the injustice meted upon Indigenous communities and other global populations as a result of colonization and unjust trade laws, and act to reverse the chains of oppression by supporting Indigenous knowledge, food sovereignty, land and wealth redistribution. Promoting the principles of “All My Relations” and Seven Generations to heal the past and build a just future.

#### HEALTH

A circular food system promotes health by focusing on the consumption of whole foods instead of ultra-processed foods. The production of ultra-processed foods is reliant on cheap, highly subsidized commodities and overproduction which is not compatible with a closed loop food system.

#### SYSTEMS THINKING

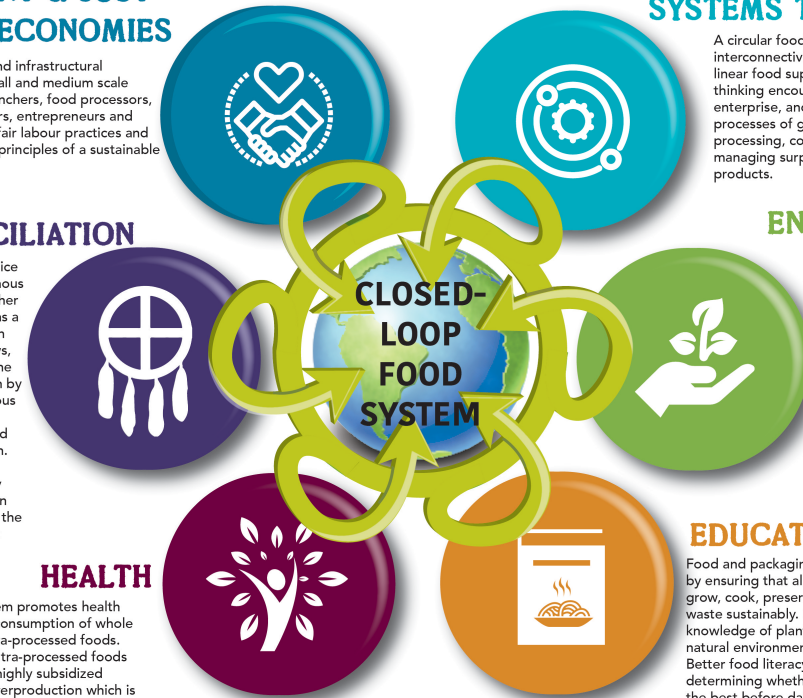
A circular food system is based on interconnectivity rather than on a linear food supply chain. Systems thinking encourages innovation, enterprise, and creativity in the processes of growing, harvesting, processing, cooking food, and managing surplus food or organic products.

#### ENVIRONMENT

A circular food system promotes environmental sustainability by respecting biodiversity while supporting nutrient recycling to build the foundation of a healthy soil. It also challenges high-input monoculture practices that create waste outputs that contribute to greenhouse gas emissions.

#### EDUCATION

Food and packaging waste can be prevented by ensuring that all generations know how to grow, cook, preserve, and manage organic waste sustainably. Most importantly, deep knowledge of plants, seeds, animals, and the natural environment will empower people. Better food literacy will assist people in determining whether foods are edible beyond the best before date labelling.





# Ministry of National Development and Planning and UN-Partnership for Action on Green Economy (BAPPENAS, 2021)

- Approximately 115-184 kg/capita/year of FLW generated
- The economic impact is around IDR 213-551 trillion per year.
- Environmental impact: Approximately 1702.9 Mt CO<sub>2</sub> was generated between 2000 and 2019.
- Food waste contributes 7.29% of GHG emissions every year
- The amount of FLW can feed 61-125 million people (about 29-47% of Indonesia's population).
- If Indonesia continues business as usual, it is projected that the increase in FLW can reach 344 kg/capita/year by 2045 (BAPPENAS, 2021).





# Barriers to Closing the Loop



“Before, until the 1980s, you could pretty much dig and put the garbage in a hole... Yes dig a hole and you put the waste in ... but what becomes problematic now is the packaging. Before, there was only a small amount of plastic and tin can waste. “  
(Sarah, middle income, Soma, 2017)

the rise of the waste crisis in urban governance in the mid-1960s has been directly connected to the proliferation of food packaging”  
(Hawkins, 2012, 66).

Policy/ Regulations	Relevant Content
Law No 18 Tahun 2008 on Waste Management	Article 15: Producers are obliged to manage packaging and/or goods produced which cannot or are difficult to decompose by natural processes.



## Buruan SAE

2020  
Bandung  
INDONESIA



## Opportunities: Examples of urban innovations that can help food security and promote a circular food system

- In the City of Bandung, the Buruan Sae integrated urban agriculture program is an example of a food system planning strategy. This integrated urban farm seeks to localize food production while promoting circularity through the use of compost from food waste for food production.
- The Buruan Sae project was featured in the Milan Urban Food Policy Pact as an award-winning project in the Governance category.
- However, even though there is compost production, there are still barriers for scaling up compost utilization in urban Asia.



# Action! The Role of Food System Planners



## Food-systems planners are playing a growing role in municipal policy

Municipal governments are recognizing they need to bridge the gap between city-dwellers and food sources

Nikki Wiart

December 4, 2016

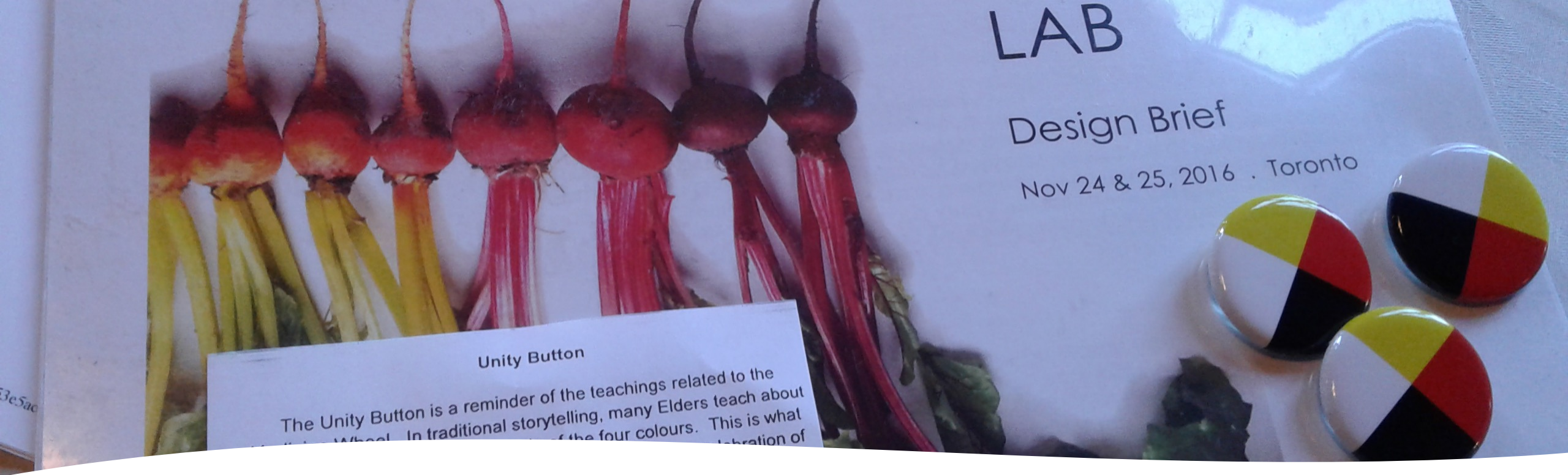


Green city: Food-systems planning covers everything from production to grocery-store locations

The rise of food system planners  
(Soma and Wakefield, 2011)

Planners/professionals who are working in, or engaged with the food system with the aim of rendering it more sustainable with respect to its social, economic and ecological effects  
(Morgan, 2009)





To learn more about the food systems lab, to collaborate or to send questions, please keep in touch:

**Thank you!**

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