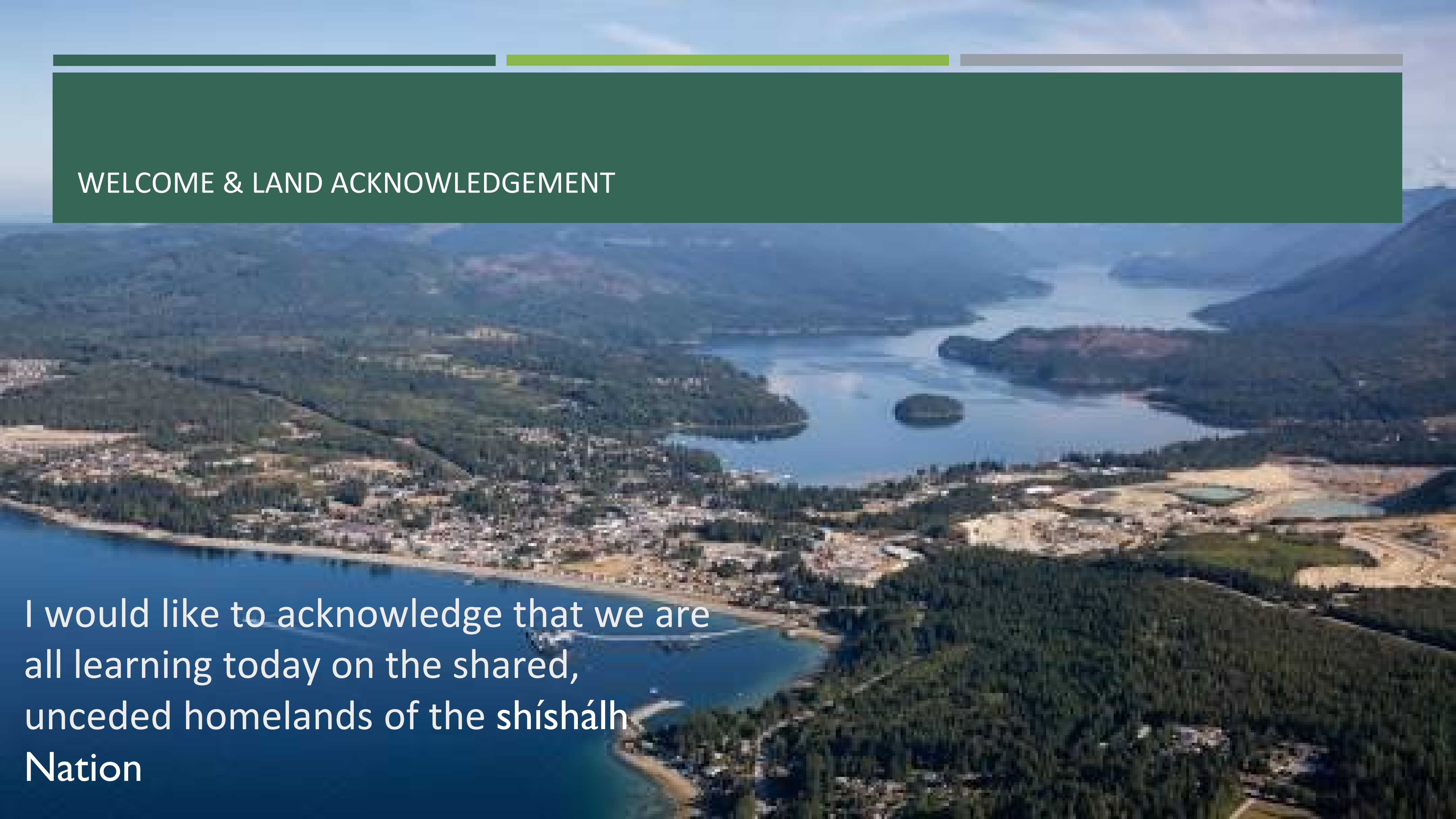
WELCOME & LAND ACKNOWLEDGEMENT



I would like to acknowledge that we are all learning today on the shared, unceded homelands of the **shíshálh Nation**

Overview: Week 3 Resilient food system

- **Review from last week**
- **What do we mean by a resilient food system**
- **How do a resilient and a sustainable food system complement each other & how different?**
- **It's all about the soil**
- **How can we make our food system more resilient?**
- **Resources on the Sunshine Coast**

Take Away Messages

- **Decreasing food waste can decrease our env impact**
- **Diet is link between human and ecological health**
- **Key messages include plant based diet & decreasing meat**
- **Shift to SD is essential, doable & can be healthy**
- **There are many eating patterns to choose from**
- **Balance influences on your food choices**
- **Be careful that SD isn't an excuse for excessive dietary restriction**

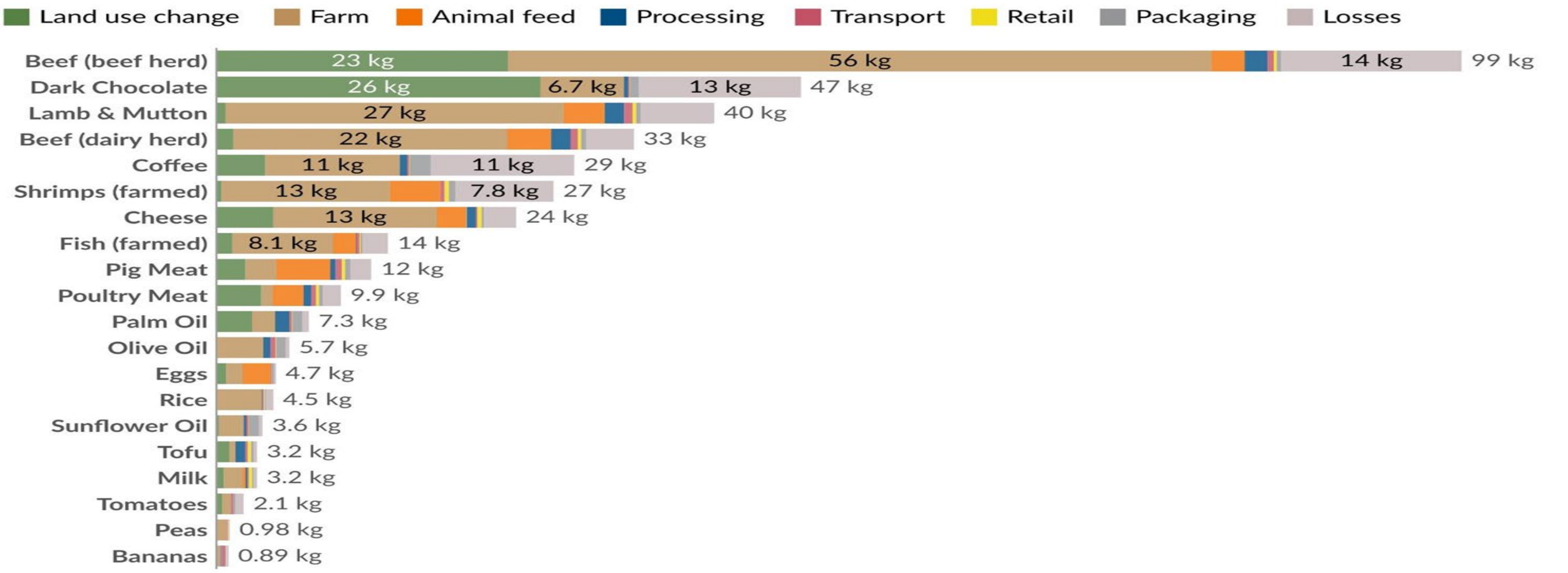
Your healthy & sustainable diet plan

Review food record

Write out 3 changes you can try out in the next week (e.g., health, sustainability, waste)

Food: greenhouse gas emissions across the supply chain

Greenhouse gas emissions[1] are measured in kilograms of carbon dioxide-equivalents (CO_2eq)[2] per kilogram of food.

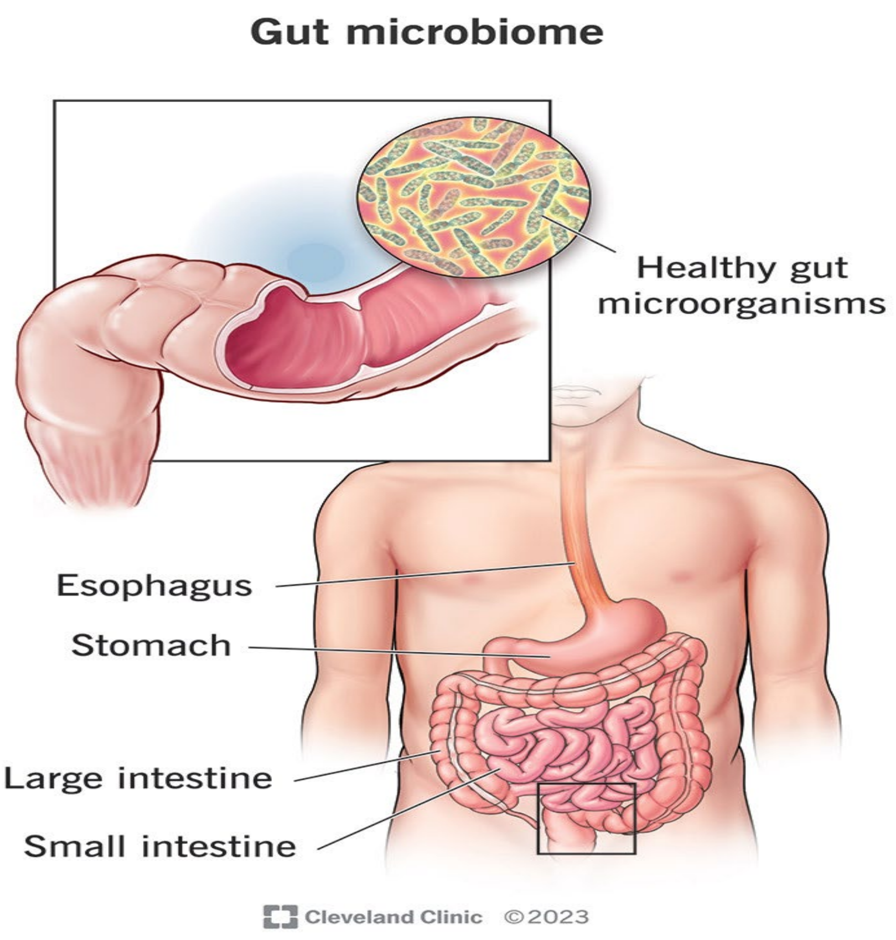


Data source: Joseph Poore and Thomas Nemecek (2018).

1. Greenhouse gas emissions: A greenhouse gas (GHG) is a gas that causes the atmosphere to warm by absorbing and emitting radiant energy. Greenhouse gases absorb radiation that is radiated by Earth, preventing this heat from escaping to space. Carbon dioxide (CO_2) is the most well-known greenhouse gas, but there are others including methane, nitrous oxide, and in fact, water vapor. Human-made emissions of greenhouse gases from fossil fuels, industry, and agriculture are the leading cause of global climate change. Greenhouse gas emissions measure the total amount of all greenhouse gases that are emitted. These are often quantified in carbon dioxide equivalents (CO_2eq) which take account of the amount of warming that each molecule of different gases creates.

2. Carbon dioxide equivalents (CO_2eq): Carbon dioxide is the most important greenhouse gas, but not the only one. To capture all greenhouse gas emissions, researchers express them in "carbon dioxide equivalents" (CO_2eq). This takes all greenhouse gases into account, not just CO_2. To express all greenhouse gases in carbon dioxide equivalents (CO_2eq), each one is weighted by its global warming potential (GWP) value. GWP measures the amount of warming a gas creates compared to CO_2. CO_2 is given a GWP value of one. If a gas had a GWP of 10 then one kilogram of that gas would generate ten times the warming effect as one kilogram of CO_2. Carbon dioxide equivalents are calculated for each gas by multiplying the mass of emissions of a specific greenhouse gas by its GWP factor. This warming can be stated over different timescales. To calculate CO_2eq over 100 years, we'd multiply each gas by its GWP over a 100-year timescale (GWP100). Total greenhouse gas emissions – measured in CO_2eq – are then calculated by summing each gas' CO_2eq value.

Gut Microbiome



Why is a strong local food system important?

'Made in Canada' vs. 'Product of Canada'

Made in vs. 'Product of Canada'— What's the difference?
https://www.cbc.ca/news/canada/made-in-canada-product-of-canada-1.7451556

Environment ⟷ Food Systems

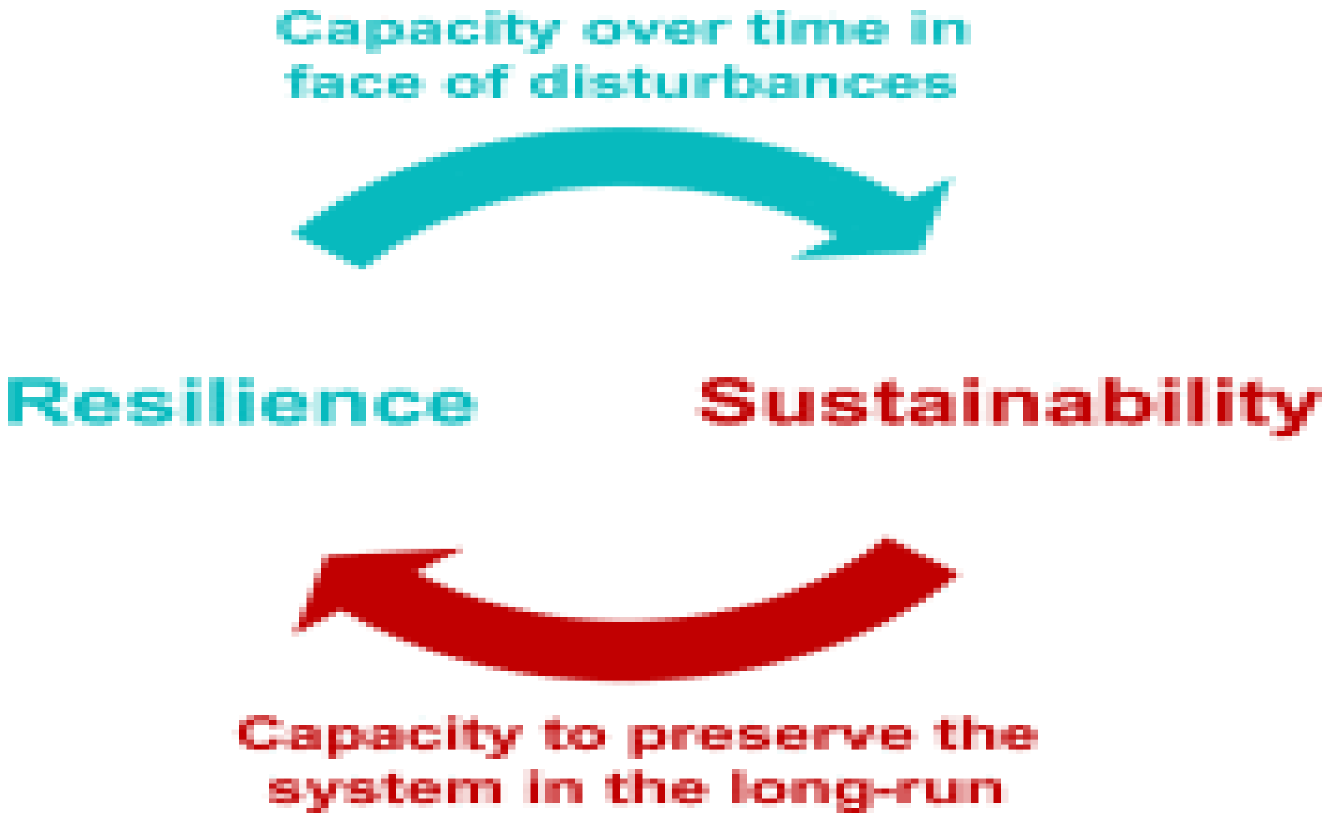
Are vegetables less healthy?

Montgomery D.R., Biklé A. Health and Nutrient Density: Beyond Organic vs. Conventional Farming
Front. Sustain. Food Syst., 03 November 2021
Sec. Nutrition and Sustainable Diets
Volume 5 - 2021 | https://doi.org/10.3389/fsufs.2021.699147

https://jagdishpatel.info/the-hidden-link-healthy-soil-healthy-humans/#

https://www.bbc.com/future/bespoke/follow-the-food/why-modern-food-lost-its-nutrients/

Resilience as part of Sustainability



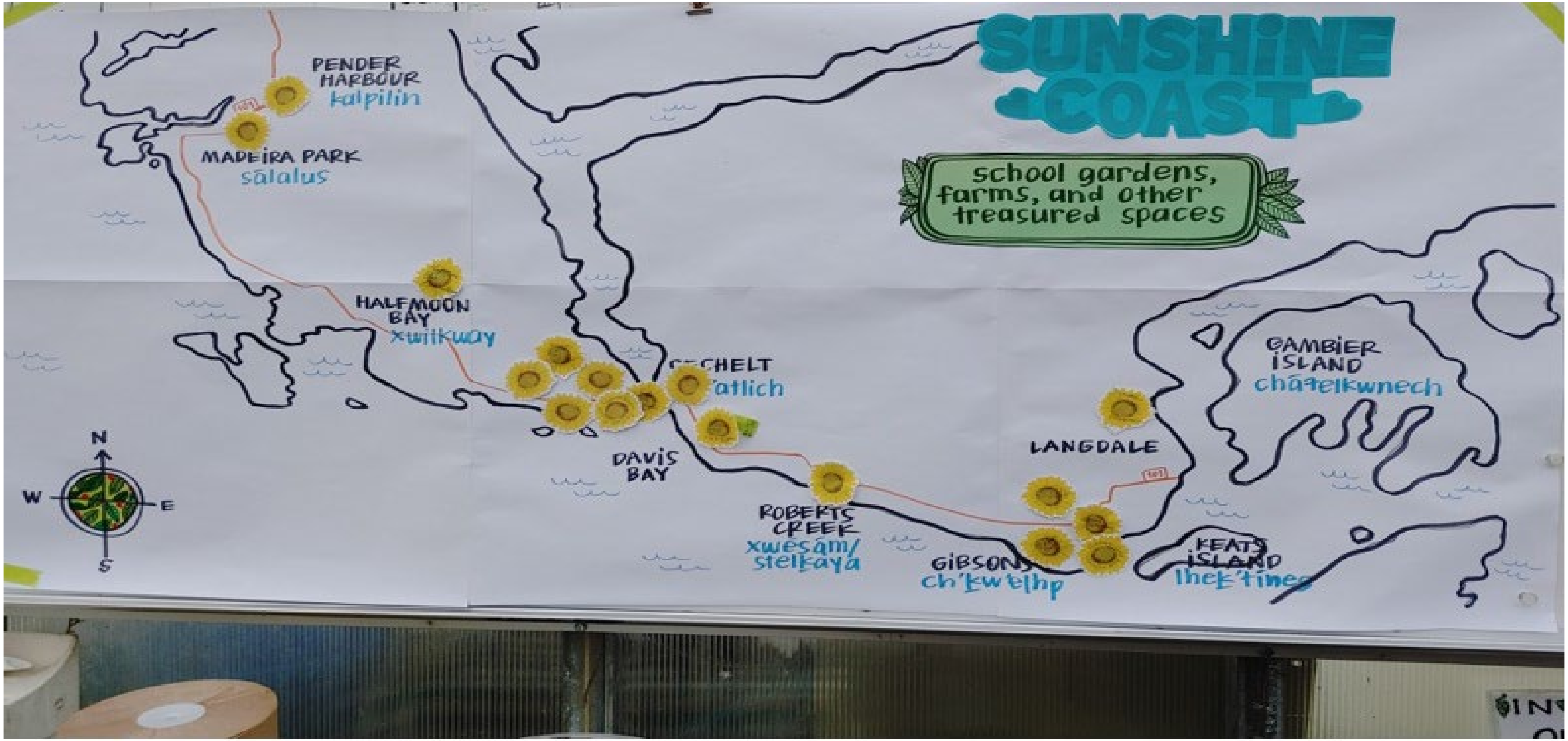
D.M. Tendall et al. / Global Food Security 6 (2015) 17–23

Resilience in emergencies:
Beyond dehydrated food, granola bars & juice boxes

https://commons.wikimedia.org/wiki/File:FEMA_-_1365_-_Photograph_by_FEMA_News_Photo_taken_on_03-24-2001_in_Oklahoma.jpg

Salish Sea Regenerative Farm

School Programs on the SC



VCH: Planetary Health Menu

Take Away Messages

- **Strong local food system supports the economy, food resilience & food sovereignty**
- **Our changing environment influences our food system**
- **It’s all about the soil!**
- **Buy local where you can**
- **Join local food initiatives like One Straw, Seed Collective…**

Selected References

- https://www.cbc.ca/news/canada/made-in-canada-product-of-canada-1.7451556
- https://www.onestraw.ca/
- https://www.onestraw.ca/map/
- https://www.groundedacresfarm.ca/ (https://youtu.be/2CwgNhdS2Uk)

Selected references: Soil health & Gut microbiome

- Montgomery D.R., Biklé A. Health and Nutrient Density: Beyond Organic vs. Conventional Farming Front. Sustain. Food Syst., 03 November 2021 Sec. Nutrition and Sustainable Diets Volume 5 - 2021 | https://doi.org/10.3389/fsufs.2021.699147
- https://jagdishpatel.info/the-hidden-link-healthy-soil-healthy-humans/#
- https://www.bbc.com/future/bespoke/follow-the-food/why-modern-food-lost-its-nutrients/

https://www.ncbi.nlm.nih.gov/books/NBK562894/ (**FAQ: Human Microbiome** Washington (DC): American Society for Microbiology; 2013.

https://cdhf.ca/en/10-ways-to-strengthen-your-microbiome/

https://www.betterhealth.vic.gov.au/health/healthyliving/gut-health

Selected references: School programs

- https://farmtoschoolbc.ca/
- https://healthyschoolsbc.ca/teach-food-first/ (**An Educator's Toolkit for Exploring Canada's Food Guide with K-8 students.**
- https://www.vch.ca/en/supporting-healthy-eating-school
- https://handsonfood.ca/ (hands-on way to teach the BC curriculum including science, math, etc.; developed by educators and health professionals)
- https://www.bcaitc.ca/ (BC Agriculture in the Classroom)