

Sustainable Community Food Systems

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What is the Food System?

The food system encompasses all the drivers, activities and resources that go into producing, distributing, consuming food and waste disposal.

The food system has a profound influence on public health, culture, society, economics, and the environment.



- Tansey, G., & Worsley, A. (2014). *The food system*. Routledge.
- Scientific Group for the UN Food Systems Summit (2021). <u>Food Systems Definition, Concept and Application for the UN Food Systems Summit.</u>

Global food systems are failing humanity and accelerating climate change

- InterAcademy Partnership (IAP): 130 national academies of science and medicine across Africa, Asia, the Americas and Europe.
- "The current approach to food, nutrition, agriculture, and the environment is unsustainable."

"Transforming the food system is the key to improving human

and planetary health."



InterAcademy Partnership. (2018). Opportunities for future research and innovation on food and nutrition security and agriculture—a global perspective.

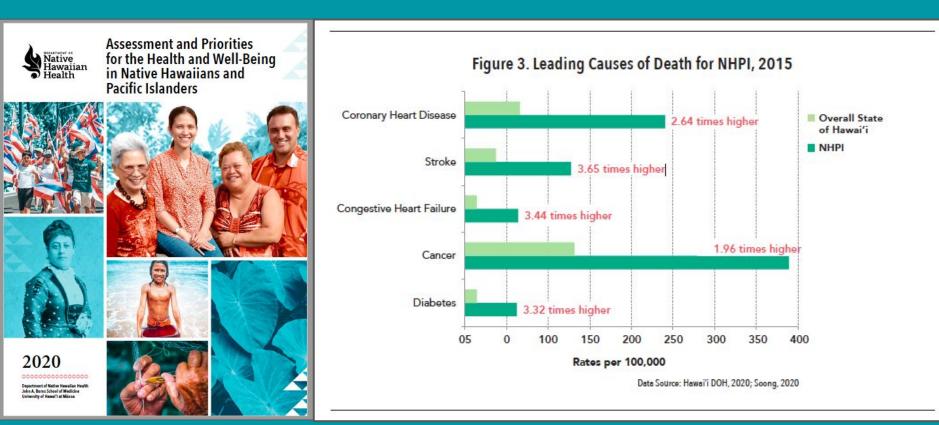
Externalized Costs of a Cheap Food Policy in the US: Chronic Diseases

- 1. <u>Heart Disease and Stroke</u>: costs our health care system \$214 billion per year and causing \$138 billion in lost productivity on the job.
- 2. <u>Cancer</u>: The cost of cancer care continues to rise and reached almost \$174 billion by 2020.
- 3. <u>Diabetes</u>: 2017, the total estimated cost of diagnosed diabetes was \$327 billion in medical costs and lost productivity.
- 4. Obesity: Obesity costs the US healthcare system \$147 billion a year.

*Chronic diseases: conditions that last 1 year or more and require ongoing medical attention or limit activities of daily living or both.

Chronic diseases such as heart disease, cancer, and diabetes are the leading causes of death and disability in the United States. They are the leading drivers of the nation's \$3.8 trillion in annual health care costs.

Native Hawaiian & Pacific Islander Health Inequities



Look, M. A., Soong, S., & Kaholokula, J. K. (2020). Assessment and priorities for the health and well-being in Native Hawaiians and Pacific Islanders. University of Hawaii, John A. Burns School of Medicine, Department of Native Hawaiian Health.



The Food System of Hawaii at a Crossroads

- Most geographically isolated food-import dependent population state in the world.
- High levels of food import dependence: ~90%
- Just-in-time economy: commercial food stocks are enough to support the state population (1.35 million + visitors) for ~5-7 days.





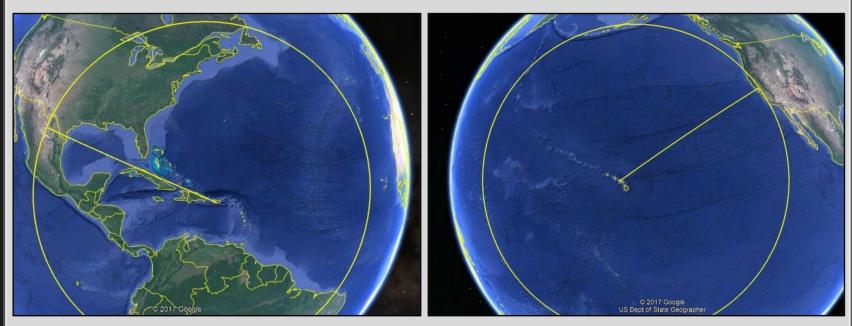
The Food System of Hawaii at a Crossroads

- Moderate to high levels of household food insecurity: 8%-16.7% (35.7% in the Hawaiian community).
- Critical systems infrastructure seaport, refineries, power, airport
 located within the same 12 mi, of low-elevation coastline of Oahu.
- Key systemic vulnerabilities:
 - Few functional redundancies in key import infrastructure;
 - Little in-state storage of commercial, personal or emergency food;
 - Commercial food storage is w/in inundation zone;
 - Little to no coordination between public EMAs and private sector for emergency food distribution;
 - No comprehensive food system resilience and equity plan for the state.



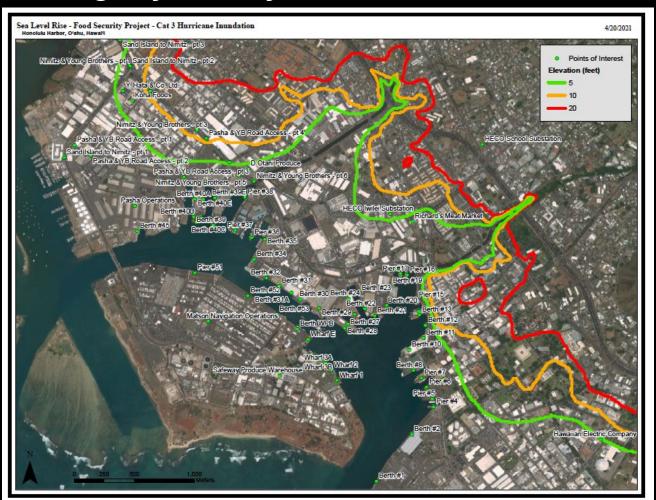
SPHERE OF SUPPORT





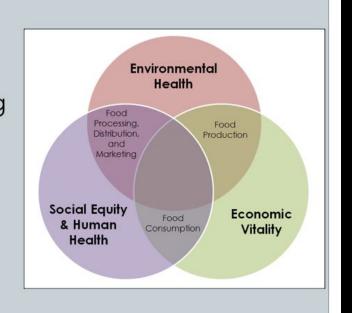
Hawaii Emergency Management Agency (HIEMA) 2019. Critical Systems Analsysis.

Assessing Key Food System Vulnerabilities: HNL Port



If We Get Food Right, We Get Everything Right

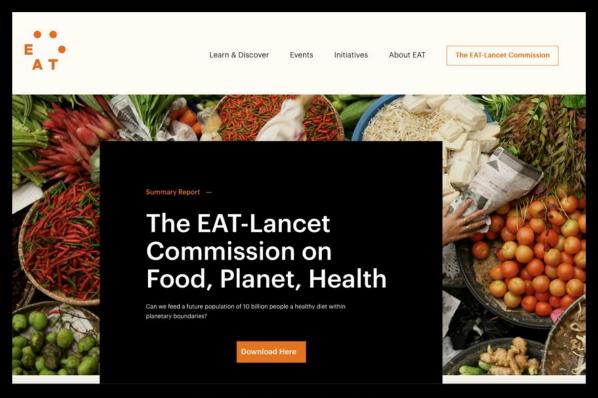
- Environmental Quality
- Energy Use
- Human Health and Well Being
- Economic Development
- Bio-cultural Restoration
- Ethics/Human Values
- Food Security
- Social Equity
- Climate Change Adaptation and Mitigation



Caron et al. (2018). Food systems for sustainable development: proposals for a profound four-part transformation. Agronomy for Sustainable

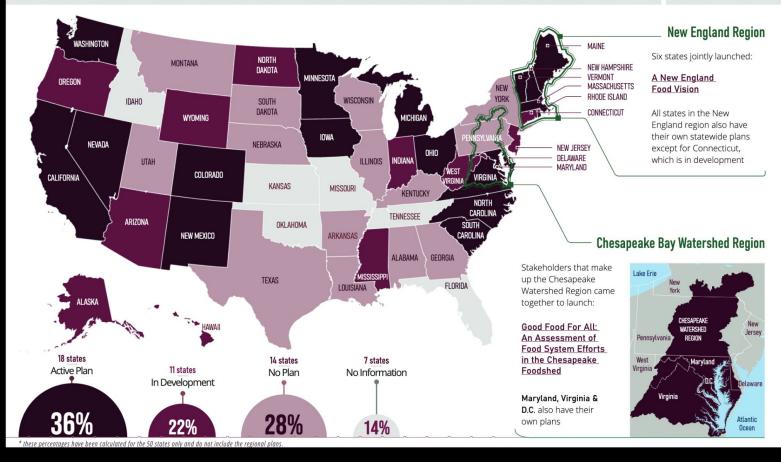
Development, 38(4), 41.

"Food is the single strongest lever to optimize human health and environmental sustainability on Earth."

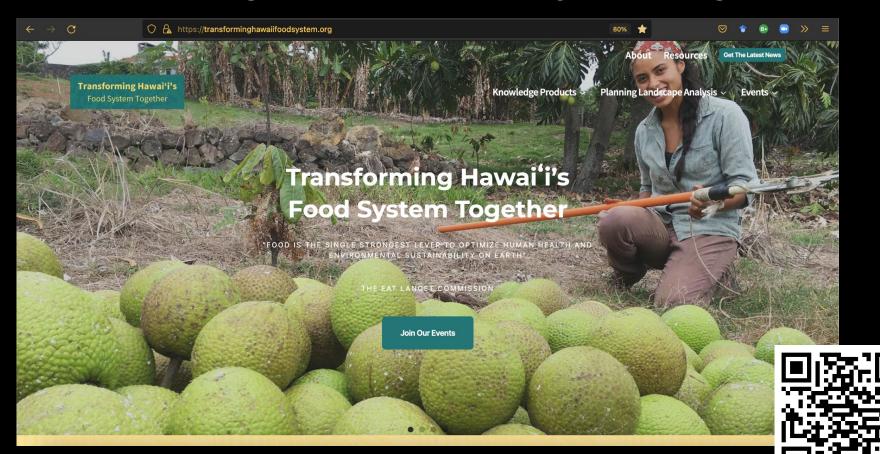


Anthropocene Analysis: Food and Developmen

Map of state and regional food system plans and charters



Transforming Hawai'i's Food System Together



Transforming Hawai'i's Food System Together

Create new elements of the food and agriculture economy that integrate sustainable economic development, climate change resilience and biocultural restoration with community health and well-being.

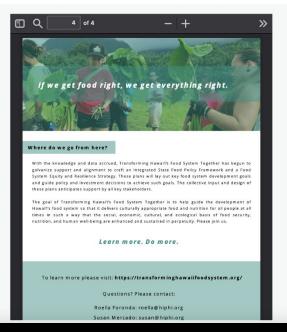
Transforming Hawai'i's Food System Together



Executive Summary: The Transforming Hawai'i's Food Systems
Together initiative has conducted a series of applied research
projects (below) that will inform policy and planning
recommendations and build statewide capacity to achieve a more
economically robust, sustainable, equitable and resilient food
system for Hawai'i. The key findings of these Knowledge Products
will inform the development of an Integrated State Food Policy
Framework and Food System Resiliency and Equity Strategy for
Hawai'i.

Our Knowledge Products:

- 1. Food System Mapping
- 2. Social Network Analysis
- 3. Comprehensive State Policy Analysis
- 4. Vulnerability Assessments
- 5. Amplifying the Work of Subsistence Indigenous Producers
- 6. Hawai'i Farmer & Rancher Focus Groups
- 7. Institutional Purchasing





HAWAI'I'S FOOD SYSTEM







Advocate | Collaborate | Implement

Food System Summit's Top 12 Policy Priorities:

https://staging2.transforminghawaiifoodsystem.org/food-summit/

HB308 HD1 SD2 - Statewide Food Systems Planning

(Sustainable Food Systems Working Group; HDOA; Plan; Appropriation)

Establishes the sustainable food systems working group within the Department of Agriculture. Requires the working group to submit a plan, any recommendations for implementing the plan, and any proposed legislation to the legislature. Appropriates funds to establish the working group and develop the plan and for an unspecified number of sustainability specialist positions to be employed by the Department of Agriculture.

Local food, willingness to pay & the sustainability of an island destination

Purpose: Examine the trend toward purchasing locally grown food and evaluate if US tourists visiting Hawai'i are willing to pay more for locally produced foods that are more ecologically sustainable.

Findings:

- 1. **78% of respondents** stated they were ready to pay a higher price to purchase food that is locally grown, indicating a willing to aid local agriculture by increasing restaurant/hotel meal bills.
- 2. Majority of respondents indicated that they would pay up to 5% more for locally grown food.
- 3. Average respondents were willing to pay between 6%-10% more for local food.
- 4. **Several respondents** claimed willingness to pay **11%-50% more** for locally produced meals in a restaurant or motel.
- 5. **More than 70% of survey respondents** would be willing to pay an additional charge to support sustainable tourism in Hawai'i.

Linnes et al. (2022). The local food supply, willingness to pay and the sustainability of an island destination. *J. Hospitality and Tourism Insights*.

EXTENSION PUBLICATIONS



Hawai'i Residents' Perception of Farming, Weekly Purchases & Willingness to Spend More for Local Products

Summary: 31% of Hawaii resident (n=400) respondents stated they are willing to spend 10-15% more on local food products.

Le, T. 2023. Hawai'i Residents' Perception of Farming, Weekly Purchases & Willingness to Spend More for Local Products. CTAHR Extension Publication. Department of Family and Consumer Sciences: theory.org/def-MHI-3.pdf

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News by Campus ▼

UH leads \$40M grant for climate-smart food production

UH News » Community » UH leads \$40M grant...

https://www.hawaii.edu/news/2022/10/04/uh-leads-climate-smart-food-production-grant/

October 4, 2022 & UH News





Mānoa Links

- > Admissions
- > Academics
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- > Athletics
- > Alumni
- > Events Calendar



O'AHU GOOD FOOD PURCHASING PROGRAM



The Oahu Good Food Program uses the purchasing power of the City and County of Honolulu, large organizations, and the hospitality industry to support local farmers, ranchers and growers. Together, we commit to buying more locally grown fruits, vegetables, and proteins to help smaller farmers thrive, care for our place with sustainable farm practices, and create good jobs for our community.



https://www.revitalizeoahu.org/oahugoodfood

Why become a local purchasing partner?



- Help Hawai'i reach its sustainability goals.
- Support more local food businesses and farms to revitalize and diversify Hawai'i's economy.
- Improve food access for vulnerable groups.

- Learn how to procure more nutritious and ethically-sourced ingredients and products.
- Contribute valuable data to the food system.





THE FUTURE OF FOOD & AGRICULTURE IN HAWAI'I

UNIVERSITY OF HAWAI'I SYSTEM