

# Queensland Future Conversations: Food Security and Supply Chain Resilience

17 August 2022. Speakers' Hall, Queensland Parliament House,  
Brisbane.



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# Resilience, Civic Food and the Transformative Potential of Crisis

Dr Kiah Smith

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# From Crisis to Transformation

## FAO monthly food price index in nominal terms

January 2005 to 2022

— Food Price Index



Data accessed: 4 February 2022

Chart: IFPRI • Source: FAO • Created with Datawrapper

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THE CONVERSATION

Academic rigour, journalistic flair

Arts + Culture Books + Ideas Business + Economy Education Environment + Energy Health Politics + Society Science + Technology



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# Civic Food: Building resilience from the ground up

Civic food networks provide solutions to hunger that focus on **transforming structural inequalities** underpinning mainstream food systems: unequal access to healthy affordable food, food poverty, ecologically unsustainable practices, policy incoherence and non-participatory governance.

1. Local food provisioning → shorter food chains
2. Eco-social practices → agroecology; solidarity economy
3. Food governance → inclusive, democratic decision-making

# Case study 1: Flooding in Qld

*The local organic farmers are getting a fairer price, so they're much more resilient. And they have the relationships that will just jump in and solve whatever issue, rather than relying on a very disconnected centralised system. [CSA]*

Eco-social focus



*It's in terms of community resilience that we can contribute a lot more. If you have a flood come in and wipe the garden away, even if we didn't get any more produce from it, we've built friendships and connections. That's a really indirect resilience benefit. [Urban garden]*

Community resilience



*We haven't been approached ... we haven't really been invited to the table. Everyone else is there ... And with the clean-up task force nobody said 'we think what you've got to offer is really important and we'd love to have your perspective at the table'. [Food hub]*

Governance



# Case study 2: COVID19 and local food

*There has definitely been an increase in community interest in local food - what, where, how can they access it. [Urban farm]*

*We've opened up three new market streams through Reko .... This is now a COVID-19 recovery tool. [Cooperative]*

Local provisioning



*In Queensland, we have doubled the number of meals we cook. We've also gone directly to universities and some indigenous communities. [National charity]*

*Our organisation's sole purpose is to set up a farm, grow produce and hand it over to a charity with a kitchen, that they convert to meals. [Local charity]*

Food charities



*Food justice for us is really important to make sure that everyone has access to food, so it becomes part of one of the principles of our existence. [CSA]*

Food justice



# Future needs

1. Resilience as transformation requires ***changing the drivers of food system inequality*** and the active pursuit of more ***equitable outcomes*** (such as food justice, zero hunger).
2. More ***government support*** for civic-led local food initiatives is needed, as is meaningful ***civil society participation*** in food governance. Local and state food plans; national food policy council.
3. ***Food justice*** provides a much-needed normative ‘end goal’ for future transformations. The ***right to food*** should be legislated at the state level; ‘fair food futures’ are possible.

**Dr Kiah Smith**

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**<https://fairfoodfutures.com>**



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# Value-addition in Agriculture

Professor Sagadevan G. Mundree

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# The World we live in: Global Challenges





# Tropical Pulses



## Chickpea (*Cicer arietinum*)

- It is the **third most** important pulse crop of the world
- Good source of carbohydrates, minerals, protein (constituting 80% of the total dry seed mass)



## Mungbean (*Vigna radiata*)

- It is regarded as a '**green pearl**' due to high micro-nutrient content (Fe, Zn, Ca) and vitamins
- Good source of easily digestible proteins and essential amino acid **lysine**

# Bridging the gap between Agriculture and Health

- Why don't we eat more pulses?
  - Unsure how to prepare them in foods
  - Potential digestive issues
  - Strong “beany” taste
- Pulses can be utilised directly or processed into user-end products



# Year 9 Food Studies – Pulse-based Project



**Kelvin Grove State College**

The Pursuit of Excellence With All Our Might

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# Vertical Integration into the Plant-based Value Chain



# Commercialisation of Australian native rice for Indigenous enterprise development



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# Current status of native and wild rice industries



## **Australia** - *Oryza meridionalis*, *O. rufipogon*, *O. australiensis*

- Australia has no established native rice production, supply or value chain, or markets

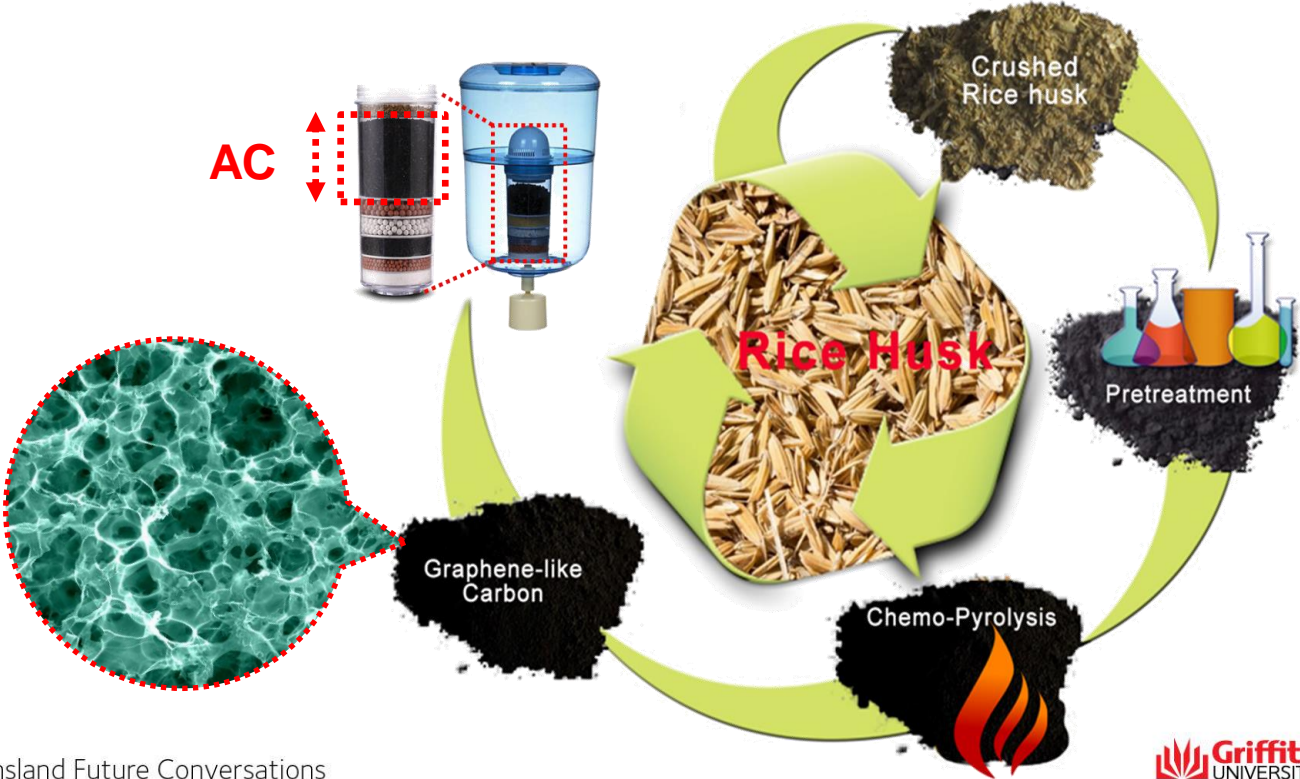
## **Canada** - *Zizania palustris*, *Z. aquatica*

- Canada has established native rice production, supply and value chain, and markets

# Bigger picture and opportunity



# Green and Sustainable Solutions



# University-Industry-Government Partnerships



# Future needs

- Value-addition opportunities exist in the paddock and from the farm gate to the store.
- Queensland is very lucky to have great agricultural and sustainability expertise across agencies and in our universities. Coordinating this expertise will harness new opportunities and address the impacts of climate change.
- We must continue to look for new market opportunities beyond traditional markets to counter ongoing geopolitical shifts.



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# Building disaster resilience through local food: Addressing food shortages and disadvantage

Dr Kimberley Reis

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**Plan A – how it fails us.**

**3 approaches to food resilience:**

- 1. Plan B – Contingency**
- 2. Shared responsibility for resilience**
- 3. Lesson learned for continuity**

Image source: iStock



Short-term food insecurity

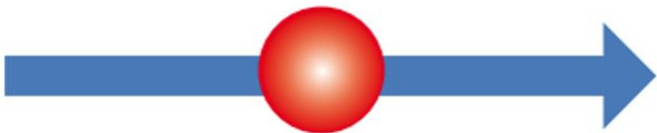


Image source: iStock



Long-term food insecurity



Image Source: Henriques-Gomes, 2020 (Photograph: Ananka Ratnayake/Getty Images).



**ONE IN THREE PEOPLE**

struggling to meet their food needs are new to the situation



**1.2 MILLION CHILDREN**

have gone hungry in the last year

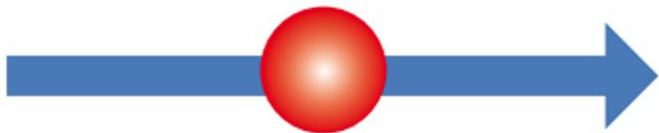


**ONE IN SIX ADULTS**

in Australia haven't had enough to eat in the last year



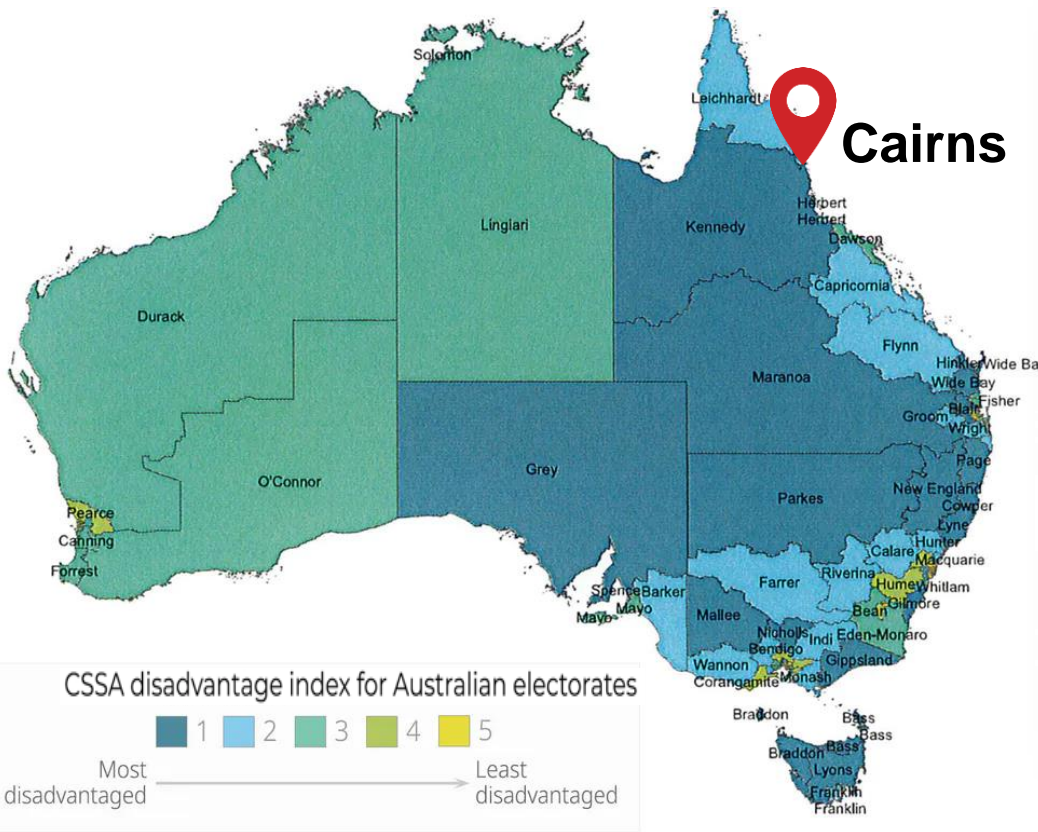
Short-term food insecurity



Long-term food insecurity



Source: Food Bank Hunger Report 2021



Source: ANU Centre for Social Research and Methods  
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# Plan B – Contingency for Local Food Access

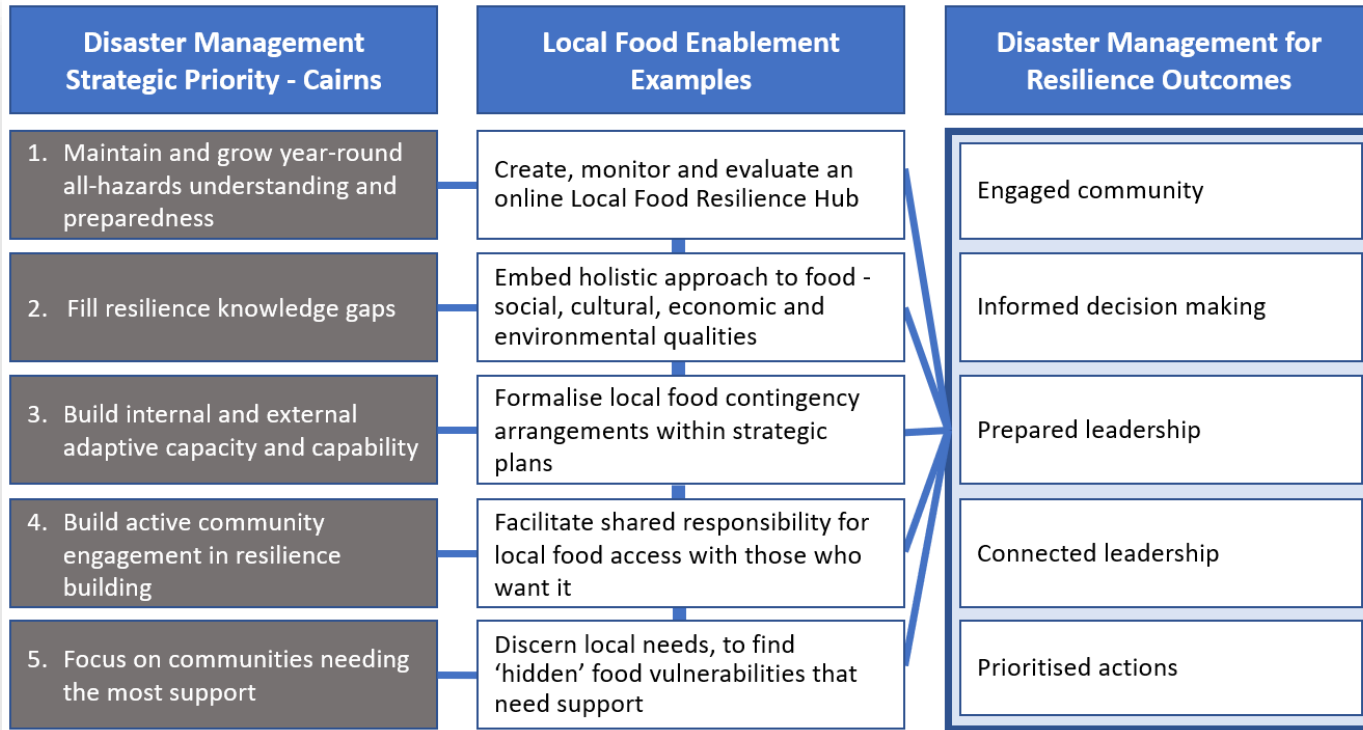



Image source: iStock

# Shared responsibility for resilience



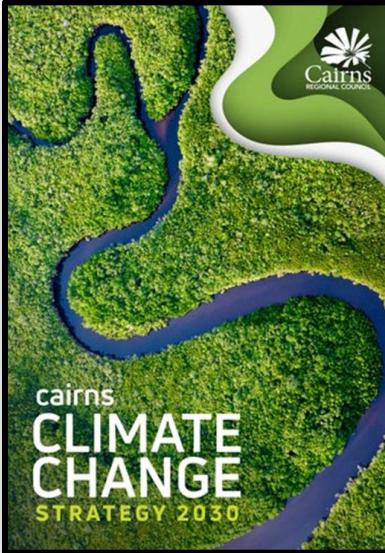
## Local Food Resilience Hub

Having access to sufficient food to live your normal lifestyle - food security - is vitally important. Food security can be affected by events like natural disaster. As a community, we aim to increase community resilience and self reliance.

## Towards local food resilience

Key considerations for building local food resilience and contingency plans: A focus on the Cairns region

Final Report  
26 March 2021




cairns  
**CLIMATE CHANGE**  
STRATEGY 2030

Cairns REGIONAL COUNCIL

## Urban Design Framework

Urban design principles to shape positive place outcomes




logan.qld.gov.au

CITY OF LOGAN




# Lessons learned for continuity

Building a Resilie... 


## Resilient Queensland Stories

Helping Queenslanders strengthen their resilience to disasters is a key focus for governments and community organisations across the state. Engaging the



**LEGEND**  
Resilient Queensland Stories

- Education and Preparedness
- Community Wellbeing
- Helping Communities Understand Their Risk
- Reaching out to Vulnerable Communities
- Resilient Infrastructure

 Queensland Government  
Queensland Reconstruction Authority



**BCP**  
Business Continuity Plan

472.56  
516.35  
358.5  
524

4117256  
512269  
2445

**Plan B –  
Contingency**



**Shared responsibility  
for resilience**



**Lessons learned  
for continuity**



**Food Resilient  
Queensland**

## Take aways...

### 1. Plan B – Contingency

- Action: Embed local food contingency arrangements within strategic policies to remove barriers to accessing local food and enable meaningful action.

### 2. Shared Responsibility for resilience

- Action: Incentivise local councils to adopt local food planning activities to reduce reliance on external supplies.

### 3. Lessons learned for continuity

- Action: Share stories of what works well and encourage local food contingencies in BCPs.



Image source: iStock

# Further information

- **Project website** - “Enabling action for local food resilience and contingency” <https://www.griffith.edu.au/cities-research-institute/research/digital-earth-and-resilient-infrastructure/food-contingency>
- **Call to action** - “Planning for food contingencies” <https://knowledge.aidr.org.au/resources/ajem-october-2019-planning-for-food-contingencies-a-call-to-action/>
- **Preparing for the next crisis** - “We’ve had a taste of disrupted food supplies: Here are 5 ways we can avoid a repeat” <https://theconversation.com/weve-had-a-taste-of-disrupted-food-supplies-here-are-5-ways-we-can-avoid-a-repeat-135822>
- **Research article** - “Working through disaster risk management to support regional food resilience: A case study in North-Eastern Australia” <https://doi.org/10.3390/su14042466>
- **Final report** - “Towards local food resilience: Key considerations for building local food resilience and contingency plans- A focus on the Cairns region” [https://www.griffith.edu.au/\\_data/assets/pdf\\_file/0029/1334297/CRI-Towards-local-food-resilience-research-report.pdf](https://www.griffith.edu.au/_data/assets/pdf_file/0029/1334297/CRI-Towards-local-food-resilience-research-report.pdf)
- **Online Local Food Resilience Hub** (Cairns Regional Council) <https://www.cairns.qld.gov.au/community-environment/sustainability>
- **Cairns Climate Change Strategy** (see page 23 on strengthening local food supply chains) <https://www.cairns.qld.gov.au/community-environment/climate-change/cairns-climate-change-strategy>
- **Urban Design Framework** (Logan City Council) (see pages 31 and 35 on reducing reliance on external food supplies) [https://lcc-docs-planning.s3.ap-southeast-2.amazonaws.com/root/Online\\_Tools/LP25\\_OCP/Logan+Urban+Design+Framework.pdf](https://lcc-docs-planning.s3.ap-southeast-2.amazonaws.com/root/Online_Tools/LP25_OCP/Logan+Urban+Design+Framework.pdf)



Image source: iStock



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# Expert Q&A



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# Thank You

Researcher biographies and slides can be found here:

<https://policy-futures.centre.uq.edu.au/queensland-future-conversations-food-security-and-supply-chain-resilience>



The next Queensland Future Conversations will take place on  
Wednesday 9 November (same place/time)

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