



CROYDON FOOD SECURITY STRATEGY

Northern Gulf Resource Management Group

January 2021



*A strategy to improve
food security for
people living in the
Croydon Shire*



Disclaimer:

Conclusions in this document are the findings and opinions of the consultants – Community Bred and Farmer Meets Foodie - and are not an expressed or implied representation, warranty or guarantee. The consultants do not accept liability for any third party's use or reliance on this document.

Acknowledgement of Country

We respectfully acknowledge the Tagalaka People, Traditional Custodians of the Country known as Croydon Shire. We pay our sincere respects to Elders – past, present and emerging; and acknowledge Tagalaka’s deep and continued connection to their lands.

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Moonlight Creek crossing on the Claraville road during the wet season Image *Erica Hughes*

Front cover image: Tagalaka and Northern Gulf Aquaponics Project Image *Zoe Williams*

Inside cover image: Overlooking Tagalaka Country Image *Erica Hughes*

Executive Summary

Northern Gulf Resource Management Group engaged consultants Community Bred and Farmer Meets Food to develop a food security strategy for the Croydon Shire.

Food security is defined as when all people at all times have access to sufficient, safe and nutritious food to maintain a healthy and active lifestyle.¹ There are four pillars of ensuring food security: access, availability, utilisation and stability (over time).

Australia ranks as number 12 of 113 countries on the Global Food Security Index, meaning we are classed as a food secure nation.² However within Australia there are major differences in food security, especially in remote, low socio-economic communities.

For Croydon, with a population of 258 people over 30,000 hectares - in a remote and climatically challenging part of Queensland's Gulf country - food insecurity is a reality. Residents told the consultants that in 2020 they had paid \$11 for 1 kg of rice, \$15 for a lettuce and \$6 for a standard loaf of bread. At a time when tomatoes were \$3 per kilo in Cairns, they were \$15 per kilo in Croydon.

The consultants engaged with 12% of Croydon residents through interviews, workshops and an online survey to identify concerns, community values and opportunities for improved food security within the Shire. The consultations, held in November 2020, are the foundations of this strategy.

This document is aspirational. It provides a roadmap to work towards improved food security for the shire, with a vision for:

“A happy, healthy community, where bellies are full, and people thrive and grow.

A sustainable food system where everyone can access, afford and utilise healthy and nutritious food during every season of every year.”

The strategy complements other local plans from key regional stakeholders including Tagalaka Healthy Country Plan, Croydon Shire Council Corporate Plan 2017-2022, Northern Gulf Resource Management Group NRM plans, local and regional disaster plans as well as Queensland Health and other community sector strategic plans.

Recommendations

There are four key recommendations (overarching strategies) that should be considered for successful implementation of this strategy document.

1. Establish a community-led steering group for food security.
2. Engage a paid coordinator to oversee a community-led food security program.
3. Continue advocacy with state and federal government to improve road access to Croydon and across the Shire for year-round road access, particularly along freight routes.
4. Provide residents with enough water to grow food and develop farming.

¹ National Rural Health Alliance (2016), Food Security and Health in Rural and Remote Australia, Rural Industries Research and Development Corporation, Australia

² Global Food Security Index, Rankings and Trends. Available at: <https://foodsecurityindex.eiu.com/index> accessed 19 January 2021

Introduction

About Croydon Shire

Croydon Shire covers just under 30000 hectares³ in the Northern Gulf Region of north west Queensland, with the township of Croydon located approximately 530 kilometres west of Cairns. The shire is sparsely populated with 258 residents - two thirds of those reside in the township⁴, the remainder on outlying pastoral properties. The shire is the Traditional lands of the Tagalaka people who achieved a successful Native Title determination in late 2012.⁵

The main industry is cattle, other businesses and employment is primarily based around road construction and maintenance, tourism and supplying services for the shire including council administration, Bynoe, hospital, health care services and primary school. Businesses in the town include a café/supermarket, a roadhouse and a hotel. Cattle production and public administration account for 65% of the shire's employed labour force, and construction, tourism and transportation are each approximately 8% of the labour force.⁶ Employment is often seasonal, with tourism, pastoral operations and road maintenance mostly stopped over the three to four months of the wet season.

At the time of the 2016 Census data Croydon had a population of 258 people with 17.5% identifying as Aboriginal or Torres Strait Islander.⁷ The median weekly personal income for people aged 15 years and over was \$505.⁸ Croydon joins many remote and rural Local Government Areas in having low median household income.

This puts many Croydon residents below the OECD poverty line. In 2014, the poverty line for a single adult was considered an income of \$426 per week. This reflects the situation for many rural and remote local government areas. Rural Health reports that "the greatest proportion of people earning less than \$500 per week are also almost exclusively remote or rural"⁹ and that "Aboriginal and Torres Strait Islander people are disproportionately affected by poverty. Median real equivalised gross

³ Croydon Shire Council Corporate Plan 2017-2022 working for our future today. (n.d.). [online] Available at: <https://www.croydon.qld.gov.au/downloads/stream/312/croydon-shire-council-corporate-plan-2017-2022-pdf>.

⁴ Croydon Shire Council Corporate Plan 2017-2022 working for our future today. (n.d.). [online] Available at: <https://www.croydon.qld.gov.au/downloads/stream/312/croydon-shire-council-corporate-plan-2017-2022-pdf>.

⁵ Barber M (2013) Indigenous water values, rights and interests in the Flinders and Gilbert catchments. A technical report to the Australian Government from the CSIRO Flinders and Gilbert Agricultural Resource Assessment, part of the North Queensland Irrigated Agriculture Strategy. CSIRO Water for a Healthy Country and Sustainable Agriculture flagships, Australia

⁶ Croydon Shire Council Corporate Plan 2017-2022 working for our future today. (n.d.). [online] Available at: <https://www.croydon.qld.gov.au/downloads/stream/312/croydon-shire-council-corporate-plan-2017-2022-pdf>.

⁷ quickstats.censusdata.abs.gov.au. (n.d.). 2016 Census QuickStats: Croydon (Qld). [online] Available at: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC30766 [Accessed 18 Jan. 2021].

⁸ quickstats.censusdata.abs.gov.au. (n.d.). 2016 Census QuickStats: Croydon (Qld). [online] Available at: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC30766 [Accessed 18 Jan. 2021].

⁹ Fact Sheet -November 2017 Poverty In Rural & Remote Australia. (n.d.). [online] Available at: <https://www.ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-povertynov2017.pdf>

weekly household income for Indigenous people was \$465 in 2012-13, compared with \$869 for non-Indigenous people.”¹⁰

While rural and regional Australia often has lower housing costs than major cities, household expenses are generally higher and increase with remoteness. In remote areas, food costs increase by 15-20% and petrol costs increase by 10%, compared with major cities.¹¹

People who are in poverty are more likely to have decreased physical and mental health, and the associated stress of living in poverty can contribute to health risks like smoking and poor nutrition.¹²

Climate

The Gulf-Savannah is a region defined in many ways by the extremities of the environment. There are two defined seasons - a dry season and wet season. The dry season can be long with soaring temperatures from October to December.

The mean monthly minimum temperature for the town of Croydon between 1914-2014 was 14°C (with 8 months of the year having a mean minimum greater than 20°C). The mean monthly maximum temperature is 38°C (with 10 months of the year having a mean maximum over 30°C).¹³

While the wet season replenishes the country, creeks and rivers, it can also flood vast areas for many weeks. The mean annual rainfall is 744mm (as recorded from 1889-2020)¹⁴ with the majority of rain falling during the wet season. The wet season is most prevalent from December to April with variations in start and finish dates.

Parts of the shire are hills or breakaway country; a large portion forms the forest country and gulf flood plains - a network of seasonal streams and rivers which join to cover thousands of hectares in times of prolonged flooding. Vegetation types are predominantly Eucalypt and tea tree woodlands.

¹⁰ Fact Sheet -November 2017 Poverty In Rural & Remote Australia. (n.d.). [online] Available at: <https://www.ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-povertynov2017.pdf>

¹¹ Fact Sheet -November 2017 Poverty In Rural & Remote Australia. (n.d.). [online] Available at: <https://www.ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-povertynov2017.pdf>

¹² Fact Sheet -November 2017 Poverty In Rural & Remote Australia. (n.d.). [online] Available at: <https://www.ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-povertynov2017.pdf>

¹³ www.bom.gov.au. (n.d.). Climate statistics for Australian locations. [online] Available at: http://www.bom.gov.au/climate/averages/tables/cw_029012.shtml [Accessed 18 Jan. 2021]

¹⁴ www.bom.gov.au. (n.d.). Climate statistics for Australian locations. [online] Available at: http://www.bom.gov.au/climate/averages/tables/cw_029012.shtml [Accessed 18 Jan. 2021]

A Croydon backyard during monsoonal rain *Image Erica Hughes*



Food security in Croydon

History of food security in Croydon

Due to remoteness and extreme seasons, negotiating food and water security has always been prevalent for those living in and around Croydon.

The first people of the region, the Tagalaka, hold sophisticated knowledge of local food sources as their ancestors did, and work with the variations of seasons to source food from the land and water.

Wegner describes a picture of seasonal dependence on water resources with “the population spreading across the land and into the ranges in the wet season and contracting back to the rivers in the dry. Once the rivers had stopped running, they would have further contracted to the permanent waterholes and lagoons and the spring-fed creek” (Wegner 1993:133) ...mussels, waterlilies, crocodiles, edible plants, birds, and game which needed water. Although the sources are fragmentary rather than systematic, the general picture they suggest is of active habitation of the region by a substantial number of people who were using locally available and appropriate technologies to exploit aquatic and riparian resources¹⁵

The first pastoralists arrived in the 1880’s establishing the Croydon Pastoral Run.¹⁶ The beef industry has been consistent across the shire since then. It is likely that the Croydon Pastoral Run supplied goldfields in North Queensland with beef. Food was often in short supply on the goldfields and there was a heavy reliance on a rapidly expanding beef industry.¹⁷

By 1885 gold had been discovered in Croydon. The town was quickly established as a major gold mining centre and within two years the population grew to around seven thousand people, supporting four general stores, a bakery, several hotels, two banks and a school.¹⁸

Chinese settlers also arrived in 1885 with the gold rush, and Chinatown was established. The Chinese played a crucial role in food security at the time establishing market gardens. They also established

¹⁵ Barber M (2013) Indigenous water values, rights and interests in the Flinders and Gilbert catchments. A technical report to the Australian Government from the CSIRO Flinders and Gilbert Agricultural Resource Assessment, part of the North Queensland Irrigated Agriculture Strategy. CSIRO Water for a Healthy Country and Sustainable Agriculture flagships, Australia.

¹⁶ www.slq.qld.gov.au. (n.d.). Queensland Places - Croydon | State Library Of Queensland. [online] Available at: <https://www.slq.qld.gov.au/blog/queensland-places-croydon> [Accessed 18 Jan. 2021]

¹⁷ May, D. (n.d.). The North Queensland Cattle Industry - A Brief History. [online] Lectures on North Queensland History. Available at: https://espace.library.uq.edu.au/data/UQ_241822/Lectures_on_NQ_History_S4_CH6.pdf __ [Accessed 16 Jan. 2021]

¹⁸ www.slq.qld.gov.au. (n.d.). Queensland Places - Croydon | State Library Of Queensland. [online] Available at: <https://www.slq.qld.gov.au/blog/queensland-places-croydon> [Accessed 18 Jan. 2021]

pig ovens “designed to roast whole pigs on feast days, (which) were an integral feature of many temple sites and were located adjacent to the temples in Croydon.”¹⁹

There was a downturn in mining activity in the wake of World War One.²⁰ The town population reduced to service the surrounding cattle industry. There was a resurgence in mining activity from the mid 70’s until 1991.²¹ By the end of the 1990’s the population size was reduced to less than 350 people with the shire’s services limited to a small hospital, primary school, butcher, council office, general store, café, roadhouse and pub.

Croydon food security in recent times

The challenges of remoteness and isolation continue today. The introduction of helicopters in the 1980’s for mustering cattle has seen the establishment of helicopter businesses in Croydon and neighbouring townships making it easier to distribute supplies to the township and remote properties during declared disasters and prolonged wet season flooding.

Recent infrastructure changes include a dam wall constructed to form Lake Belmore and the building of a bridge over the Einasleigh River.

Lake Belmore was established in 1995 to become the towns water supply. Before the dam water was taken from mining pit bores, like *Golden Butterfly* which were increasingly drying up.²² The dam also serves as a place of recreation. The Croydon Fishing and Boating Club stock Lake Belmore regularly with red claw, barramundi and sooty grunter.

The Bib Loudon Memorial Bridge over the Einasleigh River on the Gulf Development Road between Mt Surprise and Georgetown opened in 2011. This has reduced the length of time that Croydon township is cut off during prolonged flooding from weeks to usually less than a few days. Wet season flooding had been a constant barrier for food security prior to the building of the bridge.

Other significant impacts on food supply in Croydon’s recent history include the closure of the butcher shop in the late 2000’s, the café expanding to become a small supermarket, and the 2018 fire which destroyed the general store.

One third of Croydon’s population resides outside of the township on pastoral properties that are regularly isolated by flooding during the wet season and in more extreme events. For example, land

¹⁹ Burke, H., & Grimwade, G. (2013). The Historical Archaeology of the Chinese in Far North Queensland. Queensland Archaeological Research, 16, 121-139

²⁰ Queensland, c=AU; o=The S. of (n.d.). Federation La Perouse Mine (Croydon) Remediation Project | Mine remediation projects. [online] www.qld.gov.au. Available at: <https://www.qld.gov.au/environment/land/management/abandoned-mines/projects/federation-la-perouse> [Accessed 19 Jan. 2021]

²¹ Queensland, c=AU; o=The S. of (n.d.). Federation La Perouse Mine (Croydon) Remediation Project | Mine remediation projects. [online] www.qld.gov.au. Available at: <https://www.qld.gov.au/environment/land/management/abandoned-mines/projects/federation-la-perouse> [Accessed 19 Jan. 2021].

²² Croydon (n.d.). Lake Belmore. [online] Croydon Shire Council. Available at: <https://www.croydon.qld.gov.au/discover-croydon/things-to-do/lake-belmore> [Accessed 19 Jan. 2021].

was inundated by water for up to 12 weeks during the 2008/09 flooding event,²³ with remote residents isolated for months.

During the 2009 floods, disaster relief was needed to supply food to the community and surrounding properties. The State Disaster Coordination Centre conducted 28 resupply operations across northwest, central and far north Queensland with additional operations by local governments using light aircraft and mustering helicopters to access isolated properties. Approximately 211,000 litres of fuel and 500 tonnes of supplies were delivered at the time.²⁴

Many Croydon residents today continue the experience and traditions of their forebearers in sourcing, harvesting, producing, and preparing food. Traditional fishing, hunting and harvesting continues - in 2012 Tagalaka Traditional Owners were granted native title provisions including non-exclusive hunting and fishing rights, and the right to take and use the water for personal, domestic and non-commercial communal purposes.²⁵ Fishing continues to also be a valued food source for non-indigenous residents. Beef and rice are a staple amongst many families who have been associated with pastoral properties for generations. Chinese market garden produce such as butter bean and kumquats continue to be grown locally, while many residents value the Chinese Apple (Jujube) as an important food source.

Growing produce locally in home and community gardens continues on a small scale, with some successful food gardens in home gardens, at the Croydon hospital and at Croydon Primary School. It takes persistent dedication for productivity under the challenging climate conditions. The Croydon School with support from the school community and Northern Gulf Resource Management Group has had a kitchen garden and modern kitchen facility for most of the past decade, serving as a learning place and resource for students to learn about growing food, cooking and healthy eating.



Above: Croydon Primary School students working in the school's food garden *Image Erica Hughes*

²³ Northern muster Information for rural business in north Queensland Producing quality food and fibre for a healthy bottom line editorial. (n.d.). [online] Available at: <https://futurebeef.com.au/wp-content/uploads/2011/11/NorthernMuster-Issue26.pdf> [Accessed 19 Jan. 2021]

²⁴ 4 NW Qld Monsoonal Floods and Tropical Cyclone. (2009). [online] Available at: <https://www.disaster.qld.gov.au/dmp/Archive/Documents/Jan-Jun-2009.pdf> [Accessed 19 Jan. 2021]

²⁵ Barber M (2013) Indigenous water values, rights and interests in the Flinders and Gilbert catchments. A technical report to the Australian Government from the CSIRO Flinders and Gilbert Agricultural Resource Assessment, part of the North Queensland Irrigated Agriculture Strategy. CSIRO Water for a Healthy Country and Sustainable Agriculture flagships, Australia

About this project

Northern Gulf Resource Management Group (NGRMG) and Tagalaka Aboriginal Corporation (TAC) partnered to develop a food security strategy to address the challenges faced locally in access, availability, utilisation and stability of food. These challenges are multiple as described in this report, and largely reflective of the climatic challenges and regularly occurring natural disasters. The shire is frequently disaster declared and recent events include North and Far North Queensland monsoonal floods in January-February 2019 and flooding from ex-tropical cyclone Imogen in January 2021.

NGRMG and TAC obtained funding to engage the community in a draft food security plan. The project has been jointly funded by Commonwealth and State disaster recovery funding arrangement with funding contributions from the Australian and Queensland Governments under the Community Development Program.

Community Bred and Farmer Meets Foodie were engaged to develop the Draft Food Security Strategy through community workshops and engagement in Croydon.

Process for developing the strategy

Initial research was undertaken to identify key stakeholders, community demographics, the history of food security and the current status of food security in Croydon Shire.

The strategy was developed through community and stakeholder consultation, including interviews, online surveys and a half day workshop. 12% of Croydon Shire's residents were represented in consultations with seven interviews conducted; five online surveys completed and 19 participants attending the workshop.

Consultation was based around four key questions:

- ✚ What does a food secure Croydon look like?
- ✚ What are the current barriers to food security in Croydon (what stops people eating well and eating healthy)?
- ✚ How do we get to our targets? Big picture ideas?
- ✚ What actions can be taken now with current resources?

The workshop also took responses to these questions going into further detail of each of the 4 pillars (access, availability, utilisation, stability) and drew out next actions from participants.

The results from the interviews, surveys and workshop have been collated to create:

- ✚ A vision with overarching strategies
- ✚ Key areas divided into objectives, barriers and strategy
- ✚ Food Security project ideas.

Community feedback

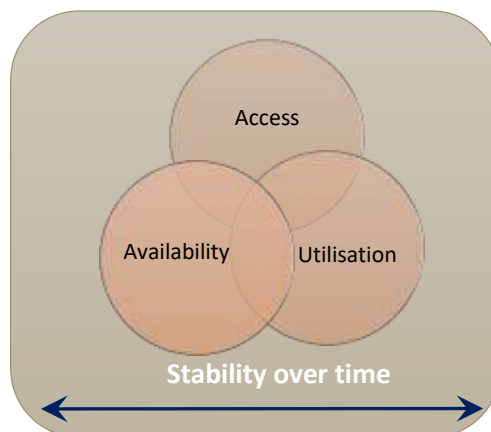
“A happy community with full bellies”

What does a food secure Croydon look like?

Croydon residents had diverse views about what it would be like in Croydon if the shire was ‘food secure’:

- Growth – good soil to grow food
- Good foods, fresh not rotten
- Supply is regular
- Accessibility to food regardless of season
- Organic food is available
- There is enough food to sustain household and community
- Diversity in food – different food groups
- Food is affordable
- Access for everyone to good food
- Happy community – full bellies
- Healthy community
- Brings community together – sharing food together
- Access to fresh food through the wet season
- More supply, more competition and lower pricing
- More affordable fresh fruit and vegetables
- Commercial expansion of business
- We’d have a butcher
- Croydon would be thriving and growing
- Everyone has a backyard garden
- Vegetables that have a good shelf life – potatoes that aren’t black inside
- A sustainable, well-managed aquaponics ‘business’
- A bridge over the Gilbert river
- A community garden to buy from
- People are eating vegetables
- A place to get together, be closer to community, talk about the garden and share ideas.

These views cover the four pillars of food security: access, availability, utilisation and stability over time. When each pillar is addressed, and all are stable over time, food security can be achieved.



Food security values for Croydon

Croydon residents understand importance of nutritious food.

Access

Croydon residents want to enjoy locally available, fresh and abundant food choices at fair prices. People would like to have local markets and saw opportunity to increase income through growing and selling locally. Nutritious food would be available year-round and would be affordable.

Availability

The following table shows some of the food that residents wanted to have available to them, noting that some foods were seasonal.

Fruit	Vegetables	Meat	Staples	Frozen/ preserved	Other
watermelon	lettuce	chicken	rice	frozen tomato	goat
pineapple	tomatoes	beef	bread	frozen fruit	milk
bananas	capsicum	goat	milk	dried fruit	
strawberries	sweet	meat	flour	preserving	
grapes	potato	fish		fresh food	
	pumpkin	kangaroo			
	radish				
	cucumber				
	silverbeet				
	eggplant				
	snake				
	beans				
	potatoes				

Water access and water storage were viewed as essential.

Utilisation

Croydon residents valued the following ways to utilise healthy foods sustainably and effectively:

- Knowing how to use the food e.g. fermenting, drying
- Cooking classes
- Education on nutrition
- Community dinners
- BBQ's
- Sharing food in community.

Stability over time

People believed improved roads and transport networks, more employment and increased income, and water security were essential for the access, availability and utilisation values to become stable over time.

Cross-cutting themes

Responses to the consultations drew out some key themes across the pillars for food security in Croydon. These themes are also **key principles** to consider when implementing this strategy.

1. Affordability – food must be locally affordable to all

Fresh food found locally is often highly priced (or price unmarked) and therefore inaccessible for those on low incomes. Options to purchase food online, from the coast or from neighbouring towns are also difficult for those on low incomes to access.

2. Quality and freshness is essential

Accessing quality fresh produce locally is challenging. Food stocked locally or delivered often has a short shelf life.

3. Variety is important

Many residents expressed a desire for a greater variety of food, including fresh meats and fish, to be available locally. Many suggested a local Butcher.

4. Year-round supply of food

Road access is often cut in the wet season, stopping food deliveries from the coast. The climate is also challenging for growing food. Replacing the Gilbert River bridge, and improved other roads along the transport routes is seen as an option for improving year round supply of food.

5. Local retail with affordable prices

A truck delivers fruit and vegetables from the Atherton Tablelands weekly, and this service is appreciated. However, many expressed frustrations because: prices are not shown on produce; the produce is on display in sun; and the timing difficult to access for those on minimal income (may not have cash available on that day); and people who work can't attend (particularly those in road camps).

There were suggestions for the supermarket to rearrange shelving to put healthy choices as walk in, and to have a greater variety of healthy, nutritional and affordable staples.

6. Develop food gardens and farming

Croydon has challenges to growing year-round because of heat, water restrictions and wet season flooding. Despite this there are successful gardens in backyards, the school, the hospital and CDEP, with extra produce provided to the community. The community said the following foods could be grown in backyards or commercially produced: barramundi, spangled perch, date palms, eggs, chinee apple, mangoes, tomato, zucchini, corn, butterbean, herbs, okra, lettuce, chilli, celery, zucchini, pineapple, mulberry, papaya, basil and lemon grass.

7. Water availability is essential

Lake Belmore is not sufficient catchment for irrigation projects and the bigger catchments are too far to pipeline from for a small community.

8. Engaging community in healthy choices

School children and vulnerable people should be engaged in developing ideas and programs if they are expected to be part of those programs.

Our Vision

A happy, healthy community, where bellies are full, and people thrive and grow.

We have a sustainable food system where everyone can access, afford and utilise healthy and nutritious food during every season of every year.

Overarching strategies

The following strategies are seen key for successful implementation of this strategy document.

1. Establish a community-led steering group to implement the food security strategy.
 - Involve IBA, Tagalaka PBC, Tagalaka Land Trust, Croydon Shire Council, Northern Gulf RMG, State Government Local Member, NW Health, School, RFDS
2. Engage a paid coordinator to oversee a community-led food security program.
 - Seek funding to support a position for a minimum of three years
3. Continue advocacy with state and federal government to improve road access to Croydon and across the Shire for year-round road access.
4. Provide residents with enough water to grow food and develop farming.



Above: Developing ideas at the Croydon workshop, November 2020 *Image Lyndal Scobell*

Access

Objective A: Everyone in Croydon Shire can access nutritional and affordable food every day

Barriers:

The community identified several barriers to accessing nutritional and affordable food:

- Food is expensive to buy in Croydon, and healthy options are most expensive
- Many people are on low incomes, and can't afford food
- While the fruit and vegetable truck usually come weekly, people don't have income available on that day, and the truck doesn't display prices
- Online orders and delivery are available from major retailers, but not everyone has a credit card and/or can afford bulk orders and freight cost.

Strategy:

1. Grow and utilise local produce.
2. Make food more affordable locally.
3. Encourage business development and entrepreneurship to create commercial expansion and competitive pricing.

<i>Strategy</i>	<i>Action</i>	<i>Output</i>	<i>Who</i>
<i>1. Grow and utilise local produce</i>	a. Establish local food swap and/or markets in Croydon	Regular food swaps Regular market day	Steering committee Bynoe
	b. Source food which is grown locally	Local gardens producing food	Community Tagalaka
	c. Investigate options to re-establish local meat supplies, including a butchery	Local meat suppliers identified Local meat suppliers established	Northern Gulf Croydon Shire
	d. Educate community about how to identify and use bush foods	Information on bush foods available	Tagalaka Bynoe
<i>2. Make food more affordable locally</i>	a. Work with shop and fruit and vege truck for pricing and quality of food	Produce is in shade Prices are visible	Council Northern Gulf
	b. Hold financial management programs for	Individual and community financial	Council Bynoe Northern Gulf

<i>Strategy</i>	<i>Action</i>	<i>Output</i>	<i>Who</i>
<i>3. Encourage business development and entrepreneurship to create commercial expansion and competitive pricing.</i>	community members	management sessions are held	
	c. Investigate opportunities freight subsidies for remote communities	Cost of food at shop is reduced	Steering committee Council
	a. Transport options for shopping trips	Community transport program or business is established	Bynoe Council Steering Committee
	b. Establish Co-op and markets	Co-op and/or market operational and financially viable	Bynoe Steering Committee
	c. Butcher, egg production, poultry, bush foods options are explored for business	New food businesses established	Steering Committee Northern Gulf
d. Provide business development information	Workshops are held Information is shared	Northern Gulf Council	

<i>Outcomes</i>	<i>How do we know we are successful?</i>
✚ Healthy food is available	✚ Type of produce available
✚ Food is produced locally	✚ Clinic and school see health improvements
✚ People are collecting and eating bushfoods	✚ Markets are established and well supported
✚ Individuals have more money to spend	✚ No. of viable new food businesses
✚ New local businesses are established	✚ People are eating healthy, nutritious food
✚ Nutritious food prices are competitive and affordable	

Objective B: Croydon Shire residents are consuming fresh and nutritious food

Barriers:

Croydon residents identified the following barriers to accessing fresh and nutritious food:

- The fruit and vegetable truck arrives when people are working, only comes once a week.
- Residents have to travel to other towns for food as there is no butcher shop and no food grown locally available for sale. The closest town is 1.5 hours away, the closest large town with a major supermarket retailer is at least 6 hours away
- Some people cannot get to the shop or fruit and vegetable truck because they don't have access to transport or have limited mobility
- Road access is cut during the wet season – no food deliveries, or access to other towns during this time. Station residents' roads are impassable for long periods during wet season.

Strategy:

4. Find ways to get nutritious food into homes.
5. Encourage healthy eating in schools.

Strategy	Action	Output	Who
4. Find ways to get nutritious food into homes	a. Identify options for community transport for regular shopping trips in Croydon and to other places	Community transport is available Shopping trips occur	Queensland Health Steering Committee Tagalaka Bynoe
	b. Increase access to local deliveries (food and/or cooked meals) for aged, people with young children, people without vehicles, or physical disabilities	Food deliveries	Queensland Health Steering Committee Bynoe Tagalaka
	c. Review options to make online orders for large supermarket retailer deliveries affordable for low-income families	Affordable groceries delivered regularly	Tagalaka Bynoe Steering Committee
	d. Investigate options for pre-ordering delivery from the fruit and vege truck for town and for road camps	Affordable, fresh fruit and vegetables	Council Steering Committee

<i>Strategy</i>	<i>Action</i>	<i>Output</i>	<i>Who</i>
<i>5. Encourage healthy eating in schools</i>	e. Continue advocacy with state and federal government to improve road access to Croydon and across the Shire for year-round road access.	Better roads and bridges	Council Northern Gulf
	f. Liaise with pastoral properties to encourage wet season preparedness	Pastoral properties have enough food for long periods of isolation	Council Northern Gulf
	a. Continue to support community gardens at school	Productive school fruit and vegetable garden	School Northern Gulf
	b. Incorporate education on nutrition into curriculum, based on garden-based activities	Education on nutrition embedded in curriculum	School
	c. Invite families for picnics to share school garden produce and learn about nutrition	Picnics held and families attend	School Northern Gulf Tagalaka NW Health

Outcomes

How do we know we are successful?

✚ Affordable, healthy food is consumed by all residents	✚ Type of produce available
✚ Food is produced locally	✚ Clinic and school see health improvements
✚ Improved knowledge about good nutrition	✚ No. of shopping options increases
✚ Families are engaged in school nutrition programs	✚ Individuals and family have more food at home
✚ Young people develop healthy eating habits	✚ Improved road access to other places during the wet season

Availability

Objective C: Nutritious, good quality food is always available to people in the Croydon Shire

The community identified the following barriers to food availability:

- Lack of water to grow food
- Limited season (winter) for growing food due to climate
- Food miles as food loses quality with travel
- Lack of storage for food during the wet season
- Wet season - flooding stops deliveries and power outages spoil food
- People don't know how to grow food
- Poor shelf life of produce from shop and fruit and vegetable truck
- Poor quality of available food in shops
- Not critical mass to produce food
- Pests/competitors for food e.g. galahs, wallabies.

Strategy:

1. Improve the quality and quantity of the food available to residents in Croydon Shire.
2. Trial aquaponics as a viable year-round opportunity for growing healthy and nutritious food.
3. Improve food and water storage and infrastructure for residents of Croydon.

<i>Strategy</i>	<i>Action</i>	<i>Output</i>	<i>Who</i>
<i>6. Improve the quality and quantity of the food available to residents in Croydon Shire</i>	a. Work with Croydon food retailers to identify ways to stock a broader range of fresh and nutritious seasonal food throughout the year	Variety of quality produce in stock	Steering Committee Northern Gulf
	b. Work with the fruit and vegetable truck to keep produce under shade during weekly market	Fresher produce	Steering Committee Northern Gulf
	c. Establish backyard food gardens to grow edible seasonal produce	More homes have vegetable gardens	Steering Committee Northern Gulf
	d. Continue supporting community gardens at school and hospital	Fresh, seasonal fruit and vegetables supplied to school and hospital	School Hospital Steering Committee Northern Gulf

<i>Strategy</i>	<i>Action</i>	<i>Output</i>	<i>Who</i>
		Excess stock shared in community	
7. <i>Trial aquaponics as a viable year-round opportunity for growing healthy and nutritious food.</i>	a. Continue to develop the Aquaponics project, incorporating learnings from previous aquaponics projects in the Shire and elsewhere	Fish and vegetable produce which can be sold and distributed in community Increased capacity of aquaponics venture	Tagalaka Northern Gulf Bynoe
	b. Develop and implement a business model to share and sell produce	Sustainable aquaponics project Food available for community	Tagalaka Northern Gulf
8. <i>Improve food and water infrastructure and storage for residents of Croydon</i>	a. Investigate options for community to access cold rooms for produce storage	Community cold room is available Model for use of cold room	Steering Committee Council Northern Gulf
	b. Investigate options for water tanks at each home	Water tank project is funded Water tanks installed for Croydon households Water is available for gardens	Steering Committee Council Northern Gulf
	c. Investigate options to improve and increase access to safe water for gardens include bores and grey water options.	Options identified, funding and partnership opportunities identified Water is available for gardens	Steering Committee Council Northern Gulf

Outcomes

- ✚ Healthy food is available
- ✚ Food is produced locally
- ✚ There is enough water to support vegetable gardens throughout the year
- ✚ People are healthier
- ✚ Community has a better understand of the benefits of good nutrition
- ✚ Food can be safely stored

How do we know we are successful?

- ✚ A variety of nutritional produce is available locally
- ✚ Clinic and school see health improvements
- ✚ No. of water tanks installed
- ✚ No. of home gardens
- ✚ No. of people are eating healthy, nutritious food



Local bushfoods include freshwater mussels (above left) and the flowers and tap roots of young Kapok trees (above right)
Images Erica Hughes



Croydon's water supply comes from Lake Belmore *Image Erica Hughes*

Food Utilisation

Objective D: Croydon Shire residents have the knowledge to grow, prepare and store nutritious food

The barriers to food utilisation that were identified by the community include: knowledge, time, desire to participate and engage, access, and cost.

Strategy:

9. Encourage retailers to promote purchase of healthy foods.
10. Invest in research and development to explore growing options suitable to the region.
11. Develop a community education program based on community interests.
12. Organise community events with a focus on sharing nutritious food and on community-building.

<i>Strategy</i>	<i>Action</i>	<i>Output</i>	<i>Who</i>
<i>9. Encourage retailers to promote purchase of healthy foods</i>	a. Work with shop to encourage relocation of nutritious food to shop front for easy access	Increase in sales of healthy food	Steering Committee Shops
	b. Encourage retailers to have healthy food specials	Increase in sales of healthy food	Steering Committee Shops Pub Cafe
	c. Work with shop and fruit and vege truck to improve quality of fresh food for sale	Longer shelf life of food purchased from fruit and vegetable truck	Steering Committee Northern Gulf
<i>10. Invest in research and development to explore growing options suitable to the region</i>	a. Continue to develop the Aquaponics project and investigate options for expansion in the community	Success and sustainability of Aquaponics project	Tagalaka Northern Gulf
	b. Trial crops and methods for growing year-round local nutritious produce	Trials established	Northern Gulf DAF Council
<i>11. Develop a community education program based on community interests</i>	a. Teach people how to build and care for a home vegetable garden	Classes held Increased knowledge of gardening Gardens at homes Produce eaten and shared	Northern Gulf Tagalaka Council School

<i>Strategy</i>	<i>Action</i>	<i>Output</i>	<i>Who</i>
<i>12. Organise community events with a focus on sharing nutritious food and on community-building</i>	b. Develop community education program and resources about identifying and using bush foods	Classes held Resources developed and shared People utilise bushfoods	Northern Gulf Tagalaka Council School
	c. Teach community members how to preserve, pickle, dry, freeze and ferment food	Classes held Resources developed Increased knowledge	Northern Gulf Tagalaka Council School
	d. Continue and extend community education on nutrition using appropriate and engaging teaching methods	Classes held Resources developed Increased knowledge People cook healthy food at home	Northern Gulf Tagalaka Council School
	e. Hold community cooking classes focussing on preparation of nutritious tasty food using locally available produce	Classes held Resources developed Increased knowledge People cook healthy food at home	Northern Gulf Tagalaka Council School
	f. Liaise with pastoralists to identify community education needs and investigate delivery options	Pastoralists have access to community education programs	Northern Gulf Steering Committee Council DAF
	a. Hold community events centred BBQs, kup murris, dinners	Events are held Community attendance	Northern Gulf Tagalaka Council School
	b. Incorporate health and cooking information into events	Information produced Delivery mechanism for information	Northern Gulf Tagalaka Council School
	c. Establish a community Kup Murri site in Croydon	Kup Murri site established	Council Steering Committee Tagalaka

Outcomes

- ✚ Healthy food is available locally
- ✚ Food is produced locally
- ✚ People are collecting and eating bushfoods
- ✚ Community connectedness is strengthened
- ✚ People are growing, cooking and storing healthy food

How do we know we are successful?

- ✚ Type of produce available in retailers and at home
- ✚ Clinic and school see health improvements
- ✚ No. of classes and events held
- ✚ Information is being used
- ✚ People are preparing and eating healthy, nutritious food
- ✚ School and work lunches are healthy



Croydon aquaponics project, January 2021 *Image Zoe Williams*

Community-identified solutions

During the workshops held in Croydon, participants identified opportunities for enhancing food security. These opportunities are incorporated within the strategy, with more detail presented below. This information may provide the foundation of stand-alone community or small business projects.

1. Native food growing and harvesting

A community member already had a plan for making native foods available, and the workshop provided an opportunity to build on the idea. The project would involve collecting seeds and establishing harvest. Types of fruits might include wild berries, wild bananas, wild cucumber, wild gooseberry and bush tea. Other food production and harvest ideas considered by this group included: dates, Burdekin plum, honey from native bees (sugar bag).

Chinee apple came up multiple times during the workshop and in interviews as a valued food, however it is listed as a category 3 restricted invasive plant under the Biosecurity Act 2014.

Community education for harvest and preparation would be needed.

2. Home gardening

This group considered ideas and challenges for home gardens in Croydon. They established that home gardens were viable as the previous CDEP aquaponics project had delivered plentiful good food and fish, and that the school garden project had been successful over a number of years.

A member had grown cherries with grey water, and there were some good home gardens already in Croydon. The challenges included power outages, which was a particular issue for the aquaponics project and for food storage. Bananas have not been grown successfully in Croydon. Other challenges to successful gardens included the environment, climate, water availability and cost, insects and wallabies, and lack of knowledge.

Ideas for exploration included home gardens, home aquaponics, solar for every house, a program to plant and establish 12 assorted fruit trees per household with resources including cheap automatic watering system and a how-to guide.

The group resolved that if everyone has a garden or green house at their place there are more food and vegetables for everyone.

3. Butcher shop

Croydon residents currently must travel to Georgetown or Normanton to access a butcher shop. This group addressed the need for a butcher shop to be re-established in Croydon. They said that no butcher shop caused health, financial, mental health, and safety issues, mainly due to having to travel for meat, or purchase pre-packaged meat locally which was expensive.

Strategies that could help to open a new butcher shop might include:

- Access to slaughter yard, which needs upgrading, so community can have beef brought back into town
- Training in butchers' cuts and preparation, and training to prepare the product, and packaging

Other local production ideas included: wild deer harvest and processing, kangaroo meat butchering, milling facility, producing and selling value-adding products such as jerky, a brewing facility, a barter market, and a mobile beef abattoir and butcher shop

The group identified a need for help – legislation, training and funding to explore the idea further.

4. Farming

This group explored several farms options for the Shire including eggs, poultry, turkey, chicken, bees, goats, pigs, turtles (long-necks), fish and aquaponics, and orchards.

Some considerations and identified needs to farming included: weather conditions, shelter, protection, fencing, location, impacts on native species (e.g. native bees), identifying the right breeds for the location, legalities for farming native animals (turtles) and the type, expense and availability of equipment for farming and processing, costs and approvals.

5. Infrastructure/storage

The infrastructure group looked at a variety of community infrastructure which could reduce costs of living and increase success of food production.

Water tanks for rain harvest: needs include money to purchase, tank maintenance and clean, efficient gutters for water collection.

Community solar: needs an operator, security, money, and maintenance.

Community operated cold room: needs coordination of use, money to purchase, regular maintenance and cleaning.

Community generator: needs ongoing operational use, a trained operator, maintenance and money to purchase.

6. Training

A need for community education was identified across all groups if projects were to be successful. Specific education needs included: how to start and grow a backyard garden, how to preserve food, healthy food and nutrition, herb growing, composting, meal planning and cooking.

The group noted that successful workshops should target the right people, meet community needs and interests, be kept simple, and be well promoted.

The needs for the workshops included funding, facilitators, have an ongoing schedule rather than one-off events so more people could be reached.

Croydon sunset Image Erica Hughes



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