



Pilbara Food Community: Snapshot Report



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Contents

A snapshot of the Pilbara region demographics	2
Family composition	3
What we know about food insecurity across Australia	3
Pilbara region food problems in 2023	4
How are existing initiatives supporting regional food security in 2023?	4
Pilbara region response to food security issues in 2023	4
Pilbara region Socio-Ecological Model of food security initiatives: Levels of intervention	5
Pilbara food security systems change impact card	6
How Pilbara region initiatives are contributing towards food security systems change	7
Types of partnering organisations in the Pilbara region in 2023	9
Pilbara region partnership findings	9
Pilbara partnership map	10
Partnership Typologies	11
Ways that Pilbara region organisations are working in partnership	12
New initiative ideas and actions for the Pilbara region	14
Recommendations from the Food Community project findings	15
References	16

Pilbara Food Community Snapshot

We need good quality food, in sufficient amounts, to meet our dietary needs. Regular physical, social and economic access to healthy food is called **food security** [1]. **Food insecurity** arises when people cannot regularly or reliably obtain food in adequate quantities or in socially acceptable ways for good health and wellbeing [1].

A snapshot of the Pilbara region demographics

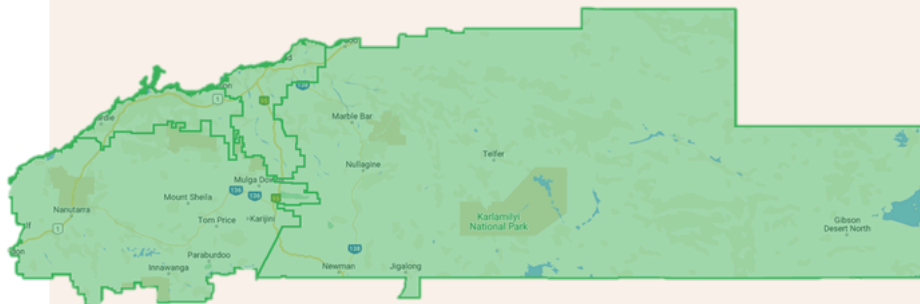
507,896

square kilometres [2].

A population of



58,243 people [3][4].



Map of the Pilbara region

(Adapted from REMPLAN MapBuilder, <https://mapbuilder.remplan.com.au/>)



4

local government authorities [2].

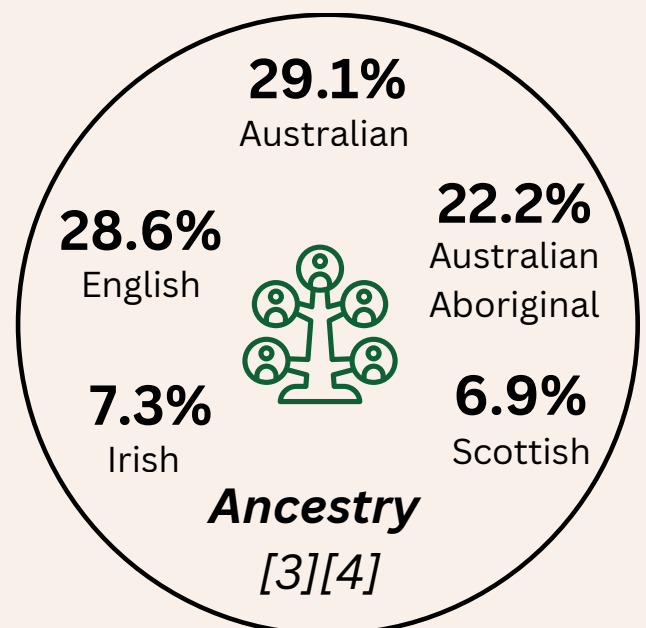
Employment status [3][4]



70.8% Worked full-time
17.4% Worked part-time
8.7% Away from work
3.2% Unemployed

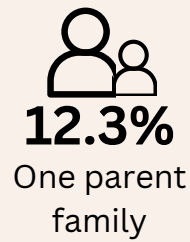
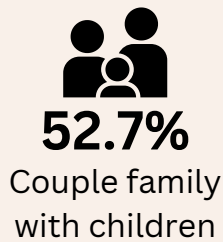
Median weekly income [3][4]

\$1,611 - Personal
\$3,295 - Family
\$2,939 - Household

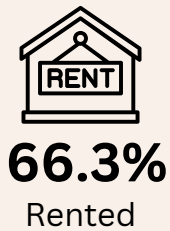
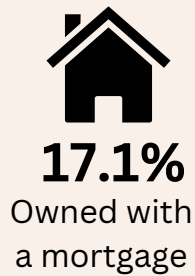
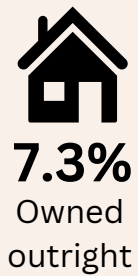


Ancestry
[3][4]

Family composition [3][4]

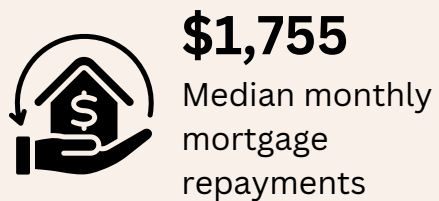


Tenure type [3]

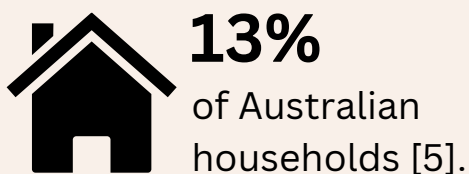


2.8
Average number of people per household [3]

Mortgage and rent [3]



What we know about food insecurity across Australia



- Low incomes.
- Unexpected bills [7].
- Children whose families received government financial assistance are 2.6 times more likely to be food insecure [6].

Food insecurity impacts:

- Behavioural problems [8], impaired academic performance [9], low self-esteem and low self-efficacy [10].
- Compromised dietary intake, nutrient deficiencies like iron deficiency, and poor growth and development [11].
- Increased risk of heart disease [12].
- Diet-related diseases [13].
- Malnutrition among seniors [14].



Food in regional and remote areas is **expensive**, the **quality is often poorer**, **availability lower**, and **transport options reduced** [15].

Pilbara region food problems in 2023

Community and interest holder perceptions of Pilbara region food problems [16].



Labour costs and competition with mining sector – people want high salaries and mining gives them that.

No market for produce = no processing.

Expensive to distribute food from neighbouring regions.

Healthy food outlets located further away, junk food on every corner.

Trucks get diverted on highway; food is wasted.

Disrupted transport of staple foods.



Some community members don't like cooking with gas, and the majority of houses have gas stoves.

How are existing initiatives supporting regional food security in 2023?* [17]



13 Addressing Food Availability

7 confirmed via an interview



38 Addressing Food Access

16 confirmed via an interview



29 Addressing Food Utilisation

12 confirmed via an interview



2 Addressing Stability

1 confirmed via an interview



3 Addressing Agency

2 confirmed via an interview



2 Addressing Sustainability

1 confirmed via an interview

Pilbara region response to food security issues in 2023** [17]

21



Food Literacy and Health Promotion Initiatives

9 explored via an interview

21



Emergency Food Relief and Community Programs

7 explored via an interview

6



Community Gardens and Food Swapping Groups

3 explored via an interview



3

Policies or Strategic Plans

1 explored via an interview



3

Businesses, Networks or Alliances

1 explored via an interview

*some initiatives address multiple aspects

**some initiatives run across multiple regions and initiative types

Pilbara region Socio-Ecological Model of food security initiatives: Levels of intervention

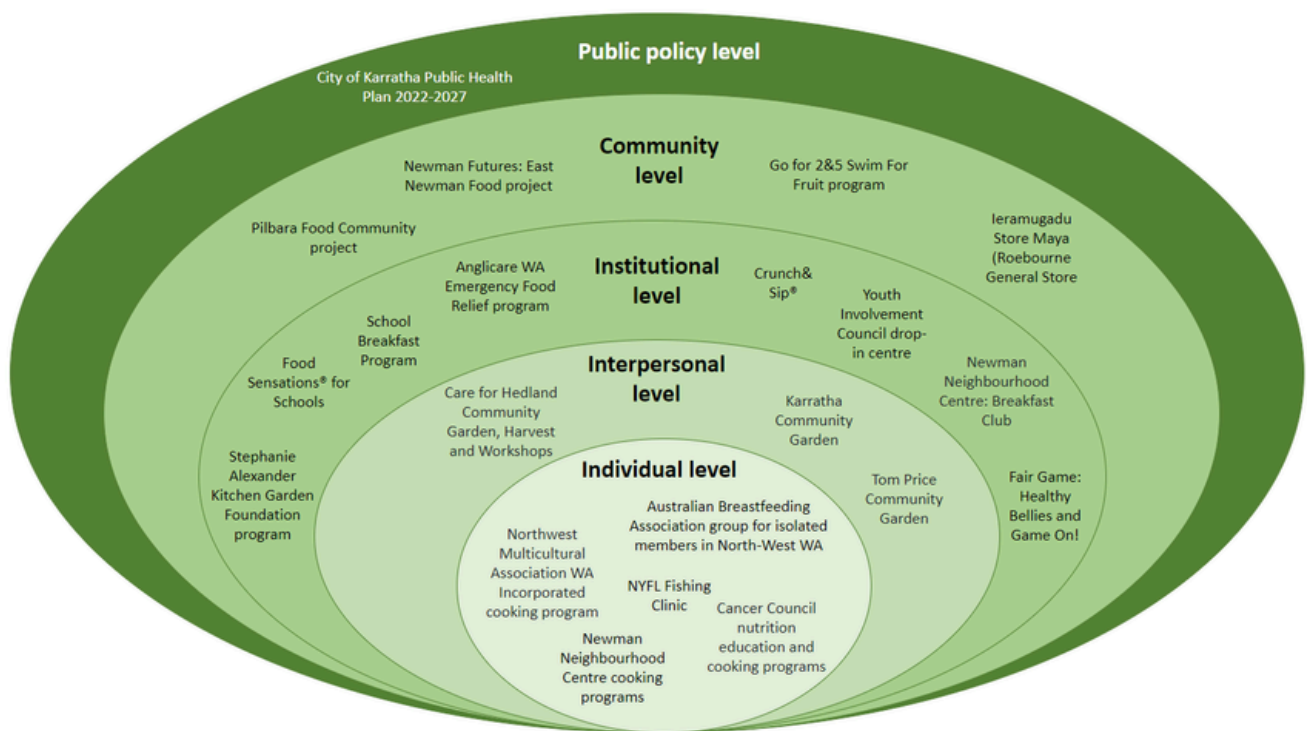


Figure 1: Pilbara region Socio-Ecological Model of food security initiatives. (Adapted from the model described by McLeroy et al. (1988) [18]).

The social-ecological model shows the different levels of intervention that these initiatives are focusing on (Figure 1). For example:

- The individual level focuses on knowledge, skills or attitudes of individual clients or people that they are working directly with.
- The interpersonal level focuses on relationships between family or social networks, or looking at the connection between them.
- The institutional level is often embedded within schools or other settings, like workplaces.
- The community level focuses on different partnerships between community organisations.
- The public policy level relates to supporting a variety of policy frameworks and initiatives.

Many Pilbara initiatives captured in interviews were operating at the institutional level, with few at a public policy level.

Pilbara food security systems change impact card

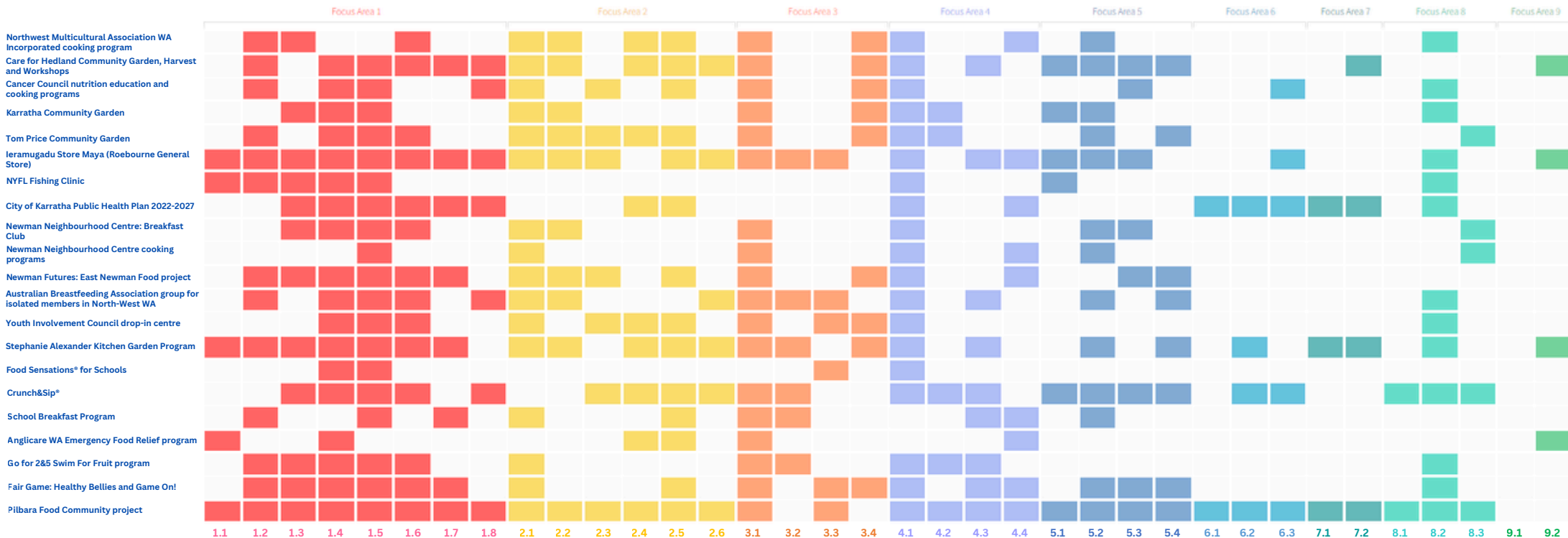


Figure 2: Pilbara food security systems change impact card. (Source: © 2023 Wicked Lab, © 2025 Eventide Systems. Tool for Systemic Change. <https://toolforsystemicchange.com>)

This impact card provides a visualisation of which systems change characteristics were most likely to be possessed by Pilbara food security initiatives in 2023. (Adapted from Godrich et al. (2025) [17]).

Focus Areas initiatives possessed:

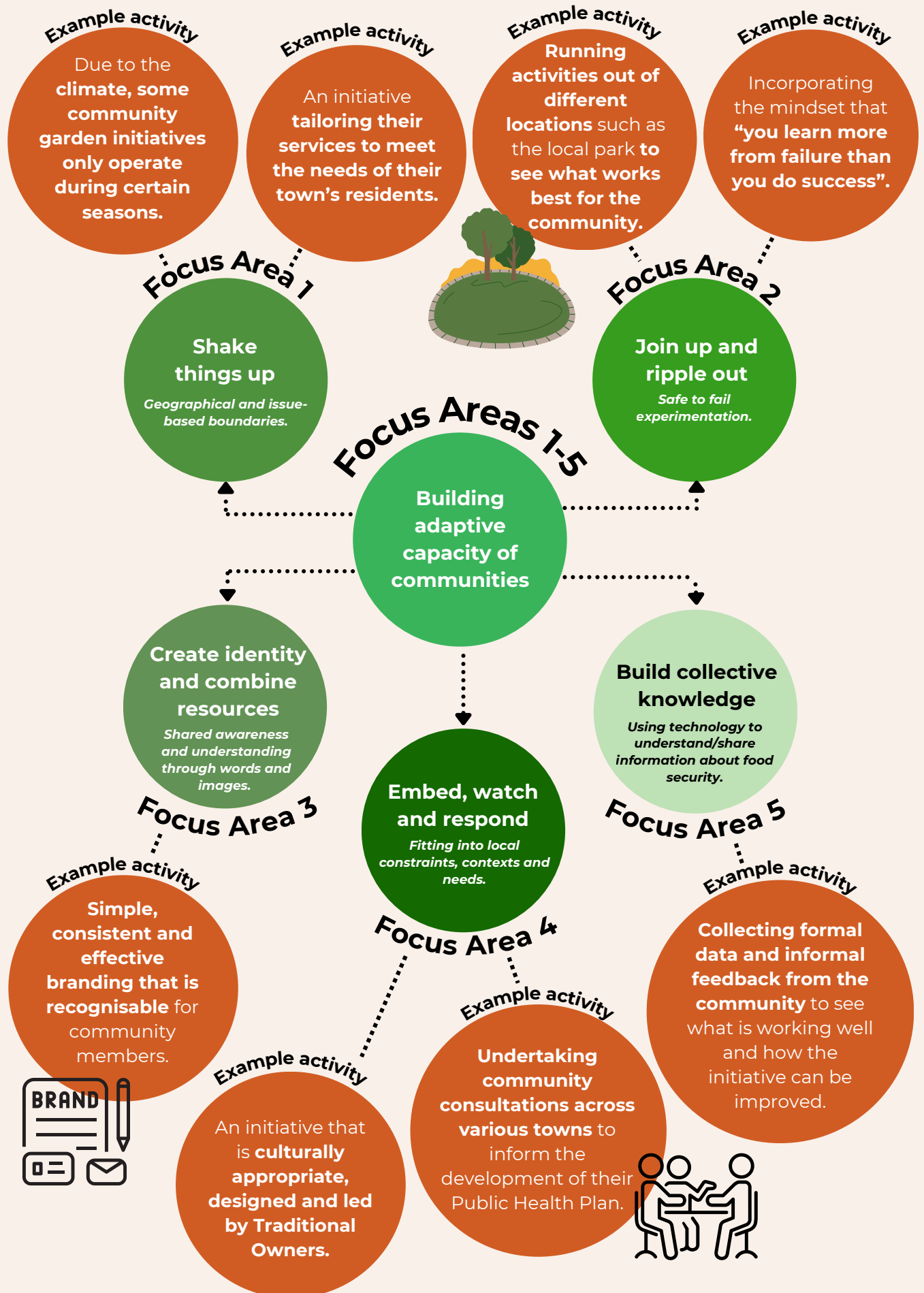
- 1 Shake things up
- 2 Join up and ripple out
- 3 Create identity and combine resources
- 4 Embed, watch and respond

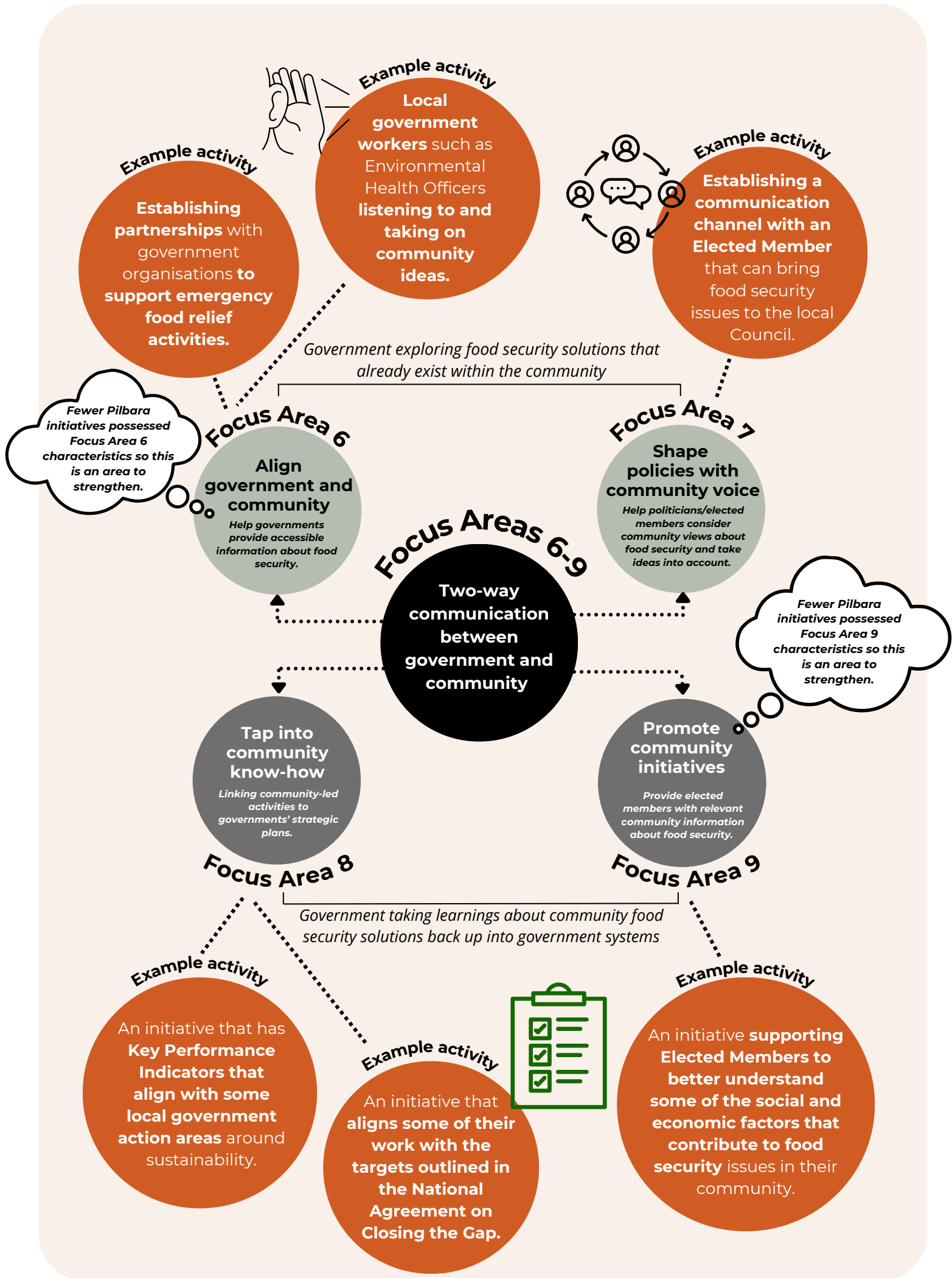


Focus Areas to strengthen:

- 5 Build collective knowledge
- 6 Align government and community
- 7 Shape policies with community voices
- 8 Tap into community know-how
- 9 Promote community initiatives

How Pilbara region initiatives are contributing towards food security systems change





Types of partnering organisations in the Pilbara region in 2023 [19]

31 

Non-government
or not-for-profit
organisations

10 

Businesses

6 

State government

2 

Local
government

2 

Aboriginal controlled
health organisation,
corporation or
traditional owner-led
organisation

2 

Community group

1 

Federal
government

1 

Education

1 

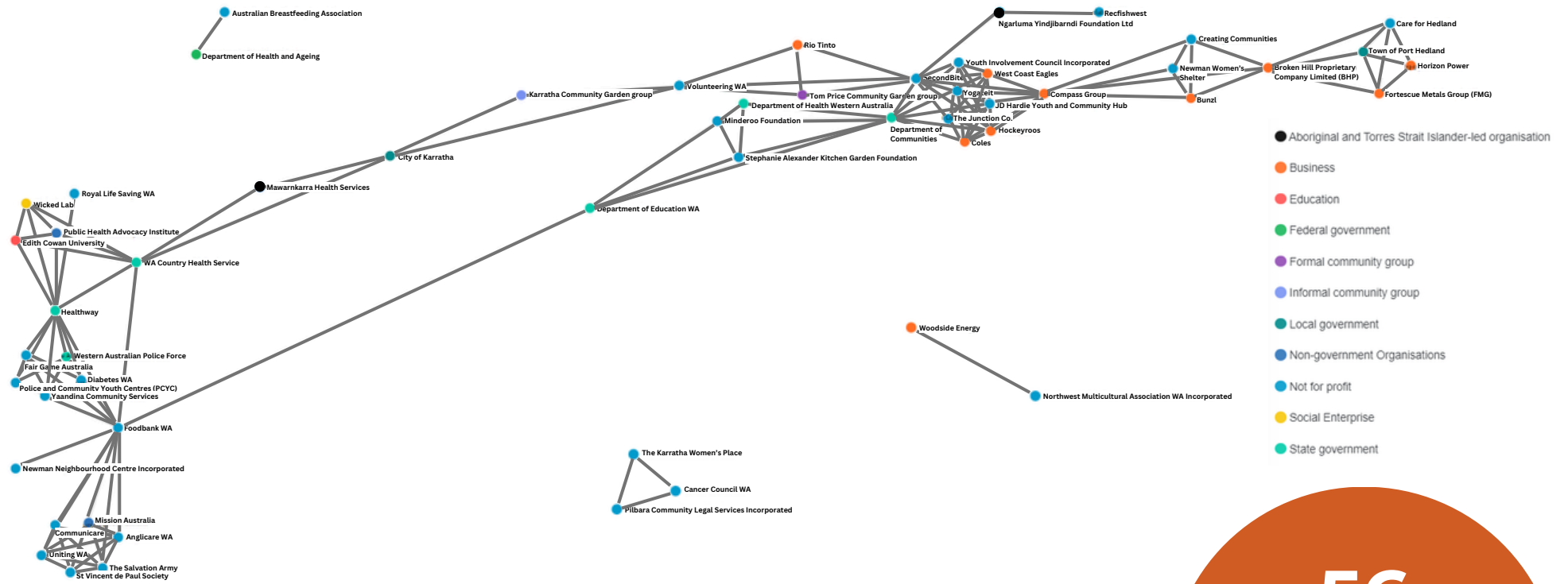
Social enterprise

Pilbara region partnership findings

- The Pilbara partnership map demonstrates a ‘**scattered fragments**’ model which indicates a siloed network in the early stages of development [20].
- **26 organisations were ‘hubs’** in the Pilbara network. These organisations connected with more than the average number of partners and were essential to spreading information throughout different parts of the network [20].
- **Two state government organisations** and **one not-for-profit organisation** (who was not physically located in the region) were **critical for information sharing** [20].
- **30 organisations were connected components.** They used their partnerships to receive and share information throughout the network [20].

**See the next page for a visual representation of these findings.*

Pilbara partnership map



56
partnering
organisations

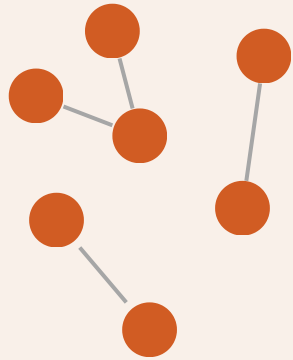
Figure 3. Pilbara Partnership Map. (Source: © 2023 Wicked Lab, © 2025 Eventide Systems. Tool for Systemic Change. <https://toolforsystemicchange.com>)

This partnership map shows all of the different partnerships and collaborations between the organisations working on food security within the Pilbara region in 2023. (Adapted from Godrich et al. (2026) [20]).

Partnership Typologies

The Pilbara partnership map demonstrates a 'scattered fragments' model.

Scattered fragments model



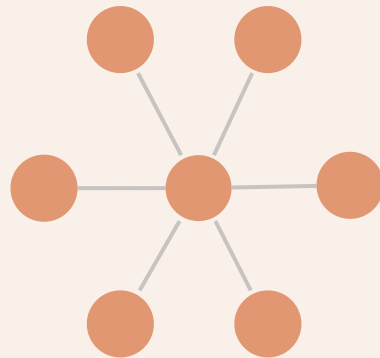
Characteristics:

- Multiple separate clusters of partners.
- No active leaders building network.

Suggestions to mature the Pilbara partnership network from a 'scattered fragments' model to a 'hub-and-spoke' model:

- Identify potential network weavers.
- Support unconnected nodes to connect into network.
- Develop inventory of partnering opportunities.

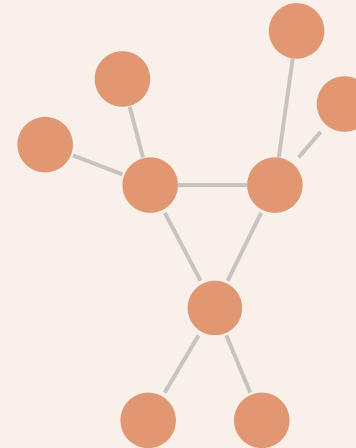
Hub-and-spoke model



Characteristics:

- Network weavers connect individuals/groups to create information flows.
- Should be temporary network type - power concentration in hub.

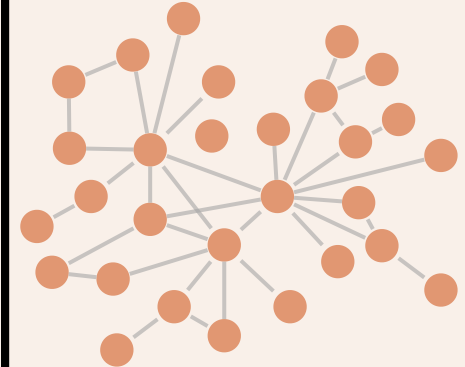
Multi-hub model



Characteristics:

- More than one hub.
- Multiple weavers connecting to each other.
- Short path lengths = fast information flow.

Core/periphery model



Characteristics:

- Central network core with strong ties.
- Periphery contains new network members, bridges outside of the network, actors/organisations spanning several communities.

Figure 4. Characteristics of network typologies and strategies to mature them. (Adapted from Godrich et al. (2026) [20], Krebs & Holley (2006) [21], Mohr (2016) [22] and Ehrlichman (2021) [23]).

Ways that Pilbara region organisations are working in partnership

Examples from initiatives across the Pilbara region:

Collaboration, coordinated action and capacity building [19]

Partnerships focused on local community issues. For example:

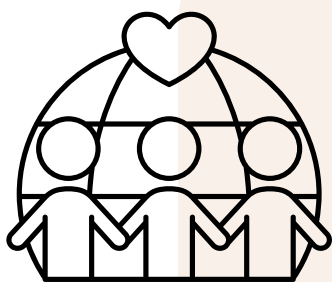
- A local government collaborated with interest holders from various sectors to help inform and implement their Public Health Plan.
- Other programs were developed in partnership with organisations in the area to build the capacity of organisations.



Community consultation and involvement [19]

Community members were described as integral in the design and/or delivery of services. For example:

- An initiative leader described their partnership with the local community for their community-driven, Traditional Owner-led initiatives.



Food and financial donations [19]

Some initiatives received food and financial donations to support their activities. For example:

- Some emergency food relief initiatives received food donations from larger not-for-profits, food rescue organisations and supermarkets.



Funding and grants for program delivery [19]

Initiatives often received funding and grants for program delivery. For example:

- A community garden initiative leader described their paid position with key performance indicators and goals outlined as a part of their funding agreement.



On-ground program and service delivery [19]

Initiatives joined to support on-ground program delivery. For example:

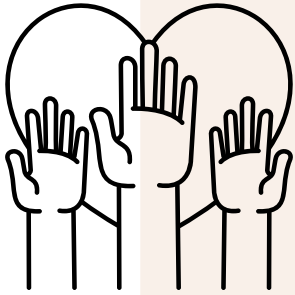
- Initiatives supported one another in the region by staff volunteering their time to facilitate other programs working in the space.
- Initiatives collaborated with local organisations such as art galleries, sporting facilities, and health professionals to provide a holistic approach to their work.



Physical and human resources [19]

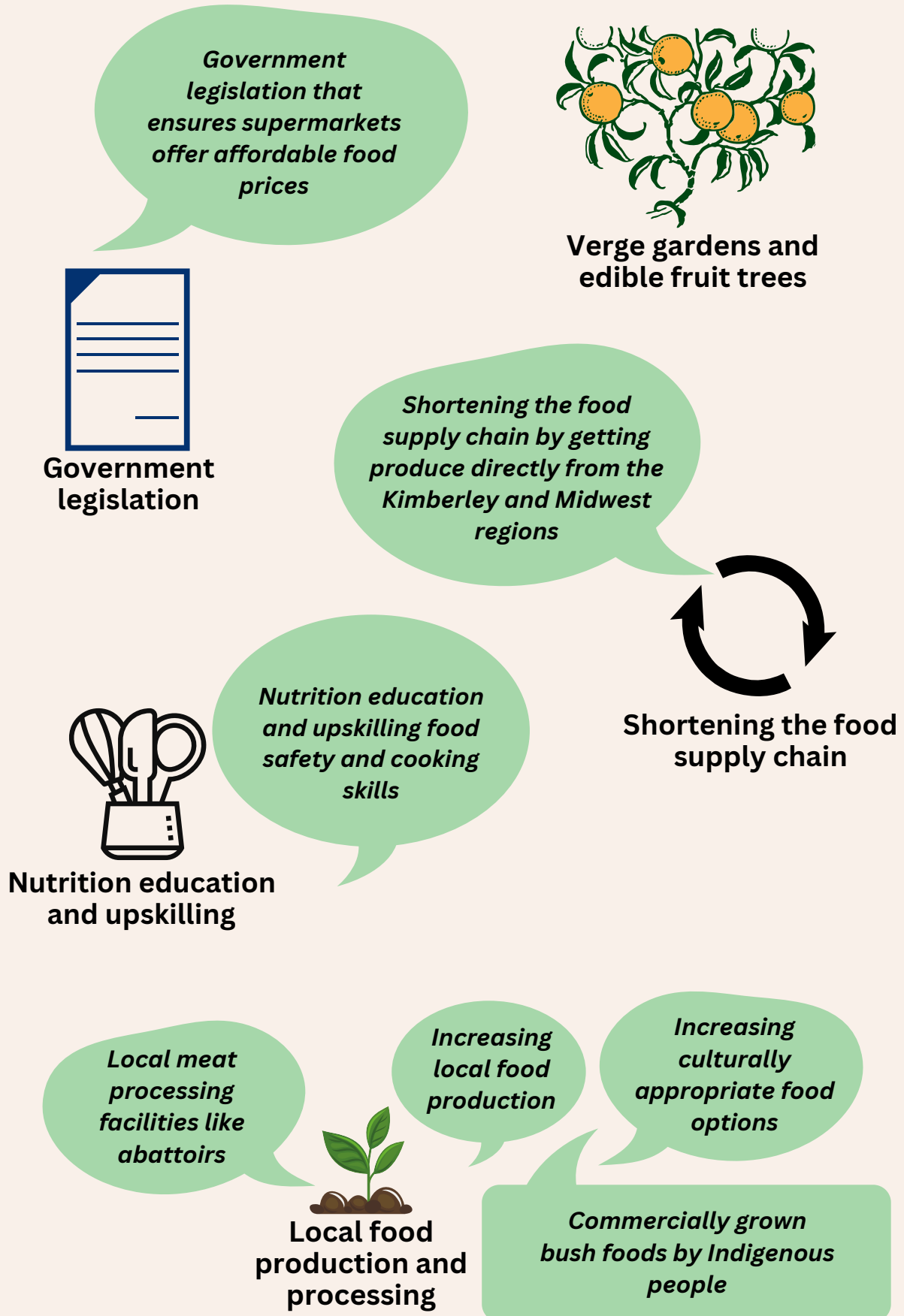
Initiatives regularly shared physical and human resources. For example:

- A nutrition education program initiative leader partnered with a local women's centre to use their facilities to run their program.
- A community garden had groups of people from large local businesses volunteer frequently to support gardening activities.



New initiative ideas and actions for the Pilbara

Community and interest holder ideas for new initiatives and actions needed in the Pilbara region to better support food security systems change [24].



Recommendations from the Food Community project findings



Recommendations to support the current food security system to shift towards a more effective way of working [17]:

- Pilbara food security **initiative leaders could strengthen their food security impact by enhancing Focus Area 6 attributes**, such as in the following ways:
 - **Supporting government and community staff coming together to work on food security.**
 - **Encouraging the government to provide information about food security to their region's residents.**
 - **Supporting governments to include community ideas about food security in their plans.**
- Pilbara food security initiative leaders could **strengthen their food security impact by enhancing Focus Area 9 attributes**, such as in the following ways:
 - **Advocating to local, state or federal government about addressing food security.**
 - Ensuring their **initiative is listed on the Food Community website 'Initiative Directory'** – as a project register relevant to the local government area.
- **Food security initiatives should consider the 'big picture' of food security** (including broader political, social, technological, economic, national and international forces that affect local food security efforts) when sharing information with their networks and undertaking food security activities.
- Support **better collaborations between government and community organisations.**



Recommendations to strengthen WA regions' partnership networks [19, 20]:

- **Organisations should identify and document (through adaptable formal partnership agreements) clear partnership purposes, roles, and actions.**
- **The Pilbara region network should be supported to shift across the network stages.** E.g. by connecting organisations, increasing collaboration on small food security projects, bringing in new organisations, and implementing ways to share information.

References:

1. Committee on World Food Security. (2012). Coming to terms with terminology. Committee on World Food Security: Rome, Italy.
2. Regional Development Australia Pilbara. (n.d.). About the Pilbara. <https://www.rdapilbara.org.au/the-pilbara>
3. Australian Bureau of Statistics. (2021). East Pilbara: 2021 Census All persons QuickStats. ABS. <https://www.abs.gov.au/census/find-census-data/quickstats/2021/51002>
4. Australian Bureau of Statistics. (2021). West Pilbara: 2021 Census All persons QuickStats. ABS. <https://www.abs.gov.au/census/find-census-data/quickstats/2021/51003>
5. Australian Bureau of Statistics. (2023). Food insecurity. ABS. <https://www.abs.gov.au/statistics/health/food-and-nutrition/food-insecurity/latest-release>.
6. Godrich, S., Lo, J., Davies, C., Darby, J., & Devine, A. (2017). Prevalence and socio-demographic predictors of food insecurity among regional and remote Western Australian children. *Australian and New Zealand journal of public health*, 41(6), 585–590. <https://doi.org/10.1111/1753-6405.12716>
7. Foodbank Australia. (2021). Foodbank Hunger Report 2021: The reality of the food crisis facing Australia. <https://reports.foodbank.org.au/foodbank-hunger-report-2021/>
8. Rose-Jacobs, R., Black, M. M., Casey, P. H., Cook, J. T., Cutts, D. B., Chilton, M., Heeren, T., Levenson, S. M., Meyers, A. F., & Frank, D. A. (2008). Household food insecurity: associations with at-risk infant and toddler development. *Pediatrics*, 121(1), 65–72. <https://doi.org/10.1542/peds.2006-3717>
9. Lindberg, R., Lawrence, M., Gold, L., Friel, S., & Pegram, O. (2015). Food insecurity in Australia: Implications for general practitioners. *Australian family physician*, 44(11), 859–862.
10. Godrich, S. L., Loewen, O. K., Blanchet, R., Willows, N., & Veugelers, P. (2019). Canadian Children from Food Insecure Households Experience Low Self-Esteem and Self-Efficacy for Healthy Lifestyle Choices. *Nutrients*, 11(3), 675. <https://doi.org/10.3390/nu11030675>
11. Ashiabi, G. S., & O’Neal, K. K. (2008). A framework for understanding the association between food insecurity and children’s developmental outcomes. *Child Development Perspectives*, 2(2), 71–77. <https://doi.org/10.1111/j.1750-8606.2008.00049.x>
12. Vercammen, K. A., Moran, A. J., McClain, A. C., Thorndike, A. N., Fulay, A. P., & Rimm, E. B. (2019). Food Security and 10-Year Cardiovascular Disease Risk Among U.S. Adults. *American journal of preventive medicine*, 56(5), 689–697. <https://doi.org/10.1016/j.amepre.2018.11.016>
13. Thomas, M. K., Lammert, L. J., & Beverly, E. A. (2021). Food Insecurity and its Impact on Body Weight, Type 2 Diabetes, Cardiovascular Disease, and Mental Health. *Current cardiovascular risk reports*, 15(9), 15. <https://doi.org/10.1007/s12170-021-00679-3>
14. Pereira, M. H. Q., Pereira, M. L. A. S., Campos, G. C., & Molina, M. C. B. (2022). Food insecurity and nutritional status among older adults: a systematic review. *Nutrition reviews*, 80(4), 631–644. <https://doi.org/10.1093/nutrit/nuab044>

15. Godrich, S. L., Davies, C. R., Darby, J., & Devine, A. (2017). What are the determinants of food security among regional and remote Western Australian children?. *Australian and New Zealand journal of public health*, 41(2), 172–177. <https://doi.org/10.1111/1753-6405.12636>
16. Godrich, S., Doe, J., Goodwin, S., Stoneham, M., Devine, A. (2025). Lived Experience of Regional and Remote Food Systems: Barriers to and Enablers of Food Access in Western Australia. *Health Promotion Journal of Australia*, 36(2), 1-13. <https://doi.org/10.1002/hpja.70002>
17. Godrich, S. L., Chiera, I., Doe, J., Herrington, S., Stoneham, M., Devine, A., & Humphreys, E. (2025). Food security systems change: a case study from rural, regional, and remote Australia. *Agriculture and Human Values*. <https://doi.org/10.1007/s10460-025-10795-0>
18. McLeroy, K., Bibeau, D., Steckler, A. and Glanz, K. (1988) An ecological perspective on health promotion programs. *Health Education Quarterly*, 15, 351–377.
19. Godrich, S. L., Chiera, I., Stoneham, M., Doe, J., Devine, A., & Humphreys, E. (2025). Increasing the Effectiveness of Rural, Regional and Remote Food Security Initiatives Through Place-Based Partnerships—A Qualitative Study. *Health Promotion Journal of Australia*, 36(3), e70048. <https://onlinelibrary.wiley.com/doi/full/10.1002/hpja.70048>
20. Godrich, S. L., Chiera, I., Stoneham, M., Doe, J., Devine, A., & Humphreys, E. (2026). Using Social Network Analysis to Visualise Place-Based Partnerships for Systems Change in Regional Australia. *Health Promotion Journal of Australia*, 37(2), e70150. <https://doi.org/10.1002/hpja.70150>
21. Krebs, V., & Holley, J. (2006). Building smart communities through network weaving. *Appalachian Center for Economic Networks*, 1-18.
22. Mohr, J. (2016). Building intentional networks that drive impact (part 1). <https://jeffcmohr.medium.com/building-intentional-networks-that-drive-impact-part-1-f2396e51e81>
23. Ehrlichman, David. *Impact networks: Create connection, spark collaboration, and catalyze systemic change*. Berrett-Koehler Publishers, 2021.
24. Chiera, I., Doe, J., Stoneham, M., Herrington, S., Devine, A., Humphreys, E., & Godrich, S. L. (2025). ‘More prioritisation on food security’ – exploring what initiative leaders envision for a food secure regional Australia. *Health & Place*, 95, 103543. <https://doi.org/10.1016/j.healthplace.2025.103543>