



The state of  
Greater Bendigo's  
local food economy  
– a pilot study

SUSTAIN the Australian  
food network

January 2017



# The state of Greater Bendigo's local food economy – a pilot study

**SUSTAIN** the Australian  
food network

January 2017

## Acknowledgments

### Primary and second research conducted by:

Alex Murray  
Julia Harris  
Rose Vincent

### Edited by:

Dr Jennifer Alden  
Dr Nick Rose

### Graphic design by:

Brendan O'Donnell

### With assistance from:

The Bendigo Regional Food Alliance and all the project participants from City of Greater Bendigo, retailers, wholesalers, producers, community gardeners, back yard growers, schools and community members who make up the Greater Bendigo food economy and food system.

This Report was financially supported by the Lord Mayor's Charitable Foundation

This work is published under a Creative Commons Attribution NonCommercial-ShareAlike-4.0 International license. For details see <https://creativecommons.org/licenses/by-nc-sa/4.0/>

Melbourne and Bendigo 2017.



## Contents

<b>Acknowledgments</b> .....	<b>4</b>	Data collection .....	34
<b>Executive Summary</b> .....	<b>6</b>	Quantifying the Bendigo Local Food Economy .....	34
Recommendations .....	8	Case Study 5: Masons and Food Fossickers ...	36
<b>Introduction</b> .....	<b>9</b>	Data analysis from interviews .....	37
<b>Project Aims, Rationale and Scope</b> .....	<b>11</b>	Challenges .....	38
Rationale – Why Local Food? .....	11	Key themes from interviews .....	41
Scope .....	12	On-line surveys .....	41
Case Study 1: PepperGreen Farm .....	13	Key themes from Survey Monkey on-line surveys .....	42
<b>Drivers of change</b> .....	<b>14</b>	Bendigo's points of difference .....	43
Sustainable Food System Definition .....	15	<b>Using report findings to stimulate the Local Food Economy</b> .....	<b>43</b>
Policy context .....	15	<b>Challenges, Barriers and Constraints</b> .....	<b>44</b>
Case Study 2: Norm Quin's Bluebird fruit and vegetable supply .....	16	<b>Opportunities</b> .....	<b>44</b>
<b>Mapping the Local Food Economy in Bendigo - work done to date</b> .....	<b>17</b>	Case Study 6: Gravel Hill Gardens .....	45
Regional Economic Development Data .....	17	<b>Conclusions and recommendations</b> .....	<b>46</b>
Food Security Research, 2014 .....	18	<b>References</b> .....	<b>47</b>
Greater Bendigo Food Hub Feasibility Study, 2015 .....	19	<b>Appendix 1 – Policy Context</b> .....	<b>49</b>
Produce Map .....	20	<b>Appendix 2 – Literature review case studies</b> .....	<b>50</b>
Bendigo Community Farmers Market Economic Impact Assessment .....	20	<b>Appendix 3 – Stakeholder interviewee list</b> .....	<b>55</b>
Bendigo Regional Food Alliance and Incredible Edible Bendigo .....	21	<b>Appendix 4 – Food Hub Feasibility</b> .....	<b>56</b>
Emergency Food Relief .....	21	<b>Executive Summary</b> .....	<b>56</b>
<b>Bendigo's food production and processing history</b> .....	<b>22</b>	<b>List of Figures and Tables</b> .....	<b>58</b>
Case Study 3: B & B Basil .....	23		
Case Study 4: Moira Macs .....	24		
<b>A review of international and national evidence</b> .....	<b>25</b>		
Case Studies of Two Agribusiness Officers in Victoria Local Government – Executive Summary .....	26		
Definitions and measures of local food economies: the multiplier effect .....	27		
Benefits of local food economies .....	29		
Conditions for success of local food economies 30			
Limitations, challenges and barriers .....	31		
<b>Methodology</b> .....	<b>33</b>		
Limitations of the research .....	33		

## Executive Summary

“A \$100 increase in per capita direct farm sales is associated with 0.80% lower obesity rate and a 1.2% lower diabetes rate.”<sup>1</sup>

“The density of farmers’ markets is also important. An additional farmers’ market per 1,000 people is associated with a 0.78% lower diabetes rate.”<sup>2</sup>

*“Locals should be able to buy locally sourced product to support local jobs”<sup>3</sup>*

In recent years, there has been a growing awareness worldwide of multiple and converging food system challenges. These challenges are economic: well over half of Australia’s farmers cannot make a living from the land alone, leading to an exodus from farming and reluctance amongst our young people to embrace agriculture. The challenges are social: diet is now the major contributing factor to disease and early death in Australia, whilst over 600,000 Australians access emergency food aid every month because they are food insecure. The challenges are environmental: many of our soils are degraded and our fragile ecosystems are under threat because of major and continuing land-use changes since colonization. Overlaying these economic, social and environmental challenges are the impacts of climate change and constraints on critical resources, which in turn generate an imperative to begin moving towards a low and even a zero carbon economy within a generation. The emerging picture is that the current ultra-

globalised food system, which is reliant on lengthy supply chains and high inputs of cheap energy, is likely to be neither sustainable nor resilient over the medium and long term. Thus it is no surprise that in recent years there has been a surge of interest in, and support for, local food economies, in Victoria, around Australia, and internationally.

We can define a local food economy as:

**‘Food production, and related economic and social activities close to where people live, typically resulting in higher levels of trust and more intimate connections between producers and purchasers.’**

A strong local food system not only has health and environmental benefits, but also benefits local economies through job creation, greater investment in local businesses and increased farm viability. *Sustain: The Australian Food Network* recognises that local governments and community stakeholders, including local producers and food businesses, are leaders and pioneers in the field, with substantial knowledge of their region and its communities.

This pilot project aimed to assess a range of data and information from stakeholders representative of the local food economy in the City of Greater Bendigo. While sampling provides a snapshot of the bigger economic picture, interviews with leading actors mean that this report has relevance across a range of local food economic activity.

Drawing on data from food system strategies and activities already in place in the Greater Bendigo Municipality, the pilot was also informed by a body of international and national literature pertaining to the impacts of enhancing Local Food Economies.

Through the use of semi-structured interviews and on-line surveys, we were able to capture those aspects of Bendigo’s local food economy that were most highly valued by key stakeholders, together with their principal motivations. In addition the perceived benefits, challenges and opportunities in supporting the further development of the

1 Salois 2010, 38; see also Berning 2012; Bimbo et al 2012; Minaker et al 2014

2 Salois 2010, 39; see also Berning 2012; Bimbo et al 2012; Minaker et al 2014

3 Interview with local Bendigo producer



IMAGE: BENDIGO TOURISM

local food economy in Greater Bendigo were documented. The home grown produce and value adding showed significant activity and different motivators from a community perspective.

Opportunities to expand the local food economy that interviewees identified include the building of a community food hub, increasing local produce markets and food tourism, boosting education and training for producers and manufacturers, and creating new value adding potential to institutional procurement and food rescue sourcing.

The opportunities to support and expand the local food economy in Bendigo are given sharper focus by the urgent need to address Bendigo's poor health, economic and food security indicators. The Loddon Mallee Murray region has the highest obesity rate in Australia, Bendigo has a high incidence of food poverty and 30% of the Greater Bendigo community earn below \$600/week.<sup>4</sup>

This entrenched disadvantage makes a strong case for attracting state and federal support to

expand Bendigo's local food economy, together with legislative and regulatory change to enhance the viability of local producers and food businesses. The observations and findings contained within this report can further inform reforms and measures to support the Bendigo local food economy, building on the already significant work undertaken by the City of Greater Bendigo, producers, restaurateurs and food business networks, community organisations, Bendigo Kangan Institute, and many other stakeholders over several years.

This report contributes to the growing visibility of the local and regional food sector in Victoria. It will serve as a template and an example to be followed by other regions in Victoria and nationally, and therefore become an important resource to strengthen the local and fair food movement in this state and beyond. Significantly, it will help continue to position Bendigo and all the food system stakeholders in the region as leaders and pioneers in this emerging sphere in Victoria and Australia.

We conclude that by creating economic opportunities and diversifying food based industry and employment a replicable business model can be developed to create diverse and healthy regional and local economies.

<sup>4</sup> The Federal poverty line is 50% of median weekly income. The Australian Council of Social Services (ACOSS) quantifies this in 2016 at \$426.33 for a single adult and \$895.22 for a couple with children: <http://www.acoss.org.au/poverty-2/>.

## Recommendations

Our principal recommendations are as follows:

### 1. State government:

- a. Local food economic activity and coordination should be supported by the formation of a Bendigo Local Food Working Group, funded by state government, drawing on representation from all of the existing bodies in Greater Bendigo working in this space.
- b. State Government funding should be made available to the City of Greater Bendigo and Bendigo Kangan Institute to establish the Bendigo Community Food Hub at the Charleston Rd campus of BKI.
- c. State Government should fund the coordination of emergency food relief in Greater Bendigo to enable the direct sourcing of produce by emergency food agencies from local producers.
- d. State Government should establish an integrated cross-departmental Food Unit to coordinate planning and economic development to support a food system governed by the ordering principles of optimizing individual and community health and wellbeing and long-term environmental sustainability, as equal priorities to broad-based economic development.

### 2. Local government:

- a. The City of Greater Bendigo should develop a comprehensive Council strategy that incorporates activity areas across Economic Development, Rural Communities, Community Wellbeing, Partnerships, Environmental Sustainability, Planning, Tourism and Marketing and Business development functions. This Strategy should be aimed to fast-track local food system and related initiatives that are underway or in development.

- b. The City of Greater Bendigo should employ an agribusiness officer and an urban agriculture facilitator to provide critical support and coordination to progress local food economy and system initiatives, projects and activities.

### 3. Community:

- a. Community food economy stakeholders should become members of the Bendigo Regional Food Alliance to advance the local initiatives and enterprises that comprise the local food economy as part of the local food system.
- b. The Bendigo Regional Food Alliance should consider becoming a member of in order to become connected to like-minded local food networks and alliances around the country, share knowledge and practice, and build momentum for change.
- c. The Bendigo Regional Food Alliance should have active membership of and participation in the Bendigo Local Food Systems Working Group.

### 4. Further research:

- a. State Government should support the undertaking of a detailed financial and economic analysis of the economic, business and employment benefits of the local food economy in Greater Bendigo.
- b. The Bendigo Regional Food Alliance and the City of Greater Bendigo should explore ways to conduct a more extensive on-line survey of backyard food production and value adding activities as part of a wider community survey such as the City of Greater Bendigo's community wellbeing survey.



## Introduction

The Australian and, indeed, global food systems are beset by a series of what many describe as converging crises.<sup>5</sup> These crises include declining viability of Australian farmers, rising levels of food insecurity amongst low income, vulnerable and remote and rural communities,<sup>6</sup> a growing public health crisis closely linked to changes in dietary habits in recent decades,<sup>7</sup> and severe strain on soil, waterways and ecosystems.<sup>8</sup> There is a growing understanding of the inter-linkages between these crises, such as the relationship between obesity and climate change in terms of diets based on processed foods which in turn depend on monocultures that involve large-scale land clearing.<sup>9</sup>

These crises have differing causes, but each has intensified in the past three decades. This period has been shaped by the forces of economic rationalism and neoliberalism<sup>10</sup> which, amongst other consequences, have brought a duopolistic concentration of market power within the Australian supermarket sector.<sup>11</sup> At the same time that supermarkets have become the dominant actors in food systems both nationally and globally and as previously protected agricultural sectors such as dairy production have been deregulated, farmers, food processors and independent retailers have seen their terms of trade decline. The dominant 'get big or get out' dynamic<sup>12</sup> has been accompanied by a consequent decline in the bargaining power of producers.<sup>13</sup> Further, farmers have had to contend with the impacts of a liberalised international trading regime and a

consequent influx of cheaper imported produce,<sup>14</sup> a 75% rise in total farm debt to \$70 billion in the decade to 2014,<sup>15</sup> as well as a decade-long Millennium Drought.<sup>16</sup>

While Australia as a country is considered 'food secure' at the national level, exporting two-thirds of all foods produced,<sup>17</sup> levels of food poverty and food insecurity have sharply increased<sup>18</sup>. Food banks and emergency food providers have proliferated and experienced burgeoning demand for their services in the last decade.<sup>19</sup>

Most of the policy and research focus on food and farming in Australia is directed towards bulk commodity production, with a strong orientation towards export and trade, as evidenced by the then Labor Government's National Food Plan (2013) and the current Coalition Government's Agribusiness White Paper (2015). Yet as a result of growing public and policy awareness worldwide of the converging food system crises mentioned above, there has been increasing interest in, and support for, local food economies across Victoria.

Inspired by consumer demand and sales of local food through direct markets in the US, Australia is rapidly expanding farmers markets and investigating community food hubs and niche outlets. If US trends are followed these enterprises could become a significant motor of regional and broad-based economic development, bringing new businesses and creating new jobs and training opportunities for people living in regional towns and cities. Macro-level indicators paint of picture of growing demand for food hubs in the US, with their numbers increasing nearly 300% between 2007 and 2014 to more than 350.<sup>20</sup> This builds on a burgeoning local food economy, with nearly 8,300 farmers markets across the country in 2014,

5 Farmar-Bowers, Higgins and Millar, 2013; McMichael, 2009; Moore 2015

6 Burns, Gibbon, Boak, Baudinette and Dunbar, 2004; McKay and Dunn, 2015

7 Commonwealth of Australia, 2009; Burns et al., 2004

8 Millar and Roots, 2012; Lawrence, Richards, Gray and Hansar, 2013

9 Lowe, 2014

10 Lockie, Lawrence and Cheshire, 2006

11 Burch and Lawrence, 2009; Knox, 2015

12 Rogoff, 2014

13 Richards, Bjørkhaug, Lawrence and Hickman, 2013

14 Lawrence, Richards and Lyons, 2013

15 Garnett, 2014

16 Richter, 2014

17 Commonwealth of Australia, 2015

18 Silvasti and Riches, 2014

19 Booth, 2014; Foodbank Australia, 2014

20 NGFN, 2015

up 180% from 2007; 4,322 farm-to-school districts in 2014, up 430% from 2007; and local food sales rising 33% from 2013 to \$US12 bn in 2014, with anticipated 9% year-on-year growth to 2018.<sup>21</sup> The 350 to 400 food hubs in the US reported a combined annual revenue of \$US0.5 bn in 2014, with 98% of the 150 hubs surveyed expecting an increased demand for their products and services in the next two years. The National Good Food Network (NGFN) benchmarking survey showed a quarter of respondent food hubs turned over revenue between \$ 200,000-\$500,000 USD in 2015, with 34% having revenue less than \$200,000 and 35% having revenue more \$1,000,000. The NGFN survey also reveals that food hubs are supporting younger and more diverse producers (in terms of gender and ethnicity), as well a higher proportion of food hub suppliers using ecologically sustainable farming practices.

We can define a local food economy as:

**'Food production, and related economic and social activities close to where people live, typically resulting in higher levels of trust and more intimate connections between producers and purchasers.'**

A strong local food system can address several of the systemic challenges identified above. It can enhance health and wellbeing for individuals and communities, both through encouraging and enabling people to choose healthier foods, and through making good food available to people experiencing food insecurity. Secondly, it can support the necessary transition to a low carbon economy, by shortening supply chains, helping farmers transition to sustainable and regenerative agricultural and land management practices, and diverting organic waste from landfill into community and commercial composting facilities. Thirdly, and most relevant for the purposes of this report, it can support broad-based and equitable local and regional economic development, by fostering a culture of entrepreneurship, creating diverse and multiple training and employment

opportunities, and returning greater value to local and regional producers, enhancing their viability.

This pilot 'Local Food Economy Report' aims to document these economic benefits and map local food economy changes and initiatives in Bendigo. Whilst good production information exists at the macro level, there is a gap regarding how much of this food is sold and consumed locally.

With this in mind, the development of the local food economies report aims to be an iterative process, with the first step being a region wide pilot study, in order to develop a template that can be replicated with the incorporation of more Victorian regions.

*Sustain: The Australian Food Network* recognises that local governments and community stakeholders, including local producers and food businesses, are leaders and pioneers in the field, with substantial knowledge of their region and its communities. Accordingly the development of this project involved a participatory and consultative process, incorporating the needs, priorities and opportunities as regards:

- Regional production
- Large and small producers in the region
- Regional farmers markets
- Educational programs e.g. kitchen gardens
- Community gardens
- Local food processors
- Not-for-profit organisations e.g. food rescue organisations
- Local retailers with a local produce focus e.g. markets, cafes, restaurants

<sup>21</sup> NGFN, 2015

## Project Aims, Rationale and Scope

The Project's aims were as follows:

- Give conceptual clarity to the term '**local food economy**'
- Comprehensively **map actors** across different sectors including identifying important relationships and interactions
- Begin to quantify the **economic impact of the local food industry and disaggregate by sector** e.g. producers, processors, retailers, food procurers, councils and not for profit organisations.
- **Provide a template to repeat the pilot** in other Victorian regions with the view to produce a state wide report outlining the economic impact of the local food economy in Victoria

This project aimed to assess a range of data and information from stakeholders representative of the local food economy in the City of Greater Bendigo. While there are clear limitations to the study insofar as complete and rigorous financial quantification of the local food economy was beyond the resources available to the research team, the researchers are satisfied that the data is representative of a valuable portion of the Greater Bendigo economy. In particular, there are themes and trends observable that corroborate findings outside of the region, plus some that argue for policy action to be trialled that has been successful elsewhere.

### Rationale – Why Local Food?

There is impressive evidence of the economic benefits of local food economies, in terms of increased producer revenues and enhanced viability, job creation, and business development and diversification.<sup>22</sup> They can also influence positive health outcomes, environment, foster

trust and encourage collaboration. This is despite this sector being at an early stage of the phenomenon, with the full impacts of emerging innovations yet to be seen (e.g. a serious focus on reducing carbon emissions and energy costs; the quantification of improvements to the health of children and adults; expansion of programs to minimise wasted food etc.).

Motivators of local producers typically include a desire to expand production, achieve community benefits and relationships, the ability to produce desired product at desired scale, price, profit considerations, as well as convenience and access to reliable customers.<sup>23</sup>

Local and regional food hubs, as a particularly innovative dimension of a local food economy, reveal the economic benefits of this form of thinking and practice. Food hubs are social businesses that aim to expand the range of available markets for small to medium sized producers through the provision of *inter alia* aggregation, distribution and marketing services, combined with product differentiation strategies to preserve provenance, thereby returning greater value to those producers.<sup>24</sup> For the United States Department of Agriculture (USDA), food hubs are increasingly critical links in values-based supply chains (VBSCs), which are "wholesale, non-direct market channels, where consumers receive information about the social, environmental, or community values incorporated into the production of a product, or the farm or ranch producing it".<sup>25</sup> Relationships in VBSCs are said to be characterised by collaboration, transparency and trust, with a commitment to the mutual benefit of all actors.<sup>26</sup>

Macro-level indicators paint of picture a growing demand for food hubs in the US, with their numbers increasing nearly 300% between 2007

<sup>22</sup> Feagan, 2007, Rose and Larsen, 2013; and see the case studies documented in the Literature Review in Appendix 2

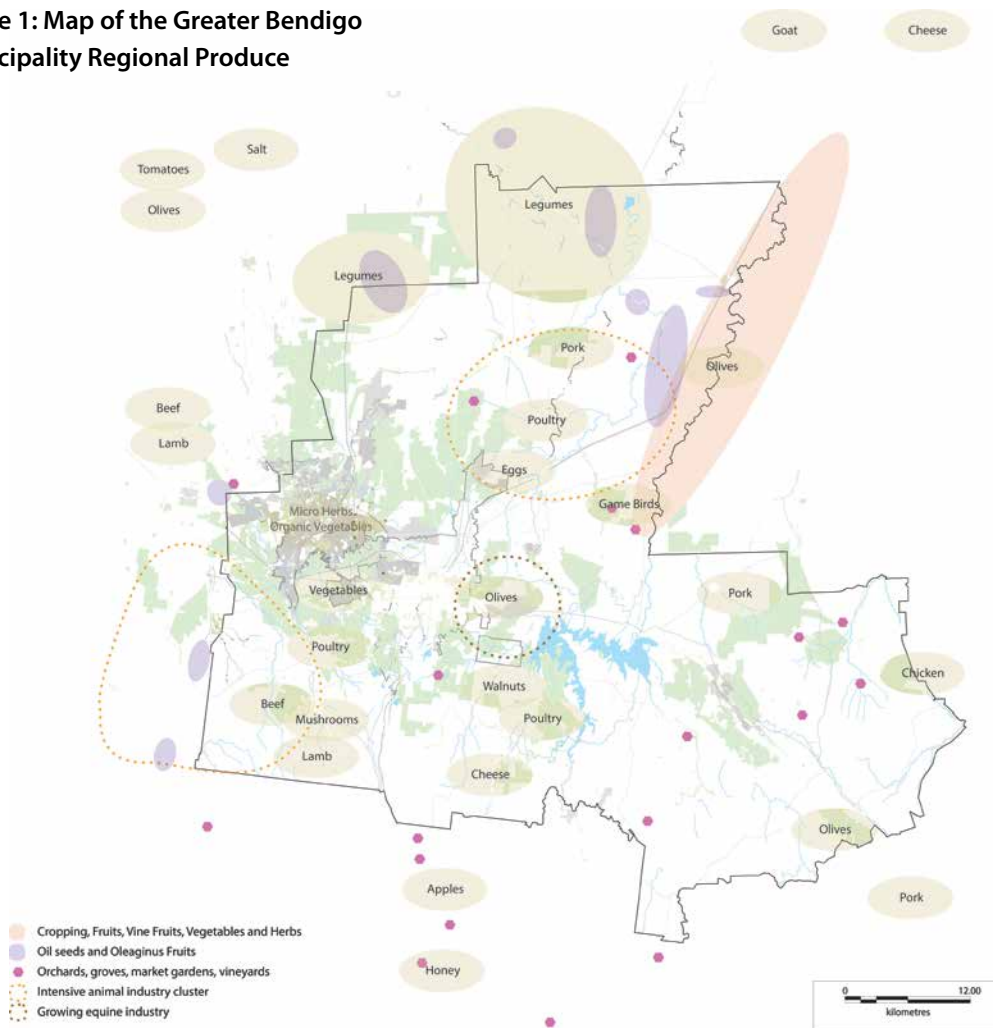
<sup>23</sup> Pinchot. A. et al, 2014

<sup>24</sup> Aubrey, 2012; Schmidt, Kolodinsky, DeSisto and Conte, 2011

<sup>25</sup> Aubrey 2012, p. 10

<sup>26</sup> Fischer, Hamm, Pirog, Fisk, Farbman, and Kiraly, 2013; NGFN, 2013

**Figure 1: Map of the Greater Bendigo Municipality Regional Produce**



and 2014 to more than 350.<sup>27</sup> This builds on a burgeoning local food economy, with nearly 8,300 farmers markets across the country in 2014, up 180% from 2007; 4,322 farm-to-school districts in 2014, up 430% from 2007; and local food sales rising 33% from 2013 to \$US12 billion in 2014, with anticipated 9% year-on-year growth to 2018 (NGFN, 2015). The 350 to 400 food hubs in the US reported a combined annual revenue of \$.5 billion USD in 2014, with 98% of the 150 hubs surveyed expecting an increased demand for their products and services in the next two years.

A key feature of Food Hubs is the higher returns they deliver for local farmers. The Social Return on Investment Analysis of Food Connect Brisbane (FCB) revealed that farmers selling to FCB received

an additional \$1.14 million more than they would have received had they sold the equivalent volume of produce to a major supermarket or wholesaler, i.e. a difference of 40 cents on the dollar. The experience from the US is similar: Food Hubs typically return 50% or more of the final retail price to the producers from whom they source their produce.

### Scope

For the purpose of this research, businesses and organisations located within the City of Greater Bendigo municipality were interviewed, though of course it is acknowledged that their commercial exchanges and relationships extend outside the municipality.

<sup>27</sup> NGFN, 2015

## Case Study 1: PepperGreen Farm

Originally one of the many Chinese market gardens in Bendigo, from the late 1800s until the

1950s, then a plant nursery, the 2 hectare PepperGreen Farm (PGF) on Thunder St, North Bendigo continues the tradition as a community park for horticulture, environmental education and heritage awareness.

Complete with a Chinese brick making kiln dating from 1859 and an oriental composting house, the rich Chinese heritage of the site has been rediscovered in recent times, celebrated and maintained.

In recent years social enterprise has been introduced, with operators Access Contractors, a social enterprise providing supported employment to people with disability delivering a range of employment initiatives. Access Contractors Registered Training Organisation provides training to supported employees at PepperGreen Farm through accredited work skills training. Additionally the training organisation uses the PepperGreen Farm environment to provide community based training in sustainable practices, horticulture, building & construction, disability, business, OH&S, information technology and other courses.

**PepperGreen**  
everyone's **Farm**  
welcome!

**PEPPERGREEN FARM**  
CATERING



The farm incorporates sustainability themes based on energy use, production horticulture, water catchment issues and biodiversity into its operations. It is for these reasons that many school and community groups visit the farm for to learn more about these topics. Tours usually include a walk and talk of PepperGreen Farm gardens and sustainability displays for an hour. There are also hands-on experiences for students and groups covering topics such as worm farming, composting and organic vegetable gardening.

PepperGreen Farm vegetable bags are available to purchase and are delivered weekly to

businesses and workplaces around Bendigo. A range of organically grown vegetables and fruit from the farm is incorporated, as well as produce from surrounding areas.

One example of the impact on the local food economy is the trend data collected by the City of Greater Bendigo, whose staff over the past two years have purchased over 1000kgs of produce from the farm.

The potential of this enterprise lies in its reputation, social enterprise catering and farm business focused on local produce and the opportunity to expand the whole operation to a farm gate sales hub and community orchard.

## Drivers of change

Rural and regional communities have to deal with many of the negative outcomes of our current food system, including:

- loss of prime agricultural land due to development pressures;
- local impacts of global warming and pollution;
- financial stress of farmers, leading to high rates of mental health issues;
- public health problems related to inadequate or poor dietary intakes;
- loss of local food infrastructure and reduced employment in the agrifood sector; and
- shrinking tax revenues from food-related businesses<sup>28</sup>

Mount Alexander Shire Council (adjacent to the City of Greater Bendigo) investigated some of the reasons why producers and community members wanted greater support for their local food economy during a forum in 2012. The findings included the following:

- Lack of prosperity for farmers, transport costs
- Eaters do not understand the true cost or true value of food
- Operating environment is tough including increasing input costs
- Need to improve the efficiency of distribution and market linkages to reduce cost
- Poor succession planning by generational farmers
- Changing land ownership means that the number of growers is decreasing accompanied by a workforce which is ageing
- Government policy focuses on large producers and export markets
- Decreasing education funding and training opportunities to support primary industry workforce (e.g. TAFE, vocational pathways for agricultural workforce)

- Local food economy not well understood or mapped
- Increasing food prices<sup>29</sup>

As part of the Food Hub Feasibility Study conducted by *Sustain* and *Growing Change* for the North-East Food for All Alliance (2016), community stakeholders mentioned a similar range of reasons why greater support for a local food economy – in this instance, in the form of a community food hub, would be welcomed:

- The right to farm, and planning and regulatory issues, e.g. to do with neighbour complaints
- Lack of access to capital and resources for producers
- Lack of grower capacity, digital literacy and farm business planning
- Lack of access to technology and mobile phone and internet coverage
- Need for appropriately skilled and trained workforce
- The need to get beyond the 'scale up and get big' mentality
- Wholesalers not paying a reasonable return
- Retail mark-up too high and lack of support for local producers from local retailers
- Lack of transport connectivity and access to efficient freight movement
- Poor perceptions of farming and food industry amongst young people
- The lack of connection between Council and growers, i.e. no agribusiness extension role
- The lack of support and information for producers
- Lack of a commercial kitchen for value-adding
- Lack of co-operation and collaboration amongst growers

In the Bendigo region, **food insecurity** in particular is an issue of increasing concern: the rate is 9.4% compared with the state average of 5.6%.<sup>30</sup>

<sup>29</sup> Mount Alexander Shire Council, 2012

<sup>30</sup> City of Greater Bendigo Food Security Report 2014

<sup>28</sup> MacRae, R. & Donahue, K., 2013

## Sustainable Food System Definition

Opportunities to address these issues exist at the local government level when systems thinking is adopted and when strategic approaches to addressing deteriorating community wellbeing indicators inform and drive policy and action. **A sustainable food system** can be defined as:

**“A collaborative network that integrates sustainable food production, processing, distribution, consumption and waste management in order to enhance the environmental, economic and social health of a particular place. Farmers, consumers and communities partner to create a more locally based, self-reliant food economy. One of the most important aspects of sustainable community food system projects is that they increase resident participation to achieve the following goals:**

- **A stable base of family farms that use sustainable production practices and local inputs;**
- **Marketing and processing practices that create direct links between farmers and consumers;**
- **Improved access by all community members to an adequate, affordable, nutritious diet;**
- **Food and farming businesses that create jobs and recirculate money within communities;**
- **Improved living and working conditions for farm and food system labor;**
- **Creation of food and agriculture policies that promote local or sustainable food production, processing and consumption, and**
- **Dietary behaviors that reflect concern about individual, environmental and community health.”<sup>31</sup>**

31 Definition from the University of California Davis, Sustainable Agriculture Research and Education Program (SAREP): <http://asi.ucdavis.edu/programs/sarep/research-initiatives/fs/sfs/defining-sustainable-community-food-systems>.

The contemporary challenge for Australian towns, cities and regions is to transition from food systems that are inherently non-resilient and unsustainable, to systems that will endure for generations to come, optimizing human and non-human health and wellbeing.

## Policy context

The context for Bendigo's Local Food Economy aligns with several City of Greater Bendigo Council of strategies and actions, including:

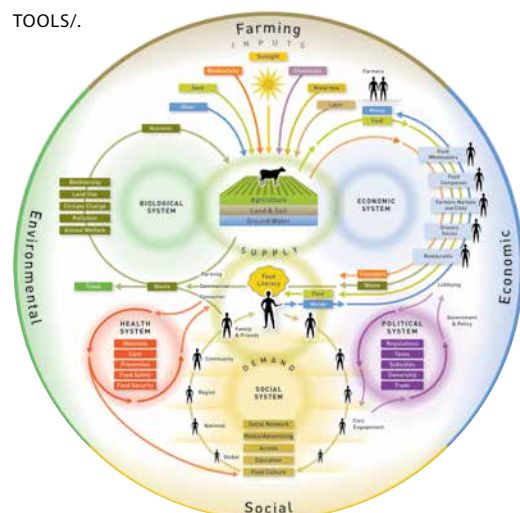
- The Council Plan (2014-2017, updated in 2014-15), especially the Theme of Vibrancy,
- The Greater Bendigo Municipal Health and Wellbeing Plan (2013-2017), especially the Themes on Productivity and Sustainability
- The recommendations contained in the 2013 Food Security Report
- The Rural Communities Strategy (2015), especially the Themes on Sustainable Agriculture, Horticulture and Food Processing

Relevant excerpts from each of these plans and reports are reproduced in Appendix 1.

*The Food Systems Map:* Tracing connections and linkages across the food system, from paddock to plate, from field to fork, from soil to stomach.

## Figure 2: Nourish Food Systems Map

SEE [HTTP://WWW.NOURISHLIFE.ORG/TEACH/FOOD-SYSTEM-TOOLS/](http://WWW.NOURISHLIFE.ORG/TEACH/FOOD-SYSTEM-TOOLS/).





**Case Study 2:  
Norm Quin's Bluebird  
fruit and vegetable  
supply**

**'Mr Quin' - Norm - has been working for the past 66 years in the fruit and vegetable game. His Quin's Bluebird fruit and vegetable business in Mitchell St is a Bendigo institution, where he has consistently plied his trade, promoting local produce and extolling its virtues with eye catching hand written signs. Now an octogenarian, he still works over 80 hours a week.**

His business is a case in point for supporting local producers, many of whom he bemoans no longer trade, as agriculture and the food system favours amalgamation and larger enterprises over the small scale producers of yore. Still he supports over 150 suppliers, many of whom are local. Yet there is a revival in interest in

these enterprises and food growing has a new cache. Norm has seen it all over the years. His wholesaling to over 60 businesses and community groups makes his Bendigo business one of the top 10 fruit and vegetable businesses in Victoria.

Always supporting youth employment, he has a focus on quality produce and old fashioned customer service.





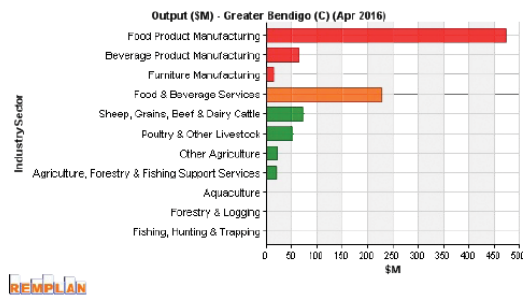
# Mapping the Local Food Economy in Bendigo

## - work done to date

### Regional Economic Development Data

Food production in the Loddon region (which encompasses Greater Bendigo) is a diverse highly productive food producing region. Livestock production (beef, pork, lamb and poultry) and horticulture are strong.

Thanks to the assistance of staff from the Economic Development Unit at the City of Greater Bendigo extracting output, employment and wages and salaries data utilizing the REMPLAN software, we are able to portray a fairly comprehensive picture at the macro level of the agriculture, food manufacturing and food and beverage service industries in the Greater Bendigo region.



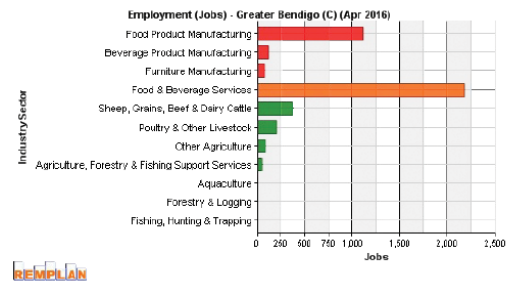
**Figure 3: Output for Greater Bendigo across the agriculture, food and related sectors**

The total output estimate for Greater Bendigo (C) is \$10,823.584 million. The selected agrifood sectors contribute \$941.317 million (8.7 %) of total output.

Industry Sector	\$M	%
Food Product Manufacturing	\$472.541	4.4 %
Beverage Product Manufacturing	\$63.240	0.6 %
Furniture Manufacturing	\$13.564	0.1 %
Food & Beverage Services	\$227.051	2.1 %
Sheep, Grains, Beef & Dairy Cattle	\$72.406	0.7 %
Poultry & Other Livestock	\$51.726	0.5 %
Other Agriculture	\$21.092	0.2 %
Agriculture, Forestry & Fishing Support Services	\$19.697	0.2 %
Aquaculture	\$0.000	0.0 %
Forestry & Logging	\$0.000	0.0 %
Fishing, Hunting & Trapping	\$0.000	0.0 %
Sub-Total	\$941.317	8.7 %

**Figure 4: Selected sectors ranked by output**

In terms of employment, the same agrifood sectors contribute (as at April 2016) 4,155 jobs to the Greater Bendigo economy, 11% of the total number of jobs (37,659).



**Figure 5: Employment contribution of agrifood sectors**

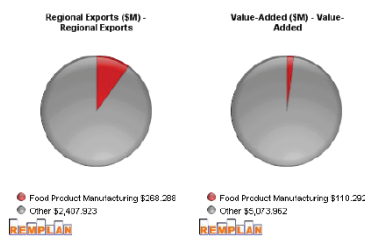
Industry Sector	Jobs	%
Food Product Manufacturing	1,111	3.0 %
Beverage Product Manufacturing	111	0.3 %
Furniture Manufacturing	69	0.2 %
Food & Beverage Services	2,173	5.8 %
Sheep, Grains, Beef & Dairy Cattle	369	1.0 %
Poultry & Other Livestock	198	0.5 %
Other Agriculture	79	0.2 %
Agriculture, Forestry & Fishing Support Services	45	0.1 %
Aquaculture	0	0.0 %
Forestry & Logging	0	0.0 %
Fishing, Hunting & Trapping	0	0.0 %
Sub-Total	4,155	11.0 %

**Figure 6: Employment contributions of agrifood sectors as a % of total Bendigo employment**

The REMPLAN exports were also able to provide a range of other data regarding the contribution of food product manufacturing to the Greater Bendigo economy in terms of value of local sales, local expenditure, regional imports, regional exports, value added, and wages and salaries:



**Figure 7: Local sales, local expenditure and regional imports: food manufacturing**



**Figure 8: Regional exports and Value-Added, Bendigo Food Product manufacturing**



**Figure 9: Wages and salaries – food product manufacturing**

Further data was extracted regarding the economic contribution of the livestock, grains and other agriculture (including horticulture, bee-keeping, turf growing, and nursery production):

Total annual output (\$M):	\$145.224
% of total regional output:	1.3 %
Number of people employed by this sector in the region:	645
% of total regional employment:	1.7 %
Annual wages and salaries earned by people employed by this sector in the region (\$M):	\$12.414
% of total wages and salaries earned in the region:	0.5 %
Value of annual regional exports by the industry sector (\$M):	\$48.576
% of total regional exports:	1.8 %
Value of annual regional imports by the industry sector (\$M):	\$29.576
% of total regional imports:	1.2 %
Value of sector's contribution to Gross Regional Product (\$M):	\$70.793
% of total Gross Regional Product:	1.4 %
Total value of local expenditure on intermediate goods and services (\$M):	\$44.855
% of total local expenditure:	1.4 %
Total value of sales to industry sectors in the region (\$M):	\$75.593
% of total sales to industry sectors:	2.3 %

**Figure 10: Economic contribution of grains, livestock and other agriculture to Bendigo's economy**

Agriculture and food manufacturing therefore make an important contribution to the Greater Bendigo economy. The main commercial products are sheep and lamb, meat poultry, cereals and grains, fruit, dairy, eggs and vegetables. Of the total of 963,000 hectares under production, approximately 30% is cropped with vegetables, fruit and nuts. Other food commercially grown in Greater Bendigo includes, but is not limited to olives, herbs and honey.

Eighteen manufacturers operate in Greater Bendigo with the following food products: olives, olive oil and olive preserving, wine, coffee roasting, bread and breadcrumbs, jams and preserves, honey, bottled water and chocolate. Eight wholesalers/distributors provide a broad range of food including fresh food, ice-cream, grocery products, frozen food, chilled food, fresh meats, seafood and breads. There are 21 supermarkets and Greater Bendigo's supermarket market share differs from the 'duopoly' of Australia's Coles and Safeway with IGA supermarkets have the dominant share of the market at 43%.<sup>32</sup>

### Food Security Research, 2014

The City of Greater Bendigo has conducted research and developed policy and programs to support the importance of healthy eating via increasing fresh food intake as part of the Healthy

Together Bendigo project. Food insecurity and lack of healthy food consumption are significant issues for the region. Data analysed for the Food Security 2014 report was informed by *A thought for food: Greater Bendigo Food Security Research Paper*<sup>33</sup> and reveals poor health indicators, placing the Bendigo community in a high-risk category for chronic ill health into the future.

Community gardens are seen as having a valuable contribution to make to strengthening food security because they increase fruit and vegetable consumption among those who use them.

Bendigo has nine community gardens, with more

<sup>32</sup> City of Greater Bendigo Food Security Report, 2014

<sup>33</sup> Galvin, 2012

in development, and there are plans for additional community edible planting in the Bendigo Botanic Garden plans. Community consultations, such as those undertaken in 2015 for review of the Council's environment strategy and other well attended food forums have demonstrated high interest in edible street planting.

Child care and primary school settings also have vegetable gardens, ranging from funded programs to community supported initiatives. Mapping in 2014 indicated that at least 17 out of 54 schools and 7 out of 38 kindergartens have some form of vegetable garden, with several more in development since that time. Locally produced fruit and vegetable boxes are also available from various providers including PepperGreen Farm and from some local produce retailers in the city.

Income from food production contributes positively to Greater Bendigo's economy, as noted. However the cost of healthy food has been found to be high compared with average levels of income in the region and several emergency food relief providers operate locally, reporting consistently increasing expressed need for food relief from the community and schools, with a new category of recipient described as 'the working poor'.

## Greater Bendigo Food Hub Feasibility Study, 2015



### FOOD HUB FEASIBILITY STUDY

With a view to consider the feasibility of a community food hub for Bendigo, this study

scoped multiple activities around growing, eating, sharing, cooking and sourcing local food in community and business networks within the Bendigo region. As noted above, international experience with food hubs reveals a wide range of positive outcomes, including health improvements, enhancements in social connectedness, greater protection of the environment, as well as stimulation of the economy and job creation.

The Bendigo Food Hub Feasibility Study described a number of sequenced models that in our assessment match Bendigo's current and anticipated food security needs. The report also highlighted national and international examples of best practice.

The Council Plan 2013-2017 aims to support health outcomes for the community, especially the vulnerable, and those moving into new growth areas. In the short term, the objectives of the Public Health and Wellbeing Plan can be secured via the implementation of the recommendations from the Greater Bendigo Food Security Report 2014, including investigation of establishing a Regional Food Hub and Distribution Centre. In the medium to long term, the enhancement of community health and wellbeing will include investigation of opportunities to improve transport options to access fresh food supplies, prioritising rural areas and disadvantaged communities.

The Feasibility Study provided snapshots of economic impacts (in terms of job outcomes, total output and gross value added to the regional) at intervals of 12 months in operation and five years' in operation, across the following economic activities:

- Training offered out of the Food Hub site by a Registered Training Organisation (RTO)
- leading to certificate-level qualifications across a range of vocational occupations
- Warehouse and storage provision
- Operation of a weekly People's Market
- Sales, packing, marketing and distribution /

delivery services offered by a social enterprise operating out of the Food Hub site

Using REMPLAN modelling a summary of Economic Impacts of a Bendigo Regional Food Hub was undertaken. It found that after 12 months of activities, including a weekly farmers market, 16 jobs would be created and supported. The Food Hub would add \$2.62 mn in total output to the Greater Bendigo economy with a \$3.65 mn in value-added and tourism impact combined. After five years, the Food Hub would see 30 jobs created and supported, a \$4.75 mn increase in total output to the Greater Bendigo economy and a \$5.94 mn increase in value-added and tourism impact combined.

Analysis that is particularly relevant to this study showed that a 5% increase in local food purchasing over 12 months is likely to result in creation of 33 jobs with an \$8.03 million increase in total output to the Greater Bendigo economy and a \$3.56 million increase in value-added to the Greater Bendigo economy.

The Food Hub Feasibility Study Executive Summary is reproduced in Appendix 4.

## Produce Map

The feasibility study complemented the mapping of the range and availability of produce in the Bendigo region commenced by the Council's Farming Advisory Group, Food Fossickers and Bendigo Community Farmers Market. The preliminary exercise undertaken for The Food Hub Feasibility Study identified food production activities within and adjacent to the Greater Bendigo municipality, and set a starting point for a more detailed / dynamic mapping activity to support the business expansion of local producer networks. Its aim was to support increased communication, information sharing and coordination between producers and others active in the food supply chain.

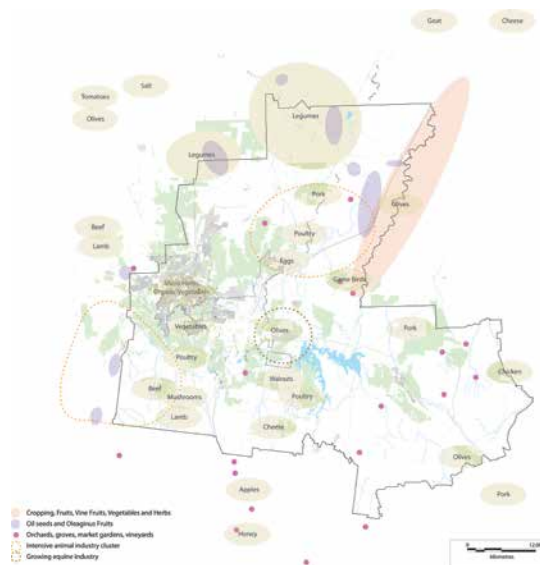


Figure 11: Bendigo Produce Map

## Bendigo Community Farmers Market Economic Impact Assessment



'JOIN THE LOCAL FOOD REVOLUTION'

The monthly Bendigo Community Farmers Market provides fresh, regional and seasonal produce to Bendigo residents and visitors. A Victorian Farmers Market Association accredited market, it gives preference to stall holders who are farm based and who value-add by using their own farm produce as core ingredients. Other value-added producers are encouraged to use local ingredients for their produce.

A 2013 survey gathered information on typical revenues and revenue ranges for the market operations and (conservatively) estimated monthly sales revenues at \$25,895 in total. This equates to \$236,100 per annum for regular stallholders sales revenue and \$52,200 for seasonal stall holders

annually. The majority of market patrons (73%) are from the Greater Bendigo region, with half the remainder being visitors from Melbourne. Although the Bendigo Community Farmers Market mainly serves local residents, surveying indicates that it is also popular amongst visitors to Bendigo. It was estimated that 3,888 additional visitors per year would boost Greater Bendigo's economic output by up to \$728,000.

As some stallholders come from outside of Greater Bendigo, their expenditure on intermediate goods and consumption spending may not be captured by Bendigo's economy, the impact model only included those from within Greater Bendigo and bordering postcode areas, with annual combined estimated revenue of \$154,600. REPLAN modeling suggested that regional output could increase by up to \$0.312 million, and total value-added, including all direct, industrial and consumption effects is estimated to increase by up to \$0.171 million. All these impacts would be proportionately much greater if, as many producers and patrons desire, the market were weekly than monthly as is presently the case.

In addition to the flow-on impacts there are additional benefits for retailers near to the market area.

22% of responding businesses reported increases in sales revenue, from 3% to 30% and 5% of respondents claimed a 15% - 50% decrease in revenue. Nearly three quarters were unaffected.

It was assumed that employment is proportional to sales revenue. Therefore the market is estimated to support 10 additional net jobs in surrounding retail businesses.



BENDIGO COMMUNITY FARMERS MARKET

## Bendigo Regional Food Alliance and Incredible Edible Bendigo

The Bendigo Regional Food Alliance (BRFA) launched in June 2016. It evolved from the City of Greater Bendigo's work on Healthy Together Bendigo.

BRFA has the potential to undertake projects that could generate local production and trade as has been found with food networks overseas.

Another recent addition to the Bendigo food landscape is Incredible Edible Bendigo, formed to encourage enthusiasm in local food growing and sharing, supporting urban agriculture in the Greater Bendigo municipality.

## Emergency Food Relief

Bendigo Foodshare is the major emergency food relief provider in Central Victoria. Their current Strategic Plan (2016-2018) includes a vision of a healthier Central Victoria through reducing food poverty (Around 1 in 9 people in the region experience food poverty).

The purpose of Bendigo Foodshare is to achieve this vision by increasing access to nutritious food, reducing food waste and fostering community networks. The values of Foodshare include: Healthy eating, Integrity, Respect, Equality, Social inclusion, and Sustainability. In 2014/15 the amount of food that Bendigo Foodshare provided to schools, agencies and community programs was 1,000,000 kgs (a 10-fold increase on 2011/12), providing food for 2,000,000 meals.

**Fresh produce received directly from local producers and retailers is around 35,000 kgs/month. 18 local farmers and food producers donate fresh produce. Additional resources would enable liaison with more producers in the region to procure surplus produce.**

Foodshare has grown from supplying 21 organisations in 2014 to 108 in 2015. Foodshare is now supplying 60 schools and kindergarten school food programs across Central Victoria with food for breakfasts, lunches and cooking education programs. A Foodshare survey indicated that schools in the region each have 20-30 children a day coming to school without sufficient food. The teachers report that the children's tastes change and their behaviour and learning improve with exposure to fresh, nutritious food.

Rescued food is also distributed through 48 community meals programs and emergency relief services in Central Victoria. Foodshare's success is due to community support, and the many volunteers and employees involved in the collection and distribution of food and food education.

## Bendigo's food production and processing history

Since the 1850s there has been food production in Bendigo. In the Bendigo region primary industry and food manufacturing still constitute a significant proportion of the local economy, as discussed above.

Fruit and vegetables were intensively grown on small allotments by Chinese and Europeans on the goldfields, utilising the watercourses for irrigation the crops. In the 1860s the Lands Acts facilitated small-scale horticulture by providing for annual licences for market gardening.

Markets in central Bendigo enabled local producers to sell meat and food products. In the 1860s horticultural crops included potatoes and table and wine grapes, leading to the short-lived success of the wine industry pre-phylloxera.

In the 1890s the tomato industry was established by Spaniards and was most active between 1919-40, with strong demand for tomato pulp. Tomatoes were processed at local plants for companies such as White Crow, Rosella, Kia Ora, Leggos and the Bendigo Preserving Company (on the corner of Garsed and Edwards Sts), until closure in the 1960s.<sup>34</sup>

The economic value of fruit and vegetable growing, including nurseries, cut flowers and wine grapes, in 2005-6 was 5.9 percent of the total agricultural production in the Greater Bendigo municipality.<sup>35</sup>

Grains were grown for locally brewed ales and porter and local cordial, soft drink and vinegar manufacturing were brewed in the town. The local flour milling industry revolved around three mills in Sandhurst (former name for Bendigo) and three in Heathcote.

Honey was, and still is, provided by Ironbarks and

<sup>34</sup> Lovell Chen, 2013

<sup>35</sup> Lovell Chen, 2013



### Case Study 3: B & B Basil

**From a career in agriculture with the government in the 1970s George Bobbin progressed his horticultural interests to growing mesclun salad mix, then hydroponic tomatoes in an era when “people loved the local flavours and provenance”.**

Despite the boom times of the 1980s disaster struck the business and he moved on to duck farming, followed by another stint at hydroponics. Ultimately undercut by gluts in production, in 1994 he moved on to basil production, and after his initial sales of 400 pots of basil per week the business grew 25% year on year, until

its position today of 30,000 units per week, distributed not only locally, but also to markets around Australia plus to Singapore, Bali, Hong Kong, the Maldives and Dubai.

The farm produces out of 7 sheds on a one-acre property in East Bendigo – it's intensive urban commercial farming – labour-intensive and capital intensive – George has invested over \$1.5 mn in infrastructure in the 7 production sheds, as well as the seeding equipment.

George pays attention to both his staff and to the plants. He is a believer in granting autonomy to the former, with a shed manager having responsibility for each shed (the staff work in two shifts, day shift and an evening shift, when the packing

takes place). “We have access to good staff, and we provide training for them. We don't take itinerant workers”.

Regarding the plants, George is very passionate about them, and says, “When I walk into a shed, the plants speak to me, and tell me how they are. If they need attention, or if something isn't right, I can sense it. You need to have a feeling, a passion for this work – and that also comes with 20+ years of experience.”

“You need people attuned to mother nature – she's a hard taskmaster.”

## Case Study 4: Moira Macs

**Moira Mac's is a family business started by Dean and Moira Russell in Bendigo in 1983.**

Moira Mac's specialise in value-added chicken and turkey products, both fresh and cooked, developing unique products for national retail and food service customers. They were the first poultry manufacturer in Australia to be ISO 9001 quality accredited. Their Hyperbaric Pressure Pasteurisation (HPP) machine at the Moira Mac's factory is the first in Australia to be used for small goods processing.

HPP extends shelf life; allows meats to be cooked without high salt content or preservatives, thus retaining natural flavour: and destroys dangerous bacteria such as listeria and salmonella.

The introduction of pressure packing was estimated to have the potential of providing a boost to the local economy worth an estimated \$8 million annually, with benefits to the wider region worth closer to \$15 million.

Moira Mac's and its supply chain partners represent the largest and most significant employer group in the food processing and agribusiness sector in central Victoria.

The HPP project has created



20 new full-time jobs, as well as a further 55 jobs within the supply chain.

**The \$1.6 million machine was imported from Europe in 2010. Since then it has given Moira Mac's a distinct marketing advantage and boosted sales as much as 20 per cent per year. And now, other central Victorian business are benefiting, too. Financial manager Marc Smith said Moira Mac's is now outsourcing its HPP service to other local food manufacturers.**

**"We are currently working with a juice company and we've also had a truffle company do some trials," Marc said. "We're providing an invaluable service to them and giving them a competitive advantage. The machine is now also used for a national meals solution company and we continue to grow our networks through the City of Greater Bendigo's Economic Development Unit, which assists with new market ideas."**



apiaries were supplied also with honey from Red Gum, Grey Box and Yellow Gum from adjacent forests. This enterprise was resurgent in the depression of the 1930s and today is still a part of Bendigo's food economy.

Dairy farming from the 1880s supported creameries and butter and cheese factories locally and was facilitated by refrigerated shipping, coolrooms at railway stations and government trade promotion.

The poultry industry was another animal industry and commercial poultry production on small farms reached its peak in the 1960s that subsequently sold out to bigger chicken farms. Today, Hazeldene's is a major player in Bendigo's food industry, and Kean's poultry is a local egg producer.

Another intensive industry, the Australian pig industry, started in Bendigo with the first fully intensive pig unit establishment in 1965. There were privately owned slaughterhouses operating alongside several butcheries, followed by abattoirs, in 1888 which were then followed by municipal abattoirs. By the 1930s the weekly livestock markets were the largest outside Melbourne.

The economic value of livestock slaughtering is significant. In 2005-6 the industry accounted for 65% of the total value of agricultural production in the Greater Bendigo municipality.

Bendigo is also the default home of the Chiko roll - in that its originator came from Bendigo - inspired by the original Chinese concepts of takeaway food.<sup>36</sup>

## A review of international and national evidence

Internationally, cities and local governments are responding to community interest in local food.

Incorporating global-scale issues such as climate change, food security and population growth into local-level food planning and economic development approaches has enabled many cities and regions to generate new jobs and economic sectors via a focus on local and regional food systems. Despite Australian local food economies being under-researched compared with those in the USA and Europe, there is substantial and increasing evidence of significant regional economic benefits of supporting local food systems, despite diverse geographic, social and economic contexts.<sup>37</sup>

In the US regions that have chosen to actively regenerate their local food systems have achieved local food sales of \$4.9 billion in 2008 and \$7 billion in 2011 - an estimated 46% growth, with farmers markets alone increasing by 59% in that time.<sup>38</sup>

Actions at local government level have been appraised in Canada, where municipalities were found to be promoting diverse improvements to the food system, working with local food system actors, identifying problems and working on solutions.<sup>39</sup>

In Australia farmers markets and alternative fresh food retail markets contribute to approximately seven per cent of Australian fresh food sales.<sup>40</sup> According to the Australian Farm Institute (2005) for every million dollars of agricultural output, 22 agricultural jobs and 65 additional jobs linked to the sector are created.

<sup>37</sup> Rose and Larsen, 2013

<sup>38</sup> NGFN 2015

<sup>39</sup> MacRae, R. & Donahue, K., 2013

<sup>40</sup> Department of Agriculture, Fisheries and Forestry, 2012

<sup>36</sup> Lovell Chen, 2013



In Victoria the appointment of agribusiness officers at Mornington Peninsula Shire and the City of Whittlesea reflects growing community expectation for local government policy and

practice to support local food economies.<sup>41</sup>

These appointments have been found to deliver substantial benefits for Councils, producers and local business networks, as demonstrated in the findings of the *Sustain* case study research carried out in 2016 (see the summary of the findings and recommendations on the following page).

The outcomes from mapping the food system connected producers across the region to strengthen the local food economy. Mornington Peninsula Shire found in preliminary modelling that expanding its local food industry by 5% would bring in A\$15 million and create nearly 200 jobs. Recently they have launched a Mornington Peninsula Produce trademarked product brand.

Forging a new model that extends agricultural extension to whole-of-community value

## Case Studies of Two Agribusiness Officers in Victoria Local Government – Executive Summary

**Author: Sally Jane Flett**

**May, 2016**

### Key findings

- There is resurgent community interest in local food right across Victoria.
- Dedicated roles in Mornington Peninsula Shire and City of Whittlesea have uncovered and exploited significant assets to deliver community-wide benefits. This includes a >\$1b local food economy in Mornington Peninsula.
- There is substantial economic opportunity yet to be realised through sustainable agricultural production on peri-urban land. The economic value of peri-urban agribusiness has been significantly under-estimated.
- Agribusiness support delivered through local councils fills a capability gap that otherwise constrains the economic viability and sustainability of small to medium scale local farming. Agribusiness roles foster community connections and contribute to multiple council objectives (particularly economic development, municipal health and wellbeing, and sustainable green wedge management).
- Agribusiness officer roles are particularly well suited to local government. These roles are potentially better placed here than in the previous state-based extension officer model, as this tier of government connects more directly with the community and is the level at which farmers hold many compliance requirements.

What do agribusiness officers do?

- These facilitative, connector roles work

<sup>41</sup> Sustain, 2016

closely with established and first-generation farmers, colleagues across council and diverse community groups. Their work falls into three categories:

- **Direct farmer engagement** to support innovation, compliance and business viability
- **Region-wide education & extension** to share R&D, connect farmers in the region, build capability
- **Strategic development** to attract business, identify best use of the landscape, secure additional resources, and support integrated policy and council decision-making.

Why do councils – particularly interface councils - need them?

- **Economic development** – grow the local food economy and earning capacity of constituents
- **Land use tensions** – especially in peri-urban and growth areas the asset of productive agricultural land can be undervalued and permanently lost; the interface is a unique planning area
- **Community-wide health and social outcomes** – including access to local food, social connectedness
- **Engage the farming community** – in council process, to improve council reputation, for farmer welfare

#### Recommendations:

1. All councils conduct a comprehensive audit to assess the potential of their agricultural landscape assets.
2. Agribusiness officers can best enable farmers and facilitate community-wide outcomes when located within the Economic Development unit, working extensively with others and with actions integrated into key strategic documents (i.e. the Economic Development Plan or Green Wedge Management Plan).
3. State and/or Federal level funding to support

agribusiness officers in local government would achieve valuable outcomes for the state and these roles are considered crucial in interface councils.

4. City of Whittlesea and Mornington Peninsula Shire quantify the return on investment achieved by their agribusiness officer roles to quantify with greater specificity the sound economic case for these roles.

### Definitions and measures of local food economies: the multiplier effect

In the literature, the definitions of 'local food' are varied, non-standardised and often based on different characteristics of local food systems. Sometimes a numerical distance is the main idea, alternatively the farmer and consumer relationship is referred to and other times there is more emphasis on social aspects like community.<sup>42</sup>

Where local food economies have the potential to scale through intermediary enterprises such as food hubs, the concept of values-based supply chains has been developed by the United States Department of Agriculture. These networks can be described as:

*'Supply chains where consumers receive information about the social, environmental, or community values incorporated into the production of a product, or the farm producing it. These enterprises include processors, distributors, packers, shippers, wholesalers, retailers, farmers and ranchers) have transparent, collaborative, equitable relationships based on trust, and work together to make sure everyone benefits, in particular farmers and ranchers'.<sup>43</sup>*

Several authors speak of the multiplier effect of local food economies, which refers to the recirculation of money spent in locally owned businesses back through other local owned businesses, thereby enhancing local job creation.<sup>44</sup>

<sup>42</sup> Abate, 2008; Martinez et al., 2010

<sup>43</sup> Aubrey, 2012

<sup>44</sup> Reconomy Project and Transition Town Brixton, 2013

Typically, local business employment occurs in relation to an increase per unit of turnover. However, there is some uncertainty regarding the measurement of the economic impacts and quantification of the multiplier effect. For example, the United States Department of Agriculture (USDA) says that every \$1 million in local food sales generates 13 new full-time jobs. This statistic is contested by Enderton and Bregendahl (2014) as being far too conservative. Their Iowa-based study found that there were 110 jobs supported by \$1 million worth of local food sales, of which 34.1 were full-time (see also Martinez et al., 2010).

A number of economic modelling studies in the US have identified how the expansion of local food economies would generate potentially significant job creation and economic growth benefits. A 25% shift in meeting local food demand in the 16 counties of North-East Ohio from local production was found to potentially create 27,664 new jobs, and reduce the unemployment rate by 12.5%, as well as increase regional output by \$US4.2 billion and state and local revenue by \$US126 million.<sup>45</sup>

Food Secure Canada has assisted the development of a well-established local food network in several regions such as in Toronto where there has been a steady growth in local employment with 13,000 jobs created between 1999 and 2008 due to strong and consistent demand for local produce.<sup>46</sup> In Northwestern Ontario there were 1293 jobs and 577 indirect jobs (jobs supported and created by local farms and processors) created over that decade. One factor involved is that the types of farms producing local food typically practice labour-intensive farming that requires more workers compared to a more conventional and mechanised farming system.<sup>47</sup>

In England, local businesses have been found to create more jobs per annual turnover (on average, 1 job per £46,000) compared to large national chains who establish one job per £138,000 to

£144,000. In Ledbury, England, 12 of 26 existent local food sellers provided 140 – 200 both part-time full-time jobs between 2009 and 2010.<sup>48</sup>

Various multiplier effects are observed in local economies: workforce, job and local multiplier effects. The 'workforce multiplier effect' in 2011 in Northwestern Ontario was calculated by 'dividing the total number of jobs (direct jobs provided by producers, and indirect jobs provided by suppliers and retailers) by the direct jobs'.<sup>49</sup> Thus, 100 jobs on local farms and in local processing were found to generate 40 additional jobs in the same region. Similarly, the 'job multiplier effect' in a Knoxville example, showed that as every new job is created from a local food consumption and / or procurement policy, jobs in other regional industries arise.<sup>50</sup>

The multiplier effect therefore includes:

- **Direct effects** such as local employment directly in the industry;
- **Indirect effects** supporting jobs in supporting industries; and
- **Induced impacts** as a result of re-spending the money circulating in the economy.<sup>51</sup>

The New Economics Foundation (NEF) (2005) has developed the 'local multiplier effect' model which is a '...methodology that can be used by community organisations, business leaders, or government officials - to measure how much organisation, initiatives or spending impacts on the local economy'. Applying this model to their local economies, the CPRE research on Lambeth found that the local economy could increase 2.5 times in value with local spending rather than in chain stores or stores where money will leave the economy. As the local economy grows as does the multiplier effect.<sup>52</sup> Conversely, spending on national and multinational businesses drives

45 Masi et al 2010

46 Toronto Public Health, 2010

47 Food Security Research Network, Faculty of Natural Resource Management, 2013

48 Campaign to Protect Rural England, 2015

49 Food Security Research Network, Faculty of Natural Resource Management, 2013

50 Hellwinckel et al, 2014

51 Hellwinckel et al., 2014

52 Reconomy Project and Transition Town Brixton, 2013

money away from local businesses and economy, therefore decreasing opportunities for local economic activity.<sup>53</sup> Efforts to counter this 'draining effect' of non-local spending have centered on support for the expansion of direct-to-consumer sales channels. In the UK farmers markets, farm gate sales and community supported agriculture (CSA) enterprises contribute the largest impact on the sale of local fruit and vegetables.<sup>54</sup>

CSAs are '...organized around a contract between a farmer, commonly an organic producer, and a set of local residents, who share the risks of the farming enterprise by contributing money up front for a 'share' of the harvest prior to the farming season'.<sup>55</sup>

Several CSAs have emerged in Tasmania. The Channel Living - Local Food for Local People program, is a partnership of CSA and a vegetable box scheme where local farmers and backyard growers are assisted in producing food that is then supplied to the vegetable box scheme.<sup>56</sup>

Described as 'the hallmark of the local food economy'<sup>57</sup> farmers markets are central spaces where farmers and speciality food producers sell directly to consumers.<sup>58</sup> They provide benefits to both the farmer and the economy. For example, the Department of Agriculture, Fisheries and Forestry (DAFF) (2012) suggest that farmers markets act as an income source for farmers contributing to the viability of their farms and creating a space to establish trust and awareness. Farmers then spend their money locally. Small farms are more likely to purchase their inputs, such as seeds, from local sellers and sources.<sup>59</sup>

## Benefits of local food economies

Local food economies have been observed to

create benefits for farmers, the environment, and health, as we discuss below.

### Increased farmer viability

A growing issue is that some farmers are unable to maintain their businesses due to their lack of power in price setting and competition with large farmers<sup>60</sup>. Compounding this are pressures of large retailers and the resultant declining income over the years for small farmers. Between 1988 and 2002 income declined by 24% for Canadian farmers (Food Matters Manitoba). However in the US, new smaller-scale farms operated by younger people have been growing in number in the U.S, due to the knowledge of economic benefits and viability of local food markets: for the first time in decades, the US has actually experienced a net increase in the numbers of farmers, most of whom are young, female, and sell into local markets (United States Department of Agriculture, 2009). By empowering farmers to once more assume the mantle of price-makers rather than price-takers, and properly price their produce taking into account a fair value for their labour and environmental stewardship, local food economies provide a demonstrated pathway to viability and can therefore attract young people into agriculture.<sup>61</sup>

### Environment

Generally speaking intensive farming practices have been linked to several concerning environmental outcomes. Local food production's less intensive form of farming does not degrade the environment so drastically in comparison, and can actually benefit the environment.<sup>62</sup> These benefits include less distance travelled, reduced greenhouse gas emissions, landscape preservation, improved soil health,<sup>63</sup> less soil erosion, animal well-being, and reduced runoffs.<sup>64</sup>

53 Reconomy Project and Transition Town Brixton, 2013

54 Pearson & Bailey, 2012

55 Feagan 2007

56 Tasmanian Food Security Council, 2011

57 Adams and Salois 2010

58 Australian Farmers Market Association, 2015

59 Brown and Miller, 2008

60 Irshad, 2010

61 Enderton and Bregendahl, 2014

62 Campaign to Protect Rural England, 2015 and Toronto Public Health, 2010; Berning 2012; Bimbo et al 2012; Minaker et al 2014

63 Campaign to Protect Rural England, 2015

64 Food Matters Manitoba, 2013

## Health

Access to and affordability of food is beneficial to human health and nutrition.<sup>65</sup> When nutrition concerns motivate communities to support local food, more whole foods and less processed foods are consumed<sup>66</sup> and individuals and families of low socio-economic status who may have difficulty accessing food (due to distance and/or financial restraints) can access local whole foods via community gardens.<sup>67</sup> Farmers markets, mobile grocers and other retail outlets that stock local food are beneficial to the health of local residents especially if their nearest supermarket is difficult to travel to (due to distance, disability etc.).<sup>68</sup>

As the total per capita dollar volume of direct farm sales increases, both the rate of obesity and diabetes falls. A \$100 increase in per capita direct farm sales is associated with 0.80% lower obesity rate and a 1.2% lower diabetes rate. The density of farmers' markets is also important. An additional farmers' market per 1,000 people is associated with a 0.78% lower diabetes rate. Although the results do not specify the causal mechanisms in which a strong 'local' food economy is associated with lower prevalence of obesity and diabetes, one likely mechanism is the increase in supply of healthy food options. Farmers' markets, farm-to-school programs, and direct farm sales improve not only the supply and options of fresh fruit and vegetables, but they also make them easier to obtain and encourage better dietary choices. Thus making effective community-level interventions may also involve strengthening the 'local' food economy a disease prevention initiative.<sup>69</sup>

## Conditions for success of local food economies

The research and experience suggests that certain key conditions need to be fostered and enabled if local food economy initiatives are to realise their

potential. Here we highlight three: collaboration, trust and connections, and supportive policy.

### Collaboration

Collaboration is effective because it pools information and skills from varying professionals, stakeholders, groups and individuals.<sup>70</sup> Tasmanian research identified collaboration as integral to the success of local food systems, with loyalty, reliability and trust between farmers and consumers essential. However this was found to be difficult when stakeholders are competing and systems are being duplicated.<sup>71</sup>

### Trust and connections

Furthermore, trust between growers and other people in the supply chain is beneficial for building collective capability, assisting distribution and becoming aware of local market demands. The process of farmers selling directly to the consumer cuts out the middle man, creating trust and the farmer gains more of the dollar from their product.<sup>72</sup> Trust also enables each party to understand each other's requirements and capabilities, to allow for better arrangements (Food Matters Manitoba). Tasmanian research found that partnerships and collaborations need not always be formal and that the informality of some partnerships in fact enhanced trust.<sup>73</sup> In the Food Matters Manitoba report, trust was considered especially integral between the farmer and restaurants.

### Supportive policy

Policy that supports the implementation and activities of local food systems (such as securing land) is integral to their success.<sup>74</sup> The **Toronto Food Policy Council** (TFPC) is one of the first food policy councils established in Canada. The TFPC has championed several policy innovations

65 Abate, 2008

66 Hellwinckel, 2014

67 Hellwinckel et al., 2014; Food Secure Canada, 2016

68 Hellwinckel et al., 2014

69 Salois, 2010

70 Food Security Research Network, Faculty of Natural Resource Management, 2013

71 Auckland, Murray, Saunders and King, 2015

72 Auckland, Murray, Saunders and King, 2015

73 Auckland, Murray, Saunders and King, 2015

74 Abate, 2008

involving urban food system components such as community and rooftop gardens, local food, sustainability, collaborations and partnerships, nutrition labelling and opposition to genetically modified foods. The TFPC also played an important role in ensuring that Toronto adopted a local food procurement policy which has to date enabled residents to reconnect with their food through schools, as well as driving significant investments and expanded spaces for food production.<sup>75</sup> The work of the TFPC and allied local food networks and alliances paved the way for the unanimous passage of the **Ontario Local Food Act** by the Legislative Assembly of Ontario in 2013. This Act aims to benefit the economy and agrifood sectors by *'improving food literacy in respect of local food, encouraging increased use of local food by public sector organisations, and increasing access to local food'*.<sup>76</sup> Both of these initiatives make Toronto and Ontario a world leader in supporting and stimulating local food economies.

In the U.S food policy councils have been widely established to drive regional purchasing and investment activity. Typically, 20% local is the policy goal and this may be enforced in an entire region or an institution. It is estimated that reaching the 20% goal in Knoxville would contribute \$5.8 million to the state economy.<sup>77</sup> In Queensland a 'buy local' policy exists in Mackay, and has so far contributed to local economic development.<sup>78</sup>

In 2013 the Association of Municipalities in Ontario published *Best Practices in Local Food: A Guide for Municipalities*.<sup>79</sup> While obviously directed at a Canadian / Ontarian audience, this is an invaluable resource for local governments in Victoria and Australia. The recommended pathways forward (see below) are highly applicable in our context.

75 Toronto Public Health, 2010

76 Food Security Research Network, Faculty of Natural Resource Management, 2013

77 Helwinckel et al., 2014

78 Department of Employment, Economic Development and Innovation, 2011

79 AMO 2013



Figure 12: Local Food Tools and Tactics<sup>80</sup>

## Limitations, challenges and barriers

Several barriers limit the implementation, growth and maintenance of local food systems and the successful development of local food economies, including lack of consumer awareness, difficulties sourcing locally and large business pressures.<sup>81</sup>

### Consumer awareness

A consumer base is integral to the local food market.<sup>82</sup> Unfortunately, a lack of consumer awareness regarding knowledge of where to obtain local food and its seasonality can present as a challenge in the local food system.<sup>83</sup>

### Availability and reliability of local produce

Chefs in both Knoxville and Manitoba expressed difficulty in sourcing locally due to accessibility and availability.<sup>84</sup> In Manitoba, chefs would rather source their ingredients locally and build relationships with their supplying farmer, however time and inconvenience make it difficult to do so. A sole supplier is preferred to dealings with several small producers.<sup>85</sup> Inconveniences include dealing with multiple invoices<sup>86</sup> and the need to source from several locations rather than a central supplier.<sup>87</sup>

80 Best Practice in Local Food: A Guide for Municipalities, AMO 2013

81 Food Matters Manitoba, 2013

82 Abate, 2008

83 Food Matters Manitoba, 2013; Auckland, Murray and Saunders, 2015

84 Food Matter Manitoba, 2013; Helwinckel et al., 2014

85 Food Matters Manitoba, 2013

86 Enderton & Bregendahl, 2014

87 Food Matters Manitoba, 2013

### Pressure on farmers resulting from big business requirements

Many small-scale farmers want to implement production practices that regenerate their farms. Unfortunately, this desire is undermined by large businesses pressuring producers to utilise environmentally unfriendly techniques for the sake of a large and uniform yield. Increased waste is also a result of the aesthetic standards contained in contracts with large supermarkets.<sup>88</sup>

Local food systems have been described as benefiting farmers by creating less pressure, allowing control and reducing the need to supply large supermarkets specified quantities at specified times.<sup>89</sup> In Manitoba farmers found that regulatory systems limit their ability to earn enough money solely from local markets.<sup>90</sup>

### Policy barriers

While many local governments want to support the emergence of strong local food economies, often their capacity to do is constrained by a series of interlocking institutional, regulatory and fiscal constraints. The figure below comes from analysis in Ontario, however our work and conversations with staff in local government in Victoria suggest that many of the same barriers apply equally in our context. Addressing these challenges begins with an acknowledgement of their existence, and then taking the measures outlined above: Strategies and Policies, Programs, Governance and Partnerships, and capacity building for key staff.



Figure 13: Key Challenges for Municipalities<sup>91</sup>

### Conclusions from the literature

Local food system practices around the world can shed light on how Bendigo can establish and maintain a successful local food system with associated economic benefits. The clear picture that emerges is that local food economies and systems have multiple health, social, environment and economic benefits. **A key message from this review is the importance placed on collaboration. Multi-sectorial integration, policy interventions and consumer knowledge can assist in supporting a successful local food system. It is also important to consider the challenges regarding the availability of local food and the pressures producers experience and challenges that consumers, retailers and policy-makers face.**

Case studies from Ledbury, UK; Lambeth, UK; Iowa, US; Knoxville, US; Food Secure Canada; Manitoba, Canada; Toronto, Canada; confirm the literature cited and are summarized in Appendix 2.

<sup>88</sup> Reconomy Project and Transition Town Brixton, 2013

<sup>89</sup> Department of Employment, Economic Development and Innovation, 2011

<sup>90</sup> Food Matters Manitoba, 2013

<sup>91</sup> Best Practice in Local Food: A Guide for Municipalities, AMO 2013



## Methodology

Several methodologies were used in data collection for this report:

- A desktop study of current reports, frameworks and tools that already exist in this space regionally, nationally and internationally
- Semi-structured interviews of some major local stakeholders, including City of Greater Bendigo staff, were undertaken to determine what data already exists for the region. We are aware that several stakeholder interviews and some mapping have already been undertaken for a number of relevant studies and local food initiatives e.g. the Greater Bendigo Food Hub Feasibility Study.
- Some initial mapping was undertaken to effectively display the players in the region and any relationships that are known to exist between these.

Once this initial phase was completed, data gaps were identified. Primary research was then undertaken to fill these gaps. This primary research included:

- Structured stakeholder interviews with large producers, large food procurement organisations, schools, large retailers, local food processors or value adders and local community groups whose work directly relates to the local food economy. This was undertaken to comprehensively determine their impact on the local food economy and any relationships that exist between them that strengthen this impact.
- Surveys were conducted of small producers, processes, retailers and hospitality businesses and local organisations.
- An online survey of community and backyard food producers to generate a picture of the extent of home-based food production in Bendigo

### 30 Semi-structured interviews and surveys

**were undertaken** with purposefully selected participants. All were done (with the exception of two) face to face. Interviewees included retail, wholesale, producers, food manufacturers, school gardens and cooking programs, social enterprise, community gardens, local government and emergency food relief providers.

Survey Monkey surveys were promoted on a purpose built 'Bendigo's Local Food Movement' Facebook page. The page was boosted to enhance uptake of survey. The categories of survey publicised were:

- Backyard production
- Products from local produce
- Food rescue

There were 17 responses to the backyard production survey and 5 for value added home grown produce. There were no responses to the food rescue survey. The food rescue and distribution interview results capture some of the relevant data.

### Limitations of the research

More comprehensive mapping was planned to continue throughout the whole process to accurately represent the regional local food economy as a whole. Despite some mapping of producers being referenced in this report, the comprehensive mapping originally intended was found to be beyond what was feasible for a small-scale and time-limited research project of this nature.

## Data collection

Data collection was an iterative process. The data collected is displayed in table 1.

**Table 1: Categories of data collected**

Stakeholder	Information gathered
Major stakeholders including council	<ul style="list-style-type: none"> <li>Regional production data</li> <li>Local food initiatives</li> <li>Local stakeholder connections</li> <li>Any local food events, food shows etc</li> </ul>
Producers	<ul style="list-style-type: none"> <li>Where is produce sold and through what mechanisms?</li> <li>Any local food economy connections / memberships?</li> <li>Farm gate sales?</li> <li>Value-adding on farm and / or through local processors?</li> <li>Connections with markets, retailers, hospitality etc.</li> </ul>
Processors and value adders	<ul style="list-style-type: none"> <li>Produce from where</li> <li>Supplies whom?</li> </ul>
Local food organisations / programs	<ul style="list-style-type: none"> <li>Kitchen gardens, co-ops, food waste programs</li> <li>Role in local food economy?</li> </ul>
Markets	<ul style="list-style-type: none"> <li>Farmers markets, local markets</li> <li>How much revenue is generated from local food sales?</li> </ul>
Hospitality businesses with local food focus / commitment	<ul style="list-style-type: none"> <li>What proportion is bought and sold locally?</li> <li>Connections with local producers, processors, etc.</li> </ul>
Retailers with local food focus / commitment (including independent supermarkets)	<ul style="list-style-type: none"> <li>What proportion is bought and sold locally</li> <li>Connections with local producers, processors etc.</li> </ul>
Food procurement organisations (schools, hospitals, etc.)	<ul style="list-style-type: none"> <li>What proportion, if any, is sourced locally?</li> <li>Connections with local producers, processors, etc.</li> </ul>

## Quantifying the Bendigo Local Food Economy

### Results

The headline results from interviews include:

- Significant local employment with between one to 752 staff (627 full time) employed

- Turnover of businesses varied up to more than \$200 million/annum
- The larger the enterprise the greater the geographical distribution of sales

A declaration of a '*passion for fruit and veg*' typifies the attitude of many local producers and businesses in Bendigo.

**Table 2: Results**

Stakeholder	Information gathered	Results
Major stakeholders including council	<ul style="list-style-type: none"> <li>Regional production data</li> <li>Local food initiatives</li> <li>Local stakeholder connections</li> <li>Any local food events, food shows etc.</li> </ul>	<ul style="list-style-type: none"> <li>Economic development</li> <li>Bendigo Regional Food Alliance, Food Fossickers, Bendigo Community Farmers Market, CoGB Farming Advisory group, Central Vic Agribusiness network</li> <li>Sheep &amp; wool show, Food Fossickers events</li> </ul>
Producers	<ul style="list-style-type: none"> <li>Where produce is sold and through what mechanisms?</li> <li>Any local food economy connections/ memberships? (co- ops, food hubs etc.)</li> <li>Farm gate</li> <li>Value adding – on-site, local processors?</li> <li>Connections with markets, retailers, hospitality etc.</li> </ul>	<ul style="list-style-type: none"> <li>Wholesaler / Melb market</li> <li>Farmers market producers</li> <li>On farm value adding</li> <li>Food hub in feasibility stage</li> <li>3 food box schemes</li> <li>Large value adding/processing</li> <li>Small scale backyard production and value adding</li> <li>Emergency food relief e.g.. Bendigo Foodshare</li> </ul>
Processors and value adders	<ul style="list-style-type: none"> <li>Produce from where?</li> <li>Supplies whom?</li> </ul>	<ul style="list-style-type: none"> <li>Large animal processors / local grown animals</li> <li>Larger enterprises supply supermarkets</li> <li>Small-scale, domestic value-adding</li> </ul>
Local food organisations/ programs	<ul style="list-style-type: none"> <li>Kitchen gardens, co-ops, food waste programs</li> <li>Role in local food economy?</li> </ul>	<ul style="list-style-type: none"> <li>30 Bendigo schools grow food (CoGB data)</li> <li>Emergency food relief e.g.. Bendigo Foodshare</li> </ul>
Markets	<ul style="list-style-type: none"> <li>Farmers markets, local markets</li> <li>How much revenue is generated from local food sales?</li> </ul>	<ul style="list-style-type: none"> <li>Monthly Bendigo Community Farmers Market (see Economic Impact Study of BCFM)</li> </ul>
Hospitality businesses with local food focus/ commitment	<ul style="list-style-type: none"> <li>What proportion is bought and sold locally</li> <li>Connections with local producers, processors etc.</li> </ul>	<ul style="list-style-type: none"> <li>no data on % bought and sold locally many good connections and relationships with local producers. processors</li> </ul>
Retailers with local food focus/ commitment (Including independent supermarkets)	<ul style="list-style-type: none"> <li>What proportion is bought and sold locally?</li> <li>Connections with local producers, processors etc.</li> </ul>	<ul style="list-style-type: none"> <li>no data on % local</li> <li>solid relationships with producers</li> </ul>
Food procurement organisations (Schools,hospitals)	<ul style="list-style-type: none"> <li>What proportion, if any, is sourced locally</li> <li>Connections with local</li> </ul>	<ul style="list-style-type: none"> <li>no data available</li> </ul>



### Case Study 5: Masons and Food Fossickers

**In 2006 Sonia and Nick Anthony opened their acclaimed Bridge Hotel restaurant. Following a stint in Singapore they returned to Bendigo to establish Mason's fine dining in what was an old lead lighting and glazing business.**

Their extensive experience in the hospitality industry has been focussed to highlight the high quality local produce of Central Victoria. They have achieved great success by cultivating relationships with farmers and primary producers that allow them to walk the talk in supporting 'paddock to plate' dining. Their restaurant

purchases from around 70 producers.

Sonia says that by promoting and supporting local produce, you are supporting the broader community via other expenditures that local producers make. She also thinks that hospitality is a useful platform for marketing and educating the local community as well as producers.

Sonia is President of the Food Fossickers Network that promotes local produce and is passionate about supporting local producers and what it means for the local economy.

Food Fossickers believe in building stronger relationships and an independent supply of local regional food. The network acknowledges the important

role food plays in a healthy functioning society and wants to let people know where their food has come from, and to share the stories about those who helped to put it on the table. They welcome food and beverage growers, producers, distributors, retailers, cafes, pubs, restaurants, butchers, bakeries and more. What Food Fossickers love most is putting local food on local plates.

In the longer term the Network aims to achieve many of the objectives that embed local produce a part of a! local food economy: Nurturing and supporting food source sustainability in the region and developing market access for producers through an independent supply chain.

## Data analysis from interviews

*Locally focussed businesses derived a large amount of satisfaction from:*

- Relationships with customers
- Connection with the local community
- Supporting environmental sustainability in their food business
- Supporting other businesses and the community and
- Supporting workers (with a disability)
- Being able to control where their product goes and how it is prepared
- Providing alternative, more flexible arrangements in the market that support producers
- Accessing a good local labour source
- Low food miles of produce
- Ability to provide fresher product
- More money going directly to farmers, keeping profits local
- People visiting their farm to better understand how they work
- Ability to support around 150 suppliers, a large proportion local and many regional
- Growing and educating communities
- Building tourism
- Sourcing locally to decrease transport costs
- Ability to support new growers in region
- Building relationships between producer and end user

***“Local food kms - locals should be able to buy locally sourced product to support local jobs”***

*Local community enterprises value:*

- Increased networking, relationships
- Sharing chemical-free produce to support their community with culturally appropriate foods
- Supplying food for cultural celebrations
- Selling to families who work or are time poor

- Educating children, with the fruit and vegetables grown, in many ways, a byproduct
- Community partnerships
- The surrounding community appreciating a school garden
- A large school fruit social enterprise
- Ability to give produce away to volunteers, community members, cooking course participants, emergency food relief, culturally diverse community members, schools, disability services and work for the dole participants
- Potential to give children experience in growing and developing a business that could put fund back into a school program
- Ability to supply school meals and local families with fresh produce
- Ability to advocate for carbon emissions reduction and cheaper water for community gardens
- Describe the benefits of land management practices such as the Polyface land management system
- Ability to establish new businesses to make food growing accessible to more community members

*Benefits of growing and selling local produce included:*

- People knowing what they are eating, their community learning skills and gaining business experience and building good relationships with the wider community
- People can try the local product, then buy
- Face to face contact, people can connect with the farmer and the farm
- To be able to fund raise to cover the garden costs
- To supply cheap, good food to families mostly on low incomes
- Community building, education, health, social inclusion, environmental awareness
- Educating people about where good food

comes from and how to access it

- Providing a viable outlet for producers to connect directly with the markets
- Independent retailers want to support local, its good for their business, less freight cost/travel logistics, simplified process, direct relationship, people can come and visit the farm
- Transparency regarding the product, methods and social interactions in enterprises

*“The people I meet, that’s why I do what I do”*

## Challenges

There many and varied challenges or limitations that interviewees identified. These were grouped into the following categories:

1. Business practices
2. Growers and production issues
3. Regulatory issues
4. Support
5. Education and community
6. Structural and logistics

### Business practices

Local businesses identified a number of challenges, including:

- needing produce to arrive early in the morning,
- easier to source from Melbourne markets;
- monthly market too infrequent – it means people shop elsewhere in between times,
- big chains bring in inferior product and undercut local producers and shops,
- the lack of a general fresh food market/food hub;
- land size / small lots,
- hard to guarantee a regular supply line, would be a stop gap only;
- fostering quality and marketability;
- lack of small manufacturing capacity

### Growers and production issues

Growers raised a number of limitations and challenges, including:

- Climate restrictions, seasonal variation, lack of rain,
- Lack of and cost of water,
- Lack of labour with WWOOFing visa limitations affecting availability,
- Water and business issues over the years have led many local producers to move away, ploughed in trees and shut down,
- Little profit in relation to the hours and labour intensiveness,
- Lack of growers, lack of supply,
- The market and the buyers, variations in buying price e.g. a cauliflower can vary from \$1.20 - \$5.50,
- Creating an oversupply of certain produce, as all things grow at the same time,
- Balance needed to prevent wastage of food,
- Most produce only what they can sell and no more,
- Cannot afford to sell a \$24 chicken given the cheaper competition,
- Sourcing ingredients - ability to fit with business image,
- Bendigo’s population not big enough for commercial-scale growers who prefer to send to Melbourne Markets, perhaps dropping off their excess in Bendigo on the way

### Regulatory issues

The market accreditation process can be a hurdle for producers to participate. Some interviewees mentioned primary industries department bureaucracy. Others spoke of difficulties experienced in attempting to expand their businesses. Several felt a lack of control over their businesses, and mentioned that it was hard for small producers to adhere to Primesafe’s requirements.

## Support

Many interviewees expressed frustration over stagnant sales. Some spoke of a general lack of support, including from Council staff. Some interviewees mentioned businesses changing hands with loss of local support, despite providing local employment. One spoke of how his staff were stretched, and that a kitchen garden could produce a lot more with increased human resources. From the community perspective, a reliance on volunteers was a limitation: a lack of available paid hours to manage the business side of a community garden inhibited production. Community workers spoke of being overworked already in a part-time position; a lack of funding; and feeling torn between educating children and concentrating on food production.

## Education and community

Growers and business owners identified a clear need to prioritise community and consumer awareness and education of the benefits of local produce, with the following issues being typical under this heading:

- Lack of awareness of health benefits,
- Lack of preparedness to pay for premium quality product,
- Local demand not being seasonal necessitating access to Queensland produce,
- Not getting much back from the community,
- Low local interest and commitment, not valued,
- Being a public space can never guarantee that produce will be there

Others mentioned the focus of research and research funding having a narrow economic orientation rather than more integrated research acknowledging the social and environmental benefits of local community food initiatives. Some interviewees mentioned the lack of training and skills shortage, necessitating in-house training and procurement of specialist training. Others identified the attitude of Council to businesses' plans for further investment/infrastructure upgrades.

## Infrastructure and logistics

One interview mentioned the lack of freight and logistics options to supply a region wider than Bendigo. Another said that the changes to street design in the CBD disadvantages traders.

*“Local adds complexity that large companies haven't got time for, they need simplified systems to be successful, they don't see the need to increase local sales... In an ideal world it would be great to be selling locally but it is not practical. (Their priority is for) setting up for bulk orders, big scale, less boutique”.*

*“Our best farming land is going into housing development, we need to map agricultural land, recognise buffer zones and give food growing land more protection in planning”*

## Opportunities

Opportunities were viewed from differing perspectives, depending on the business or community orientation of the interviewee:

Similar to the limitations, the range of opportunities mentioned means they need to be grouped:

1. Increased sales outlets
  1. Business skills development, support and marketing
2. Regulation
3. Tourism, promotion and events
4. New enterprises and partnerships

## Increased sales outlets / More frequent produce / farmers' market

The comments here included the following:

- More frequent Bendigo Farmers Market - even a weekday market / markets at varied times
- Interested in selling to wider Bendigo community supplying Asian greens, coriander and chillies,
- More availability of local produce in supermarkets,
- If there was a market the school would

supply lettuce, kale, silver beet, chillies, herbs, olives and eggs / If there was a market the community garden would supply garlic

- Development of a food hub around the farmers market,
- Provide more flexible arrangements in the market that support producers,
- Hold a market that's not a Bendigo Community Farmers Market, and hold it more regularly at a time that can be accessed by more people,
- A Central Victorian wholesale market could open up possibilities of local hospitals etc procurement

### Business skills development, support and marketing

Interviewees made the following suggestions:

- Training and assistance in advertising, education, on-line sales, raising awareness of opportunities to sell food, how to apply and get involved,
- Government funding for local producers to advertise and package their products more effectively,
- Giving business incentives to buy local,
- The local food community could pressure chain supermarkets to support local food champions,
- Additional funding for an extra position to focus on production, admin and marketing would allow one person to focus on education, which is the highest priority,
- Niche market for school garden to sell herbs to local cafe - for the children's learning experience,
- Easy to source produce locally from many producers e.g.. cheese, poultry and vegetables,
- Effective branding: small players have the opportunity to differentiate on boutique branding,
- More restaurants and cafes ordering and using local produce means it is viable for the producer

### Regulation

Less bureaucratic requirements and taxes

### Tourism, promotion and events

Interviewees made the following suggestions:

- Synergise tourist opportunities with community events, festivals and street markets,
- Need to make local producers more aware of the farmers market as an outlet,
- Consumers need to get out in the marketplace and support their local food producers,
- Community commercial assistance to get products ready to market,
- Collective marketing,
- The Paddock to Plate new tourism initiative is a great idea

### New enterprises and partnerships

Interviewees made the following suggestions:

- Offering add-on services to community and education programs with schools,
- Garden therapy with hospitals and elderly; Partnerships with the local community centre,
- Crowd funding as a new opportunity,
- Would source more than the current 5 -10% local produce if more was available in all lines.

However, disregarding the local produce potential one retailer felt that:

*"The current system is working, The Melbourne markets as a hub, Victoria is small. The macro connections are in place, we just need to work out the micro connections".*

Others commented:

*"Local sales could be increased (from the school garden) if it were possible to have someone from outside the garden, with an overarching view of the big picture to be selling vegetables, seeds, compost, worms and seedlings".*



*“Urban farming could be supported by land being provided for those wanting to begin to grow produce.”*

*“A not for profit food hub where people learn more about their food and who produced it and how”*

## Key themes from interviews

**Quadruple bottom line concerns:** Health, social, environmental and economic outcomes for businesses and the community. Lack of education regarding health benefits of fresh local produce; Water a pivotal concern for growers; Some complacency by successful business operators about climate change impacts on lengthy supply chains

**Supportive policy:** Support for all aspects of local food businesses, particularly at state and local government levels; Streamline and simplify regulation for smaller-scale producers and businesses

**Increased local spending and greater investment in local businesses:** Identification and expansion of potential markets and frequency; Marketing/business education; Resourcing

**Collaboration, trust and connection:** Trust and relationships pivotal

**Emergency Food Relief:** Resourcing required to support continued dissemination of 350,000kgs fresh local produce/month provided in Central Victoria. Additional staff resources needed to liaise with local producers. Potential for food to be purpose grown for Foodshare activities.

## On-line surveys

**Table 3: On-line Survey results summary Backyard production**

Backyard production (in percentages)					
Fruit	Vegetables	Herbs	Eggs	Meat	Other
76	94	94	82	53	29
Amount produced in Kgs					
10-20kgs - 30%	More than 30kgs/yr - 40%	More than 20 bunches - 50%	27% 50-75 dozen! 27% more than 100 dozen	13% more than 50 Kgs/yr	
% who ate produce grown	% gave produce away	Percentage swapped produce	Percentage sold produce		
94%	76%	35%	17% (with 10% selling 1/3 and 90% selling 2/3)		

**Table 4: On-line survey Value-adding**

<b>Value adding</b>			
Fruit	Vegetables	Vegetables	Other
80%	40%	60%	40%
<b>Range</b>			
Apricots, plums, apples, strawberries, nashis, figs, feijoas, lemons, limes, mandarines, quinces	Tomatoes, onions, zucchini, chilli, eggplant, beetroot, cucumbers	basil, mint, parsley,	cow's milk, goat's milk
<b>Products made</b>			
Apricot jam, plum jam, strawberry jam, preserved apples and pears, quince paste	Tomato sauce, chutneys, passata, kasoundi, pasta sauce, semi-dried: Worcestershire sauce, pickles,	basil, mint, parsley,	cow's milk, goat's milk
<b>Source of produce</b>			
100% homegrown + 5% local markets			
<b>Percentage who ate own preserved produce</b>	<b>Percentage who gave away</b>	<b>Percentage who swapped</b>	
100%	80%	40%	
25% gave away or swapped 10%	25% gave away or swapped 20%	25% gave away or swapped 50%	25% gave away or swapped 70%

## Key themes from Survey Monkey on-line surveys

A large percentage were producing quantities of fruit between 10 and 20 kgs of fruit/year. Nearly everyone grew vegies, with over 40% growing more than 30kgs/year which equates to 600 grams / week. The monetary value may not be high for home grown, but the impact of a large portion of shared and swapped produce has an impact on the add on value of the production. An interest in alternative food economies is typified by the fact that 76% gave away 35% swapped and 17% sold produce.

*“Swap with friends for everything and anything!! Fruit veg eggs jam secondhand baby clothes, loan of their gardening tools, once we receive*

*our dfsv license to sell we will keep swapping - I've even swapped cheese with the local librarian in exchange for wiping my library fines*

*“We swap for things we don't make like passata and garlic”*

The value adding process had a motivator that exceeded necessity in that **half of those surveyed gave away 70% of what they grew, indicating a value for value adding to home grown produce that exceeds the monetary value.**

As an indicator survey it would be valuable to undertake a more extensive survey as part of a wider community survey such as the City of Greater Bendigo's community wellbeing survey.

## Bendigo's points of difference

A unique selling point or point of difference is advertising industry parlance for *'what we can do that others can't'*.

Bendigo has some unique geographical features that present opportunities, including:

- Climate for food growing, proximity of arable land unsuitable for housing development to the north of the city
- A large rural community (the largest rural LGA in Victoria) with established farm enterprises
- A water recycling facility
- Skilled workforce and university and TAFE specialist skills and training
- Established farming networks such as the Central Victorian Agriculture Forum and Councils Farming Advisory Group
- The retail food network Food Fossickers, with marketing and tourism linkages
- A progressive urban agriculture community with highly developed and extensive skill-sets
- Advanced Council development of a food hub
- A Regional Food Alliance and urban agriculture policy and guidelines.

This is countered by the urgent need to address Bendigo's poor health, economic and food security indicators. The Loddon Mallee Murray region has the highest obesity rate in Australia, Bendigo has a high incidence of food poverty and 30% of the Greater Bendigo community earn less than \$600/week. These indices are criteria that reinforce the possibility of attracting further state and federal support to implement substantial investments in supporting and expanding Bendigo's local food economy utilising many of the observations and expert opinion contained within this report as a starting point.

## Using report findings to stimulate the Local Food Economy

Taking into account the extensive feedback received regarding motivations, benefits, challenges and opportunities for the Local Food Economy in Bendigo there are a number of ways that may be possible for these challenges to be overcome and opportunities supported. These include:

- Urban agriculture facilitator and agribusiness officer roles in CoGB
- Establishing a Bendigo Food Hub, to provide wholesale support plus incorporating frequent accessible markets
- Investment in school kitchen garden programmes staffing and further resourcing
- Major small-scale food enterprise skills development support (RDV)
- Legislative and regulatory change to support small-scale food enterprise development
- Planning decisions to zone low lying flood prone agricultural land, unsuitable for housing, to the immediate north of Bendigo as a Food Growing Corridor and Agribusiness Enterprise Zone, with subsidies on rates to attract investment by new producers
- Development of a unique Bendigo Grown trademark and Buy Bendigo campaign
- Investigate novel and alternative food distribution logistics e.g. Bendigo metro rail with produce storage facilities at railway stations, coordination and backloading existing transport, electric cargo bike fleet.

## Challenges, Barriers and Constraints

Some data was difficult to collect or quantify. In addition we acknowledge that local food is a difficult construct to define and therefore cannot discount, nor often distinguish between, food bought or sold, by or from, other Victorian regions. There will therefore undoubtedly be activities that are not captured, inaccurately quantified or incorrectly not recognised as being part of the local food economy.

We also appreciate that some stakeholders consider some of this information sensitive and therefore did not wish not to share this information with us. Support from local organisations, producers and community representatives was invaluable and enhanced the outcomes of this research pilot.

The challenges listed by those interviewed was extensive. Yet despite the barriers the evidence shows substantial and growing interest in and desire to expand the Local Food Economy in Greater Bendigo. The support required to do so is outlined in this report's recommendations.

## Opportunities

This report aims to highlight, and therefore strengthen, the importance of a strong local food economy and its associated activities. It is expected that this report will have a wide readership, including state government, local councils, producers and growers, farmer's markets coordinators, the hospitality and retail sectors, food processors, schools and other educational institutions, community groups, the health sector and not-for-profit organisations.

This report contributes to the growing visibility of the local and regional food sector in Victoria. It further builds the case for stronger investment in the sector, and legislative and regulatory change to enhance the viability of local producers and food businesses. It will serve as a template and an example to be followed by other regions in Victoria and nationally, and therefore become an important resource to strengthen the local and fair food movement in this state and beyond. Significantly, it will help continue to position Bendigo and all the food system stakeholders in the region as leaders and pioneers in this emerging sphere in Victoria and Australia.

Similar to the list of challenges mentioned by interviewees, the opportunities perceived were numerous. From opportunities to build a community food hub; increase markets and food tourism; boost education and training for producers and manufacturers; new value adding potential to food rescue procurement, the opportunities across many sectors, but equally reflect the activities currently underway in the local food economy in Greater Bendigo. This adds to the knowledge base of broader food system opportunities and also informs the recommendations in this report.

## Case Study 6: Gravel Hill Gardens

**Gravel Hill Gardens was set up in 2000 as a community permaculture garden on the site of the former Gravel Hill Primary School, established in 1875.**

Over that time it conducted varied programs, including training via Work for the Dole programs, Volunteer programs, and an annual Permaculture Design Course. The Gardens also ran a successful CSA (Community Supported Agriculture) project - a subscription farm scheme that operated from the community garden.

Between 2001 - 03 the community permaculture garden in central Bendigo focused on local, organic food production and linked with community employment programs, food bank services, school education and local environmental groups.

The establishment of a retail plant nursery and produce sales supported a community focus that promoted and are sustained local urban food production. With a focus on low-input food production and on simple practical skills hundreds of local community members were helped with the capacity to source and grow their own food.

Since those days now in

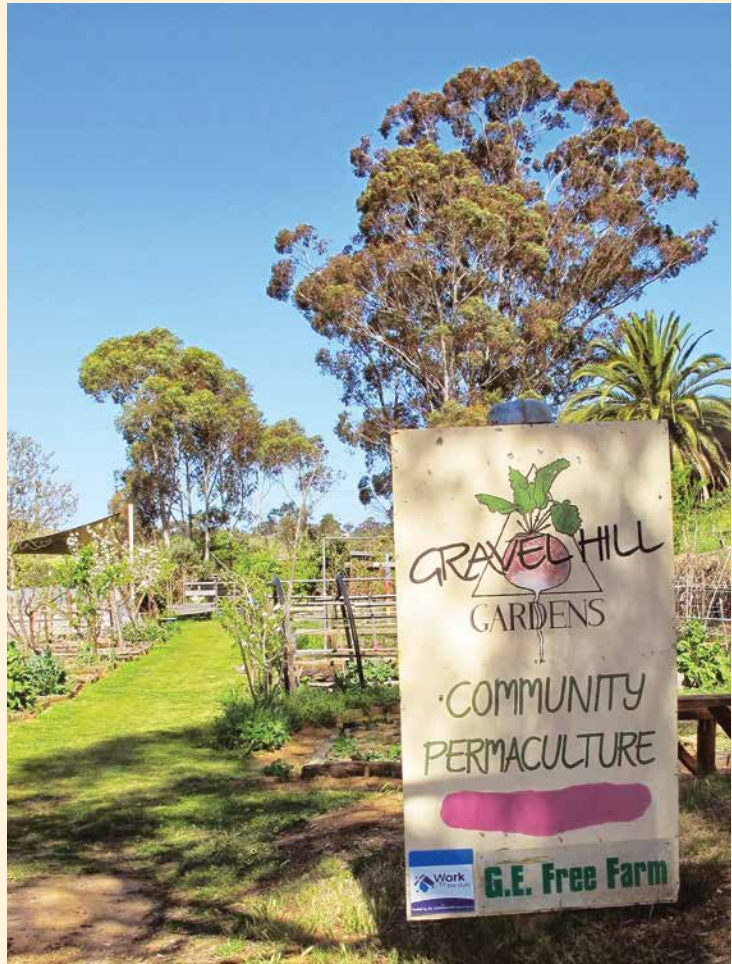


IMAGE CREDIT: MINIMBAH <[HTTP://TIGHESHILLGARDEN.BLOGSPOT.COM.AU/2014/11/GRAVEL-HILL-GARDENS.HTML](http://tigheshillgarden.blogspot.com.au/2014/11/gravel-hill-gardens.html)>

Bendigo over 1000 Karen people have made their home. Many are from rural backgrounds and used to growing their own food. At Gravel Hill Gardens their gardens allow for volumes of leafy greens and herbs, difficult to grow in rental accommodation.

**According to the Karen community community gardening at Gravel Hill Gardens allows them to: access fresh, organic vegetables at very low cost; contributes to a nutritious diet; is an opportunity for**

**parents to pass cultural skills and knowledge to their children here in Australia and is an opportunity to make friends in the wider community.**

The Gravel Hill Gardens and associated infrastructure (such as fully fitted out commercial kitchen on site) form the basis of what once had the potential to be a significant community food hub - maybe with an eye for the future and some investment that potential could be realised.

## Conclusions and recommendations

By creating economic opportunities and diversifying food based industry and employment, we conclude that replicable business models can be developed to support healthy regional and local economies.

As per the **Using research findings to support the Local Food Economy** section of this report, there are several recommendations to be made:

### 1. State government:

- a. Local food economic activity and coordination should be supported by the formation of a Bendigo Local Food Working Group, funded by state government, drawing on representation from all of the existing bodies in Greater Bendigo working in this space.
- b. State Government funding should be made available to the City of Greater Bendigo and Bendigo Kangan Institute to establish the Bendigo Community Food Hub at the Charleston Rd campus of BKI.
- c. State Government should fund the coordination of emergency food relief in Greater Bendigo to enable the direct sourcing of produce by emergency food agencies from local producers.
- d. State Government should establish an integrated cross-departmental Food Unit to coordinate planning and economic development to support a food system governed by the ordering principles of optimizing individual and community health and wellbeing and long-term environmental sustainability, as equal priorities to broad-based economic development.

### 2. Local government:

- a. The City of Greater Bendigo should develop a comprehensive Council strategy that incorporates activity areas across Economic Development, Rural Communities,

Community Wellbeing, Partnerships, Environmental Sustainability, Planning, Tourism and Marketing and Business development functions. This Strategy should be aimed to fast-track local food system and related initiatives that are underway or in development.

- b. The City of Greater Bendigo should employ an agribusiness officer and an urban agriculture facilitator to provide critical support and coordination to progress local food economy and system initiatives, projects and activities.

### 3. Community:

- a. Community food economy stakeholders should become members of the Bendigo Regional Food Alliance to advance the local initiatives and enterprises that comprise the local food economy as part of the local food system.
- b. The Bendigo Regional Food Alliance should consider becoming a member of in order to become connected to like-minded local food networks and alliances around the country, share knowledge and practice, and build momentum for change.
- c. The Bendigo Regional Food Alliance should have active membership of and participation in the Bendigo Local Food Systems Working Group.

### 4. Further research:

- a. State Government should support the undertaking of a detailed financial and economic analysis of the economic, business and employment benefits of the local food economy in Greater Bendigo.
- b. The Bendigo Regional Food Alliance and the City of Greater Bendigo should explore ways to conduct a more extensive on-line survey of backyard food production and value adding activities as part of a wider community survey such as the City of Greater Bendigo's community wellbeing survey.

## References

- Abate, G. (2008). Local food economies: driving forces, challenges, and future prospects. *Journal of Hunger and Environmental Nutrition*, 3(4), 384-87
- Aubrey, S. (2012). Indiana farms, Indiana foods, Indiana success: Central Indiana food hub feasibility study. *Prosperity Ag & Energy Resources*.
- Auckland, S., Murray, S., Saunders, C., King, A. (2015). *Tasmanian local food supply project*, Retrieved from <http://www.centralcoast.tas.gov.au/webdata/resources/files/Tasmanian%20Local%20Food%20Supply%20Project%20final%20report1.pdf>.
- Australian Bureau of Statistics. (2011). *Bendigo (SA4)*. Retrieved from [http://stat.abs.gov.au/itt/r.jsp.RegionSummary&region=202&dataset=ABS\\_REGIONAL\\_ASGS&geoconcept=REGION&datasetASGS=ABS\\_REGIONAL\\_ASGS&datasetLGA=ABS\\_REGIONAL\\_LGA&regionLGA=REGION&regionASGS=REGION](http://stat.abs.gov.au/itt/r.jsp.RegionSummary&region=202&dataset=ABS_REGIONAL_ASGS&geoconcept=REGION&datasetASGS=ABS_REGIONAL_ASGS&datasetLGA=ABS_REGIONAL_LGA&regionLGA=REGION&regionASGS=REGION).
- Australian Farm Institute (2005) 'Australian Farm Sector Demography' *Research Report* August 2005.
- Berning, J. P. (2012). Access to local agriculture and weight outcomes. *Agricultural and Resource Economics Review*, 41(1), 57.
- Bimbo, F., Viscecchia, R., & Nardone, G. (2012, June). Does the alternative food supply network affect the human health. In 126th Seminar, June 27-29, 2012, Capri, Italy (No. 126060). European Association of Agricultural Economists.
- Brown, C., Miller, S. (2008). The impacts of local markets: a review of research on farmers markets and community supported agriculture (CSA). *American Journal of Agricultural Economics*, 90(5), 1296-1298.
- Campaign to Protect Rural England. (2015). *Our year – annual review 2014/15*. Retrieved from <http://www.cpre.org.uk/resources/cpre/about-cpre/item/4010-cpre-annual-review-2014-15>.
- City of Greater Bendigo Council Plan 2013-2017 (2014-2015 update)
- City of Greater Bendigo Greater Bendigo Municipal Public Health and Wellbeing Plan 2013-2017
- City of Greater Bendigo Food Security Report - Healthy Food Connect (2013)
- City of Greater Bendigo Rural Communities Strategy 2015
- Department of Agriculture, Fisheries and Forestry. (2012). *Australian food statistics 2010-11*. Retrieved from <http://www.agriculture.gov.au/SiteCollectionDocuments/ag-food/publications/food-stats/daff-food-stats-2010-11.pdf>.
- Department of Employment, Economic Development and Innovation (2011). *Food for a growing economy – And economic development framework for the Queensland food industry*. Retrieved from <http://rti.cabinet.qld.gov.au/documents/2011/Jun/Food%20for%20a%20Growing!%20Economy/Attachments/Report.pdf>.
- Enderton, A., Bregendahl, C. (2014). *2013 economic impacts of Iowa's regional food systems working group*. Retrieved from <http://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2014-11-2013-economic-impacts-iowa-regional-food-systems-working-group.pdf>.
- Feagan, R. (2007). The place of food: mapping out the 'local' in local food systems, *Progress in Human Geography*, 31(1), 24-32.
- Food Matters Manitoba (2013). *Growing for the future – Building a local, sustainable food economy in Manitoba*, Retrieved from [http://foodsecurecanada.org/sites/default/files/mbfoodassessment\\_sm.pdf](http://foodsecurecanada.org/sites/default/files/mbfoodassessment_sm.pdf).
- Food Secure Canada. *Our story*. Retrieved from <http://foodsecurecanada.org/who-we-are/our-story>.
- Food Secure Canada. *What we do*. Retrieved from <http://foodsecurecanada.org/who-we-are/what-we-do>.
- Food Security Research Network, Faculty of Natural Resource Management; Lakehead University (2013), *The workforce multiplier effect of local farms and food processors in Northwestern Ontario*. Retrieved from

- [http://foodsecurecanada.org/sites/default/files/workforcemultipliereffect!\\_nwontario\\_feb13\\_0.pdf](http://foodsecurecanada.org/sites/default/files/workforcemultipliereffect!_nwontario_feb13_0.pdf)
- Galvin, L (2012) A thought for food. Greater Bendigo Food Security Research Paper. Prepared for the City of Greater Bendigo.
- Hellwinckel, C., Menard, J., Wilson, B., Howell, J., Parkman, Kelsey., Haugen, I. (2014). *Knoxville regional foodshed assessment*, Retrieved from [http://knoxfood.org/wp-content/uploads/documents/Knoxville%20Foodshed\\_Assessment\\_March2014.pdf](http://knoxfood.org/wp-content/uploads/documents/Knoxville%20Foodshed_Assessment_March2014.pdf).
- Irshad, H. (2010). *Local food – a rural opportunity*. Retrieved from [http://www1.agric.gov.ab.ca/Department/deptdocs.nsf/all/csi13484/\\$FILE/Local-Food-A-RuralOpp.pdf](http://www1.agric.gov.ab.ca/Department/deptdocs.nsf/all/csi13484/$FILE/Local-Food-A-RuralOpp.pdf).
- Lovell Chen (2013) Greater Bendigo Thematic Environmental History. Prepared for the City of Greater Bendigo.
- Nichol, M & Shi H (2013) *Economic Impact Analysis. Bendigo Community Farmers Market*. Remplan Pty. Ltd. Project undertaken for the City of Greater Bendigo.
- MacRae, R. & Donahue, K. (2013) *Municipal food policy entrepreneurs: a preliminary analysis of how Canadian cities and regional districts are involved in food system change* Canada.
- Martinez, S., Hand, M., Da Pra, M., Pollack, S., Ralston, K., Smith, T., Vogel, S., Clark, S., Lohr, L., Low, S., Newman, C. (2010). *Local food systems – concepts, impacts and issues*. Retrieved from [http://www.ers.usda.gov/media/122868/err97\\_1\\_.pdf](http://www.ers.usda.gov/media/122868/err97_1_.pdf).
- Masi, B., Schaller, L., and Shuman, M., 2010. The 25% Shift: The Benefits of Food Localization for Northeast Ohio and How to Realize Them. Available at: <http://www.neofoodweb.org/home>.
- Minaker, L. M., Raine, K. D., Fisher, P., Thompson, M. E., Van Loon, J., & Frank, L. D. (2014). Food Purchasing From Farmers' Markets and Community-Supported Agriculture Is Associated With Reduced Weight and Better Diets in a Population-Based Sample. *Journal of Hunger & Environmental Nutrition*, 9(4), 485-497. Blay-Palmer, A., Donald, B. (2006). A tale of three tomatoes: The new food economy in Toronto, Canada. *Economic Geography*, 52(4), 384-390.
- Mount Alexander Shire Council (2012) *Growing a Strong Local Food Economy. Forum Summary*.
- Murray, S., Ahuja, K., Auckland, S., Ball, M. (2014), Availability, cost and affordability of a basket of healthy food in Tasmania. Retrieved from [http://heartfoundation.org.au/images/uploads/main/Programs/Tasmania/Final\\_report\\_Healthy\\_Food\\_Access\\_Basket.pdf](http://heartfoundation.org.au/images/uploads/main/Programs/Tasmania/Final_report_Healthy_Food_Access_Basket.pdf).
- New Economics Foundation. (2005). Buying local worth 400 per cent more. Retrieved from <http://www.neweconomics.org/press/entry/buying-local-worth-400-per-cent-more>.
- Pearson, D., Bailey, A. (2012). Exploring the market potential of 'local' in food systems. *The Australian-Pacific Journal of Regional Food Studies*, 2, 97.
- Pinchot, A., et al (2014). The Economics of Local Food Systems. A Literature Review of the Production, Distribution and Consumption of Local Food. University of Minnesota. <http://www.extension.umn.edu/community/research/reports/docs/2014-Economics-of-Local-Food-Systems.pdf>
- Reconomy Project and Transition Town Brixton (2013). *Rethinking Lambeth's local economy – Opportunities to grow our local food economy*. (Report no. 1). Retrieved from <http://www.reconomy.org/wp-content/uploads/2013/02/Lambeth-Economic-Food-Detail-Draft.pdf>.
- Rose, N., and Larsen, K. (2013) *Economic Benefits of 'Creative Food Economies': Evidence, Case Studies and Actions for Southern Melbourne*. Victorian Ecolnnovation Laboratory, University of Melbourne, and Food Connect Foundation, Brisbane. Retrieved from [https://www.rdv.vic.gov.au/data/assets/pdf\\_file/0003/1168842/Food-Economy-Report.pdf](https://www.rdv.vic.gov.au/data/assets/pdf_file/0003/1168842/Food-Economy-Report.pdf).
- Rose, N (2014) Let's reap the economic benefits of food over farming . The Conversation. <https://theconversation.com/lets-reap-the-economic-benefits-of-local-food-over-big-farming-24478>
- Rosegrant, MW., Cline, SA. (2004). Global food



security: challenges and policies, *Science*, 302, 1917 - 1919.

Salois, M. J. (2010) *Obesity and Diabetes, the Built Environment and the 'Local' Food Economy*. Department of Food Economics and Marketing University of Reading, UK. <http://mpr.ub.uni-muenchen.de/28288/>

Sustain. The Australian Food Network (2016) *Forging a new model that extends agricultural extension to whole-of-community value. Case studies of two agribusiness officers in local government*.

Tasmanian Food Security Council. (2011). *Community Supported Agriculture – toolkit for Tasmanian communities*. Retrieved from [http://www.dpac.tas.gov.au/data/assets/pdf\\_file/0003/142419/Community\\_Supported\\_Agriculture\\_toolkit\\_factsheet\\_-\\_FINAL.pdf](http://www.dpac.tas.gov.au/data/assets/pdf_file/0003/142419/Community_Supported_Agriculture_toolkit_factsheet_-_FINAL.pdf).

Toronto Public Health. (2010). *Cultivating food connections: toward a healthy and sustainable food system for Toronto*. Retrieved from <http://www.toronto.ca/legdocs/mmis/2010/hl/bgrd/backgroundfile-30483.pdf>

United States Department of Agriculture. (2016). *The economics of local food systems – a toolkit to community discussions, assessments and choices*. Retrieved from <https://www.ams.usda.gov/sites/default/files/media/Toolkit%20Designed%20FINAL%203-12-16.pdf>!

United States Department of Agriculture. (2009, February 4). Census of Agriculture shows growing diversity in U.S farming. *Census of Agricultural*. Retrieved from <http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2009/02/0036.xml>!

United States Department of Agriculture. (2016). *Know your farmer, know your food*. Retrieved from <http://www.usda.gov/documents/KYFCompass.pdf>!

## Appendix 1 – Policy Context

### Council Plan 2013-2017 (2014-2015 update)

Theme 3 Presentation and Vibrancy

3.5 People, especially those who are vulnerable and people moving into new growth areas, are enabled to be the healthiest they can be

3.5.2 Implement the agreed priorities of the Health and Wellbeing Plan

3.2.3 Implement recommendations from the Greater Bendigo Food Security Report 2014 including investigation of establishing a Regional Food Hub and Distribution Centre

### Greater Bendigo Municipal Public Health and Wellbeing Plan 2013-2017

The City of Greater Bendigo adopted the Municipal Public Health and Wellbeing Plan includes actions relevant to food security:

“Support to improve healthy food supply and access by development and implementation of specific strategies to address identified nutrition issues for subpopulation groups and regional locations, especially vulnerable populations.”

Theme 3: Productivity

- A diverse, strong, and growing economy supports community resilience by planning activities to:
- Support community initiatives which increase access to healthy food and develop knowledge and skills around healthy eating
- Undertake a community wide project to improve healthy eating;
- Use current evidence to undertake a number of small actions relating to food supply, access, and affordability; and
- Consider the development of a Food Coalition and Food Information Portal.

Theme 4: Sustainability

Resources and assets are used wisely to decrease the environmental footprint.

### Food Security Report - Healthy Food Connect (2013)

*Recommendations - Medium to long term (Nov 2013 - Nov 2018)*

Short term recommendations of the Food Security Report 2014 included:

- Investigate the feasibility of a regional food distribution centre

Medium to long term recommendations of the Food Security report 2014 included:

- Improve access to healthy food by supporting the community to access produce from local suppliers
- Contribute to creating a supportive environment for local food producers
- Improve access to healthy food by supporting the community to access produce from local suppliers
- Investigate opportunities to rescue and distribute excess produce from local food growers (prioritising areas with limited healthy food access)

### Rural Communities Strategy 2015

2. Sustainable Agriculture, Horticulture and Food Processing

- a) Encourage and support further investment in agriculture and horticulture with emphasis on:
  - Local food production to increase local food security;
  - Continue to expand the city's tourism strategy which promotes and supports local produce.
- b) Support Bendigo as a key location for the processing and distribution of product grown in Central Northern Victoria.

## Appendix 2 – Literature review case studies

### Ledbury, England

The Campaign to Protect Rural England (CPRE) is a local food initiative based in England. CPRE have created campaigns such as the '30:30 Challenge' (a campaign to promote local food by 'challenging' participants to source 30% of their food from within 30 miles) and 'From Field to Fork' and a mapping tool in favour of local food businesses and against large international companies. CPRE has also compiled a report containing economic data in relation to local food sales and job creation in Ledbury.

Ledbury supports Norwich's Food Web, which generated local trade to the value of 52 million pounds in one year. This local food production encourages farming diversity, which benefits the health and characteristics of the land.<sup>92</sup>

Their local food system is limited by large supermarket development who stock little to no local food products. Also, retailers find it difficult to acquire sufficient product from suppliers as suppliers favour larger buyers. Lastly, consumers do not prioritise smaller outlets containing local food for their main shopping, rather utilise them for their extra shopping.<sup>93</sup>

### Lambeth, England

The London borough of Lambeth is home to a number of local food involved initiatives. These include large scale programs such as Incredible Edible Lambeth and the Lambeth Food Flagship. Incredible Edible Lambeth was formed in 2011 and comprised organisations and individuals collaborating in order to establish an accessible and available source of local, sustainable and healthy food to all of Lambeth.

The Lambeth Food Flagship is involved in provision of quality local food to institutions

<sup>92</sup> Campaign to Protect Rural England, 2015

<sup>93</sup> Campaign to Protect Rural England, 2015

and the Alexandra Rose vouchers program. The voucher program provides vouchers to families to spend at local food markets. The value of the voucher is taken from the rent price of the stall holder.

Smaller community based programs include 170 community gardens, Brixton Cornucopia restaurant, Local Greens and Myatt's Field Park food hub. These small initiatives have allowed for some of the community to become partially self-sufficient. Local Greens is a vegetable box scheme where the produce for the boxes is sourced from six farms within a 60 mile radius. They are also responsible for employing two locals as packers.

The food hub supports local growers, employ locals and offers skills training. Lambeth has seen success in establishing various initiatives, due to - the growing public awareness and collaborations forming, such as the partnership between the National Health Service and community groups (Reconomy Project and Transition Town Brixton).

Research in Lambeth aimed to - '...identify the opportunities to change the food economy to one which is most beneficial to the residents and businesses of the borough'. They conducted questionnaires and surveys regarding spend - how much, where, what is purchased and why.

Lambeth residents revealed where their struggles lie. They have a heavy reliance on large supermarkets, that is, the majority of their food is purchased there which also contributes to a significant amount of expenditure leaving the local economy. The local food supply is also limited by the little amount of agricultural land in Lambeth.<sup>94</sup>

### Iowa, United States

The United States Department of Agriculture have established a successful program known as the 'Know Your Farmer, Know Your Food'. It was developed in order to improve local and regional food systems, emphasising local food impacts and economic growth.<sup>95</sup> This program has supported

the Iowa based group - the Regional Food System Working Group (RFSWG) - an umbrella network aiming to promote local and regional food security.

Research performed by Enderton and Bregendahl (2014), took measures in 2012 and again in 2013 - in order to quantify the economic impact of Iowa's local food and to enable comparison between the years. Secondary data from the Census of Agriculture was also drawn for both years. Quantitative measures included local food purchases, sales from farms and farm jobs. The methods utilised were online surveys and questionnaires aimed at local food purchasers, farmers and local institutions (schools, gardens, grocers, restaurants, hospitals etc.).

Results revealed growth between 2012 and 2013 in farm sales, leverage funds, job creation and a reduction in distance travelled from farms to consumers, total food budget spent (rose from 8.75 to 18.0%) and farmer food sales (increased to \$13,035,445 in 2013 from \$10,549,296 in 2012).

Leverage funds are funds that are received from food coordinators to support the local food activities. Payments include grants, membership fees, fund-raising money and donations. The increase between 2012 and 2013 indicates growth in local food interest and investment.<sup>96</sup>

Large supermarkets were the major local food purchasers, making up 68% (\$9 million worth), followed by restaurants, residential food service, 'other', NFP, K-12 school and distributors.

Qualitative research showed that diversity in local economies creates secure local businesses. This diversity of the local food system benefits Iowa's new markets, farmers markets, food hubs, gardens and other local food spaces.<sup>97</sup>

The Northeast Iowa Food and Fitness Initiative influenced sales considerably by increasing the amount of consumers farmers were supplying to. In 2010, 11 farms were suppliers to the regional

<sup>94</sup> Reconomy Project and Transition Town Brixton, 2013

<sup>95</sup> United States Department of Agriculture, 2016

<sup>96</sup> Enderton & Bregendahl, 2014

<sup>97</sup> Abate, 2008

market and 21 farms were suppliers to schools. Sales increased from \$US10,000 in 2006 to more \$US2 million in 2010.<sup>98</sup>

Due to this success, the organisation has received further funding and has been able to support other organisations, namely the Northeastern Iowa Food and Farm Coalition. The success can be attributed to integration of diverse groups plus youth engagement in their school policy.<sup>99</sup>

Overall, there is evidence that Iowa presents with a growing local food market. It is important to note that the participants in 2012 and 2013 included only some repeat respondents. For example, 2013 saw 17 more farmers of which 55% participated in both years.<sup>100</sup>

### **Knoxville, United States**

The success of Knoxville lies in having established the first Food Policy Council in the U.S. Their success has further been modelled by 193 other councils. Another success worth mentioning is that a large-scale food distributor called Sysco Knoxville agreed to stock locally produced food. Sysco also support farmers with education programs.

The Knoxville Regional Foodshed assessment quantified the economic impact of the growing local food production in the region. The Knoxville 'foodshed' supplies local food from within a 50 mile radius to Knoxville.

The food shed assessment deemed 22 farmers markets to have a major economic impact. Products from 59 of the farms were available at the markets. 49 retailers (grocery stores, restaurants and manufacturing businesses) utilised and sold local food products.<sup>101</sup>

In 2013, local food consumption amounted to about 20% of total consumption. This equates to \$340 million of expenditure by consumers. This expenditure supported nearly 3,425 jobs directly,

and 4,769 jobs in total in Knoxville.

In addition to the growing economy were other benefits such as saved energy. The energy required in the global food system (for transport, distribution, storage etc.) is large and growing, which is less of an issue with local food production, due to less energy used and required.<sup>102</sup>

In the assessment, Knoxville proposes solutions in order to increase the local food economy. However, there are some barriers such as high land costs preventing improvements. The land in Knoxville is limited because it is attached to scenic areas and has little scope for expansion. The loss of land is an issue due to being bought out by buyers who are not utilising the land for food production.

These issues however are being addressed by a land-linking program, linking farmers suited. However this too is limited in that it is an online source with small reach.

### **Food Secure Canada**

Following this, Food Secure Canada (FSC) was created as an alliance of organisations and individuals responsible for food security and food sovereignty growth via research, event organisation, conferences and initiatives all throughout regions of Canada.

Those involved work together to advocate policy, perform research, create awareness and coordinate several other activities. FSC established The Local Sustainable Food Systems Network with the aim to facilitate a local food system in different regions such as Toronto and Manitoba.

Their mission as stated on their website is - *'Local food systems build vibrant and healthy food systems, environments, and communities. By supporting local farmers and fishers, and ensuring that the infrastructure and markets that surround them are supportive, we ensure that all Canadians everywhere can benefit from a thriving local food economy.'*

98 United States Department of Agriculture, 2016

99 Prevention Institute, 2009

100 Enderton & Bregendahl, 2014

101 Hellwinkel et al. 2014

102 Hellwinkel et al. 2014 and Food Matters Manitoba

One study performed in Northwestern Ontario involving Food Secure Canada, investigated the economic and multiplier effects of local producers and processors. Data collection included three focus groups, surveys, individual interviews and discussion aimed at local farmers and processors, and existing data from Census of Statistics Canada and Conference Board of Canada. Results included data on job creation in 2012 (as above).

Again, the idea that local employment from local food production is born more often than in larger international contexts, is evident in this case. Northwestern Capital investment in Ontario farms and processing settings also reaps more jobs than capital investment country-wide.

Other local food related activities occurring under the Food Secure Canada umbrella include activities in locations such as Ontario and Manitoba.

### **Manitoba, Canada**

Food Matters is an initiative in Manitoba. Their mission statement is as follows -

*'Food Matters Manitoba engages with Manitobans towards healthy, sustainable food for all'*

A report from Food Matters presents the local food economy and identifies challenges concluded from the data and solutions as discussed by the participants.

To obtain data, interviews were administered to producers, processors, chefs, institutions, and distributor - totalling 40 interviews. They also drew on external data from the government and other initiatives.

Quantifiable data was obtained for farming in the region – such as money received locally from local produce versus money going into imports.

The survey submitted to 40 local sustainable farmers and 19 producers, found farm gate sales and farmers markets were the main means of selling produce. Some were interested or already selling to cafeterias and institutions and local food

purchases at independent stores only made up 8% of total spending.

Successes are mainly due to the considerable consumer demand, such as for farmers markets which the prevalence increased from 47% of the population in 2009 to 61% in 2012.<sup>103</sup> Residents also contributed to an initiative in response to their concerns for distribution issues for farmers.

The Harvest Moon Society and the Harvest Moon Local Food Initiative mediates central consumer and farmer exchanges reducing distribution time and cost. They organise events where consumers and farmers meet, such as festivals and education events.

Despite the success, there are also barriers to the growth of the food system. In the surveys farmers and producers expressed factors which disallow them to operate as efficiently as possible. These include too few processing facilities, few local food production farms and the declining amount of farms, pressures from big business, and finally too little storage for the amount they would like to distribute.

Distribution is often time consuming and financially consuming. Retailers and hospitality workers expressed that times does not allow them to source local food from different places and finally, secondary school cafeteria workers identified cost as the main limiting factor preventing local food purchases as well as requirements for federally inspected foods.<sup>104</sup>

### **Toronto, Canada**

A successful local food system has formed in Toronto as a result of the community's growing interest in the relationships between food, health, the environment, community and the economy. Successful policy advocates such as Wayne Roberts, contributed significantly to this success. Community agencies have been established such as Foodshare Toronto and the Stop community food centre, concerned by food access, urban

<sup>103</sup> Food Matters Manitoba

<sup>104</sup> Food Matters Manitoba, 2013

agriculture and local food – with a ‘food system thinking’ approach.

Food systems thinking is described as - ‘...a way of seeing the bigger picture, of developing solutions to food problems by seeing and leveraging their connections to other issues.’

The growth in Toronto’s local food system has seen several successful outcomes. In 2008, Toronto adopted a local food procurement policy which has so far achieved residents reconnection with their food through schools, a large investment of \$800,000 between 2008 and 2009 and expanded spaces for food production.<sup>105</sup>

Toronto’s success can be attributed to the involvement and awareness of residents, and their willingness to spend their money locally, land resources and collaboration.

Toronto residents have been driving niche markets, local food, sustainable food and organics with their spending. In addition, Toronto has a considerable amount of arable land and ease of access to water.<sup>106</sup>

Collaboration has occurred between residents, government, community organisations, NGOs and institutes, and horizontal partnerships have been formed. Collaboration between the Shelter, Support and Housing division and Public Health achieved accessible emergency relief food, The City Summit Alliance have created food systems comprising horizontal partnerships and the Economic Development and Culture organisation have integrated with Toronto Food Policy Council.<sup>107</sup>

There is evidence of a growing interest in farmers markets, speciality food stores, cooking, volunteering with neighbourhood food projects and taking action to support local farmers and sustainable food. Consumers are using their money to support local, fair trade and organics rather than large company offerings.

Another driver are the already established community agencies who are main players in food access projects and urban agriculture. This includes involved chefs who work primarily with local, sustainable and heritage foods.

Finally, Toronto’s health focus contributes not only to the economy by diversifying its development, but also builds the community. Toronto’s Board of Health comprises a food policy council that is community led and brings attention to local food. They have published a report that discusses proposed emerging food systems where health is the primary focus. The proposal favours home grown products and suggests neighbourhood planning with an emphasis on food access. In 2008 the Local Food Procurement Policy was adopted in order to fund these proposals but further funding from higher government levels was required.<sup>108</sup>

### Tasmania, Australia

Healthy Food Access Tasmania (HFAT) is a food security initiative by The Heart Foundation and the University of Tasmania. HFAT aim to ‘support projects that make healthy food choices easy choices’. This is possible through establishing local means by which access to fruit and vegetables is increased.

Their actions are based on research covering food security, policy and practices in Tasmania that are already in place. Their actions are made of sub-projects such as the Local Food Supply Project.<sup>109</sup>

HFAT conducted the Tasmanian Healthy Food Access Basket (HFAB) survey. The cross-sectional survey covers all of Tasmania and provides data on the availability, cost and affordability of 44 healthy food items. Large and small supermarkets, general stores, convenience stores and fruit and vegetable shops were targeted by the survey particularly in regards to availability. The research concluded that regularly assessing the cost of local food is integral to the food insecurity present in Tasmania

<sup>105</sup> Toronto Public Health, 2010

<sup>106</sup> Toronto Public Health, 2010

<sup>107</sup> Toronto Public Health, 2010

<sup>108</sup> Toronto Public Health, 2010

<sup>109</sup> Murray et al., 2014

- particularly for low income earners.<sup>110</sup>

The Local Food Supply project (LFSP) is one of several projects funded by HFAT.

LFSP aimed to ‘build a picture of the production, supply and distribution of fresh fruit and vegetables from producer to wholesaler/distributors in the North West, North/North East, and Southern regions (comprising 13 Local Government Areas), which comprise the main fruit and vegetable growing areas in Tasmania.’

This has been achieved by input of secondary data from organisations based in Tasmania including the Tasmanian Food Access Research Coalition (TFARC), the Food for All Food Security Strategy (DPAC, 2012) and the Victorian Casey Food Hub initiative. They also sought to gather qualitative data from stakeholders covering challenges and opportunities. Stakeholders included, community groups, the commercial industry consultants, the University of Tasmania, state and local government, fruit and vegetable growers, peak grower organisations and wholesalers, processors and distributors.

A portion of the results revealed that Tasmania's local food system is supported by the extent and capability of their production (which is more than enough to feed the state), the existing infrastructure and community integration. Already some communities are practising a local food system with both traditional and innovative means to create local food that is available.

There is room for further development, for example, a majority of participants discussed value-adding as a crucial element of the economy of the food system. Challenges include the inclination of producers to export and sell premium and value-added products to the mainland and the conflicting demand for local, affordable and available food by consumers. Transport costs, especially in rural Tasmania were identified as a barrier for local market reach, but stakeholders have no suggestions to improve

the issue. Lastly, producers found the cost to produce food challenging due to their product being undervalued, perceived by consumers as too expensive and as a result were not receiving adequate profit.<sup>111</sup>

## Appendix 3 – Stakeholder interviewee list

30 interviews were conducted as described in this report. We would like to thank the following participants for their assistance:

The Good Loaf Sourdough Bakery and Cafe, The Karen refugee gardeners, Quins Bluebird Wholesale and Retail, Keans Free Range Eggs, PepperGreen Farm, The Old Green Bean, Brewhouse Coffee, Splitters Creek Olives, Eaglehawk Primary School Stephanie Alexander School Kitchen Garden, Hope-It-Grows Community Garden, Somerset Park Walnuts, Bendigo Community Farmers Market, Gravel Hill Community Garden, Organics Bendigo, Moira Macs, Bendigo Violet Street Primary School, Camp Hill Primary School, Maiden Gully Farm, 400 Acres, Go & Grow Gardens, Bendigo Wholefoods, JL Kind Wholesaler, B & B Basil, Masons of Bendigo, Hazeldene's Chicken Farm, Bendigo Foodshare, Food Fossickers, Bendigo Regional Food Alliance, City of Greater Bendigo staff.

<sup>110</sup>Murray et al., 2014

<sup>111</sup>Auckland, Murray and Saunders 2015

## Appendix 4 – Food Hub Feasibility Executive Summary

Food Hubs represent an exciting and powerful opportunity for communities grappling with the challenges of designing sustainable and fair food systems in the 21st century.

From producers to retailers, chefs, emergency food providers and community members, experience in North America and elsewhere demonstrates that Food Hubs offer a way to involve everyone who grows, eats, cooks and shares food in an integrated approach that achieves multiple and long-lasting benefits:

- Increased access to and affordability of healthy, fresh and local produce for vulnerable and low-income residents
- Significantly better returns to local producers
- Marketing, storage and distribution solutions for local producers and food businesses
- Significant efficiency savings and distribution solutions for restaurants and other businesses wanting to access local produce
- Training and employment opportunities for local residents
- Business incubation opportunities for new entrepreneurs
- Urban renewal and regeneration, enhancing the aesthetics of the CBD

This study describes a number of sequenced Food Hub models that in our assessment match Bendigo's current and anticipated food security needs. It provides national and international examples of best practice; and is cognisant of lessons learned through practice over the past three years, particularly by members of the Australian Food Hubs Network.

The strategic timing of this study allows for the previous work of Healthy Together Bendigo and the recent establishment of the Bendigo Regional

Food Alliance to provide linkages and a base upon which to continue positive community participation. It is no coincidence that the City of Greater Bendigo has played a critical facilitation and leadership role in both these initiatives. Similarly the City of Greater Bendigo would very likely play a similar enabling and facilitation role in bringing together the community and a 'lead' Not For Profit organisation in the development of a Bendigo Food Hub.

The prospect of availability of infrastructure in the CBD is a timely complement to planning occurring currently across the community and the City of Greater Bendigo in relation to food and provides opportunities for existing or newly established consortia to be a focus of assessing a Food Hub's feasibility in Bendigo. This and other potential available sites provide a canvas upon which to conceptualise the short to longer term vision for a food system for Bendigo. One that is based on access and affordability of healthy food for all and a connected and active community.

High-level economic and social impact assessments indicate the benefits this project would provide for the community from multiple perspectives. Key findings of the social impact assessment include:

There is a strong likelihood that all three Food Hub models considered will increase access in desired areas of identified food insecurity in Greater Bendigo. There is a medium likelihood that the Food Hub models will enhance affordability of healthy local foods to low income consumers. There is a strong likelihood that the Food Hub models will contribute to community development in Greater Bendigo.

The findings of the Economic Impact Assessment reveal that after 12 months planned activities plus a weekly farmers market would see 16 jobs created and supported via activities, \$2.62 million increase in total output to the Greater Bendigo economy and \$3.65 million increase in value-added and tourism impact combined to the Greater Bendigo economy. After 5 years 30 jobs



are proposed to be created and supported, there would be a \$4.75 million increase in total output to the Greater Bendigo economy and a \$5.94 million increase in value-added and tourism combined to the Greater Bendigo economy. Further, the impact of a 5% increase in local food purchasing in Bendigo over 12 months is likely to result in 33 jobs created and supported, \$8.03 million increase in total output to the Greater Bendigo economy and \$3.56 million increase in value-added to the Greater Bendigo economy.

A solid financial analysis based on modest assumptions sees the potential for business and financial strengths and viability of a Food Hub, bearing in mind the public good expected of such an enterprise. It allows for a technological connector of the Open Food Network to facilitate the preliminary phases of coordinating Food Hub activities. The financial modelling reveals the core activities of a Bendigo Food Hub, namely education and training, storage and warehousing, marketing and distribution, and the operation of a commercial and community kitchen, could generate a net revenue in excess of \$330,000 within five years.

This can be facilitated by the evaluation, research and dissemination opportunities building on relationships in the education sector, together with the participation of the Australian Food Hubs Network. In this respect, the conduct of this Food Hub feasibility study has been made easier by our significant and broad community relationships in the community food sector in Greater Bendigo. Organisations such as Bendigo Foodshare, SecondBite and Foodbank Victoria are positioned well to expand into a new phase of activity in response to increased expressed community needs for emergency food relief and their enhanced community profile.

The potential for significant social enterprise activity, located centrally or in neighbourhoods settings via the three conceptualised Food Hub models is a value add for current community food projects, and the preferred ultimate objective

of a more comprehensive Bendigo Community Food Centre combines with a new model for community partnerships.

Bringing people together to pursue objectives that can achieve outcomes greater than individually creates the potential to procure resources for the large-scale Food Hub vision. It allows for a Start-Up phase to underpin a prototype of Community Food Centres to be developed for use throughout Australia.

As demonstrated by Canadian Food Centres, and in particular The Stop, the means of success of a Food Hub rely on a staged approach to their development and when that occurs, anything is possible and our community can become truly 'Edible'.

## List of Figures and Tables

Figure 1: Map of the Greater Bendigo Municipality Regional Produce .....	12
Figure 2: Nourish Food Systems Map.....	15
Figure 3: Output for Greater Bendigo across the agriculture, food and related sectors .	17
Figure 4: Selected sectors ranked by output... .	17
Figure 5: Employment contribution of agrifood sectors .....	17
Figure 6: Employment contributions of agrifood sectors as a % of total Bendigo employment .....	17
Figure 7: Local sales, local expenditure and regional imports: food manufacturing	18
Figure 8: Regional exports and Value-Added, Bendigo Food Product manufacturing .....	18
Figure 9: Wages and salaries – food product manufacturing .....	18
Figure 10: Economic contribution of grains, livestock and other agriculture to Bendigo's economy .....	18
Figure 11: Bendigo Produce Map.....	20
Figure 12: Local Food Tools and Tactics .....	31
Figure 13: Key Challenges for Municipalities ...	32
Table 1: Categories of data collected .....	34
Table 2: Results .....	35
Table 3: On-line Survey results summary Backyard production .....	41
Table 4: On-line survey Value-adding.....	42



