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## Local innovation in food system policies: A case study of six Australian local governments

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### Abstract

Australian local governments undertake a range of activities that can contribute to a healthy, sustainable, and equitable food system. However, their en-

agement in food system governance is highly uneven, and only a handful have developed dedicated food system policies. This article reports on case studies of food system policy development and implementation in six local governments in the states of New South Wales and Victoria. The main motivators for policy and program development were

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### Disclosure

Nick Rose conducted consultancy work with Cardinia Shire Council from November 2016 to April 2022, and with the City of Greater Bendigo in 2019 (facilitating a one-time event as part of developing the council's Food Systems Strategy).

to improve environmental sustainability, reduce food waste, improve diet-related health and food security, and support local, sustainable agriculture. Key steps included consulting with the community, identifying local food-related issues, and developing policy solutions. Local government activities targeted many dimensions of the food system, and policy implementation processes included hiring dedicated food system employees, creating partnerships with organizations outside local government, advocacy to higher levels of government for policy and legislative change, and program evaluation. The research also identified key enablers of and barriers to policy development and implementation, including factors internal to local government (e.g., presence/absence of local champions, high-level leadership, and a supportive internal culture) as well as important state- and federal-level constraints, including absence of comprehensive policy frameworks for food and nutrition, of dedicated funding for local government food system work, and of leadership for food system governance from higher levels of government. The authors conclude with recommendations for strengthening the role of Australian local governments in creating a healthy, sustainable, and equitable food system, applicable to both local governments and to Australian state and federal governments. These recommendations may also be useful to local governments in other national jurisdictions.

### Keywords

Food System, Local Government, Health, Policy Development, Policy Implementation, Sustainability, Australia, Case Study

### Introduction

Globalized and corporatized contemporary food systems increasingly contribute to health, sustainability, and equity challenges at local, national, and global levels (International Panel of Experts on Sustainable Food Systems (IPES-Food), 2017). Like most other countries, Australia is experiencing a double burden of malnutrition: food insecurity is increasing, exacerbated by the COVID-19 pandemic (Kent et al., 2020), and levels of obesity and overweight status remain high (Australian Institute of Health and Welfare (AIHW), 2020), while one-

fifth of non-communicable disease mortality can be attributed to dietary risk factors, particularly low intake of fruits and vegetables (Melaku et al., 2019). Ecological systems have been severely jeopardized by climate change and biodiversity loss, which in turn have been substantially caused by large-scale land clearing, over-irrigation of rivers, and other destructive forms of industrialized agriculture (Springmann et al., 2018). Climate change has already impacted food production in Australia (Ray et al., 2019) and is predicted to have profound, lasting impacts on food system resilience. Centralized food economies and concentration of power within an increasingly small number of large agri-food businesses has resulted in social imbalances, declining terms of trade for farmers, and unjust labor conditions for farm and food system workers (Clapp, 2021).

Transformative change in the food system is needed to address these complex, interacting challenges (IPES-Food & ETC Group, 2021; Slater et al., 2022), requiring action at all levels of government, as well as by businesses and civil society. Local governments (LGs) play an increasingly important role in food system governance, the “formal and informal rules, norms and processes that shape policies and decisions that affect food systems” (HLPE, 2020, p. 12), due to growing food policy innovation at the local level. A growing number of (mainly urban) LGs have introduced innovative food system policies in both the “Global North” and the “Global South” (Mansfield & Mendes, 2013). A significant body of research analyzes the processes of, and motivators for, policy development, as well the policies’ key concerns and characteristics (Moragues-Faus & Battersby, 2021). These include the integration of multiple health, environment, social justice, and economic concerns (Mendes, 2008; Sonnino & Beynon, 2015), and the adoption of a food system lens, addressing in an interrelated way all activities comprising the food system (Clark et al., 2021; Mansfield & Mendes, 2013).

There is comparatively less research on policy implementation (Mansfield & Mendes, 2013; Mendes, 2008), but a significant recent focus is on creation of new institutional arrangements such as food policy councils, a form of multistakeholder governance led by, or involving, civil society and

community representatives (Sonnino & Beynon, 2015). Research also suggests that policy implementation is complex, with a broad range of factors influencing its success (Raja et al., 2018). For example, Mansfield and Mendes (2013) characterize the enablers of and barriers to policy implementation, depending on their presence or absence, as structural factors, referring to organizational arrangements and commitments internal to a LG (e.g., a formally mandated role for food policy within a LG), and procedural factors, referring to how different actors operationalize food policy goals and coordinate governance arrangements (e.g., citizen participation mechanisms).

This study analyzes food policy development and implementation in six leading LGs in the Australian states of New South Wales (NSW) and Victoria, aiming to expand the international literature on food system policy implementation (and specifically barriers to and enablers of implementation) using a case study of the six LGs. Processes of local food system policy development and implementation are still an emerging area of research in Australia. Australia has over 500 LGs, varying considerably in size, population, and geographic and demographic characteristics. The LG is the lowest tier of government in Australia, with state and territory governments as the middle tier, and the federal government at the highest level. LGs lack key public policy tools, such as taxation, that can be used to shape food systems, due to the division of power between the three levels of government; their functions are often narrowly conceived of as “roads, rates, and rubbish” (Yeatman, 1997). They are not recognized in the Australian Constitution and exist as “creatures of the state,” with their roles and responsibilities created by state legislation (Aulich, 2005; Reeve et al., 2020; Yeatman, 2003). This has resulted in differences between Australian states regarding LGs’ mandate to act on certain issues, including those related to food systems. Overall, federal and state policy and legislation in Australia do not provide LGs with an explicit mandate to act on food systems (except for food safety), particularly as there is no comprehensive state- or federal-level food and/or nutrition policy framework.

Despite constraints on their powers and jurisdiction, Australian LGs are leveraging existing opportunities to address food system issues (Carrad et al., 2022). Research shows that a very high proportion of LGs in NSW and Victoria incorporate actions to prevent or minimize food waste into a range of (non-food-specific) policy documents (Carrad et al., 2022). In addition, they undertake a broad range of activities related to health and well-being, sustainable and local food production, economic development, food safety and hygiene, and affordable housing. However, LG engagement in food system governance remains highly uneven, and only a small number of LGs in the two states have developed dedicated food system policies. While a significant number of Australian studies map the food system issues that LGs address in their policies and strategies, very few analyze processes of policy development and implementation. This article helps to address that gap by reporting on processes of food system policy development and implementation in six LGs, as well as the key barriers to and enablers of food system policies and programs.

## Methods

### *Design*

This study builds on work previously conducted by the research team that identified and analyzed food system-related policies and strategies among all LGs in Australia’s two most populous states, NSW and Victoria (Carrad et al., 2022). This paper reports on complementary research that used an explanatory multiple-case study methodology (Eisenhardt & Graebner, 2007; Yin, 2009) to explore the experiences of six LGs in developing and implementing food system policies and related activities. This multiple-case design enabled the investigation of the “how” and “why” of the development and implementation of food system policies/activities while retaining in-depth accounts, considering the different real-life contexts of the LGs (Yin, 2009). The methods and findings are reported using the consolidated criteria for reporting qualitative studies (COREQ) (Tong et al., 2007); see Appendix A.

### ***Participants and Recruitment***

An initial shortlist of NSW and Victorian LGs was compiled based on the prior policy analysis study (Carrad et al., 2022). Shortlisted LGs were those identified as highly engaged in food system activities, including those with a dedicated food system policy. From this shortlist, seven LGs (4 NSW, 3 Victoria) were invited to participate in the study based on the objective of including LGs representing diverse demographics and locations (urban, regional, rural) in each state. One NSW LG declined. The participating LGs were, from NSW, City of Canada Bay (“Canada Bay”), Penrith City Council (“Penrith”), and Gwydir Shire Council (“Gwydir”), and from Victoria, City of Melbourne (“Melbourne”), Cardinia Shire Council (“Cardinia”), and City of Greater Bendigo (“Bendigo”). A nonprobabilistic, purposive sampling technique was used to identify research participants from each LG, whereby a senior LG staff person identified relevant staff members, deemed to be those involved in implementing food system-related policies and/or activities, ultimately representing Health and Wellbeing, Social and Community Planning, Infrastructure and Environments, Planning and Urban Design, and Operations departments. Staff were invited to participate in a focus group, ranging 2–5, with other nominated staff from their LG. Participant numbers were thus determined by the number of consenting staff, resulting in a total of 23 participants in six focus groups. All participants provided signed, informed consent prior to the focus group.

### ***Procedure***

Focus groups were facilitated using a semi-structured question guide (Appendix B). Informed by the objectives of the study, the questions were developed by one author (BR) and reviewed by AC, NR, and KC. Questions explored the processes and stakeholder groups behind development of the LG food policy; the drivers/enablers of and barriers to policy development and implementation; how policy is translated into bodies of work “on the ground”; partnerships with other LGs, with state and federal government, and other stakeholder groups; and perceptions of the factors that could strengthen the role of the LG in creating

healthy, sustainable, and equitable food systems. Facilitators used additional probes where necessary to clarify participant meaning, and provided the opportunity for participants to answer each question. The semi-structured format also allowed participants to discuss topics not included in the question guide that they perceived as relevant.

Focus groups were conducted between February and April 2021 (one face-to-face and the remainder online) and were 80–120 minutes in duration. Three interviewers were female and one male with qualifications ranging from Masters to Doctor of Philosophy, and all with experience in qualitative interviewing. A combination of two research team members facilitated each group. One researcher had pre-existing partnerships with three LGs; those participants were asked if they preferred this researcher not to be involved in facilitating their focus group. One of the three LGs asked for the researcher to not be involved, and this focus group was facilitated by two other researchers. The researcher was involved in facilitating the remaining two groups (alongside another member of the research team). Discussions were audio recorded and transcribed verbatim, and a copy of the applicable transcript was sent to each participant for correction opportunity prior to analysis.

Policy documents referred to by participants during discussions were used to supplement the information provided in the focus groups.

Ethics approval was granted by the University of Wollongong Health and Medical Human Research Ethics Committee (HREC 2020/322).

### ***Data Analysis***

Thematic data analysis was conducted based on steps outlined by Taylor-Powell and Renner (2003). First, three authors (LT, AC, BR) read the transcript of the first focus group to familiarize themselves with the data and noted down initial impressions (step 1). Framing the analysis using the focus group question guide (step 2), they each independently coded the transcript of the first focus group by inductively generating themes or subcategories under each of the (deductive) discussion questions (step 3). Data not directly related to the discussion questions was inductively coded into new themes. The three authors discussed their con-

conceptualizations that emerged from the data and produced an initial coding schema consisting of major and subcategories to guide analysis of subsequent transcripts. Where relevant, simultaneous coding was used to code the same parts of the transcript with multiple concepts (Saldaña, 2021). The remaining five transcripts were analyzed by one author (LT) in NVivo (QSR International, version 12), using an iterative approach in which emerging conceptualizations were compared with the existing data and coded appropriately to the coding schema (Appendix C), and already-analyzed data were adjusted as required in light of the themes generated from the transcripts analyzed later (step 3 continued). LT subsequently analyzed the themes and subcategories to identify patterns and connections between them (step 4). Potential conceptual relationships between independent themes were explored, as were relationships related to simultaneous codes. Following completion of the coding process, each major theme and its subthemes was interpreted by LT; peer debriefs with BR discussed themes and possible alternative interpretations. Illustrative quotations to exemplify themes were noted during the analysis and appear in the results section below. Participants were provided with a draft of this manuscript and given the opportunity to provide feedback prior to submission for publication.

Some methods to achieve saturation, such as theoretical sampling, were not possible due to the relevant capacity and ability of staff members to answer questions about food system policy implementation (i.e., some staff members would not possess the requisite knowledge to provide meaningful insights). Conducting focus groups with more LGs was not possible due to the timeline of the research project. Nevertheless, code saturation is likely to have been reached (Guest et al., 2006; Hennink et al., 2017; Saunders et al., 2018). When analyzing the final transcript, only two new codes were created, and all other sections were categorized to existing codes. Previously analyzed transcripts were re-read to ensure the fit of the final two codes and to ensure consistency of the coding of all transcripts.

In this paper, we do not report on food safety enforcement, as it is a well-established LG respon-

sibility, with little to no implementation variation between LGs.

## Results

### *LG Food System Policies and Activities*

Four of the six case study LGs had dedicated food system policies that overall aimed to strengthen the food system so that it contributed positively to health, social, and environmental outcomes. However, each had different foci that reflected their respective local contexts. Penrith did not have such a policy but scored highly in the policy mapping study due to the integration of food system-related objectives in a range of non-food-specific policies. Similarly, Gwydir did not have a dedicated policy, but also scored highly, in large part because of The Living Classroom, an innovative regenerative agriculture project addressing multiple food system concerns. Table 1 summarizes the demographics and key policies or activities undertaken by each LG.

### *Motivators and Rationale for Food System Policy and Program Development*

LGs developed food system policies or undertook food system activities for various reasons, primarily environmental. LGs saw themselves as having a role in climate change mitigation and adaptation, including by reducing food-related emissions. They also recognized the inseparability of climate change from food system sustainability, which all six LGs identified as a priority, although the way they conceptualized this term varied. LGs such as Canada Bay, which adopted a community emissions target, also used initiatives on food-related emissions and waste reduction to educate community members on how consumer strategies such as meal planning and seasonal buying can reduce emissions and waste.

Community concern for food waste and food-related waste (i.e., food packaging) was another driver of policy development. Aligning with LG existing waste services and setting goals to the amount of waste sent to landfill provided a rationale for LGs to include food waste strategies in a broader food system policy.

**Table 1. Summary of Participating LG Demographics and Food System Policy/Activities**

LG name and state	LG area demographics	Relevant policies	Year policy adopted (if applicable)	Summary of food system policy	Summary of key activities (if no food system policy)
Canada Bay (NSW)	<ul style="list-style-type: none"> <li>• Eora Nation</li> <li>• Inner-West of Sydney.</li> <li>• Population: 96,550 in 2020;</li> <li>• 0.5% Aboriginal and Torres Strait Islander,</li> <li>• 40% born overseas</li> </ul>	Sustainable Food Strategy	2015	Eight key areas: (i) Community consumption/food production; (ii) Local food production and availability; (iii) Council leadership; (iv) Food waste/composting; (v) Sustainable food outcomes in all council policies/assets; (vi) Partnerships; (vii) Promotion and availability of healthy, safe, and nutritious food; (viii) Multicultural food traditions/food diversity	
Penrith (NSW)	<ul style="list-style-type: none"> <li>• Dharug Country</li> <li>• Peri-urban location on Sydney's Western fringe metropolitan area.</li> <li>• Population: 216,282 in 2020;</li> <li>• 3.9% Aboriginal and Torres Strait Islander,</li> <li>• 22% born overseas</li> </ul>	<ul style="list-style-type: none"> <li>• Community gardens policy,</li> <li>• Sustainability Strategy,</li> <li>• Penrith Health Action Plan,</li> <li>• Penrith Waste Resource Strategy</li> </ul>	NA		<p>Community events and programs promoting healthy eating skills and knowledge, food literacy, food waste avoidance/reduction. Community gardens, particularly among disadvantaged neighborhoods.</p> <p>Planning instruments used to protect agricultural land from development.</p>
Gwydir (NSW)	<ul style="list-style-type: none"> <li>• Kamilaroi Country</li> <li>• Northwest Slopes and Plains region.</li> <li>• Population: 5,258 in 2016;</li> <li>• 5.7% Aboriginal and Torres Strait Islander,</li> <li>• 15% born overseas</li> </ul>	<ul style="list-style-type: none"> <li>• Community Strategic Plan,</li> <li>• Delivery Program and Operational Plan,</li> <li>• Economic Development Strategy,</li> <li>• Destination Management Plan,</li> <li>• Bingara Preschool Nutrition Policy</li> </ul>	NA		<p>The Living Classroom: regenerative agriculture project, founded in 2011, transforming 150 hectares of public land into a learning center for food and agriculture. Home to a primary industries trade training center, site of interactive learning for community members/visitors.</p> <p>Pulse of the Earth Festival: celebrates regenerative agriculture, soil health and food, including presentations by leading international experts.</p> <p>"Toy Libraries" and after-school programs provide residents with healthy eating education and cooking experiences.</p>

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*continued*

LG name and state	LG area demographics	Relevant policies	Year policy adopted (if applicable)	Summary of food system policy	Summary of key activities (if no food system policy)
Melbourne (VIC)	<ul style="list-style-type: none"> <li>• Kulin Nation</li> <li>• Capital of Victoria, comprising 14 sub-urbs.</li> <li>• Resident population 183,756 in 2020, average daily population of 910,800;</li> <li>• 0.5% Aboriginal and Torres Strait Islander,</li> <li>• 56% born overseas</li> </ul>	Food City Policy: City of Melbourne Food Policy	2012	Five Policy themes: Strong, food-secure community; Healthy food choices for all; Sustainable and resilient food system; Thriving local food economy; City that celebrates food.	
Cardinia (VIC)	<ul style="list-style-type: none"> <li>• Wurundjeri and Bunurong Country</li> <li>• South-East of Melbourne</li> <li>• Peri-urban location.</li> <li>• Population 116,193 in 2020;</li> <li>• 0.8% Aboriginal and Torres Strait Islander,</li> <li>• 19% born overseas</li> </ul>	Cardinia Shire Community Food Strategy	2018	Five key pillars: Protect and utilize fertile land for growing food; Grow a vibrant economy with local growers and access to local produce; Enhance food literacy and culture through engagement across communities; Reduce and divert food waste from landfill; reuse water to grow food; Build community capacity to support leadership and participation in food systems work.	
Bendigo (VIC)	<ul style="list-style-type: none"> <li>• Dja Dja Wurrung and Taungurung Country</li> <li>• Central Victoria,</li> <li>• third most populous city in Victoria.</li> <li>• Population 119,980 in 2020;</li> <li>• 1.7% Aboriginal and Torres Strait Islander,</li> <li>• 8% born overseas</li> </ul>	Greater Bendigo's Food System Strategy	2020	Four objectives: Enable communities to access safe, affordable, nutritious and culturally appropriate food and drink; Strengthen and support a sustainable local food economy that enables the growth, production, and sale of healthy food; Support local food growing and producing, cooking, and sharing knowledge, skills and culture; Reduce and divert food waste from landfill.	

LG: local government; NSW: New South Wales; VIC: Victoria

Community health and food security motives also underpinned LG policy development. The three Victorian LGs identified their respective Municipal Public Health and Wellbeing Plans (MPHWP)—a legislative requirement under the Victoria Public Health and Wellbeing Act (2008) and the State Public Health and Wellbeing Plan 2019–2023 (Department of Health and Human Services, 2019)—as drivers of food system policy development. Each LG's four-year MPHWP identified food/healthy eating as a priority domain and set targets for healthy eating and active living, creating a platform for LG staff to advocate for developing a complementary, dedicated food system policy. All LGs also explicitly discussed the need to improve food security and resilience in their communities, a need perceived to be related to social disadvantage (Cardinia and Penrith) and limited access to fresh, affordable food due to remote location (Gwydir).

Promoting local, sustainable agriculture and associated employment opportunities were important, particularly for Penrith and Cardinia as peri-urban LGs, and for more rural Gwydir. Penrith and Cardinia identified the preservation of agricultural land from residential and industrial overdevelopment as a mechanism for protecting food production in the region, a vital concern because of the important role of agriculture in the local economy. Gwydir residents' desire to promote regenerative agricultural practices was also a key driver for the creation of The Living Classroom. Grassroots demand for change in the agricultural sector led to the community group, Bingara and District Vision 2020, which created a strategy for reform that was subsequently adopted as the Bingara Town Strategy 2011, including initial plans for The Living Classroom.

### *Policy Development Processes*

Consultation was fundamental to the process of policy development for LGs with a dedicated food system strategy. While Canada Bay drew on previous consultation to develop its food system strategy, the three Victorian LGs undertook extensive, dedicated consultation to determine the needs and concerns of residents, businesses, community groups, and other crucial stakeholders. They were

conscious of the importance of including diverse voices and experiences, engaging people from traditionally underrepresented groups alongside local leaders in health, education, business, and not-for-profit organizations. For example, Bendigo engaged over 1,000 community members and groups over three months before drafting an Issues and Opportunities Report, conducting further stakeholder consultation, and then drafting a food system strategy that was released for public comment. Both Bendigo and Cardinia used a collective impact approach, a structured collaborative process that involves various business, nongovernment organization, and government stakeholders undertaking mutually reinforcing activities that contribute towards a shared goal, supported by a backbone organization (Kania & Kramer, 2011), and a variety of methods during their community consultation, such as “Kitchen Table Conversations” (Lourival & Rose, 2020), online surveys, meetings, phone calls, and post cards.

LGs also undertook research to inform policy development, as a means of needs assessment and to identify potential problem solutions. LGs used a combination of research methods, such as mapping food access, health statistics, waste data, and internal audits, to demonstrate the extent of health, environmental, and spatial issues. Health statistics were important for determining rates of diet-related outcomes (e.g., overweight status and obesity), knowledge (e.g., food literacy), and behaviors (e.g., food purchasing habits), and whether these varied by other factors (e.g., neighborhood) within each LG area. Cardinia and Melbourne also mapped existing relevant policies, to avoid duplicating engagement processes and policy rationales.

Research undertaken to identify policy solutions primarily focused on seeking examples of international and Australian food policies. For example, Melbourne staff spoke with the Detroit Food System Council and with people involved in implementing the City of Michigan Food System Policy. However, an important step in reviewing existing policies was to consider how they could be adapted to the local Australian context.

### *Enablers of Policy and Program Development*

Various factors both internal and external to LG

enabled policy development processes. Five of the six LGs identified either LG or community-based individuals who championed food system initiatives and brought their passion for food systems to the LG. For example, a staff member from Canada Bay had already been active in establishing permaculture initiatives in the community, and suggested that the LG bring together separate food system issues under the umbrella of a dedicated policy. The Canada Bay policy was also a response to community demand for LG-led solutions to issues such as food access and food waste. As described above, community members were key in championing the creation of The Living Classroom, with one individual (later employed by Gwydir) critical to conceptualizing the initiative and convincing Gwydir to implement it.

Leadership and support for action from senior staff and elected members (councillors) was important for policy development as it amplified champions' voices and generated traction. Bendigo's Director of Health and Wellbeing supported and assisted in shaping the LG policy, including the adoption of a collective impact approach. Commitment, interest, and support from councillors was essential in enabling food system policies, with Bendigo staff commenting, "If we had nine councillors who were all about rate-capping and roads, rates and rubbish, we wouldn't be making as much headway in the space as we are at the moment" (Bendigo, Participant 3).

An internal LG culture supportive of food system initiatives and building on the momentum of previous work contributed to policy development. Some of the participating LGs had a long history of action on food system issues, which led staff members to understand that LGs have a responsibility to act on food systems. Additionally, the legacy of earlier projects, studies, reports, and action plans (e.g., Healthy Together Victoria, a state-led initiative implemented in 2011–2016 that used a complex systems approach to address obesity and chronic disease, including actions related to healthy eating and food access) (Department of Health and Human Services, 2015) were part of an ongoing, evolving process that eventuated in the development of a food system policy and associated action plan.

A state legislative mandate, specifically the Victorian Public Health and Wellbeing Act 2008 that set out expectations for LG involvement in health and wellbeing issues, was an important factor that enabled Victorian LGs to develop their respective food system policies. The Act legitimized LG attention on food security and diet-related health, held LGs accountable for associated objectives, and enabled developing comprehensive food policies that incorporated issues beyond diet-related health.

### *Barriers to Policy Development*

Internal, state, and federal government-level factors were barriers to policy development. They included lack of leadership from the higher tiers of Australian government, described as "no national food policy, no state food policy...nearly every department in state government touches on food but they don't have a dedicated food fund or anything like that" (Cardinia, Participant 3). Lack of clarity at federal and state levels created uncertainty about the role of LG in food systems, so that each LG determined for themselves what was in or out of scope based on local-level circumstances. The absence of holistic food system policies at both federal and state levels also resulted in lack of coherence between all governmental levels, and the tendency for federal and state governments to take a siloed approach to food-related matters such as food safety.

While the Victorian LGs had a legislative mandate to act on health and wellbeing, none of the participating NSW LGs had an equivalent mandate, particularly as NSW public health legislation does not provide for the creation of local public health plans in the same way as the Victorian legislation. Canada Bay participants reported that the absence of such a mandate made it challenging to begin and sustain food system initiatives, and to include relevant issues in general policies. It caused them to withdraw action in some areas in order to prioritize other topics for which a mandate was present. Existing state-level planning schemes, which determine LG land use control, also inhibited LG ability to positively influence food access. Bendigo participants noted the inability to take on "big ticket items" due to the lack of language and principles

specific to health and wellbeing in the Victorian government's planning scheme and rating guidelines, which, for example, effectively prevented LGs from using the planning scheme to reject applications for developing new fast-food outlets.

Lack of funding was another barrier to policy development. Participants noted the absence of state government funding supporting LGs to develop holistic food systems solutions, resulting in a gap between community demand for, and LG delivery of, local food systems reform. For example, Penrith staff described a "chicken and egg" situation of needing to demonstrate community demand to justify acting on food systems and to attract funding, but needing funding to conduct community engagement initiatives. Participants saw state and federal governments as preferring to fund "back end" food relief policies and initiatives—particularly in response to the COVID-19 pandemic—rather than to support approaches that sought to build community capacity and strengthen local food system resilience against stressors such as climate change.

While some LGs reported that the internal culture of their organization facilitated food system policy development, others described how an unsupportive culture inhibited progress. One LG experienced challenges associated with engaging senior management, despite having easily gained buy-in from lower-level staff members. Representatives of another LG felt that they were forced to constantly convince elected members of the value of acting on food systems. Staff from the same LG spoke about how internal LG structure, with departments traditionally operating in silo fashion, limited awareness of the different activities being conducted across departments and made it challenging to engage diverse staff on food-related objectives.

LGs experienced difficulties engaging certain groups when conducting community consultation (although they persevered). Bendigo and Cardinia participants both felt that they were unable to successfully engage farmers, who had limited availability to participate in consultation processes due to farming time commitments. Penrith staff identified residents with low food literacy levels, who did not perceive food to be a key concern, as being diffi-

cult to engage, and that their region consequently lacked community motivation in advocating for improved access to fresh, healthy food.

Participants reported limitations in the accuracy and relevance of data (e.g., health statistics) used to inform policy development. Data were often outdated—collected perhaps once every four years—and usually depicted only regional or statewide conditions, thus masking local-level nuances.

### *Implementation Activities*

LG policy and program implementation activities targeted diverse food systems issues relating to food production, distribution and access, consumption, disposal, water and land use, and economic development. Examples and descriptions of these activities are provided in Table 2. The LGs in our sample that had dedicated food system policy/strategies also had associated action/implementation plans with activities that aimed specifically to contribute to meeting the objectives of the strategy. However, the level of detail of these action plans, and the inclusion of specific measurable targets, varied.

### *Policy Implementation Actions and Processes*

Both Bendigo and Cardinia employed a staff member in a dedicated food systems role to coordinate the actions involved in implementing their policies. In contrast, Canada Bay, Penrith, and Melbourne relied on staff members with broader portfolios to ensure policy implementation. Cardinia's governance structure was the most complex, with four groups: (i) the collective impact backbone (a role performed by Sustain: The Australian Food Network from 2016 to 2019 and then shared with Cardinia Shire Council from 2019 to 2022); (ii) the Food Circles Governance Group (comprising LG staff, Sustain, and Cardinia Food Circles), providing governance and strategic oversight, and management of day-to-day activities; (iii) the Food Circles Steering Group (comprising a range of internal and external stakeholders), which led or supported key actions; (iv) the Cardinia Food Network, bringing together over 20 community, education, business, and health organizations, each with responsibility for leading specific implementation actions.

**Table 2. Overview of Activities Implemented by LGs**

Food system area	Examples and descriptions
Food production, including not-for-profit and commercial	<ul style="list-style-type: none"> <li>• Community gardens (all LGs)—versatile, multifunction sites for growing food, increasing community connectedness and social cohesion, and providing educational workshops on topics such as permaculture. LGs helped identify grant opportunities and promoted gardens on their websites.</li> <li>• Five Senses Garden (Canada Bay, in partnership with a community health agency).</li> <li>• Support for school food gardens (Canada Bay).</li> <li>• Exploring urban community farm models (Cardinia).</li> <li>• The Living Classroom (Gwydir)—a regenerative agriculture hub, with various “landscapes” (e.g., bush tucker, Chinese medicinal plants, carbon farm, orchards). Hosted school visits to learn about growing, composting, cooking, and Aboriginal and Torres Strait Islander food systems.</li> <li>• Pulse of the Earth Festival (Gwydir)—promoting regenerative agriculture.</li> <li>• Focus on regenerative agriculture, and other sustainable food production methods (all).</li> </ul>
Distribution and access	<ul style="list-style-type: none"> <li>• Food relief (all)—partnering with national or regional food relief agencies (e.g., OzHarvest) and community groups (e.g., Country Women’s Association) to provide food to disadvantaged households/communities. Facilitated programs that connected supermarket food “waste” to food insecure residents at low/no cost.</li> <li>• Community food guide (Melbourne)—mapped all community-accessible food-related programs, including emergency food relief, community kitchens and food donation sites. Also used to inform the LG COVID-19 response.</li> <li>• Food hub, food box scheme, and youth training kitchen trial in collaboration with Monash University as a movement away from “handout” model of addressing food insecurity to a model focused on locally sourced, nutritious food and community-building, resilience, and dignity (Cardinia).</li> <li>• Use of planning controls to improve access to fresh, healthy, local, and sustainably produced food—providing for feasible walking distance to healthy food retail outlets when planning new residential developments (Bendigo). Also ensured appropriate floor space for future supermarkets in neighborhoods with poor food access.</li> <li>• “Village Café” (Penrith)—providing fresh produce to attendees of pop-up events that sought to connect residents with one another and social services.</li> </ul>
Consumption	<ul style="list-style-type: none"> <li>• Workshops and activities designed to educate residents about healthy, sustainable, and affordable eating practices, often in partnership with community health services and other organizations with relevant expertise (e.g., FoodREDi program by Gwydir in partnership with the Red Cross to teach food budgeting, nutrition planning, and healthy cooking skills).</li> <li>• Integrating nutritional advice into other programs (e.g., after-school programs, young family support programs).</li> <li>• Healthy Choices (Melbourne)—a nutrition labelling/marketing campaign at popular cultural events such as the Moomba Festival and Melbourne Fashion week, encouraging people to eat healthier foods.</li> </ul>
Disposal	<ul style="list-style-type: none"> <li>• Dual targets of reducing production of food waste by residents and diverting food waste from landfill.</li> <li>• Love Food Hate Waste workshops (Canada Bay, Penrith)—funded by the NSW Environment Protection Authority, workshops included messages such as using meal planning and being creative with leftovers to minimize household food waste.</li> <li>• Waste education exhibit at a “farm and food” festival (Cardinia)—promoted ethos of valuing food and provided information on appropriate food waste disposal methods.</li> <li>• Curbside organic waste collection service (Bendigo, Cardinia, Gwydir, Penrith)—often known as FOGO (Food Organics Garden Organics), this service enables household food and garden organics to be collected and processed at a commercial facility. Resultant compost sold to farms (Cardinia) or used by The Living Classroom (Gwydir).</li> </ul>

*continued*

*continued*

Food system area	Examples and descriptions
	<ul style="list-style-type: none"> <li>• Curbside organic waste collection service (Bendigo, Cardinia, Gwydir, Penrith) —often known as FOGO (Food Organics Garden Organics), this service enables household food and garden organics to be collected and processed at a commercial facility. Resultant compost sold to farms (Cardinia) or used by The Living Classroom (Gwydir).</li> <li>• FOGO complemented by education campaigns on how to reduce food waste (e.g., workshops on cooking with leftovers) (Cardinia and Gwydir).</li> <li>• Rebates to households and community organizations to purchase compost bins and worm farms.</li> <li>• Reducing commercial food waste—Canada Bay connected Mirvac (a construction company and owner of a large shopping center) with OzHarvest to donate food to charity.</li> </ul>
Land use	<ul style="list-style-type: none"> <li>• Protecting agricultural land from overdevelopment (Bendigo, Cardinia, Penrith).</li> <li>• Unique planning overlay designed to protect agricultural land from development, preserve fertile soil, and promote biodiversity (Cardinia).</li> <li>• Planning controls to protect agricultural land (Penrith), although jeopardized by the NSW Government's prioritization of the Western Sydney Aerotropolis (infrastructure, economic, and residential hub centered on an airport).</li> <li>• Mapping higher-value agricultural land to assist land use planning (Bendigo and Cardinia).</li> </ul>
Economic development and supporting local producers	<ul style="list-style-type: none"> <li>• <i>Gastronomy Guide</i> (Bendigo) —a digital resource containing information on local food experiences to promote food-related tourism within the region.</li> <li>• Farm-gate sales (Bendigo) —enabled by coordination between the Creative Cities Officer, Creative Arts Officer, and Agribusiness Officer.</li> <li>• Promotion of food sector and agricultural careers (Gwydir) —engagement with schools and tertiary education institutions. The Living Classroom was a primary industries trade training center, providing traineeships to students from two local schools; a hospitality training center and certified teaching kitchen were attached to the local theatre hall.</li> <li>• Creation of a regenerative agriculture verification process as a branding opportunity for farmers/producers (Cardinia).</li> </ul>

LG: local government

All six LGs discussed how partnerships with local health services, schools, and other organizations were essential to delivering on-the-ground food system initiatives in the areas of community health, waste reduction, agriculture, and food literacy. Participants collaborated with other organizations to extend their resources and expertise, connect different parties to avoid duplication, form new partnerships, and deliver programs beyond their jurisdiction and capacity. They acknowledged that LG “can’t do it all...we needed others in the community to lead and to deliver actions where we can’t, in spaces where we don’t work...” (Bendigo, Participant 3). LGs often engaged local, regional, state, and national health agencies to facilitate nutrition and wellbeing programs, which these agencies were already mandated and funded to implement. Participants also said that connections

developed with organizations during policy development contributed to the sense of legitimacy for policies in the community once adopted, and meant that community groups were already on board to assist with implementation.

Gwydir partnered with schools, having, for example, a memorandum of understanding with the Southern Cross University Regenerative Agriculture facility to enable industry education, training, and research opportunities. Gwydir also investigated opportunities to engage with Black Duck Foods, an Indigenous-led enterprise seeking to reclaim First Nations food sovereignty, re-develop traditional food growing, and ensure economic benefits for Aboriginal and Torres Strait Islander people, in order to support local and surrounding Aboriginal and Torres Strait Islander residents in establishing food businesses.

The three Victorian LGs discussed advocating to higher levels of government for legislative reform, intending to increase LG authority to implement food system policies and actions where they perceived that their jurisdiction was currently limited. For example, Cardinia participants reported advocating to multiple state government departments for a state food policy and dedicated food fund.

Evaluation was an important component of policy implementation for all six LGs, although how evaluation was performed ranged from comprehensive and structured, to less formal and more sporadic. Examples of the types of data collected and used by LGs were community members' perspectives (e.g., satisfaction with and change in knowledge consequent to educational workshops), environmental audits (e.g., waste data), and health and food security statistics. Melbourne's policy was accompanied by a rigorous results-based accountability evaluation framework with specific indicators and measures for each policy topic. However, Melbourne participants expressed concerns regarding their ability to conduct an "ideal" evaluation, given the reality of LG staff workloads. Gwydir had no formal evaluation process for assessing the impact and outcomes of The Living Classroom, but identified broad indicators such as its long-term continuation, visitation rates, and partnership development.

### *Enablers of Policy Implementation*

Having a staff member in a dedicated food systems role was a key facilitator for two of the six LGs. As stated above, Bendigo and Cardinia had Food System Officers who were central to engaging community members and groups and ensuring that LG staff and project partners were accountable for delivering activities detailed in action plans. In addition, for Gwydir the presence of a community champion who went on to be employed by the LG to oversee operation of The Living Classroom was important for continuation of the initiative.

Collaboration between LGs was beneficial to policy implementation for the LGs participating in this study. For example, Bendigo positioned themselves as a leader on food system issues within their

region, due to their food system strategy and having been named a UNESCO City of Gastronomy, and thus saw one of their roles as supporting neighboring LGs in providing educational opportunities related to healthy food systems. Cross-LG collaboration allowed LGs to share knowledge and resources, which one participant from Melbourne saw as an invaluable platform for motivating action, as LGs "like to one-up each other, [so] if you see someone else doing something ... innovative you're also more likely to follow and feel confident in doing something yourself" (Melbourne, Participant 2).

Availability of funding was a critical enabler of policy implementation. Some projects were possible only because of external funding provided by state governments or grant programs, for example. Canada Bay and Bendigo benefited from internal LG budget allocations. However, the former received only a small budget for implementing sustainable food-related activities, while the latter was a more significant budget allocation that enabled the LG to fund a Food Systems Officer for ten years.

Coordination between LG departments was an important aspect of policy implementation, reflecting the multifaceted nature of food systems and that different food system activities cannot exist in silos. Bendigo intentionally integrated cross-departmental coordination into their strategy. Penrith addressed food systems in a coordinated way by undertaking food-related actions in multiple departments and integrating food system concerns in neighborhood plans, which implemented localized actions spanning a range of topics, both related (e.g., community cooking school) and unrelated to food (e.g., pop-up outdoor cinemas), determined by the community.

Melbourne participants saw an international community of practice, in the form of the Milan Urban Food Policy Pact (2015), as a valuable resource for policy implementation. Melbourne's involvement in the Pact (an agreement for municipal governments globally to act on food systems based on a framework of 37 actions in six categories) benefited the LG by positioning Melbourne as a leader in this space relative to other Australian LGs, and establishing the legitimacy of LGs in

food system transformation, which generated internal and external support for local food-related actions. It also provided peer-based knowledge-sharing opportunities between signatories, which enabled Melbourne to look to international examples to inform decision-making during the policy lifespan in the absence of Australian examples.

### ***Barriers to Policy Implementation***

As was the case with policy development, all participants described a critical barrier to implementation as lack of direction from, and coherence between, state and federal policy and legislation relevant to the food system. For example, Bendigo staff expressed frustration with state-level red tape that made it difficult to act in the best interests of the health of their community. For example, selling food at barbecue fundraising events: cooking and selling sausages, onions, and white bread was deemed “low [food safety] risk” by the Victoria Department of Health and Human Services, whereas healthier alternatives (e.g., corn on the cob) were classified as “high risk” and required community groups to undertake additional steps to gain approval.

Inadequate funding was a significant impediment to LG food systems work. Participants stated that limited funding stemmed partly from the lack of a food systems mandate from state government. Funding for food systems work usually was available only for short-term (i.e., 2–3 years) programs on specific topics and not for “food systems work” more broadly, impacting LG ability to plan, implement, and evaluate their activities. LGs also had little scope to spend funds in ways that targeted local priorities. Short-term funding resulted in insecure contracts for staff and no long-term certainty for initiatives or more substantial bodies of work. Many participants also spoke of running programs grant-to-grant and expending substantial time and effort in applying for grants, without any guarantee of success. In addition, grant guidelines often dictated that funds had to be used for project implementation, not for “core” uses such as staffing, which frustrated some LGs who wanted to be able to employ more staff to build their capacity to conduct food

systems work. Limited funding usually did not allow LGs to undertake data collection for needs assessment or policy and program evaluation, which in turn prevented them from presenting evidence-based cases when applying for further grants.

Limited availability of relevant data was an implementation barrier discussed by two Victorian LGs. Data on some topics were non-existent, inadequate, infrequent/outdated, and/or not locally specific, affecting the ability to accurately measure the impact of their work. The complete lack of data on certain issues (e.g., farming businesses in peri-urban areas, cited by Cardinia) prevented LGs from demonstrating a need for action when submitting grant applications. LGs had to rely on relatively simple indicators to evaluate local food issues (e.g., a single question to determine food insecurity), which restricted their ability to fully understand the extent of these issues and to monitor progress. Furthermore, while LGs were able to collect information about short-term indicators (e.g., workshop participant satisfaction), they did not have data on long-term or more complex indicators such as health outcomes or environmental impacts.

LGs from both states indicated that from early 2020 the COVID-19 pandemic and associated lockdowns limited local food policy implementation or forced a change in focus. While participants described some positive effects, such as the attention the pandemic brought to food insecurity and the social determinants of health, it also had negative impacts on the systems-based trajectory of LG efforts. Communities and governments tended toward acting on immediate household food insecurity concerns (e.g., by providing emergency food relief), which failed to address the underlying causes of food insecurity and derailed momentum in implementing whole-of-food-system strategies. The pandemic also forced LGs to cancel face-to-face events and educational activities, and disrupted governance mechanisms. For some, the pandemic highlighted the need for a stronger focus on resilience and self-reliance at LG or regional levels in future revisions of food policies and other strategic planning documents.

## Discussion

This paper has presented case studies of food policy development and implementation in six LGs in NSW and Victoria. Four had dedicated food system policies, which—as with similar policies in other jurisdictions—linked together health, environment, and equity concerns, and addressed many dimensions of the food system. These policies were accompanied by a wide range of implementation activities that also targeted multiple food system activities. While the impetus for food system policies often originates in the community or in civil society (Mendes, 2008; Sonnino & Beynon, 2015), we found that the idea of a dedicated food system policy usually came from within a LG, although in response to community demand for action on specific topics such as food security. However, the main motivator for the creation of The Living Classroom was community dedication to regenerative agriculture and commitment to creating a demonstration site.

Several factors internal to LGs were crucial to facilitating policy development, including champions who advocated for food system policies (who were sometimes based in the community as well), leadership and support from senior LG staff members and councillors, and an internal culture that valued food systems. As with other studies, we found that policy implementation processes were facilitated by organizational and structural factors such as funding availability, collaboration between LG departments, and the presence of dedicated staff members. The benefits of assigned staff members included building support for policy development and maintaining momentum once policies were implemented (Berglund et al., 2021; Mendes, 2008).

Many LGs stressed that their role in policy implementation was not direct service delivery but rather to partner with, or support, a range of stakeholders, including nongovernment organizations, businesses, community groups, and other levels of government, to deliver on-the-ground services and programs. Collaboration, integrated governance, and shared responsibility between diverse stakeholders is crucial for the delivery of local food system initiatives, particularly given the limited resources and jurisdiction of LGs (Lowe et al., 2018;

Mansfield & Mendes, 2013; Mendes, 2008). To this end, Bendigo and Cardinia both used a collective impact approach in developing and implementing their policies, which formalized these principles. However, appropriate staffing and funding levels for food system initiatives is important to ensure that LGs can engage with external stakeholders effectively and to facilitate their steering or leading role (Berglund et al., 2021; Coulson & Sonnino, 2019).

LGs identified organizational-level factors that acted as a barrier to food system policy development and implementation, but as important were state- and federal-level factors that had flow-on effects for internal LG capacity. One was the lack of direction from, and coherence between, state and federal law and policy relevant to food systems. There are no dedicated food and nutrition policy frameworks at state and federal levels in Australia, and while Victorian public health legislation provided the impetus for local food system policies in that state, there is no similar framework in NSW. The Victorian Public Health and Wellbeing Plan 2019–2023 (Department of Health and Human Services, 2019) and Climate Change Act 2017 (2017) also articulate the connections between climate change and health, creating an opportunity for Victorian LGs to address issues such as agriculture- and food transport-related greenhouse gas emissions. Participants in our study linked the absence of a legislative/policy mandate to a lack of state funding supporting a whole-of-food-system approach, with most funding sources targeting short-term projects and specific topics rather than core functions such as hiring staff. This contrasts with initiatives such as the Vermont Agriculture and Food System Strategic Plan 2021–2030 (Claro et al., 2021), a statewide food system strategy, guided by a collective impact approach, supported by 20 years of dedicated funding and backed by state government legislation. An additional issue was the absence of systematic, comprehensive monitoring of issues such as food insecurity at state and federal levels, which impacted the data available to LGs to plan, implement, and evaluate their activities. The devolution of service delivery and governance functions to nongovernment and

community-based organizations was also described as a key characteristic of contemporary food system governance, resulting from multiple drivers, including neoliberal policy reforms (Andrée et al., 2019; Coulson & Sonnino, 2019).

While the absence of a legislative mandate can create space for policy innovation and entrepreneurship (Parsons et al., 2021), it may be one of the reasons why policy making on food systems varies considerably between Australian LGs (Carrad et al., 2022), as it means that LGs must take the initiative in developing food system policies and programs. Our findings also illustrate how LG food system policies are shaped by laws, policies, institutional structures, and funding sources at higher levels of government, pointing to the need to carefully attend to the division of powers between different levels of government when carrying out analysis of local food system governance, and to the constraints on LGs created by existing governmental structures (Coulson & Sonnino, 2019; Parsons et al., 2021). These constraints were one of the reasons why partnerships and collaborations were important to the delivery of food systems initiatives, as well as for generating community ownership of policies and programs.

Our findings about the processes of policy development and implementation, and their barriers and enablers, inform recommendations we make for enhancing the role of Australian LGs in creating a healthy, sustainable, and equitable food system. These recommendations may also be useful for LGs undertaking food system policy making and implementation in other national jurisdictions, keeping in mind the variation in powers and functions between LGs in different countries. One recommendation is for LGs to create a dedicated food system policy, which represents the opportunity to take a whole food-systems approach, coordinate the diverse work LGs do already with food systems, break down department silos, and streamline programs and resources (Barling et al., 2002). One possibility would be for a template policy (and other resources) to be created by Australian federal or state local government associations that can be adapted to local circumstances.


As indicated by previous Australian and international research, policy development should be in-

formed by inclusive, accessible consultation processes, such as “Kitchen Table Conversations” (Lourival & Rose, 2020; Raja et al., 2018). In conducting such participatory processes, LGs should ensure adequate time to plan and implement comprehensive community consultation, leverage existing community networks (e.g., churches) to elicit participation, and use language and messaging that makes clear the purpose and nature of the conversations so as not to deter community members (Lourival & Rose, 2020). In addition, food-related issues should be integrated into non-food-specific policies and programs (Parsons et al., 2021), aligning food systems across all relevant documents/programs. Creation of objectives, targets, and monitoring and evaluation frameworks should occur in tandem with policy development (Raja et al., 2018). Policy implementation can be enhanced by delegating responsibility for food system policies and programs to a dedicated food systems officer (Berglund et al., 2021), and by working with a range of partners in the community. Finally, systematic evaluations can help demonstrate impacts and generate evidence of success that can be important to securing funding (Raja et al., 2018).

At a state government level, an explicit legislative and/or policy mandate for food systems would empower LGs to develop and implement food system policies and programs that promote positive health, environmental, social, and economic outcomes for the community. This mandate could include statewide, comprehensive food system and food security plans that set objectives and targets at the state level, and which empower LGs and provide resources to set local objectives and targets on priority food system issues, and to undertake core, ongoing work. Like Victoria, NSW should also establish a public health legislative framework that requires LGs to develop a wellbeing plan that explicitly requires LG action on key food system priorities. Both NSW and Victoria should amend their planning frameworks to enable LGs to encourage opening fresh food retail outlets and restricting new fast-food restaurants, as LGs identified planning frameworks as a major legislative barrier to improving healthy food environments (Rose et al., 2022).

## Conclusion

Food system policies developed by LGs can be an important tool for joining together diverse LG work on food systems, breaking down departmental silos, identifying food-related targets and objectives and evaluating success in reaching them, dedicating budget and staffing to food-related programs, and implementing a broad range of activities. This article presented case studies of the motivators for, and processes of, policy and program development and implementation in six Australian LGs. It also identified key enablers of and barriers to food system policy development and implementation, including both factors internal to LGs and important state- and federal-level influences, including legislative and policy frameworks, which act as significant determinants of LGs functions and powers. Thus, supportive policy and legislation at state and federal levels, as well as new, dedicated sources of funding, are critical to strengthening the role of Australian LGs in food system transfor-

mation. Interactions between local, state, and federal systems of food law, policy, and governance are an important avenue for further research on the role of Australian LGs in creating a healthy, sustainable, and equitable food system. Although our findings are particularly salient for LGs in NSW and Victoria, and in other Australian states, our research helps to strengthen the international literature on food system policy implementation and makes recommendations that may prove useful to LGs undertaking food system policy development and implementation in other national jurisdictions. 

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## References

- Andrée, P., Clark, J. K., Levkoe, C. Z., & Lowitt, K. (Eds.) (2019). *Civil society and social movements in food system governance*. Routledge. <https://doi.org/10.4324/9780429503597>
- Aulich, C. (2005). Australia: Still a tale of Cinderella? In B. Denters & L. E. Rose (Eds.), *Comparing local governance: Trends and developments* (pp. 193–210). Palgrave MacMillan. [https://doi.org/10.1007/978-0-230-21242-8\\_12](https://doi.org/10.1007/978-0-230-21242-8_12)
- Australian Institute of Health and Welfare. (2020). *Australia's health 2020: Data insights* [17<sup>th</sup> biennial health report, Cat no. AUS 231]. <https://www.aihw.gov.au/reports/australias-health/australias-health-2020-data-insights/summary>
- Barling, D., Lang, T., & Caraher, M. (2002). Joined-up food policy? The trials of governance, public policy and the food system. *Social Policy & Administration*, 36(6), 556–574. <https://doi.org/10.1111/1467-9515.t01-1-00304>
- Berglund, E., Hassanein, N., Lachapelle, P., & Stephens, C. (2021). Advancing food democracy: The potential and limits of food policy positions in local government. *Journal of Agriculture, Food Systems, and Community Development*, 11(1), 81–98. <https://doi.org/10.5304/jafscd.2021.111.002>
- Carrad, A., Aguirre-Bielschowsky, I., Reeve, B., Rose, N. & Charlton, K. (2022). Australian local government policies on creating a healthy, sustainable, and equitable food system: Analysis in New South Wales and Victoria. *Australian and New Zealand Journal of Health Policy*, 46(3), 332–339. <https://doi.org/10.1111/1753-6405.13239>
- Clapp, J. (2021). The problem with growing corporate concentration and power in the global food system. *Nature Food*, 2(6), 404–408. <https://doi.org/10.1038/s43016-021-00297-7>
- Clark, J. K., Conley, B., & Raja, S. (2021). Essential, fragile, and invisible community food infrastructure: The role of urban governments in the United States. *Food Policy*, 103, Article 102014. <https://doi.org/10.1016/j.foodpol.2020.102014>
- Claro, J., Danly, S., Warren, B., Kahler, E., Willard, A., & Harris, K. (2021). *Vermont agriculture & food system strategic plan 2021–2030*. Vermont Sustainable Jobs Fund, Farm to Plate Network, Vermont Agency of Agriculture, Food & Markets. <https://agriculture.vermont.gov/document/vermont-agriculture-and-food-system-strategic-plan-2021-2030>
- Climate Change Act 2017, Authorized Version No. 007. (2017). Parliament of State of Victoria. <https://www.legislation.vic.gov.au/in-force/acts/climate-change-act-2017/007>

- Coulson, H., & Sonnino, R. (2019). Re-scaling the politics of food: Place-based urban food governance in the UK. *Geoforum*, 98, 170–179. <https://doi.org/10.1016/j.geoforum.2018.11.010>
- Department of Health and Human Services, State of Victoria. (2015). *Healthy Together Victoria: Creating a healthier Victoria through a whole of systems approach*. <https://content.health.vic.gov.au/sites/default/files/migrated/files/collections/policies-and-guidelines/w/what-is-htv-jan-28---pdf.pdf>
- Department of Health and Human Services, State of Victoria. (2019). *Victorian Public Health and Wellbeing Plan 2019–2023*. <https://www2.health.vic.gov.au/Api/downloadmedia/%7BE62CA39E-380A-443F-A3B7-EB9022E9AC8F%7D>
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25–32. <https://doi.org/10.5465/amj.2007.24160888>
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822X05279903>
- Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). Code saturation versus meaning saturation: How many interviews are enough? *Qualitative Health Research*, 27(4), 591–608. <https://doi.org/10.1177/1049732316665344>
- High Level Panel of Experts on Food Security and Nutrition [HLPE]. (2020). *Food security and nutrition: Building a global narrative towards 2030* [Executive summary 15]. <https://www.fao.org/3/ca9733en/ca9733en.pdf>
- International Panel of Experts on Sustainable Food Systems [IPES-Food]. (2017). *Unravelling the food-health nexus: Addressing practices, political economy, and power relations to build healthier food systems* [Executive summary]. IPES-Food, The Global Alliance for the Future of Food. [http://www.ipes-food.org/\\_img/upload/files/Health\\_ExecSummary\(1\).pdf](http://www.ipes-food.org/_img/upload/files/Health_ExecSummary(1).pdf)
- IPES-Food & ETC Group. (2021). *A long food movement: Transforming food systems by 2045* [Executive summary]. [https://www.ipes-food.org/\\_img/upload/files/LongFoodMovementEN.pdf](https://www.ipes-food.org/_img/upload/files/LongFoodMovementEN.pdf)
- Kania, J., & Kramer, M. (2011). Collective impact. *Stanford Social Innovation Review*, 9(1), 36–41. [https://ssir.org/articles/entry/collective\\_impact](https://ssir.org/articles/entry/collective_impact)
- Kent, K., Murray, S., Penrose, B., Auckland, S., Visentin, D., Godrich, S., & Lester, E. (2020). Prevalence and socio-demographic predictors of food insecurity in Australia during the COVID-19 pandemic. *Nutrients*, 12(9), Article 2682. <https://doi.org/10.3390/nu12092682>
- Lourival, I., & Rose, N. (2020). From Nar Nar Goon to Koo Wee Rup: Can participatory food policy making processes contribute to healthier and fairer food systems in the Australian municipal context? A case study from Cardinia Shire, Melbourne. *Journal of Hunger & Environmental Nutrition*, 17(2), 265–299. <https://doi.org/10.1080/19320248.2020.1782797>
- Lowe, M., Whitzman, C., & Giles-Corti, B. (2018). Health-promoting spatial planning: Approaches for strengthening urban policy integration. *Planning Theory & Practice*, 19(2), 180–197. <https://doi.org/10.1080/14649357.2017.1407820>
- Mansfield, B., & Mendes, W. (2013). Municipal food strategies and integrated approaches to urban agriculture: Exploring three cases from the Global North. *International Planning Studies*, 18(1), 37–60. <https://doi.org/10.1080/13563475.2013.750942>
- Melaku, Y. A., Renzaho, A., Gill, T. K., Taylor, A. W., Dal Grande, E., de Courten, B., Baye, E., Gonzalez-Chica, D., Hyppönen, E., & Shi, Z. (2019). Burden and trend of diet-related non-communicable diseases in Australia and comparison with 34 OECD countries, 1990–2015: Findings from the Global Burden of Disease Study 2015. *European Journal of Nutrition*, 58(3), 1299–1313. <https://doi.org/10.1007/s00394-018-1656-7>
- Mendes, W. (2008). Implementing social and environmental policies in cities: The case of food policy in Vancouver, Canada. *International Journal of Urban and Regional Research*, 32(4), 942–967. <https://doi.org/10.1111/j.1468-2427.2008.00814.x>
- Milan Urban Food Policy Pact. (2015). *Milan Urban Food Policy Pact*. <https://www.milanurbanfoodpolicypact.org/>
- Moragues-Faus, A., & Battersby, J. (2021). Urban food policies for a sustainable and just future: Concepts and tools for a renewed agenda. *Food Policy*, 103, Article 102124. <https://doi.org/10.1016/j.foodpol.2021.102124>

- Parsons, K., Lang, T., & Barling, D. (2021). London's food policy: Leveraging the policy sub-system, programme and plan. *Food Policy*, 103, Article 102037. <https://doi.org/10.1016/j.foodpol.2021.102037>
- Public Health and Wellbeing Act 2008, Authorised Version No. 053. (2008). Parliament of State of Victoria. <https://www.legislation.vic.gov.au/in-force/acts/public-health-and-wellbeing-act-2008/053>
- Raja, S., Clark, J. K., Freedgood, J., & Hodgson, K. (2018). Reflexive and inclusive: Reimagining local government engagement in food systems. *Journal of Agriculture, Food Systems, and Community Development*, 8(Suppl. 2), 1–10. <https://doi.org/10.5304/jafscd.2018.08B.013>
- Ray, D. K., West, P. C., Clark, M., Gerber, J. S., Prishchepov, A. V., & Chatterjee, S. (2019). Climate change has likely already affected global food production. *PloS One*, 14(5), Article e0217148. <https://doi.org/10.1371/journal.pone.0217148>
- Reeve, B., Thow, A. M., Baker, P., Hresc, J., & May, S. (2020). The role of Australian local governments in creating a healthy food environment: An analysis of policy documents from six Sydney local governments. *Australian and New Zealand Journal of Public Health*, 44(2), 137–144. <https://doi.org/10.1111/1753-6405.12968>
- Rose, N., Reeve, B., & Charlton, K. (2022). Barriers and enablers for healthy food systems and environments: The role of local governments. *Current Nutrition Reports*, 11(1), 82–93. <https://doi.org/10.1007/s13668-022-00393-5>
- Saldaña, J. (2021). *The coding manual for qualitative researchers* (3rd ed.). Sage.
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, 52(4), 1893–1907. <https://doi.org/10.1007/s11135-017-0574-8>
- Slater, S., Baker, P., & Lawrence, M. (2022). An analysis of the transformative potential of major food system report recommendations. *Global Food Security*, 32, Article 100610. <https://doi.org/10.1016/j.gfs.2022.100610>
- Sonnino, R., & Beynon, B. (2015). Rethinking food governance: Urban innovations. In D. Deakin, D. Diamantini, & N. Borrelli (Eds.), *The governance of city food systems* (Vol. 29, pp. 35–48). Fondazione Giangiacomo Feltrinelli. [https://www.researchgate.net/publication/323748427\\_The\\_Governance\\_of\\_City\\_Food\\_Systems](https://www.researchgate.net/publication/323748427_The_Governance_of_City_Food_Systems)
- Springmann, M., Clark, M., Mason-D'Croz, D., Wiebe, K., Bodirsky, B. L., Lassale, L., De Vries, W., Vermeulen, S. J., Herrero, M., & Carlson, K. M. (2018). Options for keeping the food system within environmental limits. *Nature*, 562(7728), 519–525. <https://doi.org/10.1038/s41586-018-0594-0>
- Taylor-Powell, E., & Renner, M. (2003). *Analyzing qualitative data*. Program Development & Evaluation, University of Wisconsin-Extension Cooperative Extension. <http://thesummerinstitute.ca/wp-content/uploads/Qualitative-Methods.pdf>
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349–357. <https://doi.org/10.1093/intqhc/mzm042>
- Yeatman, H. (1997). The food system and local government in Australia: The current situation and opportunities for the future. *Journal of Nutrition Education*, 29(5), 258–266. [https://doi.org/10.1016/S0022-3182\(97\)70215-2](https://doi.org/10.1016/S0022-3182(97)70215-2)
- Yeatman, H. R. (2003). Food and nutrition policy at the local level: Key factors that influence the policy development process. *Critical Public Health*, 13(2), 125–138. <https://doi.org/10.1080/0958159031000097625>
- Yin, R. K. (2009). *Case study research: Design and methods* (3rd ed.). Sage.

## Appendix A. COREQ Checklist—Australian Local Government Case Studies

Topic	Item No.	Guide Questions/Description	Location in text
<b>Domain 1: Research team and reflexivity</b>			
<i>Personal characteristics</i>			
Interviewer/ facilitator	1	Which author/s conducted the interview or focus group? Interviews were conducted by two researchers from a combination of AC, BR, NR and LT	Methods
Credentials	2	What were the researcher's credentials? E.g., PhD, MD AC – PhD, BR – PhD, NR – PhD, LT – BA (Psych) M Food Systems and Gastronomy Credentials of all researchers would be available to those interested by searching the internet for the researchers, however, will not be identified in-text.	NA
Occupation	3	What was their occupation at the time of the study? AC – Research assistant BR – University academic (Law) NR – Lecturer (Food studies); Executive Director of <i>Sustain: The Australian Food Network</i> LT – Research assistant; Masters student (Food Systems and Gastronomy) This information will be available to those interested by searching the internet for the researchers, however, will not be identified in-text.	NA
Gender	4	Was the researcher male or female? Three interviewers were female and one was male.	Methods
Experience and training	5	What experience or training did the researcher have? AC – B Public Health (Hons); PhD. Prior experience conducting interviews and with analysis of both quantitative and qualitative data. BR – BA (Hons); LLB; PhD. Extensive prior experience conducting interviews and with analysis of qualitative data. NR – B Law (Hons); Masters International and Community Development; PhD. Extensive prior experience conducting interviews and with analysis of both quantitative and qualitative data. LT – Completing Masters Food Systems and Gastronomy at the time of the research. This information will be available to those interested by searching the internet for the researchers, however, will not be identified in-text.	NA
<i>Relationship with participants</i>			
Relationship established	6	Was a relationship established prior to study commencement? NR – A minority of participants had a previously established relationship with the interviewer. AC, BR & LT – No relationship with participants prior to or during the study.	Methods
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g., personal goals, reasons for doing the research AC – All participants knew that the research was part of a broader project investigating the role of local governments in food system issues, and that the interviewers were employed on this project. It is reported that informed consent was obtained from all participants (i.e., that they were provided with an information letter about the study prior to agreeing to participate).	Methods
Interviewer characteristics	8	What characteristics were reported about the interviewer/facilitator? e.g., Bias, assumptions, reasons and interests in the research topic NR's prior connection to some participants is the primary notable characteristic of relevance.	Methods

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Topic	Item No.	Guide Questions/Description	Location in text
<b>Domain 2: Study design</b>			
<i>Theoretical framework</i>			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g., grounded theory, discourse analysis, ethnography, phenomenology, content analysis Thematic analysis	Methods – data analysis
<i>Participant selection</i>			
Sampling	10	How were participants selected? e.g., purposive, convenience, consecutive, snowball Purposive sample	Methods
Method of approach	11	How were participants approached? e.g., face-to-face, telephone, mail, email Email invitation	Methods
Sample size	12	How many participants were in the study? 23	Methods
Non-participation	13	How many people refused to participate or dropped out? Reasons? Two. One was going on maternity leave, the other consented but was ultimately unable to attend on the day of the scheduled focus group.	Not included in-text as sample was still adequate
<i>Setting</i>			
Setting of data collection	14	Where was the data collected? e.g., home, clinic, workplace At participants' workplaces or online (teleconference)	Methods
Presence of non-participants	15	Was anyone else present besides the participants and researchers? An Honors student associated with the broader project observed one of the focus groups. Participants gave their verbal consent at the commencement of the group for this to take place.	Not included in-text
Description of sample	16	What are the important characteristics of the sample? e.g., demographic data, date Date range of the focus groups is included in-text. Local government departments that participants represented are provided. Other demographics are not relevant, as participants were acting as organizational representatives, not providing personal information.	Methods
<i>Data collection</i>			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested? Final interview guide is appended to the manuscript. It was not pilot tested, but was reviewed by all members of the research team and amended according to feedback received.	Methods and supplementary material
Repeat interviews	18	Were repeat interviews carried out? If yes, how many? We did not carry out any repeat interviews	NA
Audio/visual recording	19	Did the research use audio or visual recording to collect the data? Interviews were audio recorded and the recordings were transcribed	Methods
Field notes	20	Were field notes made during and/or after the interview or focus group? Notes were made during and immediately after the interviews.	NA
Duration	21	What was the duration of the interviews or focus group? Approximately 80-120 minutes	Methods

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Topic	Item No.	Guide Questions/Description	Location in text
Data saturation	22	Was data saturation discussed? Yes	Methods
Transcripts re- turned	23	Were transcripts returned to participants for comment and/or correction? Participants were offered the opportunity to review the transcript of their interview.	Methods
<b>Domain 3: Analysis and Findings</b>			
<i>Data analysis</i>			
Number of data coders	24	How many data coders coded the data? The first transcript was independently coded by AC, LT and BR, who then discussed these analyses and reached consensus on a preliminary coding structure. Subsequent transcripts were coded solely by LT, with discussion and review of identified themes by BR.	Methods
Description of the coding tree	25	Did authors provide a description of the coding tree? Yes	Supplementary material
Derivation of themes	26	Were themes identified in advance or derived from the data? Identification of themes was guided by the aims of the evaluation and the interview guide (e.g., what are the barriers to policy implementation?). Within this, themes were derived from the data (e.g., lack of funding).	Methods
Software	27	What software, if applicable, was used to manage the data? NVivo.	Methods
Participant checking	28	Did participants provide feedback on the findings? Participants were provided a copy of the draft manuscript prior to submission, and given the opportunity to provide feedback.	NA
<i>Reporting</i>			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g., participant number Quotations are presented to illustrate the themes, identified by participant identifier.	Results
Data and findings consistent	30	Was there consistency between the data presented and the findings? Yes	Results
Clarity of major themes	31	Were major themes clearly presented in the findings? Our results discuss the major themes. Illustrative quotations are used in the results section.	Results
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes? In the results we identify how the major themes were described differently by the various organizational representatives (participants).	Results

Developed from Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349–357.

## **Appendix B. Local Government Focus Group Question Guide**

1. Can you tell me about your background and role at the [Insert local government name] Council?
2. What is the role of local government in creating a healthy, sustainable, and equitable food system?
3. Can you describe your Council's policies that are relevant to creating a healthy, sustainable and equitable food system?
4. Can you describe the process your Council used in the development of the relevant food policy/strategy?
5. Can you describe who (individuals/groups/stakeholders) was involved in the process and how they participated or were included? What input did they have to the policy/strategy development and/or content? Were they involved only once or did they have the opportunity to comment/participate on several occasions, etc.?
6. Reflecting on the process of developing the strategy/policy, can you tell me about the amount of time that was given to enable wide involvement and participation? Was the length of time sufficient? If not, why not? Were there any other constraints/obstacles in the process of developing the policy/ strategy?
7. Reflecting on the process of developing the strategy/policy, is there anything that your Council might do differently if they were to do it again? If so, please provide details.
8. How have these policies been implemented "on the ground" or developed into programs of work?
9. What have been the drivers or enablers of your Council's work on food system issues, including its policies and programs?
10. Has your Council encountered any barriers to developing and implementing policies and programs on food system issues, and if so, what were they?
11. Does your Council work with state government in the development and implementation of policies and programs on food system issues, and if so, how/in what capacity?
12. Does your Council work with community or non-government organisations in the development and implementation of policies and programs on food system issues, and if so, how/in what capacity?
13. Are there any other key actors or organisations that your Council works with in implementing these policies and programs, and if so, how/in what capacity?
14. How could the role of Councils in creating a healthy, sustainable and equitable food system be strengthened?

## Appendix C. Coding Tree for Local Government Case Study Focus Groups

Code	Subcodes
General case study information	Council name Date of focus group Dedicated food system policy (yes/no) Food system objectives in existing policy (yes/no) Interviewers Participants
Role of council in food system activities	
Relevant policies	
Motivators/rationale for policy development	Emissions reduction Food system sustainability Reducing food waste Reducing plastic waste Food security Protecting farmland Community health Community interest International action on food (systems) Joining together existing work
Benefits of council having dedicated food system policy	
Policy development processes	Consultation: targeting vulnerable populations, farmers Collaboration between council departments Research Theory Review/identify existing policies
Enablers of policy development	Funding Champion Council-directed interest State government mandate High-level (internal) leadership
Barriers to policy development	Lack of state government mandate Lack of state government funding Internal governance Engagement, lack of community interest
Implementation activities, outputs	Topics: Food security, Community health and nutrition, Food literacy, Waste, Protecting farmland, Growing food (urban agriculture, agriculture), Supporting local food systems, Tourism, Food system sustainability, Job creation Type of activity: Community forums/workshops/events, Community gardens, Food hub, Advocacy, Information/educational tools, Integrate food-related activities into other programs, Planning, Campaigns, Rebates for residents/community groups, Teaching kitchen/community kitchen, Teaching/demonstration garden
Policy implementation processes	Partnerships Create budget Evaluation Council structure Theoretical frameworks (Place-based approach(es), Collective impact) Seeking grants

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<b>Code</b>	<b>Subcodes</b>
Enablers of policy implementation	Internal council prioritisation of food Staff member dedicated to food systems portfolio Collaboration between councils Community engagement Funding Collaboration between council departments and policy documents COVID-19 pandemic International collaboration State government mandate
Barriers to policy implementation	Lack of state government mandate Funding (lack of state government funding, targeted grants, lack of council funding) Staff turnover, organizational changes Community engagement Power, capacity of local government Lack of data COVID-19 pandemic Internal governance
Engagement with nongovernmental organizations	
Engagement with state government	Schools/education Health sector Planning
Engagement with federal government	
Engagement with other stakeholders	Food businesses, food retailers Farmers, producers Universities Businesses General public
Facilitating future action	Goals/objectives Tools/supports needed