

ENVIRONMENT & SUSTAINABILITY



Reducing urban impacts on the natural environment.

OUTCOME 1	OUTCOME 2	OUTCOME 3	OUTCOME 4
Increased energy efficiency and climate resilience of vulnerable households.	Increased public understanding of the climate challenge.	Secure, healthy and sustainable food systems.	Protected and rehabilitated aquatic eco-systems.

To access in-depth information about the other outcomes in the Environment & Sustainability Impact Area, visit lmcf.org.au/our-impact/environment-sustainability

Challenge

Demand is increasing, supply is constrained while social and environmental impacts grow.

The critical challenges of food system sustainability and security of supply are increasing across Victoria, Australia and internationally.

Food systems impact the environment in a variety of ways, including biodiversity loss, natural resource consumption, soil degradation, greenhouse gas emissions, water use, aquatic environment contamination and waste at all stages of the supply chain.¹

Food supply is extremely complex and vulnerable to dynamic environmental conditions, including climate change, the availability of arable land and water scarcity. At the same time, demand for food is increasing due to global population and income growth. Rising demand, coupled with supply constraints, will lead to greater food production vulnerabilities and higher prices.² An increasing global middle class, particularly in Asia, combined with the globalisation of food systems is changing Australia's agricultural profile – particularly, as demand for animal proteins increase.³

Melbourne is surrounded by a highly productive foodbowl that is a valuable source of fresh, healthy food for the city's population, and makes a significant contribution to the regional economy. Melbourne's foodbowl produces much of the community's food, with the potential to meet 41 per cent of the its food and 82 per cent of its vegetables, however, its capacity to meet the community's needs is decreasing due to urban sprawl and will be put under further pressure as the climate changes. As Melbourne grows to a predicted population of 7 to 8 million people by 2050, it will need at least 60 per cent more food, but it will have less land available to produce it.

Risks to Melbourne's foodbowl have been identified in relation to climate change, water scarcity, population growth, urban sprawl, food waste and farm viability. City foodbowls around Australia's other state capitals are unlikely to be able to meet deficits in Melbourne's fresh food supply, as they are facing similar pressures from population growth and urban sprawl.⁴

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In addition to the food system security and sustainability challenges, disadvantaged groups are vulnerable to food price increases and are often less able to access affordable, nutritious food. Hunger is a growing problem in Australia, with over 4 million people experiencing food insecurity at some point and, within this cohort, 76 per cent are categorised as having very low food security.⁵

We need to find innovative land use and food system solutions to secure supply, reduce inequalities, while at the same time, managing the challenges of resource scarcity, biodiversity loss and climate change.

Our Response

Food systems, locally and across jurisdictions, need to increase their resilience to system shocks and reduce dependence on more distant food sources. There is a need to better understand the issues and opportunities, while advocating for relevant market and regulatory responses.

At the local level, farmers in Melbourne's foodbowl have the potential to play an increasingly important role. However, assistance is needed across a range of areas, including: farmland protection, farm viability, water access, nutrient recycling and sustainable farming.⁶

The Foundation is strengthening the resilience and sustainability of food systems, with a focus on Melbourne, as pressures from urban sprawl, climate change and volatility in the global and national food system increase.

Strategic research that highlights the vulnerabilities of Greater Melbourne's food system and maps out pathways to more socially and environmentally sustainable practices will help secure the food systems upon which we depend.

The Foundation's support is focused on:

- **Research to better understand the issues threatening the security, health and sustainability of the food system.**
- **Evidence-based solutions and pathways to a secure, healthy and sustainable food system.**
- **Research and demonstration projects that influence or produce food system security, health and sustainability outcomes.**
- **Demonstration of more sustainable, low-carbon urban agricultural approaches.**

The Foundation will consider other activities that address this outcome.

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Contact

Daniel Pediaditis

Senior Program Manager – Environment & Sustainability
Lord Mayor's Charitable Foundation

📞 03 9633 0024

✉️ daniel.pediaditis@lmcf.org.au

Endnotes

- ¹ Bradbear C and Friel S, Australian National University, *Food systems and environmental sustainability: A review of the Australian evidence*. NCEPH Working Paper, 2011. <https://pdfs.semanticscholar.org/5e51/eb60c00e950f50956be70c5f9c72bdcba061.pdf>
- ² The Prime Minister's Science, Engineering and Innovation Council, *Australia and Food Security in a Changing World, 2010*. https://www.chiefscientist.gov.au/wp-content/uploads/FoodSecurity_web.pdf
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- ⁶ Carey, R., Larsen, K. and Sheridan, J., University of Melbourne, *Roadmap for a resilient and sustainable Melbourne Foodbowl*, 2019. https://research.unimelb.edu.au/_data/assets/pdf_file/0014/3030260/Foodprint-Roadmap-resilient-sustainable-foodbowl-report_Online.pdf