Case Study: Sydney Food Futures Project

Overview

The Sydney Food Futures project provided insight into the impacts of various urban growth patterns upon the resilience and food security of Sydney. Outputs included interactive maps that demonstrate the spatial impacts of urban growth upon Sydney's ability to meet its own demand for food. Stakeholder engagement activities aimed to share the findings, identify key challenges for peri-urban Sydney and opportunities for improving stakeholder relations, processes, decision making and policies.

Background

The Sydney Basin is changing rapidly, with 1.6 million new residents expected by 2035, rising land prices and a changing climate, the future for Sydney's food producers is uncertain. The decline of farming in the Basin, with ongoing conversion of farm land and fertile soils to residential development, contributes to the increasing vulnerability of Sydney's food system. The viability of farming and limited access to water provide a major disincentive for a new generation of farmers to emerge. Changes to climate, especially extreme weather events, pose a threat to the resilience of Sydney's future food availability, equity and quality of food supply.

This project was initiated by the Sydney Peri-Urban Network (SPUN) of councils (Blue Mountains, Camden, Gosford, Hawkesbury, Hornsby, Kiama, Penrith, Shellharbour, Shoalhaven, Hills Shire, Wingecaribbee, Wollondilly), and led by Wollondilly Shire Council. This project was developed to reflect SPUN's priority themes for action, being: valuing the periurban, a framework for protection, and building knowledge to provide an evidence-base for decisions.

The Plan for Growing Sydney made little mention of agriculture and did not address ongoing encroachment of agricultural areas despite Goal 4 being 'a sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources'. There is a lack of information regarding the economic, social, spatial and environmental characteristics and values of periurban agriculture in the Sydney Basin which hinders effective decision making regarding periurban land use and development.

The objectives of the project were to:
1. Apply a spatial modelling tool to understand the geography of local food production and the impact of urban growth upon city resilience in the Sydney Basin including impacts of different urban growth patterns upon food production.
2. Document the benefits and costs that agriculture provides to cities and their peri-urban areas, including environmental, social and economic benefits.
3. Engage with stakeholders from a variety of contexts to understand impacts, opportunities, benefits and costs of local food production and urban growth.
4. Increase the food literacy of consumers, related to farming, supply chain and health. This includes developing better community appreciation of local food production and its
potentially multi-functional role (including contribution to green space); better appreciation of farmers; community awareness local food value to a healthy diet and to city resilience.

5. Create an evidence base to support councils, state and federal decision making to stimulate and support agricultural productivity in the Sydney Basin.

Objectives were developed by funding partners in consultation with the project partners. The project budget was $77,500, funded by the Building Resilience to Climate Change program.

Implementation

The Sydney's Food Futures project was a year-long project which had four phases being:

1. Establishment of the Project Reference Group to set priorities, objectives and case studies.
2. Mapping and modelling, including technical data collection, development of a modelling approach and creation of mapped outputs. This involved adapting a Foodsheds model developed by research in the US and adapting it to project-specific needs.
3. Stakeholder engagement, including two stakeholder workshops. Workshops involved council staff, NSW government department staff, farmers, residents of peri-urban areas, industry representatives and other relevant groups. Workshops identified key challenges, discuss threats and opportunities and documented key actions to improve the resilience of Sydney Basin through supporting peri-urban agriculture.
4. Communication and dissemination of the outcomes. This included a high-level briefing to state government officials, the development of a website for public information, the release of an animated short film and a public forum held as part of the Sydney Festival.

The target audience for the project included local and state government decision makers, food system stakeholders (including farmers, industry representatives, state government staff) and the community.

Outcomes

The project mapped and modelled various urban growth scenarios and the implications for food production using population growth projections and diet scenarios to estimate food demand. Stakeholders from a variety of contexts were engaged so as to understand implications and opportunities relating to food production and urban growth within the Sydney Basin.

Sydney's peri-urban agriculture feeds 20% of the population, contributes $4.5 billion to the economy and buffers against climate change and future fuel price spikes but faces challenges due to urban encroachment, land-use conflict and declining profitability. Detailed geospatial maps of food production project the impact of urban growth scenarios on future food production of eggs, vegetables, meats and other food categories. If no changes are made Sydney stands to lose 60% of fresh food produce in the basin. While Sydney has plans for housing, energy
and water provision, there is no plan for protecting food production.

A website (www.sydneyfoodfutures.net) clearly communicated project findings with interactive maps. A public forum, part of the Sydney Festival, engaged the community on pressures facing agriculture in the Sydney Basin. A high-level policy briefing brought challenges to the attention of key state government stakeholders. Media articles and communication resources included:

- An animation highlighting the pressures on peri-urban agriculture in Sydney: https://youtu.be/QzlPG7nkp5s.
- Video of the Sydney Festival forum: https://youtu.be/WWEpSc2BG6A.

**Key Learnings**

The proportion of the city’s food supplied from the Basin could drop from 20% of total food demand down to 6%. This project created a mapping tool and facilitated evidenced based discussion at both local and state planning levels. The project highlights the need for policy development and consideration of land for agriculture with separation to residences. Local food production contributes to the ‘liveability’ of a region. Agriculture is a valuable community asset which provides local fresh food, low skilled employment and provides catchment functions, biodiversity and tourism experiences. This project will assist in developing and implementing policies and strategies that balance housing with food production.

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This project was the 2016 winner of the Natural Environment Policies, Planning and Decision Making Award at the LGNSW Excellence in the Environment Awards