FOODPRINT MELBOURNE

INTRODUCTION

Around 16.3 million hectares of agricultural land is required to feed Melbourne each year, which is equivalent to three-quarters of Victoria's total land size. This is the amount of land needed to grow the fruit, vegetables, grains and pulses that Melbourne's population consumes, as well as the land on which livestock are raised for meat, dairy and eggs. It also includes the land used to grow feed for these animals. Melbourne's land foodprint is higher than the typical land foodprint in many other parts of the world, because livestock range over very large areas in Australia. In fact, despite Australia being a very large country, less than 10% is arable land (which means land that can be used to grow crops) and most of that fertile land is located on the coastal fringe, along with the country's major cities.

ACTIVITIES

Use data sheet 5 to complete the following activities.

1. Refer to figure 1 to describe the change in the outer boundary of the urban area of Melbourne from 1888 to 2030.

2. What impact has the spread of Melbourne's population had on the location of fruit and vegetable production from 1954 to 2009?

3. Figure 2 indicates that population growth might result in further displacement of farmland. What impact would such changes have on the foodbowl? What action or decisions could prevent this from happening?

4. Watch *http://goo.gl/3Q754r* (15.04 minutes). Consider the impact for the celery farmers (Schreurs family) of urban sprawl pressures by:

    a. annotating a copy of the photo in figure 3 to indicate what the residents of the houses might think about the farming activity outside their back door and what a farmer might think about the encroachment of housing developments on his land

    b. thinking about the impact on the older generation of the family who began farming celery on rented land in Dingley in the 1950s

    c. evaluating the farmer's statement that "there's plenty of good land in Australia"

    d. assessing whether farmers might be able to make more money if they sell their land for housing than if they farm. What pressures might lead farmers to make this type of decision?

    e. the farm in this video is being sold for housing because of a change to planning zones. Victoria's Planning and Environment Act is a "framework for planning the use, development and protection of land in Victoria in the present and long-term interests of all Victorians". Do you think this change is in the long-term interests of all Victorians?

5. Figure 4 shows two views over time of an area around Wheelers Hill and Glen Waverley in the eastern suburbs of Melbourne that was used mainly for food production in 1945.

    a. How can you identify from the black-and-white image of 1945 that the area was used for food production?

    b. In the colour image, list the evidence that shows the food production areas have been "grown over" by urban areas.

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INQUIRY 3 | *What are the competing land uses in Melbourne's foodbowl regions?* | **WORKSHEET 5** *Growing over our food* | **PAGE** *2 of 2*

c. Use the site 1945.melbourne/ (*http://1945.melbourne/*) to look at other areas around Melbourne that have experienced a reduction in food growing capacity. Describe the impact that you think this would have on food production for Melbourne.

6. Use Google Earth to look at the use of land around the area of Five Ways, Devon Meadows, Victoria. Use the time slider to see the change from 2004 to 2017. Consider the use of the land for agriculture and the urban development of the area.

7. Figures 5 and 6 show the expected population growth in key foodbowl areas and the amount of land required to feed Melbourne's population in the future. What impact is the population growth by 2030 (and beyond) likely to have on the amount of land needed to produce adequate amounts of food for Melbourne's population?

EXTENSION ACTIVITY

Population growth in each of Australia's capital cities is resulting in urban expansion and challenging the food security of these cities.

1. Read the case study in figure 7 and explore the wealth of information about Sydney's food security at *www.sydneyfoodfutures.net*

a. Read *http://www.sydneyfoodfutures.net/benefits-of-peri-urban-farming/* and summarise in dot point form under three headings:
- the economic benefits of peri-urban farming
- the environmental benefits of peri-urban farming
- the health benefits of peri-urban farming

b. Watch the animation at *http://www.sydneyfoodfutures.net/challenges-for-peri-urban-farming/* (2.09 minutes)

Create a message that could be distributed using Twitter to inform the public about the challenges facing Sydney's foodbowl. Remember that your message is restricted to 140 characters.