


# Human Health and Social Impacts Node

Impacts of climate change on food supply chains in New South Wales

A photograph of a person wearing a brown hat and a green shirt, standing in a field of tall, golden-brown grass. The person is looking down, and the background is slightly blurred.

**A better understanding of the vulnerability of our food supply is needed to strengthen the adaptive capacity and resilience in a changing climate.**

Photo: Allef Vinicius/Unsplash

Climate change is projected to cause significant damage in Australia with droughts, high winds, and flooding projected to increase in intensity and frequency in the future.

Damages to infrastructure from extreme weather events can lead to production shortfalls which can be serious if they occur in the food supply chain, or in industry sectors that supply food-producing businesses with essential inputs.

Climate change will have far-reaching impacts and affect a large number of people in New South Wales because key agricultural production regimes are located in this State.

Producers in modern economies such as Australia are strongly connected with neighbouring markets and suppliers. This interdependency means that localised production shortfalls can ripple through entire supply chain networks and severely affect regional and wider national economies. Consequently, if climate change impacts regions outside New South Wales, the effects will be felt by NSW food-related industries which rely on interstate supply chains.

By providing quantitative estimates of the likely impacts of climate change on food availability and food supply chains, this project will develop our understanding of future food security in New South Wales. Through projections of how climate change impacts outside the State will affect NSW food

supply and communities dependent on inter-regional trade, we can strengthen the adaptive capacity and resilience of these communities and industries in the face of a changing climate.

## Research outcomes

Robust, sector-specific estimates for the likely impact of climate change on four indicators:

1. food availability across different expenditure categories as defined in the Household Expenditure Survey by the Australian Bureau of Statistics
2. employment, with losses expected across different sectors of the economy and across rural and urban regions
3. economic losses across different sectors (e.g. food, energy) in rural and urban regions
4. human nutrition, including current and food and nutrient intakes.

## Who will use this information?

- Government (e.g. Department of Planning, Industry and Environment, NSW Health, Department of Primary Industries)
- Researchers

## Human Health and Social Impacts Node

Building on current sources of health and climate change information, the Human Health and Social Impacts Node will support the NSW Government by:

1. delivering robust, sector-specific information targeting the health system, vulnerable communities and government agencies
2. establishing baselines for monitoring, evaluation and analysis of adaptation programs that seek to protect and promote health, and strengthen the delivery of health services, in the face of a changing climate
3. improving understanding of vulnerability in the context of exposure, sensitivity and adaptive capacity
4. providing practical information on building resilience in communities and in the health sector.

The work program of the Node is informed by eco-social understandings of relationships between climate change and health. The approach taken acknowledges the range of environmental, social and economic consequences of climate change, including regional variation in impacts and vulnerability.

### The Node is a partnership between:

- **Department of Planning, Industry and Environment**
- **University of Sydney**
- **NSW Health**

### More information

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### Published by:

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Website: [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).

ISBN 978-1-925974-26-3; EES 2019/0272; July 2019.