Public Health Association
AUSTRALIA

Climate Disruption, the Food System and Food Security

Policy Position Statement

Key messages:

Climate disruption due to increased anthropogenic greenhouse gas (GHG) emissions is causing higher surface temperatures, rising sea levels, more frequent and severe natural hazards, including flooding, bushfires and drought events. These, plus increasing deforestation, land-use conversion and ocean acidification, will impact upon biodiversity and ecosystems and increase pressures on the global food system. Without prompt intervention, such changes are likely to adversely affect food security, population health and global health equity.

Key policy positions:

1. There is an urgent need for research on climate disruption impacts on the food system and its impacts on health.

2. National food and nutrition policy should incorporate action to protect agriculture, fisheries and the food supply chain from climate disruption.

3. Australia should adopt policies to achieve emissions reductions targets consistent with global warming projections of less than 1.5°C.

Audience:

Federal, State and Territory Governments, policymakers and program managers, PHAA members, media.

Responsibility:

Food and Nutrition Special Interest Group (FANSIG) and Ecology and Environment Special Interest Group (EESIG)

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Climate Disruption, the Food System and Food Security

Policy position statement

Note: This is one of two policies focused on the bi-directional relationship between the environment and the Australian food system and the changes needed to ensure the food system is ecologically sustainable and resilient to climate change, and thus can provide nutritious, affordable and culturally appropriate food into the future. This policy should be read in conjunction with other PHAA policy position statements including: the Food System, Diets and the Environment (including the background paper); Household Food and Nutrition Security; Food Security for Aboriginal and Torres Strait Islander Peoples (including the background paper); Health Effects of Fossil Fuels; Safe Climate (including the background paper); Ecologically Sustainable Australian Population.

PHAA affirms the following principles:

1. We have a responsibility to protect our planet's ecosystems for future generations.[1]
2. Global, intergovernmental policy action is needed to mitigate and adapt to climate disruption. In Australia, action from federal, state and local governments is critical.

PHAA notes the following evidence:

Regarding food systems and food security[2]

3. Food security is foundational to health equity. The Food and Agriculture Organisation of the United Nations defines it as a state in which,

   > *'… all people at all times have physical, social, and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life'*[3]

4. Availability, access, use, stability, are the four pillars of food security. Agency and sustainability are two further pillars that are increasingly being recognised in addition.[4, 5]
5. Food insecurity can lead to all forms of malnutrition, defined as deficiencies, excesses, or imbalances in a person's intake of energy and/or nutrients[6], all of which are known to contribute to adverse health outcomes, including low-weight-for-height, anaemia, and noncommunicable diseases e.g., cardiovascular disease.[6] For example, whilst a lack of available nutritious foods may lead to insufficient nutrients being consumed, many people living with food insecurity live in 'food deserts' – i.e., environments that have limited healthy options and an oversaturation of ultra-processed and fast-food outlets.[7-9]
6. The food system (food production including inputs such as seeds, pesticides and animal feed; processing; packaging; distribution; and retailing) determines food availability[10] and is influenced by consumer demand, corporate power of the food industry, trade agreements, and government

regulation (or lack thereof).[11, 12] Food access is determined by several physical and socio-economic factors including the location of food outlets, food affordability (food prices in relation to income) and personal preferences that relate to the acceptability of food options.[10]

7. Globally, current levels of food insecurity are the result of inequalities in food distribution and access, as well as war, political unrest, pandemics, natural disasters, and climate migration. Consistent with the social gradient of health,[13] food insecurity is more prevalent among groups and populations that experience social disadvantage.[14, 15] Globally, there is no lack of food, but not necessarily nutritious food.[16]

8. In Australia, the prevalence of food insecurity is between 4-13% of the total population – that is, 4-13% of Australians do not have consistent adequate access to food, adequate supply of food, nor appropriate use of food (e.g., inappropriate preparation of food). The prevalence for Indigenous Australians sits between 22-32%.[17, 18]

9. The capacity of food systems to deliver future food security will be impeded by climate disruption, environmental resource constraints[10, 19, 20] and a growing global population.[10, 21]

10. Additionally, modern industrial food production and supply chains are currently fossil- fuel energy intensive and thus continue to contribute to climate disruption and will compromise the capacities of the food supply to meet the needs of the population.[22]

11. A small number of large transnational corporations dominate food production and processing, promoting intensive production practices to increase economic efficiencies, but operating at a level that exceed many planetary boundaries.[23, 24] Despite the gains in increased food output, many populations still do not receive sufficient food, while almost 15% of household food goes to waste.[25] Continuing food production in this manner will exacerbate climate disruption.

Australia's changing climate

12. Since 1880, increasing GHG emissions have changed Australia's climate. The mean surface temperature has risen 0.98°C.[26] Since the 1970s, a change in rainfall patterns in southern Australia has been observed and the combination of warmer weather and changed rainfall, and the probable worsening of this in coming decades, will contribute to a greater frequency of extreme drought in southern Australia. Additionally, since 2001, the duration, frequency and intensity of heat waves has increased.[27] Looking forward, it is forecast that less frequent but more intense tropical cyclones and harm to marine ecosystems due to ocean acidification[28, 29] will adversely affect food production.

Potential impacts of climate disruption on food systems and food security

13. Food production in Australia is predicted to decline by 15-30% due to the impacts of climate disruption.[30]

14. It has been estimated that enough food is produced in Australia to feed 61 million people,[31] yet 4% of Australians experience chronic food insecurity.[17]

15. Availability and cost of some foods has already been affected by climate disruption induced extreme weather events.[7] Future food production is likely to be challenged by shorter growing seasons, changing rainfall patterns, faster rates of land degradation, increasing ocean temperatures and rising sea levels.[27, 32] Additionally the quality of crops including fruits, vegetables and grains is likely to be reduced by heat and drought.[33, 34]

16. Australia's population is predicted to double in the next 60 years.[35] In the context of an increasing global demand for food, this projected population increase will further challenge the ability of the food system to deliver a consistent supply of affordable, nutritious food to all Australians.[7, 15, 36]

17. Climate disruption is impinging upon food production directly through, for example, increased temperatures, reduced water availability and changes in frequency and severity of weather events.[19]

18. It is possible that climate disruption and associated phenomena will affect food security in unforeseen ways, such as natural disasters that may interfere with supply chains or compromise the nutritional quality of foods grown.[19] For example, there is some evidence that increased atmospheric CO_2 may be diluting the protein and mineral content of foodplants.[37, 38] Therefore, a precautionary approach to ensuring food security should be adopted.

19. Populations who experience socioeconomic disadvantage e.g., Aboriginal and Torres Strait Islander peoples', people experiencing homelessness, people living in rural and remote areas, the elderly and those already experiencing high rates of food insecurity are likely to be most vulnerable to the effects of climate disruption[19, 33, 39] and may be forced to spend an even greater proportion of income on food.[30]

20. Implementing this policy would contribute towards achievement of UN Sustainable Development Goals 3: Good Health and Wellbeing.

PHAA seeks the following actions:

21. Develop and implement a national food and nutrition security policy that explicitly responds, using both mitigative and adaptive actions, to the threat of climate disruption on food supply and equitable food access. It should be developed with climate change, food system and public health experts, that centres a human rights-based approach to food.[40]

22. Government investment and commitment to developing a rigorous and defensible food security measurement tool and on-going monitoring of food insecurity, especially for high-risk population groups.

23. Reduced involvement of the food industry in policymaking development and decision making.[41]

24. Investment in localised and resilient food systems that protect regional and rural communities from suffering food shortages or accessibility issues associated with natural hazards.[42]

25. Development of a high-level government Climate Change and Food Security Taskforce.

26. A federal government commitment to the Paris Agreement for the 2030 target of zero emissions as well as a renewable energy target beyond 2020.

PHAA resolves to:

27. Advocate for research on the impacts of climate disruption on the food system, health equity, and raise awareness on this issue.
28. Advocate for a national food and nutrition policy that incorporates action to protect food production and the food supply chain from climate disruption, including a food system that can operate in the absence of, or with minimal reliance on, fossil fuels.
29. Advocate for Australia to adopt policies to achieve emissions reductions targets consistent with projections of less than 1.5 °C of warming.
30. Advocate for stronger regulation of the food industry, including more transparency over political donations and lobbying activities, as well as penalties associated with producing and marketing unhealthy and unsustainable food products.[41]
31. Advocate for specific attention to be made for populations at increased risk of food insecurity (e.g., Aboriginal and Torres Strait Islander peoples', people experiencing homelessness, the elderly and those living in rural and remote areas).

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