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## How can food and farming research deliver for the long-term public good?

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It is often said that the food system is broken. Globally, obesity and diet-related disease are increasing<sup>1</sup>. Nutrient levels of fruits and vegetables have declined over the last 50 to 100 years<sup>2</sup>. The University of Sheffield reported in 2014 that British soils may support only 100 more harvests. Industrial farming has created many negative externalities: biodiversity loss; the eutrophication of water courses with phosphorus and nitrogen; the development of antibiotic resistant bacteria in animal production; and the loss of insect pollinators linked to neonicotinoids.

We now understand that current methods of food production present many challenges to sustainability<sup>3</sup>. To meet them, the food system must change. Research is required which places people and diet-related health at the heart of farming and food industry practices, and targets the restoration and enhancement of ecosystem services.

The dilemma is that many of the food system's failings are caused by intensive, high-input agriculture driven by corporate-funded research intended to secure greater profits; but not necessarily to benefit human health and food system sustainability. Solutions enabling long-term sustainability and healthy people may offer reduced profits for corporations. If so, who will fund the research?

The answer is to embed food and farming research strongly within national food policy. Governments must recognise their moral duty to fund such research for the long-term public good.

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- 1 Ezzati, N. (2016) Trends in adult body-mass index in 200 countries from 1975 to 2014: a pooled analysis of 1698 population-based measurement studies with 19.2 million participants. NCD Risk Factor Collaboration. *Lancet*, 387: 1377-96.
  - 2 Davis, D.R. (2009) Declining fruit and vegetable nutrient composition: What is the evidence? *Horticultural Science*, 44, 15-19.
  - 3 Pretty, J. (2014) Agriculture and food systems: our current challenge. In, Rosin, C., Stock, P. and Campbell, H. (Eds.) *Food Systems Failure*. London: Routledge.