



## Speaker Summary Note

**Session:** Innovative Approaches and Initiatives for Better Linking Agriculture, Nutrition, and Health

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The Leverhulme Centre for Integrative Research on Agriculture and Health (LCIRAH) is a new initiative led by a consortium of specialist Colleges of the University of London<sup>1</sup> aimed at building an inter-sectoral and inter-disciplinary platform for integrating research and training on agriculture and health. It engages anthropologists, economists, sociologists, agricultural scientists, public health professionals, and to work together to develop unifying research and training approaches and methodologies. Five-year funding from the Leverhulme Trust is directed at new academic posts and studentships which link agriculture and health units in the different institutions. LCIRAH was created in response to the visible lack of research integration in addressing problems associated with poverty reduction, sustainable development and globalization. Three examples of this:

1. Research investment in improving productivity and production of major crops especially cereals and vegetable oils, has contributed to reduced global prices which, while addressing food security in terms of calories, has imbalanced the composition and quality of foods accessed by poor communities, contributing to the rise in nutrition-related chronic diseases such as obesity and cardiovascular disease
2. Improving incomes has led to a “livestock revolution” with some potential for health benefits especially in low income countries, but also substantial potential risks to sustainability of agricultural production, chronic and acute zoonotic and cardio-vascular disease burden and climate change mitigation
3. Global estimates of hunger are historically based on extrapolations of agricultural production (calorie) estimates and are not gender-sensitive measures of household access to, and consumption of, food and its health effects, making the understanding of agriculturally-based interventions to improve nutrition and health extremely difficult.

The origins of this poor integration mostly lie in academia, where professionals are channelled in their education into separate health and agricultural sectors, with their own, distinct methodologies and disciplinary approaches. LCIRAH is therefore structured so that all activities are joint efforts between health and agricultural specialists, including PhD design and supervision, workshops, courses and publications. Through this process we are gathering valuable experience on how to collaborate and innovate across the health, nutrition and agricultural divides. Some example areas of initial research focus include:

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<sup>1</sup> LCIRAH lead College include London School of Hygiene and Tropical Medicine, School of Oriental and African Studies, School of Pharmacy, the Royal Veterinary College and the Institute of Education.

- Creating a dialogue between specialists on agricultural and health metrics to develop common and improved approaches to measuring the health and nutritional impacts of agricultural interventions, and vice versa. This initiative will begin with an international workshop organized with IFPRI in London in May 2011 that will bring together experts from the health and agricultural sectors.
- Examining how the increasing global sourcing of food is affecting diets and health in low and middle income countries, by changing agricultural systems, patterns of employment and income, local food production and the decoupling of food production, supply and consumption.
- Determining how the evolution of food systems and their rapid globalisation leads to greater levels of health hazard and increased complexity in the prevention and management of food borne and zoonotic disease risks.
- Exploring how longitudinal data sets on rural poverty and agriculture might be better integrated with similar datasets on rural population health, through statistical matching, to better understand the complex relationship between agricultural production, income, access to health care and diet.

By means of example, an early output of LCIRAH focuses on the health and broader economic consequences of meeting healthy eating guidelines (Lock et al. *Lancet* 2010). Using case studies from the UK and Brazil, we demonstrated that meeting international guidelines for saturated fat intake would be good for population health, particularly in the UK where both saturated fat intakes and death rates from coronary heart disease are high. However, using advanced economic models, we showed that as this shift in consumption of saturated fat would result in changes in the production of livestock (the primary source of saturated fat in the diet), meeting dietary guidelines would have significant impacts on economic productivity, especially in the agriculture sector, and with the largest impacts in Brazil where livestock production is a significant part of the economy. By quantitatively linking health policy with agricultural economic productivity we highlight the critical need for cross-disciplinary integrated thinking.<sup>2</sup> LICRAH looks to strengthen and enhance food systems in order to provide safe, high quality, healthy and stable food supplies while at the same time minimising the negative impacts of agriculture and food production that impinge on our health and that of the environment. LCIRAH is a fast expanding initiative based in London and with a truly global outlook: we welcome your future collaboration.

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<sup>2</sup> Lock et al. 2010. Health, agricultural, and economic effects of adoption of healthy diet recommendations. *Lancet* 376, 1699–1709.