In this issue

Richard Strange

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This issue consists of eight papers, five of which have African countries as their subjects, two conference reports and three book reviews. The first group of four papers are all concerned in different ways with the availability and use of resources for agricultural production and directly or indirectly with food and nutrition security. The second group of four papers are predominantly projections into the future for land use, diet decisions in urban agriculture, milk production in India and macroeconomic effects should harvests fail and grain exports be limited.

Charles Bucagu and co-authors examined resource use and food self-sufficiency in Rwanda. Two villages in each of two contrasting agro-ecological zones (AEZs) were surveyed. At both sites two-thirds or more of households were classified in the poorest of three resource categories, cultivating less than 0.2 ha and experiencing food deficit for 4–5 months every year. Calorie and protein availability were insufficient in the poorest resource group in one of the AEZs and in both the poorest and the moderate resource group in the other AEZ. In the latter, closing the maize yield gap would result in doubling the energy and protein intake.

Nianjie Liu and co-authors report the results of a survey of 246 informants on the soil fertility and fertilizer constraints for rice and wheat in three intensive farming systems on the Indian subcontinent (India, Bangladesh and Nepal) and three in China. For rice, depletion of soil fertility and nitrogen deficiencies were usually responsible for decreased yields while, for wheat, these were caused by deficiencies not only in nitrogen fertilizer but poor management of other fertilizers as well. Remedial actions suggested include systematic testing of soil fertility, appropriate government subsidies for fertilizer,

better management of fertilizer nutrients and improved varieties of the two cereals.

Although there has been rapid macroeconomic growth in Mozambique, Arthur Mabiso and co-authors draw attention to the fact that between 2002 and 2008, food insecurity in rural areas of the country had actually increased. This was because progress with the drivers of food security - increases in cash income per capita, receipt of agricultural extension services and increases in agricultural output and productivity - did not occur. It is to be hoped that the improvement of the country's economy, as a consequence of the projected energy boom, will enable appropriate attention to be paid to these drivers.

In recent years, nutrition-sensitive agriculture has made rapid progress up the international agenda on food security and its application in Bangladesh is reviewed by K. M. M. Rahman and M.A. Islam. There has been considerable progress with reduction of deficiencies in vitamin A and iodine, the latter owing to the availability to an increased proportion of the population of iodized salt. Progress in other spheres include significant increases in the production of rice, potato, vegetables and the aquaculture of small fish. The authors particularly single out the Adivasi Fisheries Project as one that has been very successful in up-scaling the nutritional status of the poor and ultra-poor in the north-western and northern regions of Bangladesh. However, undernutrition of children under 5 years old is still rife in the country with 41 % stunted, 16 % wasted and 36 % underweight.

The paper by Shinichiro Fujimori and co-authors is the first of the four in which projections for the future are made. They point out that one of the key elements in general equilibrium models on a global scale for food security and agricultural assessment is land use. Constant elasticity transformation (CET) and logit functions in future scenarios were compared and the logit approach was found to be preferable if there were marked changes in consumption preferences from the

R. Strange (✉)
Birkbeck College, University of London, London, UK
e-mail: r.strange@sbk.bbk.ac.uk

base year, or if region-specific variables were the main focus of the study rather than global aggregates.

James Ward and co-authors used Linear Programming to explore dietary preferences (high meat versus vegetarian) and the possibility of urban agriculture making a significant contribution to food security in Northern Adelaide, Australia. They found that the optimal crop regime in urban agriculture and its impact depended on diet, especially how much meat was consumed. However, a typical suburban backyard could produce 10–15 % of dietary protein with or without chicken meat, allowing savings of around AU\$1 per person per day.

Whether or not India can remain self-sufficient in milk production up to 2026–7 (the end of the XIVth 5 year Plan) is the question addressed by Anjani Kumar and co-authors. They point out that milk and milk products are an important constituent of the Indian food basket and expenditure per capita on them increased from 11.5 to 14.9 % in rural areas and from 15.7 to 18.4 % in urban areas between 1983 and 2009–10. In order to meet the demand projected for 2026–7, they calculate that India would need to maintain the current growth rate of 3.7 % per annum and could become an exporter if the rate were higher.

The last paper is a macroeconomic review of the effects of grain export restrictions in Russia, Ukraine and Kazakhstan (RUK) on global food security. These countries are major grain exporters but, in the last decade, exports were repeatedly diminished by poor harvests and export restrictions. Thomas Fellman and co-authors, using AGLINK-COSIMO, a partial equilibrium modelling framework and the main tool of the OECD-FAO agricultural outlook process, showed the importance of RUK's grain production for world markets and global food security. Limited production would cause substantial price increases and these would have adverse effects on importing countries. The authors therefore advocate greater cooperation among exporting countries in order to avoid this.

Timothy R. Frankenberger and Mark A. Constan review the International Food Policy Research Conference 'Building Resilience for Food and Nutrition Security' which took place in Addis Ababa from 15th to 17th May 2014. There were 800 participants including high-level political figures, practitioners and academic researchers. Unsurprisingly, considering the title of the conference, resilience in different contexts was a recurring theme. Perhaps one of the most succinct statements to come out of the conference was that we should "manage risk, not disasters".

Rebecca Kanter and co-authors report on the 4th Annual Conference of the Leverhulme Centre for Integrative Research on Agriculture and Health (LCIRAH). This has the title 'Agri-food policy and governance for nutrition and health' and was held in London on the 3rd and 4th June 2014. Four themes were addressed: Institutions for nutrition and health; Food systems policies; Trade policy, supply chains and macro-modeling; and Governance and policy analysis. One of many phrases that stood out for me was 'nutrition through agriculture'. This crystallizes what agriculture is fundamentally about – feeding people an appropriate diet.

The third International Food Policy Research report with the title '2013 Global Food Policy Report' is the first of the three book reviews. The book consists of eight chapters and within each of these there is one or more short features, illustrating particular points of relevance. Dr Shenggan Fan, the Director General of IFPRI contributes not only the Preface but is also a co-author of two of the subsequent chapters. The second of these has the title 'An Ambitious Development Goal: Ending Hunger and Undernutrition by 2025'. The obvious enthusiasm of Dr Fan and the generally upbeat character of the contributions give the reader a real sense that, at last, ending hunger and undernutrition is achievable and that it should be so by 2025 makes it a worthy successor to the Millennium Development Goals.

Elske van der Fliert reviews 'Farmer field schools – From agricultural extension to adult education' by Hugh Waddington and Howard White. This volume represents about 460 reports and publications and involves over 300 farmer field schools projects worldwide. It must have been a huge task to compile and could not have been helped by the debate about impact. This apparently has become polarized between economists on the one hand and extension/education specialists on the other. Couldn't this argument be resolved by hard empirical data – surely available among so much data?

The final book, reviewed by Steve Hughes, is 'Achieving food and environmental security: new approaches to closing the gap' and is edited by Guy Poppy, Paul Jepson, John Pickett and Michael Birkett. The volume is a special issue of *Philosophical Transactions B of the Royal Society* (volume 369, number 1639, April 2014) and consists of 16 articles by individual authors. Much is made of sustainable intensification and how this may be achieved in a durable manner by the application of fundamental knowledge of plants and their physical and biological environments.