



## In this issue

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This issue starts with a special section of five papers about the Food Insecurity Experience Scale and is followed by an Opinion Piece, a Review, 13 original papers and two book reviews.

Arlette Saint Ville prefaces the special section with an introductory paper, drawing attention to the utility of the Food Insecurity Experience Scale (FIES) as one that can be used internationally. Scoring is done by summing the positive answers to eight questions ranging from “Were you worried you would run out of food because of a lack of money or other resources?” to “Did you go without eating for a whole day because of a lack of money or other resources?” The five succeeding papers give empirical examples of successful use of the scale in different environments.

The special section is followed by an opinion piece, *Reconsidering the overlap in global food security governance*. Here Angela Heucher considers common assumptions about overlaps among organisations concerned with food security, including that *overlap is a recent phenomenon*, *the undesirability of overlap*, and that *overlap is manageable and solvable*. She suggests that if overlapping is an enduring feature of food security governance and difficult to solve, International Organisations may need to adapt to this reality. For example, some degree of overlap may be acceptable, perhaps for a limited period, and may promote competitiveness which could result in outcomes of better quality.

In the first of nine papers dealing with different aspects of the provision of food and nutrition, Hamid El Bilali systematically reviews research on transitions towards sustainability in agriculture and food sectors. He points out that most of the available research focuses on crops and the production stage and asks where are food security and nutrition?

These themes are taken up in the next paper in which Jennifer Sowerwine and co-authors examine the specific case of the tribes in the Klamath river basin of Oregon and California. They found extremely high rates of food insecurity owing to limited access to Native foods and conclude that there is a growing realisation of the value of Native food systems. These have the potential to revitalize the health and well-being of Native American communities, an important aspect of which is the establishment of sovereignty over their food systems.

Vijay Pandey and co-authors point out that production of pulses (otherwise known as grain legumes) and ensuring their affordability for consumers are major concerns of policymakers in India. They examined barriers to the production of pulses in eastern India and consumption coping strategies employed by households in Bihar and Odisha states in response to increases in their prices. Certified quality seed and effective extension services are needed to encourage farmers to increase pulse production. The authors also advocated the inclusion of pulses in the public distribution system as, in response to increased prices, poorer consumers resorted to food of lower nutritive value.

Whether or not a new variety of an important crop is grown by farmers and becomes accepted by consumers is a serious issue in food security. Following on from the previous paper, Pepijn Schreinemachers and co-authors quantified the adoption of improved varieties of the pulse, mungbean (*Vigna radiata*) in Asia. They report remarkable success with improved varieties being grown on 94% of the mungbean area in Pakistan, 89% in Myanmar, 82% in India and 72% in Bangladesh. Because of wide variation in the adoption of improved technologies, further increases in yields are possible with the greater employment of line sowing, mechanical harvesting and seed treatments with biofertilizers and biopesticides.

Charlotte Hall and co-authors examined the relationship between forest cover and diet quality in rural southern Malawi. They suggest that forests can provide healthy and nutrient dense foods and also act as a source of income. Households located near forests had significantly improved vitamin A adequacy

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and intake of the vitamin was significantly improved by the consumption of wild plants.

Christine Bosch and Manfred Zeller investigated the relationship between wage work for a large-scale *Jatropha* project in Madagascar and household food security, measured as dietary diversity and food provision during the lean season. They found that *Jatropha* wage work contributed significantly to dietary diversity but did not reduce lack of food during the lean season, possibly owing to less storage of rice. Food production and consumption were strongly influenced by seasonality, drought and locust shocks.

Seasonal variation in household food security and dietary diversity and their association with maternal and child nutrition in rural Ethiopia were studied by Kedir Roba and co-authors. They used three food access indicators (cf. the special section in this issue) – household food insecurity access scale (HFIAS), household dietary diversity score (HDDS) and household food consumption score (HFCS). In both pre- and post-harvest seasons HFCS was related to maternal body mass index and haemoglobin, and weight-for-length of their children. HFCS was a better predictor of nutritional status of mothers and children in both the food surplus and lean seasons and HDDS was a better predictor of maternal and child nutritional status post-harvest. Targeting of nutritional interventions to households and to individual mothers and children were therefore recommended.

Rainier Masa and Gina Chowa examined the correlation between the consumption of animal source food (ASF) and the psychosocial functioning of 326 adults living in a rural district of Western Uganda. ASF consumption was positively and significantly associated with orientation toward success, positive expectations for future economic conditions, and self-perceived health. However, the increasing prevalence of overweight and obesity was also associated with high ASF consumption, suggesting that an integrated approach will be required to tackle the double burden of malnutrition.

One in four South Africans are food insecure yet large numbers of South Africans receive social grants (public transfers) or remittances (private transfers). Jennifer Waidler and Stephen Devereux found significant and positive impacts of the Older Person's Grant and of remittances on the dietary diversity index, but not of the Child Support Grant. However, there were some positive effects on children's Body Mass Index from the latter.

Evidence of the effect of non-farm employment is discussed in the next two papers. Using panel data from 561 households in rural Cambodia, Truong Lam Do and co-authors found that: nonfarm employment contributed about 32% to total annual household income for the whole sample and 57% for the households with nonfarm employment; participation in nonfarm employment and nonfarm income were significantly influenced by several factors, including the

education level of household heads, farmland size, conditions of roads to the villages, and the distance from home to the nearest market. The authors suggest that promoting rural education, improving road conditions and empowering rural households to cope with income shocks would contribute to developing nonfarm employment and consequently improve food security of rural households.

In the extreme case of envisioning out-migration as non-farm employment, Jeeyon Kim and co-authors examined its effects on household food security in rural Nepal. About 90% of the migrants were men, leaving the women behind. This male out-migration both alleviated and exacerbated household experiences of insufficient quantity and inadequate quality of food, and uncertainty and worry about food. Alleviation occurs through remittances sent to those who stayed behind, which helps to cover basic expenses, facilitate loans and credit and reduce worry about having enough to eat. On the downside, besides dividing families, men working in India report unsafe and difficult conditions and women bear additional childcare, fieldwork, and housework responsibilities. Lack of male agriculture labour also reduces agricultural productivity and increases households' reliance on markets. The authors stress the importance of looking beyond the financial aspects of migration when examining its effects on food security.

In the final paper, Miranda Svanidze and co-authors examine the functioning of the wheat market in Eurasia on food security. They found that there was a strong influence of trade costs in Central Asia, while these were minor in the South Caucasus. The authors suggest that trade costs should be reduced in Central Asia by investment in grain market infrastructure, elimination of 'unofficial payments', and resolving geopolitical conflicts. Also, since long distances characterize the wheat trade in this area, policies to increase wheat self-sufficiency should be adopted in order to improve food security.

Geoffrey Banda found Shashidhara Kolavalli and Marcella Vigneri's account of *The Cocoa Coast: The Board-Managed Cocoa Sector in Ghana* fascinating. Ghana was the largest cocoa producer in the world in 1964/5 with annual production of 581,000 t, but this had fallen to 160,000 t by 1983/4. However, by 2010/11 production had risen to 1 million tonnes. Plant pathologists will be interested to know that the control of black pod disease was responsible for part of this success.

Richard Bretell found that *The Commons, Plant Breeding and Agricultural Research: Challenges for Food Security and Agrobiodiversity*, Edited by Fabien Girard and Christine Frison generally provides a balanced account of the relationship between plant breeding and the commons and benefitted from having contributors from a diversity of fields, including economics, law, environmental science, agronomy, social anthropology, and social science. However, he thought it fell short on issues relating to food security, and in connecting what is occurring at a local level with the global context.