

## In this issue

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This issue begins with the introduction of the new Senior Editor for nutrition and sociology, Professor Andrew Jones of the University of Michigan, who will be taking over from Anna Herforth. It is followed by an opinion piece, written by members of the Task Force for Food Security, established as a subcommittee of the International Society of Plant Pathology in 1999 in response to Norman Borlaug's challenge to the society to do something about food security. The piece is a position paper, setting out a rational case for the introduction of genes conferring disease resistance in plants through human intervention, using methods other than cross-fertilization. There follow 10 original papers a conference report and two book reviews.

In the first original paper, Craig Hadley and Matthew Freeman propose a water insecurity scale analogous to the Household Food Insecurity Access Scale. Using the scale before and after a water and sanitation intervention in Ethiopia, they found that household water insecurity scores improved by 55 %. The scale also predicted the occurrence of diarrhoea among children.

The next two papers also have a water context in that they deal with fish. The first, by Durdana Islam, is concerned with Indigenous Peoples in northern Canada, whose experience of food insecurity is more than double that of all Canadian households. However, the Cree community of Norway House in northern Manitoba, may be an exception owing to their culture of sharing their fish harvests extensively through their families and communal networks, reaching almost half of the total population in the community.

Upali Amarasinghe and co-authors report that, owing to a still increasing population, an extra 30–40 million tonnes of food fish will be required by 2050. As the catch by marine fisheries is plateauing, the gap will have to be met from other sources, such as aquaculture. The authors point out that, in Sri Lanka, small indigenous species (SIS) of fish, which are highly nutritious and may be obtained from reservoirs and lakes, could fill this gap. However, regulatory constraints on the means of catching them, which do not adversely affect existing commercial fisheries, should be established.

Still concerning the physical environment, Steven Vanek and co-authors investigated the links among soil regeneration, food security and nutrition outcomes in Andean subsistence agro-ecosystems. They found that food security was unrelated to child height but better child nutrition and feeding practices in some households were related to the conservation of soil fertility.

Christina Handschuch and Meike Wollni write that increasing agricultural productivity through the dissemination of improved cropping practices remains one of the biggest challenges of this century. However, projects with this aim are usually focused on cash crops and the main staples. In contrast, the authors studied finger millet, a representative of traditional crops, which enhance micronutrient availability and have the ability to withstand climate change. They found that modern varieties and chemical fertilizers improved finger millet yields and that social networks and access to extension services were important for their adoption.

Keeping to the theme of improved technology, Emiliano Magrini and Mauro Viganì also studied the impact of improved seeds and inorganic fertilizers, but on the staple crop, maize, using as their metrics the four pillars of food security: availability, access, utilization, and stability. While improved seeds and inorganic fertilizer showed positive and significant effects on availability, the effects for both techniques on

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access, utilization and stability as well as the two techniques themselves were more variable. They suggest that these results show that food security is a complex phenomenon, which cannot be limited to the use of welfare indexes as proxies.

In the last four papers we move to less direct aspects of food security. Pigeon pea is a legume with high protein content and drought tolerance. Consequently, it is favoured in the dry regions of eastern Kenya. Other factors, which also favour adoption, are the seed properties of the plant. Accordingly, in order to further adoption of the crop, Modesto Olanya and co-authors tested the reaction of farmers and consumers to 12 cultivars on the basis of six seed parameters: colour, appearance, taste, aroma, tenderness and overall acceptability. Six of the 12 cultivars were preferred.

Maurice Mutisaya and co-authors, in a longitudinal study of the effect of education on household food security in two informal urban settlements in Kenya, found that the prevalence of severe food insecurity diminished from 49 % in 2008 to 35 % in 2012. Regarding education, the probability of being food insecure decreased by 0.019 for a unit increase in the average years of schooling for a given household. They suggest that reduction of the food security of the urban poor and investment in the education of slum households should be priorities.

In the penultimate paper, Catherine Ragasa and co-authors describe the effectiveness and challenges of participatory governance in the Democratic Republic of the Congo by way of studying 55 local-level Agricultural and Rural Management Councils (CARGs) in 23 randomly-selected territories in the western part of the country. Disappointingly, they found that although the majority of stakeholders interviewed were aware of CARGs, only 33 % attended CARG meetings and thought they were useful and only 11 % reported having benefitted from CARGs or knew someone who had.

Finally, Tesfamichael Wossen and co-authors examined the impact of shocks on food security and the insurance role of social capital and informal social networks. Households with high social capital were able to smooth consumption, providing the shock did not affect the whole risk-sharing network. In this latter instance, formal policy interventions such as access to consumption credit and safety nets are the only effective ways of insuring food consumption.

The conference report by Peter Richards and co-authors is of a roundtable discussion with the title *Cities and the Future of Agriculture and Food Security*, which took place in Washington D.C. in March 2016. The brief was to assess the successes and challenges of the Feed the Future Initiative, which was launched by the United States in 2010. These were discussed under five headings: Urbanization - Drivers, Trends, and Trajectories; Urbanization - needs and opportunities; Secondary Cities and Agri-Food Value Chains; Urbanization and the Future of Farming; and Policy Implications and Future Trajectories for Food Security Programming. The report makes good reading for all who are concerned with these complex issues.

Steven Yearley reviews Nicholas Stern's book *Why Are We Waiting? The Logic, Urgency, and Promise of Tackling Climate Change*. The author is well known for his economic argument for the reduction of greenhouse gases but, in this book, he makes it with renewed urgency as these gases remain in the atmosphere for a long time. Steve concludes his review with the statement that 'Stern has neatly expressed some, but not all, of the reasons we're still waiting'.

Peter Gregory reviews S.B. Sharma and J.A. Wightman's book *Vision Infinity for Food Security - Some Whys, Why Nots and Hows!* Unfortunately, he found it a frustrating read, one reason being that many assertions were questionable.