Alerts for policy makers extracted from papers published during 2011 in volume 3 of Food Security

Richard Strange

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It is hoped that some of the points listed below will be of immediate value to Policy Makers concerned with food security issues. (Numbers after each entry refer to the relevant pages in Volume 3 of the journal. Entries without numbering may be found in the December issue).

Food Security

1. **Food self-sufficiency:** Elisabeth Simelton assesses the food self-sufficiency of China in the event of floods and drought (pp.35–52).
2. **Food security in Uzbekistan:** Kirsten Kienzler and co-authors assess the food security situation in Uzbekistan with particular reference to the question of the desirability of investing in improvement of the quality of local wheat in order to reduce dependence on imports (pp. 53–64).
3. **Food security in Bangladesh:** Nesar Ahmed and Stephen Garnett highlight the advantages of rice-fish farming over rice monoculture which cannot provide a sustainable food supply and is less nutritious (pp. 81–92).
4. **Agriculture and food security in selected countries in Sub-Saharan Africa:** Jan de Graff and co-authors analysed food security and food production of eight sub-Saharan countries over the last 40 years. They argue against the “one size fits all” approach and conclude that more attention should be paid to country specific constraints and opportunities (pp. 195–213).
5. **Climate change adaptations for food security in the Lower Mekong Basin:** Mohammed Mainuddin and

co-authors paint an optimistic picture of food security in the Lower Mekong Basin in 2050 despite projected climate change and increased population.

Agricultural Research and Sustainability

1. **Food Security in the Arab World—Partnerships for a sustainable future:** This is the title of the first supplement of Food Security. There are 13 papers covering a range of topics including three dealing with international investments in developing countries, one of which specifically deals with the topic of making them pro-poor and sustainable (S1–1173).
2. **Crops that feed the World:** There are five overviews in the “Crops that feed the World” Series: **Soybean** by Glen Hartman and co-authors (pp. 5–17), **Lentil** by William Erskine and co-authors (pp. 127–139), **Barley** by Andrew Newton and co-authors (pp. 141–178), **Sweet potato** by Swapan Mukhopadhyay and co-authors (283–305) and **Maize** by Bekele Shiferaw and co-authors (307–327). These papers may be of assistance to those already growing the crops and to others who may be considering planting them in new environments.

Physical Environment Issues

1. **Water-related constraints in South Asia:** Xiaoyun Li and co-authors consider the importance of drought, difficulties in accessing irrigation water, poor water management and water-logging and flooding of low-lying fields as constraints to the production of major food crops in South Asian farming systems (pp. 19–33)
2. **The critical role of phosphorus in world production of cereal grains and legume seeds:** John Lott points out that sources of phosphorus, a major plant nutrient, are finite and suggests means of conserving them.

R. Strange (✉)
Department of Biological and Chemical Sciences,
Birkbeck College, University of London,
Malet Street,
London WC1E 6BT, UK
e-mail: r.strange@sbk.bbk.ac.uk

Biological Environment Issues

1. **Integrated pest and disease management:** Rosalie Daniel and co-authors describe the triumphs and challenges of transferring integrated pest and disease management technologies to farmers in Papua New Guinea (pp. 65–79).
2. **Reduction of the incidence of postharvest quality losses, and future prospects:** According to an FAO commissioned study, about one-third of the food produced in the world for human consumption, amounting to approximately 1.3 billion tonnes per annum, is lost or wasted. As Dov Prusky points out, one of the reasons is loss in storage which can be particularly acute in Developing Countries that lack refrigeration and controlled atmosphere facilities.

Crop Health

1. **Threats to cassava production:** Beatriz Campo and co-authors have examined the potential geographic range of four of the most serious pests and diseases of cassava: whiteflies, cassava green mites, cassava mosaic disease and cassava brown streak disease. They conclude that suitable conditions for the pests and diseases occur far outside their current range and that they will require more intense monitoring and research in order to prevent yield losses and ensure food security (pp. 329–345).

Nutrition and Human Health

1. **The HIV and urban food security nexus in Africa:** Jonathan Crush and co-authors draw attention to the reciprocal relationship between HIV and urban food security and advocate a new social framework which incorporates, but is not constrained by, the nutritional impacts of the epidemic (pp. 347–362).
2. **Harmonizing agriculture and health sector actions to improve household nutrition: policy experiences from Afghanistan (2002–2007).** Emily Levitt and co-authors present an alternative to a national body coordinating nutrition and agriculture in order to reduce endemic undernutrition. They advocate the formation of mid-level professionals mobilized into task forces working together with national and international partners to build capacity through local institutions (pp. 363–381).
3. **The importance of ensuring both food and nutritional security in attainment of the Millennium Development Goals:** J.D.H Keatinge and co-authors draw attention to the low investment in vegetable research, crops that would do much to alleviate malnutrition.

Socio-Political and Economic Issues

1. **Energy crops:** Ray Bressan and co-authors take the view that food crops should not be considered as energy sources and instead suggest that “extremophiles” (plants that grow in extreme environments) should be exploited instead pp. 93–105.
2. **Agriculture production and food subsidies in high mountain regions:** Juliane Dame and Marcus Nüsser state that, although subsistence agriculture still forms the mainstay of food security in mountainous regions, in the last two decades there has been livelihood diversification and increased off-farm income opportunities. They argue that food subsidies need to be tailor-made to suit the requirements of these areas (pp. 179–194).
3. **The role of female farmers in Western Sudan in achieving household food security:** Fatma Ibnouf points out that women are the major producers of food for their households in an area that is afflicted by conflicts and a high risk climate. Nevertheless, gender disparities and gender-biased traditions mean that they lack access to a whole range of agricultural aids to production, including improved seed, fertilizers, modern farming methods, credit services, pesticides, appropriate technology and marketing facilities (pp. 215–231).
4. **Expanding the boundaries of agricultural development:** Rosamond Naylor argues that a broader concept of agricultural development than is generally recognized is required to meet the challenges of human welfare and international security. This would take in macroeconomics, climate change, deforestation, land access and land markets, farming systems and technology for the ultra-poor and food-health linkages with a specific focus on infectious disease (pp. 233–251).
5. **Demand patterns for rice imports in Malaysia:** Malaysia currently imports more than a quarter of its annual rice demand and is likely to remain a net rice importer for many years to come. During the Food Price Crisis of 2007/08 difficulties were experienced in sourcing rice imports. John Tey and Alias Radam therefore advocate a multi-sourcing strategy in order to mitigate the possibility of future disruptions to supply from the current limited sources (pp. 253–261).
6. **The Mexican corn market and Mexican food security:** José García-Salazar and co-authors advocate continuation of a scheme (PROCAMPO) for transfer payments to Mexican farmers that compensates them for subsidies received by foreign competitors as it is less expensive than the benefits resulting from the scheme.
7. **A Food Systems Approach to researching food security and its interactions with Global Environmental Change:** John Ingram summarises the complexities of the interaction of food security and global

environmental change and highlights where further research is required.

8. **Improving market access and agricultural productivity growth in smallholder agriculture in Africa:** Bekele Shiferaw and co-authors emphasise the importance of Producer Organizations and Collective Action Institutions in these activities and stress that they should have transparent governance, be of appropriate size and be oriented towards markets.
9. **Vulnerability in crisis: Urban household food insecurity in Epworth, Harare, Zimbabwe:** Besides the general risk factors for food insecurity of high unemployment and poverty, high numbers of dependents per household and low levels of house ownership in the rapidly growing populations of Sub-Saharan African cities, Godfrey Tawodera calls attention to factors more specific to Zimbabwe—hyperinflation affecting food prices and the general collapse of the formal food system. These can only be laid at the door of poor governance.