

Cambridge Seminar on Food Security, May 2015

The Tropical Agriculture Association (TAA) East Anglia Branch and the Cambridge Humanitarian Centre arranged a seminar on the theme of 'Assuring food security to 2050, including implications for climate change and biodiversity loss', in collaboration with CambPlants Hub, Cambridge Conservation Forum (CCF) and the University's Global Food Security strategic initiative (GFS). With some 50 people attending, the seminar proved to be a great success. It was opened by Keith Virgo (TAA Chairman) and Lara Allen (Director of Humanitarian Centre), with brief descriptions by Mariana Fazenda and Will Simonson of the work of our other partners. Two speakers, who looked at the opposite sides of the food security issue, made presentations.

Dr Bojana Bajželj (Cambridge University Engineering Dept) looked at means to manage food demand, examining 'The importance of shifting dietary preferences and addressing food waste for food security and sustainability'. In a recent paper in Nature[1], Bojana and her co researchers identified three imperatives for ensuring food security without adverse impacts on biodiversity and climate change: (1) closing gaps in crop yields, (2) cutting food waste and (3) limiting the consumption of overall calories, including those from meat and dairy, to the point which nutritional experts recommend on health grounds. By halving food waste and supposing the whole world enjoyed balanced diets with moderated meat consumption, the model predicted a 50% reduction in food greenhouse gas (GHG) emission, which is in line with emission reductions by 2050 needed to avoid dangerous climate change.

Prof Amir Kassam (University of Reading & UN Food & Agriculture Organisation - FAO) and Dr Gottlieb Basch (University of Evora, Portugal, and President of the European Conservation Agriculture Federation, ECAF) then presented their paper on ensuring the supply side of food production: 'Mobilizing greater crop and land potentials: replacing the faltering engine'. They explained that the engine of the supply side of food security is the way we farm. The current engine of conventional farming method is seen to be faltering and needs to be replaced. The presentation focused on the new paradigm of Conservation Agriculture (CA) (involving no-till farming with mulch soil cover and diversified

cropping) that raises productivity sustainably and efficiently, reduces inputs, regenerates degraded land, minimises soil erosion and harnesses the flow of ecosystem services. There is empirical and scientific evidence that future food supplies can be assured sustainably by shifting away from conventional agriculture towards the more sustainable paradigm of CA. They suggested that the supply side of future food security will be determined by how successful we are in facilitating the global up-scaling of this new engine of sustainable agriculture - Conservation Agriculture.

Ample time was allowed for interactive questioning and discussion of each presentation. The range of interests of participants was illustrated by the diversity of issues discussed, from impacts of CA on birdlife to alternative uses of grass if not consumed by cattle and sheep.

Special thanks are due to Emily Brocklebank of the Humanitarian Centre for her efficient organisation and logistics management of the seminar. We were also grateful to Hughes Hall for provision of the Pavilion Room. We are pleased to say that £50.00 was donated to the TAAF and that ECAF joined the TAA as a corporate member, through Gottlieb Basch. The full papers will be published in our agriculture for development journal. The Humanitarian Centre is preparing podcasts.

[1] Bojana Bajželj, Keith S. Richards, Julian M. Allwood, Pete Smith, John S. Dennis, Elizabeth Curmi & Christopher A. Gilligan. 2014. *Importance of food-demand management for climate mitigation*. Nature Climate Change 4, 924–929.



The Speakers (centre) and Organisers