

Aligning competing risks? The UK Global Food Security programme

Antoine de Raymond highlights wider implications for risk regulation

Food security has risen to the top of national and international agendas following the 2008 food crisis. In response to that crisis, caused by rising food prices, a number of initiatives have emerged; for example, the reform of the Committee on World Food Security, hosted by the Food and Agriculture Organization (FAO), the creation of a High Level Panel of Experts (HLPE) on food security and nutrition by the United Nations in 2010, or the launch of an Agricultural Markets Information System (AMIS) by the G8/20 in 2012. In that year, the G8, together with major philanthropic foundations, put in place the 'New Alliance for Food Security and Nutrition', in order to encourage private investment in agricultural technology in developing countries, especially in Africa.

All of these initiatives relate to what is commonly called the 'global governance' of food security, and the collective effort to free developing countries from hunger and malnutrition. Less attention has been paid to the process through which developed countries re-import concepts and tools from development policies (such as food security) to reflect upon their own situation. Similarly, limited attention has been paid to the consequences of this process in terms of food regulation. Food security can be used to reconsider the debate around agricultural technologies in developed countries (see Dibden et al., 2013). The example of the UK Global Food Security (GFS) programme, a domestic research programme launched by the UK Government in 2009 to co-ordinate public funding in food and agriculture-related research, offers important insights into the potential implications of such programmes for risk regulation. The global food security approach represents a comprehensive framework that allows for the measurement of trade-offs between competing policy objectives. This, in turn, may have implications for technology risk assessment.

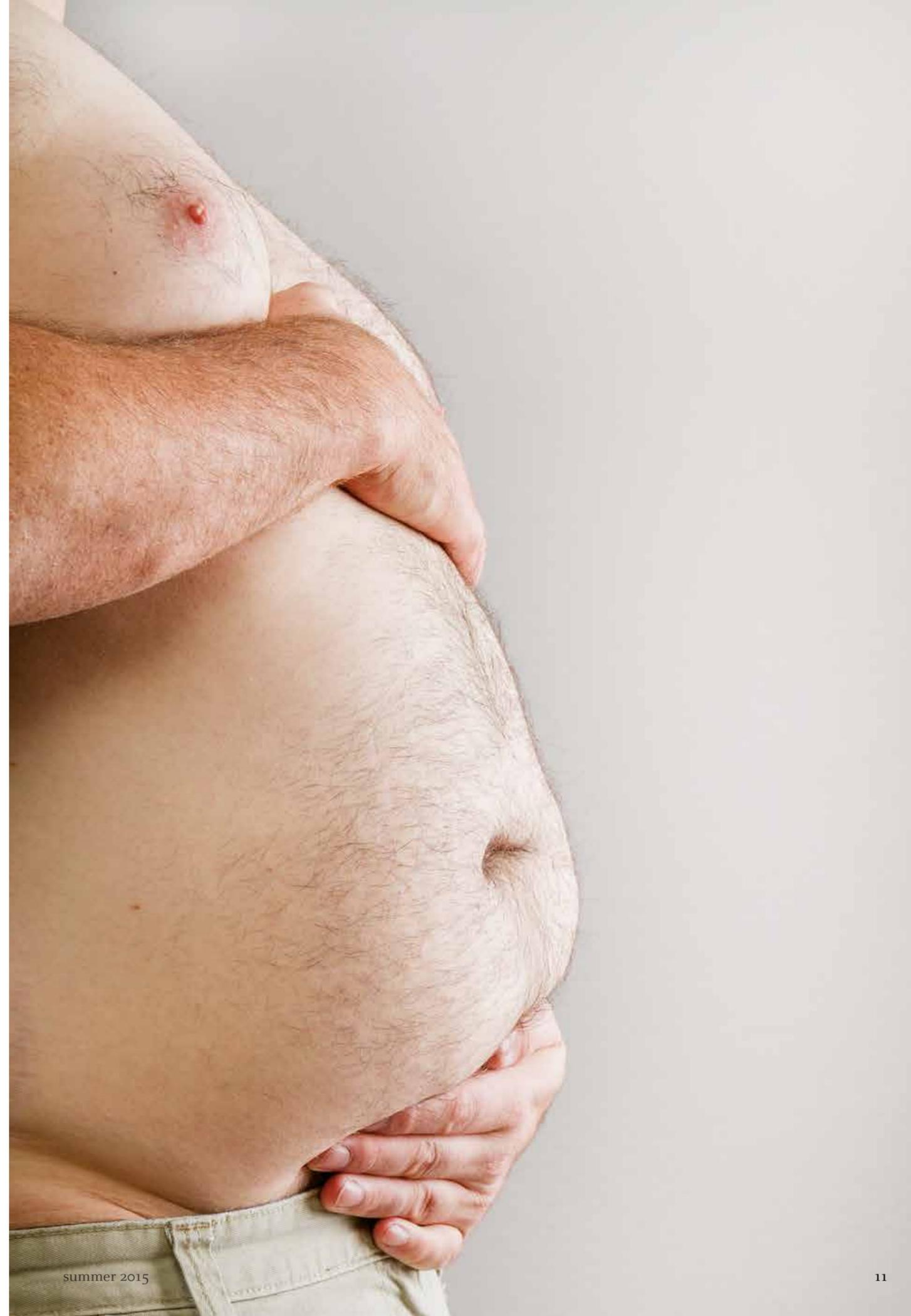
The UK GFS programme was launched in the context of the warning of a 'perfect storm' by the Government Chief Scientific Adviser, John Beddington. According to Beddington, by 2030, the combined effects of various global factors could potentially destabilize the global food system and result in major political, economic and social crises across the world. This warning was followed by a report on the 'Future of food and farming' (Foresight, 2011). Both Beddington and the report concluded that in order to avoid major food crises, urgent action was needed and that there was no other solution than globally increasing food production.

The UK GFS programme was set up to respond to this call for action. The UK GFS objective is to enhance food production without harming the environment, a double bind which is sometimes expressed as 'producing more, on the same amount of land'. Like Living With Environmental Change (LWEC), UK GFS is an inter-agency programme. It brings together various research councils and government departments, and is hosted by the Biotechnology and Biological Sciences Research Council (BBSRC). The programme does not directly conduct research on food security, but co-ordinates existing research across councils and departments. It is about raising new issues, and keeping food security on the scientific and public policy agenda. This results in activities of synthesis, horizon scanning, and prioritization of research issues. The UK GFS programme thus seeks to identify issues that are relevant for food security which are then to be addressed by academic research. One further aim of the programme is to encourage partnerships between academic and corporate research in order to foster innovation in agricultural technology. In addition, the government complements the UK GFS programme with the 'Agri-Tech Strategy', which co-funds innovation in agriculture.

To summarize, the global food security approach assumes that, due to global changes (climate change, shrinking resources, rising food and water demands), there are new drivers of food security. In addition, this approach assumes that the global food system is currently moving from an era of over-abundance to a new era of scarcity (of both agricultural inputs and outputs). Global food security responds to that challenge by seeking a new wave of agricultural innovation (based on new technologies, such as biotechnologies, nanotechnologies or information technologies) that would enable the achievement of both growth and sustainability.

While the UK GFS programme is intended as a research programme, it is also meant to inform policy making. It is therefore likely to have consequences for risk definition and regulation. Discussing potential consequences might be somewhat speculative as the programme is still in its infancy. GFS operates as a comprehensive approach that seeks to articulate and align various (potentially competing) objectives. One notable effect of the global food security approach is to go beyond single-issue based policy making, and to rank food policy priorities.

Take 'food safety' as an example. Food security does not work as an alternative to food safety, but integrates it into a wider framework by articulating the objective of delivering safe food to consumers with other objectives such as the availability and the affordability of food, or environmental protection. In other words, safety risk is not set aside but modulated, or adapted according to other risks (production, price, biodiversity, etc.). So, the way in which UK GFS innovates is not by designing new agricultural models, new standards, new diets, or such like, but in developing new ways of thinking about existing models and standards. For instance, the Foresight report (2011) advocates new ways of evaluating technology in general, and





agricultural technology (such as genetic engineering) in particular: 'Decisions about the acceptability of new technologies need to be made in the context of competing risks (rather than by simplistic versions of the precautionary principle); the potential costs of not utilising new technology must be taken into account' (p. 11). In general, UK GFS promotes an economic vision of risk, and challenges with this vision the dominant qualitative understanding of risk. In other words, GFS assumes that environment or health protection should not be imposed at the expense of growth or affordability. Accordingly, UK GFS can be seen as a form of meta-knowledge, primarily consisting of re-arranging issues.

Ideas of multiple and competing risks and of inter-relatedness of issues may have practical effects on risk assessment and policy making. One way in which these ideas could translate into actual policy making can be found in the call, often made by participants to the UK GFS programme, to break away from universal solutions ('panacea') to global issues and to adopt context-based decisions, following the most appropriate trade-off between competing objectives. For instance, rather than trying to identify the one best agricultural model that could 'feed the 9 billion' in 2050 (organic farming versus genetic engineering, for example), some UK GFS participants propose to look at this issue differently. They advocate choosing among available ways of farming according to regional contexts in order to optimize the double imperative of raising food production and protecting the environment (biodiversity).

This corresponds to what the 'champion' of the UK GFS programme (Tim Benton) calls the 'place dependency and context dependency' of sustainability. This approach could have much wider implications. Regulation usually implies that each parameter meets only one value for all actors: one price for a given commodity, one risk threshold to authorize a product, one standard to appraise quality and so on. The GFS approach suggests that individual parameters are constantly adjusted according to other parameters. This is done by measuring trade-offs between these parameters. In so doing, the GFS capitalizes on and facilitates some existing practices. For example, instead of selling a given yogurt for a single price, some retailers are willing to adapt the price depending on how close this yogurt is to its expiry date.

The adoption of the notion of food security, while claiming to refer to a global approach, is likely to impact on domestic or regional regulation (see Dibden et al., 2013). It promotes a specific approach to risk assessment which results in the re-ranking of food policy priorities. It notably re-legitimizes quantitative aspects of food production over qualitative aspects. This has triggered much criticism,

based mainly on the importance of the demand side (diet, nutrition, retail industry structures) over the supply side (Lang and Barling, 2012). While all protagonists in this dispute would agree that it is necessary to build upon complex – beyond single-issue based – approaches to the food issue, they disagree on the way in which heterogeneous objectives might be articulated and how complex indicators of food security (Carolan, 2012) might be constructed. Advancing this debate would contribute greatly to our understanding of food security.

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