

Jackson, P., Spiess, W.E.L. and Sultana, F. (eds.): *Eating, Drinking: Surviving. The International Year of Global Understanding – IYGU*. Cham, Springer, 2016. 105 p.

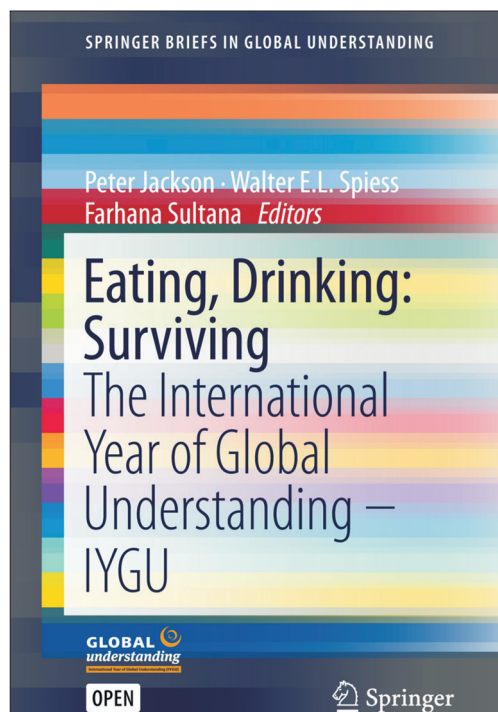
The problem of resource depletion in a world with growing population has been intensively deliberated over the centuries in both scientific and economic discourses. MALTHUS, who in 1798 published 'An Essay on the Principle of Population', argued that agricultural outputs would not be sufficient to meet the needs of an increasing global population. Although his predictions have not come true, the approach advocating either intensification or the extension of production and referred to as 'productionist' prevails in debates on food and water-related challenges. The current volume, however, contests these assumptions and presents some new trends in scientific, socio-economic and political discourses. It also shows that the problem of hunger and water scarcity emerges from unequal access to resources rather than insufficient supply. Not only does the book present current challenges that result from accelerating population growth rates and simultaneously exacerbate economic and social disparities, but also proposes possible solutions that have become increasingly widespread over the recent decades.

*Eating, Drinking: Surviving* is one of the Springer briefs published under the aegis of the 2016 International Year of Global Understanding and

the Post-2015 Development Agenda. Its main goal is to address some crucial issues of food and water security and the influence of global food systems on the livelihoods of people from all over the world. According to Benno WERLEN's (Executive Director of the IYGU) series preface, the book aims to connect the local and the global, the social and the natural as well as the everyday and the scientific, in order to achieve better understanding of the current processes occurring in an ever-globalising world. The volume consists of eleven essays by various authors. The first chapter introduces the subject area. Chapter 2 covers the problem of malnutrition from a geographical perspective, whereas Chapters 3 to 6 and 7 to 11 address problems related to water and food security.

In the introduction, Peter JACKSON, Walter E.L. SPIESS and Farhana SULTANA present a broad overview of contemporary issues that are discussed in the book, after a careful presentation of the historical context that provides the reader with the necessary conceptual background. Implications related to the Millennium Development Goals as well as the Sustainable Development Goals of the United Nations show what has been done to halve hunger and adequately supply the population of the world with improved drinking water as well as what other actions must be taken in order to ameliorate current conditions. Furthermore, in addition to introducing key definitions that are essential for comprehending the proceeding essays, the editors present short summaries of each chapter to familiarise the reader with the major issues of the book.

Elizabeth YOUNG, the author of Chapter 2, focuses on geographical inequalities in access to food and water that are directly associated with current food systems and global networks of production and consumption. She spotlights the 'cruel paradox' that is evidenced by malnutrition in some regions and over-nutrition in others. Moreover, there are several countries nowadays where many suffer from hunger, while others suffer from obesity. A definite strength of the essay is its critical approach. The author contests (with concrete examples) commonly used aggregated statistics that provide us with false pictures of malnutrition for concealing disparities between various regions or countries. Additionally, the chapter provides an evaluation of two divergent political perspectives on food production systems. The first is the previously mentioned 'productionist' approach that promotes sustainable intensification and advocates an "increase [of] food production from existing farmland in ways that place far less pressure on the environment" (GARNETT, T. *et al.* 2013, p. 33), and



which the author criticises. The second perspective argues that the current mechanisms of food provision need profound changes in order to establish a more socially and environmentally stable system. The chapter, just as the entire book, also emphasises the role of economic and political power in shaping contemporary food.

Chapter 3 by Trevor BIRKENHOLTZ contests the technocratic paradigm with its concept of ‘modern water’, which is perceived only in a physical and calculable context, deprived of any socio-cultural substance. The author also rejects understanding water scarcity as an exclusively technical problem and strongly promotes the view that water should be regarded as part of a ‘hydrosocial system’. In the recent years several publications have taken a similar approach (SWYNGEDOUW, E. 2009; BOELENS, R. 2014; BUDDS, J. *et al.* 2014; BUDDS, J. and LINTON, J. 2014; LINTON, J. 2014; MOLLINGA, P.P. 2014). The chapter is based on abundant statistics that reveal both regional and rural-urban disparities in access to improved water. The author emphasises that not only does the problem of water scarcity disproportionately affect certain regions, but also certain social groups like women and children.

Chapter 4 by Jeroen Vos and Rutgerd BOELENS discusses the concept of ‘virtual water’, which refers to water used or contaminated to produce goods and services. The authors show repercussions of virtual water trade that was initially expected to cure inequalities in access to water on basis of comparative advantages. In fact, however, it has extended the distance between the place of production and the place of consumption instead. Although the authors claim that data on the volume of virtual water do not illustrate the social, environmental or economic value of water, they propose the application of the concept as an indicator of social, political and environmental risks associated with the current global food system. Furthermore, the chapter provides an interesting analysis of environmental, political and social threats that arise from the increasing production of high-water-consuming crops, and also employs remarkable examples. Finally, it critically evaluates the creation of multiple stewardship standards.

In Chapter 5 Olivier GRAEFE investigates the Integrated Water Resource Management, which is the new approach leading international institutions such as the Global Water Partnership (a strong supporter of choosing river basins as the primary unit of water management), UN and UNESCO are proposing to improve water access. Although the author notes that the basin approach is probably more relevant than focusing on administrative boundaries, he argues that the exclusive use of natural or ecological borders neglects the issues of water transfer between different rivers as well as the high complexity of water management itself. Similar to the authors of previous chapters GRAEFE underlines that the main

reason for unequal access to water is barely regional water scarcity but rather political economy and poor management, what is proved by a number of accurately documented instances and requires substantial improvement.

Kathleen O'REILLY, the author of Chapter 6, raises the problem of limited access to hygienic sanitation that affects approximately 2.4 billion people in the world (p. 51). She underlines the risks posed by open defecation, most likely to occur among rural dwellers, and urges to provide the global population with access to clean water and sanitation. However, the provision of WASH (water, sanitation and hygiene) programmes should embrace long-term initiatives and be adjusted to the needs of local communities. O'REILLY emphasises that women and children are particularly at risk of, and suffer the most from, the lack of adequate water and sanitation. The chapter focuses on social aspects of sanitation and indicates that open defecation causes high stress levels above all among women and young girls.

In Chapter 7 Walter E.L. SPIESS scrutinises some challenges to food security in light of the manifold threats the global community is facing or is predicted to face in the near future. Due to fast population growth the demand for food is estimated to increase. Hence, the volume of water required in food production will also grow. SPIESS describes the main characteristics of the virtual meal referred to as the Standard Diet and points out changes in dietary habits of the global population that are very likely to occur. He highlights the risks posed by the extensive production of biofuels that causes concern among the international community and previous researchers (CLANCY, J.S. 2008; JANSSEN, R. and RUTZ, D. 2011). The chapter employs precise and complex statistical data.

In Chapter 8 Marisa WILSON introduces the term of moral economy, which indicates a relationship between social or moral dispositions and norms on the one hand, and economic activities on the other. The author compares two different food provision systems, the socialist (or post-socialist) and the liberal (or neoliberal), and their impact on food sovereignty. The essay is particularly valuable from a Central and Eastern European perspective as most countries in the region have transformed or are still transforming from the former to the latter. The choice of a Cuban case study is certainly enlightening. Indeed, due to its peculiar geographic location and historical past Cuba exemplifies the country exceptionally affected by a socialist political system on the one hand and by the global capitalist network on the other.

In Chapter 9 Matthew KELLY discusses substantial changes in the diet of Asian population. The process of ‘Nutrition Transition’ consists predominantly of the dramatic increase of oil, fat, sugar and meat consumption. Moreover, traditional ingredients of Asian cuisines are being replaced by temperate

zone products like fruit, vegetable or dairy products. Demand for rice is progressively decreasing in favour of wheat, mainly in middle-income countries like China. The main engine of this shift is economic growth, as well as rising incomes and purchasing power of the consumers. Furthermore, the rapid pace of urbanisation results in increasing demand for convenience processed food. KELLY presents both positive and negative consequences of the Nutrition Transition and predicts that the process will soon occur in low-income countries, too. Although it might appear obvious that the term ‘Nutrition Transition’ was motivated by the concepts of ‘Demographic Transition’, ‘Epidemiological Transition’ and the sort, a reference to all these theories would have enriched the conceptual background of the essay in my view.

Chapter 10 by Ann E. BARTOS investigates the main challenges faced by the inhabitants of Aotearoa, New Zealand, in light of two of the main concepts discussed in the volume, food security and food sovereignty. The author critically evaluates the former. In his opinion the food security approach has contributed to the growing production of export-oriented crops and the increasing reliance on food aid in many regions, which has resulted in worsening economic and social conditions. The food sovereignty approach that perceives food as a basic human right and highlights the fundamental role of culturally appropriate food was developed to redress some of the problems resulting from the neoliberal food security approach. The Aotearoa example reveals local social and economic disparities that have become obstacles for achieving food security and sovereignty. New Zealand is an apt choice with its ninth position in global rankings of the UN Human Development Report (UNDP 2015) for showing that profound discrepancies in access to food and water also exist in countries with very high human development. The chapter questions the ‘purity’ discourses that present New Zealand as a country of unspoiled nature and free of environmental contamination as well as food-related problems. The author claims that these discourses impede a thorough analysis of the intrinsic challenges the country is facing.

The last chapter by Jonathan CLOKE calls for reconsideration of the term ‘food security’ and accentuates the narrowness of the approach. The author focuses his attention on food waste and disapproves of neglecting the problem in official discourses of food supply. Moreover, CLOKE introduces the concept of a waste or ‘vastogenic’ system as important part of the global food system that has not been deliberated by previous researchers. On basis of relevant statistical data the author provides a complex analysis of food waste systems and the challenges created by their inadequate management. I consider the chapter most insightful and innovative as it offers a new perspective to the problems taken up in the volume.

The volume ‘Eating, Drinking: Surviving’ addresses many issues linked to global food systems and their effects on the lives of people in different parts of the world. It presents the challenges resulting from unequal access to natural resources and investigates them from various research perspectives, including environmental, economic, social and political ones. According to WERLEN, B. *et al.* (2016), one of the aims of the International Year of Global Understanding was to highlight that local actions affect global situation. The reviewed book, however, makes the far more important claim that global circumstances strongly affect local conditions and improving access to food and water requires changes at both scales. Each chapter is based on relevant data and discusses theoretical as well as practical questions.

Although the book does not present the results of primary scientific research and provides rather an overview of current challenges of the global food system and its value chains, it introduces many innovative ideas. Nevertheless, the volume neglects the problem of unequal access to land and its consequences, what I regard as its main deficiency. Ongoing competition for land resources is one of the most important issues directly linked to the global food system. Previous studies underlined the role of land, its tenure system, management and distribution in the concept of food security and food sovereignty, as well as their utmost relevance for MDGs and SDGs (GARNETT, T. *et al.* 2013; UNECA 2005). Moreover, the authors of the book do not properly address the problem of land grabbing (although the term is mentioned), that is the focal point of many debates among scholars (TSCHARNTKE, T. *et al.* 2012; COTULA, L. 2013; ENDELMAN, M. *et al.* 2013; FRANCO, J. *et al.* 2013; GOLAY, C. and BIGLINO, I. 2013). Land grabbing has remarkable negative impacts on food security as well as the food sovereignty of local communities, mainly those in the Global South. Hence, it would be necessary to take it into consideration while scrutinising the global food system. In addition, although the volume is supported by several interesting, innovative and illustrative maps (published with permission of the Worldmapper Project), as a geographer I reckon that such a remarkable publication might have been illustrated with more advanced cartographic elaborations.

One of the major strengths of the book is its interdisciplinary character and practical approach that makes it useful for both scientists and policymakers. Moreover, due to its comprehensive language on the one hand and the cross-section of many different topics it provides on the other, the volume is easily understandable and might be interesting for the general public. In my opinion it will serve as a useful instrument in university education as well as primary and secondary-level instruction. The fact that the book combines different spatial scales ranging from the global to the local enhances its value from a geographical point of view.

Despite the fact that the volume does not employ many examples from the region, it is also valuable from a Central and Eastern European perspective. First of all it examines global challenges that to some extent affect Central and Eastern European countries and their inhabitants as well. In light of increasing social and economic disparities it is important for the region to elaborate development strategies that will help overcome the current and predicted challenges presented in the book. In conclusion, I find the volume highly enlightening for building on previous research on food and water security and helping us to understand the mechanisms that control the global system of food provisioning.

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