Food System Sustainability

Insights from duALIne

As Western-style food systems extend further around the world, food sustainability is becoming an increasingly important issue. Such systems are not sustainable in terms of their consumption of resources, their impact on ecosystems or their effect on health and social equality.

From 2009 to 2011, the duALIne project, led by INRA and CIRAD, assembled a team of experts to investigate food systems downstream of the farm, from the farm gate to consumption. Representing a diverse range of backgrounds, spanning academia and the public and private sectors, the project aimed to review the international literature and to take account of the experts’ own expertise to identify major gaps in our knowledge. This book brings together its key conclusions and insights, presents state-of-the-art research in food sustainability and identifies priority areas for further study. It will provide a valuable resource for researchers, decision-makers and stakeholders in the food industry.

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## Contents

Foreword ix  
Acknowledgements xi  

### Introduction  
Food in the context of sustainable development 1  
The objective of duALIne (sustainability of food systems faced with new challenges) 2  
Scope of the project 2  
Organisation of this book 3  

1 **Context: new challenges for food systems** 5  
1.1 Demographics and uncertainties 5  
1.2 The challenge of global food security 7  
1.3 Climate change 12  
1.4 Impacts of food systems on the environment 14  
1.5 Limited resources: the energy challenge 17  
1.6 Nutritional trends (accelerated in emerging countries) 19  
1.7 The health challenge 20  
1.8 Increased circulation of goods and people 23  
1.9 Sustainability of the industrial economic model: the vulnerability of low stock level systems 23  
1.10 A social challenge: the increasing concerns of food consumers 24  
1.11 Summary 25  

2 **Consumption and consumers** 27  
2.1 Characteristics of long-term dietary trends 27  
2.2 Convergence of food models 31  
2.3 Bio-physiological bases for the convergence of food models 36  
2.4 Impact of agricultural policies 43
2.5 Changing trends and heterogeneity in consumption: opportunities to control future changes? 44
2.6 Heterogeneity in consumption and nutritional inequalities 46
2.7 Questions for research 48

3 Carbon footprint and nutritional quality of diets in France 51
3.1 Introduction 51
3.2 Quantification of the carbon footprint of diets 53
3.3 The choices: carbon footprint and nutritional quality of food 60
3.4 Limitations of the study and outlook 64
3.5 Conclusion 66

4 Food systems 69
4.1 Introduction 69
4.2 Interconnections between food systems and energy and chemical systems 72
4.3 The diversity of food systems: evolution and challenges for sustainability 82
4.4 Questions for research 98

5 Industrial organisation and sustainability 101
5.1 Some important features of changes in the industrial food system 102
5.2 Consequences of the progress towards sustainability 104
5.3 Questions for research 108

6 Urbanisation and the sustainability of food systems 115
6.1 Sustainably feeding large cities: a major challenge 115
6.2 Urbanisation, food and sustainability: what are the challenges? 117
6.3 Questions for research 128

7 Losses and wastage 136
7.1 Introduction 136
7.2 What is loss, and what is wastage? 138
7.3 Origins and location of losses and wastage in food systems 139
7.4 Poor quantification of losses and wastage, North and South 140
7.5 Lessons from the past, courses of action and strategic orientations 146
7.6 Experimentation in Southern countries: models for the North? 153
7.7 Questions for research 154
7.8 Conclusions 157
8 International trade, price volatility and standards for sustainability  
8.1 Adjusting to the volatility of global prices 159  
8.2 Management of food price volatility: policies and food sustainability 164  
8.3 Use of trade policies to cope with price volatility 166  
8.4 Non-tariff barriers, standards for sustainability 170  
8.5 Questions for research 172  
8.6 Conclusion 175  

9 Elements for a foresight debate on food sustainability 176  
9.1 Food systems evolving under the effects of various factors 177  
9.2 Questions of sustainability according to food-eater categories 184  
9.3 Questions for research 194  
9.4 Conclusion 197  

10 A critical panorama of methods used to assess food sustainability 198  
10.1 Introduction 198  
10.2 Complexity of the ‘food style’ component within an assessment framework 200  
10.3 Defining the challenges of sustainability before choosing the methods 200  
10.4 Environmental, social, economic and nutritional methods and indicators 207  
10.5 Questions for research 222  
10.6 Conclusion 225  

Conclusion 233  
Knowledge acquired and questions for research 233  
A new look at the controversies 239  
Which conceptual framework for research methods? 240  
Viewpoints to be explored, gaps to be filled 242  
What are the future prospects? 244  

References 247  
List of abbreviations 286  
Organisations/affiliations of experts 286  
Acronyms 287  
Units 289  
List of duALIne experts 290  
Index 295
Foreword

How will it be possible to feed the world in the demographic context of the twenty-first century?

The diversity of food systems throughout the world is a key element if we are to achieve this.

Little studied in terms of their sustainability, food systems have thus far been considered in terms of the challenges facing agriculture. ‘Food sustainability’ is unquestionably a major issue for the years to come. From the farm gate to the consumer’s plate, these systems now need to be analysed in terms of their contribution towards the pillars of sustainability. However, it is clear that any debate today on this issue cannot be based on consolidated knowledge; research therefore has a major role to play in facing this challenge.

Foresight workshops were initiated in related fields in 2009 and 2010: one on the adaptation of agriculture to climate change (ADAGE) and the other on plant species and sustainable production systems for chemistry and energy (VegA).

Regarding food issues in the longer term, INRA and CIRAD jointly performed a foresight study on the possible futures of farming and food systems worldwide in 2050: the Agrimonde platform thus laid the foundations for agricultural research within a framework of sustainability. In the same vein, our two organisations decided to mobilise private sector and academic experts working in this area to study the trends affecting global food systems in terms of their effects on the environment, health, social equality and the economy.

Launched in November 2009 and completed in June 2011, this project, called duALIne, involved some 125 experts contributing to 10 working groups. Inter-workshop seminars, two general assemblies and a public symposium to debate the preliminary findings marked different stages in the gradual integration of
the results. Work in progress was regularly reviewed by a Steering Committee composed of representatives of the different stakeholders (agricultural organisations, industry, the retail industry, environmental protection associations, consumer associations, national and international government representatives and qualified personalities).

We would like here to extend our sincere thanks to all the experts involved and to all members of the Steering Committee, for their participation, their contributions and their advice, all of which enabled us to complete this exercise. Its findings will be used to guide research by our organisations, and we hope that this project will also enable a broader mobilisation of the national and international community to ensure greater food sustainability for future generations.

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Acknowledgements

The editors of Food System Sustainability thank the members of the Monitoring Committee for their involvement and guidance. They also thank the librarians for their active support, and the authors, contributors and all the experts for their involvement during the 18 months of the duALIne project.