

Sustainable Diets

With global inequalities becoming more pronounced, ingredient costs climbing, and global warming a major political issue, food producers must now address environmental concerns, social responsibility and economic viability when designing their food processing techniques for the future. Sustainable food processing is all about finding new ways of meeting present needs without comprising future viability, given constantly changing economic and environmental conditions. This is not just a corporate social responsibility issue, but relates directly to efficiency, cost-saving and profitability, and so the food industry must increasingly embrace sustainable food processing in order to succeed. This book provides a comprehensive overview on both economic sustainability and environmental concerns relating to food processing. It promotes ways of increasing sustainability in all the major sectors of the food industry, and will establish itself as a standard reference for food processing. It will be of great interest to academic and industrial professionals. Opening chapters cover the concept and principles of sustainable food processing, with reference to various food processing sectors (dairy, meat, seafood, grain, fruit and vegetables). Further chapters on brewing, cold chain, consumption and packaging provide a comprehensive guide to making these key processes more sustainable. Issues such as cleaning, sanitation, and carbon footprint are discussed, before dedicated chapters covering energy and water consumption in the food industry address economic sustainability. Environmental impact assessment and food processing, waste utilization, risk assessment, and regulatory and legislative issues are also addressed. Contributors include a combination of leading academic and industrial experts, to provide informed and industrially relevant perspectives on these topics.

In The 2020 Diet, Dr. Phil McGraw identifies seven reasons other diets fail people over and over again: hunger, cravings, feeling of restriction, impracticality and expense, boredom, temptations, and disappointing results or plateaus. Then, he addresses each of these roadblocks by applying the latest research and theories that have emerged since his last best seller on the same topic, The Ultimate Weight Solution. Dr. Phil and his team have created a plan that you can start following right now and continue working for the rest of your life. In this diet, readers will start by eating only 20 key ingredients, called the “20/20 Foods,” which theories indicate may help enhance your body’s thermogenesis and help you feel full. But that’s just the beginning. This book explains why you haven’t been able to lose the weight before, and empowers you with cognitive, behavioral, environmental, social and nutritional tools so you can finally reach your goal, and learn lifelong healthy habits to maintain those results.

Environmental Nutrition: Connecting Health and Nutrition with Environmentally Sustainable Diets explores the connection between diet, environmental sustainability and human health. Current food systems are a major contributor to our most pressing health and environmental issues, including climate change, water scarcity, food insecurity and chronic diseases. This book not only seeks to increase our understanding of the interrelatedness of these major global issues, but also aids in the creation of new solutions. Sections discuss the diet, the health and environment trilemma, food systems and their trends, environmental nutrition as an all-encompassing discipline, and the environmental nutrition model. Demonstrates how the food system, the environment and human health are inter-related Explores how dietary patterns impact food production and agriculture choices Identifies the imbalance between current food production relative to demand Addresses how the current food system negatively impacts the environment Provides practical solutions to how diets can be both healthy and sustainable The health and environmental consequences of our dietary choices impose costs on society that are currently not reflected in the price of those foods or diets that contribute to these detrimental impacts. This paper provides updated estimates of two major cost items: the healthcare-related costs associated with unhealthy diets, and the climate-change costs associated with the emissions attributable to diets and food production. Results suggest that the health and climate-change costs of current diets are substantial and projected to increase up to 1.3-1.7 trillion USD annually by 2030.

Step 2: Shaping the enabling environment

Food and Sustainability in the Twenty-First Century

Enhancing Security, Sustainability and Resilience in Energy, Food and Water

Proceedings of a Workshop

Perspectives and Policy to Promote the Health of People and the Planet

Biodiversity, Food and Nutrition

This book examines the challenges and impacts of poor diets and nutrition from current food systems and the potential contribution of biodiversity and ecosystem services in addressing these problems. There is a strong need for a multi-level, cross-sectoral approach that connects food biodiversity conservation and sustainable use to address critical problems in our current food systems, including malnutrition. Building on research from the Biodiversity for Food and Nutrition Project (BFN), which aims to better link biodiversity, diets and nutrition, the book presents a multi-country, cross-sectoral analysis of initiatives that have promoted local food biodiversity in four countries: Brazil, Kenya, Turkey and Sri Lanka. This book offers a comprehensive summary of the BFN Project results in each of the four countries along with lessons learned and how this work could be upscaled or applied in other regions. It argues that the strategic promotion and use of food biodiversity is critical in unifying attempts to address conservation, nutrition and livelihood concerns. The book is structured around chapters and case studies encompassing the BFN Project with specific experiences related by partners who played key roles in the work being done in each country. By offering a comparative view capable of furthering dialogue between the respective countries, it also means to connect the individual cases for a “greater than the sum of its parts” effect. This means consideration of how localized activities can be adapted to more countries and regions. Therefore, the book addresses global issues with a foot planted and firmly in the grounded case study locations. This book will be of great interest to policymakers, practitioners and NGOs working on food and nutrition, as well as students and scholars of agriculture, food systems and sustainable development.

On August 1 and 2, 2018, the National Academies of Sciences, Engineering, and Medicine hosted a public workshop in Washington, DC, on sustainable diets, food, and nutrition. Workshop participants reviewed current and emerging knowledge on the concept of sustainable diets within the field of food and nutrition; explored sustainable diets and relevant impacts for cross-sector partnerships, policy, and research; and discussed how sustainable diets influence dietary patterns, the food system, and population and public health. This publication briefly summarizes the presentations and discussions from the workshop.

Row by row – maximize your harvest and feed your soil by developing a customized plan for your garden

This book critically assesses the role of agrobiodiversity in school gardens and its contribution to diversifying diets, promoting healthy eating habits and improving nutrition among schoolchildren as well as other benefits relating to climate change adaptation, ecotourism and greening school spaces. Many schoolchildren suffer from various forms of malnutrition and it is important to address their nutritional status given the effects it has on their health, cognition, and subsequently their educational achievement. Schools are recognized as excellent platforms for promoting lifelong healthy eating and improving long-term, sustainable nutrition security required for optimum educational outcomes. This book reveals the multiple benefits of school gardens for improving nutrition and education for children and their families. It examines issues such as school feeding, community food production, school gardening, nutritional education and the promotion of agrobiodiversity, and draws on international case studies, from both developed and developing nations, to provide a comprehensive global assessment. This book will be essential reading for those interested in promoting agrobiodiversity, sustainable nutrition and healthy eating habits in schools and public institutions more generally. It identifies recurring and emerging issues, establishes best practices, identifies key criteria for success and advises on strategies for scaling up and scaling out elements to improve the uptake of school gardens.

Linking Nutrition and Food System

Turn Your Weight Loss Vision Into Reality

An Interdisciplinary Approach for Disaster Resilience and Sustainability

Cost and affordability of healthy diets across and within countries

A Case for Mutual Competence Building

Background paper for The State of Food Security and Nutrition in the World 2020. FAO Agricultural Development Economics Technical Study No. 9

How can we feed ourselves healthily and affordably while maintaining the ecosystems on which life depends? The evidence of diets’ impact on public health and the environment has grown in recent decades, yet changing food supply, consumer habits and economic aspirations proves hard. This book explores what is meant by sustainable diets and why this has to be the goal for the Anthropocene, the current era in which human activities are driving the mismatch of humans and the planet. Food production and consumption are key drivers of transitions already underway, yet policy makers hesitate to reshape public eating habits and tackle the unsustainability of the global food system. The authors propose a multi-criteria approach to sustainable diets, giving equal weight to nutrition and public health, the environment, socio-cultural issues, food quality, economics and governance. This six-pronged approach to sustainable diets brings order and rationality to what either is seen as too complex to handle or is addressed simplistically and ineffectually. The book provides a major overview of this vibrant issue of interdisciplinary and public interest. It outlines the reasons for concern and how actors throughout the food system (governments, producers, civil society and consumers) must engage with (un)sustainable diets.

Divided into five sections, *Agri-Food Industry Strategies for Healthy Diets and Sustainability: New Challenges in Nutrition and Public Health* provides an overview of the challenges and future perspectives related to nutrition, public health, and sustainability. The book addresses strategies to reduce fat, trans fat, saturated fat, sugar, and salt consumption, while also exploring the manufacturing, safety, and toxicology of new food manufacturing. This book examines commercial labeling and nutritional education, nutrigenomics and public health, and provides coverage of the valorization of waste and by-products from the food industry. Nutrition researchers and practitioners, food scientists, technologists, engineers, agronomists, food product developers, medical and public health professionals, and postgraduate students focused in food science and nutrition are sure to find this reference work a welcomed addition to their libraries. Contains innovative strategies to achieve a healthy diet through the design of new food products Provides comprehensive information related to agriculture, nutrition, food industry, government, and sustainable waste management and details their roles in addressing food waste Explores the ways in which innovative approaches, used to valorize and give an added value to agri-food waste and by-products, ensure the sustainability of the production process Presents nutritive education about reducing empty calories by lowering consumption of fats, sugars, and other high-calorie nutrients Delineates the roles of food industry and government in shaping the best policies for the general public and the design of new products

The Close Linkage between Nutrition and Environment through Biodiversity and Sustainability: Local Foods, Traditional Recipes, and Sustainable Diets” is focused on the close correlation between the potential benefits and “functional role” of food and territory, and it includes papers on the characterization of local foods and traditional recipes as well as on the promotion of traditional dietary patterns and sustainable diets.

Vegetarian and Plant-Based Diets in Health and Disease Prevention examines the science of vegetarian and plant-based diets and their nutritional impact on human health. This book assembles the science related to vegetarian and plant-based diets in a comprehensive, balanced, single reference that discusses both the overall benefits of plant-based diets on health and the risk of disease and issues concerning the status in certain nutrients of the individuals, while providing overall consideration to the entire spectrum of vegetarian diets. Broken into five sections, the first provides a general overview of vegetarian / plant-based diets so that readers have a foundational understanding of the topic. Dietary choices and their relation with nutritional transition and sustainability issues are discussed. The second and third sections provide a comprehensive description of the relationship between plant-based diets and health and disease prevention. The fourth section provides a deeper look into how the relationship between plant-based diets and health and disease prevention may differ in populations with different age or physiological status. The fifth and final section of the book details the nutrients and substances whose intakes are related to the proportions of plant or animal products in the diet. Discusses the links between health and certain important characteristics of plant-based diets at the level of food groups Analyzes the relation between plant-based diet and health at the different nutritional levels, i.e. from dietary patterns to specific nutrients and substances Provides a balanced evidence-based approach to analyze the positive and negative aspects of vegetarianism Addresses the different aspects of diets predominantly based on plants, including geographical and cultural variations of vegetarianism

Synopsis

Sustainable Diets, Food, and Nutrition

Agrobiodiversity, School Gardens and Healthy Diets

Healthy and Sustainable Food Systems

Sustainable Protein Sources

Improving diets through food systems in low- and middle-income countries: Metrics for analysis

Currently 868 million people are undernourished and 195 million children under five years of age are stunted. At the same time, over 1 billion people are overweight and obese in both the developed and developing world. Diseases previously associated with affluence, such as cancer, diabetes and cardio-vascular disease, are on the rise. Food system-based approaches to addressing these problems that could enhance food availability and diet quality through local production and agricultural biodiversity often fall outside the traditional scope of nutrition, and have been under-researched. As a consequence, there remains insufficient evidence to support well-defined, scalable agricultural biodiversity interventions that can be linked to improvements in nutrition outcomes. Agricultural biodiversity is important for food and nutritional security, as a safeguard against hunger, a source of nutrients for improved dietary diversity and quality, and strengthening local food systems and environmental sustainability. This book explores the current state of knowledge on the role of agricultural biodiversity in improving diets, nutrition and food security. Using examples and case studies from around the globe, the book explores current strategies for improving nutrition and diets and identifies key research and implementation gaps that need to be addressed to successfully promote the better use of agricultural biodiversity for rural and urban populations and societies in transition.

The Sustainable Diet is a timely and practical guide to a healthy planet and a healthy you, complete with 100 nutritious and delicious recipes for breakfast, lunch and dinner. In Part One, Scott Gooding explains sustainability and looks at how farming practices have changed over the years. He answers the questions we all want to know about, such as 'Is eating animal products good for us, and the environment?' and 'Is veganism the answer?' Part Two contains 100 recipes that are good for you AND the planet. The Sustainable Diet is a step-by-step way to celebrate our planet and promote optimal health. It's about taking the long view and realizing that the choices we make now, in terms of what we eat and how we produce our food, will affect not only you and me but our children and future generations. Not to mention the health of the planet and the welfare of millions of animals... The latest research indicates that it is possible to be healthy and eat in a way that is environmentally friendly. A sustainable diet is naturally low in carbs and high in nutrient-dense foods that are farmed in a way that has a low impact on our planet. Packed with information on the latest ethical eating practices and the science of how to nourish your body best, this book is much more than a diet - it's a way of life.

Farmers' cooperatives are very prevalent in the European Union, where they account for approximately half of agricultural trade and thus are key to articulating rural realities and in shaping the sustainability credentials of European food and farming. This book analyses to what extent farmers' cooperatives are working to benefit their members, are showing concern for their communities and are promoting cooperative economies. It offers a multilevel set of theoretical, disciplinary, methodological, empirical and social perspectives, using the UK and Spain as contrasting examples, and analyses whether agricultural cooperatives contribute to achieving sustainable food systems. The book presents empirical data from diverse and rich case studies, from large, international cooperatives, to small, multi-stakeholder initiatives. This provides an alternative viewpoint to that of economics, which tends to dominate the study of agricultural cooperatives. The author presents a new theoretical framework that provides a novel lens to study farmers' cooperatives as organisations deeply embedded in power dynamics of the food system and agricultural policy that shape and constraint their potential to adopt cooperative and sustainable practices. The book is a major addition to the study of agricultural cooperatives and their impact in the development of fairer and more sustainable food systems and it is one of the first detailed accounts of multi-stakeholder food and farming cooperatives in Europe. It is a valuable resource for all scholars working on cooperatives, as well as for students studying agricultural and food policy, environmental justice and rural sociology.

This collection takes an interdisciplinary look at how the transformation towards plant-based diets is becoming more culturally acceptable, economically accessible, technically available and politically viable. We offer strategies for achieving sustainable food systems without having to forgo succulence, sensuality and sacredness of food. Shifting food systems is one of humanity's biggest challenges and greatest opportunities. This book explores adaptable and health-promoting plant-based diets, while also exploring the environmental, political, and economic outcomes. In this book, detailed descriptions are provided of what constitutes a healthy plant-based diet and active lifestyle. Readers are invited to engage with the community of practitioners deriving more deeply into strategies for transitioning societies to greater succulence and sustainability. Throughout the first section of the book, environmental challenges and opportunities for reversing climate change are highlighted as our most urgent action. The focus then turns to global food systems and the intersections that are undermining human and animal health. The final section offers preventative approaches and encourages reorienting systems of law, economics and education to exemplify integrity, coordination, coherence and compassion. This book will be of interest to students and academics, as well as policy professionals in all fields engaging with complex issues and systems analyses. It will be of value to those working in health services, policy development, agriculture, economic development, and social change as it provides steps to enhance well-being, pathways to increase jobs in the green economy, and practical ideas to reverse greenhouse gas emissions. It may also be a superb guide for individuals and families looking to become vibrant eaters and leaders.

Proceedings of the 1st International Conference on Water Energy Food and Sustainability (ICoWEFS 2021)

Sustainable healthy diets

Higher Education in a Sustainable Society

Using Agricultural Biodiversity to Improve Nutrition and Health

Cross-Disciplinary Perspectives

How Ecological Nutrition Can Transform Consumption and the Food System

Taking a food systems approach is a promising strategy for improving diets. Implementing such an approach would require the use of a comprehensive set of metrics to characterize food systems, set meaningful goals, track food systems performance, and evaluate the impacts of food systems interventions. Food systems metrics are also useful to structure debates and communicate to policy makers and the general public. This paper provides an updated analytical framework of food systems and uses this to systematically identify relevant metrics and indicators based on data availability in low- and middle-income countries (LMICs). The list of indicators partly overlaps with the Sustainable Development Goals (SDG) indicators, but these do not cover all aspects of the food system. We conclude that public data are relatively available on food systems drivers and outcomes, and on some, but not all, of the activities. With only minor additional investments, existing surveys could be extended to cover sustainability in one of the great problems facing food production today. Using cross-disciplinary perspectives from international scholars working in social, cultural and biological anthropology, ecology and environmental biology, this volume brings many new perspectives to the problems we face. Its cross-disciplinary framework of chapters with local, regional and continental perspectives provides a global outlook on sustainability issues. These case studies will appeal to those working in public sector agencies, NGOs, consultancies and other bodies focused on food security, human nutrition and environmental sustainability.

Protein plays a critical role in human nutrition. Although animal-derived proteins constitute the majority of the protein we consume, plant-derived proteins can satisfy the same requirement with less environmental impact. Sustainable Protein Sources allows readers to understand how alternative proteins such as plant, fungal, algal, and insect protein can take the place of more costly and less efficient animal-based sources. Sustainable Protein Sources presents the various benefits of plant and alternative protein consumption, including those that benefit the environment, population, and consumer trends. The book presents chapter-by-chapter coverage of protein from various sources, including cereals and legumes, oils/seeds, pseudocereals, fungi, algae, and insects. It assesses the nutrition, uses, functions, benefits, and challenges of each of these proteins. The book also explores opportunities to improve utilization and addresses everything from ways in which to increase consumer acceptability, to methods of improving the taste of products containing these proteins, to the ways in which policies can affect the use of plant-derived proteins. In addition, the book delves into food security and political issues which affect the type of crops that are cultivated and the sources of food products. The book concludes with required consumer choices such as dietary changes and future research ideas that necessitate vigorous debate for a sustainable planet. Introduces the need to shift current animal-derived protein sources to those that are more plant-based Presents a valuable compendium on plant and alternate protein sources covering land, water, and energy uses for each type of protein source Discusses nutritive values of each protein source and compares each alternate protein Provides an overview of production, including processing, protein isolation, use cases, and functionality Presents solutions to challenges, along with taste modulation Focuses on non-animal derived protein Identifies paths and choices that require consumer and policymaker debate and action

This book looks at the ways that energy, food, and water help to create connections between sustainability and security. The concept of security is in our current societies increasingly connected with sustainability, which seeks to ensure that we as humans are able to live and prosper on this planet now and in the future. The concepts of energy security, food security, and water security—used separately or together—manifest the burgeoning linkages between security and sustainability. This book brings together ten scientific articles that look at different aspects of security, sustainability, and resilience with an emphasis on energy, food, and/or water in the context of Finland and Europe. Together, the articles portray a rich picture on the diverse linkages between both energy, food, and water, and between security and sustainability. In sum, the articles and related preface conclude that ensuring sustainable security—or secure sustainability—requires systemic, structured processes that link the policies and actors in these two important but still distant fields.

The 2020 Diet

Valuation of the health and climate-change benefits of healthy diets

Planning and Growing to Feed Ourselves and the Earth

Determining key research areas for healthier diets and sustainable food systems in Viet Nam

Vegetarian and Plant-Based Diets in Health and Disease Prevention

Environmental Nutrition

Vietnamese food systems are undergoing rapid transformation, with important implications for human and environmental health and economic development. Poverty has decreased, and diet quality and undernutrition have improved significantly since the end of the Doi Moi reform period (1986-1993) as a result of Viet Nam opening its economy and increasing its regional and global trade. Yet poor diet quality is still contributing the triple burden of malnutrition, with 25 percent stunting among children under age 5, 26 percent and 29 percent of women and children, respectively, anemic, and 21 percent of adults overweight. Agricultural production systems have shifted from predominantly diverse smallholder systems to larger more commercialized and specialized systems, especially for crops, while the ‘meatification’ of the Vietnamese diet is generating serious trade-offs between improved nutrition and sustainability of the Vietnamese food systems. The food processing industry has developed rapidly, together with food imports, resulting in new and processed food products penetrating the food retail outlets, trending towards an increase in the Westernized consumption patterns that are shifting nutrition-related problems towards overweight and obesity and, with it, an increase of non-communicable disease-related health risks. While regulatory policies exist across the food system, these are not systematically implemented, making food safety a major concern for consumers and policy makers alike. Where data exists, it is not easy to aggregate with data from across food system dimensions, making it difficult for Viet Nam to make an informed analysis of current and potential food system trade-offs. In our research, we reviewed existing literature and data, and applied a food systems framework to develop an initial food systems profile for Viet Nam and to identify a comprehensive set a of research questions to fill current data gaps identified through the review. Insights on these would provide the comprehensive evidence needed to inform policy makers on how to design and implement interventions for Viet Nam, and further refine and improve existing policies to achieve better quality diets and more sustainable food systems in Viet Nam. Based on these, we then engaged with stakeholders to develop research priorities in the Viet Nam context and identified 25 priority research questions. This paper aims to stimulate such reflections by clearly outlining key areas for research, government policy, and development programs on priority investment to build the evidence base around inclusive food systems interventions that aim to result in healthier diets and more sustainable food systems for Viet Nam

This book takes a transdisciplinary approach and considers multisectoral actions, integrating health, agriculture and environmental sector issues to comprehensively explore the topic of sustainable diets. The team of international authors informs readers with arguments, challenges, perspectives, policies, actions and solutions on global topics that must be properly understood in order to be effectively addressed.

They position issues of sustainable diets as central to the Earth’s future. Presenting the latest findings, they:
- Explore the transition to sustainable diets within the context of sustainable food systems, addressing the right to food, and linking food security and nutrition to sustainability.
- Convey the urgency of coordinated action, and consider how to engage multiple sectors in dialogue and joint research to tackle the pressing problems that have taken us to the edge, and beyond, of the planet’s limits to growth.
- Review tools, methods and indicators for assessing sustainable diets.
- Describe lessons learned from case studies on both traditional food systems and current dietary challenges.
As an affiliated project of the One Planet Sustainable Food Systems Programme, this book provides a way forward for achieving global and local targets, including the Sustainable Development Goals and the United Nations Decade of Action on Nutrition commitments. This resource is essential reading for scientists, practitioners, and students in the fields of nutrition science, food science, environmental sciences, agricultural sciences, development studies, food studies, public health and food policy.

One of the many benefits of the U.S. food system is a safe, nutritious, and consistent food supply. However, the same system also places significant strain on land, water, air, and other natural resources. A better understanding of the food–environment synergies and trade-offs associated with the U.S. food system would help to reduce this strain. Many experts would like to use that knowledge to develop dietary recommendations on the basis of environmental as well as nutritional considerations. But identifying and quantifying those synergies and trade-offs, let alone acting on them, is a challenge in and of itself. The difficulty stems in part from the reality that experts in the fields of nutrition, agricultural science, and natural resource use often do not regularly collaborate with each other, with the exception of some international efforts. "Sustainable Diets" is the summary of a workshop convened by The Institute of Medicine’s Food Forum and Roundtable on Environmental Health Sciences, Research, and Medicine in May 2013 to engender dialogue between experts in nutrition and experts in agriculture and natural resource sustainability and to explore current and emerging knowledge on the food and nutrition policy implications of the increasing environmental constraints on the food system. Experts explored the relationship between human health and the environment, including the identification and quantification of the synergies and trade-offs of their impact. This report explores the role of the food price environment and how environmental sustainability can be incorporated into dietary guidance and considers research priorities, policy

This book presents the proceedings of the 1st International Conference on Water Energy Food and Sustainability – ICoWEFS 2021, a major forum to foster innovation and exchange knowledge in the water-energy-food nexus, embracing the Sustainable Development Goals (SDGs) of the United Nations, bringing together leading academics, researchers and industrial experts. It contains the work of authors from 33 countries.

The Sustainable Diet

Routledge Handbook of Sustainable and Regenerative Food Systems

Food for Healthy People and a Healthy Planet: Workshop Summary

Green Technologies in Food Production and Processing

New Challenges in Nutrition and Public Health

Research Anthology on Food Waste Reduction and Alternative Diets for Food and Nutrition Security

This clear-sighted volume synthesizes wide-ranging knowledge of human food consumption, food production systems, and sustainability to offer methods of improving the impact of food choices on people and the environment. The comprehensive coverage addresses myriad challenges and paradoxes (e.g., health-conscious food choices that put greater stress on the planet, hunger amidst plenty) associated with the production of sustainable, nutritious food. Direct and complex links between local and global issues are highlighted in innovative approaches to transforming food production from the farm to the table and from the policy desk to the real world. Chapters identify, examine, and offer realistic recommendations for achieving critical goals, among them: Supporting healthy people and communities within planetary boundaries Reduction and prevention of food waste Combining health and sustainability on the plate “Serving sustainable and healthy food to consumers and decision makers”: from commitment to action. Investing in healthier and more sustainable production. Ensuring a healthy sustainable diet is a goal of all public policies.

This is a ground breaking text for students, professionals and policymakers dealing with food, nutrition, and environmental topics seeking new perspectives on longstanding issues in these interrelated areas. It also makes a suitable reference for students studying and conducting research in these areas.

This handbook includes contributions from established and emerging scholars from around the world and draws on multiple approaches and subjects to explore the socio-economic, cultural, ecological, institutional, legal, and policy aspects of regenerative food practices. The future of food is uncertain. We are facing an overwhelming number of interconnected and complex challenges related to the ways we grow, distribute, access, eat, and dispose of food. Yet, there are stories of hope and opportunities for radical change towards food systems that enhance the ability of living things to co-evolve. Given this, activities and imaginaries looking to move, rather than just sustain, communities and ecosystems are needed, as are fresh perspectives and new terminology. The Routledge Handbook of Sustainable and Regenerative Food Systems addresses this need. The chapters cover diverse practices, geographies, scales, and entry-points. They focus not only on the core requirements to deliver sustainable agriculture and food supply, but go beyond this to think about how these can also actively participate with social-ecological systems. The book is presented in an accessible way, with reflection questions meant to spark discussion and debate on how to transition to safe, just, and healthy food systems. Taken together, the chapters in this handbook highlight the consequences of current food practices and showcase the multiple ways that people are doing food differently. The Routledge Handbook of Sustainable and Regenerative Food Systems is essential reading for students and scholars interested in food systems, governance and practices, agroecology, rural sociology, and socio-environmental studies. The issues surrounding the provision, preparation and development of food products is fundamental to every human being on the planet. Given the scarcity of agricultural land, environmental pollution, climate change and the exponential growth of the world’s population where starvation and obesity are both widespread it is little wonder that exploring the frontiers of food is now a major focus for researchers and practitioners. This timely Handbook provides a systematic guide to the current state of knowledge on sustainable food. It begins by analyzing the historical development surrounding food production and consumption, then moves on to discuss the current food crisis and challenges as well as the impacts linked to modern agriculture and food security. Finally, it concludes with a section that examines emerging sustainable food trends and movements in addition to an analysis of current food science innovations. Developed from specifically commissioned original contributions the Handbook’s inherent multidisciplinary approach paves the way for deeper understanding of all aspects linked to the evolution of food in society, including insights into local food, food and tourism, organic food, indigenous and traditional food, sustainable restaurant practices, consumption patterns and sourcing. This book is essential reading for students, researchers and academics interested in the possibilities of sustainable forms of gastronomy and gastronomy’s contribution to sustainable development. The title includes a foreword written by Roberto Flore, Head Chef at the Nordic Food Lab, Copenhagen, Denmark.

This book addresses the following question: What is a sustainable society, and how can higher education help us to develop toward it? The core argument put forward is that the concept of sustainability reaches much further than just the direct aspects of environmental threats and carbon emissions. Using higher education as a point of departure, the book shows that sustainability involves a broad range of disciplines, from nursing and nutrition to technology and management. It argues that a sustainable society entails a distinct perspective on society that influences our social thinking in terms of ethics, democracy and knowledge development. The book also discusses if (and if so, how) higher education can and should contribute to such a development based on the principles of the freedom of science in a liberal, democratic society. The book presents Mutual Competence Building as a concept higher education can adapt in order to contribute to a sustainable Society.

Grow a Sustainable Diet

Background paper for The State of Food Security and Nutrition in the World 2020

Farmers’ Cooperatives and Sustainable Food Systems in Europe

Agri-Food Industry Strategies for Healthy Diets and Sustainability

A New Agenda for Sustainable Food Systems

Stepping up – Everyone around the table for better nutrition and healthy diets

Examining the full cycle from farm to fork, this book reviews the current status of green processing in the agriculture and agri-food sector, and provides strategies for enhancing the use of environmentally-friendly technologies for production and processing.

Food systems and diets are transforming rapidly in many parts of the world, particularly in low- and middle-income countries (LMIC). Changes in income, employment, taste, and location have direct implications for food choices and shopping patterns, which in turn have impacts on consumers’ nutrition and health, as well as environmental sustainability and resilience of the food system.

The world population is expected to increase exponentially within the next decade, which means that the food demand will increase and so will waste production. The increasing demand for food as well as changes in consumption habits have led to the greater availability and variety of food with a longer shelf life. However, there is a need for effective food waste management and food preservation as wasted food leads to overutilization of water and food, and also increases greenhouse emissions from the degradation of food. The Research Anthology on Food Waste Reduction and Alternative Diets for Food and Nutrition Security explores methods for reducing waste and cutting food loss in order to help the environment and support local communities as well as solve issues including that of land space. It also provides vital research on the development of plant-based foods, meat-alternative diets, and nutritional outcomes. Highlighting a range of topics such as agricultural production, food supply chains, and sustainable diets, this publication is an ideal reference source for policymakers, sustainable developers, politicians, ecologists, environmentalists, corporate executives, farmers, and academicians seeking current research on food and nutrition security.

Price and affordability are key barriers to accessing sufficient, safe, nutritious food to meet dietary needs and food preferences for an active and healthy life. In this study, the least-cost items available in local markets are identified to estimate the cost of three diet types: energy sufficient, nutrient adequate, and healthy (meeting food-based dietary guidelines). For price and availability the World Bank’s International Comparison Program (ICP) dataset is used, which provides food prices in local currency units (LCU) for 680 foods and non-alcoholic beverages in 170 countries in 2017. In addition, country case studies are developed with national food price datasets in United Republic of Tanzania, Malawi, Ethiopia, Ghana and Myanmar. The findings reveal that healthy diets by any definition are far more expensive than the entire international poverty line of USD 1.90, let alone the upper bound portion of the poverty line that can credibly be reserved for food of USD 1.20. The cost of healthy diets exceeds food expenditures in most countries in the Global South. The findings suggest that nutrition education and behaviour change alone will not substantially improve dietary consumption where nutrient adequate and healthy diets, even in their cheapest form, are unaffordable for the majority of the poor. To make healthy diets cheaper, setting the Table

Diversifying Food and Diets

Advice to Government on Priority Elements of Sustainable Diets

2016 Global Food Policy Report

Guiding principles

Sustainable Diets

This comprehensive text provides the latest research on key concepts, principles and practices for promoting healthy and sustainable food systems. There are increasing concerns about the impact of food systems on environmental sustainability and, in turn, the impact of environmental sustainability on the capacity of food systems to protect food and nutrition security into the future. The contributors to this book are leading researchers in the causes of and solutions to these challenges. As international experts in their fields, they provide in-depth analyses of the issues and

evidence-informed recommendations for future policies and practices. Starting with an overview of ideas about health, sustainability and equity in relation to food systems, Healthy and Sustainable Food Systems examines what constitutes a food system, with chapters on production, manufacturing, distribution and retail, among others. The text explores health and sustainable diets, looking at issues such as overconsumption and waste. The book ends with discussions about the politics, policy, personal behaviours and advocacy behind creating healthy and sustainable food systems. With a food systems approach to health and sustainability identified as a priority area for public health, this text introduces core knowledge for students, academics, practitioners and policy-makers from a range of disciplines including food and nutrition sciences, dietetics, public health, public policy, medicine, health science and environmental science.

This book includes selected papers presented at the international expert forum on “Mainstreaming Resilience and Disaster Risk Reduction in Education,” held at the Asian Institute of Technology, Thailand on 1–2 December 2017. The journey towards disaster risk reduction and resilience requires the participation of a wide array of stakeholders ranging from academics to policymakers, to disaster managers. Given the multifaceted and interdependent nature of disasters, disaster risk reduction and resilience require a multidisciplinary problem-solving approach and evidence-based techniques from the natural, social, engineering, and other relevant sciences. Traditionally, hazard and disaster-related studies have been dominated by the engineering and social science fields. In this regard, the main purpose of this book is to capture the multidisciplinary and multisectoral nature of disaster risk reduction, and to gather existing data, research, conceptual work, and practical cases regarding risk reduction and its ties to sustainable development under a single “umbrella.” Along with the sustainability aspect, the book also links disaster risk reduction with development, technology, governance, education, and climate change, and includes discussions on challenges, solutions, and best practices in the mainstreaming of disaster risk reduction.

This is the second of three background papers produced to inform the 'Everyone Around the Table: FAO/GAIN Roundtable with Private Sector on Healthy Diets' virtual roundtable series scheduled for mid-2020. While the range of topics discussed is relevant to all countries, where possible a greater focus has been given to low- and middle-income country contexts. STEP 2 (this paper) sets out some channels to advance this agenda by improving the enabling environment – the policies, incentives, rules and regulations that shape behaviours (and enable good practice).

Though governments lead in this area, there are clear responsibilities for all stakeholders.

Considering the detrimental environmental impact of current food systems, and the concerns raised about their sustainability, there is an urgent need to promote diets that are healthy and have low environmental impacts. These diets also need to be socio-culturally acceptable and economically accessible for all. Acknowledging the existence of diverging views on the concepts of sustainable diets and healthy diets, countries have requested guidance from the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) on what constitutes sustainable healthy diets. These guiding principles take a holistic approach to diets; they consider international nutrition recommendations; the environmental cost of food production and consumption; and the adaptability to local social, cultural and economic contexts. This publication aims to support the efforts of countries as they work to transform food systems to deliver on sustainable healthy diets, contributing to the achievement of the SDGs at country level, especially Goals 1 (No Poverty), 2 (Zero Hunger), 3 (Good Health and Well-Being), 4 (Quality Education), 5 (Gender Equality) and 12 (Responsible Consumption and Production) and 13 (Climate Action).

The Close Linkage Between Nutrition and Environment Through Biodiversity and Sustainability: Local Foods, Traditional Recipes and Sustainable Diets

Connecting Health and Nutrition with Environmentally Sustainable Diets

Supporting consumer choices toward healthy, safe, and sustainable diets in low- and middle-income countries

Promoting Biodiversity, Food and Sustainable Nutrition

Sustainable Food Processing

The Routledge Handbook of Sustainable Food and Gastronomy

The Global Food Policy Report is IFPRI's flagship publication. This year's annual report examines major food policy issues, global and regional developments, and commitments made in 2015, and presents data on key food policy indicators. The report also proposes key policy options for 2016 and beyond to achieve the Sustainable Development Goals. In 2015, the global community made major commitments on sustainable development and climate change. The global food system lies to meet the new goals if we work to transform our food system to be more inclusive, climate-smart, sustainable, efficient, nutrition- and health-driven, and business-friendly.

Towards Healthy and Sustainable Diets

Plant-Based Diets for Succulence and Sustainability