

Sustainable Food Supply Chain:
practices in China

可持续食品供应链： 来自中国的实践

张晓山 杜志雄 檀学文◎主编

中国凭借占世界9.5%的耕地（1.22亿公顷对比13.06亿公顷）和相当于世界人均占有量31%的淡水资源（2201立方米对比7044立方米），养活了占世界22%的人口。从1978年到2006年，中国城乡居民的恩格尔系数分别从57.5%和67.7%下降到……



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前 言

可持续食品供应链在国内是一个较新的概念,一般称作食品产业链,接近于农业产业化链条的概念,是对同一事物的不同观察视角。我们从食品供应链的各个环节和食品供应链的可持续性这两个角度来试图准确理解这个内涵丰富但边界较为模糊的概念。一些学者认为,食品供应链的可持续性包括5个方面的要素:第一个要素是资源保护,涉及到水、空气和土壤的多样性;第二个要素是食品的质量安全;第三个是社会经济要素,涉及到就业类型、农业的发展模式等;第四个要素与能源相关,涉及到整个产业化过程中再生性能源的使用;第五个要素是生物多样性,尤其是转基因农产品问题。有些学者认为,一个可持续的食品供应链应具有如下特征:在经济上具有持久的盈利能力;在技术上能够达到环境保护要求和食品安全要求,能够提供真正满足消费者需要的质量上乘、价格合理商品;供应链各环节之间利益关系协调,分配关系公平。可以说,可持续食品供应链是将资源环境保护、食品营养和健康、食品质量安全、食品链条不同环节的利益公平分配等社会、经济和环境因素纳入到农业和食品体系所形成的食品的产业链条,最终目标是促进农业的可持续发展。

在食品供应链这一概念的基础上还可以衍生出食品体系的概念。食品体系可以是地域性的,也可以是全球性的;可以是一系列食品供应链的组合,也可以是宏观角度的食品供求的整体。在对可持续食品供应链和食品体系概念界定的基础上,我们可以依据需要对某食品链或某食品体系进行可持续性的分析和评估。

食品供应链的可持续性是食品安全的核心问题之一。近年来,中国在食品安全领域已取得显著进展,但在经济全球化的背景下,中国的食品供应在国际市场上仍面临严峻的挑战,质疑之声和偶然事件仍

时有发生。从前述的可持续食品供应链的定义可以看出,我们所说的“食品产业链的可持续性”体现于经济、社会和环境三个层面,只有食品产业链具有可持续性,中国农业才能可持续发展,食品安全才有保障。

上个世纪90年代初期,山东的潍坊和诸城率先提出并实践了农业产业化经营,创新了中国的农业产业组织,成为中国发展现代农业和食品产业的先行者和窗口。2008年适逢农业产业化经营理论提出15周年。中国社会科学院农村发展研究所与潍坊和诸城有关方面领导商定,2008年4月份在诸城共同举办“中国的可持续食品产业链国际论坛”,通过与会代表在潍坊和诸城的实地考察和深入的现场交流来向国内外有关人士展示中国发展现代农业和构建食品安全体系的成就、做法和经验。我们希冀通过论坛的举办,在全球化层面上对农业产业化经营从理论和实践两个方面进行总结和提炼,深化理论,发展实践;为促进中国农业以及食品产业的国际化、标准化,走出一条中国特色的农业现代化道路,竭尽绵薄之力。

2007年5月份,为了配合上述论坛的举办,中国社会科学院农村发展研究所提前组成了“可持续食品供应链案例研究”课题组。在对可持续食品供应链的概念进行把握和廓清的基础上,2007年9月—2008年3月期间,课题组先后在山东寿光、诸城和江苏盐城三个地区,分别以蔬菜、水产和畜产品这三类引人关注的农产品为主要考察对象,以食品供应链为切入点,开展案例调查,并在调查基础上,撰写了一系列案例研究报告,供出席论坛的代表参考。

2008年4月的“中国的可持续食品产业链国际论坛”成功举办后,课题组成员继续开展后续研究,修改并完善案例报告,最终呈现给读者的《可持续食品供应链:来自中国的实践》一书,共收入27篇案例报告,供本领域的学者、政府官员和所有关注中国农业和食品业发展的热心读者参考。其中12篇报告与山东潍坊市有直接或间接关系,这说明潍坊市农业产业化经营的核心思想与食品产业链可持续性的理念基本一致,体现出潍坊市在农业可持续发展方面取得的成就。2008年10月,农村发展研究所的科研人员参加了在意大利都灵举行的“慢食大会”,这次大会为我们提供了观察食品供应链的新视角,收

入文集的《慢食运动与可持续食品供应链》一文即是参加这次大会的心得体会。

本书虽然是一个案例报告集,但在写作和编纂的过程中,我们力求构建一个完整的分析框架,形成一条清晰的思想主线,将各个案例报告有机地组合在一起。在建构起分析框架的基础上,我们对中国食品供应链的总体情况进行了概要的分析和评价,认为在过去的若干年里,中国食品供应链的可持续性总体上在不断改善,但依然存在很多不可持续的因素。在三鹿奶粉事件发生后,我们将这一分析框架也用于对此事件的分析。除了谴责企业的非法行为和支持政府的及时补救措施外,我们认为,食品安全是食品供应链可持续性的一个重要组成部分,食品安全既与消费者价格、同行业竞争等经济因素有关,也与企业责任、政府有效监管、产业链条上各主体之间的良性合作和收益合理分配等社会性因素有关。因此,解决食品安全问题所采取的各项临时措施只能治标,要想治本,需要更为全面的诊断和综合配套措施。

本集中的报告,涉及蔬菜、水产和畜产品三个产业类别中的政府、企业、个人、地域性生产组织、贸易商等众多主体,绝大部分报告都是基于实地调查,对数据和资料的采用力求科学、严谨、符合学术规范。各报告的形式不拘一格,完全依据实际分析的需要,且可长可短,或描述,或分析。我们希望这些多样化的案例报告能给读者一个新的观察视角。当然,我们的分析和研究只是初步的,不仅难以量化和指标化,对概念的理解也有待进一步深化,欢迎读者们提出宝贵意见。

在开展案例调查期间,中国社会科学院农村发展研究所课题组受到潍坊市社科院、寿光市委市政府、诸城市委市政府、江苏盐城林海农场、江苏射阳县海洋局的高度重视与支持。为了开好“中国的可持续食品产业链国际论坛”,潍坊市委市政府、诸城市委市政府的主要领导多次组织协调,并组成工作团队与农村发展研究所通力合作,保证了“国际论坛”得以成功举办。值此本书即将付梓之际,我们对上述单位对本项研究成果做出的贡献表示诚挚谢意!

欧洲梅耶人类进步基金会长期致力于可持续发展的国际行动,在国际层面开展了一系列有关农业和食品的可持续发展的国际考察和交流,包括中国在内。中国社会科学院农村发展研究所与基金会有着

良好的长期合作关系。我们共同致力于将中国农业发展的有益经验推向国际,同时也把国际上对中国农业长期可持续发展有借鉴作用的经验和思想引入中国。梅耶人类进步基金会为中国可持续食品产业链案例研究和“中国的可持续食品产业链国际论坛”提供了慷慨资助,并负责了论坛的境外组织工作。本项案例研究课题及成果既是上述国际活动中的重要环节,也将为世界了解中国提供一个重要窗口。我也愿借这个机会对梅耶人类进步基金会表示感谢。

黑龙江人民出版社编辑室张晔明主任为本书出版付出了大量心血。他的敬业精神和认真负责的工作态度为本书增色良多。在此也谨向黑龙江人民出版社及张主任表示诚挚谢意。

张晓山
2009年5月

Preface

The concept of sustainable food supply chain is almost new in China, usually called *food industrial chain*, and close to the familiar concept of *agricultural industrialization chain*, which are different observation angles on the same thing. We are trying to understand this new concept, with rich meanings but ill-defined boundary, from two perspectives, i. e. the relationship among the different links of the food supply chain, and the sustainability in food system. It is argued by some scholars that, the sustainability of food supply chain relies on five elements: (a) conservation of resources, including diversity of water, air and soil; (b) food quality and safety; (c) social and economic issues, related with patterns of employment and agricultural development; (d) energy, related with use of renewable energy in food industry; and (e) bio-diversity, esp. issues on genetically modification organisms. Some other scholars expound that a sustainable food supply chain must have the following features: (a) in economic dimension, to be sustained in making profits; (b) in technological dimension, to be able to provide safe and environmentally-friendly food that could satisfy the real needs of consumers; and (c) in social dimension, to be harmonious in benefit allocation among various links. Thus I could summarize that the *sustainable food supply chain* is such a food industrial chain that has incorporated such social, economic and environmental elements as conservation of resources and environment, food nutrition and health, food quality and safety, and equality of benefit allocation, whose overall objective is to promote the sustainable development of agriculture.

Based on *sustainable food supply chain*, the concept of *food system* can be derived. The food system could be either regional or global, either the integration of a series of food supply chains, or the whole of food sup-

ply and demand. Based on the definition of sustainable food supply chain and sustainable food system, we could begin to analyze or evaluate the sustainability of any food supply chain or food system.

The sustainability of food supply chain is one of the core problems in food safety. In recent years, China has improved quite a lot in offering safer food. But in the context of economic globalization, the safety of food from China is still facing severe challenges, with frequent queries and accidents. As is shown in the previous definition, the sustainability of food supply chain is embodied in economic, social and environmental dimensions. The sustainable development of China's agriculture and food safety can be secured only when the food supply chains are sustainable.

In early 1990s, *agricultural industrialization* was first practiced in Weifang and Zhucheng of Shandong Province, which has innovated new agricultural organizations and has become the pioneer and window of developing modern agriculture and food industry in China. The year 2008 was the fifteen anniversary of the birth of the theory of *agricultural industrialization*. By this opportunity, the RDI and local governments of Weifang and Zhucheng agreed to co-organize an international forum (or Mini-lab) on sustainable food supply chain in April 2008 in Zhucheng, by which to exhibit the achievements, practices and experiences of China in developing modern agriculture and building food safety system, through field surveys and on-the-spot dialogues. We hope, through this forum, to summarize and abstract the concept of *agricultural industrialization* in both practical and theoretical aspects in a globalized view, and to be able to contribute in some degree to a new path of agricultural modernization, and internationalization and standardization of food industry.

In as early as May 2007, as a part of above-mentioned forum, the RDI organized a case study team on sustainable food supply chain. Based on defining sustainable food supply chain, the project team members have conducted field surveys on three most important products: vegetable, aquatic products, and animal products, in Shouguang and Zhucheng of Shandong Province, and Yancheng of Jiangsu Province, during September 2007 and March 2008. Several case reports were written, which were provided for the participants of the forum as reference.

After the wonderful "Mini-lab on China's Sustainable Food Supply"

in April 2008, the team members continued the case study and wrote out more case reports. Altogether, 27 reports written in recent years were collected and compiled into this book: “Sustainable Food Supply Chain: practices in China”, which would serve as reference for researchers, officials and readers interested in such issues. Within the 27 reports, 12 are related to Weifang, which obviously reveals the achievements of Weifang in agricultural development and the similarity between *sustainable food supply chain and agricultural industrial chain*. In October 2008, one of the team member participated in the Terra Madre in Turin, Italy, which provided further chance for us to observe food supply chain, and the article on *slow food* in the book is the outcome.

Although this book is a collection of case study reports, during the process of study and writing, we were trying to build an integrated analytical framework and a clear route of thought to unite all of the reports. Based on the analytical framework, we had an abstracted evaluation on the general situation of sustainable food supply chains of China. We found that in the past years, the sustainability of food supply chains in China was improving, but still with many unsustainable elements. After the *tainted milk powder event*, we applied the analytical framework on this problem. Except for blaming the illegal behavior of the company and supporting the governmental remedies, we also concluded that, food safety is an important part of the sustainability of food supply chain, which is not only related with such economic elements as consumers’ price and intra-industrial competition, but also related with such social elements as corporate responsibility, effective governmental supervision, good cooperation and equal benefit allocation along the supply chains. Therefore, those temporary emergency measures are not enough to solve the fundamental crisis, and more comprehensive diagnoses and measures are necessary.

The reports in this book are aiming at multiplied economic bodies, e. g. companies, farmers, government, local cooperative organizations, traders and regions. Most of the reports are based on field investigation and the data were collected during the surveys. The formats of the reports are not uniformed, either long or short, either descriptive or analytical. We hope these multiplied reports could offer an alternative perspective for the readers. However, our study is still preliminary and feedbacks and criticism

are welcome.

During the field survey, we have received support from Weifang Academy of Social Sciences, Government of Shouguang, Government of Zhucheng, Linhai State Farm, Administration of Ocean and Fishery of Sheyang County. For the success of the Mini-lab, the Governments of Weifang and Zhucheng, and the College of Economic Management of Shandong Agricultural University all did their best in open-mind to facilitate the learning journey and workshops. Acknowledgements should go to all of above-mentioned organizations and individuals who have contributed to this book!

The European Charles Léopold Mayer Foundation for Human Progress (FPH) has been long endeavoring in international actions on sustainable development, and has especially conducted a series of international learning journeys on food and agricultural development, including in China. The RDI has had a long history of friendly cooperation with FPH. We are endeavoring in exhibiting the Chinese experiences to the world, and also introducing valuable international experiences into China. The FPH not only provided generous financial support to the Mini-lab and the case study, but also assumed the abroad organizing work for the Mini-lab. The survey and the outcome (this book) are very important intermediate links among the above-mentioned international actions and will sure acts as a window to abroad.

Mr. Zhang Yeming, a responsible senior editor of Heilongjiang People's Publishing House, has contributed a lot to the publication of this book. Sincere thanks also go to the "Long Press" and Mr. Zhang Yeming.

ZHANG Xiaoshan

May 30, 2009

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