

# Linking Smallholder Producers to Modern Agri-Food Chains

Case Studies from South Asia, Southeast Asia and China



*Editors*

Vijay Paul Sharma

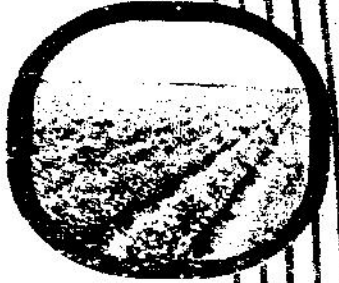
Bill Vorley

Jikun Huang

Abid Qaiyum Suleri

Larry Digal

Thomas A. Reardon



**Linking Smallholder Producers to Modern  
Agri-Food Chains: Case Studies from South Asia,  
Southeast Asia and China**

# Linking Smallholder Producers to Modern Agri-Food Chains: Case Studies from South Asia, Southeast Asia and China

*Editors*

**Vijay Paul Sharma, Bill Vorley, Jikun Huang,  
Abid Qaiyum Suleri, Larry Digal and  
Thomas A. Reardon**



---

**ALLIED PUBLISHERS PRIVATE LIMITED**

New Delhi • Mumbai • Kolkata • Chennai • Nagpur  
Ahmedabad • Bangalore • Hyderabad • Lucknow

## **LLIED PUBLISHERS PRIVATE LIMITED**

3-14 Asaf Ali Road, **New Delhi**–110002

∴ 011-23239001 • E-mail: delhi.books@alliedpublishers.com

9 Prag Narain Road, Near Kalyan Bhawan, **Lucknow**–226001

∴ 0522-2209942 • E-mail: lko.books@alliedpublishers.com

Chittaranjan Avenue, **Kolkata**–700072

∴ 033-22129618 • E-mail: cal.books@alliedpublishers.com

J.N. Heredia Marg, Ballard Estate, **Mumbai**–400001

∴ 022-42126969 • E-mail: mumbai.books@alliedpublishers.com

Shiv Sunder Apartments (Ground Floor), Central Bazar Road,

**jaj Nagar, Nagpur**–440010

∴ 0712-2234210 • E-mail: ngp.books@alliedpublishers.com

1 Sun House (First Floor), C.G. Road, Navrangpura,

isbridge P.O., **Ahmedabad**–380006

∴ 079-26465916 • E-mail: ahmbd.books@alliedpublishers.com

1 Anna Salai, **Chennai**–600002

∴ 044-28523938 • E-mail: chennai.books@alliedpublishers.com

1 Main Road, Gandhinagar, **Bangalore**–560009

∴ 080-22262081 • E-mail: bngl.books@alliedpublishers.com

2-844/6 & 7 Kachiguda Station Road, **Hyderabad**–500027

∴ 040-24619079 • E-mail: hyd.books@alliedpublishers.com

**Website:** [www.alliedpublishers.com](http://www.alliedpublishers.com)

© Vijay Paul Sharma

No part of the material protected by this copyright notice may be reproduced or stored in a retrieval system without prior written permission from the copyright owners.

BN : 978-81-8424-824-1

Published by Sunil Sachdev and printed by Ravi Sachdev at Allied Publishers Pvt. Ltd.,  
Printing Division, A-104 Mayapuri Phase II New Delhi -110064

## About the Contributors

### 1. India

**Sudha Narayanan** is Research Associate at the Cornell International Institute for Food and Agriculture Development (CIIFAD), Cornell University, USA.

**Deepthi Kolady** is a Visiting Fellow at the International Programs in the College of Agriculture and Life Sciences at Cornell University, USA. Deepthi holds a Ph.D. in Applied Economics from Cornell University.

**Sujana Krishnamoorthy** has an MPhil from the Jawaharlal Nehru University, New Delhi, India. She has researched and worked across India on issues of labour rights, governance and livelihoods.

**Ghayur Alam** is Director, Centre for Sustainable Development, Dehradun, India.

**Deepti Verma** is with the Centre for Sustainable Development, Dehradun, India.

### 2. Sri Lanka

**Parakrama Samarafunga** is currently a Research Fellow and the Head of the Agricultural Economics unit of the Institute of Policy Studies (IPS) of Sri Lanka. Before joining the IPS he was the Director, Economics and Planning in the Sri Lanka Department of Agriculture at Peradeniya.

### 3. Thailand

**Songsak Sriboonchitta** is Associate Professor in the Faculty of Economics, Chiang Mai University, Thailand.

**Aree Wiboonpongse** is a Professor in the Department of Agricultural Economics, Faculty of Agriculture, Chiang Mai University, Thailand.

**Puttawan Khuntonthong** is with the Faculty of Economics, Chiang Mai University, Thailand.

### 4. Indonesia

**Ronnie S. Natawidjaja** is Director, Center for Agrifood Policy and Agribusiness Studies (CAPAS), Padjadjaran University, Bandung, Indonesia.

**Yosini Deliana** is a Researcher with Center for Agrifood Policy and Agribusiness Studies (CAPAS), Padjadjaran University, Bandung, Indonesia.

**Tomy Perdana** is a Researcher with the Center for Agrifood Policy and Agribusiness Studies (CAPAS), Padjadjaran University, Bandung, Indonesia.

**Hanny Sulistyoningrum** is with the Center for Agrifood Policy and Agribusiness Studies (CAPAS), Padjadjaran University, Bandung, Indonesia.

**Yovie M. Rahayu** is with the Center for Agrifood Policy and Agribusiness Studies (CAPAS), Padjadjaran University, Bandung, Indonesia.

**Wayan Rusastra** is with the Centre for Alleviation of Poverty through Secondary Crops' Development in Asia and the Pacific (CAPSA), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Bogor, Indonesia.

**Togar A. Napitupulu** is with the Centre for Alleviation of Poverty through Secondary Crops' Development in Asia and the Pacific (CAPSA), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), Bogor, Indonesia.

## 5. Philippines

**Sylvia B. Concepcion** is Dean, School of Management, University of the Philippines, Mindanao, Davao City, Philippines.

**Joan C. Uy** is Vice President, Northern Mindanao Vegetable Producers Association Inc., Philippines.

**Luis Hualda** is with School of Management, University of the Philippines, Mindanao, Davao City, Philippines.

**Rene A. Guarin** is with Upland Marketing Foundation, Inc., Santolan, Pasig City, Philippines.

## 6. China

**Dinghuan Hu** is Professor at the Institute of Agricultural Economics, Chinese Academy of Agricultural Sciences, Beijing, China.

**Qiao Liang** received his doctorate from Zhejiang University, China in March, 2011 and is post-doctoral fellow in School of Economics, Zhejiang University. His research interests focus on farmer cooperatives, agricultural supply chain and other farmer organizations.

**Xia Dandan** is with Institute of Agricultural Economics and Development, Chinese Academy of Agricultural Sciences, Beijing.

**Naiquan Sang** is with School of Economics, Nanjing University of Finance and Economics, Nanjing, China.

**Huang Zuhui** is a Professor and Director, Center for Agricultural and Rural Development (CARD), Zhejiang University, China.

**Liang Qiao** is a student at the Center for Agricultural and Rural Development (CARD), Zhejiang University, China.

**Song Yu** is a student at the Center for Agricultural and Rural Development (CARD), Zhejiang University, China.

**Zhurong Huang** is with the Centre for Chinese Agricultural Policy, Chinese Academy of Sciences, Beijing, China.

**Xianfang Niu** is with the Centre for Chinese Agricultural Policy, Chinese Academy of Sciences, Beijing, China.

**Huayuan Zhi** is with the Centre for Chinese Agricultural Policy, Chinese Academy of Sciences, Beijing, China.

**Suxia Wang** is with the Institute of Agricultural Economics and Development, Chinese Academy of Agricultural Sciences.

## Contents

<i>Preface</i> .....	<i>v</i>
<i>Acknowledgements</i> .....	<i>vii</i>
<i>About the Contributors</i> .....	<i>ix</i>
<i>About the Editors</i> .....	<i>xi</i>
<i>List of Tables</i> .....	<i>xv</i>
<i>List of Figures</i> .....	<i>xix</i>
 <b>Part 1: The Economic and Policy Environment</b>	
1. Changing Structure of Agri-Food Chains in Asia: ..... Opportunities and Threats for Small-Scale Producers <i>Vijay Paul Sharma, Bill Vorley, Jikun Huang, Abid Qaiyum Suleri, Larry Digal and Thomas A. Reardon</i>	1
 <b>Part 2: Countries with Emerging Modern Supply Chains India, and Sri Lanka Case Studies</b>	
2. India's Agrarian Crisis and Smallholder Producers' Participation ..... in New Farm Supply Chain Initiatives: A Study of Contract Farming <i>Vijay Paul Sharma</i>	16
3. Marketing Cooperatives in a New Retail Context: A Study of ..... HOPCOMS <i>Deepthi Kolady, Sujana Krishnamoorthy and Sudha Narayanan</i>	55
4. Connecting Small Farmers with Dynamic Markets: A Successful ..... Supply Chain in Uttaranchal, India <i>Ghayur Alam and Deepti Verma</i>	76
5. Integrating Small Farmers into Dynamic supply chains: ..... A Case Study of MA's Tropical Food Company <i>Parakrama A. Samaratunga</i>	97
 <b>Part 3: Countries with Consolidating and Expanding Supermarkets and their Supply Chains: Philippines, Indonesia and Thailand Case Studies</b>	
6. Keys to Inclusion of Small Farmers in Dynamic Vegetable Markets: ..... The Case of NorminVeggies in the Philippines <i>Sylvia D. Concepcion, Larry Digal and Joan C. Uy</i>	124
7. Keys to Inclusion of Small-Scale Organic Rice Producers in Supermarkets: .... The Case of Upland Marketing Foundation Inc. <i>Sylvia Concepción, Larry Digal, Rene Guarin and Antonio Luis Hualda</i>	173

8. Linking Mango Farmers to Dynamic Markets in Indonesia ..... 193  
*Ronnie S. Natawidjaja, Yosini Deliana, Wayan Rusastra, Tomy Perdana,  
 Togar A. Napitupulu, Hanny Sulistyoningrum and Yovie M. Rahayu*
9. Keys to Inclusion of Small-Scale Producers in Dynamic Potato ..... 242  
 Market in Thailand: CMK Housewives' Group  
*Aree Wiboonpongse, Songsak Sriboonchitta and Puttawan Khuntonthong*

#### Part 4: Countries in Transition from State Controls: China Case studies

10. Keys to Inclusion of Small-Scale Producers in Dynamic Markets: ..... 275  
 Carrefour's Quality Lines in China  
*Dinghuan Hu and Xia Dandan*
11. Market Chain Changes in Small Farm Dominated Economy: ..... 308  
 A Case Study on Mushroom in China  
*Jikun Huang, Zhurong Huang, Xianfang Niu, Huayong Zhi,  
 Suxia Wang and Dinghuan Hu*
12. Collective Actions of Small Farm Households in Big Markets: ..... 322  
 Ruoheng Farmer Watermelon Cooperative in China  
*Huang Zuhui Liang Qiao and Song Yu*
13. Supermarkets Penetrating Chinese Countryside: ..... 346  
 The Suguo Model and its Impact on Smallholders and SMEs  
*Naiquan Sang*

#### Part 5: Conclusions

14. Looking Ahead ..... 358  
*Vijay Paul Sharma, Bill Vorley, Jikun Huang, Abid Qaiyum Suleri,  
 Larry Digal and Thomas A. Reardon*



## Linking Mango Farmers to Dynamic Markets in Indonesia

Ronnie S. Natawidjaja, Yosini Deliana, Wayan Rusastra, Tomy Perdana,  
Togar A. Napitupulu, Hanny Sulistyoningrum and Yovie M. Rahayu

Indonesia ranks fourth among mango producing countries, after India, China, and Thailand. One of the important production zones of mango in Indonesia is Pemalang, Central Java. In this area, mango can be harvested during off-season, May to August, while mango in other producing areas is generally harvested in the months of October to January. The specific harvesting period should be a considerable advantage to farmers in term of bargaining position with traders in determining mango's selling price. However, apparently local collectors (*tengkulak*) and wholesalers (*bandar*), are still those who benefit the most from off-season mango.

In Pemalang, since farmers are generally bounded by a loan received from a trader, farmers let traders decide on selling the harvest. Therefore, farmers do not know the accurate volume of mango production. This kind of exchange system creates vulnerability to farmers' bargaining position, so that they obtain relatively lower price compared to the market price. This lop-sided exchange system has also resulted in farmers' lack of motivation to improve productivity as well as quality of mango.

Through rapid development of modern retail and more competitive market, within the last 10 years, some suppliers to supermarkets have attempted to involve farmers directly in the supply chain. However, these efforts failed because of farmers breaching on the contract agreement. Contract breaching generally happens because supplier cannot always offer the highest price to farmers. One of the systems which has been operated since 2003 and successfully brings farmers into direct negotiation with the main modern retailer (such as *Carrefour*) is the partnership between *Bimandiri* (specialized supplier to modern market) and mango farmer's group of KUBM (Kelompok Usaha Bersama Mandiri/Self-help Collective Business Group) in Pemalang, Central Java.

### Dynamic Changes of Mango Market

In the period 1994–2004, Indonesia's mango production increased about 7 per cent per year (Table 8.1). However, since new harvested area of mango had rapidly increased by about 40 per cent during the last decade, national productivity of mango decreased sharply. Mango productivity in 2004 was only about 7.7 tons/hectare. The Directorate General of Horticulture set a target for mango productivity to be 10.6 tons per hectare through a programme focused on intensification and replanting of mango farms (Ministry of Agriculture, 2006).