

**TRANSFORMING THE
RURAL ASIAN
ECONOMY:
THE UNFINISHED
REVOLUTION**

by

Mark W. Rosegrant

and

Peter B. R. Hazell

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CONTENTS

Foreword	xiii
Preface	xvii
Introduction	xix
Chapter I Agricultural Growth and the Economic Transformation	1
Introduction	1
Sources of Economic Growth in Asia	5
Explaining Economic Growth	9
Prudent Macroeconomic Policies	11
Market-oriented Policies	11
Open Trade Policies	12
Industrial Policy	13
Investment in Education	15
Institutional Issues	16
Importance of Agriculture in Promoting the Transformation.....	18
Changing Role of the Agricultural Sector	26
Conclusions	27
Chapter II Growth and Policies for Poverty Reduction	29
Introduction	29
Trends in Total Poverty	30
Trends in Rural Poverty	33
Growth and Poverty Reduction in Asia	36

Beyond Growth: Policies for Poverty Reduction	40
Education.....	41
Health and Nutrition	43
Rural Infrastructure	44
Land Reform	46
Safety-Net Programs	48
Conclusions	53
Chapter III Agricultural Diversification and	
Commercialization	57
Introduction	57
Structural Change in Agriculture	57
Commercialization and Diversification	66
Agricultural Research	66
Economic Liberalization	67
Rural Financial Markets	68
Rural Infrastructure	72
Property Rights	73
Agricultural Commercialization and Diversification	
and the Poor	73
Impact of Technological Change	74
Impact of Commercialization	74
Regional Disparities	77
Conclusion	78
Chapter IV The Rural Nonfarm Transformation	81
Introduction	81
Importance of Rural Nonfarm Activities	82
Definitions	82
Employment Shares	82
Income Shares	85
Importance to Women.....	87
Importance to the Poor	89
Structural Transformation of the Rural	
Nonfarm Economy	92

Overview	92
Changes in the Composition of the Rural Nonfarm Economy	93
Changes in the Spatial Structure of Rural Economies	96
Changes in Local Labor and Capital Markets	100
Impact on the Poor	103
Determinants of the Transformation	104
Agricultural Growth	106
Population Density	110
Rural Towns	111
Rural Infrastructure	112
Macro and Trade Policies	114
Rural Industrialization Policies	115
Conclusions	119
Chapter V Sources of Agricultural Growth	123
Introduction	123
Agricultural Output and Input Growth	124
Input Use Trends	125
Land and Labor Productivity Growth	134
Patterns of Public Spending on Agriculture	139
Size and Trends in Public Expenditure	140
Public Expenditures on Subsidies and Investments	144
Sources of Growth in Asian Agriculture	147
Conclusions	160
Chapter VI The Evolution of Cereal and Livestock Supply and Demand: Policies to Meet New Challenges	161
Introduction	161
Evolution of Cereal and Livestock Demand	162
Trends in Cereal Demand	163
Growth in Demand for Livestock Products	165

Evolution of Cereal Production: Trends, Challenges, and Policies	167
Challenges in Sustaining Cereal Production	169
Policies for the Crop Sector	172
Evolution of Livestock Production : Trends, Challenges, and Policies	178
Challenges for Increasing Livestock Production	180
Policies for the Livestock Sector	185
Conclusions	189
Chapter VII Impact of Trade, Macroeconomic, and Price Policy on Agriculture	191
Introduction	191
Historical Patterns of Agricultural Protection	193
Trade, Macroeconomic, and Price Policies in Asia	196
GATT and WTO	203
Regional Trade Agreements	209
Structural Changes in International Agricultural Trade	213
Policy Reforms in Developed-Country Agriculture	214
Changes in the Nature of Agricultural Trade	214
International Price Variability	215
Conclusions	217
Chapter VIII Economic Reform in Asia Transition Economies	219
Introduction	219
Initial Conditions and Exogenous Shocks	222
Agricultural Reform	229
State Enterprise Reform	237
Trade, Macroeconomic, and Stabilization Policies	242
Provision of Social Protection During Transition	246
Environmental Protection During Transition	249

Lessons and Future Directions For Reform	250
Chapter IX The Financial and Economic Crisis in East and Southeast Asia	255
Introduction	255
Causes of the Crisis: Two Views	256
Development of the Crisis	257
Real Appreciation of Currencies	258
Large Current-Account Deficits	259
Large Short-term Capital Flows	259
Overborrowing and Overlending in the Financial Sector	261
The Onset of the Crisis	263
Impact of the Crisis	266
Social Impact of the Crisis	266
Declining Incomes	266
Rising Absolute Poverty	268
Increases in Malnutrition	269
Increased Pressure on Rural Areas	269
Declining Social Services—Threats to Education and Health	270
Impact on the Agricultural Sector	272
Lessons for Policy	275
Social Services and Safety Nets	275
Good Governance	278
Financial and Corporate Management	280
International Capital Flows	281
International Recovery Programs	283
Conclusions	287
Chapter X Environmental and Resource Challenges to Future Growth	289
Introduction	289
Cropland – Will the Base for Food Supply Shrink or Expand?	290
Potential for Cropland Expansion	290
Loss of Cropland to Urbanization	291

Net Expansion/Loss of Cropland	293
Water Resources – Does Scarcity Endanger	
Future Food Supply?	294
Energy – Plentiful Enough to Support a	
Growing Food Supply?	297
Land Degradation – What Extent and	
Productivity Effects?	299
Extent of Land Degradation	300
Productivity Effects of Land Degradation	300
Improved Crop Productivity – The Key to a	
Secure Food Supply?	305
Fertilizer – Raising Yields or	
Damaging the Environment?	307
Plant Genetic Resources – A	
Narrowed Base?	310
Biotechnology – Higher Yield Ceilings?	312
Climate Change – Different Crop Productivity Effects	
for Developing vs. Developed World	315
Conclusions	319
Chapter XI Challenges for Less Favored Areas	323
Introduction	323
Extent of Poverty and Environmental Degradation in	
Less Favored Areas	324
Poverty and Productivity in the LFAs:	
Evidence of Links	326
Environmental Degradation in the LFAs:	
Outcome of Low Productivity and	
Expansion of Cropped Area	327
Returns to Public Investments in the LFAs	328
Returns on Investments in High-Potential	
Areas: New Realities Challenge	
Conventional Wisdom	329
Productivity and Poverty Impact of	
Investment in LFAs: Emerging Evidence	330

Strategies for Developing LFAs:

- Recognizing Commonality Amid Diversity 333
- Promote Broad-Based Agricultural Development 335
- Improve Technologies and Farming Systems 335
- Ensure Equitable and Secure Access to Natural Resources 336
- Ensure That Risks Are Managed Effectively 339
- Invest in Rural Infrastructure and People 340
- Provide the Right Policy Environment 341
- Strengthen Public Institutions 342
- Conclusions 343

Chapter XII Alternative Futures for Asian Agriculture and Food Security 345

- Introduction 345
- Global Trends – A Prominent Role for Asian Developing Economies 346
- Alternative Scenarios for Agriculture in Developing Asia: Weak vs. Strong Investment/Policy Reform Strategies 348
 - Low Investment and Weak Policy Reform 349
 - High Investment and Strong Policy Reform 351
- Alternative Scenarios: Impact on Rural Asian Food Markets and Food Security In 2010 353
 - Scenario Effects on Supply, Demand, and Net Trade 353
 - Scenario Effects on Food Security: Childhood Malnutrition 366
 - Can Childhood Malnutrition in Asia Be Eliminated by 2010? 371
- Conclusions 374

Chapter XIII Lessons Learned	377
Introduction	377
Agricultural Growth: An Engine for Asia’s Economic Development	378
Making Growth Pro-Poor: A Key to Poverty Reduction in Asia	381
Agricultural and Rural Economic Growth: Markets Enhanced by Public Policies	382
Agricultural Research and Extension	383
Investment in Rural Infrastructure	385
Property Rights	386
Economic Liberalization	389
Rural Financial Markets	391
Investment in Education, Health, and Nutrition	393
Completing the Transformation: Reversing Environmental Degradation	395
Completing the Transformation: Reaching Less Favored Lands	400
Extending the Transformation: A New Understanding of the Role of Governance	401
Extending the Transformation: Managing a New Revolution in Agricultural Technology	403
Extending the Transformation: Managing Globalization	407
Alternative Futures: No Room for Complacency	409
Conclusion	411
References	453
Appendix	453
Asia In The Global Agricultural Economy	453
IFPRI’s IMPACT Global Food Model : Model Characteristics	454
Projections for Cereals	456
Projections for Livestock Products	472

Projections for World Prices and
International Trade..... 479

Projections for Malnutrition Among
Pre-School Children..... 483

Indexes

Author Index 486

Title Index 493

FOREWORD

An economic transformation has occurred in much of rural Asia since the Asian Development Bank (ADB) last undertook a survey of the region in 1976. The rural economy has become increasingly linked to a rapidly integrating world economy and rural society in Asia faces new opportunities and challenges.

The transformation of rural Asia has also been accompanied by some troubling developments. While large parts of the region have prospered, Asia remains home to the majority of the world's poor. Growing inequalities and rising expectations in many parts of rural Asia have increased the urgency of tackling the problems of rural poverty. The rapid exploitation of natural resources is threatening the sustainability of the drive for higher productivity and incomes in some parts of rural Asia and is, in general, affecting the quality of life in the entire region.

These developments have altered the concept of rural development to encompass concerns that go well beyond improvements in growth, income, and output. The concerns include an assessment of changes in the quality of life, broadly defined to include improvements in health and nutrition, education, environmentally safe living conditions, and reduction in gender and income inequalities. At the same time, the policy environment has changed dramatically. Thus, there has arisen a need to identify ways in which governments, the development community at large, and the ADB in particular, can offer more effective financial and policy support for Asian rural development in the new century.

Therefore, the ADB decided to undertake a study to examine the achievements and prospects of rural Asia and to provide a vision for the future of agriculture and rural development in Asia into the next century. The objective of the

Study was to identify, for the ADB's developing member countries in Asia, policy and investment priorities that will promote sustainable development and improve economic and social conditions in the rural sector.

The Study was designed as a team effort, using ADB Staff and international experts under the guidance of an ADB interdepartmental steering committee. To address the diverse issues satisfactorily and in a comprehensive manner, five thematic subject areas were identified to provide the analytical and empirical background on which the Study's recommendations would be based. Working groups comprising ADB staff were set up to define broadly the scope and coverage of each of the themes. The five working groups acted as counterparts to international experts recruited to prepare the background reports, providing guidance to the experts and reviewing their work to ensure high quality output.

A panel of external advisers from the international research community was constituted to review and comment on the approach and methodology of the study and the terms of reference for each of these background reports. The external advisers also reviewed the drafts of the reports. In addition, external reviewers, prominent members of academe and senior policymakers, were appointed to review each of the background reports and to provide expert guidance.

The preparation of the background reports included four workshops held at the ADB's headquarters in Manila: an inception workshop in May 1998; two interim workshops, in November 1998 and January 1999, respectively, to review progress; and a final workshop in March 1999, at which the background reports were presented by their authors to a large group of participants comprising senior policymakers from the ADB's developing member countries, international organizations, international and locally based nongovernment organizations, donor agencies, members of academe, and ADB staff.

The five background reports, of which this volume is one, have now been published by Oxford University Press. The titles and authors of the other volumes are:

The Growth and Sustainability of Agriculture in Asia
Mingsarn Santikarn Kaosa-ard and Benjavan
Rerkasem, with contributions by Shelley Grasty,
Apichart Kaosa-ard, Sunil S. Pednekar, Kanok
Rerkasem, and Paul Auger

*Rural Financial Markets in Asia: Paradigms, Policies,
and Performance*
Richard L. Meyer and Geetha Nagarajan

The Quality of Life in Rural Asia
David Bloom, Patricia Craig, and Pia Malaney

*The Evolving Roles of State, Private, and Local Actors in
Rural Asia*
Ammar Siamwalla, with contributions by Alex
Brillantes, Somsak Chunharas, Colin MacAndrews,
Andrew MacIntyre, and Frederick Roche

The results and recommendations from the Study were presented at a seminar during the ADB 32nd Annual Meeting in Manila. These have since been published by the ADB as a book titled *Rural Asia: Beyond the Green Revolution*.

The findings from the Study will provide a basis for future discussion between the ADB and its developing member countries on ways to eradicate poverty and improve the quality of life in rural Asia. The volumes in this series should prove useful to all those concerned with improving the economic and social conditions of rural populations in Asia through sustainable development.



TADAO CHINO
President
Asian Development Bank

PREFACE

In addition to the generous financial support from the Asian Development Bank, the book would not have been possible without the guidance and assistance of many individuals. At the Asian Development Bank, Yang Weimin, Akira Seki, Hans-Juergen Springer and M. Tusneem provided overall guidance to the project. Bradford Philips and Shahid Zahid capably managed the project against a tight time frame. The ADB staff working group for our book provided innumerable constructive comments on several drafts of the manuscript. The working group was led initially by Sultan H. Rahman, and later by Shahid Zahid. Members of the group included David Edwards, Richard Vokes, Carl Amerling, Xianbin Yao, Hua Du, and Mandar Jayawant. Many other staff of the ADB also provided important inputs, through discussions, participation in a series of workshops, and provision of valuable papers and documents.

The book also greatly benefited from the insightful comments and intense interaction with the external reviewers, Walter P. Falcon and Saeed Ahmed Qureshi, and the Senior Advisory Team commissioned by ADB, in particular Klaus Lampe, Justin Lin, Obaidullah Khan, and Meryl Williams. The other members of the consultant team, Richard Meyer, Ammar Siamwalla, Mingsarn Santikarn Kaosa-ard, and David Bloom also provided important insights throughout the project. Finally, several colleagues, including Shenggen Fan, Francesco Goletti, Raisuddin Ahmed, and Randolph Barker provided helpful comments on parts of the manuscript.

Strong logistical and administrative support was provided by the Rural Asia support team of the ADB, including Elizabeth Tan (who also assisted in data collection and synthesis), Laura Britt, Lilibeth Perez, and Dang Nada. Sara Collins Medina did an excellent job in editing the book, saving us from many errors.

At IFPRI, Claudia Ringler and Julie Witcover provided invaluable research support, including literature review, data collection and analysis, drafting of background material, preparation of tables and figures, and technical editing. Beverly Abreu was responsible for final word processing of the first draft of the full manuscript, and Denise Dixon and Beryl Hackett-Perez handled additional word processing and editorial details.

Mark W. Rosegrant

and Peter B. R. Hazell

INTRODUCTION

Much of Asia was in a desperate situation in the early 1960s. Agriculture was the major source of income and employment for most of the population, but its productivity was low and stagnant. At the same time, populations were growing rapidly, leading to accelerating demand for food and a rapidly increasing number of rural workers to employ. Many countries faced critical and increasing food-security problems and the doubly difficult challenge of trying to absorb an increasing labor force while simultaneously increasing labor productivity. The food crisis in India during the mid-1960s was indicative of a worrying situation that existed more broadly all across Asia and of the increasing dependence of many Asian countries on food aid for their survival.

Instead of plunging into a Malthusian spiral of rapid population growth and famine, however, the Asian rural and general economy underwent a dramatic transformation over the past 30 years; the speed and level of agricultural, rural, and overall economic development achieved in most Asian countries far exceeded expectations. In South Asia, famine was averted and more: cereal production rose by 92 percent using only 4 percent more land during the almost three decades from 1969/71 to 1994/96, boosting total per capita food supply from 2,060 to 2,380 calories per day. Gains in East and Southeast Asia combined were likewise impressive. There, cereal production almost doubled between 1969/71 and 1994/96 while using 22 percent more land, pushing total per capita calorie availability up from 2,063 to 2,662 calories per day. Across the region, annual incomes per person rose several-fold from 1970 to 1995: in the People's Republic of China (PRC) from \$91 to \$473, in Indonesia from \$207 to \$706, and in India from \$241 to \$439 (all figures in 1987 real dollars). These strong upward trends in both incomes

and agricultural production have contributed to a rapid reduction in poverty despite increasing population pressure: in 1975, six out of ten Asians lived in poverty, but by 1993, only two out of ten East Asians and four out of ten South Asians did.

Despite these remarkable successes, Asia continues to face major challenges. A devastating economic crisis struck East and Southeast Asia in 1997, raising doubts throughout Asia about the sustainability of rapid growth. Some negative environmental effects of past growth have emerged and have threatened to at least slow the pace of further growth. There have been growing disparities between countries and between regions within countries. Asian economies became more diverse, with rapid development in East and Southeast Asia (except for the Philippines), moderate growth in South Asia, and stagnation in many of the centrally planned (later transitional) economies prior to market reforms. In many cases there were also widening disparities in income and access to services and education across demographic groups. These disparities are particularly prevalent in South Asia and in the Philippines. And, while the green revolution that imported high-yield varieties of cereal crops and other high-technology inputs benefited irrigated areas throughout Asia, many rainfed areas were left behind.

This book describes the dramatic, but unfinished, transformation of the rural Asian economy, with an emphasis on public policies and strategies and their impact on agricultural and economic growth, poverty, and the environment. The book can be divided conceptually into three main sections. The first, comprised of Chapters 1–6, assesses in detail the processes of rural economic and agricultural growth. It examines the determinants of agricultural growth and economic transformation (Chapter 1), how this transformation has impacted upon Asia's rural poor (Chapter 2), the process of agricultural diversification and commercialization (Chapter 3), the rural nonfarm transformation (Chapter 4), sources of agricultural growth (Chapter 5), and the evolution of cereal and livestock supply and demand (Chapter 6).

In the second section, broader economy-wide issues and policies and how they affect agriculture and the rural economy are the focus. Chapter 7 examines the impacts of trade, macroeconomic policy, and price policy on agriculture. Chapter 8 assesses the process and impacts of economic reform in Asian economies undergoing the transition from central planning to market orientation. In Chapter 9, the financial and economic crisis in East and Southeast Asia that was ignited in 1997 is evaluated.

The third section focuses on priority challenges and alternative futures, including environmental and resource challenges to future growth (Chapter 10), the challenges facing less favored areas (Chapter 11), and alternative futures for agriculture and food security in Asia (Chapter 12). The concluding chapter summarizes lessons learned from the process of rural transformation.