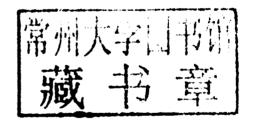


Edited by CHRISTOPHER B. BARRETT

# FOOD SECURITY & SOCIOPOLITICAL STABILITY

# Food Security and Sociopolitical Stability

EDITED BY
CHRISTOPHER B. BARRETT







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# FOOD SECURITY AND SOCIOPOLITICAL STABILITY

### Acknowledgments

After food riots wracked many low- and middle-income families during the global food price spike of 2007–8, and then again in 2010–11, food policy issues suddenly re-emerged on the global stage with a prominence they had lacked since the mid-1970s. An era of agricultural plenty ushered in by the Green Revolution had lulled policymakers and many scientists into a false sense of security that food would always be abundant and food prices low. Reawakened to the challenges of meeting the food needs of a growing, and increasingly well-off and urban, world population facing growing threats of climate change, the global policy community suddenly became keen to learn how food security and sociopolitical stability relate to one another. It also became re-sensitized to the daily preoccupation of a large share of the world's population with their struggles to feed their families.

Thankfully, a cadre of exceptional scholars remained very engaged with these issues even while much of the world's focus drifted elsewhere. The contributors to this volume—each an eminent scholar in his or her field—generously contributed their considerable expertise and goodwill to help pull this volume together. My greatest thanks goes to them, an extraordinary group of brilliant men and women without whom this volume could never have been produced. I learned an enormous amount from our interactions over the year it took from the inception of this project, through our authors' workshop, to a completed book manuscript. Not only are they a remarkable group of sharp minds and cooperative spirits, but they are admirably committed to translating the oftentimes-technical details of their scholarship into clear language accessible to a wide range of prospective readers beyond their core academic disciplines. This volume is intended for a broad audience of scholars, policymakers and their advisers, students, and interested lay readers who want to deepen their understanding of the complex relationship between food security and sociopolitical stability in the twenty-first century.

Such an ambitious project could not have progressed without valuable contributions from many people in addition to the contributing authors. Kathryn Boor, the Ronald Lynch Dean of the College of Agriculture and Life Sciences at Cornell University, and Mike Hoffmann, Director of the Cornell University Agricultural Experiment Station, first brought this opportunity to my attention and were invaluable advocates in getting this project launched. Linda Zall, Rich Engel, and their staffs in the United States intelligence community provided encouragement and a tangible target audience for the contributors. This project was also supported financially by the United States intelligence community. Any opinions, findings, conclusions, or recommendations expressed

in this publication are those of the author(s) and do not necessarily reflect the views of the organizations or agencies that provided support for the project.

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Chris Barrett Ithaca, NY

December 2012

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### List of Abbreviations

ALBA Bolivarian Alliance for the Americas AMO Atlantic Multidecadal Oscillation AMV Atlantic Multidecadal Variability

AMV Atlantic Multidecadal Vi

BACI before-after-control-impact BFSP Brazil's food security policy

BiOS Biological Innovation for Open Society

BPL below poverty line

BRIIC Brazil, Russia, India, Indonesia, and China

CA conservation agriculture

CAADP Comprehensive Africa Agriculture Development Program
CAMBIA Centre for Applications of Molecular Biology in International

Agriculture

CBD Convention on Biological Diversity

CCT conditional cash transfer

CGIAR Consultative Group on International Agriculture

CI contour interval

CIMMYT International Maize and Wheat Center

COMESA The Common Market for Eastern and Southern Africa

CONSEA National Food Security Council (Brazil)

CPI Consumer price index

CPN-M Communist Party of Nepal—Maoist

CTE consumer tax equivalents
DDA Doha Development Agenda

DPRK Democratic People's Republic of Korea

DSR direct seeding of rice

ECCAS Economic Community of Central African States
ECOWAS The Economic Community of West African States

ENSO El Niño-Southern Oscillation

FAO United Nations Food and Agriculture Organization FAO-FIVIMS Food Insecurity and Vulnerability Mapping System

FCI The Food Corporation of India

FEWS NET The Famine and Early Warning System Network

GATT General Agreement on Tariffs and Trade

GCM General Circulation Models

GEAC Genetic Engineering Approval Committee

GHI Global Hunger Index

GIEWS Global Information Early Warning System

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GM genetically modified

GMO genetically modified organisms HDI Human Development Index

ICISS International Commission on Intervention and State Sovereignty

IFPRI International Food Policy Research Institute
IGAD Intergovernmental Authority on Development
ILRI International Livestock Research Institute

IMPACT International Model for Policy Analysis of Agricultural

Commodities and Trade

IP intellectual property
IPR intellectual property rights
IPO Interdecadal Pacific Oscillation
IRRI International Rice Research Institute

ITCZ Intertropical Convergence Zone

LOC low-income countries
MAS marker-assisted selection
MCC Maoist Communist Center

MDA Ministry of Agrarian Development

MEP minimum export prices

MST Movimento dos Trabalhadores Sem Terra

NAM Northern Annular Mode NAO North Atlantic Oscillation

NARES National Agricultural Research and Extension Systems

NERICA New Rice for Africa program

NRA nominal rates of assistance (to an industry or sector)

OECD The Organization for Economic Co-operation and Development

OFAC Office of Foreign Assets Control

OPEC Organization of the Petroleum Exporting Countries

PAA Food Acquisition Program (Brazil)

PDO Pacific Decadal Oscillation PDV Pacific Decadal Variability

PIPRA Public Intellectual Property Resource for Agriculture

PMV Plan Maroc Vert

PNSAN National Food and Nutritional Security Plan (Brazil)

PRONAF National Program for Strengthening Family Farming (Brazil)

PSNP Productive Safety Net Program

PVP plant variety protection
PWG The People's War Group
R2P responsibility to protect
R&D research and development

REDD Reducing Emissions from Deforestation and Forest Degradation

RMB renminbi

RRA relative rate of assistance

SADC The Southern African Development Community

SAM Southern Annular Mode

SELA The Latin American and Caribbean economic system

SIDS small-island developing states

SLP sea-level pressure

SOCLA Sociedad Scientifica Latinoamericana de Agroecologia

SOI Southern Oscillation Index SRI system of rice intensification SST sea surface temperature

SSTA sea surface temperature anomaly

s/u stock-to-use

TAL transcription activator-like
TAO Tropical Atmosphere Ocean

TFG Transitional Federal Government (Somalia)

TFP total factor productivity

TOGA Tropical Ocean Global Atmosphere Program trade-related aspects of intellectual property UNDP United Nations Development Program

UNESCO United Nation Educational, Scientific, and Cultural Organization
UPOV International Union for the Protection of New Varieties of Plants

USAID United States Agency for International Development

USDAERS United States Department of Agriculture Economic Research

Service

WFP World Food Programme WTO World Trade Organization

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