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Chinese Aid and African Development

Exporting Green Revolution

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For my mother and father
 with gratitude and love

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List of Abbreviations

| | |
|----------|--|
| ACRE | Adaptive Crop Research and Extension (Sierra Leone) |
| ADP | Agricultural Development Project (in The Gambia, a World Bank project) |
| AGRICON | China International Cooperation Company for Agriculture, Livestock and Fisheries |
| AO | Agricultural Officer |
| APC | Agricultural Producers' Cooperative (China) |
| APC | All People's Congress (Sierra Leone) |
| CARI | Central Agricultural Research Institute |
| CCA | Chen-Chu-Ai (Zhen-Zhu-Ai), a Chinese rice variety |
| CDC | Colonial Development Corporation (British) |
| COMPLANT | Complete Plant Export Corporation (China) |
| COPAT | Committee of Principals for Agricultural Training (Sierra Leone) |
| DOA | Department of Agriculture (The Gambia) |
| ELADP | Eastern Area Integrated Agricultural Development Project (The World Bank) |
| FAO | Food and Agriculture Organization |
| FBS-AFR | Foreign Broadcast Information Service - Africa Daily Report |
| GDP | Gross Domestic Product |
| GPMB | Gambia Produce Marketing Board |
| IADP | Integrated Agricultural Development Projects (Sierra Leone) |
| IFAD | International Fund for Agricultural Development |
| IRRI | International Rice Research Institute |
| ISNAR | International Service for National Agricultural Research |
| LIRICO | Liberian Rice Corporation |
| LPMC | Liberia Produce Marketing Corporation |
| MAF | Ministry of Agriculture and Forestry (Sierra Leone) |
| MANR | Ministry of Agriculture and Natural Resources (Sierra Leone) |
| MEPID | Ministry of Economic Planning, Industry, and Development (The Gambia) |

| | |
|--------|--|
| MOA | Ministry of Agriculture |
| MOFERT | Ministry of Foreign Economic Relations and Trade (China) |
| MOFTEC | Ministry of Foreign Trade and Economic Cooperation |
| NARS | National Agriculture Research Systems |
| NPK | Nitrogen-Phosphorous-Potassium fertilizer |
| OECD | Organization for Economic Cooperation and Development |
| PAO | Principal Agricultural Officer |
| PPP | People's Progressive Party (The Gambia) |
| PRC | People's Republic of China |
| RDP | Rural Development Project (The Gambia) |
| SADCO | Samu Agricultural Development Company (Sierra Leone) |
| SLPMB | Sierra Leone Produce Marketing Board |
| SLPP | Sierra Leone Peoples Party |
| SRSP | Smallholder Rice Seed Project |
| TN 2 | Taichung Native 2 (a Taiwanese rice variety) |
| UNCDF | United Nations Capital Development Fund |
| UNDP | United Nations Development Programme |
| UNFPA | United Nations Family Planning Association |
| UNIDO | United Nations Industrial Development Organization |
| USAID | United States Agency for International Development |
| USDA | United States Department of Agriculture |
| WARDA | West Africa Rice Development Association |
| YBK | Yora Berrri Kunda (The Gambia) |

Preface

Early in the 1960s, Chinese Prime Minister Zhou Enlai pronounced the African continent 'ripe for revolution.' At that time, most analysis predicted that China would be exporting its rural-based 'red revolution' to Africa. Instead, the most enduring legacy of Chinese involvement in rural Africa may well be the 'green revolution': the thousands of hectares of irrigated rice now cultivated by farmers in dozens of African countries.

This study had its origins in an effort to document and analyze China's foreign aid in rural Africa. Although it is taken for granted that foreign aid involves the introduction (or 'export') of sometimes revolutionary practices and ideas – the 'software' of change – there has been much less analysis of the ways in which domestic ideas about development held by particular donor countries translate into distinctive approaches to development assistance. Likewise, the tendency for the evaluation of foreign aid efforts to focus primarily on technical, cultural, and economic aspects of projects, leaving out the political context, limits an important source of influence on the outcome of foreign aid, and the degree to which new ideas about development take hold in developing countries.

It is my hope that this book will not only fill an important gap in the literature on China and Africa by providing the first detailed examination of Chinese aid, but also that it will contribute to the important debate on the role of foreign aid in African agricultural development. Although the first round of efforts to export the green revolution to Africa have largely been judged a failure, at least with regard to rice, this study suggests that with better institutional support and stronger states, the green revolution may yet be a viable path for those parts of rural Africa where irrigation appears to be technologically and, on paper, economically feasible.

This book has benefited from several grants that enabled me to interview rice farmers and African officials, talk with the Chinese about their aid program, and conduct research in the archives of Ministries of Agriculture in Liberia, Sierra Leone, and The Gambia. I was awarded a Shell Fellowship which funded my first extended visit to Africa. The United States Agency for International Development through a grant to the former Center for Research on Economic Development (CREED) at the University of Michigan, Ann Arbor, funded my survey of Gambian rice farmers as part of the Gambia River Basin Studies. Two summer research grants generously awarded by the Columbia University Council

for Research in the Social Sciences allowed me to return to Africa for additional fieldwork.

Portions of this book have appeared in article form. Several passages in Chapter 5 appeared in 'South-South Technology Transfer: The Case of China's Kpatawee Rice Project in Liberia,' *World Development*, vol. 21, no. 12 (1993), pp. 1989-2001. Parts of Chapter 7 were published in 'Foreign Aid and the Export of Ideology: The Case of China and West Africa,' *Journal of Comparative and Commonwealth Politics* (November 1994), pp. 324-48, and parts of Chapter 6 appeared in 'Land Rights and Agricultural Development in West Africa: A Case Study of Two Chinese Projects,' *Journal of Developing Areas*, vol. 25, no. 4, 1992, pp. 21-32. Permission from the publishers to use this material is gratefully acknowledged.

Many people have helped at various stages of this project and I am thankful for their generous gifts of time, advice, constructive criticism, and insight, while absolving them of blame for any errors that may remain. The original guidance and inspiration for a study on agricultural aid came from J. Dirck Stryker, author of his own study on rice in West Africa, and who gave me advice at critical moments (including once as we bounced in a jeep along the edge of the Nigerten Sahel). Several others have read and commented on the entire book. David Zweig greatly improved an early draft with his detailed comments, as did Reid Whitlock (who is also one of the only other people I know who works on both China and Africa), and Rosemary Rogers. Three anonymous readers also contributed much appreciated enthusiasm and feedback. Others have read parts of the manuscript at various points, including Tom Bernstein, Judy Carney, Chris Elias, Arnold Hughes, Mick Moore, Timothy Shaw, Chuck Strickland, and George Yu. I appreciated their helpful comments, suggestions, and encouragement. Marissa Maurer, Kathleen Price, David Pechevsky, Shelley Preston, Meena Shaw, Doug Symalla, and Michael Zdanovich provided excellent research assistance. I am particularly grateful to Doug Symalla, who did such a good job of producing the maps, graphs and some of the tables that appear in the book, and to Joshua Kreiser and Barbara Polchinski for proofreading and editing suggestions.

During my several rounds of fieldwork in Africa, I enjoyed the hospitality of the Institute of Research at the University of Liberia in Monrovia and the Institute of African Studies at Fourah Bay College, the University of Sierra Leone, in Freetown. In Liberia, Joseph Bimba, Magdalene David, Moses Elliott, A. Louis Helling, and the Chinese at Kpatawee deserve special thanks. In Sierra Leone, Joseph Puciarillo, Marilyn Silberfein, G. M. Vandi, and the staff at PEMSU made my research and

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DEBORAH BRÄUTTGAM