

Appendixes

The Assessment's Contractor Reports

Part A: Principles of Low-Resource Agriculture

Report: "Low-Resource Agriculture in Sub-Saharan Africa: Principles and Concepts for Managing Natural Resources"

Coauthors: C. Gregory Knight, Department of Geography, Pennsylvania State University, University Park, PA and R. Dennis Child, Winrock International, Morrilton, AR

Reviewers:*

Miguel Altieri, Division of Biological Control, University of California, Berkeley, CA

John H. Grover, Department of Fisheries and Allied Aquacultures, Auburn University, Auburn, AL

James Newman, Department of Geography, Syracuse University, Syracuse, NY

Roald A. Peterson, Fayetteville, AR

M.J. Trlica, Department of Range Science, Colorado State University, Ft. Collins, CO

Gene C. Wilken, Department of Economics, Colorado State University, Ft. Collins, CO

Report: "Low-Resource Agriculture in Sub-Saharan Africa: Principles and Concepts for Managing Inland Fisheries"

Coauthors: John H. Grover and Stephen P. Malvestuto, Department of Fisheries and Allied Aquacultures, Auburn University, Auburn, AL

Reviewers:

W. Herbert Allsopp, Smallworld Fishery Consultants, Inc., North Vancouver, British Columbia

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Frank Meriwether, Agricultural Research Center, University of Arkansas at Pine Bluff, Pine Bluff, AR

Richard A. Neal, Bureau for Science and Technology, U.S. Agency for International Development, Washington, DC

Roger Palm, South Carolina Aquaculture/ Mariculture Programs International, University of South Carolina, Columbia, SC

Richard B. Pollnac, International Center for Marine Resource Development, University of Rhode Island, Kingston, RI

Harry Rea, Office of Training and Program Support, U.S. Peace Corps, Washington, DC

Ted Scudder, Cape Tribulation, Queensland, Australia

Report: "Principles and Concepts of Productive Human Resource Systems"

Author: Anne Fleuret, Department of Anthropology, American University, Washington, DC

Reviewers:

Ronald Cohan, University of Florida, Gainesville, FL

Kathleen Staudt, Office of the Dean of Liberal Arts, University of Texas, El Paso, TX

Report: "Principles and Concepts of Effective Institutions"

Author: Milton Esman, Department of Government, Cornell University, Ithaca, NY

Reviewers:

David Atwood, Science and Technology Bureau, U.S. Agency for International Development, Washington, DC

Michael Bratton, Office of the Representative for Eastern and Southern Africa, The Ford Foundation, Nairobi, Kenya

James Harbeson, International Studies Program, City University of New York, New York, NY

Dennis Rondinelli, Syracuse, NY

Report: "Integrating Principles and Concepts for Managing Natural, Human, and Institutional Resources" (not available from NTIS)

Author: Raymond Noronha, Washington, DC

Report: "Incorporating Participatory Approaches in Institutions"

Authors: Paula Donnelly-Roark and Grace Hemmings-Gaphihan, Donnelly-Roark & Associates, Washington, DC

1. These contractor reports should be requested as Volume 2 (Contract Papers) of this assessment from the National Technical Information Service, Springfield, VA 22161, telephone (703) 487-4650. NTIS accession numbers for paper or microfiche copies are:

•Part A: Principles of Low-Resource Agriculture, PB 88201 280 /AS.

•Part B: The USDA Data Base and the Potential of Low-Resource Agriculture, PB 88 201 298 /AS.

•Part C-1: Development Assistance and Low-Resource Agriculture, PB 88201 306 /AS.

•Part C-2: Development Assistance and Low-Resource Agriculture, cont. PB 88 201 314 /AS.

•Part D: Technology Papers, PB 88 201 322 /AS.

²Advisory Panelists also reviewed each of these Contractor Reports

Reviewers:

Earl M. Brown, African Development Foundation, Washington, DC
 Margaret Snyder, Development Fund for Women, U.N. Development Program, New York, NY
 May Yacoob, Water and Sanitation for Health Project, Arlington, VA

Report: "Low-Resource Agriculture and African Institutional Development"

Author: Elinor Ostrom, Workshop in Political Theory and Policy Analysis, University of Indiana, Bloomington, IN

Reviewers:

David Atwood, Bureau for Science and Technology, U.S. Agency for International Development, Washington, DC
 Ed Connerly, NASPAA, Washington, DC
 Sheldon Gellar, East Lansing, MI
 George Honadle, Development Alternatives, Inc. Washington, DC
 Norman Uphoff, Center for International Studies, Cornell University, Ithaca, NY

Part B: The USDA Data Base and the Potential of Low-Resource Agriculture

Report: "The Potential of Low-Resource Agriculture in African Development"

Author: John M. Staatz, Department of Agricultural Economics, Michigan State University, East Lansing, MI

Reviewers:

Sara Berry, African Studies Center, Boston University, Boston, MA
 Charles A. Francis, Agronomy Department, University of Nebraska, Lincoln, NE

Report: Potentials for Development in Low-Resource Technologies for African Agriculture"

Author: Charles A. Francis, Agronomy Department, University of Nebraska, Lincoln, NE

Reviewers:

Douglas J. Lathwell, Department of Agronomy, Cornell University, Ithaca, NY
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Reviewers of Both Francis and Staatz Papers:

Arthur J. Dommen, Africa and Middle East Branch, Economic Research Service, U.S. Department of Agriculture, Washington, DC
 Donald Plucknett, Consultative Group on Inter-

national Agricultural Research, Washington, DC

Kenneth Swanberg, Office of International Cooperation and Development, U.S. Department of Agriculture, Washington, DC

Report: "The Role of Low-Resource Agriculture in Africa:"**"Overview and Summary"****"Kenya Supplementary Information"****"Malawi Supplementary Information"****"Mali Supplementary Information"****"Nigeria Supplementary Information"****"Senegal Supplementary Information"****"Sudan Supplementary Information"****"Zaire Supplementary Information"****"Zimbabwe Supplementary Information"**

Coauthors: Brian D'Silva and Arthur Dommen, Economic Research Service, U.S. Department of Agriculture, Washington, DC

Reviewers:

Charles A. Francis, Agronomy Department, University of Nebraska, Lincoln, NE
 John M. Staatz, Department of Agricultural Economics, Michigan State University, East Lansing, MI

Part C-1. Development Assistance and Low-Resource Agriculture

Report: "African Perspectives on Low-Resource Agriculture"

Author: Hussein M. Adam, Somali Unit for Research on Emergencies and Rural Development, Mogadishu, Somalia and Harvard Institute of International Development, Harvard University, Cambridge, MA

Reviewers:

John W. Bruce, Land Tenure Center, University of Wisconsin, Madison, WI
 Richard Ford, International Development Program, Clark University, Worcester, MA
 Thomas M. Painter, Social Science Research Council, New York, NY
 Bill Rau, Bread for the World, Washington, DC

Report: "African Models of Developmental Assistance to Low-Resource Agriculture"

Author: Robert J. Cummings, African Studies and Research Program, Howard University, Washington, DC

Reviewers:

Bill Rau, Bread for the World, Washington, DC
 Victor Uchendu, Department of African Amer-

ican Studies, University of Maryland Baltimore County, Baltimore, MD

Report: "Existing Models of Development Assistance to Low-Resource Agriculture in Africa"

Author: Carol Lancaster, School of Foreign Service, Georgetown University, Washington, DC

Reviewers:

Stephen Commins, African Studies Center, University of California, Los Angeles, CA
Charles Hanrahan, Abt Associates, Inc., Washington, DC

William Haven North, Bureau for Policy Planning and Coordination, U.S. Agency for International Development, Washington, DC

Report: "Alternative Models of Development Assistance to Low-Resource Agriculture in Africa"

Author: Celia Jean Weidemann, Washington, DC

Reviewers:

Paula Goddard, Bureau for Policy Planning and Coordination, U.S. Agency for International Development, Washington, DC

Jane B. Knowles, International Agricultural Programs, University of Wisconsin, Madison, WI
George Scharffenberger, Washington, DC

Report: "U.S. Domestic Policy Dilemmas Affecting Development Assistance"

Author: Karen Wiese, Associates in Rural Development, Burlington, VT

Reviewers:

Tom Armor, El Segundo, CA
Robert L. Paarlberg, Center for International Affairs, Harvard University, Cambridge, MA
John L. Woods, International Program for Agricultural Knowledge Systems, University of Illinois, Urbana, IL

Report: "Case Studies: Factors Influencing Agricultural Production of Small Farmers in Zimbabwe and Malawi"

Author: Kathleen Desmond, Arlington, VA

Reviewers:

Kathleen Cloud, Women in Development Office, University of Illinois, Urbana, IL

George Honade, Development Alternatives, Inc., Washington, DC

John Staatz, Department of Agricultural Economics, Michigan State University, East Lansing, MI

Report: "Government Assisted Land Settlement: Status and Potential in African Low-Resource Agriculture"

Author: Della E. McMillan, Department of Anthropology, University of Kentucky, Lexington, KY

Reviewers:

Pat Fleuret, Bureau for Africa, U.S. Agency for International Development, Washington, DC
Ted Scudder, Cape Tribulation, Queensland, Australia

Part C-2: Development Assistance and Low-Resource Agriculture
[continued]

Report: "Links Between the Private Enterprise and Low-Resource Agriculture in Sub-Saharan Africa"

Author: Arthur Gibb, Jr., Department of Economics, U.S. Naval Academy, Annapolis, MD

Reviewers:

Michael Farbman and Frank Denton, Bureau for Africa, U.S. Agency for International Development, Washington, DC

Joel Greer, National Security and International Affairs Division, General Accounting Office, Washington, DC

Steve Haggblade, Metropolitan Studies Program, Syracuse University, Syracuse, NY

Frances Brigham Johnson, U.S. Agency for International Development, Washington, DC

Report: "Strategies for Development of the Private Sector and Its Links with Low-Resource Agriculture"

Coauthors: Galen Hull and Guy Gran, Kensington, MD

Reviewers:

Michael Farbman and Frank Denton, Bureau for Africa, U.S. Agency for International Development, Washington, DC

Steve Haggblade, Metropolitan Studies Program, Syracuse University, Syracuse, NY

Frances Brigham Johnson, U.S. Agency for International Development, Washington, DC

Report: "New Models for Low-Resource Agricultural Research and Extension in Sub-Saharan Africa"

Author: Paul Richards, Anthropology Department,

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 Jane I. Guyer, Mary Ingraham Bunting Institute, Radcliffe College, Cambridge, MA
 Janice Jiggins, Andelst, Netherlands
 Robert M. Netting, Department of Anthropology, University of Arizona, Tucson, AZ

Report: "Farming Systems Research and Extension: Status and Potential in Low-Resource Agriculture"

Coauthors: Susan V. Peats, Daniel Gait, Chris Andrew, Lisette Walecka, Peter Hildebrand, and Kenneth McDermott, Farming Systems Support Project, University of Florida, Gainesville, FL

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 Kenneth Swanberg, Bureau for Science and Technology, U.S. Agency for International Development, Washington, DC
 Hubert G. Zandstra, Agriculture, Food, and Nutrition Sciences, International Development Research Center, Ottawa, Canada

Part D: Technology Papers

Report: "Soil Fertility Maintenance in Sub-Saharan Africa"

Coauthors: Paul L.G. Vlek, A.U. Mokwunye, and M.S. Mudahar, International Fertilizer Development Center, Muscle Shoals, AL

Reviewers:

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 Charles Steedman, Center for Research on Economic Development, University of Michigan, Ann Arbor, MI

Report: "Crop Rotation and Residue Management"

Author: Rattan Lal, International Institute for Tropical Agriculture, Ibadan, Nigeria

Reviewers:

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 George C. Taylor, North Carolina State University, Raleigh, NC
 Charles W. Wendt, Texas Agricultural Experiment Station, Texas A&M University, Lubbock, TX
 Wayne O. Willis, Colorado State University, Ft. Collins, CO

Report: "Five Small-Scale Water Management Technologies"

Author: W. Gerald Matlock, Desert Agricultural and Technology Systems, Inc., Tucson, AZ

Reviewers:

E. Walter Coward, Department of Rural Sociology, Cornell University, Ithaca, NY
 Raymond E. Meyer, Bureau for Science and Technology, U.S. Agency for International Development, Washington, DC
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 Lyman S. Willardson, Department of Agricultural and Irrigation Engineering, Utah State University, Logan, UT

Report: "Soil and Water Management in the Humid and Highland Zones of Africa"

Author: Laurence A. Lewis, Graduate School of Geography, Clark University, Worcester, MA

Reviewers:

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 Philip W. Porter, Department of Geography, University of Minnesota, Minneapolis, MN
 Bob J. Walter, Department of Geography, Ohio University, Athens, OH

Report: "Low-Resource, Small-Scale Irrigation in Africa"

Author: Alfred S. Waldstein, Associates in Rural Development, Burlington, VT

Reviewers:

Guy LeMoigne, Agriculture and Rural Development Department, World Bank, Washington, DC

Report: "Intercropping in Low-Resource Agriculture in Africa"

Author: David J. Andrews, Department of Agronomy, University of Nebraska Lincoln, NE

Reviewers:

Dana Dalrymple, Consultative Group on International Agricultural Research, U.S. Agency for International Development, Washington, DC
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Report: "Challenges of Intercropping: Policy Issues"

Author: Charles A. Francis, Department of Agronomy, University of Nebraska, Lincoln, NE

Reviewers:

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Report: "Agroforestry in Africa"

Author: Roy T. Hagen, Esko, MN

Reviewers:

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 Dennis Johnson, Forestry Support Program, U.S. Forest Service, Washington, DC
 Michael McGahuey, Chemonics, Inc., Washington, DC
 Fred R. Weber, Boise, ID

Report: "Crop Breeding for Low-Resource Agriculture: Overview, Rice, Food Legumes"

Author: Ivan W. Buddenhagen, Department of Agronomy, University of California, Davis, CA

Reviewers:

David J. Andrews, Department of Agronomy, University of Nebraska, Lincoln, NE
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Report: "Millet Breeding for Low-Resource Agriculture in Africa"

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Report: "Maize Breeding"

Author: Sherman F. Pasley, Office of International Programs, University of Florida, Gainesville, FL

Reviewers:

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 Paul Gibson, Plant and Soil Science, Southern Illinois University, Carbondale, IL

Report: "Sorghum Breeding"

Authors: Fred R. Miller and John A. Mann, Department of Soil and Crop Science, Texas A&M University, College Station, TX

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 John Axtell, Department of Agronomy, Purdue University, West Lafayette, IN

Report: "Root Crop Breeding"

Author: Walter A. Hill and Conrad Bonsi, Office of International Programs, Tuskegee University, Tuskegee, AL

Reviewers:

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Report: "Pest Control"

Author: Dale G. Bottrell, Department of Entomology, University of Maryland, College Park, MD

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Report: "Postharvest Technology"

Author: Tropical Development and Research Insti-
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Reviewers:

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tute, Kansas State University, Manhattan, KS

**Report: "Communication and Information Tech-
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Author: Frances B. Hays, Academy for Educational
Development, Washington, DC

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