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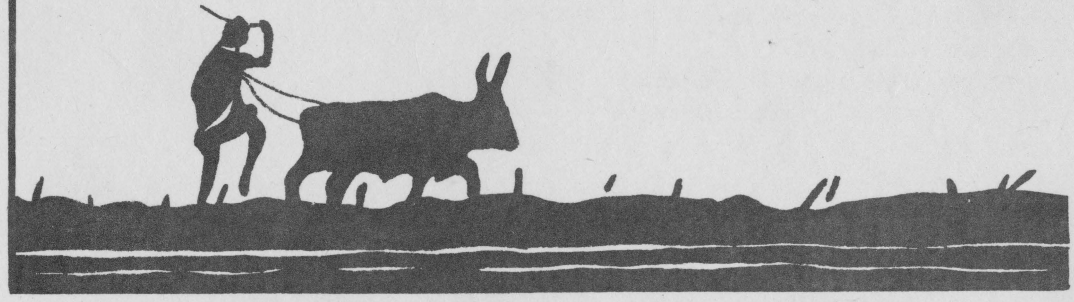
A FARMING SYSTEMS RESEARCH BIBLIOGRAPHY OF KANSAS STATE UNIVERSITY'S VERTICAL FILE MATERIALS. REVISED.

Gretchen A. Graham, Editor*

Paper No. 4. Revised. July 1986

FARMING SYSTEMS RESEARCH

PAPER SERIES



resources on developing countries

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Farrell Library
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*Data entry and data base programming by Susan Powell, Research Assistant and Master candidate, Dept. of Computer Science, KSU.

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Kansas State University's Farming Systems Research (FSR) Paper Series is supported by the U.S. Agency for International Development Title XII Program Support Grant. The goal of the Program Support Grant is to increase the University's ability to implement Title XII agricultural and nutritional development assistance programs in less-developed countries. This paper series is maintained by the FSR Program Associates -- a multidisciplinary team of professors who are aiming their activities at applied research on farming from a systems perspective.

The purpose of the FSR Paper Series is to disseminate information on FSR. Publication categories include updated bibliographies from KSU's FSR data base; proceedings from KSU's FSR Systems Symposium; selected papers presented in KSU's FSR Seminar Series; selected papers prepared by KSU's Programs Associates.

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The Technical Advisory Committee's Review Team of Farming Systems Research has defined a farming system as:

> "a complicated, interwoven mesh of soils, plants, animals, implements, workers, other inputs and environmental influences with the strands held and manipulated by a person called the farmer who, given his preferences and aspirations, attempts to produce output from the inputs and technology available to him. It is the farmer's unique understanding of his immediate environment, both natural and socio-economic, that results in his farming system."

It goes on to describe FSR as:

> "research (including training) which: (1) is conducted with a recognition of and focusing towards the interdependencies and inter-relationships that exist among elements of the farm system, and between these elements and the farm environment; and (2) is aimed at enhancing the efficacy of farming systems through the better focusing of agricultural research so as to facilitate the generation and testing of improved technology."
>
> "The major activities involved in FSR are:
> (a) The collection and analysis of base data;
> (b) The study of existing farming systems;
> (c) The design of new farming systems;
> (d) Farm systems experimentation; and
> (e) The evaluation and monitoring of new farming systems."[1]

THE REVISED EDITION...

lists FSR vertical file material and selected publications with Library of Congress classification numbers found within KSU's Farrell Library. The vertical file material includes unpublished papers, drafts, house organs and other non-conventional items. Keyword, title and primary author indices are provided. The standard for keywording is an "enhanced" CAB Thesaurus. Those items marked with a "++" in the location code have not yet been assigned a Library of Congress classification number.

[1] Farming Systems Research at the International Agricultural Research Centers. Washington, World Bank for TAC Secretariat/FAO, 1978, page 8.

Duplicate Citations (listed in the previous FSR No. 4 Bibliographies) have been deleted. An extra subject term, or a broader classification, has been assigned to account for the deletion.

One hundred and nineteen (119) new items have been added. Also, information is included to denote which citations refer to copyright materials and which items are available directly through AID's Document Delivery Handling Service 7222 47th Street Chevy Chase, MD 20815. U.S.A.

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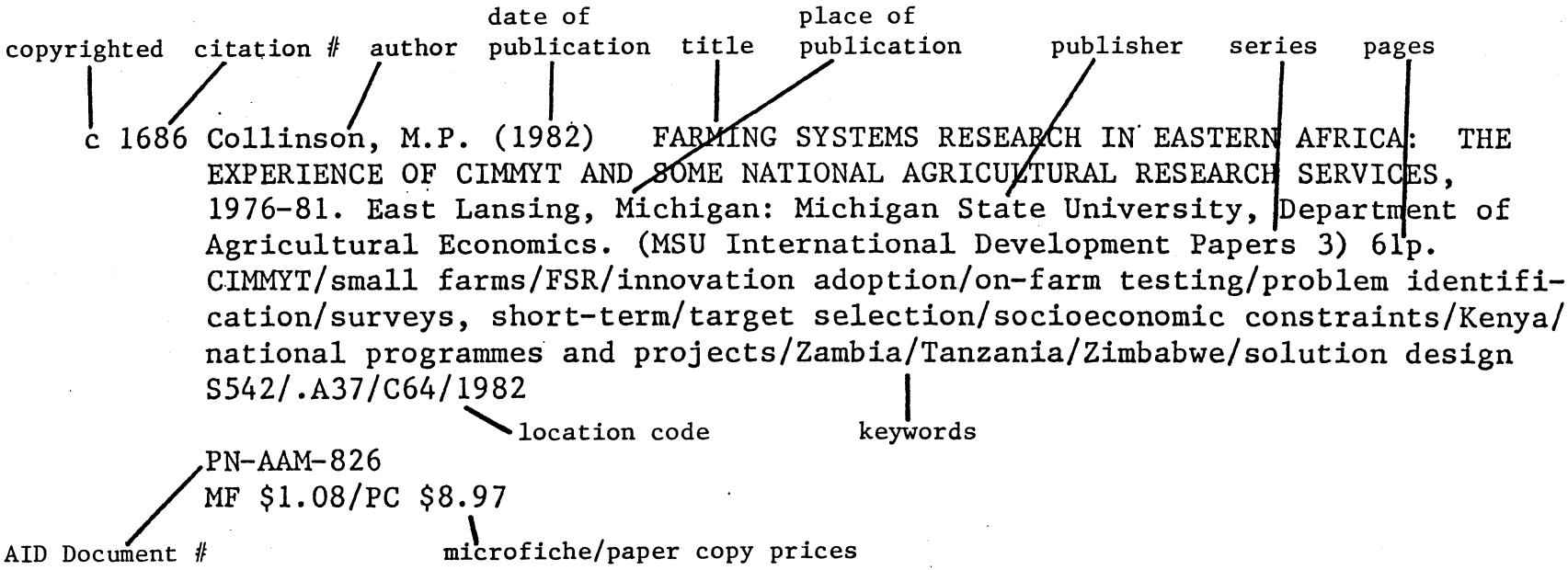

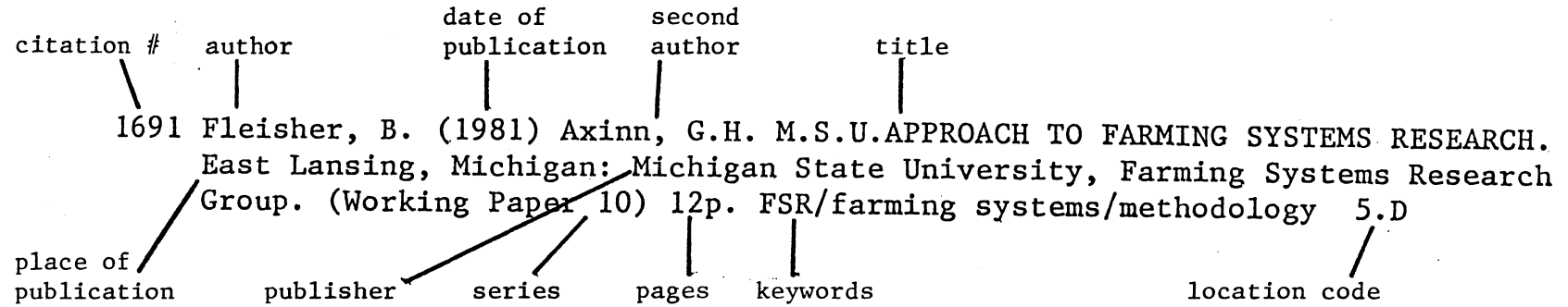

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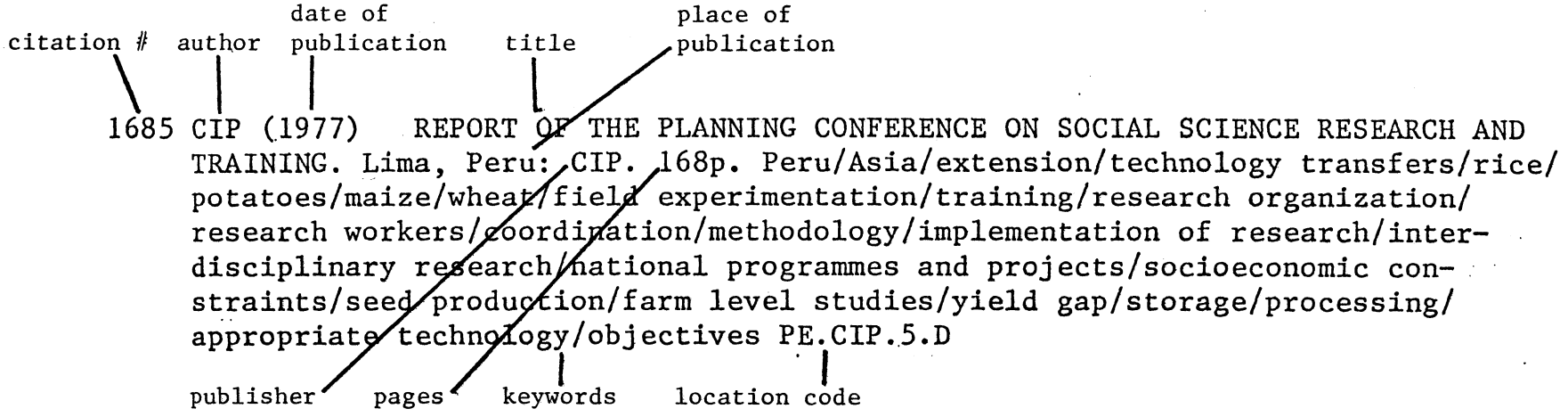

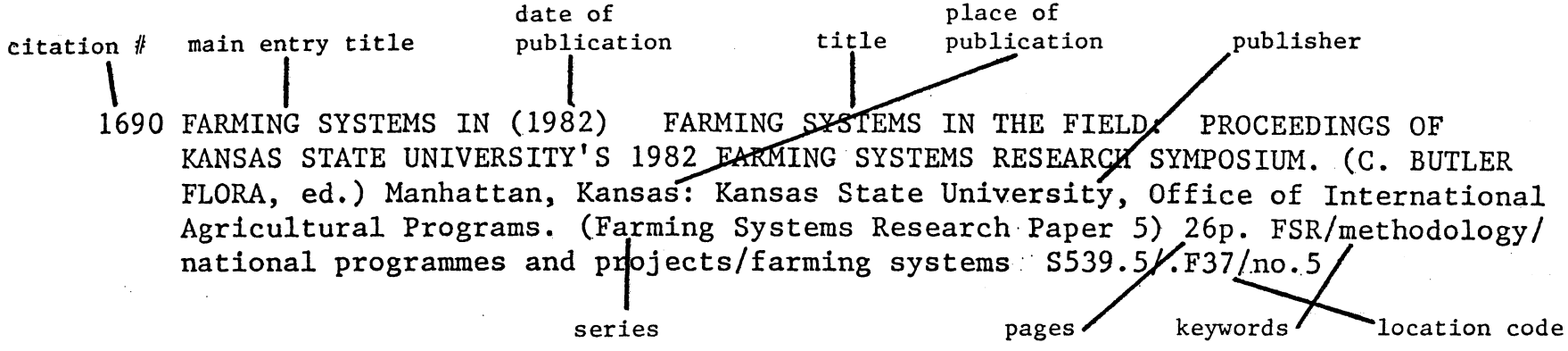

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ABBREVIATIONS, ACRONYMS AND INITIALISMS

AAAS	American Association for the Advancement of Science
ACDI	Agricultural Cooperative Development International
ACIAR	Australian Centre for International Agricultural Research
AICRPDA	?
AD	Agricultural Administration
ADB	Asian Development Bank
ADC	Agricultural Development Council
ADNP	Agricultural Development Ngamiland Project
AFTRCW/UNECA	African Training and Research Centre for Women/United Nations Economic Commission for Africa
AIA	agricultor-investigacion-agricultor
AID	Agency for International Development
AID/S&T	Agency for International Development/Bureau for Science and Technology
ALDEP	Arable Lands Development Programme
ASA	American Society of Agronomy
ASAE	American Society of Agricultural Engineers
ASHA/AHS/ AABGA	?/American Horticulture Society/American Association of Botanical Gardens and Arboreta
ASPAC/FFTC	Food and Fertilizer Technology Center of the Asian and Pacific Region
ASTA	American Seed Trade Association
ATIP	Agricultural Technology Improvement Project (Botswana)
AVRDC	Asian Vegetable Research and Development Center
BAEP	Bureau of Economic Analysis and Planning
BARC	Bangladesh Agricultural Research Council
BDPA	Bureau pour le developpement de la production agricole
c	copyright
CARDI	Caribbean Agricultural Research and Development Institute
CATIE	Centro Agronomico Tropical de Investigacion y Ensenanza
CATIE/ROCAP	Centro Agronomico Tropical de Investigacion y Ensananza/ Regional Office for Central American Programs
CENDA	Centro de Desarrollo Agropecuario, Zona Norte
CDR	Centre for Development Research
CENDERCO	Centro para el Desarrollo Rural y Cooperativo
CENDHRRA	? (San Juan, Rizal, Philippines)
CENTA	Centro Nacional de Tecnologia Agropecuaria
CENTA/BID	Centro Nacional de Tecnologia Agropecuaria/? (El Salvador)
CEPAL	Economic Commission for Latin America
CES	Cooperative Extension Service (U.S.)
CGIAR	Consultative Group on International Agricultural Research
CIARLA	Centro de Investigaciones Agropecuarias Region Los Andes
CIAT	Centro Internacional de Agricultura Tropical
C.I.A.T.	Centro de Investigacion Agricola Tropical (Bolivia)
CID	Consortium for International Development
CILSS	Comite permanent interetats de lutte contre la secheresse dans le Sahel=Permanent Interstate Committee for Drought Control in the Sahel
CIMMYT	Centro Internacional de Mejoramiento de Maiz y Trigo
CIP	Centro Internacional de la Papa

CIPEA	Centre international pour l'elevage en Afrique
comp., comps.	compiler, compilers
CLSU	Central Luzon State University
CRIA	Central Research Institute for Agriculture, Indonesia
CRDI	Centre de recherche pour le developpement international
CRSP	Collaborative Research Support Project
DAI	Development Alternatives, Inc.
Dept.	Department
ed., eds.	editor, editors
EFSAIP	Evaluation of Farming Systems & Agricultural Implements Project, Sebele
et al.	(used when there are more than 3 authors)
EMBRAPA	Empressa Brasiliera de Pesquina Agropecuaria
FAO	Food and Agriculture Organization of the United Nations
FAO/SIDA	Food and Agriculture Organization of the United Nations/ Swedish International Development Agency
FSR	farming systems research
FSR/D	Farming Systems Research/Development
FSR/E	Farming Systems Research/Extension
FSSP	Farming Systems Support Project (University of Florida, Gainesville)
FSSP/GARD	Farming Systems Support Project (University of Florida, Gainsville)/Gambia Agricultural Research and Diversification (?)/Development(?) (Project)
FONAIAP	Fondo Nacional de Investigaciones Agropecuarias
FY	fiscal year
GARD	Gambia Agricultural Research and Diversification(?)/ Development(?) (Project)
GERDAT	Groupement d'etudes et de recherches pour le developpement de l'agronomie tropical
HYV's	high yielding varieties
IAAE	International Association of Agricultural Economists
IADS	International Agricultural Development Service
IAF	Inter-American Foundation
IAFP	International Agricultural and Food Program, Cook College, Rutgers University
IARC's	International Agricultural Research Centers
IARI	International Agricultural Research Institute
IBPGR	International Board for Plant Genetic Resources
ICA	Instituto Colombiano Agropecuario
ICAR	Indian Council of Agricultural Research
ICARDA	International Center for Agricultural Research in the Dry Areas
ICLARM	International Centre for Living Aquatic Resources Management
ICMRD	International Center for Marine Resource Development
ICRAF	International Center for Research in Agroforestry
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICRW	International Center for Research on Women
ICTA	Instituto de Ciencia y Tecnologia Agricolas=Institute of Agricultural Science and Technology of Guatemala
IDIAP	Instituto de Investigaciones Agropecuarias de Panama
IDRC	International Development Research Centre

IDS	Institute for Development Studies
IE&R, IPIA	International Education and Research, International Programs in Agriculture, Purdue University
IFDC/IRA	International Fertilizer Development Center/Institut de recherche agronomique
IFOAM	International Federation of Organic Agricultural Movemements
IFPP	Integrated Farming Pilot Project, Pelotshetlha
IFPRI	International Food Policy Research Institute
IICA	Instituto Interamericano de Ciencias Agricolas= Interamerican Institute for Co-operation on Agriculture
IICA/CIDIA	Instituto Interamericano de Ciencias Agricolas de la Organizacion de Estados Americanos/Centro Interamericano de Documentacion e Information Agricola
IICA/INRA	Inter-American Institute for Cooperation on Agriculture/ Institut national de recherches agronomiques
IITA	International Institute of Tropical Agriculture
IITA/USAID/ MIDAS	International Institute of Tropical Agriculture/United States Agency for International Development/Managed Inputs and Delivery of Agricultural Services
ILCA	International Livestock Center for Africa
ILO	International Labour Organisation
INARCs	International Agricultural Research Centers
INCAP	Instituto de Nutricion de Centroamerica y Panama
INIA	Instituto Nacional de Investigaciones Agrarias
INIAP	Instituto Nacional de Investigacion Agropecuaria
INRA	Institut national de la recherche agricole
INRAN	Institut national de recherches agronomiques des Niger
Inst.	Institute
INTERPAKS	International Program for Agricultural Knowledge Systems, U. of Illinois, Urbana-Champaign
INTSORMIL	International Sorghum/Millet
IPIA	International Programs in Agriculture, Purdue University
IRAEN	International Rice Agro-Economic Network
IRAT	Institut des recherches agronomiques tropicales et des cultures vivrieres
IRC's	International Research Centers
IRCT/Mali	? (Mali)
IRRI	International Rice Research Institute
ISA	Investigacion de Sistemas Agropecuarios
ISS	Institute of Social Studies
ISNAR	International Service for National Agricultural Research
IUFS&T	International Union of Food Science & Technology, Goteborg
IUNS	International Union of Nutritional Sciences, Zurich
KKU	Khon Kaen University, Thailand
KKU/FCSP	Khon Kaen University/Ford Cropping Systems Project
KSU	Kansas State University (Manhattan, Kansas)
LASA	Lesotho Agricultural Sector Analysis Project
MAFCA	Ministry of Agriculture, Food and Consumer Affairs, (Barbados)
MARC	Monitoring and Assessment Research Centre
MARIF	Malang Research Institute for Food Crops
MDP	Molapo Development Project, Maun
MF	microfiche

MIAC	MidAmerica International Agricultural Consortium
MP	miscellaneous papers
MSTT	Modular System for Technology Transference
MSU	Michigan State University (East Lansing, Michigan)
n.d.	no date of publication
NADP	Ngamiland and Agricultural Development Project, Gomare
NGA	National Grains Authority (Quezon City, Philippines)
NOAA	National Oceanic and Atmospheric Administration
NSW/ACT	New South Wales/Australian Capital Territory
OAS	Organization of American States
OAU	Organization of African Unity
OAU/STRC	Organization of African Unity/Scientific Technical Research Commission
ODA	Overseas Development Administration
ODI	Overseas Development Institute
OECD	Organization for Economic Cooperation and Development
OLC	Overseas Liaison Committee (American Council on Education)
ORD	Organisme regional de developpement
ORSTOM	Office de la recherche scientifique et technique outre-mer
PARC	Pakistan Agricultural Research Council
PASITAM	Program of Advanced Studies in Institution Building and Technical Assistance Methodology
PC	paper copy
PCARR	Philippine Council for Agriculture and Resources Research
PCARRD	Philippine Council for Agriculture and Resources Research and Development
PCCMCA	Programa Cooperativo Centroamericano para el Mejoramiento de Cultivos Alimenticios
PGRCE	Plant Genetic Resource Center for Ethiopia
PN	publication number
PR	progress report
PROTAAL	Projecto Cooperative de Investigacion sobre Tecnologia Agropecuaria en America Latina
PSCPA	Proyecto de Sistemas de Cultivo para Pequenos Agricultores del Istmo Centroamericano
PTPA	Proyecto de Tecnologia para Pequenos Agricultores
RD	reporting documents
ROC	Republic of China
RPO	? (World Bank)/International Finance Corporation
RRFH	regular research field hearings
RTN	Research and Training Network
s.l.	no location of publisher/printer
s.n.	no name of publisher/printer
SACUC	Swaziland Agricultural College and University Centre
SADCC	Southern African Development Coordination Committee
SAFGRAD	Semi-Arid Food Grains Research and Development Program
SAREC	Swedish Agency for Research Cooperation with Developing Countries
SAT	semi-arid tropics
SEADAG	Southeast Asian Development Advisory Group
SEARCA	Southeast Asian Regional Center for Graduate Study and Research in Agriculture
SR-CRSP	Small Ruminant-Collaborative Research Support Program
SSIP	? (Germany)

SSRC/SERP	Social Sciences Research Centre/Socio-Economic Research Project
S&T/AGR/AP	Bureau for Science and Technology/Office of Agriculture/?
STRC/OAU	Scientific Technical Research Commission/Organization of African Unity
TES	typical (Developing Country) extension systems
TFNC	Tanzania Food and Nutrition Centre
TIF	Technological Improvement File
T&V	training and visit system
Trans.	translation
U.	University
UN	United Nations
UN/ESCAP	United Nations/Economic and Social Commission for Asia and the Pacific
UNAZA	? (Zaire)
UNDP/FAO	United Nations Development Programme/Food and Agriculture Organization of the United Nations
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNU	United Nations University, Tokyo
US	United States
USAID	United States Agency for International Development
USAID/ORD	United States Agency for International Development/ ? (Guatemala)
USDA	United States Department of Agriculture
var.	various (paging)
VITA	Volunteers in Technical Assistance
VLS	village level studies
vol., vols.	volume, volumes
WA	West Africa
WARDA	West Africa Rice Development Association
WHO	World Health Organization
WIADP	Women in Agriculture (Development Project)
Winrock	Winrock International Institute for Agricultural Development
WIP	Winrock International publication
WP	working papers
WSARP	Western Sudan Agricultural Research Project

1 FARMING SYSTEMS: DESCRIPTIVE (GENERAL AND INCLUSIVE)

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PN-AAS-178
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PN-AAS-398
MF $1.08/PC $2.21

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PN-AAP-574
MF NA/PC $2.08

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PN-AAP-953
MF $5.40/PC $51.74

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1.A.3 FALLOWING AND COVER CROPPING, TILLAGE SYSTEMS

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PN-AAP-595
MF $2.16/PC $13.65

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PN-AAP-102
MF $1.08/PC $1.82

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1.A.6 cont.

plots/bananas/diversification/soil fertility/integrated methods/farming systems/livestock husbandry/forest management/grazing/humid zones/reforestation/pigs/improved practices/fruit trees/mixed farming/alder/prosopis julifora/agricultural research/irrigation/cedrela/profitability/ soil erosion/cordia/erythrina/cynodon plectostachyrus/sugarcane/cropping systems/ghelina arborea/alnus/cypress/windbreaks/cocoa Latin America.1.A.6

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3.E.2 POLICIES AND STRUCTURAL REFORM PROGRAMS

1011 Baker, R. (1981) LAND DEGRADATION IN KENYA: ECONOMIC OR SOCIAL CRISIS? Norwich, England: University of East Anglia, School of Development Studies. (Development Studies Discussion Paper 82) 28p. Kenya/environmental degradation/national programmes and projects/history/evolution/income distribution KE.3.E.2

1012 Barah, B.C. (1982) Binswanger, H.P. REGIONAL EFFECTS OF NATIONAL STABILIZATION POLICIES: THE CASE OF INDIA. Patancheru, Andhra Pradesh, India: ICRISAT, Economics Program. (Progress Report 37) 40p. India/risks/semiarid zones/yield/price stabilization/regression analysis/subsistence farming IN.ICR.3.E.2

1013 Barker, R. (1984) PHILIPPINE RICE PROGRAM - LESSONS FOR AGRICULTURAL DEVELOPMENT. Ithaca, New York: Cornell University, Program in International Agriculture. (Cornell International Agriculture Mimeograph 104) 21p. Philippines/rice/crop production/imports/national programmes and projects/yield increases/consumer prices/incentives/price policy/fertilizers/agricultural development/loans/Masagana 99/agricultural credit/irrigation/land reform/agricultural budgets/ rain-fed farming/policy PH.3.E.2

1014 Barnett, T. (1979) AGRICULTURE IN THE ERITREAN REVOLUTION. Norwich, England: University of East Anglia, School of Development Studies. (Development Studies Discussion Paper 55) 25p. Ethiopia/farming systems/tenure systems/land reform/farming calendar/irrigated farming/political systems ET.3.E.2

c 1015 Biggs, S. (1978) PLANNING RURAL TECHNOLOGIES IN THE CONTEXT OF SOCIAL STRUCTURES AND REWARD SYSTEMS. IN: Development Research Digest. 2:34-39, AUTUMN 1978. Bangladesh/Java/development projects/technical aid/technology transfers/labour/irrigation/milling/equity/appropriate technology H1/.D48

1016 Carruthers, I. (1978) GOVERNMENT PERCEPTION AND RESPONSE TO PROBLEMS OF SEASONALITY. Brighton, England: University of Sussex, IDS. 10p. Pakistan/seasonality/limiting factors/agricultural policy PK.3.E.2

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c 1018 Gable, R.W. (1979) ADMINISTRATIVE IMPLICATIONS OF DEVELOPMENT POLICY: A COMPARATIVE ANALYSIS OF AGRICULTURAL PROGRAMS IN ASIA. IN: Economic Development and Cultural Change. 27(4):687-703, JUL 1979. Philippines/Indonesia/Asia/food production/policy/rice/administration/career development/communication/public authorities HC10/.E254

1019 GAMBIA MIXED FARMING (1976? GAMBIA MIXED FARMING AND RESOURCE MANAGEMENT PROJECT: SOCIAL SOUNDNESS ANALYSIS. (ANNEX K). Washington, D.C.: AID. 22p. Gambia/mixed farming/national programmes and projects/sociological analysis/feasibility studies/equity/social benefits/rural development/problem identification GM.3.E.2

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1020 Hirschmann, D. (1984) BUREAUCRACY AND RURAL WOMEN: ILLUSTRATIONS FROM MALAWI. East Lansing, Michigan: Michigan State University, Office of Women in International Development. (Working Paper 71) 28p. Malawi/women in agriculture/policy/ministries of agriculture HQ1803.5/.H57/1984

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1022 Hoben, A. (1976) SOCIAL SOUNDNESS ANALYSIS OF THE WEST BENOUE INTEGRATED RURAL DEVELOPMENT PROPOSAL, AND SUGGESTIONS FOR ALTERNATIVE INTERVENTIONS IN MARGUL-WANDALA. Washington, D.C.: AID. 73p. Cameroon/sociological analysis/mountain areas/resettlement/farming systems/population pressure/national programmes and projects/problem identification/rural planning HN819/.Z9/C64

1023 Horton, D. (1984) Monares, A. SMALL, EFFECTIVE SEED MULTIPLICATION PROGRAM: TUNISIA. Lima, Peru: CIP. (Social Science Department. Working Paper 1984-2) 13p. Tunisia/seed production/potatoes/crop production/extension/training/yield increases/on-farm testing/national programmes and projects TN.3.E.2

1024 ISNAR (1982) REVIEW OF THE PROGRAM AND ORGANIZATION FOR CROPS RESEARCH IN PAPUA NEW GUINEA. The Hague, Netherlands: ISNAR. 130p. Papua New Guinea/agricultural research/extension/training/higher education/universities/planning of research/agricultural policy/agricultural economics/communication/research organization/national programmes and projects S542/.P37/R48/1982

1025 Labonne, M. (1978) NOTIONS DE MACROGESTION DES ECOSYSTEMES. Bamako, Mali: Club du Sahel. (Colleque sur les Systemes de Productions Agricoles Integrees) 23p. agroecosystems/risks/appropriate technology/planning/Africa 3.E.2

c 1026 Lawas, J.M. (1971) AGRICULTURAL DIVERSIFICATION AND DEVELOPMENT: THE PHILIPPINE VIEWPOINT. New York, New York: SEADAG. (Rural Development Panel Seminar) 21p. diversification/Philippines/agricultural development/modernization/traditional farming/farming calendar/cropping systems/aquaculture/mixed farming/agricultural policy/protein foods PH.3.E.2

c 1027 Louwes, S.L. (1974) INHIBITORS TO CHANGE IN AGRICULTURE: IS A PLURIDISCIPLINARY APPROACH NEEDED? IN: (?) s.l.: s.n. p.271-297. systems analysis/farmers' associations/political power/changes/inhibitors/research policy/ agricultural development/problem identification 3.E.2

1028 Maguire, R. (1979) BOTTOM-UP DEVELOPMENT IN HAITI. (P. BRESLIN, ed.). Rosslyn, Virginia: Inter-American Foundation. (IAF Paper 1) 63p. Haiti/least developed countries/peasant farming/land management/social structure/income distribution/political power/elites/centralization/development agencies/rural animation/land ownership/problem identification/evaluation/grassroots approach/ community development HT.3.E.2

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1033 Nyanteng, V.K. (1983) SOME RECENT POLICIES AND PROGRAMS ON RICE PRODUCTION, CONSUMPTION AND TRADE IN WEST AFRICA. Monrovia, Liberia: WARDA. (Occasional Paper 6) 64p. Ivory Coast/Nigeria/Mali/Sierra Leone/Senegal/Liberia/Gambia/West Africa/rice/consumption/consumer prices/price policy/subsidies/crop production/national programmes and projects/producer prices/imports/agricultural trade/self sufficiency ++

1034 PLANNING AGRICULTURE IN (1974) PLANNING AGRICULTURE IN LOW INCOME COUNTRIES: A SYMPOSIUM. Reading, England: University of Reading, Agricultural Economics and Management Department. (Development Study 14) 121p. Pakistan/Nigeria/Ghana/agricultural planning/low income areas/methodology/regional planning/agricultural economists/farm machinery/power/mechanization/small farms/farm size/employment/innovation adoption/linear programming/technology transfers/ technology analysis/dynamic programming/problem identification/evaluation/farming calendar/national programmes and projects 3.E.2

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1036 RESEARCH AND DEVELOPMENT (1979) RESEARCH AND DEVELOPMENT SYSTEMS IN RURAL SETTINGS: PROJECT MEETING REPORT, ADDIS ABABA, ETHIOPIA, APRIL 1977. Tokyo, Japan: United Nations University, Human and Social Development Program. (HSDPD-4/UNUP-6) 36p. rural development/research and development/traditional technology/methodology/appropriate technology 3.E.2

1037 REVIEW OF THE (1982) REVIEW OF THE AGRICULTURAL RESEARCH SYSTEM OF MALAWI. The Hague, Netherlands: ISNAR. 85p. Malawi/agricultural research/small farms/estates/plantations/research institutes/national programmes and projects/maize/tobacco/cotton/groundnuts/livestock/fuelwood/extension/higher education/universities/training/IARCs/agricultural policy ++

1038 Ruttan, V.W. (1971) RICE POLICIES IN THE 1970'S: A PERSPECTIVE ON THE IRRI CONFERENCE. Los Banos, Philippines: IRRI. 12p. rice/Asia/agricultural policy/production policy/technology/self sufficiency/international trade/diversification/modernization/product markets/economies of scale/processing/marketing policy/income distribution/objectives/evaluation/ national programmes and projects Asia.3.E.2

1039 Sanders, J.H. (1980) Lynam, J.K. NEW AGRICULTURAL TECHNOLOGY AND SMALL FARMERS IN LATIN AMERICA. Cali, Colombia: CIAT, Bean and Cassava Program. 22p. Latin America/small farms/research policy/rural urban migration/employment/agricultural policy Latin America.3.E.2

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c 1041 Sosmena, G.C. (1979) IMPLEMENTATION OF RURAL DEVELOPMENT PLANS IN THE PHILIPPINES. IN: RURAL DEVELOPMENT IN SOUTHEAST ASIA. (B.A.R. MOKHZANI, ed.). New Dehli, India: Vikas. p.221-234. Philippines/rural development/national programmes and projects/agricultural development/financial planning/limiting factors/recommendations/development projects HN690.8/.A7/C66/1975

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1043 UN/ESCAP (1976) RURAL DEVELOPMENT, THE SMALL FARMER AND INSTITUTIONAL REFORM. IN: ECONOMIC AND SOCIAL SURVEY OF THE PACIFIC, 1975. Bangkok, Thailand: UN/ESCAP. p.3-13, p.47-172. Asia/Oceania/small farms/rural development/land reform/economic development/gross national product/growth rate/economic policy/land ownership/income distribution/technology transfers/marketing policy/green revolution/credit policy/ institutional reforms/decentralization/problem identification/solution design/evaluation HC411/.U4/A23/1975

1044 Vries, P.D. (1978) RURAL DEVELOPMENT IN A BASIC NEEDS PERSPECTIVE. IN: Approach. 6:34-38, 1978. rural development/basic needs/production/socioeconomic constraints/book reviews/development aid/technology transfers 3.E.2

1045 Winch, F.E. (1983) FARMING SYSTEMS RESEARCH: ITS STRENGTHS AND WEAKNESSES AND THE NEED TO LINK FARM RESEARCH TO MACRO-ECONOMIC CIRCUMSTANCES. (INVITED PAPER, "FARMING SYSTEMS RESEARCH WORKSHOP," HELD AT THE MINISTRY OF AGRICULTURE, KHARTOUM, APRIL 2-4, 1983) 26p. Sudan/FSR/management/macroeconomic analysis/agricultural research/ economic policy/microeconomic analysis/agricultural policy 3.E.2

3.F TECHNOLOGICAL AND MECHANICAL FACTORS

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1047 Bartosik, A.M. (1985) TRENDS OF LIBERIAN FARMING SYSTEMS IN MIDDLE-LEVEL TRAINING CURRICULA. (POSTER SESSION PRESENTED AT THE 5TH ANNUAL FARMING SYSTEMS RESEARCH AND EXTENSION SYMPOSIUM, "MANAGEMENT AND METHODOLOGY," OCT. 13-16, 1985, KANSAS STATE UNIVERSITY, MANHATTAN, KANSAS) 23p. Liberia/curriculum/mechanization/farming systems/ agricultural education/small farms/human power/animal traction/energy LR.3.F

1048 Bazan, R. (1976) SISTEMAS DE PRODUCCION AGRICOLA Y TRANSFERENCIA DE TECNOLOGIA AL PEQUENO AGRICULTOR. Turrialba, Costa Rica: CATIE, Departamento de Cultivos y Suelos Tropicales. 24p. cropping systems/Central America/South America/beans/maize/cassava/technology transfers Latin America.3.F

1049 Benneh, G. (1970) TECHNOLOGY SHOULD SEEK TRADITION. IN: Ceres. 3(5):29-33, SEP-OCT 1970. Ghana/agricultural

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research/traditional farming/population pressure/soil/agricultural development/extension/mechanization/fallow/implements/appropriate technology S1/.C4

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1051 EFSAIP (1979) EVALUATION OF FARMING SYSTEMS AND AGRICULTURAL IMPLEMENTS PROJECT (EFSAIP) BOTSWANA: REPORT NO. 3, NOVEMBER, 1979. Gaborone, Botswana: Ministry of Agriculture, Division of Agricultural Research. (EFSAIP Report 3) 46p. Botswana/improved practices/on-farm testing/sorghum/cowpeas/fertilizers/yield/evaluation/planting equipment/gross margins/sunflowers/maize/plot design/FSR/experimental plots/drought/farming systems/rotations/tractors BW.3.F

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1053 Lyons, T. (1981) Bhattarai, A.N. NEPAL RIDGER. Mexico, D.F., Mexico: CIMMYT. 7p. ridgers/rotations/flooded rice/soil management/water management/weed control/seed germination/nutrient uptake/fertilization/sowing methods/ridging/irrigation/weeding 3.F

1054 Nygaard, D.F. (1980) SOCIO-ECONOMIC CONSTRAINTS TO THE FUTURE DEVELOPMENT OF THE DRYLAND FARMING REGIONS OF THE WORLD. Aleppo, Syria: ICARDA. 32p. socioeconomic constraints/yield gap/environmental factors/limiting factors/interdisciplinary research/farmer testing/FSR/innovation adoption/mixed farming/risks/arid regions/semiarid zones 3.F

1055 Price, E.C. (1976) IMPACT OF NEW RICE TECHNOLOGY ON CROPPING PATTERNS AND LAND UTILIZATION. Los Banos, Philippines: IRRI. (Resource Paper 3) 25p. Asia/rice/cropping systems/multiple cropping/land use/traditional farming/innovation adoption/improved varieties/planting/intensive cropping Asia.3.F

1056 SHARING OF TRADITIONAL (1979) SHARING OF TRADITONAL TECHNOLOGY: PROJECT MEETING REPORT, TOKYO, JAPAN, SEPTEMBER, 1977. Tokyo, Japan: United Nations University, Human and Social Development Program. (HSDPO-7/UNUP-9) 58p. technology transfers/traditional technology/VLS/Indonesia/Iran/Japan/Philippines/Sri Lanka/Malaysia/Nepal/Thailand/national programmes and projects 3.F

1057 Singh, L. (1984) Srivastava, K.P. FARMING SYSTEMS RESEARCH AND DEVELOPMENT AND AGRICULTURAL ENGINEERING IN THE EASTERN CARIBBEAN (PAPER PRESENTED AT THE 4TH ANNUAL FARMING SYSTEMS RESEARCH SYMPOSIUM, "FARMING SYSTEMS RESEARCH AND EXTENSION: IMPLEMENTATION AND MONITORING," OCT. 7-10, 1984, KANSAS STATE UNIVERSITY, MANHATTAN, KANSAS. 14p. St. Lucia/Grenada/Dominica/St. Vincent and Grenadines/St. Kitts-Nevis-Anguilla/Antigua/Montserrat/Caribbean/ CARDI/farming systems/national programmes and projects/soil and water conservation/appropriate technology/ postharvest systems/ technology transfers/agroindustrial relations 3.F

1058 Wahlen, Irene T. (198?) WOMEN AND LIVESTOCK IN SUB-SAHARAN AFRICAN: THE IMPACT OF TECHNOLOGICAL CHANGE. (DRAFT) 16p. Africa/Ethiopia/Malawi/women in agriculture/livestock/cattle/sheep/goats/farmers' income/division of labour/job specification/ownership/appropriate technology/technology transfers/case studies/decision making Africa.3.F

1059 Walker, T.S. (1981) Kshirsagar, K.G. VILLAGE LEVEL IMPACT OF MACHINE THRESHING AND IMPLICATIONS FOR TECHNOLOGY DEVELOPMENT IN SEMI-ARID TROPICAL INDIA. Patancheru, Andhra Pradesh, India: ICRISAT, Economics Program. (Progress Report

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27) 33p. India/threshing/harvesters/cost benefit analysis/seasonality/cropping systems/farm workers IC.ICR.3.F

1060 Zalla, T. (1977) et al. ECONOMIC AND TECHNICAL ASPECTS OF FERTILIZER PRODUCTION AND USE IN WEST AFRICA. East Lansing, Michigan: Michigan State University, Department of Agricultural Economics. (African Rural Economy Program Working Paper 22) fertilizers/West Africa/cost benefit analysis/yield response functions/innovation adoption/extension/consumption/subsidies/production/transport/marketing channels HD9483/.A442/Z34

3.F.1 MECHANIZATION (OTHER THAN ANIMAL TRACTION, WHICH FALLS IN MIXED FARMING)

c 1061 Bodenstedt, A.A. (1977) et al. AGRICULTURAL MECHANIZATION AND EMPLOYMENT. Saarbrucken, Germany: SSIP-Schriften Breitenbach. (Research Centre for International Agrarian Development 7) 151p. mechanization/employment/developing countries/appropriate technology/land ownership/traditional farming/socioeconomic constraints/farmers' attitudes/innovation adoption/labour requirements/family labour/hired labour/work sharing/small farms/ tenure systems/group farms/income distribution/development policy HD6336.18/.A29/A37

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1063 Chapman, J. (1979) POTENTIAL OF MECHANIZATION FOR CROP INTENSIFICATION IN A RAINFED LOWLAND AREA - ILOILO, PHILIPPINES. Los Banos, Philippines: IRRI. 35p. Philippines/small farms/rice/mechanization/cropping systems/multiple cropping/innovation adoption/environmental factors/precipitation/topography/soil types (textural)/socioeconomic constraints/labour/capital/draft animals/cultivators PH.IRR.3.F.1

c 1064 Esmay, M.L. (1979) LOCAL MANUFACTURING FOR SMALL FARMS IN EAST ASIA. IN: Transactions of the ASAE: General Edition. 22(4):750-760, JULY-AUG 1979. yield/farm machinery/agricultural machinery industry/Japan/Taiwan/Korea Republic/Philippines/cultivators/small farms S671/.A456

c 1065 Garman, C.F. (1982) Ngambeki, D.S. & Navasero, N.C. APPROPRIATE MECHANIZATION FOR NO-TILLAGE IN THE TROPICS. (PAPER PRESENTED AT THE 1982 SUMMER MEETING, AMERICAN SOCIETY OF AGRICULTURAL ENGINEERS) St. Joseph, Michigan: American Society of Agricultural Engineers. (Paper no. 82-5002) 18p. no-tillage systems/planting equipment/appropriate technology/Nigeria/IITA/small farms/tractors/tropics Microforms S671/.A43

1066 Gosden, P.N. (1978) SOME IMPLICATIONS OF CHANGE TO CONTEMPORARY FARMING SYSTEMS WITH SPECIAL REFERENCE TO NORTHERN NIGERIA. s.l.: s.n. 18p. Nigeria/agricultural development/traditional farming/changes/technology transfers/draft animals/tractors/labour/mechanization/farming systems/rural development/farmers' attitudes NG.3.F.1

c 1067 Hanley, E. (1978) MECHANISED RICE CULTIVATION: THE EXPERIENCE OF AN EAST INDIAN COMMUNITY IN GUYANA. IN: PEASANTS, PLANTATIONS AND RURAL COMMUNITIES IN THE CARIBBEAN. Guildford, England: University of Surrey, Department of Sociology & the Royal Institute of Linguistics and Anthropology, Department of Caribbean Studies, Leiden, Netherlands. p.160-192. Guyana/rice/mechanization/cultural methods/plantations/peasantry/traditional farming/ innovation adoption/technology transfers/family labour/profitability/problem identification/evaluation HD403.2/.C37/197

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1069 Iqbal Ahmad, S. (1983) ANIMAL POWER IN PAKISTAN: A REVIEW. Islamabad, West Pakistan: PARC. 33p. Pakistan/draught/animal power/energy/animal health/implements ++

1070 IRRI (1978) CONSEQUENCES OF SMALL RICE FARM MECHANIZATION ON PRODUCTION, INCOMES, AND RURAL EMPLOYMENT IN SELECTED COUNTRIES IN ASIA: A PROJECT PROPOSAL. Los Banos, Philippines: IRRI. 38p. Asia/small farms/mechanization/evaluation/farm surveys/research projects/rice/agricultural development Asia.3.F.1

1071 IRRI (1978) IRRI PORTABLE GRAIN CLEANER: OPERATOR'S MANUAL. Los Banos, Philippines: IRRI. 14p. seed cleaners/grain blowers/tools/farm machinery/solution design/rice/sorghum/soyabeans/wheat/mung beans/maize 3.F.1

1072 Kaul, R.N. (1982) OVERVIEW OF MECHANIZATION PROBLEMS IN A DEVELOPING COUNTRY WITH SPECIAL REFERENCE TO NIGERIA. St. Joseph, Michigan: American Society of Agricultural Engineers. (Paper no. 82-5001) 35p. Nigeria/agricultural mechanization/women in agriculture/tractors Microforms S671/.A43

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c 1073 Lang, H. (1978) MOTORISATION ET DEVELOPPMENT DE PETITES EXPLOITATIONS PAYSANNES EN AGRICULTURE TROPICALE: EXEMPLE: LA REGION DE L'QUEST DE LA COTE-D'IVOIRE. IN: Agronomie Tropicale. 33(2):183-193, 1978. Ivory Coast/small farms/mechanization/traditional farming/farming systems/rice/coffee/yield/labour/labour allocation/farm income CI.3.F.1

c 1074 Le Buanec, B. (1979) INTENSIFICATION DES CULTURES ASSOLEES EN COTE D'IVOIRE: MILIEU PHYSIQUE ET STABILITE DES SYSTEMES DE CULTURES MOTORISEES. IN: Agronomie Tropicale. 34(1):54-73, 1979. Ivory Coast/traditional farming/shifting cultivation/risks/mechanization/permanent cultivation/agroclimatology/cropping systems/environmental factors/soil conservation/farming calendar CI.3.F.1

1075 McLean, G.W. (1977) APPROPRIATE MECHANIZATION AND POWER AS THEY RELATE TO IMPROVED SYSTEMS OF FARMING. IN: MIDDLE EAST AND AFRICA AGRICULTURAL SEMINAR, TUNIS, TUNISIA, FEB. 1-3, 1977: VOL I. New York, New York: Ford Foundation. 12p.+ Egypt/agricultural mechanization/tractors/drilling/threshing machines/animal traction Africa.3 (MIDDLE EAST...)

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MF $1.08/PC $5.07

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1584 Spijkers, P. (1975) REPORT ON A FIELD VISIT TO META AND VICHADA: APRIL 30 - MAY 9, 1974. (PRELIMINARY DRAFT) Palmira, Colombia: CIAT, Small Farm Systems Program. 18p. Colombia/farm surveys/limiting factors/mixed farming/shifting cultivation/farmers' attitudes/traditional farming/small farms/contemporary comparisons/llanos/marketing/cattle farming CO.CIA.5.A

1585 Stallings, J.L. (1985) DATA COLLECTION IN SUBSISTENCE FARMING SYSTEMS: A HANDBOOK. Auburn, Alabama: Auburn University, Department of Agricultural Economics and Rural Sociology & Alabama Agricultural Experiment Station. (Agricultural Economics Series No. 38) data collection/handbooks/land use/cropping systems/subsistence farming/surveys/farming systems/crop production/household consumption/marketing/livestock production/livestock censuses ++

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1602 Chambers, R. (1978) TOWARDS RURAL FUTURES: AN APPROACH THROUGH THE PLANNING OF TECHNOLOGIES. Brighton, England: University of Sussex, IDS. (Discussion Paper 134) 18p. technology analysis/solution design/planning of research/population 5.B

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MF $1.08/PC $2.08

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5.B cont.

PN-AAP-098
MF $1.08/PC $1.30

5.C TESTING

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Patancheru, Andhra Pradesh, India: ICRISAT. 17p. conferences/technology transfers/development/rain-fed farming/ VLS/rural economy/adaptation/implementation of research/sociological analysis/interdisciplinary research IN.ICR.5.D

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