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**WOMEN IN AGRICULTURE**  
in developing countries  
1985-1990

A selected annotated bibliography

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## INTRODUCTION

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### Objective

The initial idea of the need to prepare a bibliography on women in agriculture came from the Women and Development Studies Group of the University of the West Indies. The aims being to provide guides to research material to support the fourth disciplinary seminar in women and development held at U.W.I., St. Augustine, January 22-26, 1990 and to identify resource material for teaching and research in support of a course on Women in Agriculture to be mounted by the Faculty of Agriculture.

### Sources

The compilation of this bibliography draws heavily on the collection of the Main Library of the University of the West Indies at St. Augustine and on the major abstracting and indexing tools available locally. However many references are included which are not held in this library.

### Scope

This bibliography includes books, articles, conference papers, unpublished documents and theses written on the role of women in agriculture in developing countries between 1985-1990. It is by no means exhaustive, rather it is an attempt to provide a selected compendium of research articles on this subject.

### Arrangement

The bibliography is divided into two main sections:

1. **A Main Section** consists of individually numbered entries arranged alphabetically by author in broad subject divisions.
2. **Author and Subject Indexes.** The former provides names of authors while the latter consists of natural language subject terms arranged alphabetically. The number given after each entry in both indexes refers to the sequential number in the main section of the bibliography.

### Format

In addition to this printed output, this bibliography also exists as a database at the Women and Studies Unit using the CDS/ISIS software. Search can be done on request.

## ACKNOWLEDGEMENT

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We are indebted to the University of the West Indies, Research and Publications Fund and to the Women and Development Studies Unit who provided funding to make this publication possible.

## Agriculture in General

- 001 Asian NGO Coalition for Agrarian Reform and Rural Development. 1986. 1986 ANGOC Award for Rural Development, awardee: Association of Sarva Seva Farm (ASSEFA). Metro Manila, Philippines: ANGOC. (Monograph Series. No.4.)  
Documents the experiences and highlights the activities of the recipients of the ANGOC Award for Rural Development for 1986, the Association of Sarva Seva Farms (ASSEFA) based in Madurai, Tamil Nadu, India. ASSEFA is an all India network of small grassroots voluntary organizations working within the framework of Sarcodaya (Welfare for all) movement. Its aims are concerned with the reclamation and cultivation of donated land, provision of farm implements, provision of jobs in small industries to women in agricultural households and literacy. Describes the structure and administrative set-up of ASSEFA and its activities in the field of animal husbandry, forestry, rural industries, and welfare services.
- 002 Aslanbeigui, N. and Summerfield, G. 1989. Impact of the responsibility system on women in rural China: an application of Sen's theory of entitlements. *World Development*. Vol.17, No. 3, p. 343-350.
- 003 Association of African Women for Research and Development. 1985. AAWORD in Nairobi '85. Senegal: Association of African Women for Research and Development. 69p. (AAWORD Occasional Paper, no. 3).  
The first part of the publication includes English and French versions of the Nairobi manifesto, encompassing the major concerns of AAWORD and underlining the many facets of the African crisis: apartheid, exploitative monetary policies, agriculture and the food crisis, displacement of populations and fundamentalism. The manifesto's underlying message is that, far from being helpless victims, African women are one of the major resources in the search for ways out of the current crisis. Contains some of the papers that were prepared for the AAWORD panel. Includes an assessment of Forum '85 and AAWORD's participation in it by members of the Association.
- 004 Babb, C., Dublin, J., Henderson, B. and Martha, P.J. 1988. Women in Caribbean agriculture: Commonwealth of Dominica report. Curepe, Trinidad and Tobago: CAFRA. ii, 320p.
- 005 Bahamas. Department of Agriculture. 1987. Country report: Commonwealth of the Bahamas. [Paper presented at the roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Rome, Italy: FAO. 5p. (TCP/RLA/665(C))  
Agriculture accounts for less than 50 per cent of the gross domestic product of the Bahamas. Ninety-five per cent of the farmers are concentrated in the family islands or rural areas. About 30 per cent of the full time farmers are women, the majority of whom produce fruit and vegetable crops. Women play an important role in food processing and preservation, dominating the labour force in the processing plants. Professional women in the Department of Agriculture are involved in a variety of fields from marketing to veterinary medicine. However, the majority of them are removed from rural women. While women do the majority of the farm management, it is the men who generally take advantage of the opportunities in agriculture.
- 006 Bhangoo, S. and Kaur, S.P. 1986. Adoption of improved household practices by farm women as a function of socio-economic factors. *Journal of Research (India)*. Vol.23, No. 1, p.155-160.  
Studies were conducted on the adoption by farm women of household practices on nutrition from waste, proper methods of cooking, kitchen and food hygiene, proper methods of washing and storing woollen garments, use of labour saving devices and grain storage. 200 farm housewives drawn randomly from four villages of each of the four blocks of Ludhiana district, India were the sample surveyed. The results revealed that the adoption of household practices is determined by several socio-economic factors, such as income, education of the respondent and her family and social participation.
- 007 Caribbean Community Secretariat. 1982. Study on the role of women in agriculture. Georgetown, Guyana: CARICOM. 6p.  
An overview of the agricultural situation in the Caribbean forms the background to this outline of a proposed CARICOM study which seeks to analyse female participation in agriculture at the national and at one major industry level. The study will be done in Grenada, St. Lucia and St. Vincent and later extended to other countries. The outline sets out the justification for the study and the terms of reference of the consultant.
- 008 Catley-Carlson, M. 1987. Human Resource development: transfer of technology. IN [The future development of maize and wheat in the third World]. Centro Internacional de Mejoramiento de Maiz and Trigo, Mexico, DF (Mexico). p.119-125. Mexico: CIMMYT.  
Analyses the importance of human resources development and technology transfer in agriculture, the role of the International Agricultural Research Centers, the challenge of feeding world population by the year 2000 and the importance of shaping future research for the next 20 years. Discusses the role of women in agriculture in the developing world.
- 009 Covington, S. Fall 1987. Keeping the farm without losing the family. *Extension Review*. Vol.58, No.4, p.18-19.
- 010 Crehan, K. 1985. Production and gender in north-western Zambia. IN *Food systems in Central and Southern Africa*. p.80-100. Edited by John Pottier. London, UK: School of Oriental and African Studies, University of London.
- 011 Dudden, S. 1985. Women: a harvest of ag talent. *Iowa Agriculture*. Vol.86, No.2, p.14-15.
- 012 Due, J.M. 1988. Intra-household gender issues in farming systems in Tanzania, Zambia and Malawi. IN *Gender issues in farming systems research and extension*. p.331-334. Edited by S. Poats, M. Schmink and A. Spring. Boulder, Colo., USA: Westview Press.

013 Erturk, Y. 1988. Women's participation in agriculture in the villages of Erzurum, Turkey. Ankara, Turkey: [s.n.]. 104p.

014 Ferguson, A.E. and Horn, N. 1987. Situating agricultural research in a class and gender context: The bean/cowpea collaborative research support program. Culture and Agriculture. No.26, p.1-10.

Reviews the literature on women in agriculture in Botswana and Cameroon based on research that resulted in Women in Agriculture Resource Guides for these countries.

015 Flora, C.B. 1985. Women and Agriculture. Agriculture and Human Values. Vol.2, No.1, p.5-12.

016 Food and Agricultural Organisation of the United Nations. Statistics Division. FAO. 1986. Report. Workshop on Improving Statistics on Women in Agriculture. Rome, Italy, 21-31 October 1986. Rome, Italy: FAO. 75p.

017 Food and Agriculture Organisation of the United Nations. 1987. Report. International seminar on women in agriculture and rural development in Asia. Huangxian, China, 6-22 May 1986. Rome, Italy: FAO. 89p.

018 Food and Agriculture Organisation of the United Nations. Regional Office for Asia and the Pacific. 1986. South Pacific women in agriculture: background paper. Expert consultation on South Pacific women in agriculture, Nuku'alofa, Tonga, 24-26 November 1986. Bangkok, Thailand: FAO. 62p. (FAO-RAPA-805)

019 Food and Agriculture Organisation of the United Nations. Statistics Division. 1985. Statistics on women, children and aged in agriculture in India; a case study. Rome, Italy: FAO. 61p. (FAO-ESS-Misc/2/85)

020 Food and Agriculture Organisation of the United Nations. 1985. [FAO workshop on the development of rural agriculture in Francophone countries of Western, Eastern and Central Africa] report. Rome, Italy: FAO. Animal Production and Health Division. 41p. (FAO-AGA-971)

021 Food and Agriculture Organisation of the United Nations. Regional Office for Asia and the Pacific. 1985. [Papers] Symposium on women in agriculture in Asia-Pacific Region, Bangkok, Thailand, 16 October 1984. Bangkok, Thailand: FAO. 52p.

022 Food and Organisation of the United Nations. 1987. Interim report. National conference on the role of women in agriculture and rural development in the Sudan, Khartoum, North Sudan, 18-22 January 1987. Rome, Italy: FAO. 147p. (FAO-AGO-GCP/SUD/030/FIN)

023 Fraser, A and Moutoux, K. 1986. Forward looking strategies for the advancement of women of the year 2000. New Delhi, India: Centre for Women's Development Studies. 28p.

This is a condensed version of the 'Forward looking strategies' document adopted at the world conference of the United Nations "Decade for women" held in Nairobi, Kenya, on 15-26 July 1985. The document was adopted by consensus by the delegates

representing 150 countries assembled at the conference. Women's issues dealt with include: equality; peace; special groups of women including the old, young, disabled, destitute, migrants, tribals and prostitutes.

024 French, J. 1988. Women in Caribbean agriculture. *Cafra News*. Vol.2, No. 3, p.4.

Highlights the findings of the "Women in Caribbean Agriculture" project in St. Vincent and the Grenadines and the Commonwealth of Dominica. The majority of women do not own land. Size of land worked by women in St. Vincent is generally under three acres and in Dominica under five. The majority of women farmers are over 35 years. Women in agriculture employ multiple strategies for earning income. Women and men in both territories do all field tasks when working on their own plots but tasks are sex-differentiated when working as hired labour. This project seeks to address the lack of data on Caribbean women.

025 French, J. 1988. Women in Caribbean agriculture research/action project: overall report and summary of main findings. Curepe, Trinidad and Tobago: CAFRA. ii, 75p.

Study of women in agriculture centred around five rural communities in Dominica and St. Vincent, these two islands selected for their predominantly agricultural economies. The main focus of the investigation was to examine the activities of women in agriculture, taking into account the comparative emphasis, value and time placed on their activities in the household as well as in the field. The research project was based on the theoretical assumption that a study of women's activities at the household level is necessary for a full reflection of women's labour, agricultural and non-agricultural. The report notes the use of novel research methods, combining participant-observant techniques, with the collection of statistical data, while at the same time introducing an element of training and consciousness raising within selected communities, together with mutual sharing of experiences.

026 Gidden, E.M. 1987. Country report: Jamaica. [Paper presented at the] Roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Rome, Italy: FAO. 11p. (TCP/RLA/6665(C))

The Ministry of Agriculture and the Bureau of Women's Affairs are the main governmental agencies actively involved in the integration of women in agricultural and rural development in Jamaica. Statistical data on women's participation are drawn mainly from local studies since very little census and survey data is desegregated by sex. Problems faced by women in agriculture include, difficulty in obtaining credit and insufficient exposure to available opportunities and information. Further integration of women could be enhanced if remuneration, working conditions, employer attitudes, housing and basic services were improved. The major programme being developed to improve the integration of women in agriculture is the Rural Farm Family Development Programme which started in 1966. A pilot project to strengthen the programme is being implemented in four parishes. Rural women are direct recipients of most of the project's activities.

- 027 Glesne, C. Inclusion and incorporation in agricultural production: the case of young Vincentians. IN Women in agriculture, conference on gender issues in farming systems research and extension, Gainesville, U.S.A., 26 February - 1 March 1986. Vol. 2, p.18. Gainesville, USA: University of Florida.
- Through participation, observation and in-depth interviews, challenges the notion that agricultural pursuits are unattractive to young Vincentians. Suggests that young adults - men and women, participate in agriculture in greater numbers than are generally recognised and that structural constraints are more important than attitudinal in preventing greater participation. Explores the possible contributions of education as a means to better incorporate the young into the sector.
- 028 Gordon, L. 1986. Women in Caribbean agriculture. IN Women of the Caribbean. p.35-40. Edited by P. Ellis. London, UK: Zed Books Limited.
- Summarizes the findings of two reports: (1) A survey of the economic role of women in small-scale agriculture in St. Lucia (1981) and (2) Study of the situation of rural families and rural women in agriculture, forestry and fishing (1981) in Jamaica. Suggests that without initiatives to change the social and institutional character of the plantation system of resource organization, the 50 per cent of women in Caribbean rural population will continue to be disadvantaged and discriminated against in various ways.
- 029 Hahn, N.D. 1986. The African farmer and her husband, women and farming systems - the IITA experience. Manhattan, Kansas, USA: Kansas State University. 13p.
- Programme aims at redesigning its research and training programmes to ensure women's participation as equal beneficiaries to men and developing an approach which would allow the African woman to reveal her own experience with new technologies. Other aspects discussed included training, surveys of compound farm, study of national needs of children, a review of agricultural references on women in IITA library, and the use of video to document women's work and responses to IITA technology.
- 030 Haney, W.G. and Knowles, J.B.(eds.). 1988. Women and farming: changing roles, changing structures. Boulder, USA: Westview Press. (Rural Studies Series)
- 031 Hashmi, Z.A. 1988. The role of rural women in agriculture. IN Proceedings of workshop on role of rural women in farming system research, Islamabad, Pakistan. p.7-12. Islamabad, Pakistan: Pakistan Agricultural Research Council.
- 032 Hudgens, R.E. 1988. A diagnostic survey of female-headed household in the Central Province of Zambia. IN Gender issues in farming systems research and extension. p.373-387. Edited by Susan Poats and Marianne Schminck and Anita Spring. Boulder, Colo., USA: Westview Press.
- 033 Inter-American Institute of Agricultural Science. Committee for Rural Women and Development. 1980. Rural women: A Caribbean bibliography with special reference to Jamaica. San Jose, Costa Rica: IICA. 29p.
- Lists 142 references under 3 sections: (a) Women and development: a selection of background readings; (b) Rural women in Jamaica, and (c) Jamaican women. Emphasis has been given to recording works available in Jamaica and there is a special listing of publications available from the Jamaican Women's Bureau. An author index is included.
- 034 International Institute of Tropical Agriculture. 1985. Research highlights 1984. Ibadan, Nigeria: IITA. 117p.
- Presents data on the ongoing research programme of IITA. The research programme is concerned with grain legumes, root and tuber crops, cereals and farming systems. Outlines the results of an exploratory field survey on the role of Nigerian women in food production and decision-making.
- 035 Knowles, J and Weidemann, C.J. 1985. Science and farm women's work : the agrarian origins of home economics, extension systems and modern farmers in developing countries. Agriculture and Human Values. Vol. 2, No.1, p.56-59.
- Considers a few areas where goals for developing countries, including increased food production can be more fully achieved through careful attention to agriculture and, in particular, home economics extension programmes for rural women.
- 036 Kozol, W. 198. Madonnas of the field: photography, gender and 1930's farm relief. Genders. No.2, p.1-23.
- 037 Laxmi-Devi, A. 1988. Rural women: management in farm and home. New Delhi, India: Northern Book Centre. 176p.
- 038 Lekalake, L. 1985. Women and development in Botswana: an annotated bibliography. Gaborone, Botswana: Women's Affairs Unit, Ministry of Home Affairs, Botswana. 60p.
- The bibliography gives researchers a general idea of what type of research has been carried out on women in Botswana in order to identify research gaps. Two hundred and forty one entries are included. They are arranged into 11 categories: agriculture, bibliography, commerce, economic development, education, employment, health and welfare, legal rights, migration and urbanization, social structure and customs.
- 039 Linares, O.F. 1985. Cash crops and gender constructs: the Jola of Senegal. Ethnology. Vol.24, p.83-94.
- 040 Martinex, D. 1985. Female farmers gain more than a foothold. Farmlife. Vol.6, No.5, p.17.
- 041 McCall, M.K. 1985. The significance of distance constraints in peasant farming systems with special reference to sub-Saharan Africa. Applied Geography. Vol.5, No.4, p.325-345.
- Impacts of agglomeration and excessive journeys to work are noted as affecting the quantity and quality of agricultural labour inputs, livestock husbandry, the collection of domestic necessities and socio-cultural and welfare conditions. Response to distance problems is

considered as part of rural change; and the particular position of peasant women vis-a-vis distance and transport technology is stressed. A number of potential solutions to the agro-economic distance problem are briefly discussed, either as changes in farming systems, or as redistributions of the working populations.

042 Odie-Ali, S. 1986. Women in agriculture : the case of Guyana. *Social and Economic Studies*. Vol.35, No. 2, p.241-289.

Revised version of a paper presented at the regional conference of the Women in the Caribbean Project (WICP), held in Barbados in September 1982. Deals specifically with Guyanese women who are involved in farming; their reasons for becoming so involved; their role within the familial, agricultural and other economic spheres; their knowledge of and access to credit and other agricultural development facilities which may be available; and their perception of themselves in the field of agriculture. The findings encompass the WICP theme: sources of livelihood, emotional support and power authority.

043 Ogutu, M.A. 1985. The changing role of women in the commercial history of Busia district in Kenya, 1900-1983. *Journal of East African Research Development*. Vol.15, p.74-90.

044 Pedersen, J. 1987. Plantation women and children : wage, labour, adoption and fertility in the Seychelles. *Ethnology*. Vol.26, No.1, p.51-61.

Presents a description of the general features of the Seychelles and its coconut plantation. Investigates the way in which these plantation women organize their household tasks so as to reconcile their work for the plantation with the work created by having many children. Women who have many children work on the plantation and having children does not seem to inhibit this.

045 Quebral, N. C. 1988. A women's programme in rural reconstruction in the Philippines. *FAO Economic and Social Development Series*. Vol., No.44, p.122-132.

The women's programme of the International Institute of Rural Reconstruction (IIRR) in the Philippines is described, tracing its past development, examining its guiding principles and working procedures today and pointing out future directions. It is shown that the IIRR has developed certain approaches that govern its various projects including the women's programme. The major ones are: experimentation in the villages to evolve answers to acute problems; a concerted attack on rural problems that tend to reinforce each other; a system of relay training for villages; and stress on self reliance and participation. The conclusion is reached that poverty, lack of education, community inertia, and probably even disease, i.e., the same social ills that the rural reconstruction movement is trying to combat, have constrained the IIRR's women's programme. The question to be examined is how far these ills are a function of the prevailing social structures that now envelop rural women.

046 Rafats, J. October 1987. Women in Agriculture, 1979-July 1987. Washington, D.C., USA: National Agricultural Library. 24p. (Quick bibliography series, No. 88)

047 Shin, D.W. and Chung, M.N. and Lim, P.J. and Chung, K.J. 1985. Statistical case study on women's role in agriculture at selected villages in Korea. *Research Reports of the Rural Development Administration - Agriculture Engineering Farm Management and Sericulture*. Vol.27, No.2, p.53-70.

Examines some of rural women's activities in four villages in Chungchong Provinces, Korea, in an attempt to identify women's role in farming under the transformation of a traditional system into a modern economy. Concludes that (1) labouring hours of farm housewives have been overloaded in comparison to that of their husbands, (2) heavy labouring had led to poor health conditions of farm housewives and (3) the farm housewives had increased their influences to the decision-making on the farm activities.

048 Swanjord, D.E. 1986. A bibliography of agriculture and rural life in Yemen. *Resources in Education*. Vol.21, No.12, 126p.

Intended as a key to current work in agriculture in Yemen, this bibliography cites more than 520 resources produced since 1963 including foreign language materials. The subject categories are: agriculture-beekeeping; agriculture-coffee; agriculture-cotton; agriculture-fisheries; agriculture-forestry; agriculture-grapes; agriculture-horticulture; agriculture-appropriate technology; animal production; bibliographies; botany-general; botany-historical; climatology; crops; cultural background; economic development; agricultural education and extension; entomology and plant protection; agricultural history; management and administration studies; marketing studies; population; soils; statistics; survey and community studies; water resources; and women and development.

049 Tembo, M.N. and Phiri, E.C. 1988. The impact of modern changes in the chitemene farming system in the Northern Province of Zambia. *IN Gender issues in farming systems research and extension*. p.361-372. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

050 Turshen, M. 1987. Victims of development. *Women's Review of Books*. Vol.4, p.11-12.

Among the books reviewed is *Women Farmers in Africa: Rural Development in Mali and the Sahel*, edited by Lucy E. Creevey, Syracuse University Press, 1986, 212p.

051 University of the Philippines at Los Banos; International Rice Research Institute and Institute for Development Studies. 1988. *Filipino women in rice farming systems*. Manila, Philippines: University of the Philippines, IRRRI, IDS. 408p.

Represents the collective effort of an inter-disciplinary group of women scientists, who met at a workshop in Laguna, Philippines, on 26 March 1987 to discuss three main themes: (1) technology and women in rice farming systems; (2) extension and women in rice farming systems and (3) wages and female employment. An introductory paper briefly outlines the relative importance accorded women in R & D projects in India, Nepal, Bangladesh, Thailand, Indonesia and the Philippines.

052 *Women in Agriculture*. 1985. *Courier*. No.91, p.52-55.

053 Worley, B.A. 1987. Property and gender relations among Twareg nomads. *Nomadic Peoples*. No.23, p.31-35.

Cites the case of Kel Fadey Twareg, Niger, as illustration that ownership and control of live-stock is exercised independently by both men and women among vassals. States that women throughout Twareg society enjoy a degree of autonomy and social privilege that is highly unusual of a Muslim society. Despite their role in agricultural production, women in developing countries have virtually been ignored by agricultural extension units.

054 Yates, B.A. and Paralakar, K.R. May 1987. *Agriculture*. International Agriculture Publications. General Series. No. 3, p. 26-29.

#### Agribusiness

055 Mbilinyi, M. 1988. Agribusiness and women peasants in Tanzania. *Development and Change*. Vol.19, No.4, p.549-583.

Using the case study of relations in tea production in Rungwe, Tanzania, it is shown how smallholder programmes developed by the World Bank have led to the disintegration of women's holdings and increased women's resistance.

#### Agricultural Co-operatives

056 Goonatilake, H. and Casinader, R. 1985. Gampubuduwa organization at the Ralahamywatta village, Sri Lanka. IN *Rural development and women: lessons from the field*. Vol. 1, p.175-188. Geneva, Switzerland: International Labour Organisation.

Examines the work of the non-governmental organization, Gampubuduwa in its efforts to increase the income of women involved in the processing of cashew nuts in a village in Sri Lanka. The organization's role in the setting up of credit schemes to satisfy the need for capital to process and purchase the nuts are described together with the positive social impact of increased incomes for women. The dynamics of cooperatives in which the women were organized are discussed.

057 Gyllstroem, B. and Holmen, H. and Johanson, M. 1988. Bibliography on agricultural cooperatives in third world countries [1970-1971]. Lund, Sweden: Lund University. 270p.

058 Kabeer, N. 1985. Organising landless women in Bangladesh. *Community Development Journal*. Vol.20, p.203-211.

The Saptagram Nari Swanivar Parishad (Seven Village Women's Self-reliance Movement), set up in 1976 in Bangladesh, provides a range of services to women including education, training, health and family planning. It also organizes various income-generating projects such as serviculture, fish-farming and a cane planting cooperative. However,

its main objective in working with poor landless women is to sensitize them to the roots of their collective oppression and to develop the organizational ability to challenge it.

059 Kannabiran, V. 1986. Report from SSS, a women's study group in Hyderabad, Andhra Pradesh, India. *Feminist Studies*. Vol.12, No. 3, p.601-612.

Stree Shakti Sanghatana [Women Power Organization] has worked on the banning of vegetable exports needed in India, on improving the poor treatment of agricultural workers, against rapists, and against dowry and deaths.

060 Kulandaiswamy, V. 1987. Women's participation in development : the case study of Indian dairy cooperatives. *International Co-operative Information (Switzerland)*. Vol. 80, No.2, p.36-39.

Despite high participation of rural women in dairy farming in India, they are generally excluded from institutions such as cooperatives, training centres and credit facilities. To overcome this, exclusive women's dairy cooperatives have been designed. The obstacles to participation in these cooperatives are identified as women's role in society; lack of economic independence; illiteracy; and vested interests and gender bias in extension. Strategies for promoting women's participation are needed by intervention; incentives (credit facilities), education and legislation (women rights).

061 Laberge, R. 1987. Women's participation in co-operatives. *International Co-operative Information (Switzerland)*. Vol.80, No.2, p.25-30.

Reviews the existing literature on women's participation in cooperatives. Identifies the barriers which prevent women from full participation in cooperatives as lack of time; legal restraints; traditional constraints; and lack of education and training. The primary goals which must be achieved if women are to be integrated into the co-operative movement are an increased education and training opportunities for women; a change in discriminatory co-operative legislation and laws in general that hamper women's progress in economic life; to find means to decrease the workload of women; to begin or continue widespread propaganda and education efforts on women's role in cooperatives and development and increase women's access to credit.

062 Lapido, P. 1987. Women in a maize storage co-operative in Nigeria; family planning, credit and technological change. IN *Sex roles, population and development in West Africa*. p.101-117. Portsmouth, UK: Heinemann Educational Books.

The impact of the Isoya Rural Development Project, which provides minimal assistance to Yoruba women associated in a women's cooperative in Nigeria is examined. One of the activities of the project included helping the women to build an improved crib for storing and drying maize prior to sale. The major findings of the project's monitoring action lead to conclusions in the following fields: the potential contribution of this assistance to fertility decline; the solvency of the women as a group; the aptitude of the existing government policy concerning assistance to co-operatives; and existing needs concerning availability of contraceptives and medical care.

063 Maas, M. Women's groups in Kiambu, Kenya: it is always a good thing to have land. Lieden, Agric Studiecentrum. 85p. (Report report, No.26)

Examines the co-operation between Kikuyu women in Kulima village, Kenya. The women enter into forms of economic co-operation and mutual aid known as "women's groups". The historical development of women's groups is placed against the background of severe shortage of land with which the Kikuyu have been confronted in the course of this century.

064 Mazingira Institute. 1985. A guide to women's organizations and agencies serving women in Kenya. Nairobi, Kenya: Mazingira Institute. 314p.

Presents a directory of women's organizations in Kenya, which gives general background and women-specific information on development activities. Also includes organizations offering programmes on agriculture and crafts.

065 Milimo, M.C. 1985. Chikuni fruit and vegetable producer's co-operative society, Zambia: a case study IN Rural development and women: lessons from the field. Vol. 1, p.21-35. Geneva, Switzerland: International Labour Organisation.

Describes the cooperative's origin, objectives, organization and its activities in improving production, processing, marketing and its extension services. The means through which the women have access to land and control of credit and produce are analyzed. The lack of women's participation in the policy making process is identified as one of the main constraints on the full participation of members. Recommendations to overcome this constraint are suggested.

066 Nkebukwa, A. 1985. The performance of Umoja Wa Wanawake Tanzania (UWT): Tuke Consumer's Co-operative Society, Morogoro, Tanzania. IN Rural development and women: lessons from the field. Vol. 1, p.99-110. Geneva, Switzerland: International Labour Organisation.

Focuses on the efforts made by women in Morogoro, Tanzania, to increase their incomes through the Tuke Consumer's Cooperative Society. Six of the ten Tuke income earning projects including the development of milk kiosks and a maize farm are discussed. Attention is also paid to the contradictions and constraints in and about Tuke, such as the relationship between management and members; between independent income earning and expansion of Tuke; and between Tuke and women's liberation and emancipation.

067 O'Brien, M. 1985. The maize grinding mill at Sinon. Community Development Journal. Vol.20, No.3, p.188-191.

Traces the activities of a women's group in Sinon, East Africa from their attempts at farming and the making and selling of handicraft to the successful implementation of a maize grinding mill project. With this latest project they have finally moved away from the more traditional type of image regarding women's role and their work and towards developing a working business which they organize themselves. At the same time, these women carry out their tremendous domestic responsibilities.

068 O'Garro, H. The challenge to produce marketing in a hurricane-prone region. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of

the West Indies, St. Augustine, Trinidad. 3p.

The Dominica Hucksters Association is a marketing co-operative operating out of Dominica and serving the islands of the Lesser Antilles with fresh fruit, vegetables and root crops. This paper presents a firsthand view of the problems that are typical for such marketing co-operatives/associations in the region. Concludes with a number of practical recommendations for the survival of the regional trade.

069 Ombina, K. and May, N. 1985. Progress through piggeries and prejudice in Kenya. Community Development Journal. Vol.20, No.3, p. 191-194.

Attempts to assess the effectiveness of the Halombove Women's Group, East Africa, in its goals to meet the women's need for money, better family living and reducing the burden of work in the homes and fields. Concludes that the group has been relatively successful in its enterprise due to a combination of good organization and insightful guidance from within the group's leadership, together with the technical advice and cash inputs from outside.

070 Rachilo, J.R. and Wanjohi, J.K. 1986. Detailed soil survey of the Nyandusi Women Group Farm (Bondo Division, Siaya District). Nairobi, Kenya: Ministry of Agriculture and Livestock Development, National Agricultural Laboratories, Kenya, Soil Survey. ii, 33p.

071 Smith, S. 1987. Zimbabwean women in co-operatives: participation and sexual equality in four producer co-operatives. Journal of Social Development in Africa. Vol.2, No.1, p.29-47.

Presents the results of a study on the participation of women and of sexual equality in four producer cooperatives in Zimbabwe. The results are compared with women in other socialist countries and the current Zimbabwean government's policy on women and cooperatives are highlighted.

072 Thomas, H. An appreciation of the contribution of women to agricultural development. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. 4p.

Presents a case for "an appreciation of the impact and organizational capabilities of women in agricultural development." Looks critically at some of the traditional barriers faced by women in their efforts to gain more than a marginal voice in the decision-making mainstream of male-dominated farmers' organizations. Concludes with a number of suggestions for maximizing women's participation in leadership roles in such organizations.

073 Thomas-Emeagwali, G. Women and co-operative development in Nigeria with emphasis on agricultural co-operatives. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. 13p.

Examines the "question of organizational strategy as this relates to co-operative development in Nigeria." Examples of inappropriate technology transfer and funding mechanisms are also discussed.

074 Wan, Y.S. 1985. Koperasi Setia Budi Wanita [Setia Budi Wanita Women's Co-operative], East Java, Indonesia. IN Rural development and women: lessons from the field. Vol. 2, p.25-38. Geneva, Switzerland: International Labour Organisation.

A system of collective responsibility and discipline in its attempt to assist the rural and urban poor has been developed in Indonesia. The membership and organization of the cooperative are outlined together with some of its operations which include a loan and fund unit and a farming and small livestock unit.

075 Yoke Lin, T. 1985. The Kubang Pasu Timur women's multi-purpose co-operative, Kedah State, Malaysia. IN Rural development and women: lessons from the field. Vol. 1, p.71-83. Geneva, Switzerland: International Labour Organisation.

Traces the background and development of Kubang Timur Women's multi-purpose cooperative whose existing projects include the rice and rubber trade. The organizational and membership structure are described. The main aim of the cooperative has been to afford employment and independent incomes to women and to offer credit facilities to its members. The negative features are: (1) lack of more widespread decision making within the co-operatives; (2) lack of participation caused by neglect of education and business knowledge; and (3) lack of change of leadership.

076 Zakia, M. 1985. Women and cooperatives - some realities affecting development in Tanzania. Community Development Journal. Vol.20, No.3, p.184-188.

Case studies conducted in 1982 by the International Cooperative Alliance Regional Office in Moshi in collaboration with FAO in Tanzania, Kenya, Zambia, Lesotho and Swaziland, focussed on the common successes and constraints to further participation of women in cooperatives. Concludes that cooperatives can play a significant role in women's lives but not until society gets women's role and potential contribution into better perspective.

#### Agricultural Economics and Development

077 1985. Rural women in the food system: an overview. CIRDAP Newsletter (Bangladesh). No.22, p.9-12.

Presents an overview of rural women's role in agriculture in Pakistan, Sri Lanka and Thailand with respect to: (1) women as a source of labour in rural areas; (2) women's role in decision making; (3) women's income and (4) factors influencing rural women labour force.

078 1987. The successful face of African agriculture. International Agricultural Development. Vol.7, No.2, p.7-8.

Reports that Cameroon has countered the trend of food shortages and increasing imports and has achieved food self-sufficiency. The level of government spending on agriculture, farmer incentives, linking research to the farmer, the proper use of funds and attention to women were cited as the key reasons why Cameroon has achieved self-sufficiency in food.

079 Adekanye, T.O. 1987. African women in agriculture : problems and policies for development. Presence Africaine. No.141, p.7-14.

Assesses the role of women in agriculture and in the rural economies of Africa. Reviews women's activities in the agricultural economy of Nigeria. Examines their involvement in cooperation in order to indicate the extent to which women are integrated into, or by-passed by, rural development projects. Concludes that it is wasteful to continue to ignore women in agricultural development programmes.

080 Adekanye, T.O. (ed.). 1988. Women in agriculture 1988. Ibadan, Nigeria: Women's Research and Documentation Centre. Institute of African Studies, University of Ibadan. 94p. (African Notes, No. 3)

Proceedings of a conference held in Nigeria at which thirteen papers were presented. The meeting concluded that women in Nigeria, as in many African countries, have the main responsibility for food production, processing and distribution yet their status, access to input sources, control of agricultural output and incomes are generally lower than those of men. It is of primary concern and urgency to correct this imbalance and ensure that essential inputs reach women.

081 Agricultural change, rural women, and organizations: a policy dialogue: proceedings of the APDC-ACWF International Seminar on agricultural change and rural women, Beijing, China, 29 October - 8 November 1986. Kuala Lumpur: Asian and Pacific Development Centre. 134p.

082 Ahawo, D.O. 1985. Women of Kenya: review and evaluation of progress. Nairobi, Kenya: Kenya Literature Bureau. 61p.

Reviews the role of the Kenyan women in national development, and evaluates their progress in the last decade. Emphasizes increase of agriculture and other non-formal activities in the rural areas, with a view to making the rural areas more attractive to live and work.

083 Akande, B.E. 1987. Contemporary Nigerian communities and rural development. Rural Sociologist. Vol.7, No.3, p.187-194.

Considers the issues involved in Nigerian rural development and productivity, with a view to providing guidelines for a reorientation in approach. Guidelines for the planning and implementation of rural development projects in Nigeria are proposed: rural development projects should have the primary aim of social justice; women must not be neglected; agricultural productivity must be increased to generate higher incomes in rural areas which would reduce the amount of rural-urban migration; the rural economy should be diversified; local government should be made more viable; and use of appropriate local materials and skills should be increased.

084 Akinbode, A. and Akaude, B.E. 1987. The situation of rural women in Nigeria. Rural Sociologist. Vol.7, No.3, p.210-215.

Women play an important role in agriculture - they grow, process, store and market agricultural products from their own farms and/or from that of their husband's farms. In recognition of the deep involvement of rural women in human development, nutrition, health care and homemaking, it is

imperative that rural development workers should help them to boost their productive efforts and gain more personal ease in their various roles.

085 Anderson, M.B. 1985. Kenya: Kitwi district arid and semi-arid lands project. IN Gender roles in development programme. p. 309-326. West Hartford, USA: Kumarian Press.

Presents a detailed description of the Kitwi district of Kenya, and analyses the role of women, families and type of work in this district. Reports that in 1979 the US Agency for International Development (USAID) together with the Government of Kenya undertook the funding of an ASAL (Arid and semi-arid lands) project to develop arid and semi-arid lands. The government's thrust was on the development of the rural agricultural sector. Identifies the components of the project, its present status and the reasons for its failure to achieve projected targets.

086 Ashby, J.A. and Gomez, S. (ed.). 1985. Women, agriculture, and rural development in Latin America. Cali, Columbia: CIAT. 177p.

Background paper presented at the CGIAR international seminar on women and agricultural technology in Italy in March 1985. Reviews what is known about the role of women in food and agricultural systems in Latin America and assess the usefulness of this information for formulating strategies in agricultural research programmes. A bibliography compiled for the background paper is included.

087 Axinn, N.W. 1988. Gender related issues in international development assistance for agriculture and rural life. Agriculture and Human Values (USA). Vol.5, No.1-2, p.69-76.

088 Barth, U. 1986. [The transport needs of women in subsistence agriculture in sub-Saharan Africa]. Der Transportbedarf von Frauen in der Subsistenzlandwirtschaft Afrikanischer Lander sudlich der Sahara. Entwicklung und Laendlicher Raum. Vol.2, No.6, p.19-21.

Transportation is one of the most crucial problems in the labour-intensive subsistence farming systems of sub-Saharan Africa. Women as the primary food producers supply the bulk of labour required both for farm work and domestic work. Most female activities in subsistence agriculture are bounded by the movements within the context of on-farm transport: they carry water, fuelwood and harvested crops. Stresses the need for the provision of time and labour saving means of on-farm transport for women in subsistence agriculture in sub-Saharan Africa if the efficiency and effectiveness of food production are to be raised.

089 Bernal, V. 1988. Losing ground - women and agriculture on Sudan's irrigated schemes: lessons from a Blue Nile village. IN Agriculture, women and land: the African experience. p.131-156. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

090 Berresford, A. 1987. Voices of rural practitioners. Self-analysis of local rural development initiatives worldwide. IERD Series, International Exposition of Rural Development. No.21,

This book, and its companion volume, The Dictionary of Rural Development Projects (both part

of the International Exposition of Rural Development- IERD), aim to stimulate networking and the exchange of significant information on how to achieve sustainable development. It is based on the 4-year programme - Sharing approaches that work. Part I summarizes the findings on rural development approaches that work, as these emerged from discussions among 650 participants from 300 projects in 55 countries who took part in IERD's Central International Event in New Delhi in 1984. Part II contains a description of projects visited by delegates during the Central International Event, presented in alphabetical order and cross-referenced to Volume I. Part III comprises the seven presentations from the Event, which particularly emphasize women, children, poverty, and self help income generation. Part IV contains references to Part I with supplementary material in the form of 18 brief case studies, appendices, and a keyword index. Presents information on RURALNET, the database of Rural Development Projects.

091 Bharathi, M. and Buggi, C. 1987. Strategies for social mobilization of rural women in development of agriculture during 21st century. p.113-118. India: University of Agricultural Sciences. (UAS Technical Series, No.47 (II))

Suggests that a major aspect of development of agriculture in India in the 21st century would be to evolve appropriate strategies for involving rural women, who constitute nearly 50 percent of the workforce. A number of factors relating to the role played by women are discussed: formal education, informal local organizations for rural women, women's agricultural labour organizations, encouragement for rural women entrepreneurs, extension by women in the villages and application of appropriate technology.

092 Bhati, J.P. and Singh, D.V. 1987. Women's contribution to agricultural economy in hill regions of North-west India. Economic and Political Weekly. Vol.22, p.7-11.

093 Bisilliat, J. 1985. [Women and food politics]. Femmes et politiques alimentaires: actes du seminaire international sur la place des femmes dans l'autosuffisance et les strategies alimentaires: O.R.S.T.O.M.-C.I.E., 14-18 Janvier 1985, Paris. Paris: Editions de l'ORSTOM, Institut francais de recherche scientifique pour le developement en cooperation. 741p.

094 Borger-Poulsen, K. 1985. Integration or segregation - the gap between good and appropriate actions in Africa. Community Development Journal. Vol.20, No.3, p.176-183.

Stresses the importance of recognising the involvement of women in development activities in order to avoid a situation of unequal opportunity and access to resources and wealth for women. Emphasizes that failure to recognise the crucial part played by African women in agriculture, where 70 percent of the farm work is done by women, results in a loss of efficiency and productivity. Attention is paid to integration strategies and obstacles and the need to monitor changes related to women's involvement in development programmes which may be taking place.

095 Boserup, E. 1985. Economic and demographic interrelationships in sub-Saharan Africa. Population and Development Review. Vol.11, No.3,

p.383-397.

In most parts of Africa the process of industrialization has outpaced the structural change necessary for the process. One result of this situation is that features of African land tenure and family organization that encourage high fertility remain unchanged. As a consequence young female age at marriage, polygamy, unequal work burdens of the sexes and low female educational opportunities are continuing to erode the status of women.

096 Boutros, S.S. 1985. A study of some economic, social and personal factors affecting the degree of rural girls' participation in agriculture production [Egypt]. Thesis (M.Sc.), Moshtohor, Egypt: Zagazig University. 290p.

097 Brunch, C. 1987. Food, politics, power : a feminist perspective. *Heresies*. No.1, p.92-94.

Asserts that governments are using food and the withholding of food internationally to get other nations to agree with their policies and internally to exercise control over their own people.

098 Bruneau, M. 1987. [Food policies of two ASEAN countries (Thailand and Malaysia)]. *Terres, comptoirs et silos: des systemes de production aux politiques alimentaires*. Edited by D. Kermel-Torres and P.J. Roca. Bondy, France: Office de la Recherche Scientifique et Technique Outre-Mer (ORSTOM).

Food policies in Thailand and Malaysia are discussed to highlight differences and similarities in agricultural development strategies adopted by countries in the ASEAN community. State intervention in agriculture (rice production, in particular) is more marked in Malaysia, where a green revolution type of agricultural intensification is being pursued. With state intervention in Thailand limited mainly to infra-structural development, agricultural production is more diversified and production techniques more extensive. Both countries are, however, mainly preoccupied with agricultural export production, leading to inequalities in food consumption and exposing children of preschool age and pregnant women to malnutrition.

099 Carasco, B. 1984. Spreading the blaze: the Integrated Rural Development Pilot Project, St. Lucia. Castries, St Lucia: National Research and Development Foundation. 32p. (St. Lucia. National Research and Development Foundation Integrated Rural Development Pilot Project Second Progress Project, March-August 1984)

The two-year project was based on an integrated participatory approach to development to increase rural families' access to extension services, enhance women's participation in development activities and to improve the socio-economic position of the farm family. A chronological account of events is given with committee meetings, community visits, discussions held between community agricultural extension officers and project co-ordinators and farmers in the rural communities. Further projections are identified such as technical assistance on a one-to-one basis for entire communities, and training activities both formal and non-formal.

100 Centre on Integrated Rural Development for

Asia and the Pacific. 1989. Rural women in fishing communities. *Naga: The ICLARM Quarterly*. Vol.12, No. 2, p.10-12.

101 Chakravorty, S. 1984. Women: key to food security. *Intensive Agriculture (India)*. Vol. 22, Nos. 9-10, p.5-11.

The role of women in food security, defined as the prevention of the loss of food and food values and the protection of food from contamination, is discussed. Attention is paid to post-harvest operations and to the implications of poverty for food security. Women have not been able to derive much benefit from programmes aimed at eradicating rural poverty.

102 Chaney, E.M. 1983. Migration, decline of smallholder agriculture and the feminization of farming in the Caribbean [Paper presented at] conference on women in development: a decade of experience, Washington, DC, USA, 14 October 1983. Washington, DC, USA: Equity Policy Centre. 25p.

Focuses mainly on the Jamaican reality, and argues that a series of interlocking events are part of larger systems generating hungry people. The case of families who have inherited, or will inherit too little land on which to survive, or declining productivity due to outmigration from the rural areas are processes which generate people who cannot find a place in the economy or society. It is among such people that malnutrition is likely to occur. Solutions proposed include the strengthening of national nutrition policy and increased emphasis on smallholder agriculture. Discusses the major problems facing policy makers in choosing the proper balance among complementary agricultural policies to increase food production.

103 Chaney, E.M. and Lewis, M.W. 1980. Women, migration and the decline of smallholder agriculture. Washington, DC., USA: USAID. Office of Women in Development. 56p.

104 Clark, G. 1985. Fighting the African food crisis: women food farmers and food workers. New York, NY, USA: UNIFEM. 35p. (UNIFEM Occasional Paper, No. 1)

Analyses the position of women in Africa's food systems. The vital importance of women as small farmers is discussed together with their specific roles in various aspects of crop and livestock production. Suggestions are made for policies concerning the stimulation of women's production sectors, including short-term and medium-term measures related to women's crops, small animals, processing, fisheries, forestry and extension as well as innovations in assistance delivery (research design, project planning and project management).

105 Coughenour, M.C. and Frankenberger, T. and Skartvedt, E. 1985. Women farmers in rural settlements in North Kordofan, Sudan. *Ahfad Journal (Sudan)*. Vol.2, No.2, p.9-22.

Data from a 1982 study of women farmers in 15 villages in Sudan reveal that the lack of family labour, rather than expertise or access to land, was the principal factor in the relatively low farm production. Thus, although the total production per farm of women is low, the labour productivity is comparable to that of men.

106 Coughenour, M.C. and Nazhat, S.M. 1986. The process of agricultural change among women farmers of North Korofan, Sudan. *Ahfad Journal (Sudan)*. Vol.3, No. 1, p.19-28.

Research conducted in 1984 among 84 men and 56 women farmers in 15 villages around El Obeid, North Korofan, revealed that women farmers have tried numerous new seed varieties and other new practices in recent years. Their interest in innovations is high, and once known, desired innovations are quickly adopted. The origins of nearly all innovations are other farmers in nearby regions and the information travels primarily by kinship and merchant networks.

107 Craigwell, J. Historical and contemporary roles of women in Caribbean agriculture: a Guyanese perspective. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. p.13.

Takes a brief historical look at women's role in agricultural production in Guyana. Attention is also paid to the constraints facing women in their efforts to obtain financial aid. Recommends the formulation of specific strategies to deal with the unique cultural situation in the Caribbean.

108 Creevel, L.E. (ed.). 1986. Women farmers in Africa: Rural development in Mali and the Sahel. Syracuse, New York, USA: Syracuse University Press. xvii, 212p.

Workshop sessions to deal both conceptually and operationally with constraints on women farmers in CILCA's Sahelian village projects. Represents a balanced presentation as a tool for practitioners required to solve problems in planning and carrying out project activities as well as students of food security and integrated rural development.

109 Dak, T.M. and Sharma, M.L. and Jain, R. 1986. Social and institutional framework of female participation in agriculture. *The Indian Journal of Social Work*. Vol.47, No.3, p.285-291.

Structured interview data obtained from women in 160 farm households in 4 Haryana districts in India are used to ascertain the contribution of women in farm production activities and to examine the effects of the social and institutional framework. In nearly 50 percent of the activities considered, particularly labour participation, most women play a monopolising role while they assume supportive roles in decision-making.

110 Dalsimer, M. and Nisonoff, L. 1987. The implications of the new agricultural and one-child policies for rural Chinese women. *Feminist Studies*. Vol.13, p.583-607.

111 Deere, C.D. 1985. Rural women and state policy: the Latin American agrarian reform experience. *World Development*. Vol.13, No.9, p.1037-1053.

Identifies the need for women to be given access to land or the opportunity to participate within the agrarian cooperatives or state farms promoted by an agrarian reform. Article reviews 13 Latin American agrarian reforms and highlights that only men have benefitted largely because of the common designation of households as beneficiaries of an agrarian reform and the subsequent incorporation of only male household heads.

112 Deere, C.D. 1985. Rural women and state policy: The Latin American agrarian reform experience. Michigan, USA: Michigan State University. (Women in International Development, Working paper, No. 81)

Reviews thirteen Latin American agrarian reforms and shows that most have directly benefitted only men. It is argued that this is largely because of the common designation of "households" as the beneficiaries of an agrarian reform and the subsequent incorporation of only male household heads to the new agrarian reform structure. Argues that women must also be given access to land or the opportunity to participate within the agrarian co-operatives or state farms promoted by an agrarian reform if they are to benefit on par with men.

113 Deere, C.D. and Leon, M.(eds.). 1987. Rural women and state policy: feminist perspectives on Latin American agricultural development. Boulder, USA: Westview Press. 282p.

Synthesizes what has been learned over the past decade - the UN decade for women - with regard to agricultural development for rural women, taking into account the impact of the economic crisis; models of development in the region; and the scope and consequences of 'women in development' projects and policies.

114 Dey, J. 1985. Women in African rice farming systems. IN Women in rice farming: Proceedings of a conference on women in rice farming systems, The International Rice Research Institute, Manila, Philippines. p.419-444. Aldershot, Hants, England: Gower.

Discusses women's role in rice production, post harvest processing and marketing and the implications for expanding production and raising productivity and incomes under different cultivation conditions in seven African countries. Recommends government policy, for research and for project design, delivery monitoring and evaluation.

115 Diarra, A. 1986. [Political socialization and the role of women in Mali]. Politische Sozialisation und Rolle der Frau in Mali. Aachen, Federal Republic of Germany: Rader Verlag. 243p.

Analyses the role of women in the social, economic, political and religious structure of the traditional society of Mali. Describes the factors of influence during the colonial period; examines the problems of political socialization and analyses the economic role of women in agriculture, domestic trade, handicrafts and cattle production.

116 Diehl, L. and Runge-Metzger, A. 1985. [Forms of gardenlike agriculture in Northern Ghana. Possibilities to gain additional income by intensifying the production on small plots]. Formen gartenartiger Landwirtschaft in Nord-Ghana-Moeglichkeiten fuer zusaetzliches Einkommen durch Intensivierung auf kleiner Flaechen. Entwicklung und Laendlicher Raum. Vol.19, No.4, p.13-16.

The intensification of agriculture, spurred on by the increasing scarcity of land and labour, has led to more garden-type farming as is carried out in Northern Ghana. The cultivation of cowpeas, corn and tobacco is done by men, while the cultivation of vegetables in the main crop is an important source of income for the women. For further evolution of this project, the introduction of new types of vegetables and fruit trees are re-

commended. However, this depends on the kind of livestock keeping, so that in the short-term, intensification seems feasible only on small plots.

117 Doorenbos, J. and Haverkort, B. and Jiggins, J. 1988. Women and rationalisation of smallholder agriculture. *Agricultural Administration and Extension*. Vol. 28, No.2, p.101-112.

Agricultural policies, resource allocations and service provisions which fail to recognise the extent of women's participation in farming are irrational and reduce the efficiency and effectiveness of agricultural sector investments. Special strategic intervention is required in order to re-orient ministries of agriculture towards assisting women farmers. Concludes with examples of what is being achieved through such interventions as: revision of agricultural data, collection and analysis, agricultural research and training and development of staff commitment.

118 Due, J.M. 1987. African women's perceptions of development: contrasts between Tanzania and Zambia. *Journal of Rural Studies*. Vol.3, No.1, p.23-29.

119 Due, J.M. 1986. Agriculture policy in tropical Africa: is a turnaround possible. *Agricultural Economics*. *Journal of the International Association of Agricultural Economics*. Vol.1, No.1, p. 19-34.

120 Duggan, W. 1985. Irrigated gardens, Molepoole, Botswana. IN *Rural development and women: lessons from the field*. Vol. 1, p.7-20.

Examines the socio-economic background of the village Molepolole, Botswana; the women's role in agriculture; the history of the Kwenong Rural Development Agency's garden scheme and the benefits accruing to the Tshwarangano Vegetable Production Group following their take-over of the scheme. Describes the socio-economic background of the village economy and the history of the KRDA garden scheme.

121 Ellis, C. and Topsey, H. and Topsey, W. and McGann, J. and Arana Sr., F. 1987. Participation of women in agriculture and rural development in Belize. [Paper presented at the] Roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Rome, Italy: FAO. 29p. (TCP/RLA/665(C))

122 Ellis, P. 1981. Economic role of women in small scale agriculture: report on a workshop to present and discuss findings of the survey - Workshop on the Economic Role of Women in Small Scale Agriculture, Castries, St. Lucia, 11-12 June 1981. Wildey, Barbados: WAND. 42p.

Data analysis and statistical breakdown are included. Interviews and questionnaires are used to gain information. The findings are discussed by a workshop comprising local, national, regional and international agencies involved in agricultural projects in the region with the aim of extracting issues, making recommendations, suggesting activities and implementation measures. Small groups and plenary sessions discuss issues such as: (1) accessibility to credit; (2) social activities for women; (3) rising age of farmers; (4) nuclear households; (5) consumption patterns; (6) women investment patterns; (7) farm family; (8)

transmission of agricultural information; (9) co-ordination of district/community level; (10) role of extension officers; (11) negative attitudes of women; (12) disposal of surplus; (13) need for more data; and (14) evaluation. Four broad headings are outlined as: development strategy; the issue of lack of productivity and rural poverty; methodology and communications strategy; linking community to policy. The need to reintegrate agriculture into the education system and to encourage interested youths into production rather than to become agricultural scientists is stressed. An integrated approach strategy is recommended. Wide ranging recommendations include focus on the family farm, training in the field, improved agricultural technology, exploitation of communication channels for the fullest benefit, and that community pilot projects be established for coordination in other islands.

123 Elwin, H. 1987. National paper: Dominica. [Paper presented at the] Roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Rome, Italy: FAO. 7p. (TCP/RLA/665(C))

Agriculture is the mainstay of the Dominican economy and an important source of employment for women. Women are primarily involved in the cultivation of subsistence crops, small-scale marketing and the care of livestock. The Bureau of Women's Affairs and various ministries are involved in developing and implementing rural development programmes and projects for women. Deficiencies and problems include: the need for women-specific training programmes; traditional inheritance patterns inhibit women's ability to acquire collateral to access credit; and illiteracy inhibits their effective use of agricultural information. Programmes are currently implemented in the areas of food production, nutrition education, income-generating projects, and skills training. A national policy on women and a sectoral plan of action are being finalized.

124 Engo, R.B. 1985. Key role of African women in food production and support of the UNDFW. p.238-241. New York, USA: UNDP.

The United Nations Development Fund for Women (UNDFW) aims to support women's productive activities in developing countries and concentrates on the least-developed, land-locked and island countries. Provides assistance in the form of seeds, tools, water, credit, training and technical assistance for food production and processing, forestry, animal husbandry, small-scale industries, and other fields. The major role of women in food production is still largely ignored. The misconceptions that women do not raise cash crops and hence do not need development assistance; women are unpaid family workers, and not own-account farmers; women do not need legal rights to land, are still common amongst development planners and policy makers. These misconceptions are responsible for large deficiencies in the food production system.

125 Entwistle, E.R. 1985. Rural women and economic development. *Pacific Viewpoint*. Vol.26, No.2, p.437-447.

Argues that although economic development in rural areas can lead to capital accumulation this has benefitted men to a greater extent than it has

done for women. Also, the capitalist development of agriculture has encouraged men's productivity while having little effect on that of women so that their economic status has declined. Concludes that the political contribution of women to economic development and production is largely untapped and that development agencies and government planners need to provide incentives for women to participate in planned change.

126 Famoriyo, S. 1988. The significance of women in Nigerian agriculture. *African Notes (Nigeria)*. No.3, p.83-88.

Since the late 1970's there has been an increased awareness of the need to improve the status of rural women. Suggestions are made to integrate women further into the development process. Policies aimed at small farmers should also include women small farmers.

127 FAO. Regional Office for Latin America and the Caribbean. 1987. Report on the roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Santiago, Chile: FAO. Regional Office for Latin America and the Caribbean. 36p. (TCP/RLA/665(C))

The meeting identified several areas in which action should be taken, involving a number of the principal agents of the process of integration of rural women into the development, including governments, assistance agencies and women's organizations. Specific recommendations are made within such areas as employment and economic activities for rural women; women's participation in agricultural and rural development; strengthening the capability of women's integration into development and communications and dissemination of information. Specific areas that require priority attention either through research activities or formulation of projects are also identified. In order to improve employment and increase incomes of rural women, both as wage earners and as the self-employed, it is recommended that priority areas such as provision of adequate extension services and accessibility to credit for self-employed women, should be examined.

128 Ferchoiu, S. 1985. [Women in the Tunisian agriculture]. *Les femmes dans l'agriculture Tunisienne*. Aix-en-Provence, France: Edisud. 96p.

Investigates the impact of integrated rural development on socio-economic conditions of women in agricultural production in Central Tunisia. The analysis is based within the framework of international development aid and describes the example of a project in Sidi-Bouزيد. Problems related to the social status of women in terms of changes in the sexual division of labour are also discussed.

129 Finan, T.J. and Henderson, H.K. 1988. The logic of Cape Verdean female-headed households: social response to economic scarcity. *Urban Anthropology*. Vol.17, No.1, p.87-103.

Examines a specific type of female-headed household on the main Cape Verdean Island of Santiago. This type of household accounts for 20 percent of the farms and represents the poorest of all rural household types. The authors argue that the persistence of this social institution is related to the lack of economic activities outside

of subsistence agriculture.

130 Flax, M.K. 1987. Country report: Antigua. [Paper presented at the] roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Santiago, Chile: FAO. 9p.

Women constitute 53.5 per cent of all full-time farmers in Antigua and Barbuda, are engaged primarily in subsistence production of crops and own and operate 19 percent of all land under production. Available census data indicate the percentage of women who own and operate farms but omit females who assist their spouses, who are labourers or who are the children of farmers. The major governmental organization which is responsible for implementing programmes for women in agriculture is the Women's Desk. Non-governmental organizations tend to provide training in traditional skills of women. Concludes that the education of women and the sensitization of men and women as to women's potential, are the keys to the integration of women into development.

131 Fleming, S. and Tukuafu, M. 1987. Women's work and development in Tonga. Australia, South Pacific Small Holder Project. University of New England. ix, 92p. (Occasional Paper, No. 10)

Women's roles in small holder agriculture in Tonga are examined in relation to the policy, planning and implementation of rural development.

132 Flora, C.B. and Santos, B. 1986. Women in farming systems in Latin America. IN *Women and change in Latin America*. p.208-228. South Hadley, USA: Bergin and Garvey.

Investigations into the role of women in the limited resource farming systems in the Dominican Republic led to the adaptations in the implementation of the rural development plan - Sierra in 1979. In response to the results of the study of this farming system, more projects were initiated to increase opportunities for women in the Dominican Republic and Latin America to provide cash incomes and subsistence products for their families. Presents a brief review of the results of research into the role of women in Latin American agriculture and the structure of Latin American and Dominican agriculture.

133 Food and Agricultural Organisation of the United Nations. 1988. Caribbean women in agriculture. Proceedings of the roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Santiago, Chile: FAO. Regional office for Latin America and the Caribbean. 116p. m.

Compilation of papers presented at FAO round table convened in St. Lucia in July 1987. Contains five chapters. The first presents historical factors which helped shape the situation of women in agriculture and rural employment in the region, through a case study on women's participation in the sugar plantations in Trinidad and Tobago. Chapter two analyzes the socio-economic situation of women under different agricultural production systems. The third chapter is concerned with the institutional framework in the Caribbean countries to promote action for women in development, with emphasis on programmes and policies related to rural women. Chapter four presents an overview of

legislation affecting women in Barbados, Belize, Guyana and St. Lucia, including a focus on rural women and analysis of constitutional guarantees. A collection of five case studies is presented in the final chapter. These address problems of women's statistical invisibility in Jamaica; land tenure, production systems, employment and labour utilization in St. Lucia; the historical participation of women in agriculture and development in Belize; the mechanisms contributing to redundancy of female labour in Trinidad and Tobago's sugar industry. Analyses the status of female agricultural workers in Antigua in five categories: labourers, small farmers, women in marketing, middle-level field technicians and professionals.

134 Food and Agriculture Organisation of the United Nations. 1986. Role of women in food and agriculture production in the region. FAO regional conference for the Near East, Istanbul, Turkey, 17 March 1986. Rome, Italy: FAO. 25p.

135 Food and Agriculture Organisation of the United Nations. Human Resources, Institutions and Agrarian Reform Division. 1986. Statistics and indicators on the role of women in agriculture and rural development. Data collection and monitoring. Rome, Italy: FAO. Human Resources, Institutions and Agrarian Reform Division. 27p.

136 Food and Agriculture Organisation of the United Nations. 1986. Women in agriculture and rural development. FAO Regional conference for Asia and the Pacific, Rome, Italy, 8-17 July 1986. Rome, Italy: FAO. 21p. (FAO-GIC-APRC/86/6)

137 Food and Agriculture Organisation of the United Nations. Human Resources, Institutions and Agrarian Reform Division. 1987. Women in agriculture and rural development: FAO's programme directions. Conference Session 24, Rome, Italy Rome, Italy: FAO. 14p.

138 Food and Agriculture Organisation of the United Nations. 1985. Women in developing agriculture. Rome, Italy: FAO.

139 Food and Agriculture Organization of the United Nations. 1987. 24th session Rome, 7-26 November 1987. Second progress report on WCARRD programme of action including the role of women in rural development. Rome, Italy: FAO.

This is the second report in the four-year cycle of reporting on progress in the implementation of the WCARRD programme of action (1979). In terms of a decision of the 1983 FAO conference, it also reports on the progress made in the role of women in rural development. The purposes of the report are to monitor and report on changes in national policies and progress as well as in international development and policies towards the objectives, target groups, and areas of action of WCARRD. The focus is on changes in the period since 1980, but with special reference to changes after 1983, the year of the last WCARRD report. The report is divided into six main chapters: (1) the WCARRD mandate and reporting arrangements; (2) national objectives, strategies and policies; (3) policies and progress in the WCARRD areas of action; (4) the role of women in rural development; (5) international developments and policies; and (6) rural poverty, dimensions and trends.

140 Food and Agriculture Organization of the United Nations. 1987. Women in irrigated agriculture in Africa. FAO Irrigation and Drainage Paper. No.42, p.111-123. Rome, Italy: FAO.

Focuses on the role of women in irrigated agriculture in Africa. The changes in women's roles due to the introduction of irrigation are described. The need to ensure women's access to production resources and support services is discussed. Strategies for involving women in irrigated agriculture are outlined.

141 French, J. 1987. Women in agriculture: Jamaica. [Paper presented at the] roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Rome, Italy: FAO. 35p. (TCP/RLA/665(C))

Surveys sources of information on women in agriculture in Jamaica and analyses available data to describe the position of women in agriculture as it evolved from slavery to the present. The study underscores the need for statistical data to be desegregated by sex and for a new approach to data collection which measures agricultural work done by women in the home; assesses hours spent by rural women on domestic tasks; investigates the contribution of each household member to the labour involved in farm production; examines decision-making processes which operate in the farm household and analyses the nature and organization of women's work at different stages of the life cycle.

142 Fresco, L. 1985. [Women and rural development: state of the art 10 years after Mexico] Vrouwen en plattelandontwikkeling: de stand van zaken 10 jaar na Mexico. BOW Nieuwsbrief- Bond van Ontwikkelingswerkers (Netherlands). No.33, p.11-21.

Examines the participation of women in rural development planning in developing countries over the past decade. It states that women are mainly active in the food production sector. Outlines some of the negative effects on women's development.

143 Fresco, L. 1985. Women and developing countries - no food strategy without women. Landbouwkundig Tijdschrift. Vol.97, No.2, p.18-19.

Strategies needed to guarantee food in the long term for all groups' countries highlight women's importance at all stages of food production, processing and marketing.

144 Gladwin, C.H. and McMillan, D. 1989. Is a turnaround in Africa possible without helping African women to farm? Economic Development and Cultural Change. Vol.37, p.345-369.

Debates the question of whether a turnaround in African agriculture can be achieved without helping smallholder women farmers to farm. Concludes that in the short-term [one decade] the answer is negative. This is because of the active participation of so many women in agriculture. However, in the long-term a turnaround could be achieved without helping women because they will be displaced by the process of agricultural intensification. Suggestions are made on what can be done to ensure that women farmers are not displaced.

145 Gladwin, C.H. and Stavdt, K.A. and McMillan,

D.E. 1986/1987. Providing Africa's women farmers access: one solution to the food crisis. *Journal of African Studies*. Vol.13, No.4, p.131-141.

The growing number of research findings documenting women's management of semi-autonomous production and consumption units within the broader African household are summarized. The limited access women have to fundamental agricultural inputs, government extension services, credit markets, and agricultural power is discussed.

146 Gopinath, G. and Kalro, A.H. 1985. India: Gujarat medium irrigation project. IN *Gender roles in development projects*. p. 283-308. West Hartford, USA: Kumarian Press.

Describes the socio-economic status of women as well as an overview of the state of Gujarat. The Gujarat Medium Irrigation Project (MIP), funded jointly by AID, the International Development Association and the Government of Gujarat, is explained. The main goals of the AID project are described as: (1) to increase the level and security of small-farmer incomes; (2) to expand rural employment opportunities; (3) to increase the availability of food to the rural poor and urban poor. To meet these goals stakeholders will share the cost of constructing 13 new irrigation systems. Each new system will generally consist of: (a) an earthfill storage dam with a gateway spillway; (b) a fully lined canal network which can deliver water through outlets serving 8 hectare blocks and (c) a drainage network connected to natural drains. The Fatewadi irrigation project located in the Ahmedabad district serves as a case study. The women's activities in the selected villages are discussed.

147 Gumbs, F.A. Regional agriculture development: future plans and the role of women. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. p.14.

Suggests that in the short-term, greater efforts have to be made by women's groups or their representatives to be aware and informed at all stages of the planning of regional programmes, projects and activities which have important gender implications in order to ensure that the appropriate inputs be made.

148 Henn, J. 1986. Female farmers - the doubly ignored. *Development Forum*. Vol.14, No.7, p.7.

149 Henn, J.K. 1988. Intra-household dynamics and state policies as constraints on food production: results of a 1985 agro economic survey in Cameroon. IN *Gender issues in farming systems research and extension*. p.315-330. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

150 Heyzer, N. 1987. Women farmers and rural change in Asia : towards equal access and participation. Kaula Lumpur, Malaysia: Asian and Pacific Development Centre. x, 418p.

151 Hill, P. 1986. Kerala is different. *Modern Asian Studies*. Vol.20, No.4, p.779-792.

Highlights that Mayan as well as muslim women in Trivandrum district generally enjoy much

stronger property rights and are more independent of their husbands than women in rural south India. It is suggested that localities such as lowland Trivandrum district have poor prospects of benefitting from the kind of indigenous intensification of agriculture backed up by extensive services which offer great hope for the future of South India, despite the inevitability of population growth. Suggested that problems of the district should be tackled in accordance with the current new-styled urbanization process.

152 Horenstein, N.R. 1989. Women and food security in Kenya. Washington, D.C., USA: World Bank. 39p. (Policy, planning and research working papers. WPS 232)

153 Hosken, F. 1985. Women and property : barriers to property ownership by women - barriers to effective development? *Women and Environment*. Vol.7, No.3, p.10-13.

Looks at property rights of women in the third world and their impact on agricultural development and on food production. Author quotes UN report which identifies the systematic exclusion of women in this way as a factor in food shortage and famine in Africa.

154 Howard, R.E. 1985. Women and the crisis in Commonwealth Africa. *International Political Science Review (USA)*. Vol.6, No.3 (Special Issue), p.287-296.

As the economic crisis in Commonwealth Africa deepens in the 1980's, Africans may retreat into low-level subsistence agriculture which means more work for women. If corporatism develops into facism, the discrimination of economically independent women will intensify. The meaning of the crisis of the 1980's for women in Commonwealth Africa is less political representation, fewer economic resources, more political repression and more work.

155 IFDA. 1985. The Nairobi '85 manifesto on women and the crisis in Africa. IFDA Dossier. No.50, p.31-35.

Reviews the UN Decade for women with special emphasis on the role of African governments in promoting women's advancement in relation to apartheid policies in South Africa and exploitative monetary policies, agriculture and the food crisis, in particular the lack of adequate food, water and fuel, and displacement of population as refugees. It is argued that an alternative development strategy for women must be formulated, with emphasis on a cancellation of debts by the IMF and World Bank and improvement of allocation of resources.

156 Jaffan, R.H. 1987. Development strategies in the Middle East: agriculture prospect and policy implications. *Social and Human Sciences in Asia and the Pacific, RUSHAP Series on Occasional Monographs and Papers, UNESCO Principal Office for Asia and the Pacific*. No.20, p.124-134.

Discusses the forces affecting the agricultural situation in the Middle East to help in planning a new direction for policy. It is hoped that this policy, by being more sensitive to the dynamics of demand, may provide a favourable composition of crop production to increase basic staples and to induce intra-regional trade. It is concluded that adapting to new agricultural tech-

nology appears to offer the most powerful mechanism for increasing food supply. However, the process of change, land reform, price policies and the establishment of agricultural technical infrastructure that take into account both women and nomads, and groups which have for long been discouraged.

157 Jaquette, J. 1985. Women, population and food: an overview of the issues. IN Women as food producers in developing countries. p. 1-9. Edited by Jamie Monson and Marion Kalb. Los Angeles, USA: University of California.

Shows that as the modernization of agriculture progresses, women involved in agricultural production and marketing are increasingly marginalized. Argues that one approach to solving this problem would be to alter the modernization process itself by the use of food self-reliance projects, which although uses modern technology, severs the linkages between local and international markets and credit systems. Another approach is to attempt to nullify the effects of the modernization process which makes it increasingly difficult for women to gain access to productive resources. To achieve this, programmes attempting to reach women must adjust training schedules, reverse the trend to favour cash crop production, include female personnel in training roles and develop technology suitable for use by women.

158 Jiggins, J. 1986. Gender-related impacts and the work of the international agricultural research centres. Washington, D.C., The World Bank. 96p. (CGIAR Study Paper, No. 17)

Neglect of gender issues in agricultural research and technology development by international agricultural research centres, holds output and welfare below full potential. In addition to methodological weaknesses built into current research programming, insufficient attention has been paid by agricultural researchers to the institutional barriers which inhibit the exchange of relevant experience and information between women, agricultural researchers and extension agents. Data from a variety of sources allow tentative conclusions to be drawn with regard to the impact of technical change in agriculture on women in Asia, Latin America and the Caribbean and Sub-Saharan Africa.

159 Jiggins, J. 1985. Special problems of female heads of households in agriculture and rural development in Asia and the Pacific. Bangkok, Thailand: FAO. 43p.

160 Johnson, P.L. 1988. Women and development: a highland New Guinea example. Human Ecology. Vol.16, p.105-122.

161 Kabir, K. 1986. Women and food production in Bangladesh. Canadian Women Studies. Vol.7, Nos.1-2, p.111-113.

Examines the difficult position confronting women food producers in Bangladesh. The sexual segregation of Muslim society relegates women to the invisible role of processing food within the household, away from the fields. The Nigeria Kori Women's group, among others, has so far succeeded in mobilising women agricultural workers into cooperatives.

162 Kalbacher, J.J. and Salant, P. and Whitener, L. and Sachs, C. and Ross, P.J. Feb 1985.

Farmwomen's contributions to agriculture and the rural economy. Rural Development Perspectives. Vol.1, No.2, p.20-26.

163 Kamarck, A.M. 1988. The special case of Africa. IN Health, nutrition and economic crises. Approaches to policy in the third World. p.199-222. Edited by D.E. Bell and M.R. Reich. Massachusetts, USA: Auburn House Publishing Company.

Argues that a policy such as the UN Program of Action for African Economic Recovery and Development, 1986-90, which places major emphasis on improving the opportunities for women farmers, will have its strongest impact over the longer run. Acknowledging political risks, government policy is recommended to be shifted from urban to rural populations.

164 Kaur, S. 1987. Women in rural development: a case study. Delhi, India: Mittal Publications. 274p.

Examines the role of rural women in home and farm activities in three districts of Haryana, India. The nature and extent of women's role in family and farm decisions are studied; the knowledge of rural women of different rural development programmes are assessed; and measures for the integration of women in the development process are suggested.

165 Kelkar, G. 1988. ...Two steps back? New agricultural policies in rural China and the woman question. IN Structures of patriarchy: state, community and household in modernising Asia. p.12-50. Edited by B. Agarwal. London, UK: Zed Books.

The household contract system introduced in China in 1978 exploits the labour of women, and perpetrates wage differentials on the basis of gender for the same work. These gender differentials coupled with a thrust towards a one-child family is associated with the revival of son preference and female infanticide.

166 Khan Rana, M.S. 1987. Strategies of involving women in the uplift of agriculture in Pakistan. IN National workshop on research extension linkages for effective technology transfer. Islamabad, Pakistan, 26-30 Oct 1986. p.138-146. Edited by K.M. Chaudhary, T.M. Khan and M.S.Z. Toor

167 Khan, M.A. and Jafri, S. 1987. Rural women in agricultural development. Progressive Farming (Pakistan). Vol.7, No.2, p.20-23.

168 Khan, S. 1988. The fifty percent: women in development and policy in Bangladesh. Dhaka, Bangladesh: Bangladesh University Press. 152p.

Reviews women in development and policy in Bangladesh and reveals the existence of a persistent pattern of exclusion of women in development activities. Section I presents a macro view of the situation of women in Bangladesh. Section II deals with the employment status of women in agriculture, on-farm activities and the organized sector. Section III examines the policies and programmes affecting women in development. Section IV explores the potential of female labour in Bangladesh. Concludes that despite being in an unfavourable socio-economic situation, women contribute a great deal to the economy. It brings

into focus the potential for gender-specific human resources and the need for investment in women as well their participation in development activities, in order to generate the much needed surplus for the economy.

169 Knudson, B. and Yates, B.A. 1981. Economic role of women in small scale agriculture in the Eastern Caribbean: St. Lucia. Bridgetown, Barbados: WAND. 92p.

Study aims to ascertain the extent and nature of economic participation by women in small-scale agriculture, and to suggest policies and strategies for the most efficient delivery of agricultural support services to improve the economic well-being of these women and their families. The questionnaire method was used for the survey. Analyses the agricultural sector, focussing especially on the structure of the agricultural labour force and the role of women. The purpose is to provide a background against which to evaluate and compare the empirical findings of the field survey of small-scale agriculture. Recommendations and programme ideas for improving the delivery of services to women engaged in small scale agriculture are presented. These include (1) national extension service personnel, (2) an integrated participatory approach, (3) delivery of agricultural information, (4) access to productive resources, (5) data base, research and evaluation, (6) action pilot project, and (7) regional co-operation.

170 Lapido, P. 1987. Sex roles, population and development in West Africa. p.101-117. Portsmouth, UK: Heineman Educational Books. (Isoya Rural Development Project. (NIGIA))

Documents the impact of the Isoya rural development project which provides minimal assistance to Yoruba women associated in a women's cooperative in Angaran village, Nigeria. The assistance, both at the individual and group level, consisted of three activities: provision of information on the regulation of fertility, with the help of a gynecologist; making credit available to the women as a group through their cooperatives; and helping the women to build an improved crib for storing and drying maize prior to sale. Concludes by examining the potential contribution of this assistance to fertility decline; the solvency of the women as a group; the aptitude of the existing government policy concerning assistance to cooperatives; and existing needs concerning availability of contraceptives and medical care.

171 Lastarria-Cornhiel, S. 1988. Female farmers and agricultural production in El Salvador. Development and Change. Vol.19, No.4, p. 558-615.

Focuses on the relation between access to resources and agricultural production and other income-generating activities of rural families, comparing male and female farmers in El Salvador. Concludes that in subsistence farming, access to land is more significant than the gender issue.

172 Lauzi, S. 1985. [Interrelation between education and agricultural development] Amman, Jordan: Ministry of Agriculture. 8p.

Looks at the present situation in the agricultural sector of Jordan in terms of agriculture and the national economics, rates of production during 1976-1985, percentages of specialized female labour of the agricultural labour force and the

role of qualified women.

173 Leon, M. 1987. Agricultural policies in Colombia and discussion of policies concerning peasant women. Estudios Rurales Latinoamericanos. Vol.10, No.1, p.71-93.

Agrarian reform began in Colombia in 1961 with a sectoral strategy, but the reform collapsed and capitalist agriculture continued to develop. The subsequent Programme for Integrated Rural Development is described, emphasizing those policies which are particularly relevant to rural women. These include guaranteeing access to factors of production, ensuring women's participation in income-generating projects, encouraging women to participate in community organization, improving the conditions of domestic work and improving levels of education. The strategies used and their modes of operation are indicated. The constraints upon the policies are discussed: those within the framework of the agricultural policies and within the patriarchal model of society prevalent in Colombia.

174 Liljestam, A. and Suazo, J. 1987. The Nicaraguan food and agricultural sector. Uppsala, Sweden: Sveriges Lantbruksuniv. 277p. (Rural Development Studies, Sweden, No. 20)

175 Lisk, F. and Stevens, Y. 1987. Government policy and rural women's work in Sierra Leone. IN Sex roles, population and development in West Africa. p.182-202. Portsmouth, UK: Heinemann Educational Books.

Focuses on the impact of government policies on women's work in Sierra Leone especially in terms of agriculture and rural development, industrialization, the informal sector and household work. An important conclusion from this study is that the contribution of women's work to national development has not been fully recognised by policy makers. This has led to disparate treatment of even those women who are productive in the labour force such as smallholder farmers and retail traders. Recognition of the active part played by women in the development process for planning purposes will depend on how policy makers perceive the characteristics of the women in the total labour force. This in turn has implications for the formulation of policies and the design and implementation of development programmes and projects.

176 Mackenzie, F. 1986. Local initiatives and national policy: gender and agricultural change in Murang's district, Kenya. Canadian Journal of African Studies. Vol.20, No. 3, p.377-401.

The process of rural change in a region of small farmers in Kenya, Central Province, is discussed. Drawing on data collected in Murang's district in 1984 of a sample of 300 households, it is argued that agricultural policies regarding land tenure and the promotion of cash crops, such as coffee, have intensified rural contradictions and increased the differences between socio-economic classes and between sexes. Local women's groups provide women with the necessary solidarity to address the issues they face as individuals.

177 McCarthy, F.E. and Feldman, S. 1985. Rural women discovered: new sources of capital and labour in Bangladesh. East Lansing, Michigan, USA: Michigan State University.

178 McCullough, E.R. and Futrell, M. 1988. Economic and normative restraints on subsistence farming in Honduras. IN *Gender issues in farming systems research and extension*. p.183-197. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

179 Mencher J. 1986. Women and agriculture. IN *Food policy: frameworks for analysis and action*. p.39-49. Edited by C.K. Mann and B. Huddleston. Bloomington, Indiana, USA: University Press.

Provides an analytical framework for evaluating the role of women's involvement in agriculture in the formulation of food policy.

180 Michel, A. 1988. [Development of women in Latin America and Caribbean]. *Femmes et développement en Amérique latine et aux Caraïbes*. *Recherches Feministes*. Vol.1, No. 2, p.19-38.

Demystifies the concept of development and the productivist economic development model, particularly in relation to agricultural and industrial production and to statistics concerning women's work and households. Concludes that it is essential to change unidimensional development thinking to take into account, from the beginning, the victims of this type of development among which women are the most numerous.

181 Mignot Lefebvre, Y. (ed.). 1985. [Emergence from invisible labour: women in the economy]. *La sortie du travail invisible: les femmes dans l'économie*. *Revue Tiers-Monde* (France). Vol.26, No.102 (Special issue),

Presents articles on the role of women in tropical agriculture against a background of the general problems encountered. Examples from case studies are presented. After an introduction, section one discusses multilateral assistance and its impact on women. Section two contains six papers on the position of women in the context of national situations and policies. Section four gives six examples of successful joint women's activities both in rural and urban environments.

182 Mikell, G. 1985. Expansion and contraction in economic access for rural women in Ghana. *Rural Africana*. No.21, p.13-30.

Discusses the economic rise and fall of Ghanaian female cocoa farmers. This can be linked to the machinations of the national and global economies, as well as to the indigenous kinship structures which operate against women. While in many parts of Africa matrilineal systems have been transformed into patrilineal ones in response to capitalist economic pressures other more subtle processes are in operation in Ghana. Women's access to resources have been limited. This is due to Akan's principles of filiation and descent in combination with capitalist economic crisis. Rural women are being squeezed out of farm ownership and cocoa farming and they have become increasingly marginal to rural income-generating activities.

183 Mones, B. [Rural women and agricultural activities in Dominica]. *Mujer rural y actividad agropecuaria familiar en Dominicana*. IN *Women in agriculture. Conference on gender issues in farming systems research and extension*, Gainesville, U.S.A., 26 February - 1 March 1986. Vol. 3, p.19. Gainesville, USA: University of Florida.

Women in rural areas of the Dominican Republic play a fundamental role in agricultural production

both in family estates (55 percent) and in the labour market (14 percent). States that government's plans and programmes of 1975-85 affecting rural women have not taken into consideration means to improve the subordinate position of women. Projects are still reinforcing the generic division of labour and the social structure which forms its base. Eleven recommendations are proposed with reference to the subordination of the rural women and her access to the productive measures.

184 Monson, J. and Kalib, M. (eds.). 1985. *Women as food producers in developing countries*. Los Angeles, USA: University of California. 124p.

Presents the outcome of a workshop on the role of women as producers and providers of food, held in 1984. The papers deal with 3 basic issues: (1) women's productive roles in agriculture, small-scale industries and livestock; (2) women's political consciousness and its effects on political structure; and (3) the invisibility of women in official statistics. The final paper is a theatrical play on the whole topic of women as food providers.

185 Moore, M.A. 1986. [The role of women in irrigated agriculture]. *O papel da mulher na agricultura irrigada*. *Irrigação e Tecnologia Moderna* (Brazil). No.24, March, p.38.

186 Mtoi, M.T. 1988. Institutional and policy parameters affecting gender issues in farming systems research in Tanzania. IN *Gender issues in farming systems research and extension*. p.345-359. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

187 Nasimiyu, R. 1985. Women in the colonial economy of Bungoma: Role of women in agriculture, 1902-1960. *Journal of Eastern African Research and Development*. Vol.15, p.56-73.

188 Nath, K. 1985. *Women and vegetable gardens in the Gambia: action, aid and rural development*. Boston, USA: African Studies Center, Boston University. 13p. (Working paper, No. 109)

Discusses a programme aimed at improving the capacity of rural women to produce garden vegetables and to introduce marketing infrastructures. Concludes that a comprehensive, well co-ordinated programme for assisting vegetable production and for giving rural women a new perspective on the potential of gardening as an income-generating activity has been realised. Of significance is that steps have not been taken to change local traditions of village males extracting free labour from female members of gardening groups.

189 Nji, A.E. 1985. *Women in rural development*. Yaounde, Cameroon: Department of Community Development. 22p.

Discusses development strategies aimed at women in the informal sector of rural Cameroon by focussing on the role of extension education programmes directed at women in agriculture. Points out that women constitute 80 percent of small farmers in Cameroon and that there is the need for field workers to establish a rapport with rural women.

- 190 North-South Institute. 1985. Women and international development cooperation: trade and investment. Santo Domingo, INSTRAW. 52p.  
Studies the economic situation on the role of women in the development process focusing on the interdependence between the international and national levels of the economy. Presents research studies on selected trade and development trends and their consequent impact on women, current employment trends for women and future policies. Recommends that data bases be utilized to document female participation and productive contribution; female contribution be further expanded to all sectors; that national policies to protect the rights of women be introduced - labour legislation covering wages, rights, environment, trade policies to safeguard labour intensive manufactures and protect discriminatory measures; that further training be provided for women; and generally that employment practices and working conditions be monitored.
- 191 Nyoni, S. 1986. Africa's food crisis: price of ignoring village women? Women and Environment. Vol.8, p.19-21.
- 192 Okeyo, A.P. 1985. Toward strategies for strengthening the position of women in food production: an overview and proposals on Africa. Research Study, United Nations International Research and Training Institute for the Advancement of Women. No.1-H, 34p.  
Examines the possibilities of strengthening the position of women in food production, taking the African case as an example. It places the role of women, who traditionally have been the background of agriculture and food farming, within the context of the stagnation, negative growth and deterioration experienced by the African food and agriculture sector over the past two decades. Seeks to highlight the importance of formulating strategies which enhance women's agricultural productivity as an integrated part of strategies to resolve Africa's food problem.
- 193 Okeyo, P.A. Gender issues in agricultural innovations: reflections on the future. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. p.13.  
Reviews some of the lessons learnt over the "Decade for Women" during which problems of gender inequality were discussed and analysed. With emphasis on the importance of "imaging future alternatives," the paper goes on to suggest a number of new and exciting options and strategies which are envisaged as critical if we are to shape our destiny "both in the area of gender relations and in development as a whole."
- 194 Orvis, S. 1985. Men and women in a household economy: evidence from Kisii. Vol., No.432, Nairobi, Kenya: Institute of Development Studies at Nairobi. 35p. (Working Paper, No. 432)  
This is an interim report on research analysing household economy in South Wanjare location, Kisii, Kenya. The purpose is to understand the potential for agricultural development policy, particularly extension policy, to achieve its stated goals. It is argued that a proper understanding of the economy must start with understanding the different structural positions and access to resources of men and women. This reveals that key constraints consist of strain on women's labour time due to non-agricultural activities and limited investment in agriculture by male wage earners who control the largest sources of potential investment. It is concluded that the process of policy must be on freeing women's labour time for agricultural activity, and including both male labour and investment on to the farm.
- 195 Oussedik, F. 1985. Agrarian reform and its impact on women: the case of Algeria. Senegal, Association of African Women for Research and Development. p41-44p. (AAWORD Occasional paper, no. 2)  
The paper was presented at a seminar on women and rural development in Africa, held in Algiers, Algeria, from 4-8 September 1982. It discusses the role of women in agricultural production in order to show the impact of changes that have been brought about by the Algerian agrarian reform programme. One of the main difficulties encountered was the lack of statistics on women's labour in Algerian agriculture. It also attempts to measure women's aspirations and self-valuation. It is concluded that the only way of improving the place of women in Algerian society may be a gradual attitude of devaluation of agricultural activities among men. As a result, these activities will be branded as feminized and women will finally see their labour socially accepted.
- 196 Overholt, C. and Anderson, M.B. and Cloud, K. and Austin, J.(eds.). 1985. Gender roles in development projects: a case book. West Hartford, USA: Kumarian Press. 339p.  
This collection of technical papers and case studies, describes the pivotal role that women play in the success or failure of development projects. Examples are drawn from a wide range of cultural and political environments including small-scale enterprises in the Dominican Republic, bank loan programmes in Peru and Indonesia, and problems of agricultural technology and training in Africa. The objective of the papers is to show how women's needs and activities may better be incorporated into development planning.
- 197 Pala, A.O. 1976. African women in rural development: research trends and priorities. Washington, DC, USA: American Council on Education. Overseas Liaison Committee. (Committee Paper, no. 12)
- 198 Papma, A.N. 1986. [The position of Sahel women in Dutch developments projects in the Sahel region]. De positie van vrouwen in het Nederlandse Sahelprogramma. The Hague, Netherlands: Directorate General International Cooperation. 56p.  
Reports on the effects of Dutch development projects on the socio-economic position of rural women in the Sahel. Examples from small scale irrigation projects, rainfed agriculture, and livestock production are provided. The conclusion focuses on the divergent interests of men and women on the workload of women, and on labour-saving technologies.
- 199 Paris, T.R. 1987. Integrated women's concerns in a crop-livestock farming systems project in St. Barbara, Pangasinan, Philippines. Manila, Philippines: Agricultural Economics

Department. International Rice Research Institute. 26p. (Extension Bulletin (ASPAC/FFTC), No. 264)

Outlines a collaborative farming systems project, started in 1984, aimed at improving crop and livestock production in the Philippines. It emphasizes the importance of women's contribution in Asian agriculture, pointing out that the users of new technology may well be women rather than men. The case study illustrates women's needs in designing new technology for processing glutinous rice and developing other sources of income.

200 Parpart, J.L. 1985. African women and development: gender in the Lagos plan of action. East Lansing, Michigan, USA: Michigan State University.

201 Parthasarathy, G. 1988. Agricultural growth, rural development and poverty. Visakhapatnam, Andhra Pradesh, India: Andhra University. 560p.

This volume contains 23 articles written by the author on rural and agricultural development in India over the last 30 years. They are presented under 8 sub-themes concerned with: growth and development; rural development; changing agrarian structures; agricultural labour and employment; agricultural process; cooperation; social forestry and women in rural development.

202 Pausewang, S. 1987. Who is the peasant? Experience with rural development in Zambia. Norway, Chr. Michelson Institute. 15p. (DERAP working paper, No.A371)

Women in Zambia are responsible for subsistence agriculture to feed their families, while men practise agriculture to supply the market. President Kaunda recently terminated the IMF co-operation and introduced an alternative economic recovery programme aiming at more growth and equity. Argues that it should primarily support rural women, to create growth where it benefits the majority of the rural poor.

203 Peters, P.E. 1986. Household management in Botswana: cattle, crops and wage labour. IN Understanding Africa's rural households and farming systems. p.133-154. Boulder, Colo., USA: Westview Press.

The strategies for diversified income in Botswana are shown to be dependent on inter-household linkages and intra-household strategies. It is argued that the unavailability of male labour because of the high rates of migration is an indicator of the critical importance of female labour in household optimal production packages.

204 Pineda, R.O. 1986. Rural women in ASEAN: a summary of issues. World Bulletin (Philippines). Vol.2, Nos.5-6, p.67-86.

Investigates the economic status and role of rural women in the member states of the Association of South-East Asian Nations (ASEAN). The different economic roles that women perform in production and distribution are discussed. The negative influences of the Green Revolution in terms of the de-familialization of agriculture are analysed. The socio-economic position of women in two sectors: plantations and outwork and cottage industries are examined.

205 Pradhan, B. 1984. Rural women in development in Nepal. IN Rural development and

human rights in South Asia: report of a seminar held in Lucknow, India, 4-9 December 1982 organized by the International Commission of Jurists and Human Rights Institute, Lucknow. p.171-175. Geneva, Switzerland: International Commission of Jurists and Human Rights Institute.

206 Presvelou, C. and Spijkers-Zwart, S. (eds.). 1980. Household, women and agricultural development. [Proceedings of a] symposium on the household, women and agricultural development, Wageningen, Netherlands, 18-20 January 1979. Wageningen, Netherlands: H. Veeman and Zonen B.V. 131p. (Miscellaneous Papers, no. 17)

207 Qadir, S.R. 1985. Women [of rural Bangladesh] in agriculture. Journal of Local Government (Bangladesh). Vol.14, No.2, p.78-92.

208 Rahaman, R.S. 1986. A praxis in participatory rural development. Dhaka, Bangladesh: Proshika Manobik Unnayan Kendra. 167p.

Outlines the activities of Proshika, a national non-governmental organization founded in Bangladesh in 1976 to support the development of the rural poor. It focuses on the period 1984/85. Describes the Proshika approach and its organizational structure. Expands upon Proshika's central concern which is the organization of the rural poor. Describe Proshika's activities with: rural women's education, training and literacy; programmes promoting self-reliance; community service programmes including rural health, infrastructure, social forestry and homestead gardening; and emergency relief and rehabilitation. Presents impact case studies of programmes aimed at the landless and rural women.

209 Rahman, M. 1987. Women and rural development in Pakistan. Journal of Rural Studies. Vol.3, No.3, p.247-253.

210 Rakodi, C. 1988. Urban agricultural research questions and Zambian evidence. Journal of Modern African Studies. Vol.26, No.3, p.495-515.

Information on cultivation by low income households was collected in the course of socio-economic sample surveys of squatter settlements in Lusaka in the 1970's. Food production in Lusaka was found to be predominantly a women's activity, determined by the size of household, income per capita, stability of urban residence and the availability of land for cultivation around the house and/or within reasonable walking distance. Evidence on trends in the proportion of households growing their own food is contradictory, while increased difficulty in gaining access to convenient land is a deterrent, and falling real incomes may encourage more households to grow food. Urban agriculture has been ignored or penalized by administrators, although it provides an important food supplement, especially for families with low incomes. Although a strategy to increase the household production of fruit and vegetables, not just for own consumption but also for sale, would appear to be desirable, this must be examined in the context of household decision-making, especially the labor time available to women.

211 Randolph, S.L. and Williamson, H. 1985. Perspectives on the role of females in the survival

of the small farm. IN Strategy for survival of small farmers - international implications. p.28-35. Edited by Thomas T. Williams. Tuskegee, Ala., USA: Tuskegee Institute, Human Resources Development Center.

212 Roncoli, M.C. 1985. Women and small-scale farming in Ghana. Michigan, USA: Office of women in International Development. Michigan State University. 40p. (Working Paper, No.89)

States that the process of development has negatively influenced women's opportunities for economic improvement and self determination. A recent example of the impact of planned development on women as small scale farmers is included.

213 Safilios-Rothschild, C. 1985. The persistence of women's invisibility in agriculture: theoretical and policy lessons from Lesotho and Sierra Leone. Economic Development and Cultural Change. Vol.33, No. 2, p.299-317.

In examining the cases of 2 Sub-Saharan African countries, Sierra Leone and Lesotho, it is revealed that the rigidity of the sex stratification system in the society and the strength of the prevailing patriarchal values creates institutional, normative and attitudinal biases which helps to keep women's work and income contributions invisible. Suggests strategies designed to increase the degree of integration of women into agricultural development programmes.

214 Saul, H. Agricultural export opportunities-implications for gender. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine. 11p.

Examines women's roles in agribusiness production and marketing systems and questions the absence of women from extra-regional markets in spite of the fact that they are so "dominant in the local and regional marketing and distribution systems."

215 Savane, M.A. 1986. The effect of social and economic changes on the role and status of women in Sub-Saharan Africa. IN Understanding Africa's rural households and farming systems. p. 124-132. Edited by Joyce Lewinger Mook and Bede N. Okigbo. Boulder, Colo., USA: Westview Press.

216 Schoepf, B.G and Schoepf, C. 1987. Food crisis and agrarian change in the eastern highlands of Zaire. Urban Anthropology. Vol.16, No.1, p.5-37.

Assesses the effects of institutional policy and local social organization upon the efforts of men and women to raise market agricultural produce in three different areas of Zaire. Women's status in community and family is the key to their ability to benefit from increased production efforts.

217 Sharma, K. 1985. Interaction between policy assumption and rural women's work. New Delhi, India: Centre for Women's Development Studies (Occasional Paper, no. 1.)

Based on field work in a district strongly affected by the Green Revolution in Uttar Pradesh, approaches to rural women's development and the understanding of their work roles in planning strategies are presented. The introduction of democratic decentralization policies of land

reform, investment policies in agriculture and rural industries, creation of administrative infrastructure for rural development, and target group focused policies for income generation has, on the one hand, weakened the hold of traditional caste stratification and dependency relations. On the other hand, however, new power relations have been created. Development planners persistently treat women as consumers rather than producers. Their attitude clearly illustrates the disadvantaged position of women in their access to resources. Popular assumptions inherent in planning methodologies which perpetuate this bias are highlighted.

218 Shen, P.Y. 1987. Alternative patterns of urbanization: a case study of Bixi town, China. Peasant Studies. Vol.15, No.1, p.39-52.

The Chinese rural economy is developing towards specialization, commodity production and modernization and, in consequence, the number of small rural towns has increased dramatically from 2819 to 7800 over the 1982-85 period. The structural changes and process of transformation of Bixi town in Suzhou Prefecture, Jiangsu Province, is examined over the 1958-85 period. The contribution of industry to total output grew from 10.9 percent to 91.2 percent in 1966-85, while agriculture's share declined correspondingly. By 1985 only 25.8 percent of the population were employed in agriculture, a drop from 92.8 in 1966. The advantages of a strategy of diversified urbanization are identified: it contributes more rapidly to economic growth; social stability is retained through the process of urbanization; small towns serve as an intermediary between city and countryside; a reservoir of manpower is created; and social status of women improved.

219 Smit, W. and Nooter, M. 1985. [Agricultural development and the position of women in Africa]. Landbouwontwikkeling en de positieve vau vrouwen in Afrika. Derde Wereld. Vol.4, No.3, p.41-62.

Examines what the modernization of agriculture has done for famine in Africa, with particular reference to the input of the Netherlands in improving the position of women in agriculture and other closely related agricultural inputs.

220 Spring, A. and Hansen, A. 1985. The underside of development : agricultural development and women in Zambia. Agriculture and Human Values. Vol.2, No.1, p.60-67.

Case study of northwestern Zambia reveals the increasing burdens on women due to the cessation of shifting cultivation. Policy planners associate women with subsistence crops and men with cash crops, and consequently all education and training geared to commercial production are earmarked for men. Incomes of women have declined relative to the men since in the 1950's because of the diminishing agricultural markets. This scenario has forced women to become increasingly dependent on their husbands and male relatives for purchasing items.

221 Springer, B.G. 1983. Role of women in agriculture in three Eastern Caribbean states: Grenada, Saint Lucia and St. Vincent. Port of Spain, Trinidad: UNECLAC. Subregional Office for the Caribbean. 55p.

Critically examines national policies and programmes for the improvement and enhancement of women's work in agriculture. Analyzes, inter alia,

national information on agricultural production; population; urban/rural female composition; proportion of women employed in the agricultural sector; number of female farm operators; wage levels and effects of technological changes within the sector on female participation. Recommends a more equitable approach to wages; improved marketing infrastructure to maximize the contribution of women and further detailed research to provide micro-data for developing policies and planning and executing specific programmes.

222 Staudt, K. 1985. Agricultural policy implementation: a case study from western Kenya. West Hartford, CT., USA: Kumarian Press. 68p.

223 Staudt, K. 1987. Uncaptured or unmotivated? Women and the food crisis in Africa. Rural Sociology. Vol.52, No.1, p.37-55.

Reviews a gendered approach to agriculture, focusing on the implications of labour differentiation, incentives and struggles over access to resources for agricultural development. Analysed two approaches to understanding Africa's development crises. One focuses on faulty incentives created in statist strategies and the other on an uncaptured peasantry; both approaches are oblivious to gender labour relations. Concludes with policy implications.

224 Stevens, M. 1985. Women and development in South-east Asia II: sexual politics in Rembau; female autonomy, matriliney and agrarian change in Negeri Sembilan, Malaysia. Kent, UK: University of Kent. Centre of South East Asian Studies. 50p. (Occasional Paper, No.5)

Examines the critical connection between women's relative autonomy and property relations. Based on field work undertaken in Rembau during 1975/76 it identifies the forces contributing to the women's relative independence in village society and in the wider context. Discusses the way in which transformations in the agrarian economy set in motion by western imperialism have affected the situation of women in Rembau.

225 Stubbs, J. 1986. Gender issues in contemporary Cuban tobacco farming. IN Gender issues in farming systems research and extension, Gainesville, U.S.A., 26 February - 1 March 1986. Vol. 2. 30p. Gainesville, USA: University of Florida.

Focuses on the extent to which farming policies and systems, especially the new cooperative farms, have or have not tackled gender issues in the tobacco-growing areas of San Luis in Pinar del Rio province and Cabaiguan in Sancti Spiritus. Highlights significant differences in history, land structure and organization and types of tobacco grown, all of which have had a bearing on past and present gender patterns. Overall policy is seen as successful in opening up new avenues for women. With the new cooperatives, a specific agricultural policy prescription for women is spelt out. Cooperatives are seen as providing the structure best catering to women's needs in the productive and reproductive process helping them out of a subordinate position.

226 Stubbs, J. 1987. Gender issues in contemporary Cuban tobacco farming. World Development. Vol.15, No.1, p.41-65.

Developments in tobacco farming run against

the grain of mainstream Cuban agriculture; tobacco is 75 percent private whereas agriculture generally is 15 percent private. This development is analyzed, starting with the transition from capitalist forms of plantation, tenant and sub-tenant farming and share-cropping to the new post-1959 farming systems in both the state and private sectors. Examines changing relations of production and the family unit, the gender division of remunerated and unremunerated work, particularly necessary family work in social and domestic production and the challenge to establish gender patterns, with specific reference to the new farming cooperatives.

227 Tadesse, Z. 1985. Women and rural development in Africa: an overview. p.22-27. Senegal, Association of African Women for Research and Development. (AAWORD Occasional Paper, no. 2)

Indicates that in the past the role of women was completely omitted from research and policy decision concerning agricultural production in Africa. The past decade, however, has been marked by a vast amount of literature documenting the magnitude of rural women's participation in production and reproduction activities. These documents have both provided a great quantity of useful empirical data and generated some valuable methodological and analytical innovations. Reviews this literature under the headings: towards a new conceptual framework; the sexual division of labour; a glimpse at households; African agriculture and world economy; women and food production and agricultural modernization.

228 Tapinos, G. 1985. The incorporation of population components in agriculture and rural development. [Paper presented at the] expert consultation on rural development policies and strategies in the Caribbean, Bridgetown, Barbados, 3 December 1985. Rome, Italy: FAO. 14p.

229 Than, M. 1986. The role of women in rural Burma: a case study. Sojourn (Singapore). Vol.1, No.1, p.97-108.

Overviews the socio-economic life of women in the village of Thanat Pyin, Burma. An analysis of the data collected reveals that 49 percent of the selected females interviewed were directly involved in agriculture; 80 percent of the women belonged to the agricultural labour force; 61 days during the agricultural season are actively spent by women in the field while the off-season is used for social activities. Concludes that women could be employed as transplanters during the agricultural season while during the off-season they could be employed in cottage industries and labour intensive trade.

230 Tinker, I. 1985. Women in African development: remarks on accepting the distinguished service to Rural Life Award. Rural Sociology. Vol.5, No.5, p.358-362.

231 United Nations. 1986. World survey on the role of women in development. New York, USA: United Nations. 240p.

Analyses the role of women in relation to development issues as envisaged in the International Development Strategy for the third United Nations Development Decade. Emphasis is placed on trade, agriculture, industry, energy, money and finances and science and technology. An outline is provided on interrelationships among key

developmental issues with regard to women's roles with a view to providing a basis for future action.

232 Valenzuela, O and Villabos, S and Wong, O. 1986. The role of women in the rural economy: the case of the VII region of Chile. *Estudios Sociales*. No.48, p.29-75.

From the findings of a sample of 210 case studies, describes the role of women in the rural farming economy of Chile. It is established that women contribute through four types of physical activities: (1) daily household chores; (2) the cultivation of a vegetable garden for domestic consumption; (3) the rearing of domestic animals and (4) participation in the commercial exploitation of the farm.

233 Verwey, M. 1987. Country report: Republic of Suriname. [Paper presented at the] Roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Rome, Italy: FAO. 12p. (TCP/RLA/665(C))

The National Women's Bureau established in 1981, is the principal government agency responsible for the integration of women in development in Suriname. Women play an important role in small-scale farming, food production and marketing but the emphasis of the Government on large-scale farming has resulted in a decrease in women's participation in agricultural production. The Home Economic Department of the Ministry of Agriculture, Animal Husbandry and Fisheries, implements programmes for rural women. Concludes with recommendations for strengthening the Department's rural development.

234 Watson, E.A. 1985. Women's role in the improvement of rice farming systems in coastal swamplands. IN *Women in rice farming: proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manila, Philippines. p. 187-208. Aldershot, Hants, England: Gower.

Examines indigenous rice farming systems in tidal swamp areas of Malimantan, Indonesia, and women's role in their improvement. Present methods and future prospects for rice cultivation within multi-crop systems are discussed. The possible impact of changes in labour and technology are examined in relation to women's role. Calls for more effective extension training in rice production and marketing and also for the establishment of women's credit and labour cooperatives.

235 Weekes Vagliani, W. 1985. [Elaboration of a framework for analysis of food and agriculture projects]. *Elaboration d'un cadre d'analyse pour les projets agro-alimentaires*. *Revue Tiers-Monde* (France). Vol.26, No.102 (Special Issue), p.307-316.

With the illustration of examples from the Sederhana irrigation project, Java, Indonesia, the author argues that in projects aiming at increased food production it is not sufficient to measure the output in terms of food but that their effects on the individual family members and non-target groups should be taken into account. Examples are presented.

236 Weekes-Vagliani, W. 1985. Women, food and rural development. IN *Crisis and recovery in*

*Sub-Saharan Africa*. p.104-110. Edited by Tore Rose. Paris, France: Development Centre of the Organisation for Economic Cooperation and Development.

237 Were, G.S. 1985. Women and development in Africa. *Journal of Eastern African Research and Development*. No.15 (Special issue), 314p.

Various papers are presented as contributions to a study on the role and plight of women in development in Africa. The constraints that hinder the effective participation of women in Africa's development processes, the analyses of discriminatory practices, conventions and laws are presented. Among the major issues discussed are women in agriculture and rural development. Study stresses the need for African governments to consult women at the grass-root level over rural issues and needs and on urban poverty in national development processes and priorities in order to identify their proper needs and appropriate solutions. Makes a strong plea for attitudinal change, by both men and women, if the recommended reforms are to be effective.

238 Wilson, F. 1985. Women and agricultural change in Latin America: some concepts guiding research. *World Development*. Vol.13, No.9, p.1007-1035.

Seeks to document the ways in which lives of rural women have been affected by the onset of the capitalization forces underway in Latin American agriculture. It proposes alternative conceptualisations that stress the inter-relationship of gender, class and ethnicity, as opposed to the "impact model" commonly used to monitor the impact of agricultural change on women.

239 Xiao, M. 1986. Women in rural economic reform. *Women of China*. No.5, p.3-5.

An investigation by the All-China Women's Federation of 323 counties in 14 provinces in China showed that women account for 35-40 percent of the total number of workers in specialized trades including agriculture and the processing of industrial by-products. Although their economic status has risen they still face problems such as lack of education and opportunities for technical training.

240 Zakariah, M. and Kariu, N.S. 1986. Women in development: the case of an all-women youth land development scheme in Malaysia. IN *Visibility and power*. Essays on women in society and development. p. 267-286. Edited by E. Leacock and S. Ardener. New Delhi, India: Oxford University Press.

Describes the experiment of a land development scheme for single young women introduced by the Government of Johore in Malaysia with the aim of integrating women into the development process. From more than 1000 applications from reasonably educated young women, 60 were selected and put to work in preparing and developing the fields. 58 continued to the end. Suggests that the experiment needs to be viewed in the wider structural and cultural content of Malaysian society.

241 *Zambian Association for Research and Development*. 1986. Rural women and agricultural production in Zambia: the importance of research on development issues. *Canadian Women Studies*. Vol.7, Nos.1-2, p.78-84.

Examines women's role in agriculture, food and cash crop production in Zambia and those factors which limit their full participation in the development process, such as access to education, training, technology, capital, land and their own labour power. The situation of female-headed households receives special attention.

242 Zhu, Z and Li, Z. 1987. A research on the development strategies for a social economical technical ecological system at county level IN Proceedings of the 1st international conference on agricultural systems engineering. p.303-315. Edited by D. Zhang and C. He. Beijing, China: China Machine Press.

An optimization model is used to choose the six most efficient plans out of a total of 40 alternative strategies of economic development of the Hailun county, China. The structural parameters of the model are fertility of women, proportion of food grains used as feeds, investment in agriculture and grain availability per inhabitant. The chosen plans favour: (1) food grain production, (2) market oriented grain production, (3) livestock farming, (4) both cereal and livestock farming, (5) livestock farming and non-agricultural industries, and (6) crop production, livestock, forestry, aquaculture and development of the food processing industry. It is suggested that the county should first adopt the fourth option, then move towards the sixth strategy.

243 [Food and Agriculture Organisation of the United Nations]. 1985. Women in agriculture and rural development: selected issues in Asia-Pacific region. Bangkok, Thailand: FAO. Regional Office for Asia and the Pacific.

244 [Food and Agriculture Organisation of the United Nations]. FAO. [Report of the first seminar workshop on women's participation in agriculture and food production: implications for policy, programmes of action and support services, Asuncion, Paraguay, Oct 1, 1984]. Santiago, Chile: FAO. 41p. 1985. (FAO-RLAC-85/05/DERU-15)

#### Agricultural Engineering and Technology

245 Abdullah, T. 1985. Women in rice farming systems in Bangladesh and how technology programmes can reach them. IN Women in Rice Farming: Proceedings of a conference on Women in Rice Farming Systems, The International Rice Research Institute, Manilla, Philippines. p.209-220. Aldershot, Hants, England: Gower.

Identifies rural women's significant role in rice farming in Bangladesh and the need to look at homestead technology developed by women but neglected in the processing of rice. Suggests that a more systematic study is needed to discover the relative economic and employment effects of group ownership of mills, with pre-milling displacement of a large number of female wage labourers.

246 Acharya, S. and Patkar, P. 1985. Technological infusion and employment conditions of women in rice cultivation areas. IN Women in rice farming: Proceedings of a conference on women in rice farming systems, The International Rice

Research Institute, Manilla, Philippines. p.287-305. Aldershot, Hants, England: Gower.

Compares the employment, wage and nutritional status of women in five predominantly rice producing states in India, vis-a-vis efforts at modernization between 1964/65 to 1977/78. Stressed, that there should be strengthening of women's role by their involvement in direct production activities and control over output being necessary. In summary, there should be training of women for unconventional jobs, provision of land rights and more permanency in their jobs in order to ensure that the gains from laboratory accrue to women.

247 Adekanye, T.O. 1985. Innovation and rural women in Nigeria: cassava processing and food production. IN Technology and rural women: conceptual and empirical issues. p.252-283. London, UK: George Allen and Unwin.

Analyses the effect of technological innovation on rural women with special emphasis on gari processing in the Ibadan area of south-western Nigeria. The specific objectives of the study include: (1) to analyse the economics of mechanical gari processing; (2) to analyse the economics of traditional gari processing; (3) to compare the traditional and mechanised processing methods in an attempt to assess the role of technology in development and (4) to provide policy recommendations, discussed in terms of technology, the role of women in development, transforming traditional agriculture and gari processing.

248 Agarwal, B. 1985. Women and high yield variety rice technology in India IN Women in Rice Farming: Proceedings of a conference on Women in Rice Farming Systems, The International Rice Research Institute, Manilla, Philippines. p.307-335. Aldershot, Hants, UK: Gower.

Focuses on HYV rice technology on women's involvement in field based-work on farms on Andhra Pradesh. The effect on female family labour use, however, varies by State, being the net effect of two contradictory tendencies; one relating to the increased requirements for labour on farms with HYV, and the other relating to family prestige considerations which would cause women to withdraw from manual field work as family income increases with HYV. Argues that these effects must be seen in a wider context. Increased demand for female casual labour may not benefit the women of agricultural labour households.

249 Agarwal, B. 1985. Women and technological change in agriculture: the Asian and African experience. IN Technology and rural women: conceptual and empirical issues. p.67-114. London, UK: George Allen and Unwin.

The impact of the introduction of agricultural modernization schemes on rural women in the third world is examined. The analysis which is based on class and gender parameters concludes that: (1) the unequal distribution of costs and benefits is located in the socio-political framework within which it is introduced; (2) women of poor rural households should have greater control over agricultural inputs and outputs and (3) there is a complexity of inter-related factors that make it difficult to break existing biases which is highlighted when one considers attempts to introduce given technological innovations within alternative forms of organizations, such as cooperatives.

250 Baker, D. 1988. Traction use in Shoshong and Makwate. Botswana, Ministry of Agriculture (ATIP Working Paper, No. WP-22)

This paper gives an overview of traction use in Shoshong and Makwate villages, Botswana, noting the frequency of various traction activities, differences in traction use patterns by village and household circumstances (gender of household head and cattle wealth), and the hours spent on different activities. Findings are also presented on draught access, the number of animals used, and number of people. There were substantial differences in traction use by village, month of the year and household type. The research makes it clear that draught power policy in Botswana must be reoriented to give greater emphasis to transport, carts, donkeys and tractors.

251 Begum, S. 1985. Women and technology: rice processing in Bangladesh. IN Women in rice farming: Proceedings of a conference on women in rice farming systems, The International Rice Research Institute, Manilla, Philippines. p.221-242. Aldershot, Hants, England: Gower.

Analyses the effects of technical change in rice milling in Bangladesh upon female employment. It has been found that jobs created by the new rice processing technology are almost exclusively male. This finding is of critical importance since the recent trend of increasing landlessness and falling real wages is making more households economically dependent upon female wage labour work. Suggests the need to create alternative female wage employment opportunities to alleviate the distress of the poorest households.

252 Cebotarev, E.A. 1986. Women's contribution to agricultural science and technology. Resources for Feminist Research. Vol.15, p. 43-45. March 19, 1991.

253 Consultative Group on International Agricultural Research. 1985. Women and agricultural technology: relevance for research. 1: Analyses and conclusions. 2. Experiences in international and national research. Report from the CICAR inter-center seminar on women and agricultural technology, Bellagio, Italy, 25 - 29 March 1985. New York, USA: Rockefeller Foundation. Volume I of this publication contains the presentations at a seminar which was held on past and present activities in the centres of the Consultative Group of International Agricultural Research. The seminar focused on ways of more effectively integrating women in the modernization of agriculture in less-developed countries. Volume 2 contains background material on the centre as well as literature on the role of women in agricultural production in Africa, Asia and Latin America.

254 Evans, A. 1988. Gender relations and technological change: the need for an integrative framework of analysis. IN Gender issues in farming systems research and extension. p.37-48. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

255 Evenson, R.E. 1985. Observations on institutions, infra-structure, technology and women in rice farming. IN Women in rice farming: proceedings of a conference on women in rice farming systems, The International Rice Research

Institute, Manilla, Philippines. p.21-36. Aldershot, Hants, England: Gower.

Study based on concern for a better understanding of the way households and institutions, as well as farms, respond to changes. Abstracts juxtaposed against the emerging data on women's activities drawing out some of the inadequacies of the theories.

256 Fernandez, M.E. 1988. Technological domains of women in farming systems of Andean peasant communities. IN Gender issues in farming systems research and extension. p.213-221. Edited by S.V. Poats, M.Schmink and A. Spring. Colorado, USA: Westview Press.

Women are responsible for most tasks associated with livestock production in Aramachay, Peru, a community of 120 families. In 1983, a project aimed at finding technological alternatives was started. Though aimed at sheep production, research on alternatives encompasses the crop component of the system due to its complementarity with livestock production.

257 Ghosh, B. and Mukhopadhyay, S.K. 1988. Gender-differentials in the impact of technological change in rice-based farming systems in India. IN Gender issues in farming systems research and extension. p.253-268. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

258 Hye, H.A. 1985. Mechanization in agriculture and women in Bangladesh. Journal of Social Studies. No.27, p.78-100.

Examines the way in which the various types of mechanization have affected rural women in Bangladesh through changes in the labour process. Both sexual division of labour and class exploitation have condemned the poor rural women to the most arduous tasks, both within and outside the household. Technologies designed to save much time and lessen the burden of repetitive work, have either not been designed or have not been introduced on a significant scale.

259 Illo, J.F.I. 1985. Women's participation in two Philippine irrigation projects. Philippine Sociological Review. Vol.33, Nos.3/4, p.19-45.

Assesses womens' considerable impact on two irrigation situations in the Philippines. It examines their roles in different stages of project implementation and in various activities of the irrigators' association.

260 International Bank for Reconstruction and Development. 1985. The impact of technology choice on rural women in Bangladesh: problems and opportunities. Washington, D.C., USA: World Bank. (World Bank Staff Papers, No. 73D)

Effects of technological changes in food crop processing and small scale cottage industries and employment are discussed.

261 Jackson, C. 1985. The Kano River Irrigation Project. West Hartford, Conn., USA: Kumarian Press. xviii, 66p.

262 Kaur, M. 1988. Rural women and technological advancement. New Delhi, India: Discovery. 213p.

An empirical analysis is presented of the impact of technological advancement in the areas of

agriculture, household, communication and health on the status of rural women. The data, based on a comparative analysis of the most developed and least developed regions of Haryana, reveals that in agriculture, seed-cum-fertilizer technology combined with partial mechanization has had a favourable influence on women from all socio-economic groups, while full mechanization has exerted an adverse influence on poorer women. In other areas, gains of modern technology have not yet percolated through to women in general and underprivileged women in particular. Further, gains accrued by women in less developed regions are likely to be far less than those accrued by their counterparts in developed areas. The broad conclusion that emerges from the analysis is that level of regional development, caste status, class position and sex emerge as significant factors in determining access to technology and thereby consequent gains.

263 Kelkar, G. Women's work and agricultural technology. New Delhi, India: Centre for Women's Development Studies. 14p. (Occasional Paper, No. 3)

Examines the impact of the Green Revolution on the work of rural women in subsistence agriculture in Northern India and concludes that its overall effect has been a sharply increased concentration of land ownership, massive dispossession of small-holders, proliferation of landless workers and rural unemployment. Thus, the introduction of the Green revolution in 1961 has resulted in pamperization, marginalization and increased inequality between the sexes.

264 Muzaffar, N. 1988. Appropriate technologies for improving economic condition of rural women. Progressive Farming (Pakistan). Vol.8, No.1, p.28-33.

265 Osuala, J.D.C. 1987. Extending appropriate technology to rural African women. Women's Studies International Forum. Vol.10, No.5, p. 481-487.

It is now apparent that although African women are actively engaged in agriculture, they are often denied information on modern agricultural practices. Appropriate technologies of all kind have been developed to lessen the time women spend on non-productive tasks, assist them with processing and preserving foods and equip them with income-yielding skills.

266 Sajogyo, P. 1985. The impact of new farming technology on women's employment. IN Women in rice farming: Proceedings of a conference on women in rice farming systems, The International Rice Research Institute, Manilla, Philippines. p.149-170. Aldershot, Hants, England: Gower.

Discusses the impact of new technology on women's employment in Asia, and whether women have benefitted from the introduction of new rice technologies. Concludes that since the better-off households control greater areas of land, it is these households which obtain the greatest incomes. Further, since the income of poorest household is very small, there is a tendency of greater involvement of women in these households to seek non-agricultural employment. Suggestion is made for measures to expand and increase employment opportunities outside agriculture.

267 Sandhu, R. and Sandler, J. 1986. The tech and tools book: a guide to technologies women are

using worldwide. London, UK: Intermediate Technology Publications. 189p.

This manual on technologies which women are using worldwide is divided into 3 sections. The first gives technology information in the areas of agriculture, communications, food processing, energy, health and sanitation and income-generation. The second part includes guidelines for development workers and women's organizations interested in working with women to broaden access to and control over technologies. The resources for women's technology projects are enumerated in six appendices.

268 Sarin, M. 1988. Development of tools and technology for women's work in agriculture in India. Bangkok, Thailand: FAO. 23p.

269 Srivastava, J.C. 1985. Harvesting technology for eliminating the drudgery of rural women engaged in rice production, processing and utilization. IN Women in rice farming: Proceedings of a conference on women in rice farming systems, The International Rice Research Institute, Manilla, Philippines. p.405-418. Aldershot, Hants, England: Gower.

Discusses the extensive role of women in rice processing and presents examples of appropriate technologies which can both raise overall productivity and improve the economic conditions of the rural poor. There are social cost-benefits which have accrued with the use of by-products and wastes at the source of their availability.

270 Sutherland, A.J. 1988. The gender factor and technology options for Zambia's subsistence farming systems. IN Gender issues in farming systems research and extension. p.389-406. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

271 Tourinho, M.M. and Ferreira, J.L. and Zaroni, M.M.H. 1986. Agricultural modernization and female labour: effect of wages technology and farm structure. Boletim Tecino, Centro de Pesquisas do Cacau. No.138, 36p.

The effect of agricultural modernization on the participation of women in agricultural work in the cocoa region of Bahia, Brazil, during the decade of the 1970's is assessed from regression analysis of data on manual labour employed according to sex, as limited by wages, technology and inequality of land distribution (Gini coefficient).

272 Unnevehr, L.J. and Stanford, M.L. 1985. Technology and the demand for women's labour in Asian rice farming. IN Women in rice farming: Proceedings of a conference on women in rice farming systems, The International Rice Research Institute, Manilla, Philippines. p.1-20. Aldershot, Hants, England: Gower.

Reviews women's role in Asian rice farming. Looks at the impact of past changes in rice technology on demand for women's labour. It was shown that adoption of modern varieties of rice has increased the demand for hired female labour. However, there is evidence that these gains will soon be eroded by continued population growth, under-investment in research on labour-using technologies and government policies that encourage adoption of labour-saving techniques. Emphasises that crop extension could be more successful if

also directed to women in farm households who do not seem to have direct access to new rice technologies.

273 Ventura Dias, V. 1985. Modernisation, production organization and rural women in Kenya. IN *Technology and rural women: conceptual and empirical issues*. p.157-210. London, UK: George Allen and Unwin.

Stresses the critical importance of focussing on the technological needs of the two most vulnerable groups of rural women in Kenya: operators of small agricultural holdings and female-headed households. Reveals that technologies adopted to tasks traditionally performed by rural women are likely to reinforce the existing division of labour between sexes unless it is accompanied by long-term policy measures to increase women's access to training, skills, education, credit, off-farm employment, extension services and the modern means of production.

274 White, B. 1985. Women and the modernization of rice agriculture: some general issues and a Javanese case study. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manila, Philippines. p.119-148. Aldershot, Hants, UK: Gower.

Need for a class-specific approach is emphasised and some of its implications outlined in small scale studies. Some consequences of Java's green revolution rice intensification strategy for rural women are discussed. States that there has been changes in modes of labour recruitment and payment since small-scale rice cultivation in Java.

#### Agricultural Income, Finance and Credit

275 Jamaican coffee producers receive aid to expand output. 1988 *Agribusiness Worldwide*. No.10, No.6, p.18.

The Hillside Farmers Support Project will assist about 4,200 families living in the Blue Mountain and High Mountain areas in Jamaica. This project costs \$14.92 million and is implemented by the Government of Jamaica and the International Fund for Agricultural Development. It aims to increase agricultural production and will provide credit for coffee and cocoa planting and for agricultural extension support services. Women beneficiaries will have equal access to the projects facilities.

276 Blumberg, R.L. 1988. Income under female versus male control. Hypotheses from a theory of gender stratification and data from the Third World. *Journal of Farming Issues*. Vol.9, No.1, p.51-84.

277 Carlons, H. 1988. The impact of PPP loans on small scale farmers, particularly women. A minor field study. *Sveriges Lantbruksuniversitet*. No.78, 43p.

Prepared for the Zambia Cooperative Federation Finance Services Limited, Lusaka, which, since 1981, have been administering a special fund for non-society members, the People's Participation Programme (PPP). Most of PPP loans have been used for crop production and group members have access

to the credit for three planting seasons. Examines the impact of the availability of PPP loans. Compares and evaluates the impact of the borrowing in Eastern and Western provinces where the project has been differently implemented.

278 Carroll, B.A. 1987. Resources and social change: the impact of international funding agencies on women's programs in India. *International Agriculture Publications. General Series*. Vol.3, May, p.112-118.

279 Casinader, R.A. and Fernando, S. and Gamage, K. 1987. Women's issues and men's roles: Sri Lankan village experience. IN *Geography of gender in the third world*. p.309-322. Edited by J.H. Momsen and J. Townsend. London, UK: Hutchinson Education.

Village-based credit schemes organized by a non-governmental organization in two villages have been successful for the cashew nut process of Sri Lanka. Credit allowed these women to free themselves of the middlemen and to set up as independent, petty commodity producers. The polarization of male reactions is described, with husbands taking refuge in alcohol, violence and the demigration of women, while others choose to work with their wives in cashew nut processing or take over traditional female chores such as childcare and housework in order to free their wives for income-earning activities.

280 Drewes, E. 1985. Income-earning activities for women of fishing communities in Sri Lanka. Madras, India: Bay of Bengal Programme, Development of Small-Scale Fisheries. 111, 26p.

281 Due, J.M. and Mudenda, T. 1986. Women's contributions to farming and household income in Zambia. *Ahfad Journal (Sudan)*. Vol.3, No.2, p.52-61.

Data obtained from 112 rural families and 30 families living in market areas in three Zambian provinces in 1982, reveal that 55 percent of total farm and off-farm income earned by families was generated by women. On the average, during the farming season, females contributed 53 percent of the total agricultural labour and 82 percent of the household labour. In 52 percent of the families, the spouse jointly decided on the sale of farm products, in 40 percent of the families the husband made these decisions, and in 3 percent of the families these decisions were made by the wife. Wives earned 50 percent of the off-farm income received by the families. In most families, spouses decided jointly on how to spend off-farm income generated by their spouses. Females generated about 55 percent of the total farm and off-farm income earned by families.

282 Due, J.M. and Mudenda, T. 1985. Women's contributions to farming system and household income in Zambia. Michigan, USA: Office of Women in International Development. Michigan State University. 29p. (Working Paper, No. 85)

Examines women's contributions to farm household income on small farms in three areas of Zambia. Data collected from a sample of 112 women show that females contribute more than half of the hours of agricultural labor done by their households as well as more than four-fifths of the hours of household labor. In addition, females contribute more than half of the average household's off-farm

income.

283 Graeff, J.A. 1988. Credit, confidence and ketchup. *Women and Environment*. Vol.10, p.15-17.

In 1979 rural Salvadoran women started a ketchup producing plant.

284 Hurwitch-Macdonald, J. 1986. Income generation by rural women: creating an integrated system to support self-managed labour intensive production projects. Kingston, Jamaica: IICA. (IICA Miscellaneous Publication, no. 561)

Describes some of the thinking which went into the creation of MUDE, the Dominican Republic's credit institution for women. It describes the methodology used for the programme with initial funding from PACT (Private Agencies Collaborating Together) and the Dominican Government. The programme began in 1977 with a loan for a pilot project in El Rio, Constanza, for a small group of women to diversify their sewn products. Since then over 100 loans have been made in the following areas of production: agriculture, livestock rearing, handicrafts, food processing, and rural services. In addition, over 750 training sessions in rural organization, production techniques and business skills have been held for over 2000 women.

285 Majid A. 1986. Women's contribution to household income among agricultural labourers of Punjab. New Delhi, India: University of Delhi. 22[10]p.

Studies contribution of Harijan women to the economy of their households in the Indian Punjab. There is some comparison with the Jat Sikh family who are sometimes literate, but the Harijan women appear to be more liberated and are almost always consulted by their husbands in taking important family decisions. However, they are not treated as equals and are not allowed access to cash, ornaments and valuables and are often manhandled. Concludes that economic independence alone cannot be regarded as a sufficient condition for achieving sexual equality.

286 Ntiri, D.W. 1988. Income generation and African rural women: choice or mere neglect. *FAO Economic and Social Development Series*. No.44, p.142-154.

The economic outlook and conditions of rural areas in Africa are examined, with particular attention to the attitudes and income/employment-generation activities of women. Those critical issues that deal with the continuing and long-term impact of unemployment and underemployment and the ensuing pervasiveness of poverty are explored, and the forces that play a part in the development of the rural women's image and status are examined. Rural development, emphasizing increased participation of rural populations, particularly women in the wage sector, has over the last two decades become a central issue in national development plans of many African governments. Recognizing the crucial need to generate rural employment, some governments have adopted policies aimed at developing and expanding employment opportunities in the traditional agricultural sector, and promoting the direct involvement of women. However, the results have not been as successful as hoped. It is concluded that the future outlook on bettering women's entrepreneurial capacity will depend on the concerned efforts of

the women themselves, government policies and the growth of the rural sector generally.

287 Stude, T. 1985. Finnish aid to the Tanzanian agriculture. The case of Uyole Agricultural Centre (UAC) 1973-1982. Helsinki, Finland: Helsinki University. 102p. (Effects of Finnish Development Cooperation on Tanzanian Women. Report B (Finland))

Agricultural Labour and Employment

288 Agarwal, B. 1985. Work participation of rural women in third world: some data and conceptual biases. *Economic and Political Weekly*. Vol.20, p.A155-164; D21-28.

Argues that the accuracy of India's national statistics, which serve as the principal data in framing policies, is severely impaired by biases which lead to an undercount of women, both as workers and as those available for work.

289 Ahmad, Q.K. and Deolalikar, A. and Hewavitharana, B. and Khan, A.M. 1987. A comparison of rural employment creation policies in Bangladesh, Pakistan, Sri Lanka and Indonesia. IN *Rural employment creation in Asia and the Pacific*. p.221-240.

Compares rural employment creation policies and programmes in terms of labour force participation, and unemployment in Bangladesh, Sri Lanka, Pakistan and Indonesia. A number of lessons drawn from the comparison are outlined.

290 Ahsan, R.M. and Hussain, S.H. and Wallace, B.J. 1986. Women in the Bangladesh agricultural labour force. *Bangladesh Journal of Agriculture (Bangladesh)*. Vol.11, No.3, p.73-81.

Investigates the contribution of women in agricultural activities in Choto Kalampur and Jalsha Boro Hissa - two villages in Bangladesh. Religion and education were considered as influencing factors. It was found that (1) the involvement of women in decision making regarding technology adoption was greater in Jalsha and (2) there was a significant difference in involvement in agriculture between the Hindu and Muslim women in Kalampur. Generally higher involvement of illiterate women in agriculture is apparent.

291 Arunachalam, J. 1985. Experiment of the Working Women's Forum in India: alternative employment options for Indian rural women. IN *Women in Rice Farming: Proceedings of a conference on Women in Rice Farming Systems*, The International Rice Research Institute, Manila, Philippines, 26-30 September 1983, Manila, Philippines. p.337-350. Hants, England: Gower.

Reports on a project of the Working Women's Forum to provide alternative employment opportunities for rural Indian women. This was to be achieved either by increasing economic returns to existing activities or by introducing new types of activities. Three project areas were identified and the Working Women's Forum has made special efforts to organize women in these areas in response to local specific needs and problems. Concludes with a number of insights gained from the experience of the three projects in the hope that they may prove useful in similar efforts to develop

alternative employment for rural women.

292 Babolola, S.O. and Dennis, C. 1988. Return to women's labour in cash crop production: tobacco in Igboko Oyo State, Nigeria. IN *Agriculture, women and land: the African experience*. p.79-89. Edited by Jean Davison. Boulder Colo., USA: Westview Press.

293 Bhadra, M. 1986. Plantation women workers and their commitment to industrial work [on tea plantations]. *Man in India*. Vol.66, No.3, p.133-243.

294 Bhat, G.M. and Khan, G.M. and Kaul, A.K. 1987. Role of women in agriculture: a study of Kashmir Valley of J and K [Jammu and Kashmir] states. *Agricultural Situation in India*. Vol.42, No.2, p. 93-97.

Discusses the nature and extent of the use of female labour in the agricultural sector in Jammu and Kashmir, India and examines whether (1) the use of female labour was conditioned by regional variations with respect to cropping patterns and irrigation facilities, (2) there were variations in female labour use, with crop and operation specific female labour patterns within a region, (3) the extent of mixed and family female labour in agriculture and other allied activities and (4) there is any association between the extent and nature of female participation in agriculture and economic and demographic features.

295 Burton, M.L. and White, D.R. 1987. Sexual division of labour in agriculture. IN *Household economies and their transformations*. p.107-130. Edited by M.D. MacLachlan. Lanham, USA: University Press of America.

296 Chaudhry, M.G., Khan, Z and Abella, M.I. 1987. Female labour force participation rates in rural Pakistan: some fundamental explanations and policy implications. *Pakistan Development Review*. Vol.26, No.4, p.687-696.

Investigates the trend of participation rates in employment of rural women in Pakistan during 1961-88. The low and falling participation rates are linked to growing emphasis on education in rural areas, increased mechanization of agriculture and increases in rural income.

297 Choudhury, S and Giri, A.K. 1986. Nature and extent of female labour use in agriculture - a comparison between progressive and non-progressive area. *Economic Affairs*. Vol.31, No.2, p.81-86.

The paper investigates (1) whether female labour utilization was conditioned by regional variations in regard to cropping pattern and irrigation facilities; (2) whether there were seasonal variations in the use of female labour and crop and operation specific female labour engagement patterns within a region; and (3) the amount of wage-earning and self employed female labour in agriculture in different regions, and their socioeconomic conditions. Two villages in West Bengal, one from a progressive area in Burdwan district and the other from a non-progressive area in the Bankura district, were selected for the study.

298 Cloud, K. 1985. Women's productivity in agricultural households: How can we think about it? IN *Women as food producers in developing*

countries. p.11-17. Edited by Jamie Monson and Marion Kalb. Los Angeles, USA: University of California.

Reviews the literature on male and female productivity in farming and examines new trends in measuring the labour and productivity of family farms in the United States of America in the context of their potential for use in third world countries.

299 Dixon Mueller, R. 1985. Women's work in third world agriculture. *Women, Work and Development*. No.9, 165p.

Explores the question of how the contribution of women in agricultural production can be measured. The study commences with a discussion of the sexual division of labour. A number of methodological issues relating to the allocation, conceptualization and interpretation of indicators of the sexual division of labour in third world agriculture are discussed.

300 Gillis, W.R. and Shaffer, R.E. 1987. Matching new jobs to rural workers. *Rural Development Perspectives*. Vol.4, No.1, p.19-23.

301 Gleason, J.E. 1988. The contribution of women to agriculture in Taiwan. IN *Gender issues in farming systems research and extension*. p.237-251. Edited by S.V. Poats, M. Schmink and A. Spring. Colorado, USA: Westview Press.

The availability of female labour in the farming system in southern Taiwan increases the variety of crops planted, as well as the level of diversification. Data on 20 Taiwanese families suggest that economists should view labour not as a single production unit, since women can be engaged in labour-intensive agriculture while men operate in the highly mechanized sector, such as rice.

302 Gregus, J and Podolak, A and Jakubikova, M. 1987. The agricultural labour force in the CMEA countries. *Acta-Operativo Oeconomica*. No.42, p.541-550.

Trends in the labour force of the CMEA member countries' agricultural sectors are identified. With the building of a new agricultural system to meet production requirements a large labour force was needed in agriculture. With the basic construction completed and demand for labour in the other sectors of the economy, farm workers left the industry. This trend is stabilizing and the remaining agricultural workforce is more highly qualified, has a lower percentage of women in the workforce, and is now being paid a wage on a par with those outside agriculture.

303 Halim, A. and McCarthy, F.E. 1985. Women labourers in rice producing villages of Bangladesh. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manila, Philippines. p. 243-255. Aldershot, Hants, England: Gower.

Study of 150 working women from five primary rice producing villages of Kotwali of Mymensingh district investigating their peculiar circumstances over a two month post harvest period. Findings project the need for income generating and expenditure saving activities throughout the year.

- 304 Hansen, A. 1988. Correcting the underestimated frequency of the head-of-household experience for women farmers. IN *Gender issues in farming systems research and extension*. p.111-126. Edited by Susan Poates and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.
- 305 Hardjono, J. 1985. Employment for rural women: a case study in West Java. *Prisma*. No.37, p.68-76.  
Looks at selected aspects of employment among rural women in a village in Java during 1981/82. The extent to which employment opportunities are available and to which women have access to these opportunities are analysed in the case of agriculture, embroidery, trade and wage labour in textile and brick-moulding industries. Concludes that expansion of employment opportunities seems to be impossible as agriculture cannot be extended nor intensified, textile industry is declining and the distribution of products of urban based industries is further reducing the market for village products.
- 306 Harry, I.S. 1986. Labour patterns in agriculture in Trinidad. IN *Women in agriculture. Conference on gender issues in farming systems research and extension*, Gainesville, U.S.A., 26 February - 1 March 1986. Vol. 2, p.21. Gainesville, USA: University of Florida.  
Focuses on the integrated labour patterns in the production of tobacco, cocoa, sugarcane, rice, vegetables and dairy products. The results from a questionnaire survey conducted in 1979 showed that the longer the cultivation cycle, the more involved women and other family members became in the production. Labour inputs in terms of number of days worked and hours per day were similar and tasks were either male, female, or done jointly by both spouses. Women are responsible for many activities done near the home.
- 307 Illo, J.F.I. 1985. Wives at work: patterns of labour force participation in two rice farming villages in the Philippines. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manila, Philippines. p.71-89. Aldershot, Hants, England: Gower.  
Investigates female participation in the production of food and other marketable goods in two Philippine villages, one of which has experienced widespread mechanization of key rice farming operations.
- 308 Jones, C. 1985. The mobilization of women's labour for cash production: a game approach. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manila, Philippines. p.445-454. Aldershot, Hants, England: Gower.  
Discusses the bargaining model called the neoclassical model versus the Nash bargaining model. These models developed from the North Cameroon experience explores in more detail possible explanations of the allocative insufficiency which seem to characterise many of the rice-cultivating households.
- 309 Jones, C.W. 1986. Intra-household bargaining in response to the introduction of new crops: a case study from North Cameroon. IN *Understanding Africa's rural households and farming systems*. p. 105-123. Boulder, Colo., USA: Westview Press.  
The relations between women's labour allocation in their husband's rice fields and the intra-household distribution of the proceeds of rice production were analysed. Concludes that the women were challenging the husband's right to dispose of the product of his wife's labour, a right which was recognized formerly by the transfer of bride wealth cattle.
- 310 Khan, N.S. and Shaheed, F. and Mitha, Y and Rehman, S. 1985. Initiatives for improving the employment conditions of rural women: the cases of Shahh Kot training and income-generating and the Sungli income generating projects. IN *Rural development and women: lessons from the field*. Vol. 1, p.117-136. Geneva, Switzerland: International Labour Organisation.  
Looks at two income generation projects for women in Punjab, Pakistan. The first project promotes female employment in embroidery and sewing. The second encourages date-leaf basketry and its making in urban centres. Concludes that the second project was less successful because it did not generate enough remuneration for the more agriculturally active women.
- 311 Kurian, R. and Jayawardena, K. 1984. The exploitation of women on the plantations: Tamil workers on the tea estates of Sri Lanka. Sri Lanka, Women's Education Centre. 32p. (WEC pamphlet, No. 3)  
Women plantation workers comprise half the plantation workforce in a sector that earns the largest amount of foreign exchange in Sri Lanka. Yet they face exploitation and numerous problems. The structure of women's organizations is examined and recommendations are made to ameliorate the situation through pressure groups, trade unions and political organizations.
- 312 Lal, B.V. 1985. Kunti's cry: indentured women on Fiji plantations. *Indian Economic and Social History Review*. Vol.22, No.1, p.55-71.  
Examines the working experience of indentured Indian women on Fiji sugar plantations in the 19th and early 20th centuries. Probes the stereotype view that these workers were responsible for all the major moral and social woes of the plantation society. Concludes that the system of coercive labour rather than the women themselves was responsible for the problems which accompanied indenture. Underscores the need for more indepth studies on the Indian indenture experience in Fiji.
- 313 Lawson, L. 1986. Working women in South Africa. London, UK: Pluto Press Limited. 144p.  
Presents an account of South Africa's black women workers and considers the general pattern of women in the workforce; and in a variety of occupations, including that of agricultural workers. Focuses on how trade unions have begun the fight for material improvements.
- 314 Longe, O.G. 1988. The role of women in food production, processing and preservation in Nigeria. *African Notes (Nigeria)*. No.3, p.27-35.  
More than 45 percent of the rural population engaged in the production of both arable crops and livestock are women. In some states in Nigeria they dominate the farming business to the extent of

providing enough food for their families and for sale, thereby gaining income for the family. The women are generally not literate and therefore need to be educated if they are to appreciate improved technology. Since most of them lack capital and access to credit facilities, they should be encouraged to form cooperatives for greater efficiency of production and for better marketing.

315 Mallik, G.S and Giri, A.K. 1986. Some economic aspects of employment of female labour in agriculture. A comparison with male labour. *Agricultural Situation in India*. Vol.41, No.9, p.447-450.

Compares female and male labour in terms of wage rates and work output in agricultural operations in two districts of West Bengal, India. Notes that in some cases female labour has been exploited by providing wages lower than the due. With the introduction of agricultural mechanization, the decline in the absorption of female labour was more pronounced than that of male labour.

316 Masood, F. and Zia, S.M. and Yed, J.I. 1987. The honorable partner on farm [female participation in farm work]. *Pakistan Agriculture (Pakistan)*. Vol.9, No.4, p.31-35.

317 Massard, J. 1985. [Malay women as producers and managers]. *La femme malaise, productrice et gestionnaire*. *Revue Tiers-Monde (France)*. Vol. 26, No.102 (Special issue), p.359-370.

The rural Malay women have held a strong but not dominating position in the agricultural sector which is as yet dominated by small scale production. Their role in agricultural production varies. However, the present intensification and mechanization of agriculture as well as the urbanization and promotion of fundamentalist interpretations of Islam, threaten the position of the Malay women.

318 Mbilinyi, M. 1985. The changing position of women in the African labour force. IN *Africa projected: from recession to renaissance by the year 2000?* p.170-186. London, UK: Macmillan.

Examines the changes which are taking place with respect to the position of African women in wage-employment and within the peasant sector. Describes the historical factors, differentiation of peasants and deterioration in family-based peasant agriculture and wage employment sector. The implications for the future are discussed.

319 Meiners, J.E. and Olson, G.I. 1987. Household, paid and unpaid work time of farm women. *Family Relations*. Vol.36, p.407-411.

320 Mencher, J. and D'Amico, D. 1986. Kerala women as labourers and supervisors: implications for women and development. IN *Visibility and power*. Essays on women in society and development. p. 255-266. Edited by E. Leacock and S. Ardener. New Delhi, India: Oxford University Press.

Examines the jobs done by women in rice cultivation in Kerala and looks at the ways in which the information supports and-or questions the claims presented in - *Women's role in economic development* - [E. Boserup, New York: St. Martins Press, 1970] Overall pattern of the data from 4 villages indicates that women are required for fewer jobs, but in greater numbers than male

labourers.

321 Mies, M. 1986. *Indian women in subsistence and agricultural labour*. Geneva: International Labour Office. 158p. (Women, work and development, No. 12)

Describes and analyses the diverse economic roles of poor women as agricultural labourers, petty producers, traders, subsistence farmers and household workers; their changing relationship with men in their households, and the impact of class, caste and sexual division of labour on their working lives. Examines development projects on poor rural women by tracing the interaction between the traditional cultural practices and the work patterns of poor rural women.

322 Mugabe, N.R. 1987. The role of women in food production and the food systems. IN *Improving food crop production on small farms in Africa*, FAO/SIDA seminar on Increased Food Production through low cost food crops technology. p.36-47. Rome, Italy: Food and Agriculture Organization.

Women's contribution to agricultural production in Africa can be promoted through (1) the development of appropriate technology; (2) education and training; (3) their involvement in project and agricultural policy matters; (4) broadening of food base with traditional food plants; and (5) catering for their nutritional needs. These productivity raising requirements could be provided by national governments, national research systems, international agricultural research centres, international organizations and through the farming systems research approach.

323 Okorji, E.C. 1985. The role of women in arable cropping enterprises in farming communities of South-eastern Nigeria : a case study. *Development and Peace*. Vol.6, No.2, p.165-173.

Assessment of women's inputs in total farm labour employed on specified farm operations as well as their labour on the timeliness of farm operations in farming communities of south-eastern Nigeria are presented. In absolute terms women contributed more than men in all aspects of the three crop enterprises studied. Notes that in the future the contribution of women's labour on farm work may be constrained to agricultural production in the study area. This is in view of the recent increase of rural-urban migration by men in response to the rapid economic growth in the non-agricultural sector.

324 Pandey, U.K and Malik, H.S and Suhag, K.S and Rai, L. 1988. Participation of rural women in Haryana agriculture. *Agricultural Situation in India*. Vol.42, No.11, p.969-974.

Examines the employment pattern of rural women in Hissar District, Haryana, according to crop and operation. Studies their participation in the decision-making process and other household and related farm activities and identifies the factors affecting the employment of rural women in agriculture. The percentage of women of total family members employed on the farm was found to decrease with the size of holding, but large farms had relatively higher employment of female labour than small and medium farms. The major crops absorbing female labour were cotton, paddy rice, wheat and rabi fodder, and the major operations were weeding and hoeing, harvesting/picking, and

threshing and winnowing. Rural women worked between 9 and 14 hours a day and in general had only a supportive role in agricultural decisions.

325 Panter-Brick, C. 1986. A time-allocation study of women's agricultural work in Salme. IN *Nepal Himalaya: geo-ecological perspectives*. p.223-238. Edited by S.C. Joshi and Martin J. Haigh. Naini Tal, India: Himalayan Research Group.

326 Pemberton, C. Factors affecting the allocation of time to farming: the case of women farmers in south-west Nigeria. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. p.15.

Presents results of a study which looked at both positive and negative factors which influence the time allocated to farming by women in south-west Nigeria. Concludes that women can make an even greater contribution to agricultural production if they can "overcome some of the strictures that are imposed by the traditional social structure and value systems."

327 Pradhan, B. 1985. The role of women in household production systems and rice farming in Nepal. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manila, Philippines. p. 257-286. Aldershot, Hants, UK: Gower.

Discusses the status of women field studies as they relate to women's role in rice farming in the context of household production systems. The analysis is divided into four sections. The first section looks at the household production system and the second examines the role of women in the agricultural and rice farming systems. The effects of technological inputs on women are outlined and in the fourth section women's accessibility to inputs and institutional credits for improving the farming system are discussed. Concludes with a discussion of some policy and programme implications.

328 Ram, R. and Singh, R.D. 1988. Farm households in rural Burkina Faso: some evidence on allocative and direct return to schooling and male-female labour productivity differentials. *World Development*. Vol.16, No.3, p.419-424.

Using a fairly rich household data set, this study assesses (1) the allocative and direct components of the productivity effect of schooling and (2) the male-female productivity differentials in the setting of a highly traditional farming system in Burkina Faso. The rate of return to schooling appears broadly of the order of ten percent. The productivity of labour inputs of females appears much higher than the productivity of labour inputs of males.

329 Rassam, A. and Tully, D. 1988. Gender related aspects of agricultural labour in northwestern Syria. IN *Gender issues in farming systems research and extension* p.287-301. Edited by Susan Poats and Marianne Schmick and Anita Spring. Boulder, Colo., USA: Westview Press.

330 Res, L. 1985. Changing labour patterns of women in rice farm households: a rain-fed village,

Iloilo Province, Philippines. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manila, Philippines. p.91-117. Aldershot, Hants, England: Gower.

Farm wage labour is only done by women of poor households, while women in higher income, holds better opportunities for pig rearing. These situations are examined as women's changing roles in a rainfed rice production system, as population, technology and outside opportunities change. In all households, the contribution of women is particularly important in financial management and in disposal of the outputs of rice production. Mechanization and changes of harvesting practices and crop establishing methods has caused relatively more female than male to be displaced. Need for more agricultural services to raise women's productivity levels and increase their income earning opportunities.

331 Rivera, F.T. and Vitoria, V.C. 1987. Participation of rural women and children in hand-watering agriculture for crop diversification: the case of Luzon, Philippines. IN *Third scientific meeting of the Federation of Crop Science Societies of the Philippines College Laguna, Philippines*. Munoz, Philippines: Nueva Ecija. 54p.

Case study conducted in Luzon, Philippines, indicates that hand watering tobacco and eggplant, contributes 81 percent and 77 percent respectively, to total farm household income. Further, it was found that rural women contributed 20 percent, and children 16 percent of the total labour used in hand watering tobacco, and the respective figures for hand watering vegetables were 29 percent and 21 percent. Generally the perceived benefits that farm families derived from hand watering are: food improvement, children's education, acquisition of material possessions, and the purchase of rice farming inputs.

332 Saradmoni, K. 1985. Declining employment for the labor-increasing involvement by land-owning women. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manila, Philippines. p.373-383. Aldershot, Hants, England: Gower.

Technology involvement in rice cultivation affects not only agronomic and ecological aspects, but also increasing paddy production and producers' purchasing power. Examines the Indian case to determine who actually produces rice and who benefits from the introduction of technology. States that women are motivated on the production and processing of paddy as a homogeneous group. Women attend to operations in rice production in addition to their domestic chores. New technology should consider both relief from drudgery and creation of abundant and rewarding labour as distinct from displaced labour.

333 Saradmoni, K. 1987. Labour, land and rice production: women's involvement in the states. *Economic and Political Weekly (India)*. Vol.22, No. 17, p.2-6.

Examines the involvement of women, both labourers and landowners, in rice production in the states of Kerala, Tamil Nadu and West Bengal, India. Observations were made through fieldwork in 28 villages with a sample of 48 women labourers and

10-15 women from landowning households from each village. Information on other work carried out along with agricultural work or otherwise was also collected. Arguments resulting from the study are: (a) women labourers' contribution is crucial both for rice production and household maintenance; (b) exploitation of women labourers exists in many ways and varies between regions; (c) women from landowning households contribute considerably to the production and processing of rice; (d) both categories of women are aware of technological changes and play a role in accepting or rejecting innovations.

334 Sarkar, S.R. 1986. Sericulture as a subsidiary occupation for women [in Bangladesh]. Bogra, Bangladesh: RDA. 24p.

335 Saunders, L.W. and Mohenna, S. 1986. Unseen hands: women's farm work in an Egyptian village. *Anthropological Quarterly*. Vol.59, No.3, p.105-114.

Data drawn from questionnaires, censuses and interviews conducted in a village in the Egyptian Delta, are compared to show ways in which women's work in agriculture reflected changes in local economic conditions from early 1960's to late 1970's. Though women's participation decreased in agricultural labour and increased in animal husbandry, this fact seems to be undercounted in national statistics.

336 Segal, M.T. 1986. Land and labour: a comparison of female and male headed households in Malawi's small-holder sector. Michigan, USA: Michigan State University. (Women in International Development, No. 10)

Compares male and female-headed smallholders in Malawi's eight agricultural districts on the basis of data from 1983-84 annual survey of agriculture. Female-headed households are shown to have less land and labour and lower incomes than male-headed ones. Non-farm alternative sources of income are discussed and their probability of improving the prospects of female-headed households are evaluated.

337 Sen, G. 1985. Women agricultural labourers: regional variations in incidence and employment. IN *Women in poverty. Tyranny of the household: investigative essays on women's work.* p. 125-145. Edited by D. Jain and N. Banerjee. New Delhi, India: Shakti Books.

Examines the interregional variations in the relative participation of women as wage labourers in agriculture in India. Data indicates a higher incidence of women labourers in districts where agricultural growth is low, coarse grains are grown and land ownership is more unequal. It is shown that the employment rate among rural women is higher in the states that have a higher incidence of women agricultural workers.

338 Sow, F. 1986. [African women, employment and the international division of labour: the case of Senegal]. *Femmes africaines, emploi et division internationale du travail: le cas du Senegal.* Labour, Capital and Society. Vol.19, No.2, p.200-217.

Reflects on the employment of women in Africa and on the question of labour supply. A case study of Senegal on the role of women in agriculture, fishing, rearing of animals, the informal sector and urban economies as well as on their education

and professional formation, their salaries and positions reveal that the previously important position of women in the economic structure was radically altered due to the development of a capitalist colonialist economy. It is argued that the privileged position of male culture on a world scale is the basis for the control over women, a control that is expressed in an international specialization of disadvantaged labour.

339 Srinivasan, K. 1987. Paid and unpaid work: activities and opportunities in the rural area. International Agricultural Publications. General Series. Vol.3, May, p.89-90.

340 Steady, F.C. 1985. Women's work in rural cash food systems: the Tombo and Gloucester development projects, Sierra Leone. IN *Rural development and women: lessons from the field.* Vol. 1, p.47-70. Geneva, Switzerland: International Labour Organisation.

Analyses the agricultural project of the Gloucester Village Development Association and the Tombo Fisheries Project. Both are examples of successful projects designed to improve the employment conditions of rural women in Sierra Leone.

341 Watts, S.J. 1985. Rural women as food processors and traders: Eko making in the Ilorin area in Nigeria. *Journal of Development Areas.* Vol.19, No.1, p.71-82.

In spite of women's much wanted independence in the processing and selling of a maize meal snack, eko, and other petty selling, a sizeable proportion of rural women appear to be destined to spend their lives in arduous, low-profit trading and processing. Part of the solution lies in the provision of formal education and extension services geared to the needs of rural women, over and beyond their existing domestic responsibilities and which will utilize the very considerable knowledge experience and flexibility they have already exhibited in their economic activities.

342 Weijland, H., Herweijer, R. and Groot, J. 1988. Female participation in agriculture in the Dominican Republic. *Serie Research Memoranda.* No.16. 32p.

Presents an analytical scheme for the detection of the factors that can explain female work patterns. Investigates the importance of 30 explanatory variables for the case of the Dominican Republic where female participation in agriculture has been recorded as the lowest in the world. It is shown that the low participation record is not only due to under-reporting but can also be explained by specific cultural and economic factors.

343 White, S. 1985. African women as small-scale entrepreneurs: their impact on employment creation. IN *Women as food producers in developing countries.* p.37-49. Edited by Jamie Monson and Marion Kalb. Los Angeles, USA: University of California.

Provides a case study that examines the employment generating effects of the activities of women making "garri" (cereal made from dried cassava) in Ghana. Attention is paid to the costs, profits, technology and labour employment in this small-scale, female-dominated enterprise. Stresses the need for similar case studies that highlight

the economic contribution of women entrepreneurs in rural and urban areas. This is vital if development planners are to take women's interest into consideration when designing development programs.

344 Yotopoulos, P.A and Mergos, J.M. 1986. Family labor allocation in the agricultural household. Food Research Institute Studies. Vol. XX, No.1, p.87-104.

Studies the utilization of family labour in the agricultural household with sample data on market and non-market activities from rural Phillipines. The distribution of labour across households and across activities was found to be systematically related to sex and to the household status (tenant versus landholders), both in terms of absolute labour contribution (hours) and of relative distribution (concentration indices). Women and children appear to be the most important labour contributors to the household.

#### Agricultural Land

345 Agarwal, B. 1988. Who sows? Who reaps? Women and land rights in India. Journal of Peasant Studies. Vol.15, No.4, p. 531-581.

Noting the significance of direct access to land for the economic and social well being of women and their families, traces women's past and existing rights to land in law and in customary practice across communities and regions. Examines changes in these rights; and seeks to identify the factors impinging on women's ability to claim, control and self-manage land today.

346 Badri, B. 1986. Women, land ownership and development in the Sudan. Canadian Women Studies. Vol.7, Nos.1-2, p.89-92.X Despite the fact that women are primarily responsible for food production in the Sudan, very few of them are land-owners, a situation further worsened by recent legislation concerning land registration and tenancy which favour men. Points out that this leads to food shortages and proposes several strategies for improving the situation of women in agriculture.

347 Balabola, C. 1986. Fiji: customary constraints and legal progress. IN Land rights of Pacific women. p.1-67.

Reviews the general status of Fijian women and their customary and statutory rights as regards land ownership and usage. The changes in contemporary practices and attitudes in the exercise of land rights are illustrated in five case studies, based on interviews conducted in five different villages.

348 Carney, J.A. 1988. Struggles over land and crops in an irrigated rice scheme: the Gambia. IN Agriculture, women and land: the African experience. p.59-78. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

349 Cloud, K. and Knowles, J.B. 1988. Where can we go from here? Recommendations for action. IN Agriculture, women and land: the African experience. p.250-264. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

350 Crichlow, M. New perspectives on family land tenure. Paper presented on seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. p.29.

Raises a number of pertinent questions that challenge the rigid institutional/structural approach to family land tenure. Argues that family land can best be analysed in the context of the smallholder sector of the Caribbean where most of the women are to be found.

351 Davison, J. 1988. Land and women's agricultural production: the context. IN Agriculture, women, and land: the African experience. p.1-32. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

352 Davison, J. 1988. Land redistribution in Mozambique and its effects on women's collective production: case studies from Sofala Province. IN Agriculture, women and land: the African experience. p.228-249. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

353 Davison, J. 1988. Who owns what? Land registration and tensions in gender relations of production in Kenya. IN Agriculture, women, and land: the African experience. p.157-176. Edited by Jean Davison. Boulder Colo., USA: Westview Press.

354 Davison, J. (ed.). 1988. Agriculture, women and land: The African experience. Boulder, Colo., USA: Westview Press. vii, 278p.

355 Funk, U. 1988. Land tenure, agriculture, and gender in Guinea-Bissau. IN Agriculture, women and land: The African experience. p.33-58. Edited by J. Davison. Boulder, Colo., USA: Westview Press.

356 Geisler, C.C. and Waters, W.F. and Eadie, K.L. 1985. The changing structure of female agricultural land ownership, 1946 and 1978. Rural Sociology. Vol.50, No.1, p.74-87.

357 Goheen, M. 1988. Land and the household economy: women farmers of the grassfields today. IN Agriculture, women and land: the African experience. p.90-105. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

358 Guerra-Labelle, I. 1986. Putting an end to women's marginality in Brazil. Canadian Woman Studies. Vol.7, Nos.1-2, p. 146-147.

Describes how the changes in the structure of land ownership in Brazil since the 1964 military coup and the IMF loan policy have forced Brazil to become a food producer for Northern countries, to the detriment of its own self-sufficiency. Suggests the creation of new models of development to extricate peasant women from their marginal position.

359 Hamilton, S. 1986. An unsettling experience: women's migration to the San Julian colonization project. Co-operative agreement on human settlements and natural resource systems analysis. Institute of Development Anthropology, U.S.A. 24p. (Working paper, No. 26)  
Assesses land ownership as being a scarce

resource available to women either in their communities of origin or in San Julian. States that a few women have land in their own name in the colonization zone, but their percentage in nearby spontaneous settlements is slightly higher than in the San Julian project. Migrant women experience difficulty owning land in the San Julian Colonization zone than in spontaneous settlements.

360 Hobson, S. 1986. *Bulldozed*. Isis Women's World. No.10, p. 35-36.

Shortened version of an article in *New Internationalist* on the forced conversion of 1500 hectares of rice lands owned by women in Gambia, into higher yielding plots leased by the village headman to the government. The women fear they will lose their land without compensation.

361 Kishwar, M. 1987. *Toiling without rights: Ho women of Singhbhum*. *Economic and Political Weekly*. Vol.22, No.3, p.95-101.

Study carried out in Karonja village, Bihar State, India attempts to analyse the issue of land rights to the tribal women in the women's daily lives, work, struggle for survival and their status in the family and community.

362 Mencher, J.P. 1985. *Landless women agricultural labourers in India: some observations from Tamil Nadu, Kerala and West Bengal*. IN *Women in rice farming: proceedings of a conference on women in rice farming systems*, the International Rice Research Institute, Manilla, Philippines. p.351-371. Aldershot, Hants, England: Gower.

Impact of new technology on women's employment, especially the displacement of labour and the way in which technologies can help to diversify income earning opportunities for women. Suggestions are made for income diversifying technologies, which must be introduced with careful attention to local variations in ecology, and agricultural practice. Schemes for introduction of alternative employment for these women need to be introduced.

363 Pankhurst, D. and Jacobs, S. 1988. *Land tenure, gender relations and agricultural production: the case of Zimbabwe's peasantry*. IN *Agriculture, women and land: the African experience*. p.202-227. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

364 Ross, P.J. 1987. *Land as a right to membership: land tenure dynamics in a peripheral area of the Kano close-settled zone*. IN *State, Oil and Agriculture in Nigeria*. p.223-247. Edited by Michael Watts. California, USA: Institute of International Studies, University of California.

365 Santiago, I.M. and Quintillau, O.Q. 1986. *Mobilising Filipino women to acquire land*. *Canadian Women Studies*. Vol.7, Nos.1-2, p. 121-123.

Outlines the strategy and activities of women in acquiring a right to land through pressuring government to implement social welfare laws. The destruction of shanties in Davao city and the problems of rehousing and acquiring land rights, provide a case study on the unequal distribution of land in the Philippine.

366 Schoepf, B.G. and Schoepf, C. 1988. *Land, gender, and food security in Eastern Kivu, Zaire*. IN *Agriculture, women and land: the African*

*experience*. p.106-130. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

367 Wijaya, H.R. 1985. *Women's access to land resources: some observations from East Javanese rural agriculture*. IN *Women in rice farming: proceedings of a conference on women in rice farming systems*, the International Rice Research Institute, Manilla, Philippines. p.171-186. Aldershot, Hants, UK: Gower.

Reports on some results of women's access to land resources following the introduction of new rice technology in East Javanese rice farming systems. It was found that introduction of the new technology has not altered women's right to privately owned land nor rented land. However, some of the rights characterized by partially transferred private property has been changed. There is also evidence that with the introduction of the new rice technology women are denied the opportunity to perform certain tasks both during the pre-harvest of the crop and at harvest time.

#### Agricultural Marketing

368 Bliss, F. 1986. *Economic change in long distance trade and marketing in the "New Valley" of Egypt*. *Tropenlandwirt, Beiheft*. No.28, p.49-63.

The New Valley province embraces the greater part of the Egyptian western desert. Before the Egyptian government carried out a new land project in the area between 1960-1965, its economy was concentrated on palms and arable farming just adequate for subsistence, while handicrafts occupied a marginal place alongside agriculture. The New Valley Project was based on horizontal land development, which landed up with about 4000 ha in Kharga and 8000 ha in Dakhla instead of 1000,000 ha arable land. Together with the extension of the agricultural area, the infrastructure was developed. Provides details of trade and marketing in the area, long distance trade, the types of goods exchanged, terms of trade, gender roles and social prestige, and recent developments in oasis trade.

369 Clarendon, H. 1986. *The hucksters of Dominica*. IN *Women in Third World (UK)*. No. 18, p.56-61.

The huckster trade in Dominica has a vast potential for creating employment for a large sector of unemployed persons, in particular women. The main characteristics of this trade are described. The most important problem areas are related to immigration, quality control, unsuitable storage facilities on boats, lack of marketing information, of suitable packing and storage facilities prior to shipping, and lack of insurance coverage for their goods. The narrow cooperation between the hucksters and small farmers is analysed and special attention is paid to their mutual economic dependence.

370 Cuales, S. M. and Lagro, M. 1987. *Women traders in agricultural products: aspects of the women in development programme of UNECLAC Subregional Headquarters for the Caribbean*. [Paper presented at the] Roundtable on participation and integration of women in agricultural development in

the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Port of Spain, Trinidad and Tobago: ECLAC Subregional Headquarters for the Caribbean. 7p. (LC/CAR/R/234)

Outlines general aspects of the Women in Development Programme of UNECLAC Subregional Headquarters for the Caribbean. Presents preliminary findings of ECLA study on inter-island traffickers from St. Vincent and the Grenadines, the majority of whom are female, with an average of 30 years. The complete marketing function is carried out by the trader and encompasses a variety of functions from negotiation, through shipping to wholesaling and retailing. Credit facilities are limited so women traders have developed creativity in conducting their business. Describes the Traffickers Small Business Association funded in 1983. Five recommendations are made among these being the promotion of the organization of women traders and increased inter-island networking of women traders.

371 Homiak, J. 1986. The hucksters of Dominica. *Grassroots Development*. Vol.10, No.1, p.30-37.

Dominica's 10,000 small farmers and many of its large citrus growers rely on the initiative of independent microentrepreneurs, mostly women, known as 'hucksters' to earn export income. Those arrangements have recently been threatened by unpredictable market gyrations. Focuses on how the hucksters are learning to work together to improve the conditions of trade and stabilize the island's economy.

372 Lagros, M. 1988. Inter-island trade. *Cafra News*. June, p. 16-17.

Looks at trade throughout the Caribbean, the traders and the commodities traded. Identifies two types of inter island trade: trading of agricultural products such as fruits from Grenada and vegetables from Tobago, and trading of manufactured goods such as clothing, footwear and cosmetics. Provides data relevant to the pattern of movement of commodities between islands, the quantities and kinds of goods traded.

373 Munoz, A. 1986. Rural women's activities in marketing: a hog-raising project in the Philippines. IN *Training for agriculture and rural development, 1985*. p.47-52. Rome, Italy: FAO. (FAO Economic and Social Development Series, No. 38)

374 Tinker, I. 1987. Street foods: testing assumptions about informal sector activity by women and men. *Current Sociology*. Vol.35, No.3, p.1-73.

Focuses on the role of women vendors in seven provincial towns in Asia and Africa and includes findings of the Equity Policy Centre's Street Foods Project (1977). Results of this study establish the importance of the rural-urban linkages in supplying the street food vendors and underscores the important but often invisible role of urban women in this informal sector. Policy recommendations arising from the project call for governments to recognize and support street food vendors, not harass them.

## Agro-industry

375 Fath, J. 1985. Women and the growth of agro-industries in developing countries. Vienna, Austria: UNIDO. 101p.

Argues that agro-industrial development in developing countries substantially determines the role of women in manufacturing. Their closer association with agro-industrial development is proposed since they can be considered as resources, agents and catalysts of development. The role of transnational corporations in food processing is analysed.

376 Petritsch, M. 1985. Women's participation in manufacturing in developing countries, with emphasis on agro-industries. Vienna, Austria: UNIDO. 114p. (ID/WG 452/2)

Seeks to examine the current and potential role of women in manufacturing, with special emphasis on the manufacturing of agro-based products, and to identify the possibilities for a more effective integration and increased participation of women at all levels in the agro-industries, bearing in mind their participation in various activities linked with these industries. Illustrative case studies are presented on women in food processing in Africa, Asia and the Pacific, Latin America and Western Asia.

377 Wint-Bauer, V. 1986. Women and food processing in Guyana. *Isis Women's World*. No.10, p.37.

## Agroforestry

378 Jaitley, J. 1987. If nobody fights, we will. *Isis Women's World*. No.16, p.16-17.

Rope makers of Ghar, India demand access to the forests for grass necessary for making rope.

## Animal Science, Production and Protection

379 Bhatti, B.M. 1987. Role of women in rural poultry development. *Journal of Rural Development and Administration*. Vol.19, No.2, p.63-67.

Poultry in Pakistan are mainly reared by village women as a spare-time occupation. The local hens only lay 50-60 eggs a year, whereas high laying birds, which are supplied to the villages at subsidized rates, lay about 200 eggs a year under scavenging conditions. As exotic breeds, which do not become broody replace local varieties, it will be necessary to train village women in poultry farming as an important income generating activity and to provide extra high protein food for their families.

380 Chavangi, N.A. 1987. General role of women in the dairy industry in Kenya. IN *Dairy development in East Africa*. Proceedings of an IDF seminar on appropriate dairy technology transfer for social and economic development in East Africa, Nairobi Kenya, 9-13 March 1987. p.130-134.

Bruxelles, Belgium: International Dairy Federation.

381 Chen, M. 1986. Indian women: a study of their role in the dairy movement. New Delhi, India: Shakti Books. 153p.

382 Darshini, P. 1988. India - women villagers go into dairy farming. Isis Women's World. No.17, p.20-21.

383 Dubok, H. and Ytages, T. 1988. Socio-economic, behavioural and attitudinal aspects as they relate to house-cow management by rural women in Bhamar, Yemen Arab Republic. Risabah, Yemen, Arab Republic: Central Highlands Rural Development Project. 27p. (Publication No. 139)

18 village women from households rearing cows were interviewed to investigate (1) time spent on hand-feeding cows and their perception of the task (2) general management practices (3) women's influence on decisions about when to sell cows (4) importance of milk in the diet (5) method of disposal of milk (6) use of cow dung (7) social status and (8) women's receptiveness to new ideas.

384 Feldman, S. 1986. The role of rural Bangladesh women in livestock production. Ithaca, New York, USA: Program in International Agriculture, New York College of Agriculture. 26p. (Cornell international agriculture mimeograph, no. 112)

Based on data collected from four villages in two regions of Bangladesh, examines the social relations of livestock production, focusing primarily on factors of family status and gender. The role of women in livestock production is quite significant among rural families, and is perhaps one of the few opportunities they have to initiate and control productive activities. In the absence of other resources, such as personally owned land, given the constraints on their behaviour and their negligible access to credit and agricultural services, rural women usually gain control and ownership of livestock through share arrangements for cows, goats and poultry. Women of most economic categories engage in these share exchanges as they offer a source of income independent from their husbands and other family members.

385 Hecht, S. 1985. Women and the Latin American livestock sector. IN Women as food producers in developing countries. p.51-69. Edited by Jamie Monson and Marion Kalb. Los Angeles, USA: University of California.

Examines women's roles in livestock production in the Amazon region of Brazil. Places household production within the wider context of livestock rearing as an important sector of agricultural production in Latin America. Emphasis is placed on addressing the issue of whether large-scale livestock production reflects a modern form to a new situation. Attention is also paid to the role of the government in setting direct and indirect subsidies and pricing policies.

386 International Dairy Federation. 1987. Dairy development in East Africa. Proceedings of an IDF seminar on appropriate dairy technology transfer for social and economic development in East Africa. Bruxelles, Belgium: FIL-DIF. Secretariat General. 144p.

387 Mitra, M. 1986. Women in dairying in Andhra

Pradesh. The Hague, Institute of Social Studies. 39p. (Working Paper, No. 19)

Discusses how women's labour input into dairy co-operatives has intensified milk production although the women are not found to gain ready access to the fruits of their labour. Concludes that women need to participate as dairy producers.

388 Okali, C. and Sumberg, J.E. 1986. Sheep and goats, men and women: household relations and small ruminant production in Southwest Nigeria. IN Understanding Africa's rural households and farming systems. p.166-181. Boulder, USA: Westview Press.

The International Livestock Centre for Africa (ILCA) is currently evaluating the possibility of small scale sheep and goat production systems through (a) alley farming, using leguminous browse trees and (b) intensive feed garden models. The background and rationale underlying the development of these models are outlined in the context of rural Africa's household systems.

389 Petheram, R.J. and Basuno, E. 1986. Livestock component farming systems research in Java - the case for work with women. Agricultural Administration. Vol.21, No.2, p.119-127.

Slow progress so far in livestock component farming systems research in Java may be partially associated with practical difficulties in achieving the degree of farmer contact needed while working mainly with male stock-rearers. The advantages of involving women in village livestock research include ease of communication during daylight working hours, interest amongst women in nutrition, health, reproduction and the ability of women to manage animals in farm trials requiring constant supervision. In some villages women are already involved in group activities which can form a ready basis for the communication of ideas on livestock improvement. The potential for improving productivity of Javanese livestock has been demonstrated under research station conditions, yet little improvement in village livestock production has been achieved.

390 Qureshim, M.S. 1988. Role of women in poultry farming. IN Proceedings of the workshop of role of rural women in farming systems research, Islamabad, Pakistan p.51-54. Islamabad, Pakistan: Pakistan Agricultural Research Council.

391 Ranoh, A. 1987. The role of women in milk production with special emphasis on practical applications. IN Dairy development in East Africa. Proceedings of an IDF seminar on appropriate dairy technology transfer for social and economic developments in East Africa. Nairobi (Kenya), 9-13 March 1987. p.127-129. Bruxelles, Belgium: International Dairy Federation.

392 Sardana, P.K., Gandhi, S. and Hasija, R.C. 1988. Role of women in agriculture: farm women and dairy cattle supplement one another. Journal of Extension Systems. Vol.4, No.1, p.67-69.

From a survey of 300 women in Haryana State, India, almost all the dairy cattle work is done by women. Men carry out the arduous tasks of field preparation and irrigation but joint work is involved in activities such as transplanting crops, weeding and harvesting.

393 Waters-Bayer, A. 1985. Dairying by settled Fulani women in Central Nigeria and some

implications for dairy development. UK: Pastoral Development Network, Agricultural Administration Unit, Overseas Development Institute. 24p. (Paper No. 20)

The pattern of resource control and decision-making suggests that innovations to improve animal nutrition are likely to result not in substantially higher rates of milk off take for consumption and sale, but rather in the production of more animals. Improvement in milk processing and distribution would be better served by improvement in rural infrastructure and by development in collaboration with the Fulani women and appropriate technology for small-scale dairying.

394 Waters-Bayer, A. 1986. Modernising milk production in Nigeria: who benefits? *Ceres*. Vol.19, No.5, p.34-39.

Indigenous systems of milk processing and marketing the traditional products, and the women who make them are usually ignored in development planning. Throughout northern and central Nigeria as in many other parts of West Africa, dairy products suited to local tastes and conditions are sold daily at markets, on roadsides and at house doors. The main problems in small-scale dairying are not in processing and marketing but in milk production. Improvements in the technology and infrastructure for existing products, building on the women's present skills, would benefit both the women and the nutritional status of their families.

#### Education, extension and information

395 Alberti, A.M. 1988. From recommendation domains to intra-household dynamics and back: attempts at bridging the gender gap. IN *Gender issues in farming systems research and extension*. p.61-72. Edited by Susan Poats; Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

396 Anderson, M.B. 1985. Kenya: Egerton College. IN *Gender roles in development projects*. p.185-213. West Hartford, USA: Kumarian Press.

Describes the Agricultural Systems Support Project (ASSP) which was implemented by USAID and the Government of Kenya in an attempt to increase the number of trained personnel in agriculture and to direct this training to small holders including women. The structure of the project is outlined together with its major constraints. Concludes that Egerton College which is a training centre for agricultural extension workers, is one of the main sources of information and technology transfer to small holders.

397 Bagchee, A. Sep 1988. A model for staff training to support women in agriculture. [Paper presented at] expert consultation on experiences of institutional changes concerning women in development. Rome, Italy: FAO. 12p.

398 Barg, G.S. 1988. Role of rural women in agriculture in NWFP [Pakistan]. IN *Proceedings of the workshop on role of rural women in farming systems research*, Islamabad, Pakistan. p.71-72. Islamabad, Pakistan: Pakistan Agricultural Research Council.

399 Berger, M. 1987. Agricultural extension for women farmers in developing countries: institutional constraints. *Quarterly Journal of International Agriculture*. Vol.26, No.1, p.28-45.

Despite their critical role in agricultural production, women in developing countries have virtually been ignored by agricultural extension units. Focuses on the implementing institutions in agricultural extension in an attempt to examine the institutional constraints limiting women's participation in agricultural extension programmes and to provide possible remedies.

400 Bhuyan, B and Tripathy, S.K. 1988. Role of women in agriculture: a study in Ganjam District of Orissa. *Journal of Rural Development*. Vol.7, No.4, p.445-452.

A field survey studied the division of labour in different farming operations in main crops of the district; assessed the extent of awareness of farm women about the use of improved seeds, fertilizer, pesticides and knowledge of the extension system; and examined the sources of flow of information on farming technology among farm women. Based on the findings, recommendations are made for the type and intensity of training required by tribal women, rich and higher caste women and the women of small and marginal farm families.

401 Blain, D. 1985. A farming system for women: the case of cassava production in Zaire. *Ceres*. Vol.18, No.3, p.43-46.

FAO study in Kwango-Kwilu, Zaire, during 1979-83 revealed the need to concentrate on the women and their main crop, cassava. Consistent decline in cassava production is noted. Recommends farming systems research as the only methodological approach to take account of the conflicting needs that arise as a result of rural women in developing countries being obliged to full so many roles.

402 Cabanilla, V.L. and Hargrove, T.R. 1988. The effectiveness of "A farmers' primer on growing rice" in Tagalog and Pangasinan among women farmers. IN *Filipino women in rice farming systems*. p. 333-343. Manila, Philippines: International Rice Research Institute

23 women in rice farming in Bulacon and Pangasinan, Phillipines, were asked to read the IRRRI handbook "A farmers' primer on growing rice" and their knowledge before and after was compared. Knowledge score increased by more than 3 times. Women farmers who have had more media exposure and training tended to be more interested in topics of higher technical content. Only 7 women did not read the entire book during the 60-day exposure period.

403 Chase, V. 1988. Farming systems research in the Eastern Caribbean: an attempt at analyzing intra-household dynamics. IN *Gender issues in farming systems research and extension*. p.171-182. Edited by S.V. Poats, M. Schmink and A. Spring. Colorado, USA: Westview Press.

As its first attempt at intra-household variables in the design of appropriate technologies, CARDI conducted an area focused study in the Mabouya Valley, St. Lucia. The goal was to provide information for designing, testing, documenting and evaluating improved production systems and as such close attention was placed on analysing the farm household in terms of its patterns of labour allocation, decision making and resource flows. Out of 810 households, a stratified

sample of 19 percent was interviewed, 62.2 percent of the sample were male, 37.8 percent were female. An analysis of the results revealed that basic demographic and farm data showed no significant gender differences. Gender differences were observed in labour utilization by gender in the lower valley, where nearly all the holdings were more than 25ha, and in the area of farm management. Recommends the integrated backyard system encompassing plant and animal husbandry.

404 Chipande, G.H.R. 1987. Innovation adoption among female-headed households: the case of Malawi. *Development and Change*. Vol.18, No.2, p.315-327.

Assesses the extent to which female headed households in rural Malawi participate in adopting innovations introduced through rural development programmes. Discusses the inter-household differences in income between the categories of female-headed and male-headed households, as well as within each category. Concludes that the limited adoption of innovations by female headed households in their agricultural production is closely related to their low average income. Some remedial policies like introducing farming clubs and the strengthening of a women's component in development programmes are outlined.

405 Culler, C. and Chikagwa, I. 1988. The status of women in agriculture. IN *Improving agricultural extension and training policies for rural women in Malawi*. Workshop report. p.37-50. Lilongwe, Malawi: Ministry of Agriculture.

406 Dave, P. 1987. Education of tribal women. *International Agricultural Publications*. General Series. Vol.3, May, p.66-67.

407 Due, J.M and Malone, V. 1987. Does the T and V system reach female-headed families? Some evidence from Tanzania. *Agricultural Administration and Extension*. Vol.26, p.209-217.

Reviews the T & V system of agricultural extension. This was first introduced as a pilot program in one region of Tanzania in 1980/81 to improve the existing system. The study reveals that the system did not perform much better than the traditional system for most households but there were some trickle-down effects. Female-headed families had significantly fewer extension visits, fewer adoptions of recommended innovations, and lower yields than contact and non-contact joint-headed families in the T & V area. Extension policies, must change if these, female headed households are to be targeted and their levels of living improved.

408 Espinosa, P. and Garrett, P. 1987. Relevance of gender in farming systems research: experiences in Ecuador. *Agricultural Administration and Extension*. Vol. 26, No. 2, p.101-117.

Experiences of smallholder Programa de Investigacion en Produccion (PIP) in Ecuador highlighting gender in field experiences are presented. Gender is an important variable to be considered in the development and dissemination of agricultural technologies. Invites individuals with field experience to reconsider how gender is relevant to programming in their area of expertise.

409 Fletcher-Paul, L and Roberts-Nkrumah, L.B and Johnson, L. To assess the education and training

of professional women in agriculture. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. p.12.

Based on a survey of female graduates of the Faculty of Agriculture, University of the West Indies, St. Augustine, during the period 1971-1978, this analysis reveals a number of interesting findings which could prove to be useful for future curriculum development at the university.

410 Food and Agricultural Organisation of the United Nations/INSTRAW. 1987. *FAO/INSTRAW advisory service: regional training session on development and use of WID guidelines and checklists at national level*. Rome, Italy: FAO/INSTRAW. 147p.

Reports on the second regional training session on development and use of women in development guidelines/checklists at national level held in Bangladesh. The training framework and curriculum consisted of four modules which correspond to four performance objectives. The modular approach of the training methodology was intended to enable the participants to formulate country level guidelines, checklists and strategies to incorporate women's concerns in agriculture and rural development.

411 Food and Agriculture Organisation of the United Nations. 1988. Effectiveness of agricultural extension services in reaching rural women in Africa. V. 1: [Workshop] report.; V. 2.: Papers presented. Rome, Italy: FAO.

412 Food and Agriculture Organization of the United Nations and UNESCO and International Labour Organization. 1986. 1985 training for agriculture and rural development. *FAO Economic and Social Development Series*. No.38, vi, 116p.

In recognition of the impact of the decade for women, the theme of the 1985 issue of this publication is - Women in agricultural and rural development: progress during the decade for Women, 1976-1985. A number of papers document the attempts made in different regions of the world to reach more rural women efficiently; points to resources for success or the lessons learnt from failures and reveals the innovative practices undertaken to increase the participation and productivity of women in agricultural production and rural development.

413 Gallin, R.S. and Ferguson, A. 1988. The household enterprise and farming system research: a case study from Taiwan. IN *Gender issues in farming systems research and extension*. p.223-235. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

414 Garrett, P. and Espinosa, P. 1988. Phases of farming systems research: the relevance of gender in Ecuadorian sites. IN *Gender issues in farming systems research and extension*. p.199-210. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

415 Government of Sierra Leone. *Integrated Agricultural Project for Women*. FAO. 1987. Project assessment report role of women in agriculture [Sierra Leone]. Freetown, Sierra Leone: IAPW. 17p.

Examines several constraints affecting women farming activities and advocates the adoption of the Group Extension Approach as a means of facilitating the participation of women farmers and their families in the planning and implementation of project activities. The Group Approach also entails interaction among women farmers to aid them in overcoming their constraints through unity.

416 Gura, S. 1986. Extension approaches to reach rural women. 1985 training for agricultural and rural development. FAO Economic and Social Development Series. No.38, p.1-9.

Discusses the challenge of finding ways in which extension can reach female farmers, indicating that all too often this is not achieved because of traditional practices. Rural women need to be recognised as a group with specific extension and training needs. Extension workers, both male and female, need to be trained to understand the family farm as a complex unit involving agricultural as well as household and family issues.

417 Halim, A and Ali, M.H. 1986. The effects of rice based cropping system research on women in Bangladesh. No.65, Bangladesh: Graduate Training Institute, Bangladesh Agricultural University. 30p. (GTI Publication, no. 65)

A comparative picture is drawn of the status, involvement and the extent of participation in the decision making process of housewives in the Farming System Research (FSR) villages of the Bangladesh Agricultural University where a rice based cropping system has been introduced. Two villages in Mymensingh district with a total sample size of 40 participating and non-participating households were selected for study. Women in FSR households are found to spend more time in agriculture related activities, and to command higher wage rates, than in non-FSR households. FSR households are more advanced in the adoption of modern technologies which have given rise to new possibilities for female labour utilization in farmyard-based activities.

418 Hamada, D. 1986. Providing agricultural extension services to farm women through male technicians in the Yemen Arab Republic. FAO Economic and Social Development Series. No.38, p.21-28.

Describes experiences gained in the Tilhama region of the Yemen Arab Republic, traditionally the country's cereal growing area. It provides details of women in agriculture in the Tilhama region, agriculture technicians in Yemen, a strategy for assisting farm women, prerequisites for male extensionists engaged in women's agricultural programmes, planning the programme, preparing extension workers, the use of mass media, and documentation and monitoring. Concludes that experience in the Tilhama region is still limited and that constant adjustments will have to be made before an effective system for assisting women is operational.

419 Henderson, J.L. and Cooper, B.E. 1987. The representation of women scientists in land grant colleges of agriculture. NACTA Journal. Vol.31, No.2, p.14-17.

420 Jiggins, J. 1988. Problems of understanding and communication at the interface of knowledge systems. IN Gender issues in farming systems

research and extension. p.49-59. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

421 Kanjou, I.P. 1987. Women's education in Namibia. Harvard, USA: Women and International Development Group, Harvard University and Massachusetts Institute of Technology. (WID Working Paper, no. 22)

Educational problems experienced by women in Namibia are linked to sex stereotyping, and sexual discrimination. Although males and females apparently participate on equal terms in schools, there is a high drop-out rate among girls due to home responsibilities and pregnancy. Both traditionally and still today women are largely educated by their mothers and subsequently take up employment in characteristically female trades: agriculture, pottery, leather work, sewing and cooking. In the context of contemporary education in Namibia, recommendations are made to facilitate women's access to education. These include: establishing a department of women's affairs; drawing up plans to make women's education more equal; using TV and radio to publicize such a plan; establishing nursery schools to enable mothers to attend classes; and to eradicate sex stereotyping from educational and vocational guidance services.

422 Keller, B. 1986. Development for rural Zambian women. FAO Economic and Social Development Series. No.38, p.29-37.

Examines the reasons why Zambian women do not yet fully participate in rural development efforts, assesses the current constraints they face, and analyses their participation in the LIMA (farm) programme, intended to improve the productivity of small-scale farmers. Concludes that however well-intentioned agricultural development programmes such as LIMA and T & V might be, they improve the economic status of only a small proportion of rural women. Where women do not have equal access to land, labour, credit and information, they will be unable to produce more. Women's contribution to agricultural production is only now being recognized. To assume that women are in a position to produce more without changing both structures and attitudes will accomplish little.

423 Kelly, L.L. Notes on women's contributions to the planning of an improved cooking stove programme in Kenya. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. p.4.

Between 1981 and 1985, an improved charcoal stove programme was implemented in Kenya in an attempt to reduce the rapid rate of deforestation in rural areas as well as to save women's energy, time and money. This paper stresses that, although women did not play a central role in programme planning, their inclusion in other areas of programme development was a pivotal factor in the programme's success.

424 Kroon, M. 1986. Fiji: training women for income generation. FAO Economic and Social Development Series. No.38, p.53-60.

Over the past few years a number of programmes have been mounted by both government and non-governmental agencies to assist women and girls in Fiji in developing income-generating activities.

An ILO project is providing training to women's Interests Assistants (WIAs) and multicraft teachers in the basic business skills needed to assist women in self-employment. WIAs are extension workers serving women's groups. Multicraft teachers are instructors in a basic vocational training programme for young women. The project concentrates on these two programmes which involves different age groups and therefore different needs and requirements. The project works in coordination with the Multicraft-section of the Ministry of Education, the Women's Business Opportunity and Management Advisory Services (BOMAS) of the Ministry of Fijian Affairs. Provides details of the programmes and looks at the problems encountered.

425 Lelle, M.A. and Holt, B.A. 1987. Agricultural education: key to providing broader opportunities for third world women in production agriculture. *The Journal of the American Association of Teacher Educators in Agriculture (USA)*. Vol.28, No.4, p.32-39.

426 Loudon, J. 1988. Incorporating women into monitoring and evaluation in farming systems research and extension. IN *Gender issues in farming systems research and extension*. p.87-97. Edited by S.V. Poats, M. Schmink and A. Spring. Colorado, USA: Westview Press.

Summarizes the compelling reasons for incorporating gender issues into farming systems research and extension (FSR/E), especially in a country such as Jamaica where women play key roles in agricultural production. The FSR/E process presents an opportunity to systematically collect valuable information that can help to inform project implementation and refine gender-sensitive measures of key indicators of development.

427 Mathur, A and Mandir, S and Tandon, R. 1986. Participatory training for illiterate women trainees. *Convergence*. Vol.19, No.1, p.20-23.

Seva Mandir is a voluntary organization working among the rural poor in Udaipur district of the State of Rajasthan, India. It has used an educational and organizational strategy to promote in people a sense of collective responsibility for their own development. In the 15 years of work, Seva Mandir has evolved a methodology that links training of adults with concrete action in a variety of situations, such as agriculture, literacy, health care and the building of action and leadership groups. Describes the training of illiterate tribal women to act as village animators and instructors of centres for pre-schooling children. Their training was to foster social change through the gaining of technical competence. In this sense adult education is a secondary education.

428 May, N. 1986. No short cuts: a starter resource book for women's group field workers. London, UK: Change. 56p.

The starter resource book for women's group field workers in the field of rural development is aimed mainly at outsiders hoping to work with women's groups. The main section deals with: how a field worker can support women's groups; women's group organizations; book keeping and business management and ideas for women's group activities.

429 Minett, N. 1986. Participatory education for women: a framework. *FAO Economic and Social*

*Development Series*. Vol., No.38, p.61-69.

Presents a framework for encouraging women to participate in educational/training programme design, implementation and evaluation, and for encouraging men to respect and welcome women's ideas and contributions. It is suggested that the framework may seem time consuming but it is necessary to pay special attention to cultivating the process in order to develop respect for and confidence in the value of women's thoughts, ideas and skills among women themselves and in their communities.

430 Mungate, D. 1985. Delineation of areas of decision-making by farm women in Chitomborwizi and Vuti small scale commercial areas of Mashonaland and west province of Zimbabwe. *Zimbabwe Agricultural Journal*. Vol.82, No.2, p.47-53.

Areas of decision making among 105 farm families in two Mashonaland West small scale commercial areas were investigated. The study was undertaken to identify relevant target groups for various cattle and crop practices contained in extension messages. Shows that women take an active part in decisions on extension practices as it recommends the involvement of both husbands and wives in future extension programmes.

431 Muzaale, P.J. and Leonard, D.K. 1985. Kenya's experience with women's groups in agricultural extension: strategies for accelerating improvements in food production and nutritional awareness in Africa. *Agricultural Administration*. Vol.19, No.1, p.13-28.

Examines the factors which determine the effectiveness of women's groups as vehicles of agricultural extension. The study is based on field data collected on women's groups in 3 districts in Kenya in 1981. Discusses the following issues: whether those who participate in women's groups are typical of the general adult female population, what must be done to keep the group representative, the ways in which groups are open to agricultural purposes and whether the sex of the extension agent matters. It concludes with a number of strategies as to how extension systems could use women's groups to reach the poorest families.

432 Norem, M. and Russo, S. and Sambou, M. and Marlett, M. 1988. The women's programme of the Gambian mixed farming project IN *Gender issues in farming systems research and extension*. p.303-313. Edited by S.V. Poats, M. Schmink and A. Spring. Colorado, USA: Westview Press.

Provides an example from Gambia showing how a women's component was formulated and implemented as part of a larger farming systems research extension (FSR-E) project. A maize-cowpea intercropping package was developed and the difficulties experienced by the women relating to pests, seed varieties and labour patterns were used as a basis for arguing for the inclusion of women in subsequent research and extension efforts.

433 Norem, R.H. 1988. Integration of intra-household dynamics into farming systems research and extensions: a survey of existing projects. IN *Gender issues in farming systems research and extension*. p.19-35. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press

434 Paralikar, K.P. and Yates, B.A. 1987.

Education as a household resource. International Agricultural Publications. General Series. Vol.3, May, p.57-60.

435 Paris, T.R. 1988. Women in a crop-livestock farming systems project in Santa Barbara, Pangasinan, Philippines. IN Gender issues in farming systems research and extension. p.269-286. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

436 Poats, Susan V. and Schmink, Marianne and Spring, Anita (eds.). 1988. Gender issues in farming systems research and extension. Boulder, Colo., USA: Westview Press. 450p.

437 Purvis, B.M. 1987. Information for women in agricultural extension in ACP countries. Wageningen, Netherlands: Technical Centre for Agricultural and Rural Co-operation. 75p.

Provides rural women engaged in agricultural production in African, Caribbean and Pacific (ACP) states with information to alleviate their task and increase their output, mainly via extension services. Selected extension methodologies and strategies are reviewed to show something of the wide range of options available. For example, increasing the proportion of rural girls completing their education by gaining qualifications in agriculture; improving the extension services and related training; promoting other approaches than extension, including collaboration with NGO's; and developing closer links with research.

438 Rajack, A. Extension planning for women in agricultural development as it relates to the national agricultural policy. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. 12p.

Stresses that improved agricultural extension can help women through (1) careful analysis of gender issues with overall extension services at policy and operational levels and (2) consideration of the implications of this into practical measures.

439 Rana, M.S.K. and Sultan, Z. 1988. Training needs of rural women in agriculture. IN Proceedings of the workshop on role of rural women in farming systems research, Islamabad, Pakistan. p. 68-69. Islamabad, Pakistan: Pakistan Agricultural Research Council.

440 Randriamamonjy, M. 1988. Reviewing the United Nations Decade for women: agricultural training and extension. A case study. FAO Economic and Social Development Series. No.44, p.134-141.

Evaluates a project conducted in Zaire to train women for extension work in the last decade. Training women is a complex issue relating not only to the general problems of agricultural extension and training but also to the status of women and the cultural, social and economic situation in specific countries or regions. Teaching materials were produced in the local languages, adapted to local conditions and geared to the needs of women and small farmers. Through their personal adaptation of the improved techniques, the women acted as innovators as well as communicating and disseminating the new techniques.

441 Rao, B.S.V. 1986. Adult education programme: a study on women's performance. Indian Journal of Adult Education. Vol.47, No.6, p.8-12.

In about 120 districts of Uttar Pradesh, Madhya Pradesh, Bihar, Rajasthan, Jammu and Kashmir, Andhar Pradesh and Orissa, more than 90 percent of women are illiterate. The findings of a study conducted in Visakhapatnam in Andhra Pradesh to find out the impact of the adult education programme in respect of its three components of literacy, functionality and awareness, showed that women lag behind men significantly. The knowledge gap with regard to agriculture was not significant and in medical fields women scored over men.

442 Rohatgi, K. 1985. Female literacy and its impact on development. Journal of Science and Industrial Research (India). Vol.44, No.5, p.230-236.

The present status of female literacy in India and the future outlook are outlined with emphasis on quantitative aspects. Concludes that there is a big gap between male and female literacy and rural and urban literacy in India compared with other developing countries. Urban males remain the most literate and rural females the most illiterate group in the country. Extrapolations into the future indicate that these gaps will persist; education of females will determine the quality of life. Increasing input of science and technology in all activities related to production, especially in agriculture, makes higher literacy levels of women imperative. Systems analysis of primary, secondary and tertiary effects of increased female literacy on the social, cultural and economic scene is essential.

443 Rose, L. 1988. "A woman is like a field": women's strategies for land access in Swaziland. IN Agriculture, women and land: the African experience. p.177-201. Edited by Jean Davison. Boulder, Colo., USA: Westview Press.

444 Salem, S.H. and Elgarhi, G.S. June 1986. Rural woman's perception of agriculture extension activities directed to her. (A field study in some villages of Gharbia governorate) [Egypt]. Al-Azhar Journal of Agricultural Research (Egypt). Vol.5, p.97-109.

445 Shah, S.M.A. and Jabeen T. 1988. Women in agriculture in NWFP [Pakistan]. IN Proceedings of the workshop on role of rural women in farming systems research, Islamabad, Pakistan. p.19-20. Islamabad, Pakistan: Pakistan Agricultural Research Council.

446 Shahbaz, B. 1988. Growing awareness among women in Baluchistan [Pakistan] agriculture. IN Proceedings of the workshop on role of rural women in farming systems research, Islamabad, Pakistan. p.21-22. Islamabad, Pakistan: Pakistan Agricultural Research Council.

447 Singh, P.B. 1985. Women in Nepalese agriculture. IN Proceedings of National Agriculture Extension Conference. Ministry of Agriculture, Kathmandu, Nepal. p.190-205.

448 Spens, T. 1986. Studies on agricultural extension involving women including a suggested framework for the analysis of gender issues in agricultural extension programmes. New York, NY,

USA: UNIFEM. 19p. (Occasional Paper, No. 3)

449 Spring, A. 1986. Reaching female farmers through male extension workers in Malawi. FAO Economic and Social Development Series. No.38, p.11-20.

Research carried out by the Women in Agricultural Development Project in Malawi showed that women contributed most of the labour in small holder agriculture. However, women farmers received few agricultural extension services, due to ignorance of their contribution and also because of certain cultural factors. To sensitise male extension workers to women farmers, an extension aid circular was designed which incorporated methods and techniques to reach rural women.

450 Spring, A. 1988. Use of male research and extension personnel to target women farmers. IN Gender issues in farming systems research and extension. p.407-426. Edited by S.V. Poats, M. Schmink and A. Spring. Colorado, USA: Westview Press.

Men as well as women agricultural researchers and extensionists have to become involved in targeting farmers of both gender. Case study from Malawi shows that women are important in agriculture but neglected in extension services and in the practice of farming systems research extension. Recommends that the mandate of male extensionists be extended legitimately to include female farmers.

451 Sumayao, B.R. 1988. Filipino women in rice farming systems. Training the village non-traditional extension audiences on integrated pest management. Manila, Philippines: International Rice Research Institute.

The extension project on integrated pest management (IPM) technology focuses mainly on women farmers and unemployed youths. It was set up in October 1986, in Calamba, Laguna, Philippines. Several information sessions have been organized involving the target group and the project staff, during which the basic agronomic principles of rice cultivation and IPM were discussed. A high drop in attendance was observed during the project monitoring phase. It is suggested that this low level of participation may be attributed to the inclusion of women in the project whose main pre-occupation was not rice farming. Women in Calamba are involved mainly in vegetable farming.

452 Thompson, D.R.T and Sampson-Ovid, L. Sex stereotyping: a hindrance to agricultural development. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. p.19.

Investigates ways in which sex stereotyping in education has hindered agricultural development in the Caribbean. The common perspective that agricultural science is a subject for boys only, although changing today, has over the years, deterred women from taking their rightful place in decision-making and policy formulation at all levels.

453 United States of America. Farming Systems Support Project. 1987. Intra-household dynamics and farming systems case studies. FSSP Newsletter. Vol.5, No.3, p.1-2.

The Population Council and the Farming Systems Support Project have developed a set of seven teaching cases which directly address the relationship between an understanding of intra-household dynamics and the design and extension of new technologies for improving farm production. Each case provides information pertaining to gender roles and was taken from actual project experience in Zambia, Burkina Faso, Colombia, St. Lucia, Kenya, Indonesia and Botswana.

454 Watkins, S.M. 1984. Reasons for the neglect of women in agriculture by agricultural officers: St. Lucia. M.A. thesis, 258p. University of Guelph, Faculty of Arts.

States that the neglect of women is due at least in part to structural difficulties within the Extension Division of the Ministry of Agriculture of St. Lucia, and that methods used by extension officers to disseminate information and plan programmes of action actively ignore the contribution and significance of the female role in agriculture. Brings out some of the possible reasons why extension officers neglect women working in agriculture.

455 Weidemann, C.J. 1987. Designing agricultural extension for women farmers in developing countries. IN Agricultural extension worldwide. p.175-198. Edited by W.M. Rivera and S.G. Schram. Beckenham, UK: Croom Helm Limited.

Focuses on how agricultural extension can span the gender gap and increase productivity of the significant numbers of women by-passed by traditional agricultural extension systems. Reviews the statistics on the participation of women in developing country agriculture; analyses their interaction specifically with the United States Agency for International Development's projects; and proposes how traditional extension models can be modified to reach women farmers and thereby increase productivity.

456 Weidenmann, C.J. 1985. Extension systems and modern farmers in developing countries. Agriculture and Human Values. Vol.2, No.1, p.56-59.

457 Women in agriculture. Conference on gender issues in farming systems research and extension, Gainesville, U.S.A., 26 February - 1 March 1986. Gainesville, USA: University of Florida.

458 Wotowiec, P. Jr. and Poats, S.V. and Hildebrand, P.E. 1988. Research, recommendation and diffusion domains: a farming systems approach to targeting. IN Gender issues in farming systems research and extension. p.72-86. Edited by Susan Poats; Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

459 Yates, B.A. 1987. The schools of Rustumpura: a case study. International Agricultural Publications. General Series. Vol.3, May, p.60-65.

#### Fisheries and Aquaculture

460 Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP). 1988. Rural women

in fishing communities. CIRDAP Newsletter. Vol., No.32, p.4-9.

The regional expert consultation on the action programme for rural women in fishing communities took place in Manila, Philippines, on 25-28 January 1988. A brief overview report is presented of the action programme conducted in Indonesia, Philippines, Sri Lanka and Vietnam. This covered the work of implementing agencies, site selection criteria, baseline data, training, income-generating projects, methodology and recommendations, and follow-up activities. Recommendations include the provision of further training opportunities, the need for continued funding for on-going activities, and diversification of the activities of the women. Tables detail the country-specific needs.

461 Centre on Integrated Rural Development for Asia and the Pacific. 1988. Small-scale fisheries: development in CMC's. CIRDAP Newsletter (Bangladesh). No.32, p.1-3.

Presents an overview of the developments which are taking place in the small-scale fisheries sector in Bangladesh, Malaysia, Sri Lanka, the Philippines and Thailand. Discusses the role of fisheries as source of animal protein, for its employment creation, and in bringing about the involvement of women in fishery related activities.

462 ESCAP. Women in fisheries: report on socio-economic surveys in Fiji, Indonesia, Papua New Guinea and the Philippines. 1985. Rome, Italy: [FAO/ESCAP]. 45p.

In order to gauge the vital economic role which women play in fisheries communities, ESCAP and FAO implemented a project entitled improving the socio-economic condition of women in fisheries, in Fiji, Indonesia, Papua, New Guinea and the Philippines. This publication contains information on the traditional fisheries in these countries; the methodology and results of the surveys and the implementation of the pilot projects in selected fishing communities.

463 ESCAP. Women in fisheries: report on socio-economic surveys in Fiji, Indonesia, Papua, New Guinea and the Philippines. 1985. Bangkok, Thailand: ESCAP. v;40p. (ST/ESCAP/328)

464 Food and Agricultural Organisation of the United Nations. [n.d.]. Women in fisheries. Rome, Italy: FAO. 20p.

465 Haque, F. 1986. Bangladesh: a participatory approach in stimulating fisherwomen's activities. Ideas and Action Bulletin. No.170, p.3-6.

Describes a pilot Fisherwomen's Activities (FWA) project initiated by the FAO in 1983 in Bangladesh as part of the Bay of Bengal programme for the development of small-scale fisheries in Bangladesh, India, Malaysia, Sri Lanka and Thailand. The main aim of the project was to improve the living conditions of small-scale marine fisherfolks through the improvement of fishing technologies, craft, gear and methods and through improved living standards especially of the fisherwomen. The results, problems and suggestions of the project are discussed.

466 Marrikin, P. 1987. Women in fisheries: a selective annotated bibliography. Rome, Italy: FAO. (Fisheries Circular No. 811)

Includes geographical index, subject index and abstracts.

467 Schoeffel, P. 1985. Women in the fisheries of the South Pacific. IN Women in development in the South Pacific: barriers and opportunities. p.156-175. Canberra, Australia: Australian National University.

Women's role in the contemporary fisheries of the South Pacific is characterized by four paradoxical facts. In exploring these four facts, examines both local and cultural constraints and the biases of development planners which inhibit the more effective participation of women in fisheries. Recommendations are made on ways in which women's participation might benefit the development of fisheries in the region.

468 Trottier, B. 1989. Women in aquaculture production in West Africa. IN Symposium on the development and management of fisheries in small water bodies. p.129-138. Edited by M. Giasson and J. Gaudet. Rome, Italy: Food and Agriculture Organization of the United Nations.

Describes the position and role of women in traditional fishing activities in West Africa. In view of the fact that women are already responsible for most of food production in rural regions, their increased participation in agricultural development projects should be the subject of special attention. However, several constraints such as the difficulties of access to ownership, credit and land, are still to be overcome.

469 Vega, M.J.M. 1989. Who's working on women in fisheries. Naga: The ICLARM Quarterly. Vol.12, No. 2, p.16.

470 Woodford-Berger, P. 1987. Gender, rural development and aquaculture in Southern Africa: factors influencing the representational involvement of women. Stockholm, Sweden: Development Study Unit. Department of Social Anthropology. University of Stockholm. (Report, no. 14)

The paper was presented at a Technical Consultation on Aquaculture in Rural Development, Lusaka, Zambia, 27-30 October 1987. It identifies factors likely to influence the involvement of rural, Southern African women in aquaculture, and suggests ways in which constraints on women's involvement might be overcome. Four main internal constraints on women's productive capacity are identified that are likely to affect their involvement in aquaculture development: (1) scarcity of time; (2) chronic shortages of labour power that can become acute periodically; (3) poverty itself, resulting from constraints posed by inadequate access to land and other productive resources and capital, and more or less permanent narrow to non-existent economic margins; (4) the strain resulting from the combined effects of the first three. External constraints include policies of both donor and recipient governments regarding production strategies and equity of distribution, as well as project planners' perceptions of women and of the importance of women's work in rural production systems in Africa.

471 Agarwal, B. 1986. Cold hearths and barren slopes: the woodfuel crisis in the third world. No.40, New Delhi, India: Institute of Economic Growth 209p. (Studies in Economic Development and Planning, no. 40)

With depleting forests and shrinking supplies of firewood, a vast section of the third world dependent upon woodfuels for domestic energy is facing a crisis. Evidence from Asia, Africa and Latin America is used to analyse the scale of the crisis, its consequences, and the solutions being offered for its alleviation. Attempts to promote afforestation and improve wood-burning stoves are found to have little success, largely due to socio-economic inequalities and the poverty characterizing third world societies. Based on empirical evidence, a case is made for following a participatory approach in such schemes, involving the rural poor, and especially women. The importance of community land use priorities and prevailing land distribution patterns when initiating social forestry is stressed. The role of emerging movements of rural poor in pressing for change at the grassroots level is considered.

472 Arnold, M and Bergman, A and Djurfeldt, G. 1987. Forestry or the poor? An evaluation of the SIDA supported social forestry projection in Tamil Nadu, India. No.1987/8, Sweden: Swedish International Development Authority. (SIDA Evaluation Report Series, no. 1987/8)

Objectives, performance and achievements, and assumptions underlying the project are reviewed in relation to sericulture, ecology, economics, sociology and project management. Although 158,000 ha of plantations were established on communal lands (71 percent of target), survival rates and yields have been very poor. So far the project has had little effect on the target groups of village communities (landless, small and marginal farmers, women and children).

473 Chavangi, N.A and Engelhard, R.J and Jones, V. 1985. Culture as the basis for implementing self-sustaining woodfuel development programmes. Nairobi, Kenya: Beijer Institute, Centre for Energy and Development in Africa. 24p.

Describes the work being undertaken by the Kenya Woodfuel Development Programme (KWDP) towards developing a self sustaining system of tree planting to contribute to fuelwood supplies in the Kakamega District of Kenya. The approach of this programme has been to identify the major factors that have hitherto acted as constraints on the full acceptance and particularly the implementation of many projects aiming to achieve improvements in the fuelwood supply situation in many developing countries. Using the findings of surveys of agroforestry activities and the cultural background of the people of Kakamega District, the KWDP has designed an intervention approach that accommodates indigenous expertise and traditional beliefs and taboos rather than attempting to impose an exogenous solution that may prove inappropriate and thus unacceptable to the people.

474 Dankelman, I. and Davidson, J. 1988. Women and environment in the third world. Alliance for the future. London, UK: Earthscan Publications.

223p. (International Union for Conservation of Nature and Natural Resources. Sustainable Development Series)

Examines women's involvement in the use and management of natural resources in terms of their role in agriculture, forestry, water supply and the collection of fuelwood. Explores women's role in environment conservation, with emphasis on their involvement in education and training, family planning and local organizations. A strategy for action, as seen by international and governmental agencies is outlined.

475 Hecht, S.B. and Anderson, A.B. and May, P. 1988. The subsidy from nature: shifting cultivation successional palm forests, and rural development. Human Organization. Vol.47, No.1, p.25-35.

Outlines the importance of the small-scale extractive sector of Brazil. Extractive activities are especially important as a source of cash income for women, who are often denied access to alternative means of acquiring income. The issue is now of particular concern since current rural development programmes are actively undermining access to the resources and often imply their destruction. Through a detailed social and ecological analysis of the babassu palm and shifting cultivational system in Northeast Brazil, the interdependence of regional biological and human agricultural systems is shown.

476 Hoskins, M.W. 1979. Women in forestry for local community development: a programming guide. Washington, DC, USA: AID. Office of Women in Development. 58p. (AID/otr-147-79-83)

477 Kerkhof, P. and May, N. 1988. Sex roles in agro-forestry in Kakamega. Appropriate Technology (UK). Vol.15, No. 1, p.11-13.

Examines the social relations as they determine sex roles in order to indicate which appropriate interviews in agroforestry are recommendable. Among the Luyia in Kakamega district, Kenya, a women's access to trees is restricted by traditional culture, which determines the gender relations in labour, and access to and control of resources. With reference to two agroforestry projects, the following approaches are suggested to ensure a more successful agroforestry intervention: (1) to incorporate the interests of men and women in the planning phase, and to examine their problems separately; (2) to introduce multi-purpose tree species in view of the different uses by men and women; (3) short term measures to deal with fuelwood problems; and (4) long term strategies to resolve conflicting interests between men and women.

478 Kerkhof, P and May, N. 1986. Woodfuel and rural energy in Africa. Four essays on the Beijer Institute's work in Eastern and Southern Africa, submitted to ENDA, Dakar, for a special issue of African Environment, their environmental studies and regional planning bulletin. Agroforestry in Kakamega, Western Kenya: men versus women?. Edited by P. O'Keefe. Stockholm, Sweden: Beijer Institute.

The paper presents a detailed case study for Western Kenya of the issues involved in the question of gender in agroforestry. The general features of the area are first outlined, followed by a description of agroforestry in the changing

environment. The principal question raised is why it is that men are responsible for wood production while women are responsible for fuelwood procurement. Male-female relations underlying agroforestry are highlighted. Implications for development strategies and development workers are discussed.

479 Kumar, S.K. and Hotchiss, D. 1988. Consequences of deforestation for women's time allocation, agricultural production and nutrition in hill areas of Nepal. Washington, D.C., U.S.A.: International Food Policy Research Institute. 72p. (Research Report, 69)

480 Laxmi, V and Sharma, A.N. 1987. Empirical relationship between fuel wood consumption and factors affecting its consumption - a case study. *Agricultural Situation in India*. Vol.41, No.12, p. 969-970.

The study investigates the relationship between the consumption of fuelwood and selected socioeconomic variables which affect it in Chamma Block, Theri Garhwal District, Andhra Pradesh. A direct relationship between farm income, non-farm income and use of fuel for preparation of food and lighting purposes was identified. Scope for increasing farm income is limited, due to many factors including size of holding, lack of technology and lack of water. On the other hand, non-farm income can be increased if employment opportunities are provided, especially for women. Dependence on forests could also be reduced if some fast growing trees are raised on farms to supply fuelwood. People should be made conscious of the beneficial effects of the forests on the ecosystem and, consequently, on agriculture.

481 McCall Skutsch, M. 1986. Participation of women in social forestry programmes: problems and solutions. *Bos Nieuwsletter (Netherlands)*. Vol. 5, No. 1, p.9-18.

One of the common findings of evaluation studies on social forestry projects is that women are not benefitting at all, as was the case in 3 projects in Burkina Faso (the Bois de Village Programme), in Tanzania (the communal village woodlots) and in Gujarat, India. The fundamental problems or complications that should have been dealt with in project design are successfully identified: (1) land tenure and property rights; (2) lack of capital and limited access to credit for women; (3) the large number of problems that women face at the same time; (4) the choice of tree species to be grown; and (5) the entirely male staffing of social forestry.

482 Menon, G.S. 1987. Tribal women: victims of the development process. *Social Action*. Vol.37, No.4, p.373-390.

The impact of deforestation on women in tribal areas of Orissa is investigated. After situating their marginalization in the context of industrial development, especially as reflected in forest policy and legislation, studies the role played by the forest in the lives of tribal women and the consequences for them of deforestation. The present pattern of development, as reflected in the management of natural resources, and particularly of forests, has resulted in inequalities where they previously did not exist and has intensified those which already existed. This has been reflected in changes in the economic and social position of

tribal women who have suffered economic impoverishment, deterioration of their social status and sex discrimination. Forest policy and legislation would have to be amended to bring about changes. Measures of reforestation should also respond to the need of tribal women to rebuild their community and should counteract the forces that marginalize them.

483 Moore, H. and Vaughan, M. 1987. Cutting down trees: women, nutrition and agricultural change in the northern province of Zambia, 1920-1985. *African Affairs (UK)*. Vol.86, No. 345, p.523-540.

Describes how the problems of food shortages and poor nutrition have been viewed by government and development planners within a long-term historical perspective in Zambia. It discusses how their perception of food problems, and the proposed solution of these problems, were and are still governed by their attitudes to the agricultural production system. In particular some of the myths of the slash and burn agricultural system in Northern Zambia are deconstructed by focusing on women's labour. Suggests that the intensification of women's labour in maize cash cropping families has contributed to the apparent increase in the more commercialized households.

484 Owusu-Bempah, K. 1988. The role of women farmers in choosing species for agroforestry farming systems in rural areas of Ghana. IN *Gender issues in farming systems research and extension*. p.427-443. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

485 Rocheleau, D.E. 1988. Gender, resource management and the rural landscape: implications for agroforestry and farming systems research. IN *Gender issues in farming systems research and extension*. p.149-169. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

486 Saxena, N.C. 1987. Women in forestry. *Social Action*. Vol.37, No.2, p.150-162.

Deals with the Indian forests and their market economy with particular reference to Indian women. Women generally are involved in meeting the daily survival needs of their households by collecting forest produce. However, deforestation has directly affected them, so that now, for example, their total work load covers 10-14 hours per day. However, non-governmental organizations have been able to mobilise for such forestry work for which they receive payment.

487 Sheth, M.C. 1986. Indian women in defence of forests. *Women and Environment*. Vol.8, p.19-21.

488 Sirju-Charran, G. 1990. Exploiting the forest: a gender-sensitive analysis. Paper presented at the round table on development of non-wood forest products held the University of the West Indies, St. Augustine, Trinidad, November 27-30, 1990. 15p.

Highlights the importance of the tropical rain forest ecosystem and underscores the fact that forests have been and could be used by man for his sustenance. Attempts to encapsulate the changing philosophy on nature from a feminist perspective and to give some indication of the involvement of

women in the forest. The role of women in the development of non-wood forest products are highlighted. Broad projects are proposed for the development of non-wood forest products.

489 Verma, D.P.S. 1988. Women and forest nurseries in Ganeshpura village. *International Tree Crop Journal*. Vol.5, Nos.1-2, p.19-29.

The success of social forestry programmes in Gujarat raised demand for seedlings from 0.2 million in 1970 to 211.5 million in 1985. This stretched the limited personnel resources of the Forestry Department, which therefore decided to decentralize seedling production by encouraging schools and farmers to establish nurseries. In 1986 a similar scheme was launched nationwide by the National Wastelands Department Board with a particular focus on disadvantaged members of society, who receive a small wage and also earn money when they sell the seedlings. Describes the experience of six landless women from Ganeshpura, Gujarat, who joined the scheme. Each raised 25,000 seedlings during 1986-87 and received a net wage of Rs5000 and an additional Rs2392 from the sale of seedlings. The nursery scheme has given the women new self-confidence and has also improved the standard of living of their families.

#### Human Nutrition

490 Batliwala, S. 1987. Women's access to food. *Indian Journal of Social Work*. Vol.48, No.3, p.255-271.

Detailed discussion of the question of gender bias in the distribution of food within households and the generally poor nutrition status of women in India are presented. The role of nutrition programmes and agricultural policy either in aggravating women's condition or failing to recognise it altogether are also discussed.

491 Dichter, C.R. Dec 1987. The fifth world food survey: An assessment of food supplies and malnutrition. *Journal of the American Dietetic Association*. Vol.87, No.12, p.1668-1672.

Reviews the methodology and findings of the United Nations Food and Agriculture Organization's Fifth World Food Survey. The findings indicate that, in developing countries, the proportion of the undernourished decreased for the period 1979 to 1981 as compared to corresponding figures for 1969 to 1971. However, in the least developed countries, the proportion of undernourished increased during the same period. Stresses that although only long-term strategies can eventually solve the problems, short-term solutions are also necessary to address interim needs. Short-term solutions include: nutrition programmes, food subsidies, complementary health measures, population programmes and programmes aimed at improving the status of women.

492 Edmundson, W.C. and Edmundson, S.A. Nov 1988. Food intake and work allocation of male and female farmers in an impoverished Indian village. *British Journal of Nutrition*. Vol.60, No.3, p.433-439.

493 Engberg, L.E. and Sabry, J.H. and Beckerson, S.A. 1988. A comparison of rural women's time use

and nutritional consequences in two villages in Malawi. IN *Gender issues in farming systems research and extension*. p.99-110. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

494 Fashakin, J.B and Ogundiwin, J.O and Adebona, M.B and Ademola, A. 1987. Dietary patterns and levels of nutrient adequacy in urban and rural areas of Ile-Ife, Nigeria. *Journal of Food and Agriculture*. Vol.1, No.3, p.175-178.

Food intake was estimated for 90 persons in an urban area of Ile-Ife, Nigeria, and for 89 and 85 persons from two rural areas by 24-h dietary recall and by direct measurement. In the rural areas, energy intake of men was 2325 and 2475 kcal and of women 715 and 1778 kcal, respectively. In the urban area corresponding values were 2564 and 1805 kcal. Protein intake in the rural areas was 95.5 and 45.6 g for men and 46.5 and 45.6g for women. Values in the urban area were 65.0 and 48.75 g. Intakes of vitamin A, thiamin, riboflavin, niacin and vitamin C compared favorably with FAO requirement values. Foods most frequently eaten were yams and cassava.

495 Hines, E. 1985. Helping low-income families meet the increased food and nutrient needs of lactation. IN *Strategy for survival of small farmers, international implications*. p.296-300. Edited by Thomas T. Williams. Tuskegee, Ala., USA: Tuskegee Institute, Human Resources Development.

496 La Torre, A. de and Rush, L. 1987. The determinants of breast feeding for Mexican women. *International Migration Review*. Vol.21, No.3, p.728-742.

Develops an economic model for assessing Mexican agricultural migrants' decision to breast feed. The resulting hypotheses are linked to health care and welfare programme access, cultural factors and employment. It was found that working women in the sample population are the least likely to breast feed.

497 McIntosh, C. Food and nutrition security and the gender issue. Paper presented at seminar on "Alternative strategies for agricultural development; an analysis of women and gender issues," 22-26 January 1990. University of the West Indies, St. Augustine. p. 11.

Focuses on the gender issue in the context of food and nutrition security. Argues that greater participation of women in decision-making in the farm households would contribute significantly to food and nutrition security at the household and national level.

498 Purvis, B.M. 1985. Family nutrition and women's activities in rural Africa. *Food and Nutrition*. Vol.11, No.2, p.28-36.

499 Schrijvers, J. 1988. Blueprint for undernourishment: the Mahaweli river development scheme in Sri Lanka. IN *Structures of patriarchy: state, community and household in modernising Asia*. p. 29-51. Edited by B. Agarwal. London, UK: Zed Books.

Describes how 10 years after the initiation of the Mahaweli irrigation and resettlement scheme, planned to make the country self-sufficient in rice, the project region has the highest levels of chronic malnutrition in the country. The scheme discriminates especially against women. Married

women are not entitled to plots and the heir named is usually the son.

500 Trenchard, E. 1987. Rural women's work in sub-Saharan Africa and the implications for nutrition. IN *Geography of gender in the Third World*. p.153-172. Edited by J.H. Momsen and J. Townsend. New York, USA: State University of New York Press.

Examines the role of women in 5 dissimilar ethnic groups: Luo and Kikuyu from Kenya, the Kasasi in Northeastern Ghana, the Maudinka in the Gambia and the Ewe from Southeastern Ghana. In all these groups the women's mothering role in providing food for her family has been retained, but her previously adequate access to the means of production on the land has been reduced. This bears immediately on the food crisis of many African countries.

#### Methodology

501 Burfisher, M.E. and Horenstein, N.R. 1985. Sex roles in the Nigerian TIV farm household. West Hartford Connecticut, USA: Kumarian Press.

Provides a planning methodology that takes into account sex role differences in the farming household. Examines the expected impact of a development project which was designed with the assumption of an aggregate or corporate household and compares with the impact which might be expected using the proposed planning methodology. The project is intended to improve agricultural productivity and increase farm incomes in Nigeria's middle belt. Focuses on the division of labour, income and financial obligations among the Tiv and the implications of these divisions for adoption of technologies, using farming systems research methodologies. It was found that project interventions result in a major shift in women's labour profile, while men's labour profile shift only slightly. Both sexes have the potential for increased incomes from those crops marketed, but increased labour requirements are not always associated with increase income. Non-financial incentives like women's responsibilities for family nutrition play a crucial role in determining, if and to what extent, new technologies are adopted.

502 Burfisher, M.E. and Horenstein, N.R. 1985. Sex roles and development effects on the Nigerian Tiv farm household. *Rural Africana*. No.21, p.31-49.

Study involves conventional project planning methodology based on the aggregated methodology versus that incorporating sex role differences in the household for an agricultural development project. Tiv sex roles used to desegregate the intended impact of the project shows a different effect. Increased labour requirements show an increase of 40 percent, a disaggregation of total farm labour input will increase by 17 percent while men will increase by 6 percent.

503 Dixon, R. 1985. Seeing the invisible women farmers in Africa: improving research and data collection methods. IN *Women as food producers in developing countries*. p.19-33. Edited by Jamie Monson and Marion Kalb. Los Angeles, USA: University of California.

Exposes some of the glaring discrepancies in official statistics which document women's work. With examples from several countries, argues that the way in which surveys are carried out directly impacts on the quality of the results that are obtained. Several methodological models for the collection of more accurate data on women's participation in the labour force are suggested.

504 Ellis, P. 1986. Methodologies for doing research on women and development. IN *Manuscript report, [Women in development: perspective from the Nairobi conference]*. p.135-165. Ottawa, Canada: International Development Research Centre. (No. 137e)

Focuses on the research and development activities in the English speaking Caribbean undertaken by the Women in Development Unit of the University of the West Indies. The influence which this institute exercised on policy makers, resulting in fundamental changes in societal structures and power relations, is illustrated through the description of four projects. The rationale and objectives, the scope, methodology and research issues of each project are explained. The four projects are (1) the pilot project for the integration of women in rural development in St. Vincent; (2) a survey on the economic role of women in small-scale agriculture in St. Lucia; (3) a project to assess the impact of rural development schemes on low income households and the role of women and (4) the women in the Caribbean WICP project.

505 French, J. Gender issues in Caribbean agriculture: methodology and process in the movement towards change. Paper presented at seminar on alternative strategies for agricultural development; an analysis of women and gender issues, 22-26 January 1990. University of the West Indies, St. Augustine, Trinidad. 16p.

Emphasizes that "things will not improve for women in agriculture or for grassroots women anywhere, unless they themselves are empowered to take action on their own behalf".

506 Hanman, F.H. 1986. Alternative ways of incorporating women concerns in farming systems research sites. IN *Report of the Asian rice farming systems working group 17th Asian rice farming systems working group meeting, 5-11 October, 1986*. p.216-233. Manila, Philippines: International Rice Research Institute.

Reviews the current place of women in Bangladesh's agriculture and presents research and development institutions concerned with the welfare of women's farmers. Discusses the role of women in the farm household. Recommends various strategies for improving the general welfare of women at both homestead and village levels.

507 Sajogyo, P. 1986. Alternative ways of incorporating women concerns in farming systems research sites. IN *Report of the Asian rice farming systems working group 17th Asian rice farming systems working group meeting, 5-11 October 1986*. p.149-164. Manila, Philippines: International Rice Research Institute.

Emphasizes the need to consider gender issues explicitly at all phases of farming systems research. A case study of 60 households in West Java, Indonesia, is used to illustrate the relevant data collection and analytical techniques,

calculating the potential benefits and costs to women.

508 Seidman, A. 1986. The impact of aid on women's projects: a pilot participatory research project. *Ahfad Journal (Sudan)*. Vol.3, No. 2, p.41-51.

A participatory, problem solving methodology for stimulating self-reliant projects directed by local rural women is described, based on experiences in Zambia and Zimbabwe. Applications of the methodology led to the identification of systematic problems confronting most local development projects and particularly those involving women. A tentative explanation and proposed strategies for solving each problem are provided.

509 Wollenberg, E. 1988. An evaluation of methodologies used in time allocation research. IN *Gender issues in farming systems research and extension*. p.127-147. Edited by Susan Poats and Marianne Schmink and Anita Spring. Boulder, Colo., USA: Westview Press.

#### Plant Science and Production

510 Bhadra, M. 1985. Women workers in tea plantations. *Indian Anthropologist*. Vol.15, No.2, p.93-114.

Study conducted in Daryeeling district in West Bengal 1979-1981.

511 Chen-Quan, L. and Rui-Yin, F. and Xue-Bin, X. 1985. "Half-sky" role of China's women in rice farming systems. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice research Institute, Manilla, Philippines. p.65-69. Aldershot, Hants, England: Gower.

Discusses role of Chinese women in rice production, scientific research and in training and technology transfer. Concludes with a number of suggested solutions to some special problems of Chinese women in rice production.

512 Hekstra, P. 1988. Analysis of the cassava based farming system of the Nkhata Bay Lowlands, Malawi. *International Course for Development-Oriented Research in Agriculture, Netherlands*. (ICRA Bulletin, no. 28)

Food crops grown in the study area include cassava, maize, yams and cocoyams; banana is the major cash crop. Cassava yield has declined from an average of 12 t/ha to about 3.5 t/ha since 1985/86, due to attack by the cassava mealy bug (CMB). Maize, previously a cash crop, is substituting for cassava as a food crop. The low return to labour from food crops forces the men to seek off-farm employment, which accounts for 60 percent of cash income, or to grow bananas, leaving much of the burden of food crop production to the women. The recommendation focus on strategies for coping with this structural change. They include strengthening the current methods of biocontrol of CMB, seasonal cultivation of cassava and the development of varieties and post-harvest technologies to permit this, and the development of suitable varieties of alternative crops such as maize, yams and cocoyams.

513 Jain, V. and Verma, T. 1987. Improved storage of grains - a least compatible practice as perceived by farm women. *Maharashtra Journal of Extension Education*. Vol.6, p.105-109.

The study in four villages of Hisar district, Haryana, found that the farm woman perceived improved methods of storage of grain as being profitable and suitable for trial but complex and physically and culturally incompatible. Education, size of land holding, social participation, information source utilization, involvement and knowledge of the practice, executed an influence over the perceived attributes of improved storage of grains.

514 Kim, S.Y. 1987. Crop based farming systems in Korea. p. 15-21. Taiwan: ASPAC Food and Fertilizer Technology Centre for the Asian and Pacific Region (Extension Bulletin, no. 265)

The structure of Korea agriculture was changed dramatically over the last two decades, under the influence of rapid economic growth. Off-farm job opportunities have increased, leaving old people and women to do much of the farm work. Rice-based farming systems still prevail, but cropping intensity has decreased. However, diversification or mixed farming is still common in Korean agriculture. Most of the productive resources of farmers are allocated to rice farming, but high value such as vegetables are also grown, partly replacing the traditional crop of barley. Vinyl mulching and vinyl houses make it possible to adjust the harvesting period, and carry out year-round crop production. However, there are frequently problems of over production, resulting in price fluctuations for cash crops, particularly vegetables.

515 Longhurst, R. 1985. Cropping systems and household food security: evidence from three West-African countries. *Food and Nutrition*. Vol.11, No.2, p.10-16.

In Sierra Leone, Nigeria and the Gambia, women carry a large responsibility in ensuring the household food security. Their efforts in the cultivation of garden plots, the production of food on the family farm and the collection of fruits and vegetables from the wild are noted for its importance in ensuring the household food security. Apart from other advantages, this practice reduces the risk of total crop failure. Varieties with different maturing times are grown, and planting is spread over a period as long as possible.

516 Sen, G. 1985. Paddy production, processing and women workers in India - the south versus the northeast. IN *Women in rice farming: Proceedings of a conference on women in rice farming systems*, The International Rice Research Institute, Manilla, Philippines. p.385-403. Aldershot, Hants, England: Gower.

Traces some of the regional dimensions of two aspects of paddy cultivation and processing in India which have traditionally been highly intensive of female labour. A better knowledge is required of the historical evolution of both milling and female labour and relative prices and wages to test the hypotheses - the increase in milling would probably have increased the supply of female labour for cultivation and depressed the wage there.

517 Umbadda, S. and Abdul Jalil, M.A. 1985.

Women in small scale irrigated agriculture: the case of Wadi Kutum. *Afrika Spectrum* (Germany). Vol.20, No.3, p.339-351.

Attempts to analyze the role played by women in the production of horticultural crops and millet in Wadi Kutum, Sudan. The active participation of women in millet production and horticulture is accepted by local cultural norms. Moreover in the absence of males, who hire themselves out as agricultural workers in Central Sudan, the present drought has forced women to take on more work. Concludes that women produce as much as men and their earnings indicate similar marketing capabilities.

#### Rural Sociology

518 Ahsan, R.M and Hussain, S.H and Kemper, R.V. 1987. Inter-village migration and problems of absentee landlords in selected areas of Bangladesh. *Bangladesh Journal of Agriculture*. Vol.12, No.1, p.49-56.

To evaluate the pattern of influence of migration on the agricultural system in Bangladesh, the characteristics of standard of living of the immigrants and the problems of absentee landlords in the villages of Kalapur and Jalsha, Dhaka District were studied. Most of the immigrants are illiterate housewives who moved at a very young age due to marriage. No difference was found in education and occupation of the two villages, despite the urban influence of Kalampur. It was found that women are deprived of their inheritance rights, which creates a problem of landlessness.

519 Aubeil, J. 1986. "My God, she has so many tasks": listening to peasant women. *Convergence*. Vol.19, No.2, p.18-28.

In order to analyse the daily problems of women from their own perspective, a need's assessment was performed with rural women in a province in Burundi. The problems identified centred around four themes: children's health; women's health; domestic work and agricultural work. The most important theme that emerged from the discussions is how clearly the women perceive the relationship between their health and the productive and reproductive responsibilities.

520 Correze, A. 1985. An encounter with farm women in Africa. *Femmes paysannes d'Afrique: une rencontre*. IN *Dynamique des systemes agraires*. Vol. 3, p.97-103. Paris, France:

521 Ellis, P. 1987. Participation and integration of women in agriculture and rural development in the Eastern Caribbean: an executive summary. [Paper presented at the] roundtable on participation and integration of women in agricultural development in the Caribbean, Castries, St. Lucia, 5-10 July, 1987. Rome, Italy: FAO. 5p. (TCP/RLA/665(C))

Seeks to assess the impact of selected policies and programmes on the lives of women in the agricultural sector and rural women in the Caribbean. Provides an overview of the types of agencies that organize agricultural and rural development programmes and a case study of women in agriculture in Antigua. Identifies factors affecting women's participation in agricultural and rural development. Suggests that more attention needs to be placed on female farmers and female professionals and technicians in the sector and stresses that strategies need to be devised to deal with the traditional and inflexible attitudes of many senior male policy-makers. Data for the study were obtained from census data, secondary sources and interviews.

522 Ireland, G. 1983. Farmer takes a wife. Ontario, Canada: *Concerned Farm Women*. iv, 101p.

523 Levine, N.E. 1988. Women's work and infant feeding: a case from rural Nepal. *Ethnology*. Vol.27, No.3, p.231-251.

Assesses the infant feeding situation in Humla, Nepal where women agricultural workers leave their children in the hands of substitute caretakers. This creates the problem of how to feed the infants left behind. Many mothers find a solution in early supplementation to breast feeding. However, contrary to the mother's perceptions it is argued that the quality of supplementary foods negatively affects the combination of child care and work away from home.

524 Ouden, J.H.B. 1987. In search of personal mobility: changing interpersonal relations in two Bamileke chiefdoms, Cameroon. *Africa, International Africa Institute*. Vol.51, No.1, p.3-28.

Discusses the incorporation of the people of two Bamileke chiefdoms into wider economic and political systems, concentrating on the interactions and strategies of individuals. Incorporation into the state and markets has meant the liberation of non-heirs who can now earn an income outside the narrow limits of the local polygynous household, lineage, and chiefdom. Trade, transport and migration to plantation areas and urban centres have provided the most important new opportunities. Women, however, remain far more chiefdom-oriented and participate less in inter-chiefdom and national trade. Staying behind in agriculture in this case means less possibility of achievement.

525 Rauf, A. 1987. Rural women and the family: a study of a Punjabi village in Pakistan. *Journal of Comparative Family Studies*. Vol.18, No.3, p.403-415.

Discusses the inheritance of property, position in the family authority structure, family eating patterns, purdah, (role in farm operations), health and leisure activities.



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