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REPORT OF

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# WOMEN IN RICE FARMING SYSTEMS CONFERENCE

26-30 SEPTEMBER 1983

Women in Development  
Agency for International Development  
Room 3243, New State  
Washington, D.C. 20523  
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THE INTERNATIONAL RICE RESEARCH INSTITUTE  
LOS BAÑOS, LAGUNA, PHILIPPINES  
P.O. BOX 933, MANILA, PHILIPPINES

# Introduction

The Women in Rice Farming Systems Conference was held at the International Rice Research Institute (IRRI) from 26-30 September 1983. The conference was attended by 78 participants from 27 countries, and by observers from the Philippines and from IRRI.

IRRI is grateful to several donors for supporting the conference. Generous assistance was provided by the Ford Foundation, New York, USA, and its Regional Offices; the Netherlands Ministry of Foreign Affairs; the German Agency for Technical Cooperation; and the Food and Agriculture Organization of the United Nations.

Thanks are due also to the Organizing Committee members Marietta Adriano, National Economic Development Authority, Philippines; Prof. Gela Castillo, University of the Philippines at Los Baños; H. Velarde, Bureau of Agricultural Extension, Philippines; and IRRI representatives: Laurian J. Unnevehr (convenor), Ruby Castro, Glenn Denning, Alice Flinn, Leo A. Gonzales, Richard A. Morris, Victoria M. Segovia and Lois Stanford.

This booklet contains the conference program, the major recommendations, and the names and addresses of participants. The conference proceedings will be published jointly by IRRI and Gower Publishing Company, Ltd.

At the concluding session, it was decided to form a follow-up task force to ensure appropriate action on the recommendations.

M. S. Swaminathan  
Director General

# Recommendations

## ISSUES

Women throughout the world play a significant role in rice farming at the production and postharvest phases. Their specific roles vary widely depending upon ecological, economic, sociological, and religious factors. Rural women are often thought of as a homogeneous group, but it is important to recognize that women from different socioeconomic strata have different interests and problems.

Conventional economics views the household as a homogeneous unit in which resources and income are shared equally by all family members. Available evidence, however, suggests that intrahousehold distribution of resources and income vary by age and sex, and that often men and women enjoy different economic status within a household. Their expenditure preferences may also differ. Therefore it is important to ensure that women have greater access to income. Additional income for them will help increase total family income and thereby improve the nutrition and well-being of children in particular.

In some areas where rice is an important staple, a considerable percentage of rural women belong to landless labor families and depend on daily wages for income. Those women tend to suffer most when labor is displaced as a result of modernization. Long hours of work at home and outside (referred to as the double day) make time-saving and drudgery-reducing technologies necessary for women-specific occupations. Technological development programs, however, should be planned and introduced so that landless, wage-labor women can also benefit from active participation in the new technologies.

Although it is now widely recognized that women make important contributions to agriculture, little has been done to make women more productive through extension and input supply services. The goal of increasing agricultural output necessitates specific programs and policies for women to enable them to play their roles more effectively. Programs and policies will vary from country to country and between regions within a country, depending on the local situation.

Some examples of programs that governments, CGIAR institutions, academic, and voluntary agencies can initiate, with the help of appropriate bilateral and multilateral technical assistance agencies where necessary, follow.

### ACTION RESEARCH PROJECTS

Action research projects are intended to assess the feasibility of achieving through appropriate packages of technology, input supply and marketing, services and public policies, the following aims:

1. Diversified opportunities for producing income within and outside the home.
2. Reduction of drudgery for family farm women who are overworked due to their dual productive and reproductive roles. Care should be taken to ensure that one group of women does not benefit at the expense of another group. For example, poor rural women from landless households should not suffer as a result of the introduction of a technological innovation that benefits landowning families.
3. Increase productivity and demand for labor to ensure greater opportunities and stable income for women who work as wage labor.

To prepare suitable action research projects, a project preparation group consisting of national experts, representatives of donor agencies, and IRRI could be formed. The group should plan projects according to priorities perceived by women themselves, and should utilize the knowledge and skills of local women. Action research projects should be designed so that their impact could be measured at the end of 3 years. As a preliminary step in the project formulation exercise, a portfolio of available opportunities for generating additional on-farm and off-farm employment should be prepared. Among on-farm opportunities, special attention should be given to multiple cropping, mixed farming, renewable energy sources, and biomass utilization. Off-farm employment should include village industries and the services sector. The projects, prepared in consultation with farm women of the concerned areas, should be structured so that they can become self-replicating. External inputs, if any, should be self-eliminating.

Action research projects serve three important goals. First, they help to identify the socioeconomic and sociocultural factors

responsible for the success or failure of projects intended to improve the quality of life of farm women. Second, they have a demonstration value for illustrating what can be done by using the best available know-how and technology. Third, action research projects could be used as a training ground for imparting new skills.

Those who plan and execute action research projects should work with humility, listen to and learn from local women, and avoid publicity that leads to expectations that cannot be realized. Successful projects can have a large impact, because to the rural poor seeing is believing.

#### SOCIAL SCIENCE RESEARCH NETWORK

IRRI should organize a network of cooperative research among social and natural scientists, policy makers, extension workers, and grass roots organizers to stimulate the growth of research programs with the following aims:

1. Evaluate existing research on women's participation in rice farming systems from the socioeconomic and technological viewpoint.
2. Assess the impact of technological change on the poorest women. Of particular importance is the need to emphasize the interconnections between earnings, employment, work burden, nutrition, and health.
3. Examine the social, economic, and political factors that lead to sex and class biases in the development of technological change.
4. Analyze the impact of government agricultural policy at the macrolevel on women at the microlevel.
5. Evaluate the sex and class implications of existing and emerging technologies in their regional context.
6. Undertake documentation and analysis of successful and unsuccessful grassroots experiences of women organizing to gain access to the benefits of technological change, including the factors that inhibit or favor the growth of women's organizations striving to increase women's access to inputs, training opportunities, and marketing facilities.
7. Assess the institutions that structure the flow of information, credit, and technology to women, especially to the poorest of them.

This work will provide the basis for development of the following methods for impact analysis and constraints analysis.

### **Impact analysis**

A method for measuring the impact of new technologies and development projects on women needs to be developed. The impact analysis should distinguish between the benefits to women in farm households and to women wage laborers. Where the displacement of women labor is likely, the analysis should indicate the likelihood of alternative employment opportunities. That will help in planning, training, and retraining programs. Indices for qualitatively and quantitatively measuring the impact of new technologies should be developed. There should be standardized procedures for carrying out impact analyses for:

- research projects to develop new technology, and
- development projects using the best available technology.

The methods of analyzing the potential impact of research and development projects will vary.

### **Constraints analysis**

The constraints methodology used at IRRI has examined the technical and economic constraints to the adoption of new rice technologies. Extension of that methodology to include social, educational, and institutional constraints is needed, as women are likely to suffer more from these constraints. In the development of constraints analysis methods, flexibility is required to allow for region- or country-specific variations, and within any country or region the methods should differentiate between the village level and the household level. Methods developed under these guidelines could be used as a planning tool for the design, monitoring, and evaluation of action research projects as well as for more conventional research projects and programs.

## **ACTION BY DIFFERENT AGENCIES**

### **National governments**

Government policies in different countries must be examined in terms of:

1. opportunities for knowledge and skill acquisition by rural women through appropriate training to increase their efficiency;
2. supplementing income-generating activities for women combined with necessary support services such as credit and marketing facilities;
3. personnel policies for the greater employment of women in research, extension, and input supply;

4. greater participation of female professionals in conferences on agriculture and farming systems, and at the policy formulation level;
5. effective use of the training and visit (T&V) system of knowledge transfer to reach women in households wherever the T&V system has been introduced, and increasing the involvement of women as extension agents in technology transfer programs;
6. impact on women's land ownership and tenancy rights;
7. providing women with ownership of new technologies by organizing producers' cooperatives or other forms of women's organizations;
8. recognition of the important contribution of women to rice farming systems, adoption of programs to enhance their current role, and raising awareness among women and men of the important role that women play in agriculture;
9. sensitization of the scientific community and extension personnel to the problems of women involved in agriculture; and
10. continuous monitoring of the impact of agricultural and rural development programs and policies on women.

Government policies vary from country to country and depend upon economic factors and sociopolitical ideology. Nevertheless, in the formulation of government policies, explicit recognition should be given to the specific needs of rural women. Many development projects in agriculture (mechanization, irrigation, etc.) have worked to the disadvantage of women by increasing their workload (in the case of family farm women), by displacing them from traditional employment opportunities (in the case of agricultural wage labor women), or in some cases, depriving them of ownership or use rights to land.

To increase female literacy, steps should be taken to provide the family an economic stake in children attending school. In many developing countries, children, particularly girls, are unable to attend school regularly because they have to care for the younger children. Also, child labor helps supplement household income. Where the problem is acute, a Food for Learning program could be initiated with assistance from the World Food Program of the Food and Agriculture Organization of the United Nations or from bilateral programs such as the Title III Food for Development Program of the United States of America. In addi-

tion, technologies for children's tasks such as scaring birds, and fetching fuel, wood, and water need attention so that children from poor families can attend school.

In summary, governments should give explicit recognition to the pivotal role women could play in accelerating the pace of agricultural progress and agrarian prosperity. Even illiterate women rapidly master new skills. The active involvement of women from the planning stage of farming systems improvement programs will help ensure the success of the projects and help avoid unanticipated hardships.

### **Role of CGIAR and TAC**

The CGIAR should organize for senior policy makers an inter-center seminar on Women in Farming Systems Improvement based on the work in all IARCs. All CGIAR members could be invited to participate so that donors can contribute to the organization of action research projects of the kind recommended.

The Technical Advisory Committee (TAC) to CGIAR should add the following to the Terms of Reference and Guidelines for external program reviews of the IARCs: Examine the research and training programs of the institute in relation to their potential impact on women-specific occupations with a view to diversifying employment opportunities, generating additional income, and reducing drudgery.

While the external quinquennial reviews may help to assess the situation, the Centers themselves could monitor progress during their annual program reviews.

### **IRR!**

Several concrete actions were proposed at this Conference. To ensure prompt follow-up action on the recommendations, it is suggested that IRRI set up a task force for initiating steps to implement them. In addition to IRRI staff members, the task force may consist of a cross section of the expertise represented at the Conference. The work of the task force can be carried out largely by correspondence. With the help of the task force, IRRI should develop procedures for undertaking impact and constraints analyses, and circulate them for comments to all those concerned, including members of CGIAR and UN agencies.

IRRI should also stimulate research on the development of improved technologies for women, because current technology development programs generally tend to ignore women's needs and their role in farming. Technology needs of women will vary

from country to country. Therefore research will have to be site- and situation-specific. IRRI can begin to identify women's needs and to determine research priorities and strategies. Also, IRRI should organize a trainers' training program for those engaged in imparting new skills to farm women in rice growing areas.

The general goal of technology development at IRRI is to maximize rice yields. Technologies that meet this goal are not always those that also maximize farm income or wage income for the landless. Although IRRI's principal clientele are small rice farmers, it is also necessary to consider the impact of technology on the employment of rural women. In this regard, it will be useful to classify technologies according to their economic viability at different wage rates and whether they will affect women's cultivation tasks. Technologies that can help improve real wages and income should receive priority.

Women in farm households can benefit from farm machinery and all rural women can benefit from domestic labor-saving technologies. No information is readily available on improved machinery suitable for women engaged in agriculture. Initially, a separate section on agriculture machinery suitable for women could be included in the newsletter published by the Regional Network for Agricultural Machinery (RNAM), University of the Philippines at Los Baños.

In addition to that step, IRRI should bring out a twice a year newsletter on research relevant to women in rice farming systems. This newsletter could be linked to a copublication network by making the information available in many languages. Regional correspondents could be designated in consultation with national research systems and FAO regional offices.

Finally, each IARC can maintain a directory of researchers in its region who are working on women's concerns in agricultural modernization. Once the directory is computerized, it can become readily available to all interested.

# Program

**MONDAY 26 SEPTEMBER 1983**

**Morning** I. Opening Session  
(Auditorium, Chandler Hall)

Chair: *G. Castillo*

Panel of Discussants

*L. Bockari*

*B. Muthoni*

*I. Miranda*

*N. de Alwis*

*A. Aziz*

**0800-0900** Opening remarks and  
welcome address . . . . . *M. S. Swaminathan*

**0900-0910** Chairperson's opening remarks

**0910-0930** Technology and the demand for  
women's labor and management  
skills in Asian rice farming. . . . . *L. J. Unnevehr*

**0930-1000** Women in African rice  
farming systems . . . . . *J. A. Dey*

**1000-1030** Coffee

**1030-1100** Women and the modernization of  
rice agriculture: some general issues  
and a Javanese case study . . . . . *B. White*

**1100-1130** Rural women and the high yielding  
rice technology in India . . . . . *B. Agarwal*

**1130-1215** Discussion

**1215-1230** Chairperson's closing remarks

**1230-1400** Lunch (Harrar Hall, Dining Room)

**Afternoon** II. Selected Country Case Studies  
(Seminar Room, Chandler Hall)

Chair: *T. Abdullah*

- 1400-1415 Chairperson's opening remarks
- 1415-1445 The role of women in household  
production system and rice farming . . . *B. Pradhan*
- 1445-1515 Women and technology: rice  
processing in Bangladesh. . . . . *S. Begum*
- 1515-1545 Coffee
- 1545-1615 Changing role of women in Japanese  
agriculture: impact of new rice  
technology on women's employment . . . . *R. Kada*
- 1615-1645 Discussion
- 1645-1700 Chairperson's closing remarks
- 1830 Reception/Dinner (IRRI Guesthouse)

**TUESDAY 27 SEPTEMBER 1983**

**Morning** III. Impact of Irrigation and Technology  
(Seminar Room, Chandler Hall)

Chair: *J. Moock*

Panel of Discussants

*V. Nyanteng*

*K. Yoshida*

*B. N. Lee*

*R. Abanilla*

- 0800-0815 Chairperson's opening remarks
- 0815-0845 The mobilization of women's  
labor for cash crop production:  
a game theoretic approach. . . . . *C. Jones*
- 0845-0915 Wives at work: patterns of labor  
force participation in two rice-  
farming villages in the Philippines. . . . . *J. Illo*
- 0915-0945 Discussion
- 0945-1015 Coffee
- 1015-1045 Women in rice farming systems in  
Bangladesh and how technology  
programs can reach them . . . . . *T. Abdullah*

- 1045-1115** Experiment of working women's forum (India) alternative employment options for Indian rural women . . . . . *J. Arunachalam*
- 1115-1145** Discussion
- 1145-1200** Chairperson's closing remarks
- 1200-1330** Lunch (Harrar Hall, Dining Room)
- Afternoon** IV. Three Special Sessions on  
Technology Impact and Women's  
Role in Rice Cultivation
- A. Landless Women in South Asia  
(Seminar Room A, Chandler Hall)
- Chair: *N. de Alwis*
- 1330-1345** Chairperson's opening remarks
- 1345-1415** Landless women agricultural laborers in India . . . . . *J. Mencher*
- 1415-1445** Declining employment for the labor-increasing involvement by land-owning women. . . . . *K. Saradamoni*
- 1445-1515** Discussion
- 1515-1600** IRRI Junior Researchers Art and Photography Exhibit Opening (Lounge, Dorm III)
- 1600-1630** Women laborers in rice producing villages of Bangladesh. . . . . *A. Halim*
- 1630-1645** Discussion
- 1645-1700** Chairperson's closing remarks
- B. Technological Change I  
(Seminar Room B, Chandler Hall)
- Chair: *O. Sison*
- 1330-1345** Chairperson's opening remarks
- 1345-1415** Changing labor allocation patterns of women in Iloilo rice farm households . . . . . *L. Res*

- 1415-1445** Women's access to land resources:  
some observation from East  
Javanese rural agriculture . . . . . *H. Wijaya*
- 1445-1515** Discussion
- 1515-1600** IRRI Junior Researchers Art  
and Photography Exhibit Opening  
(Lounge, Dorm III)
- 1600-1630** Paddy production, processing, and  
women workers in India – the South  
versus the Northeast. . . . . *G. Sen*
- 1630-1645** Discussion
- 1645-1700** Chairperson's closing remarks

C. Technological Change II  
(Board Room, LTCC)

Chair: *J. Morenas*

- 1330-1345** Chairperson's opening remarks
- 1345-1415** Women's labor and the techno-  
logical development of rice culti-  
vation in Japan . . . . . *R. Ohki*
- 1415-1445** Impact of new farming technology  
on women's employment . . . . . *P. Sajogyo*
- 1445-1515** Discussion
- 1515-1600** IRRI Junior Researchers Art and  
Photography Exhibit Opening  
(Lounge, Dorm III)
- 1600-1630** Technological infusion and  
employment conditions of women  
in rice cultivation areas. . . . . *S. Acharya*
- 1630-1645** Discussion
- 1645-1700** Chairperson's closing remarks
- 1830** Dinner (Dining Room, Harrar Hall)
- 2000** Cultural Presentation from the  
Ministry of Tourism, Philippines

**WEDNESDAY 28 SEPTEMBER 1983**

- Morning**      V. Technologies for Women in  
                    Rice-Based Farming Systems
- A. Reports of Current Integrated Work  
                    (Seminar Room, Chandler Hall)
- Chair: *V. F. Malima*
- 0815-0845**    Women's role in the improvement of  
                    rice farming systems in coastal  
                    swamplands . . . . . *G. Watson*
- 0845-0915**    Half-sky role of China's women  
                    in rice farming system . . . . . *X. Xue-Bin*
- 0915-0945**    Commercial rice farming  
                    and women: Colombia . . . . . *E. Hansen*
- 0945-1015**    Coffee
- 1015-1100**    Observations on institutions,  
                    infrastructure technology and  
                    women in rice farming . . . . . *R. Evenson*
- 1100-1145**    Discussion
- 1145-1200**    Chairperson's closing remarks
- 1200-1330**    Lunch (Harrar Hall, Dining Room)
- Afternoon**    Field Trip to BAEx  
                    Income Generating Projects  
                    in Tanauan, Calamba
- 1330**            Leave IRRI
- 1430-1600**    In Barrio
- 1700**            Arrive IRRI
- 1830**            Working Group Dinners
- Programs and Policies (Swaminathan Residence)
- Priorities for Social Science Research  
                    (Dining Room, Harrar Hall)
- Priorities for Technology Development  
                    (IRRI Guesthouse)

**THURSDAY 29 SEPTEMBER 1983**

- Morning**      B. Reports on Emerging Technologies  
                    (Seminar Room, Chandler Hall)  
                    Chair: *R. Evenson*  
                    Panel of Discussants  
                            *K. Mananahar*  
                            *R. Grossi*  
                            *M. Ali*  
                            *R. Santha*
- 0800-0815**    Chairperson's opening remarks
- 0815-0845**    Improved rice varieties in  
                    retrospect and prospect . . . . . *G. S. Khush*
- 0845-0915**    Hybrid rice. . . . . *S. S. Virmani, A. Te*
- 0915-0945**    Discussion
- 0945-1015**    Coffee
- 1015-1045**    Wet-seeded rice. . . . . *K. Moody*
- 1045-1115**    Discussion
- 1115-1145**    Biological nitrogen fixation  
                    in wetland rice . . . . . *J. K. Ladha*
- 1145-1215**    Discussion
- 1215-1330**    Lunch
- Afternoon**    Panel of Discussants  
                            *S. ChanJrattat*  
                            *S. S. Siwi*  
                            *D. S. Chaugale*  
                            *R. Ancheta*  
                            *I. K. Simon*
- 1330-1400**    Integrated pest management  
                    for rice in Asia . . . . . *J. Litsinger*

- 1400-1430** Discussion
- 1430-1500** Two examples of emerging mechanization technologies at IRRI . . . . . *A. Khan*
- 1500-1530** Discussion
- 1530-1600** Coffee
- 1600-1630** Harnessing technology for eliminating the drudgery of rural women engaged in rice production, processing, and utilization . . . . . *J. C. Srivastava*
- 1630-1700** Discussion
- 1700-1715** Chairperson's closing remarks
- 1830** Dinner (Dining Room, Harrar Hall)

**FRIDAY 30 SEPTEMBER 1983**

VI. Conclusions and recommendations

Chair: *M. S. Swaminathan*

- 0800-1030** Discussion
- 1030-1100** Coffee
- 1100-1215** Discussion
- 1215-1230** Chairperson's closing remarks

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