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FINAL REPORT

**PLANNING EXTENSION
FOR
FARM WOMEN**



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INTEGRATED CEREALS PROJECT
WITH FUNDING FROM USAID

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Integrated Cereals Project
Department of Agriculture
Kathmandu, Nepal.

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FOREWARD

The ICP study, "Planning Extension for Farm Women", was initiated in December 1983 to assess the present situation, in various locations throughout Nepal, relative to the dissemination of agricultural information among farm women and the degree to which women farmers serve as extension agents. The recommendations of the six-month study should be of assistance in deciding upon (1) the numbers of Women Agricultural Assistants (WAAs) to be hired, (2) the method of assigning WAAs within the system, and (3) the methods of improving extension training for female extension agents and of disseminating extension information among women farmers.

The study was well conceived and carried out in a competent technical manner. The report goes a long way in explaining why certain changes are necessary if women farmers are to be reached more effectively through the Department of Agricultural Extension System.

I acknowledge with gratitude the cooperation rendered to the Study Team by the many members of the Department of Agriculture, including both research and extension personnel. Special thanks are due Padma Shrestha, Project Director; Laurie Zivetz, Project Advisor; Bimala Sharma, Assistant Project Director; and Project Assistants Susan Anderson, Padma Shrestha, Sahana Dhakal and Julian Dhakal. Sincere appreciative is extended to Dr. Paul Kaplan who initiated the project.

Carl N. Hittle
Project Supervisor
Integrated Cereals Project.

PREFACE

This report is the first of its kind to explore the importance of female extension agents in reaching female farmers. Although research reports have shown that in many areas of agriculture, women do play an important role in Nepal, to date due attention has not been paid to reaching female farmers, which might have hindered agricultural production to some extent. The target group to receive modern technology in agriculture has been male farmers and it has been assumed that through them the female farmers will learn new innovations in agriculture. The female farmers are not recognized as farmers, but they are referred to as farmer's wife, sister, daughter, or daughter-in-law, etc.; thus female farmers receive second hand (if any) information, despite the fact that they contribute a great deal to agriculture.

Considering these issues, in this study, an attempt has been made to ascertain the information needs and problems of female farmers in agriculture, how they would like to be contacted, what type of extension agent will be most effective, and what adjustments have to be made in the training curriculum of all extension agents. In addition, a slideshow has been developed documenting the findings of this study.

It is felt that in order to obtain concrete results, the recommended Phase II of this study has to be carried out.

The project owes special debt of gratitude to the U.S. Agency for International Development, the Integrated Cereals Project of the Department of Agriculture, and the International Agricultural Development Service for supporting this study.

We would like to thank especially Joint Secretary of the Ministry of Agriculture Dr. Thakur Nath Pant, Director General Mr. Purushottam Gorkhali, Deputy Director General Mr. Moin Shah, Deputy Director General Mr. Amresh Man Pradhananga, Training and Extension Chief Mr. Ram Chandra Gupta, Deputy Director of USAID/N Dr. Janet Ballantyne, Project Officer Mr. Gary Alex,

USAID, Ms. Ann Lewis, USAID, and Mr. I.C. Bolo, ICP for their keen interest in this project.

We are particularly grateful to Dr. Carl N. Hittle, Chief of the Integrated Cereals Project, for his genuine interest and constant guidance in the project.

The project is grateful to Assistant Director Ms. Bimala Sharma, for her contribution in guiding the field staff for collecting the data; Project Assistant Ms. Susan Anderson, for her valuable contribution in the project as well as photographing for the slideshow; Research Assistants Ms. Padma Shrestha, Ms. Sahana Dhakal, and Ms. Julian Dhakal for collecting data and assisting in coding the data. Thanks are also due to Shyam Thapa, Lekh Bahadur Rai, and Luk Bahadur Rana for coding the data. We would like to extend our thanks to the socioeconomic section of ICP and particularly to Mr. Babu Ram Gurung and Mr. Devi Gurung for providing the coders. Thanks are also extended to all the staff of ICP whose kind cooperation was very valuable to this project.

Finally, the project is deeply indebted to Ms. Laurie Zivetz, Project Advisor for her deep insight, commitment, and intellectual guidance without which this study would not have been complete.

Lastly, but by no means least, the project would like to express its thanks to Dr. Paul Kaplan, who in the beginning initiated the project.

Padma Shrestha
Project Director

April 1984

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I. Introduction

Since the publication of the findings of the Status of Women series^{1/}, more attention has been focused on the important role that women play in farm work and decision making. From a development perspective, women can be more effective agents of change in increasing agricultural production because of their pivotal role in this sphere. However, without access to new information, technologies, etc., women can hardly be expected to change. Traditional attitudes and practices related to farming are not likely to change very much either unless women are reached and catalyzed alongside men.

This report documents a study which has been undertaken to assess how female farmers can most effectively be reached with improved techniques, technologies, and new information; what are the most important areas about which they need more information; and who are the most appropriate extension agents to deliver this information. The Integrated Cereals Project, which develops local, specific technologies and seeks innovative approaches to disseminating these technologies, has supported this sub-project. Thus, the recommendations put forth here are directed at the Department of Agriculture's dual extension approaches to the T and V system which takes various forms, and the production block approach, as practised by ICP. Because we are also dealing with the content of training for female extension agents, the recommendations would also be useful for program and curriculum planners, professors, agricultural campuses, and training institutions. The conceptual framework and activities are diagrammed in Figure 1.

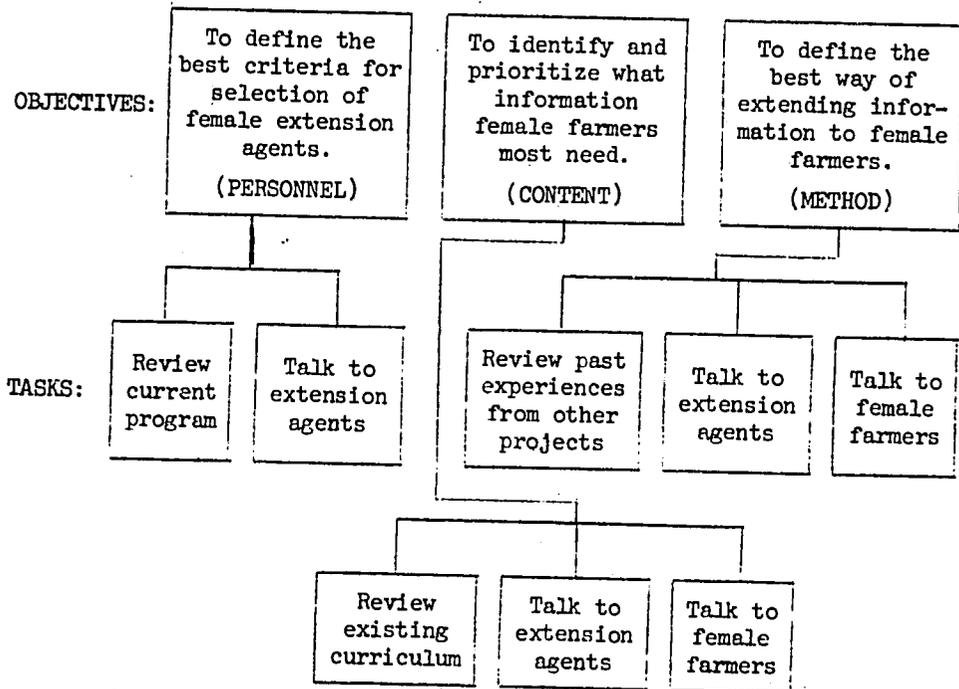
In order to assess the how, what, and who, the study elicited the views of farm women in four parts of Nepal. Farmers from different economic categories were questioned about their problems and information needs. They were also asked about their past experience with extension

^{1/} See The Status of Women in Nepal, Centre for Economic Development and Administration, Tribhuvan University, Nepal, 1981 in Two Volumes.

Figure 1 - Conceptual Framework of the Project

Assumption

Not only do women play an important role in farming and farm decision making, but they are farmers themselves. Unfortunately, they are not the target group for input of modern agricultural innovations and technology; thus agricultural development in the context of more production has been hindered. It is assumed that if women farmers are provided with more information, modern agricultural practices and technical know how as a target group along with the male farmers, agricultural production will increase. With this assumption this research on "Planning Extension for Women Farmers" is being carried out.



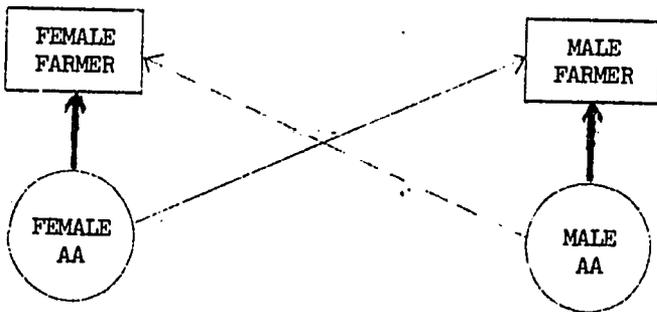
personnel and how future contact would be most convenient for them in terms of place, approach (group vs. individual), and characteristics of the extension agent. In addition, extension agents of both sexes and ADO's were asked for their views and experiences concerning reaching women farmers, their perception of what female farmers do, the major agriculture related problems which women in particular face, and their views on the best way to reach women farmers. Female extension agents were also asked about the special problems they face working in the field.

In addition to these individuals, Department and Ministry of Agriculture policy-makers, ICP staff, USAID staff, and others were contacted to get their views on how to better contact female farmers and disseminate new information to them.

A major finding, which was not directly sought but certainly made this analysis more difficult, is the fact that neither farmers nor extension agents have given much thought to the optimal style and content of extension for female farmers. Most female farmers had difficulty even articulating the problems they face in agriculture, though the problems may be central to their very existence. Likewise, male extension agents, who make up the majority of the extension labor force, were often hard put to define major areas in which female farmers need information. Male extension agents talk primarily to male farmers. Thus how much weight to assign to their suggestions and/or perceptions of how to reach female farmers? Given this, it became important in the data analysis to balance what the respondents said with impressions from the field and other data sources. It also convinced the researchers that before conclusive recommendations can be made for a long term national strategy, some of the tentative conclusions drawn from this study must be tried and tested in the field. As an implementation phase was anticipated at the outset of this study, the recommendations seek to be as specific and detailed as possible with respect to follow-on action research.

Existing curricula for all levels of extension agent were also reviewed. In light of the findings from the field, recommendations are put forth herewith concerning modifications in existing curricula. Although male and female farmers do contribute differently to agricultural production, a separate curricula for male and female extension agents is most inappropriate. Figure 2 outlines in a simplified form acceptable forms of male-female contact, with thickness of lines indicating most acceptable. It is easier for a female extension agent (particularly an AA, who presumably knows all of the people in her assigned ward) to talk with both male and female farmers than for a male extension agent. With only male extension agents, women are largely excluded. With female extension agents, the probability of reaching both is there. Leaving all 'contact' options open, and given the very interdependent nature of the tasks that all family members perform, it is optimal for all extension agents to be trained in the same way. To give an example, improved seed varieties, which fall into women's decision-making domain, require application of specified amount of chemical fertilizer for optimum growth, Chemical fertilizer falls within a man's decision-making domain. To achieve the desired result therefore - increased production - both husband and wife should ideally be recipients of extension information and inputs.

Figure 2 - Acceptable Communication Links Between Farmers and Extension Agents



Finally, although women had a difficult time responding to questions about services with which they have very little contact, they are, as a group, eager for more information which will help improve their lives. Furthermore, in all sites where this research was carried out, female leaders definitely came forward - the kind of farmers who would be excellent AAs, or, in some cases, JT/JTA trainee candidates. Extension agents, and in particular ADO's see the dual need to hire more female extension agents and reach more women farmers. However, there is a measure of uncertainty at all levels with respect to how to do this. It is hoped that this report will shed greater light on the situation as it presently stands and especially, provide means for improving it in the future.

II. Executive Summary

A. Introduction

1. Women's role in agriculture has been well documented by the Rural Women of Nepal Series, Volume II (CEDA, 1981). Because of the pivotal role of women in the agricultural sphere, it is posited that unless new information, methods, and technologies are made available to women, major potential change agents in the agricultural labor force are being by-passed. Women can play a major role in increasing agricultural production if they are given access to new information. It is on this basis that this study of how to contact female farmers more effectively, what information they need, and who should deliver new information has been conducted. Recommendations based on the findings have been made with respect to the Department of Agriculture and the Integrated Cereals Project, of which this study is a sub-project.

2. A total of 240 women from four socioeconomic strata were interviewed in Lamjung, Dang, Parsa, and Dhankuta as were ADOs, JT/JTAs, and AAs in a systematic effort to determine how to improve the extension system for women. Questionnaires were designed to ascertain women's current access to the extension system, their major problems, information needs, how contact would be most desirable, and by whom. Extension agents were questioned about their perceptions of female farmers' role in agriculture, information needs of male vs female farmers, extension agents' problems in working, and their ideas about how best to contact female farmers. Key policymakers and program planners were also interviewed to get their ideas, opinions, and perceptions.

B. Findings

1. Who are the female farmers and how do they perceive themselves ?

a) The majority of the women interviewed were married, illiterate, more

likely to send sons to school than daughters by a factor of 3:1, and unlikely to use family planning. The female AAs in contrast to female farmers tended to use family planning more often, have a lower rate of infant mortality, and more education, all consistent with their roles as innovative farmers and local leaders.

b) Most of the women (79% overall) felt that they do more of the farm-work than their husbands, while 35% feel that they make more farm decisions. This is in contrast to extension agents and ADOs (with the exception of female AAs who had perceptions similar to the women themselves) who had lower perceptions of women's contribution to farm-work and decision making responsibility. In general, the women themselves see their contribution as higher than those whose task it is to reach farmers. As a rule, however, the women have not given much thought to themselves as recipients of extension information nor have extension agents given much thought to the problems facing female farmers.

2. How accessible is information to women farmers ?

a) Female farmers are contacted infrequently by extension agents. Less than half responded that they (or their families) had been contacted by an extension agent. Four of the fourteen male AAs never contact women and six of the nineteen male JT/JTAs could not answer the question about women's agricultural needs. Forty-one percent of the women were aware of extension activities, but only 3% had ever participated in them. Cultural factors often preclude much contact between the sexes.

b) About one third of the women own no radios, but of those who do, 41% listen to the agriculture program. Of those with radios, only 18% find the information useful in their farm work.

3. What are women's agricultural problems and information needs ?

a) The responses of interviewees concerning their need for information

tended to stereotype needs slightly out of context with their current workload and decision-making responsibilities, probably because of their perceptions of what is available to rural women. Given the small amount of contact they have with extension, the women do not think of themselves readily as recipients of extension information. The data was interpreted based on women's perceptions of their problems vis a vis data from the Status of Women Studies on women's roles rather than solely on their perceptions of information needs. Irrigation (small-scale), crop protection, kitchen gardening, chemical fertilizers, seed availability, selection, and storage, weeding, livestock, and cash crops respectively were the most important Agricultural needs. Cottage industries, health/nutrition, and drinking water were also ranked as important needs because of their immediate impact on improving family situations.

4. How do women want to be contacted ?

- a) Overall, women preferred to be contacted in informal groups by the extension agents. Women tended to be slightly more group-oriented in the Terai than in the Hills, probably because of cultural factors and the comparative independence of Hill women. Informal groups provide the support women need and allow for information sharing. Organized groups may be too structured and time consuming to be effective.
- b) Female farmers prefer to have extension agents come to their homes or areas rather than going to the office. Given the choice of a male or female extension agent, female extension agents are preferred overwhelmingly. In the Hills, women are more likely to talk to a male extension agent than in the Terai probably because of cultural restrictions. This means that male extension agents could probably be more effective in the Hills than they are currently if they make a greater effort to contact women, although that is probably not as true in the Terai.

c) The ideal extension agent to contact women can be identified as a grassroots level worker who is female, able to work within local bureaucratic structures, educated, from the local area, and (less importantly) respectable in terms of age and marital status.

5. What problems do extension agents face ?

a) The major problems faced by extension agents are too large a working area and insufficient training. Given time and distance constraints, it is very difficult to cover their entire assigned areas effectively. Training has been, in most cases, too short and too theoretical, not training extension agents enough in practical methods. AAs raised the issue of salary as a major problem. Supervision is especially a problem for women because most of the supervisors are male who are not always understanding of or supportive of women working as extension agents. Childcare is also a constraint on women, both in terms of their participation in training and with respect to their ability to work in the field. Cultural restrictions are also limiting factors on women working alone, contacting male farmers, and on men contacting female farmers.

6. How relevant is the training curricula ?

a) Curricula of extension agents' training courses were reviewed to determine how applicable the information is to female farmers. It was found that little or no mention is made specifically of the role of women in agriculture or how best to contact women farmers. IAAS offers academic courses to train ADOs, JTs, and JTAs while DOA offers short technical training for JTAs and AAs. ICP trains its own PLs for grassroots level work. Only 2.5% of all extension agents currently being trained are women. In terms of agricultural areas, most of the technical subjects in which women feel they need information are covered in the curricula. The exception is irrigation. It seems that the extension approach is what needs the most attention, rather than the technical information.

- b) The major difficulties for female students seem to be lack of appropriate housing facilities, lack of support from their families, and lack of scholarship funds earmarked especially for women. AA trainees also face the problem of childcare.

C. Recommendations

1. Improvement of the Extension System

- a) The ideal extension agents to reach women farmers are grassroots level (AA) women who are recruited locally, so that they will be familiar with the farmers and the local area. These women should have some education (7-8 class) so that they will be more easily trained, but not so much that they are over-qualified and have high aspirations beyond the village. They should be respectable within the community in terms of age and marital status. The incentive to become AAs should be great enough to encourage such women to become AAs vs other grassroots kind of workers for whom basic education is also a prerequisite.
- b) Ideally the WAA's should be supervised by a female JT/JTA or a male JT/JTA who is aware of and sensitive to issues concerning women farmers and women extension agents.
- c) Female AAs should be assigned to smaller working areas so they can more effectively cover their territories.
- d) The most effective way to contact female farmers is probably to organize them into informal groups through which women can share information and give each other mutual support.
- e) Women, if recruited locally, need not be assigned in teams, since they should be familiar with the territory and farmers. Teams have not always been successful in the past and are an added expense, if not successful.

- f) Meeting places for groups should be in an accessible location which will not be too disruptive or distracting for information dissemination. Meeting times should take into account women's work schedules which may vary according to location and season.
- g) Childcare arrangements may need to be made to allow for women's participation in extension activities. This may be a simple arrangement whereby a local woman who perhaps is older or landless is hired to tend to the children while their mothers are engaged in various activities or meetings.
- h) The salaries of AAs should be carefully examined to determine if it adequately compensates their expected workload.

2. Curricula/Training

- a) In general, male and female extension agents should receive the same training and this training should be mostly practical, hands-on information.
- b) In all of the courses on rural sociology, communications, etc., more emphasis should be placed on the role of women, cultural and social factors influencing women's adoption of new ideas, and the importance of women's participation in extension activities.
- c) Extension education courses should include components on identifying and mobilizing female leaders, development and use of audio-visual aids, group organization, and the need to contact more female farmers.
- d) Irrigation ranked as the largest problem of female farmers, yet it is not included in much detail in training courses. More training in how to develop small-scale irrigation, how to mobilize groups to carry out an irrigation project, and where to refer farmers to obtain assistance and information is needed.

- e) Kitchen gardening is a major information need of female farmers. Although it is covered in training courses, more detail is necessary with respect to disseminating information to women, who are primarily responsible for the kitchen gardens.
- f) Housing facilities need to be provided for female students in a secure location. In the long term, hostels should be constructed. In the short term, other arrangements must be made.
- g) Scholarships for women would encourage more participation in training because families are less likely to support daughters in school. Quotas for enrollment should also be set to ensure for women in training courses.
- h) Childcare arrangements need to be made available at training centers so women can participate. The arrangements need not be complex or difficult, but may entail the hiring of someone to look after the children. How to set up a simple daycare system for women should also be included in the training curricula.

3. Phase II - A Proposal

A proposal for a two year phase II implementation study is also included herein. This study would include the recruitment, training, and placement of female AAs in the field. Studies would be conducted comparing 1) the effectiveness of AAs who had been supervised by women vs. those supervised by men, 2) those who used an individual visit approach to extension vs. those using a group approach and 3) a comparison between those working in the Terai and those in the Hills. The study would also include a detailed review of all training curricula and development of audio-visual materials for training.

III. Methodology

A. General

In order to collect the needed information, four sets of questionnaires were designed for:

1. Female Farmers,
2. JTs and JTAs
3. AAs (and Production Leader Agricultural Assistants (PLAAs) at ICP sites),
4. Agriculture District Officers (ADOs).

By talking to these people, the opinions of those delivering the information and the recipients were solicited on the issues discussed in the Introduction. In addition, key policy makers within the Department of Agriculture, as well as other HMG personnel and donor agencies were consulted at various stages of the research to get their input and reactions.

B. Site Selection

Four sites were selected with the intention of getting a geographically representative sample of female farmers and extension agents.

The sites were:

1. Lamjung (Central Hills).
2. Dhankuta (Eastern Hills).
3. Dang (Inner Terai).
4. Parsa (Terai).

In addition, special visits were made to other districts to collect special data as follows:

5. Palpa - to interview 10 female AAs trained under the UNFPA Project.
6. Kavre - same as Palpa (interviewed 10 female AAs plus 3 regular male AAs, not with UNFPA).

7. Chittawan - to interview female production leaders working under DOAs production block extension project component.
8. Parwanipur, Parsa - to attend DOAs summer cropping workshop.

Within the representative districts (1-4), a panchayat was selected on the basis of the following criteria:

- a) ethnic representativeness vis a vis the district and region as a whole;
- b) moderate to little development intervention, especially in terms of agricultural extension;
- c) relative accessibility.

The latter criteria was necessary because of time and budgetary constraints. Because of b), it was not felt to be an obstacle to representativeness.

Sites were selected in consultation with the ADO and other knowledgeable persons in the area. (see Map - Figure 3).

C. Sample Selection

1. Female farmers were purposively selected from within the panchayat to fit into the following economic categories:

	<u>No. of farmers interviewed in district</u>
a. Farmers who produce enough to sell surplus	10
b. Farmers who produced enough to feed their family for the whole year	20
c. Farmers who had to buy grain to supplement what they produced	20
d. Farmers who owned no land but worked as labourers on other's hand	10

Figure 3.

PLANNING EXTENSION FOR FARMER WOMEN PROJECT SITES

NEPAL

Kilometres 40 20 0
Scale 1:3,000,000
40 80 120 160

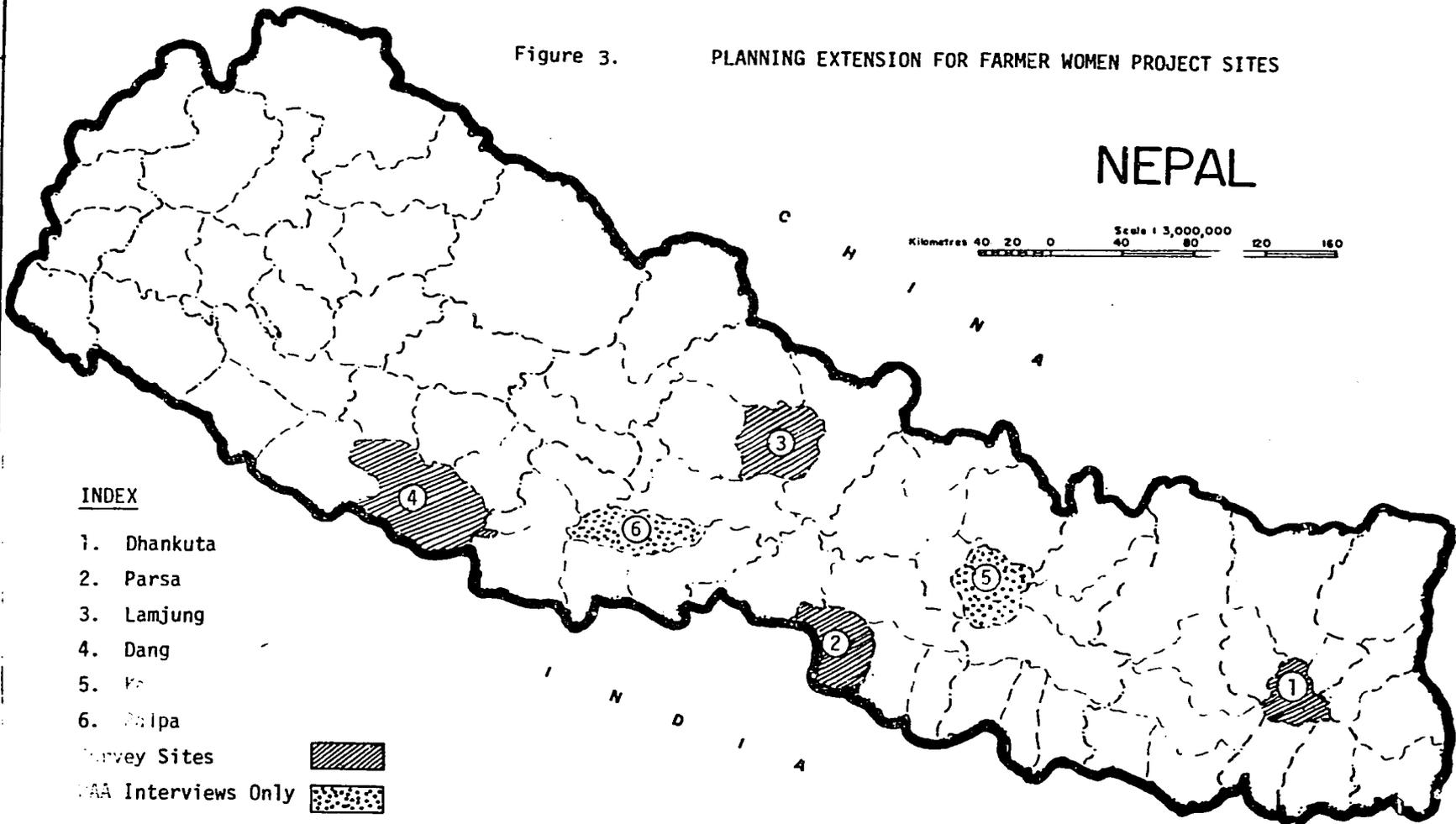
INDEX

1. Dhankuta
2. Parsa
3. Lamjung
4. Dang
5. K...
6. Palpa

Survey Sites



FAA Interviews Only



In all, 240 female farmers were interviewed. In addition, a group discussion in the form of a tea party was held at the end of work in each panchayat. All of the women who had been interviewed, other female family members, and local officials were invited. The purpose of the group discussion was to go on with the issues discussed in the questionnaire and to try to reach a group consensus on some of the major issues. This also provided a forum whereby female farmers, extension agents, and local leaders could enter into a dialogue, providing the team with more information on some of the institutional and cultural potentials and constraints to actually implementing an extension program for farm women.

2. JTs and JTAs were interviewed wherever they were available where the team was working. A total of 19 were interviewed. Two of the research assistants on this project were JT's and their responses to the questionnaire were also solicited. A total of four women were among the nineteen interviewed.
3. AAs likewise were interviewed at the sites when they were available. As mentioned above, special trips were made to Palpa, Kavre, and Chittawan to interview female AAs
4. ADOs were interviewed at all of the sites in addition to some who attended the summer crops workshop.

D. Questionnaire Development and Other Data Collection

The questionnaires, which are included in Appendix B of this report, were developed with the objective of collecting the necessary information to respond to the issues discussed in the Introduction. The questionnaires were prepared in Kathmandu and pretested outside of Bhaktapur. This report is based in large part on the data gleaned from these questionnaires. In addition, however some more impressionistic, unstructured data was collected. This included:

1. Discussions with individuals with extension experience, either related to agriculture or women-specific. (See agenda items and list of persons contacted and some summaries of discussions in Appendix C.)
2. Discussions with key policy makers (see list of persons in Appendix C).
3. Impression forms which were filled out by each field worker at the completion of work at one site. (See form in Appendix B.)
4. An outline of issues to be discussed at the group discussion. (See Appendix B.)
5. Photographs were taken to highlight the results and recommendations of the study and a slide show produced to compliment this report.

E. Field Work

Survey work was conducted between January 22, 1984 - March 15, 1984. A team of three research assistants, headed by the Assistant Project Director conducted the survey in two stages:

1. Lamjung - Palpa - Dang
2. Parsa - Dhankuta

The Project Leader and Project Advisor visited all of the sites except Dang and did the interviewing in Chittawan.

F. Coding and Tabulation

This was done with the assistance of the socio-economic research group/ICP at Khumaltar.

G. A Note on the Questionnaire

When asking the female farmers about 1) their major problems and 2) their most pressing information needs, non-agricultural response

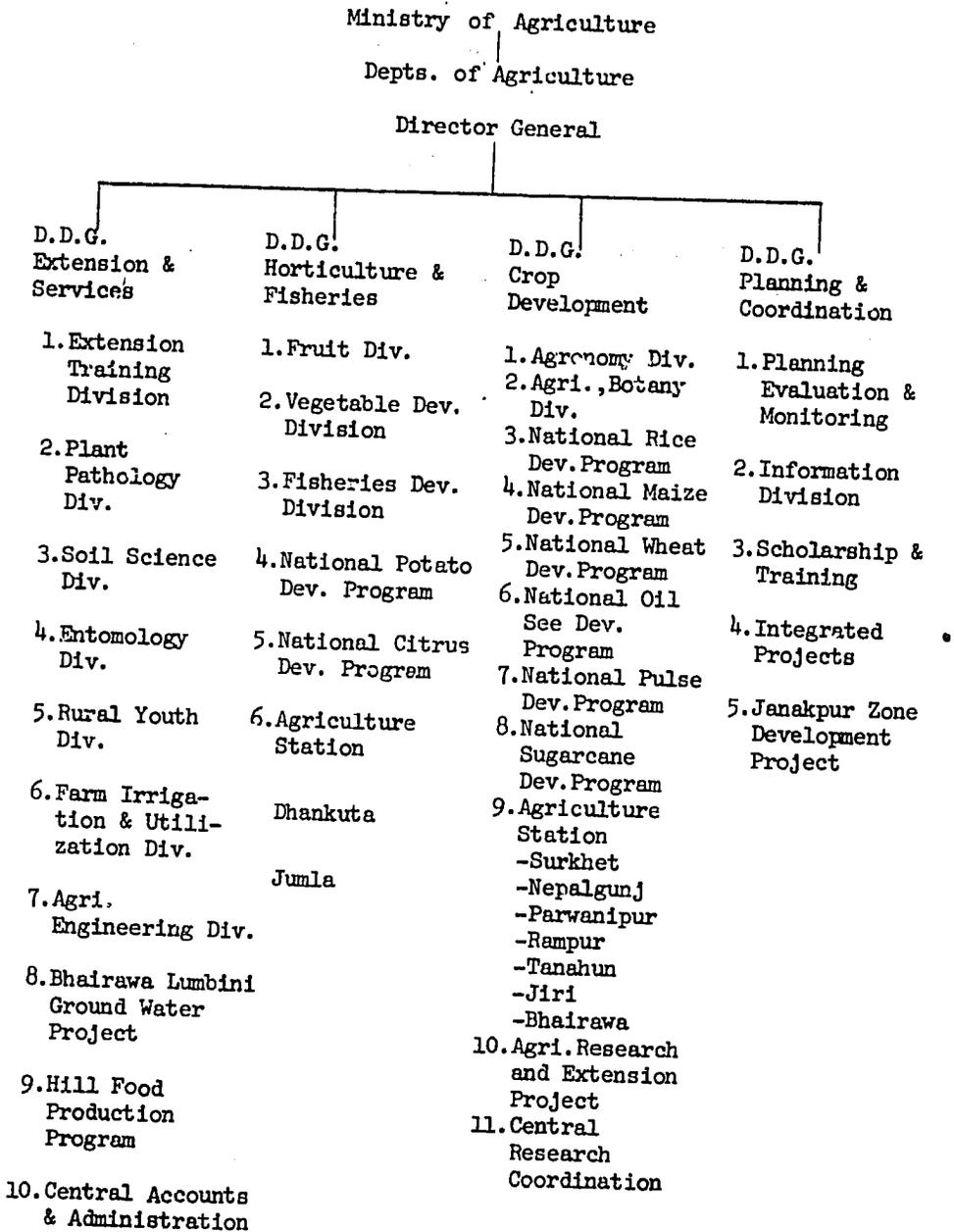
options were intentionally excluded from the former and included in the latter questions. Experience has shown that although women are primary farmers they have a keen interest in such areas as cottage industries, health and drinking water. To get a grasp on felt problem areas in agriculture, these response options were left out of the "problems" question. Women ask all kinds of extension agents for information on health, cottage industries and drinking water. It was deemed important to see how great this information demand is relative to agricultural information. In fact, they ranked very high.

The implications, as discussed below are not that extension agents should be experts in all of these areas, but rather they should be able to refer queries for such information. In ranking agricultural information needs then (see Table 9), those areas which ranked 2, 3 and 4 can be excluded.

IV. Background Information

A. The Department of Agriculture

Figure 4 - Structure of the Department of Agriculture



B. Integrated Cereals Project (ICP) and the Cropping Systems Approach

This project supports the development of the agricultural research-extension system of the Ministry of Agriculture. Emphasis is on improvement of the three large crop improvement programs of the Department of Agriculture (for rice, wheat and maize) and the institutionalization of a cropping systems approach to increase foodgrain production. In addition to work at the DOAs research stations at Khumaltar, Parwanipur, Rampur and Bhairawa, ICP assists with applied research programs on farmers' fields at six representative cropping systems sites; four in the Hills (Lele, Pundi Bhumdi, Chauri Jahari and Khandbari) and two in the Terai (Chitwan, inner Terai, and Parsa, outer Terai).

ICP consists of two parts: a construction program building basic research facilities such as laboratories, offices, seed processing installations and staff housing, and an institutional development program providing technical assistance, participant training, commodity procurement and related services.

During the past two years a great deal of effort was devoted by ICP to transferring the results obtained from on-farm testing and improvement technology at the 6 cropping systems sites to pilot production programs with the assistance of pre-production verification trials (multilocation testing) and other techniques used in cropping systems methodology.

The Integrated Cereals Project is establishing and/or expanding linkages with other projects such as Rapti IRDP, RCUP, AERP, SPIS, HFPP, KHARDEP, Fewa Tal Watershed Project, CARE and the various programs of the District ADO offices.

1. Production Block Approach

In the strategy of the production block approach, a potential block

of about 10 to 100 hectares in a village is identified and a concentrated effort is made to convince farmers within the block to join the programme. The production team then helps the farmers to prepare production plans advising them regarding cropping patterns, planting times, kind, amount, and method of fertilizer application, insect control, water management, etc. An innovative farmer called a Production Leader is trained and becomes the link between the JT/JTAs Production Officers, ADO, etc. - those delivering the inputs - and the farmers in the production block - the recipients. This is done in coordination with the local Sajha, AIC and ADB/N to ensure that the farmers receive, on time, the production loan and inputs of production. In order to facilitate extension of new knowledge and skills needed to apply the new technology, a series of farmers' meetings and field demonstrations are conducted.

Thus the team concentrates their time and effort in a specified area with a specific group of farmers. The objective is to establish a block which the production team can manage effectively. As the crop in the production block nears maturity and becomes impressive, it is hoped that farmers from adjoining pancheyats will be convinced as to the effectiveness of the production block system and will want to do the same in their fields.

In the recently introduced new system of extension in the production block approach, the Production Leader (PL) stays in his field and the JT/JTA does all the demonstrations in his field. The PL gets Rs. 50/- per month and wherever new technology and seeds are introduced, he is the one to receive it. Farmers from adjoining villages come and see his farm. If they are impressed and they would like to do it in their farm also, they are assisted by the JT or JTA. The only time the PL goes out of his field is when there is an epidemic or to invite farmers to see a demonstration being held at his farm.

2. Female Production Leaders

Eight female production leader (PL) were hired in three production

sites. In Chittawan, four PLs were taken and two PLs were hired in Chauri Jahari and two in Khandbari. These female PLs were hired specifically to gain experience in how to reach female farmers. Two women PLs were hired from each block so that they could go around the village together.

They were given specific jobs to do each week, to convince the village women to: 1) adopt a variety of corn or rice, 2) plant at specified spacing and seeding rates, 3) use improved methods of fertilizer application, and 4) use an insecticide on seeds to control storage insects, etc.^{1/}

At present, the eight women PLs are no longer working. Although the officials said they were effective, there were no female supervisors to give them the proper guidance and instruction, so their work was terminated.

This study, Planning for Extension for Farm Women as a part of the ICP project, makes specific recommendations concerning how to reach female farmers in the production blocks.

^{1/} Integrated Cereals Project Annual Report, October, 1982 to September, 1983, HMG, Ministry of Agriculture, Department of Agriculture, Nepal.

V. Findings

A. Demographic Profile of the Female Farmers

As discussed in the methodology section, the female farmers interviewed in this study were selected on the basis of economic criteria. Thus, other demographic characteristics can be assumed to be randomly occurring, if not somewhat representative of the 'harta karta' or primary working females in farm households in Nepal.

Demographically, these women tend to be married, though more frequently widowed in the Hills, illiterate - particularly in the Hills, apt to send three times more sons to school than daughters, and younger by comparison in the Terai than in the Hills. More specifically, the women farmers interviewed in this study can be characterized as follows:

1. Age

The primary female in rural households tends to be much younger in the Terai than in the Hills. Fifty percent of the women in Dang and Parsa were under 25 years of age, whereas fifty percent of the women in Lamjung and Dhankuta were over 35. The Terai case can be explained by the fact that: 1) some of the respondents were the oldest, unmarried daughter in a household with an older, minimally active mother; 2) in many households, especially in Dang, where some of the young women had received some training, the oldest female in the household refused to talk with the interviewer. This may in the future be the case with extension agents who, though women, are unfamiliar to the actual 'harta karta' female of the household. However, one assumes that the junior woman, whether daughter or daughter-in-law, will pass along the information; 3) in some non-Tharu households, the joint family had split up and the oldest female was a young bride.

In the Hills, where many women are themselves heads of households

(see Table 1) because of male migration or mortality, it is the older woman in the joint and/or nuclear family who is in charge.

It was the interviewers' perception that many of the women overall did not give an accurate response to the age question, sometimes because they did not actually know their age and sometimes because they did not want to tell their real age so they underestimated.

Table 1 - Respondents' Relation to the Male Head of Household

	Dang	Parsa	Lamjung	Dhankuta	Total
Wife	31 (52%)	37 (61%)	40 (67%)	39 (66%)	147 (61%)
Daughter-in-law	21 (35%)	18 (31%)	6 (10%)	7 (11%)	52 (22%)
Daughter	3 (5%)	1 (2%)	-	1 (2%)	5 (2%)
Mother-in-law	3 (5%)	2 (3%)	5 (8%)	6 (10%)	16 (7%)
She is head	2 (3%)	2 (3%)	9 (15%)	7 (11%)	20 (8%)

2. Marital Status

It follows from the above, that although ninety percent of the female farmers interviewed were married, five out of the six unmarried respondents in the sample were from the Terai, and sixteen out of the twenty widows were from the Hills. Because the discrepancy between male and female age at marriage is often significant, widowhood is also not an uncommon event for middle-aged women.

As shown in Table 1, 61% of the women interviewed were wives to a male head of household; eight percent were the household heads themselves; 22% were wives of the sons of the head of household. Most of the female heads of households come from the Hills, consistent with the above findings. By contrast, in the Terai, many more daughter-in-laws considered themselves the 'harta karta' when it came to dealing with outsiders.

3. Education

Eighty two percent of the female farmers interviewed were totally illiterate, and only 3% had completed more than the fifth class. Educational attainment correlates positively with economic status. Three times as many Terai women went to school as Hill women in this sample.

This trend, however, seems to be changing: of the 194 women (80% of the sample) who now send their children to school, one third are sending their daughters to school. Economic status is again positively related to sending children - of whatever sex - to school. It is also interesting to note that more Hill women are sending their children to school. This can be accounted for by 1) the abundance of schools in the Hill districts studied, and 2) the tremendous pressures on land in the Hills which may be an encouraging factor for parents to send children to school to give them employment alternatives to agriculture; 3) the conservative nature of the ethnic groups surveyed in the Terai.

One thing that is clear: the next generation of women will be more educated than their mothers, and therefore able to grasp extension messages more easily and indeed to act as extension agents.

4. Ethnicity

The ethnic distribution of the sample of female farmers is shown in Table 2. Of the thirty three percent who are Brahmins and Chettris, 62% are from categories one and two, or the more affluent women. This is a result of the purposive process followed in the sample selection process. On the other hand, of the lower castes, 76% were from economic groups three and four. Tharus, who predominate in the Terai, are spread fairly evenly across economic groups.

Table 2 - Ethnic Distribution by District

	Dang	Parsa	Lamjung	Dhankuta	Total
Brahmin	9 (14%)	28 (47%)	13 (22%)	11 (18%)	61 (25%)
Tharu	37 (62%)	15 (25%)	-	-	52 (23%)
Chettri	11 (19%)	-	22 (37%)	9 (15%)	42 (18%)
Kami, Sarki, Dami, Kumal, Teli	-	13 (22%)	14 (23%)	8 (13%)	35 (15%)
Tamang	-	2 (3%)	1 (2%)	26 (43%)	29 (12%)
Newar	-	-	10 (17%)	3 (5%)	13 (5%)
Magar	3 (5%)	-	-	3 (5%)	6 (3%)
Muslim	-	2 (3%)	-	-	2 (1%)
TOTAL	60	60	60	60	240

5. Fertility/Infant Mortality/Family Planning

Forty percent of the female farmers interviewed had four or more children, consistent with national trends. Thirty-six percent had had one child die, 17% two or more. Although a difference in parity and infant mortality between districts and economic groups was anticipated, neither was found to be significant. The exception is that women in categories three and four tended to have slightly higher rates of infant mortality than the more affluent women.

Of the 36 (or 15% of the sample) women who are using family planning, the #2 group practices most frequently, and the #4 group by far the least. Rates of acceptance in Dhankuta and Parsa are almost double those of Lamjung and Dang. This can be attributed primarily to the impact of sterilization camps, rather than any ethnic or geographical differences which might otherwise have an impact on acceptance.

For those women not using family planning, the major reasons given by hill women were that they were widowed or too old or wanted more

children. Terai women primarily wanted more children or were afraid of side effects. It is interesting that in areas where there had recently been sterilization camps, the women were afraid of the interviewers for fear that they were from a family planning organization.

6. Economic Characteristics

Aside from the initial question about the families' ability to grow enough food to break even or sell vs their need to purchase supplementary grains, the female farmers were asked about size of landholding and number of cattle. The results of these two questions are as expected: those who sell grain own more land and cattle than those who are forced to buy. The largest landholders were in the Terai, and by far the highest density of cattle was in Dang District. Size of landholding must be viewed relative to family size as well. In Dang, where 59% of the landholders owned more than 26 ropanis (vs 44% in Parsa, 37% in Dhankuta, and 27% in Lamjung), 46% of the families had more than six adult members (vs. 34% in Parsa, 22% in Lamjung and Dhankuta respectively). Tharu families-prevalent in Dang and Parsa-tend to remain in extended family networks.

7. Demographic Profile of Female AAs

A total of 21 female AAs were interviewed. Eighteen of these were employed under the UNFPA supported project in Kavre and Palpa Districts in 1981. Two female PLs of the ICP Production Block site in Chittawan who are now unemployed were also interviewed. A profile of these women is provided to get an idea of the types of women who have been recruited for AA/PL positions to date and as a contrast to the "average" female farmer, described above.

The majority of the AA/PLs were 21-30 years old and married. Sixty-two percent were Brahmins, all from the hills. The women who had been PLs were Tharus (one unmarried), and the one female AA in Dang was a Rai.

All of the women had some education. Thirty-eight percent had more than a sixth grade education (vs 3% of female farmers). This is understandable, as education is a criteria for the job of AA or PL.

The WAAs are no different than female farmers in terms of number of children born, but infant mortality is markedly lower (14% vs. 36% for female farmers). Also, use of family planning, 15% among female farmers, was as high as 90% among married WAAs. This can be attributed to 1) their wider exposure through education to new ideas and particularly 2) to the family planning orientation of the UNFPA - WAA training. Of those not using family planning, all were either unmarried, too old, or wanted more children.

Also of the WAAs who had school age daughters, only one said she did not send her daughter to school.

Clearly, the WAA's are more "progressive" in terms of education and use of services than the average female farmers. It is safe to assume, therefore, that in her capacity as extension agent, the AA serves as a role model for women and girls in her community.

B. Current Access to Agricultural Extension

1. Perception of What Female Farmers Do

In order to get an idea of what female farmers' attitudes towards their own on-farm input is, we asked them "Who does more agricultural work, you or your husband?" and "Who makes more of the agricultural decisions?" respectively. We also asked ADOs, JT/JTAs, and AAs of both sexes the same questions, the former two with respect to female farmers, not themselves.

As shown in Table 3, the farmers' perceptions of their own input is at variance with the perception of extension agents: Whereas 80% of the Hill women and 78% of the Terai farmers interviewed see themselves

doing more work and 38% and 31% respectively see themselves making more decisions, the perception on the part of JT/JTAs and especially ADOs is strikingly different. This discrepancy (with the exception of male AAs) widens the farther away from actual field work the extension personnel is.

Table 3 - Perception of female contribution to on-farm work and decision-making

RESPONDENT	Female Farmer		Female AA	Male AA	JT/JTA	ADO	Status of Women Report ^{1/}
	Hill	Terai					
Work	78	80	72	26	56	22	67
Decision-making*	31	38	52	20	0	0	42
Average	55	59	62	23	28	11	55

Note: Number indicates % of respondents who said women's contribution to work/decision-making is more than that of male's.

* Some female farmers said other members of the family did most work or made most decisions. These responses have been grouped together according to sex.

^{1/} The Rural Women of Nepal: Aggregate Analysis, Acharya and Bennett, Volume II, Part 9, CEDA, Nepal, 1981.

Female AAs, who are farmers themselves, estimated their contribution to the on-farm work similarly to female farmers in general. The fact that they gave themselves more credit for decision-making is not surprising, given the fact that they have the status of being 'informed' by the very nature of their job as AA. What is surprising is the low esteem in which male AAs hold female farmers. Whether this reflects the attitudes of most male farmers is hard to say. What can be inferred, however, is that male AAs, who give female farmers only 1/3 credit for actual hours worked and 1/2 credit for decision-making (see comparison to Status of Women Data), are unlikely to perceive female farmers as important recipients of extension information.

Within a given community, the AA probably has more consistent contact with farmers than other extension agents. Thus, even though the male AA may know all of the female farmers in his area personally, his view of them as farmers and farm decision-makers probably constrains his contact with them.

Although on average, 35% of female farmers feel they make more on-farm decisions, none of the JT/JTAs or ADOs interviewed felt women made more than half of on-farm decisions. In fact, about half of both JT/JTAs and ADOs interviewed said women do less than 10% of on-farm decision-making. It is curious that in discussions with many of these individuals, they gave more weight to women's agricultural contribution than they did on paper. Nonetheless, it seems fair to conclude from the above table that women themselves see their own contribution as higher than those whose task it is to reach farmers. With the perception that males make the majority of on-farm decisions and do most of the work, it is no surprise that extension services to date have targeted the 'harta karta' man as 'farmer'. In fact, from time allocation data collected from eight villages in Nepal, women spend 67% of total on-farm time, and make 42% of agricultural decisions by themselves (vs. men who make only 28%). (Bennett and Pradhan, 1981.) It is not surprising then, that of the fifteen JT/JTAs surveyed, nine said they had difficulties talking to female farmers. Likewise, ten of the fifteen male JT/JTAs questioned said that female farmers do not understand or accept what the JT/JTA tells them. The most common reasons given were shyness on the part of female farmers, or difficulty talking to the opposite sex coupled by lack of education. Several JT/JTAs would not even venture to speculate as to what the major problems facing female farmers in their district are.

2. Source of Information - Extension Agents, Radio

a) Extension Agents

As a rule, female farmers are contacted far more infrequently than

their husbands. Neither, as is commonly believed, do male family members generally pass along information conveyed to them by extension agents. Since the contact meeting point is generally the village teastall, rather than individual households, most women are not exposed - even by circumstance - to the extension agent.

Table 4 shows record of contacts by four types of extension agent over the year prior to the interview. Forty-four percent of the women interviewed said they or their family had been contacted. Many of these contacts were not directly to the women. Not surprisingly, Terai women reported four and a half times as many contacts as Hill women. This is likely to be true for men also, based on the constraints on mobility in the Hills. It is also not unanticipated to find contacts by female extension agents totalling only 16% of all contacts: all in Dang where there was a female JT and 2 WAA working.

Table 4 - Contacts by Extension Agents Per Month Reported by Female Farmers

Type of Extension Agent	Dang	Parsa	Lamjung	Dhankuta	Total
Male JT/JTA	21	26	8	8	63 (58%)
Male AA	1	23	2	2	28 (26%)
Female JT/JTA	1	-	-	-	1 (1%)
Female AA	16	-	-	-	16 (15%)
TOTAL	39 (36%)	49 (46%)	10 (9%)	10 (9%)	108 (100%)

The large number of contacts by a male AA in Parsa can be attributed primarily to one PL who is very active in that vicinity. By contrast, of the 14 male AAs interviewed, four said they never contact women at all; the others contacted women at a ratio of 100:16 (male:female farmers) on average. This reinforces the conclusions made above in terms of male AAs' attitudes towards and potential impact upon the female farmer population.

To further assess women's current access to extension information,

women were asked about demonstrations, exhibitions, training, and study tours over the last year in their areas. Extension agents were also questioned in this regard. A summary of responses for the two most common - demonstrations and trainings - is presented in Table 5 to give an idea of female awareness.

Table 5 - Number of Demonstrations and Trainings in the Area
Knowledge of and Participation in

	Dang	Parsa	Lamjung	Dhankuta	Total
*JT/JTA conducted	88	42	19	14	163
**Female Farmer knowledge of	31 (35)	18 (43)	14 (80)	3 (21)	67 (41%)
**Female Farmer participation	4 (5)	1 (2)	2 (10)	0 (0)	7 (4%)

* These figures are not 100% reflective of the actual # of demonstrations and trainings in the respective districts, as only as many JT/JTAs as were available at the time of the study were interviewed. Numbers as reported by JT or JTA.

** As reported by the female farmers.

Note: Percentages presented for columns and reflect percentage relative to the total.

As can be seen from the table, women were aware of 41% of the trainings and demonstrations which were conducted. This is relatively high, considering that the JT/JTA covers an area of at least two panchayats. However, knowledge of and participation in are very different, as only seven women, or 3% of all the farmers interviewed, had participated in trainings or demonstrations in the previous year. The amount of activity in a District does not seem to have an impact on women's involvement, as shown in the above Table.

When participation in trainings, exhibitions, demonstrations, and study tours is disaggregated by economic strata, of the few women who

do participate, #1 and #2 category women; or those who sell grain and those who break even, make up almost 80% of the participants. This trend is to be expected, given the higher educational and political status of these groups. However, the #3 and #4 groups, with insufficient or no land, are also potentially important beneficiaries of such extension activities.

b) Radio

In order to ascertain whether radio is also an important source of information for female farmers, they were asked whether they listen to the radio (i.e. the thrice-weekly agricultural program "Krisi Karikram"), whether they understand what is said, and whether it helps them on the farm. About one third of the women in each district own no radio. Of those who do, 68 or 41% said they listen, mostly twice a week. Fifty seven of those who listen said they understand, but only 29 or 43% of those who listen and 18% of those with radios found it useful for their agricultural work. All of these factors correlate positively with economic status. More affluent women own more radios, listen more often, grasp and use the information more than poorer women.

Radio owners in Parsa found the program more useful than in other Districts, though they did not own any more radios than women in other Districts. However, these are also the women most frequently contacted by extension agents. It may be that radio messages, when reinforced by face to face interactions, are most effective.

C. Information Needs

1. What Female Farmers Want to Know

In order to identify the subject areas where female farmers have the greatest information needs, they were asked 1) about the three major problems they face in agriculture and 2) about the three areas where

they would appreciate information the most. The latter question was also put to extension agents, who were asked what, in their opinions, are the priority needs of male and female farmers respectively. A few non-agricultural response options were included in the information needs questions. Cottage industries, health/nutrition/family planning, and drinking water were also included since these are typically major felt needs attributed to women. These were included in part as a means of measuring farmers' and extension agents' own perceptions and in part to see whether women, whose major time input is in agriculture, animal husbandry, and fuel/water hauling, etc. place as much weight on these tasks as their workload merits.

The findings are by no means straightforward, and the authors apologize for the number of tables included in this chapter to illustrate the results. What became clear, in the course of all of the interviews is that, with the possible exception of female AAs, who are farmers and extension agents serving women, answers tend to stereotype women's needs slightly out of context with the reality of their current workload and decision-making responsibilities.

That is, the overall trend that emerges is that while women pointed out real problem areas consistent with the tasks they are involved in, the areas where all respondents said they need information tends to emphasize the current male oriented mode of extension delivery. Female farmers said that fertilizer, crop protection and seed selection and storage are all areas where they face problems. However, only crop protection appeared as an information need. Why ?

To date, the other two areas -- fertilizer and seeds -- have been primarily components of extension information and input packages. Male farmers have by and large been the recipients of such information and inputs from male extension agents. Crop protection -- or insecticides -- on the other hand, has not been part of extension packages, though it is a problem area. Thus, though women consider all three

areas of primary concern, they minimize their eligibility as recipients of new information or inputs to help them deal with these problems. This attitude is clearly based on their experience of the extension system. Rather, they focus on areas such as health and cottage industries where women have received attention in the past. The fact that extension agents put similar emphasis on traditionally "female" areas of concern, (see Table 9) reinforces this interpretation.

With respect to plant protection, which ranked second as a problem area, female farmers and female AAs ranked it high as an information need; only 2 of the 14 male AAs gave it any weight at all. For male farmers, on the other hand, plant protection is the number one information need. Though no sex specific data on pest control is available, it is reasonable to assume that, like most activities between planting and harvesting, plant protection is primarily a woman's job. One wonders, therefore: if insecticides were more widely disseminated, would this input go the way of fertilizers and seeds: into the hands of male farmers ?

Without discounting what farmers and extension agents said, information needs are assessed in this chapter from the perspective of 1) the major problem areas identified by the farmers themselves and 2) the data from the Status of Women study which provides the most complete picture available of what rural women do. An attempt is made to understand not only why certain areas are given the weight they are, but whether these responses reflect areas of greatest need, in fact. In order to do this, Tables 6 - 11 are presented herewith and the major subject areas of concern discussed one by one. In terms of future assessment of curricula, training needs, and extension orientation, this approach was considered optimal.

The Tables that follow are:

Table 6 : Problem Areas by District: Female Farmers

Table 7 : Comparative Time Use Pattern for Males and Females (from The Rural Women of Nepal: An Aggregate Analysis and Summary of 8 Village Studies, Acharya and Bennett, 1981)

Table 8 : Agricultural Decisions by Sex (IBID)

Table 9 : Perception of Information Needs for Female Farmers

Table 10: Perception of Information Needs of Female Farmers by District

Table 11: Perception of Information Needs for Male Farmers

The discussion is organized according to problem areas identified by the female farmers' themselves, followed by information needs identified by female farmers which were not included in the problems list.

Table 6 - Problem Areas by District*: Female Farmers

Area	District				Total**
	Dang	Parsa	Lamjung	Dhankuta	
Irrigation	73 (26)	95 (38)	45 (23)	75 (31)	72 (30)
Crop Protection	63 (23)	63 (25)	27 (14)	46 (19)	50 (21)
Kitchen Gardening	46 (17)	27 (11)	17 (9)	18 (7)	27 (11)
Chemical Fertilizer	15 (5)	28 (11)	15 (7)	32 (13)	23 (9)
Seed Availability	17 (6)	6 (3)	15 (7)	23 (9)	15 (6)
Seed Storage	16 (6)	6 (3)	18 (9)	16 (7)	14 (6)
Weeding	18 (7)	16 (6)	-	12 (5)	12 (5)
Fodder & Livestock	15 (5)	-	16 (8)	18 (8)	12 (5)
Fruits	15 (5)	2 (1)	17 (9)	4 (2)	10 (4)
Field Preparation	-	5 (2)	27 (14)	-	8 (3)
Total	278	248	197	234	243

* This is not an extensive list of response options, but represents the overall 10 most frequently selected. This explains total districtwise discrepancies.

** Represents average: Table is organized in descending order, according to total averages. Thus districtwise data may not be shown in exact descending order.

Table 7 - Time Use Pattern by Sex^{2/},
(For Population of 15 Years and Above) (Six Villages)

(In hours per day)

		Sex	Male	Female	Both
Activities					
W	Animal Husbandry		1.43	0.97	1.17
	Agriculture		2.73	2.74	2.73
	Manufacturing		0.42	0.45	0.44
	Outside Income Earning Activities (in village)		1.24	0.46	0.81
R	1. Sub-Total for Conventional Economic Activities		5.81	4.62	5.15
K	Hunting and Gathering		0.17	0.05	0.32
	Fuel Collection		0.24	0.38	0.11
	Water Collection		0.07	0.67	0.40
	Household Construction		0.25	0.08	0.16
	Food Processing		0.18	0.97	0.62
B	2. Sub-Total for Expanded Economic Activities		0.91	2.16	1.60
F	Cooking/Serving		0.27	0.05	1.25
	Washing Dishes		0.03	0.39	0.23
D	Cleaning House		0.04	0.46	0.27
	Laundry		0.02	0.15	0.09
E	Shopping		0.24	0.17	0.20
	Other Domestic		0.04	0.13	0.09
N	Child Care		0.16	0.69	0.45
	3. Sub-Total for Domestic Activities		0.79	4.03	2.57
I.	Sub-Total for Work Burden (1+2+3)		7.51	10.81	9.32
	4. Education		0.43	0.10	0.25
	5. Personal Maintenance		1.45	1.12	1.27
	6. Social Activities		0.31	0.16	0.23
	7. Leisure		6.30	3.81	4.93
II.	Sub-Total for Social Maintenance/ Leisure (4+5+6+7)		8.49	5.19	6.68
III.	Total In-Village Activities		16.00	16.00	16.00

1.43 - 0.97
2.73 - 2.74
0.42 - 0.45
4.34 - 4.68

^{2/} Ibid.

Table 8 - Agricultural Decisions by Sex^{3/}

Decision	Sex		Together Both	Traditional
	Male	Female		
Crop Selection	18	30	13	39
Seed Selection	21	60	11	8
Fertilizer	33	40	13	14
All Ag. Decisions	25	32	13	20
To sell Food Grain	40	42	17	1
To sell Vegetables	31	43	17	9
To sell Small Animal	44	31	14	11

^{3/} Ibid, pg. 261, Table 4.2. Numbers represent percentage of total.

Table 9 - Perception of Information Needs of Female Farmers*

Respondent Area	Female Farmers	Female AAs	Male AAs	JT/JTAs	ADOs	Average Total
Kitchen gardening	59 (23)	27 (35)	22 (40)	24 (30)	29 (35)	32 (29)
Cottage Industries	43 (17)	3 (4)	22 (40)	13 (16)	21 (25)	20 (18)
Health/Nutrition/ Family Planning	26 (10)	21 (27)	3 (5)	11 (14)	25 (30)	17 (15)
Drinking Water	26 (10)	8 (10)	-	4 (5)	-	8 (7)
Irrigation	24 (9)	5 (6)	-	9 (11)	-	8 (7)
Livestock	20 (8)	3 (4)	3 (5)	4 (5)	-	6 (6)
Plant Protection	20 (8)	5 (6)	-	2 (3)	-	5 (5)
Fruits/Cash Crops	17 (6)	6 (8)	3 (5)	2 (3)	-	6 (6)
Grain Storage	10 (4)	-	-	11 (14)	8 (10)	6 (5)
Composting	8 (3)	-	3 (5)	-	-	2 (2)
Total	246 (100)	78 (100)	56 (100)	80 (100)	83 (100)	

* Table is organized in descending order, according to the priorities of female farmers. Numbers represent percentage of women who give each response. Numbers in brackets represent percentage of total responses.

Table 10 - Perception of Information Needs: Female Farmers* by District

	Dang	Parsa	Lamjung	Dhankuta	Average Total
Kitchen gardening	68 (27)	62 (21)	37 (17)	70 (30)	59 (23)
Cottage Industries	50 (20)	75 (25)	32 (14)	15 (6)	43 (17)
Health/Nutrition/ Family Planning	28 (11)	42 (14)	17 (7)	17 (7)	26 (10)
Drinking Water	47 (18)	17 (6)	22 (10)	17 (7)	26 (10)
Irrigation	32 (12)	18 (6)	22 (10)	23 (10)	24 (9)
Livestock	10 (4)	23 (8)	15 (7)	32 (14)	20 (8)
Plant Protection	12 (5)	22 (8)	22 (10)	23 (10)	20 (8)
Fruits/Cash Crops	3 (1)	27 (9)	22 (10)	17 (7)	17 (7)
Grain Storage	5 (2)	7 (2)	18 (8)	8 (3)	10 (4)
Composting	-	3 (1)	15 (7)	15 (6)	8 (3)
Total	255 (100)	296 (100)	222 (100)	237 (100)	253 (100)

* Numbers represent percentage of women who give each response.
Numbers in brackets represent percentage of total responses.

Table 11 - Perception of Information Needs of Male Farmers*

Area	Respondent	Female AAs	Male AAs	JT/JTAs	ADOs	Average
Plant Protection		18 (22)	29 (32)	12 (14)	26 (27)	21 (23)
Chemical Fertilizer		7 (8)	15 (16)	12 (14)	17 (17)	13 (14)
Seed Selection		10 (12)	18 (20)	14 (16)	4 (4)	12 (13)
Fruit/Cash Crops		13 (16)	6 (7)	12 (14)	9 (9)	10 (11)
Crop Selection		8 (10)	3 (3)	4 (4)	13 (13)	7 (8)
Irrigation		3 (4)	9 (10)	12 (14)	4 (4)	7 (8)
Seed Storage		7 (8)	-	10 (11)	4 (4)	5 (5)
Field Preparation		10 (12)	3 (3)	4 (4)	13 (13)	8 (9)
Kitchen gardening		3 (4)	9 (10)	6 (7)	-	5 (5)
Livestock		3 (4)	-	2 (2)	9 (9)	4 (4)

* Numbers represent percentage of respondents who mentioned each response. Numbers in brackets represent percentage of total responses (columns).

1) Irrigation

As can be seen from Table 6, irrigation ranked universally as the most pressing problem area for female farmers. Insufficient water for irrigation and drinking is a problem throughout Nepal. For the purposes of this discussion, it is assumed that irrigation is a family concern and that small scale irrigation systems are most appropriate. Data on labor input and decision making by sex is not available. Irrigation ranks first among the information demands of female farmers in the areas related to major agricultural production (i.e. excluding kitchen gardens). It ranks sixth in terms of extension agents' perceptions of male farmers' information needs. Since women place such high priority on it, it is fair to assume that female farmers would be eager recipients of and participants in the construction and maintenance of small scale irrigation schemes.

2) Crop Protection

Crop protection is the second major problem area for female farmers. It ranked seventh among their felt information needs, and first among the information needs attributed to male farmers. In Dang and Parsa, where the largest proportion of respondents focused on this problem, improved seed varieties are more prevalent, and the consequent rise in pests.^{4/} However, since men are, at present, the major recipients of new extension information, it is not surprising that extension agents see it as an area where more inputs should be channeled toward men. This approach must be viewed in light of the sex-specific decision-making for crop and seed selection, as presented in Table 8. Women make more decisions in both categories than men, though crop selection remains in large part a matter of tradition. Nonetheless, if a package of improved seed varieties implies the need for a new approach to pest management, it is clear that female farmers are also a potentially key target group.

^{4/} Personal conversation with Devi Gurung, Khumaltar Ag. Station. April, 1984.

3) Kitchen Gardening

Consensus exists that kitchen gardening is women's most pressing information need. "Kitchen gardening is in most communities considered a female task and women make most of the decisions about selling vegetable produce."^{5/} It is, however, the authors' opinion, that it is only for this reason - that kitchen gardening is so very exclusively women's work - that such high priority is placed on it. This is asserted for the following reasons:

1. Kitchen gardens do not at present contribute significantly to the diet or income of most Nepali families. Approximately 1% of income earned by rural families is generated from sale of produce.^{6/} Lack of irrigation facilities severely limit kitchen gardening in many places.
2. Women's contribution to agricultural decisions overall as well as sale of food grains, and sale of vegetables is consistently higher than men's (see Table 8).
3. Women's time input into cereal crop production is equal to men's (see Table 7).

While kitchen gardens are potentially an important source of vitamins and income, it would be unfair to forget women's significant contribution to cereal crop production. In an effort to increase national grain production, and nutritional standards, women, it should be recalled, have a role in both vegetable and grain production. The fact that extension agents, and indeed female farmers themselves assign so much weight to kitchen gardening has both positive and negative ramifications: 1) it is positive because the increasing awareness raises vegetable consumption and 2) it is negative in that it could

^{5/} Rural Women of Nepal: Aggregate Analysis, Acharya and Bennett, 1981, page 280.

^{6/} Ibid.

increase the rift between the kinds of information and inputs available to men and women if it was given too much weight at the expense of other, perhaps more immediately critical areas relevant to major crops.

4) Chemical Fertilizer

As indicated in Table 8, women make 7% more decisions about the use of fertilizer overall than men. However, as reported in the Aggregate Analysis: "Reports from field observations made by project researchers indicate that in all the communities where chemical fertilizer is in common use it is men who decide on and apply them while women have almost the complete responsibility for preparation and application of organic matter."^{7/} The fact that female farmers ranked this as the fourth most important problem area, indicates their understanding of the importance of fertilizer in production. It also fits into the more complex production/consumption pattern and reflects as well other aspects of women's concern.

The interest in chemical fertilizer on the part of female farmers in Dhankuta stems from 1) the increasing diversion of animal manure for fuel (the latter a task wholly carried out by women) and 2) the growing supply of chemical fertilizer from development projects in Dhankuta. By contrast, in Lamjung, certainly as fuel scarce, the demand for and dependence on chemical fertilizer has decreased as villagers have become discouraged by the unreliability of supply. In Parsa dung is also used in large measure for fuel. The demand for chemical fertilizer is linked to the prevalence of improved seed varieties which require specific fertilizer inputs. Dang, where dung is also a fuel source, has more cattle so that manure is sufficient for much of the fuel and fertilizer requirements. Thus for women, availability of fertilizer is of much more relevance than kind. The

^{7/} Ibid, pg. 262.

fact that fuel scarcity is forcing manure substitution by chemical sources explains women's interest.

Despite the fact that female farmers ranked chemical fertilizer as the fourth most important problem area overall (and third in half of the cases), it did not even fall within the top ten areas of felt information needs. Extension agents, on the other hand, consider it second most critical for male farmers. As discussed above, male farmers have to date been the recipients and users of this important input. This, despite the fact that decision-making is a shared responsibility, if not more in women's hands (see Table 8).

5) Seed availability, selection, and storage

Traditionally women make 60% of the decisions regarding seed selection (see Table 8). The dissemination of mini-kits and other packages of improved seed varieties have targeted male farmers. It makes sense, therefore, that although women see it as a major problem area, they do not see it as an area where they can be the recipients of more information. If, as they know, these inputs are available only to their husbands, they apparently cannot imagine that the inputs could also be available to them. This misperception has been fostered by the extension system as shown in the responses of extension agents, who ranked it third on the list of priorities for men, but not at all for women. Women's expertise in the area of seed selection and storage has not been capitalized upon. Neither will it be with the current orientation of the extension system.

6) Weeding

This is an area where women feel they have a problem, but no one, including extension agents, apparently feel more information or inputs are critical. Since weeding is a woman's job, it did not show up on the list of male farmers' information needs. The relative impact on

production of improved weeding techniques must be weighed against the resources available to disseminate such techniques.

7) Fodder and Livestock

Particularly in the Terai, livestock play an important role in the household economy. They are used for plowing, for food, for fuel, for compost and for income. However, Hill women placed more emphasis on the problems associated with fodder and fuel than Terai women. As discussed above, livestock, fodder and chemical fertilizer are less abundant in the Hills so that the dependence on livestock is more pressing. In particular, Hill women asked for more abundant and accessible sources of fodder.

Livestock ranked second among agricultural information needs of female and 10th among male farmers. The most pressing need was articulated in Parsa and Dhankuta. In Parsa, given the heavy dependence upon animals, women wanted more, especially for fuel. In Dang, apparently the farmers felt there were enough animals to meet the fuel demand. In the Hills, where animals are used for compost, by-products and (except cows) meat, demand for more information was directly related to availability of market outlets. Since Lamjung women see little opportunity for selling animal products and by-products, they put less emphasis on this area. Dhankuta women, who sell milk, ghee, meat etc. wanted more information and extension concerning livestock.

8) Cash Cropping/Fruit Orchards

Little data was found concerning the sex-specific nature of cash cropping (excluding kitchen gardening, discussed above). In Parsa and Dhankuta, where fruit production is already a source of income, women tended to down-grade it as a problem area, whereas women in Lamjung and Dang, where less cash cropping exists, mentioned it about 9% and 5% respectively. Extension agents ranked it fourth important

for men, and eighth for women. Although women have a role to play in the production of cash crops, marketing is primarily the male farmer's responsibility.

9) Field Preparation

Field preparation, particularly when it is done with the plow, is a man's work. It is not surprising, therefore, that it is of major concern to the women of Lamjung, (who ranked it as the third most pressing problem area) who through widowhood or migration, have primary responsibility for this task. Most of these women complained that they lacked the financial resources to hire outside help.

10) Cottage Industries

Cottage industries, though certainly applicable to a wide range of enterprises, has come to be associated with knitting, weaving, sewing, and the like. As can be seen from Table 9, there is a significant demand among female farmers for more information in this area. In the course of responding to the question on information needs some women expressed a desire to know these skills more for the purpose of household consumption than income generation. Tailors are expensive as are knitted clothes; some women asked to learn these skills merely to save money. Nonetheless, many farmers, and most extension agents (with the notable exception of female AAs), focus on cottage industries as an 'appropriate' income generating skill for rural women. According to the Eight Village Status of Women study, 54% of the income earned from 'cottage' industries is generated by women. However, cottage industries, or 'manufacturing', makes up only 2% of the total household income from the villages studied.^{8/} The other factor that must be considered - and perhaps explains the AA's low ranking of this area - is women's current workload (see Table 7) and limited education,

^{8/} Ibid.

both of which argue against skill training in a time consuming craft. Cottage industries for rural women have largely failed because of these factors, in addition to lack of market outlets and new materials.^{9/}

11) Health/Nutrition/Family Planning and Drinking Water

Given the high incidence of infant mortality and diarrhoeal disease based on unclean water, it is no wonder that health and drinking water are primary in women's minds, placing them third and fourth among the priority information needs respectively. Female AAs also place high priority on these areas, probably because they get frequent requests for information and help, especially in the absence of other trained personnel. Though both of these areas are clearly out of the Department of Agriculture's technical domain, this strong felt need raises the question: do extension agents know where to refer villagers for health, family planning services or where to suggest they appeal for a drinking water scheme ?

From the above discussion, some clear directions emerge: irrigation, kitchen gardening, pesticides, fertilizer, seeds. Whether these areas are adequately covered in the context of curricula for extension agents' training is discussed in the next chapter. It is also important to get a more specific understanding of 1) women's decision-making and productive role in each of these areas, and 2) where the problem lies within each area.

2. How Best to Reach Female Farmers ?

In order to determine the optimal extension method to use in contacting female farmers, the women themselves and current extension agents were asked several questions. These questions were designed to learn how women would most like to be contacted, by whom, and how receptive they

^{9/} "Mid Term Review in the Areas of Women's Income Generation, and NGO's Programmes", Integrated Development Systems, 1982.

are to the idea of extension contact. The issues covered, include:

- a) individual visits versus group formation (informal or organized) approach,
- b) accessibility of extension agents and mobility of female farmers.

Several systems of extension are possible for contacting female farmers. Given the cultural and time constraints which limit women from traveling very far from their homes and similar constraints on female extension agents, the kind of extension system and agent most appropriate for women may not be the same as that used for men.

a) Individual vs. group approach

A question was asked of female farmers and extension agents as to whether female farmers should be contacted individually at home, while working in the field, in informal groups, or in organized groups. Overall, female farmers prefer informal groups followed by individual contacts in the home and organized groups (see Table 12). This response is in concurrence with the view of ADOs and female AAs but is the reverse of male AA and JT/JTA perceptions where contacts while working in the field were most desirable, followed by organized groups and informal groups. The four female JT/JTAs responses were divided equally between the individual versus group option of extension. The male extension agents may view contacts while working in the field to be 'safer' socially and more appropriate than home visits. They may also be aware that if they try to contact women in their homes, it would be difficult to talk to the woman if her husband is present. Contacts in the field are often essentially informal group contacts, because women frequently form small work groups to do their agricultural tasks.

Table 12 - Individual vs. Group Preference*

	Lamjung	Dhankuta	Parsa	Dang	Overall
Informal groups	33	70	80	53	59
Individual contacts	50	22	23	30	31
Organized group	46	3	25	38	28
Visits in the field	25	4	2	30	15

* Numbers represent the % of women in each district responding with this answer. Many women gave more than one response, indicating that either would be acceptable.

The main distinction in the female farmers' responses to this question is in the District breakdown. In the two Terai districts, women prefer informal groups followed by organized groups. Women in the Hill District of Lamjung, chose individual meetings most often although in Dhankuta, the preference was for informal groups followed by individual meetings. The women in the Terai, particularly the Tharu tended to be much shyer than women in the Hills and said that they felt more comfortable meeting in groups than with extension agents individually. Conducting interviews with Tharu women was much more difficult than with other groups because they were very reluctant to speak with the interviewers, frequently wanting to ask their husbands' permission first. The cultural barriers are generally stronger and the ethnic groups more conservative in the Terai than in the Hills. One of the field interviewers reported: "the Tharus have their own 'matau' or chief of farmers who advise all farmers as to suitable times for planting and farmers work in the fields according to the matau's direction". Certainly this is a local system which should not be overlooked and could prove useful in entering such communities with information."

In the Hill districts, women have more independence and freedom of movement and do not have such tightly bound communities or close proximity as the Tharus. The preference for individual contacts of

the women in Lamjung can be explained at least partially by women's relative independence. During the interview, they were much more willing to speak and did not need their husbands' permission to be interviewed. Because of the distance to be travelled as well as the freer status of women in the Hills, women might feel that groups are unnecessary or undesirable. In Dhankuta, women preferred informal groups followed by individual contacts. There has been a fair amount of women's informal group formation in this area. Women in Dhankuta are thus more accustomed to informal group meetings so it is already an accepted method of information dissemination.

There was a slight difference in the responses to this question by socioeconomic group, although it was not extremely significant. Women in groups #1 and #2 chose individual contacts more frequently (35% and 40%) than did groups three and four (26% and 25%). This might be anticipated based on the status, education, and relatively higher self image and confidence in using services of the women in groups one and two versus their counterparts in groups three and four.

Several ADOs and JT/JTAs commented that women could be effectively reached while at the water tap, in work groups in the field, or in neighborhood groups. Given the shyness and limited mobility of many of the women, especially in the Terai, this approach has its advantages. There are several drawbacks such as: 1) women may not have enough time to gather, given their many household chores; 2) cultural factors may preclude their participation; and 3) it may not be possible to transfer much information in some locations, such as the water tap, due to the likelihood of disturbances. The ideal location would probably be the female equivalent of the village teastall for the men, if such a gathering place exists.

Because of the diversity of responses, even within a single cultural setting, more investigation in the field is necessary to determine the most effective and most acceptable way to contact female farmers.

b) Accessibility of extension agents and mobility of female farmers

The women were asked a series of questions about whether they would go to the office of a male or female extension agent or talk to one if she or he came to their own home. This distinction between going to an extension agent or talking to one if she/he came was made to determine the mobility of female farmers. In many cases, male farmers are able to obtain information because they can go to an extension agent whereas women's limited mobility hinders their access to information.

Overall, women responded enthusiastically to the idea of talking to a female extension agent. In all Districts and all socioeconomic groups, 93% responded that they would go to talk to a female extension agent and 98% would talk to her in their homes (see Table 13). The response is not so enthusiastic with respect to male extension agents as only 29% were willing to go to talk to a male extension agent and 46% were willing to talk to one in their own homes.

Table 13 - Mobility of Female Farmers Vs. Sex of Extension Agent by District*

	Lamjung	Dhankuta	Parsa	Dang	Total
would go to a male extension agent	50	33	20	8	29
would talk to a male extension agent in home	75	50	35	18	46
would go to a female extension agent	92	94	90	94	93
would talk to a female extension agent in home	97	100	100	100	99

* Numbers represent % of women in each category responding as such.

The attitudes toward male extension agents varied across socioeconomic groups and by District. Looking at the breakdown of socioeconomic

groups, 40% of the women in group one vs. 20% in group four said they would go to visit a male extension agent. This might be expected, as women in the higher socioeconomic group would have greater confidence in themselves and more experience with things outside their immediate domain. With respect to talking to a male extension agent in their own homes, slightly more women in group #1 were willing to do this than group #4 (46% vs. 40%). The difference is probably not as large here because there is no question of mobility which may be the main limiting factor for group four women travelling to see an extension agent.

A striking difference is seen in the districtwise breakdown as shown in Table 13. In Lamjung District, 50% of the women said they would go to talk to a male extension agent whereas the figure was 33% in Dhankuta, 20% in Parsa, and 8% in Dang. Some of the women interviewed in Parsa were Hill women who had fairly recently migrated to the Terai. Thus, the Dang data may be most accurate for indigenous Terai farmers. In Lamjung, the panchayat where the study was conducted is close to an agricultural campus and a main bazaar. Thus women in Lamjung might be expected to have been more exposed than in Dhankuta, for instance, accounting for the greater receptivity to male extension agents.

With respect to a male extension agent coming to their homes, the trend was consistent with the above discussion. It can be concluded that Terai women are more reluctant to interact with male extension agents, because of cultural restrictions.

The overwhelming positive response to interaction with a female extension agent demonstrates the potential receptivity of female farmers to this method of extension. It is clear that female farmers feel women would be most appropriate to transmit information and that whether male or female, they would prefer to have extension agents come to

them. In addition, if male extension agents in the hills were to contact female farmers at home and could involve them in discussions, they could be more effective than they are now. This is probably not as true in the Terai where female farmers prefer female extension agents 95:36%.

Based on the data, it must be concluded that women are more likely to be effective reaching female farmers because of cultural barriers influencing communications between the sexes. This will be discussed in more detail in the following section along with other characteristics desirable in an extension agent from the perspective of female farmers and AAs.

3. Characteristics of Extension Agents

The female farmers and AAs were asked about the desirable characteristics of an extension agent. These characteristics include: 1) the sex of the agent, 2) familiarity, 3) respectability, and 4) knowledge about agriculture and the extension system. With respect to the first characteristic, the response was consistent with the findings discussed above. Ninety-one percent of the female farmers responded that 'female' was an important characteristic for an extension agent. The AAs were not specifically given the response option of 'male' or 'female'; rather they were asked about the ideal characteristics of a female extension agent. With respect to all of the characteristics, no significant difference emerged between the perception of female farmers of different socioeconomic strata or from different districts. Likewise, male and female AAs did not demonstrate much difference in perception.

Table 14 - Ideal Characteristics of Extension Agents*

Characteristic	Female Farmers	Female AAs	Male AAs	AAs Overall
Friendly w/local officials	100	100	100	100
Know a lot about agriculture	98	100	100	100
Education	96	100	100	100
Female	91	N.A.	N.A.	N.A.
Age	54	95	71	85
Ethnic group	45	86	43	69
Local	41	81	85	83
Married w/child	39	95	64	83

* Figures represent percentage of respondents who felt the characteristic to be important.

As shown in Table 14, the aspect of the extension agents' familiarity was measured through the characteristics of 'similar ethnic group' and 'from your village'. Overall, 41% of the women felt that she should be a local woman while 45% felt she should be of a similar ethnic group. It was surprising, given the cultural differences between Hills and Terai, that there was no significant difference in responses of women in these areas. The familiarity aspect of an extension agent is influenced by several factors. In some areas, particularly Tharu, the language barrier would indicate that a local woman would be most desirable. On the other hand, some of the village women have somewhat low perceptions of themselves and feel that an outsider would be more effective. This feeling is not apparent, by any means, among all of the women, as many of the interviewees specifically asked how they could become extension agents, thus expressing their desire for the job and confidence in their abilities. In examining the results of the data, it should be remembered that although 41% and 45% of the women felt being an 'insider' and of similar ethnic group respectively to be important, the rest of the women did not care and felt that either would be acceptable.

Among the AAs, two out of three felt ethnic group to be important and five out of six thought a local woman would be best. Given the AAs experience as a grassroots extension agent, their response should perhaps be given more weight than the farmers'. Familiarity and similar ethnic background are probably optimal, particularly in more conservative settings. Senior program officials and policy experts also considered the familiarity of the extension agent a very important characteristic. Experience has shown that local women are most effective in roles such as extension agents because they are more willing to work in the village. Although 'outsiders' may be better qualified they do not usually want to work in a village setting. Local women may also be better accepted within the cultural context of a specific village.

The issue of the extension agents' respectability was approached through three characteristics: 'age', 'married with children', and 'education'. 'Married with children' was considered the least important of the three (39% of the women and 75% of the AAs) followed by age (54% and 83%) and education (96% and 98%). The emphasis on education is not surprising, as it gives a woman more credibility, status in the eyes of the community, and certainly more intrinsic value in her profession. However, experience has shown that very educated women are less likely to want to work in rural areas; thus, it is difficult to find educated women who have the interest in extension work. A very educated woman may also have a more distant relationship with the farmers since she has a higher status due to her education.

A woman who is older (i.e. 30-45 years old), married, and somewhat educated, is likely to represent a stable, credible, woman to reach female farmers. Although being married with children adds to a woman's respectability, the added task of childcare without assistance makes it even more difficult for women to perform well as extension agents. Experience from other projects has demonstrated that young,

unmarried women can be just as effective as extension agents.^{10/}

Both female farmers and AAs agreed almost universally that an extension agent should know a lot about agriculture and be friendly with local officials.

From the data, as well as discussions with other key informants, a picture of the ideal extension agent for contacting women can be drawn. The person should be a woman, preferably local, respectable within the community, somewhat educated although not too much, and should be able to work within the local bureaucratic structure.

4. Problems Facing Extension Agents

The work of extension agents is not easy anywhere, but it is particularly difficult in many regions of Nepal where there is a lack of qualified personnel as well as poor transportation and communication networks. The extension agents in this study: nineteen JT/JTAs (15 men, 4 women) and 35 AAs (21 women, 14 men) were asked what their major problems have been, as well as other questions concerning whether or not farmers understand them, and specifically whether they feel difficulty talking to women (asked of JT/JTAs). It was anticipated when designing the questionnaires, that most of the JT/JTAs interviewed would be men and that more of the AAs would be women. This is not to say that there are more women AAs than men, but a special effort was made to reach the WAA's working under the UNFPA program in Palpa and Kavre.

As shown in Table 15, the JT/JTAs of both sexes agreed that their major problems are too large a working area and insufficient training. Among both groups, there was no difference between the responses of AAs and JT/JTAs of the same sex or of those working in the Hills and

^{10/} Personal Conversation with Dr. Lynn Bennett, UNICEF, May, 1984.

those in the Terai which is why they have been grouped together in Table 15.

The working area of a JTA is from one to three panchayats, depending on size of the panchayat and terrain, while that of an AA (or PL) is usually one panchayat or less. A JT may be assigned to a supervisory role, in which case, he or she would not make field visits but might be supervising JTAs in as many as ten panchayats. A JT might also be assigned to do field work like a JTA. By no means is the entire country serviced by extension agents. Because of the large distances to be travelled, especially in the Hills, there is simply not enough time for the extension agents to cover their territories. In the case of JT/JTAs, they have a certain amount of administrative work to be done in addition to their field visits. In the case of AAs, they have their own farms to run in addition to disseminating information. The female AAs are further restricted in their time because they also have household chores and children to care for.

Overwhelmingly, the extension agents felt that their training was insufficient to meet the demands of their jobs. Theoretically, JTs receive two years of training, JTAs one year, and AAs one month, although in reality many of them have not had nearly this much training. Much of this training is theoretical rather than practical and does not always cover the areas which extension agents need when they reach the field. The training curriculum will be discussed further in the following section on curriculum. In the case of JT/JTAs, many of them were trained a long time ago and little has been done in the way of follow-up training. For the AAs, a one month training may not be sufficient especially to provide practical, hands-on training. They need to be given techniques for passing on information to the farmers as well as practical information which will benefit farmers in their agricultural practices. Two out of three women extension agents cited training as a major problem, whereas one out of four men cited this. It has been said that women need more 'catch-up'

time to become accustomed to studying and learning. In general, the women enter training with less education than men, so it takes longer to grasp the concepts.

Salary was a major issue raised by the AAs. Given the amount of time they are expected to devote to visiting farmers and disseminating information, they do not feel that their salary is adequate to compensate their efforts. In addition, WAAs' salaries have recently been reduced from Rs. 150/month (being paid by UNFPA) to Rs. 50/month (under HMG). If female AAs are to be viable link to large numbers of female farmers, their compensation needs to be sufficient for them to be able to recruit the best women and offer incentives for reaching women farmers with quality information. It is possible that just the status of being an extension agent would give women partial incentive and motivation to do a good job. Grassroots female extension agents under the Mothers' Club have been quite successful in motivation and dissemination of family planning information. They were paid Rs. 75/month initially and now earn Rs. 175/month.^{11/}

Supervision is another issue identified by some of the extension agents. They feel that there is often a lack of support from their offices and that supervisors do not always take an interest in their work or understand their intended roles. For women, this is a particularly sensitive issue because frequently their supervisors are male. If the supervisors do not understand what the role of the women is to be, and are not supportive of female extension agents in the field, the work of the women is seriously thwarted. It has happened in the past that male supervisors have assigned their female extension agents to do secretarial work, to sweeping floors or to making tea, although they have been trained for extension work. Supervisors need to be well oriented to the role of women extension agents as well as to the issues concerning female farmers.

^{11/} Personal report of Padma Shrestha, Mother's Club, May, 1984.

The problem of lack of childcare is another constraint to women's participation in training and effective field work. Everyone from policy makers to extension agents concurred on this point. It is certainly a constraint, but there are alternatives which would allow women to participate fully in training programs and extension work. Because women are primarily responsible for childcare, it can be very difficult for them to work if they have no one to help them or nowhere to take their children while they are in the field. Particularly in the case of AAs, they cannot afford to hire someone for childcare, so they have to depend on family or friends who may not always be supportive of their desire to work or have the extra time to help out. Childcare responsibilities can pose a serious constraint to women who want to work and can be a major factor in their success as extension agents. It can also be a limiting factor for women in training programs where usually there is no childcare facility and children are not welcome.

There are also cultural constraints on women working as extension agents and especially on women travelling far from home for training and work. Family restrictions may preclude a woman's participation in training or her working at all. If she is to go to the field, she may not be able to talk with male farmers in some areas, especially the Terai, or may not even be allowed to talk to their wives if it is felt that she is not respectable because she is travelling alone, is not at home taking care of her family, or is of a different ethnic group.

Based on the problems identified by the extension agents, the main areas which need to be examined with respect to all extension agents being placed in the field are the size of their working area, supervision, amount and quality of training, and (for AAs especially) salary. For women, some special considerations may need to be made because of their dual roles as mothers/housewives and extension agents. The workload for a working woman is generally greater than

that of a working man because she will probably have to do the cooking, cleaning, care for the children, and farm work as well.

Table 15 - Problems of Extension Agents

Problem	Male extension agents	Female extension agents	Average
Insufficient training	21	64	43
Insufficient salary	6	68*	37
Size of working area	27	28	27
Family restrictions	6	15	11
Lack of supervision	12	8	10
Lack of childcare	-	16	8
Lack of support from local offices	3	-	2

Note: Figures represent % of extension agents mentioning this as a problem. Total number of respondents:

19 male JT/JTA
14 male AA

4 female JT/JTA
21 female AA

* All of the women responding as such are WAAs.

D. Review of Curriculum for Training Extension Agents

1. Introduction

In order to assess the potentials and shortcomings of the extension resources currently available to women, training curricula for all levels of extension agent (ADO, JT, JTA, AA, and WAA) were reviewed. The technical subjects covered in the respective training and academic curricula were looked at to ascertain whether they correspond to: 1) the areas where female farmers say they have the most problems and need the most information, and 2) the areas where extension agents themselves say women need the most input. In addition extension education and sociology courses have been reviewed with the hypothesis

that to date, little or no attention has been paid to the role of women in farm activities or how to reach farm women. Assuming this, recommendations are put forward in Chapter V to strengthen the extension methodology component of the curricula reviewed in terms of helping extension agent trainees to more effectively reach rural women.

All of the ADOs and most of the JT/JTAs interviewed felt that curricula for female extension agents should be different from male extension agents. However, that 'difference' turned out really to mean 'more'. That is, though female extension agents clearly need to understand and communicate new agricultural techniques and information, there is also a demand for other kinds of information, not necessarily directly related to agriculture, such as drinking water, health/nutrition/family planning, knitting, sewing, etc. on the part of female farmers.

It is also clear, however, that the response on the part of the ADOs and more senior extension agents reflects a bias towards the domestic rather than the agricultural role of women. This is neither reflected in the time allocation data from the Status of Rural Women Study^{12/} women's perception of their role on the farm (79% said they did more farm work than their husbands, see Chapter IV.B.1) or the focus of their problems.

We have chosen therefore, not to consider how a separate curriculum for female extension agents should look. Rather, the following review and recommendations are made with the view that both male and female extension agents should be trained together with the long term goal of reaching all farmers irrespective of sex. Given the time, mobility, and educational constraints of Nepali women, it is inevitable that, at least for this generation, more male extension agents will be trained and employed. Though they may be less effective in reaching female

^{12/} Rural Women of Nepal: Aggregate Analysis, Acharya and Bennett, Volume II, Part 9, CEDA, Nepal, 1981.

farmers (see Chapter IV.C.2b), their preplacement training should help them to be as effective as possible. Likewise, it is important for female extension agents, their supervisors, and male colleagues to understand and support their role in the extension program. Hence, no separate curricula are recommended, but rather additions to and revisions of existing curricula suggested to take all of Nepal's farmers - male and female - into account.

a) Curricula Reviewed

As shown in Table 16, at present there are two types of training courses for agriculture extension agents. While the Institute of Agriculture and Animal Science (IAAS) offers academic courses, short term technical training is given by the Department of Agriculture. The IAAS campus trains diploma and certificate level candidates who are then eligible to become ADOs, JTs, JTAs. The Department of Agriculture trains JTAs, AAs, and WAAs. The DOA training course for JTAs and AAs is one month, whereas the campus offers a JTA course of one academic year. The Integrated Cereals Project trains their own grassroots level extension agents.

Table 16 - Training for Extension Agents in Nepal (1983-84)

Course	Place or Agency to train	Duration	Type of Extension Agent Trained	Male Enrolled Number	Female Enrolled Number	Total Enrolled Number	Remarks
1.B.Sc. Ag. III year	IAAS Central Campus Rampur	3 years	ADO	73	x	73	-
2.B.Sc. Ag. II year	" "	3 years	ADO	84	2	86	-
3.B.Sc. Ag. I year	" "	3 years	ADO	150	1	151	-
4.I.Sc. Ag. II year	" "	2 years	JT	248	2	250	-
5.I.Sc. Ag. Batch No. 1 Old II year	IAAS Paklihawa Campus	2 years	JT	196	2	198	-
6.I.Sc. Ag. Batch No. New II year	" "	2 years	JT	170	x	170	-
7.I.Sc. Ag. I year	" "	1 year	JTA	216	1	217	-
8.I.Sc. Ag. I year	IAAS Lamjung Campus	1 year	JTA	172	3	175	-
9.1 month JTA Training	Dept. of Ag.	1 month	JTA	25	x	25	Target to train 25
10.Agriculture Assistant Training	" "	1 month	JAA	200	x	200	Target to train 200
11.Female Agri. Assistant Training	" "	1 month	WAA	-	28	28	Target to train 28
Total				1534	39	1573	

Female enrolled percentage 2.5%.

b) Female Participation in Academic and Training Courses

Table 16 shows that at present there are only three female students enrolled in the IAAS Central Campus at Rampur for the B.Sc. Agriculture course which trains Agriculture Development Officers (ADOs), whereas the male enrollment number is 307. For Junior Technicians (JTs) training, the female enrollment number is four against 614 male enrollment. At the Paklihawa Campus and the Lamjung Campus, 392 JTAs are being trained, out of which four are women. In all cases, women make up only 1% of the class.

This year the Department of Agriculture has targeted to train 25 JTAs without specifying sex. The DOA will also train 200 male AAs and 28 female AAs. Out of the total of 1573 extension agents of all types being trained at present, 39 are women, which is only 2.5%.

A concerted effort is needed to change this situation and to encourage more women to enroll.

c) General Findings

After examining the curricula, we find that female leadership development or organization of female farmers groups were not mentioned at all. It may be that some of the teachers are addressing these issues, but unless it is mentioned in the curriculum, it is at the discretion of the trainer or professor.

Extension and rural development courses do not deliberately deal with sex-specific topics. The male orientation of extension services can be attributed in part to this fact. Very few women have enrolled in any of the academic or training courses available, except when a special course was organized to train them.

Most of the technical subjects which extension agents said they want

more training in, and the information needs of both male and female farmers are included in current curricula. The exception is, of course, in non-agricultural fields such as cottage industries and health; also kitchen gardening and irrigation do not seem to receive as much attention in training courses as they do in the minds of farmers and extension agents. It is likewise difficult to measure how relevant the actual training is for the extension agents' needs without taking a much closer look at how specific subjects are presented. This admittedly superficial review found that the areas where information is required are with the aforementioned exceptions being taught to extension agents. The first step toward making this information more accessible to female farmers, therefore, lies in the approach to extension education.

2. Training Courses Under IAAS Campus

The Institute of Agriculture and Animal Science (IAAS) prepares technical personnel required by various organizations in the field of agriculture. When it began, the Institute was located in Meen Bhawan and was under the Department of Agriculture. At that time the Institute was training high school graduates, who after their training were appointed as Junior Technical Assistants (JTAs) by the Ministry of Agriculture and other concerned agencies. Most of the JTAs interviewed had undergone this type of training a long time ago, with only minimal refresher course supplementation. Now the training of JTAs, JTs, and ADOs has become the responsibility of the Tribhuvan University system in close consultation with the Department of Agriculture. These extension agents are required to pass one, two, and four year* academic courses respectively.

At present, the following courses are given at IAAS:

* This B.Sc. Agriculture course is being evaluated and may be extended to a five year course.

a) B.Sc. Agriculture Course

B.Sc. Agriculture course is offered at the Central Campus in Rampur. The following subjects are taught: entomology, plant pathology, soil science, agronomy, genetics, crop improvement, post-harvest technology, agricultural engineering, soil and water management, horticulture, plant physiology and biochemistry, introduction to animal science, lactation breeding and forage, agricultural statistics, agricultural economics, extension education, rural development and farm management, and marketing.

The course includes both practical and theoretical components covering fairly comprehensively the technical areas in which female farmers have problems and information needs. However, the sex-specific nature of farm tasks is not mentioned in extension or related courses.

In the course of extension education, suggested activities include philosophy of extension, basic concept of rural sociology, programme planning, leadership and psychology of teaching and learning. It also includes process, channel and source of communication, dissemination of farm information, limitation and effectiveness of visual aids, their presentation and preparation, demonstration and extension teaching methods.

The proposed new curriculum contains a five year B.Sc. Agriculture program for SLC students. The curriculum for JTA training is separate in the fields of agriculture, horticulture, and animal science. According to the proposed curriculum, JTAs will be admitted in B.Sc. Ag. programme on the basis of their SLC performance starting from the first year. No courses will be exempted for them.¹³

13/ IAAS Bulletin 2038 (1981), Institute of Agriculture and Animal Science, Dean's Office, Central Campus, Rampur, Chittawan, Nepal.

b) Proposed B.Sc. Agriculture Course: Social Science Component

For the purpose of this study, the IAAS Bulletin 2038 (1981) listing the current curricula is analysed. For the courses in the social science area, a revised curricula, now under discussion within IAAS has also been analysed.

- Extension Education: The curriculum covers the concept of extension, the linkage with supporting services like ADB, AIC, Sajha, etc., the role of extension workers (JTA, JT, ADO) and local leaders in delivering extension services, use of audio-visual aids, selection, training and use of local leaders in extension, etc.
- Communication and Change: The curriculum covers various aspects of communication and change including social, cultural, personal, and situational factors that account for adoption of new ideas and practices.
- Rural Sociology: In the curriculum of Rural Sociology, some of the topics dealt with are the concept and scope of rural sociology, basic concepts of study of human behaviour focusing on such aspects as culture, custom, belief, socialization, norms, group relations, social and ethnic groupings, etc.
- Sociology of Rural Development: This course deals with the concept of rural development and integrated rural development, in historical perspective of rural development movement in the third world contemporary rural development programmes and projects in Nepal, people's participation in rural development, etc.

Although aspects of dynamics of labor distribution in the farm family are obvious components of many of these courses, it is not spelled out in the brief course descriptions.^{14/} Neither is mention made of the problems and potential advantages of reaching female farmers.

c) JT and JTA Training Courses at IAAS

JT and JTA trainees receive the same practical training in the first year; JT second year training includes more theoretical science and mathematics. The first year course, which both JT and JTA trainees take includes:

^{14/} Institute of Agriculture and Animal Science, Rampur, curriculum, A Draft Proposal prepared by the Task Force Committee 2039-40 for the faculty board.

Farm management, animal husbandry, horticulture, agronomy, and extension education.

The second year course includes: agriculture chemistry, agriculture physics, agriculture botany, agriculture mathematics, agriculture zoology, Nepal studies, compulsory Nepali, and agricultural English.^{15/}

Extension Education: This is the only course dealing with communications, and includes: extension education, programme planning, communication, extension methods, local leadership development, extension administration with special reference to Nepal.^{16/} Again, no mention is made of women in the curriculum description.

3. Department of Agriculture Training Courses

a) JTA Training

Besides the IAAS campuses, JTA training is also conducted by the Department of Agriculture according to their need. SLC passed students with vocational agriculture are provided a one month introductory training in agriculture. After completion of the training, they are appointed as JTAs. The courses for one month JTA training in brief are as follows: soil and fertilizer, paddy, maize, plant protection, wheat, fruit cultivation, vegetables, cows and buffaloes, goat and sheep, poultry birds, fisheries, veterinary, in addition to extension.

Extension: The component in extension includes basic characteristics of innovation, decision making process, process of communication, elements of communications, source, message, channel, communicator, preparation and use of media (local materials), philosophy of extension, village leadership and their training including leader farmers' training, AAs training and its role in agriculture development, general farmers' training in the field, objectives and necessity of rural youth program, concept of change and development, etc. All theoretical components are followed by some practicals.

15/ Ibid.

16/ IAAS Bulletin 2038 (1981), Institute of Agriculture and Animal Science, Dean's Office, Central Campus, Rampur, Chittawan, Nepal.

At the IAAS campuses, the JTA training course is of one whole academic year whereas the JTA course conducted by the Department of Agriculture is of only one month. Clearly, none of the areas listed above receive much more than perfunctory attention. Extension education is covered in 1-2 days. Thus, although most areas are ones where working extension agents said they want more information, it is doubtful that any improvements on this one-month cram course would provide much depth in any of these areas. Thus, the one month training course is insufficient.

b) AAs and WAAs Training Under the Department of Agriculture

The Department of Agriculture also trains Agriculture Assistants (AAs). AAs are innovative local farmers who are selected from one panchayat and trained for a month in the DOA's training center. After the training, they are hired as AAs and are placed in their own village panchayats to work.

For the last four years, female AAs (WAAs) have also been trained in the Department of Agriculture. In Kavre and Palpa where UNFPA has assisted in training and employment, WAA's are getting extra courses on population, child care and health. Otherwise courses for AAs and WAAs are the same including:

Paddy production and cultivation, maize production and cultivation, wheat production and cultivation, millet cultivation, legumes cultivation, soil fertilizer, fertilizers, different compound fertilizers and single fertilizers, fruit production, vegetable production, management and care of nursery beds, and extension. All AAs are also receiving training in population education as well.

Extension Programme: This component includes: leadership, organization of groups, communication, rural youth programme, agricultural radio (broadcasting) programme, different agriculture extension methods, and group contact.

The male and female AAs were asked in what areas they would like to have training if one month training were to be given. Female AAs in response to this said they would like training in crop protection (41%), health and nutrition (41%), crop selection (32%), composting (18%), and kitchen gardening (18%). Male AAs in response said they would like to have training in fruit planting and cash crops (23%),

crop protection (15%), livestock (15%), seed selection (15%), and health and nutrition (8%).

Crop protection, though possibly included under the "production and cultivation" of various crops listed above, is not included as a major heading. Neither is any mention made of livestock. The shortness of training time and relatively limited educational background of the AA trainees (and in particular female AA trainees) suggests that the areas of greatest concern and potential service to farmers be the focus of AA training.

c) Production Leader Training

The Integrated Cereals Project trains their own grassroots level extension agents known as Production Leaders (PLs). Each PL is responsible for the programme over 100 hectares of land. One JTA supervises five PLs.

PL training is organized sequentially. Five days of orientation is given initially, after which a half day's refresher training is given every fortnight. This method reinforces simple messages and adds new information each time. It also allows training to coincide with the production cycles for the whole year.

Some of the highlights of the PL curriculum is as follows:

Rice Crop, wheat crop, dhaincha, mungbean crop, maize crop. No specific mention is made in the curricula of extension education, but in the initial five day course the role of PL is discussed.

In Chittawan and Parsa, altogether five PLs were interviewed and asked if one month of training were to be given, what areas would be most desirable for more training. In response to this, 40% of the PLs said that they would like to have training in planting methods, kitchen gardening, and cottage industries and 20% of them said composting and seed selection would be useful. Kitchen gardening and composting are not in the current curriculum of PLs, but the planting methods and seed selection are.

4. Special Problems of Female Students

In order to get a better idea of how current female students feel about studying in IAAS so that efforts can be made to recruit more women, female students were interviewed in Lamjung. The paramount problem for female students in the campuses seems to be that there is a lack of a secure place for them to stay. According to students, deans, and professors, there would be more female student enrollment if there were hostels for them. Plans are underway to build hostel facilities for women at the agricultural campuses with funding by World Bank and USAID.

Some of the students said that they were discouraged by parents and teachers to study agriculture because it was thought to be a man's field of study.^{17/} Also, families are more likely to send their sons for agriculture training if family resources limit the number of children who can go for higher education.^{18/} The female students in Lamjung thought that scholarships would encourage more female enrollment. The female students also had extra household duties which compete with their study time, a problem which most male students do not have to worry about.

WAA trainees face different problems. Their major complaints are distance to training site, lack of sufficient time, and lack of childcare options or facilities. Childcare is also a problem for female extension agents of all categories, a factor which may limit the time they can devote to the job as well as mobility.

^{17/} Tour Report - Anita Sharma and Jennie Woods, ARC, USAID, 1984.

^{18/} National Research Associates, 1983, "IRNR Female Candidate Survey." Prepared for SECID/RCUP.

VI. RECOMMENDATIONS

On the basis of the data collected in this study, the following recommendations are put forward. Although many of the findings in this study had implications for the larger extension system, or for curricula and training courses in general, these recommendations have confined themselves to issues relevant to reaching female farmers in the context of the existing system.

The overall recommendation that emerges is that the current research provides only a theoretical basis from which to begin sound planning. As anticipated at the outset of this study, an implementation phase to test the conclusions drawn herein is most appropriate. Because so little is known about reaching female farmers, only through empirical trial and error, based on the current research, will a practical and effective strategy emerge. Thus, a detailed proposal of how that next phase project should look is presented in Chapter VII. Recommendations reflecting the specific areas of concern to this project are put forward below:

1. Who should reach female farmers ?
 - a) The ideal extension agent to contact women is another woman. The position of Agricultural Assistant (AA) is a logical one through which to directly contact female farmers because of the cultural/social barriers to communication between the sexes. This is recommended, at least in the short term, because there are so few women enrolled in JT or JTA courses, and so few likely to be so in the near future. AAs if properly trained and backstopped, can be effective agents of change at the village level.
 - b) The other advantage of hiring women as AAs is that they will be most familiar with other villagers, the village situation, and they will be more likely to stay in the village. Although a greater pool of educated and more exposed candidates for extension agents exists outside of many villages, past experience has shown that such women (and men) are more upwardly mobile and tend to leave. AAs recruited from their

own panchayat, therefore, have the advantage of being familiar and stable. A local woman would also be of similar ethnic and language group and therefore more acceptable and effective at the village level.

- c) The AA trainee should have some education (if possible, 7-8 class) but not so much that she is overqualified and has aspirations which would lead her away from her village. A woman with some education will be easier to train than an illiterate one, and but is more likely to stay in a village than a woman who is more educated. Basic literacy and numeracy is essential to grasp the basic messages, and keep records related to her work. Although a few illiterate WAA's are working, they are severely handicapped by their lack of education.
- d) The AA should be respectable within the community, and not too young and inexperienced. Age seems to tally closely with credibility in many rural communities. Women with older children, or widows without much family responsibilities, are desirable candidates, if they are in addition highly regarded in the community and highly motivated in their own right.
- e) AAs should be supervised and backstopped by female JT/JTA's or male JT/JTA's who have been extensively briefed in the rationale behind and approaches to reaching female farmers. Supervision of grassroots agents is tantamount to their effectiveness. The sex of the supervisor is perhaps less important than his or her sensitivity, but clearly women AA's will find it easier to talk to women supervisors. Supervision means not only monitoring what the grassroots extension agent is doing, but backstopping and supporting that effort. Thus, the JT or JTA would provide refresher trainings. He or she would also operate as an intermediary between the village and the district in facilitating linkages, requesting assistance and inputs.

2. How should female farmers be reached ?

- a) Female AAs should be assigned to smaller working areas. Women face significant constraints to their time and mobility. Thus, limiting their territory will allow them to effectively cover it completely. The AA will most likely know all of the people in that

area, also increasing impact. It is recommended, therefore, that one Hill panchayat be covered by three AAs and one Terai panchayat by two AAs. Likewise, the area currently assigned to male PL's (100 hectares), should be halved for female PLs. Although this looks like a much more expensive proposition, in fact it would be expected that the return, in terms of coverage and increase in production, would more than compensate for the expense.

b) Although it is often suggested that women should be assigned in teams to counteract cultural barriers to women working alone, this approach is not recommended with AAs or PLs. If women are locally recruited and assigned, they should not have much problem working alone, even in the most conservative settings. Teams have not always worked in the past. They are expensive, and may be a waste of personnel if one member dominates the other or teammates are not compatible.

c) Formation of informal groups is probably the most effective extension method to use in contacting female farmers. From the perspective of the extension agent, it is easier to reach a larger number of women this way at one time. For the women, a small group of other women with whom they are familiar, will provide support and a forum for sharing information. Through groups, resources can be mobilized more efficiently, particularly when a specific task is undertaken like a small-scale irrigation scheme. If women should want to obtain a loan for a project, it is easier done through a group. This is particularly true for women who still shy away from interacting with the bank and other such bureaucratic institutions.^{19/}

Also, through the group, cooperative daycare can be organized to the benefit of all working mothers.

The pros and cons of extension using informal groups can only be ascertained for certain through implementation in the field.

19/ Rural Women of Nepal; Aggregate Analysis, Acharya and Bennet, Volume II, CEDA, Kathmandu, Nepal, 1981.

d) The most appropriate meeting place for information dissemination and discussion is likely to vary according to the area and available locations. Ideally, the meeting place should be free of too many distractions, at a place where women feel comfortable and which is within easy walking distance. In the Production Block model, the obvious site is the home of the PI. This may also be true with the WAA if her home is accesible and there is enough space. Alternatives like a school, or other public facility which could be made available in off hours should also be considered.

e) Meeting time should be adjusted to women's work schedule. Particularly in busy agricultural seasons, women may have precious little time to attend meetings. However, a surprising turnout for adult literacy classes among rural women has been demonstrated when there is electricity and classes are held in the evening. Timing must necessarily be decided on a case basis, but the extension agent should be flexible and sensitive in this regard.

3. Other Important Issues

a) The issue of childcare for trainees, extension agents, and female farmers needs to be examined carefully. The presence of children can be a distraction for women in a training program and indeed may keep them from participating. This is also true when women are invited to participate in demonstrations, trainings, or other extension activities. Women should not be discriminated againt because they are the ones to bear and care for children. Daycare centers are not logistically complicated or very expensive to organize. For training courses, they would require, minimally, a room, a woman to look after the children, and some basic materials and foodstuffs.^{20/} Within the context of a group, one member could be remunerated in cash or in kind by the other members for looking after the children. A widow or older woman who cannot work would be ideal. This model is successfully operating in the context of some SFDP groups.

^{20/} See UNICEF, "Guidelines for Starting A Child Care Center in Your Community".

b) The salary of extension agents needs to be examined. This is, admittedly, an area not of concern exclusively to women. However, it is appropriate to assess salaries of all extension agents vis-a-vis their qualifications and expected workload. If more women are to be recruited into the workforce of extension agents, what are their job alternatives and which look most attractive salarywise? Is salary an incentive or disincentive or neither in attracting more women to become agricultural extension agents?

4. Curricula

Based on the admittedly superficial review of training curricula for all levels of extension agent the following general recommendations are put forward:

a) Male and Female extension agents should receive the same training.

Although agricultural tasks tend to be sex specific, they are also interdependent and therefore difficult to separate in the process of extension. For instance, as discussed above, seed selection and storage, a female task, can not be separated from chemical fertilizer application, a male task, in the context of dissemination of minikits. Thus extension agents who understand the package should understand the dynamics of decision-making among the recipients of the information. With this whollistic view, both male and female extension agents can be equally effective.

At the present time, female AAs only are trained in population education and basic health. This is appropriate only if it is offered in addition to and not instead of the agriculture curricula for AAs.

b) Extension education and related courses should be critically reviewed to pinpoint where 1) the role of women on the farm, 2) special problems facing women, and 3) approaches to reaching female farmers can be integrated. Some specific suggestions for existing courses are presented below.

- c) The design construction, funding and maintenance of small scale irrigation schemes should be given more emphasis in all levels of training courses.

The farm irrigation and water utilization division of the Department of Agriculture has as its objective "to provide the irrigation and drainage facilities to the farms at the field level for optimum utilization of irrigation water available by constructing appropriate irrigation and drainage networks. The division shall also carry out training programs for the farmers, training them with simple technologies that are most essential and important at that level.....

look after management, control and distribution system along with the agricultural development program within the command area of a typewell, through the direct guidance of a JT/JTA under project incharge".^{21/}

Thus closer linkages should be maintained with the services available through this division.

- d) Likewise, kitchen gardening should receive more attention at all levels of training, in particular with AAs. With respect to extension education courses, the following course-specific recommendations are put forward:
- e) In order to strength course components dealing with female farmers, audio-visual media are desirable. This way, the message cannot be minimized or distorted, and the same package information can be presented at all training course.
- f) A enrollment quota for girls should be fixed at all of the agricultural campuses. This should be reasonable based on current demand, and current and future housing facilities. It should increase incrementally every year. Without a quota, lip service will continue to be paid to the need for female enrollment. A quota will stimulate the faculty and staff of campuses to actively recruit women.
- g) Scholarships should be offered for all female applicants to IAAS campuses who gain admission. This will encourage female enrollment by far more than quotas. It will also encourage parents to enroll girls, whereas they may otherwise have enrolled male children if resources only permitted one child to go for higher education. Once

^{21/} "Progress Report of Farm Irrigation & Water Utilization Division", Vol. 1, Department of Agriculture, FMG, Kathmandu, 1980.

more girls are enrolled in campuses, universal and/or complete scholarships may not be necessary. However, to achieve a critical mass of female students and, eventually, graduates, scholarships are a means of filling the current vacuum and starting a new trend. By seeing more women graduate from IAAS campuses, more fresh SLC graduates will be encouraged to apply.

- h) Housing must be provided on campus for female students. This is an issue that all of the concerned agencies are well aware of, and steps are being taken to build hostel facilities at many of the campuses where women students could live cooperatively. Lack of housing should not be the major obstacle barring women from entering the university.
- i) For AA trainees, childcare facilities should be provided for up to 2 children/woman at the site of the training.
- j) B.Sc. Agriculture Extension-Related Courses:

1) Communication and Change:

In the course of communication and change, it has to be added that due to social, cultural, personal and situational factors, it is difficult to communicate with women for adoption of new ideas and practices. Some definite methods have to be developed to communicate with women because in Nepal social and cultural factors affecting women are different than those of men. Lesson learned from the few projects which have systematically tried to communicate with rural women could be incorporated.

2) Rural Sociology:

In the portion of the curriculum dealing with culture, customs, values, beliefs, socialization, norms, it has to be added that custom, value and social norms are different for women than for men, so that to bring about social change for women, factors have to be deeply analyzed. These influencing factors also differ from one ethnic group to another. Methodologies for pinpointing male/female dynamics and integrating into a programmatic approach to extension is relevant here.

3) Sociology of Rural Development:

In the area of integrated rural development, a portion of women's development should be added and in the area of people's participation, the participation of female farmers should be emphasized. The historical role that women and women's groups have played in rural development could be discussed, and ways of building on this suggested.

4) Extension Education:

In addition to the content of this course, the following topics should be included: identification of female leaders, delivering extension services to reach more female farmers, use and preparation of audio-visual aids to reach more female farmers, giving examples of female farmers' participation in agriculture, providing more opportunities to female farmers in farmers' training, and using more female leaders in extension.

k) JT/JTA Course

A) Campuses are training JTAs for one full academic year and the Department of Agriculture is training only one month, so may be it is better if the Department of Agriculture training is phased out and the responsibility of training be given to campuses. Department of Agriculture could conduct needed refresher training with the help of subject matter specialists.

1) Extension Education to the Existing Curriculum, add:

Identification of female leaders, use of audio visual aids to reach more female farmers and including more women in farmers' training. The fact that women are also farmers and they play an equally important role in production has to be emphasized.

2) Irrigation

Irrigation is not included in the JT/JTA course though it ranked highest in the problem areas of female farmers. The 2 year JT course could include some basic training in design and construction of small scale irrigation systems. Both JT's and JTA's should be thoroughly familiar with how villagers can access resources for construction of small scale irrigation schemes. Through the Department of Agriculture and Ministry of Water Resources.

3) Kitchen Gardening

Kitchen garden received the most requests in the area of information needs of female farmers. Kitchen garden is dealt with in the JT/JTA course in detail. Extension of kitchen gardening to female farmers should be emphasized.

1) AA/WAA/PL Courses

In general, stress should be placed on practical training.

- B) AA and WAA course should have refresher training every three months and should be concentrated on specific subjects of agriculture.

1) Extension Education:

Add to this course identification of female farmer leaders, mobilizing female farmer leaders to encourage other female farmers to join in the agriculture extension program. Group formation is also essential.

2) Irrigation

Because of the significant demand for irrigation facilities AAs and PLs should be aware of how to assist villagers in obtaining the necessary outside resources (loans, technical assistance, materials) to help them start such systems. Group formation is also essential here.

3) Kitchen Gardening

The curriculum should emphasize when and how to sow and transplant different types of vegetables and places to get vegetable seeds should be included. Seasonal cropping patterns and market demand would also be appropriate. In the AAS curriculum there is more theory, but there should be more practical.

VII. Phase II - A Proposal

A. GOALS AND OBJECTIVES

The need for implementation as a follow-on to this study has been implicit from the outset of this research. The findings of this study have provided valuable guidelines with respect to the major information needs of female farmers and the most appropriate kinds of extension agents for disseminating this information. But no concrete long-term national strategy can be reasonably recommended until the hypotheses generated by this study are empirically tested. This second phase, therefore, outlines a two year pilot testing phase whereby more female extension agents would be identified, trained and employed. The study would consist of monitoring their activities and impact under various conditions. In this way, field tested recommendations which further refine the how, who, and what issues explored in the present study can be incorporated into the Department of Agriculture's program.

The Ministry of Agriculture at Central and District levels have expressed an interest and willingness to increase the number of female extension agents in the workforce. However, just employing more women without the necessary backstopping and administrative support and feed-back mechanisms may not allow them to achieve their maximum impact potential, as shown by past experience. This proposal, therefore, proposes to strengthen the backstopping and monitoring capability within the Department of Agriculture and to answer some key questions which will shape the program in the future.

The main questions to be answered are:

1. How effective are female agricultural assistants (AAs) in extending information to female farmers ?
2. Given the time and mobility constraints which rural women face, does decreasing the assigned areas of an AA allow her to be more effective ?

3. What seems to be a more effective mechanism for disseminating information to female farmers: individual door-to-door meetings or informal groups ?
4. How does the DOA's current extension strategy compare with ICP's production block model vis-a-vis reaching female farmers ?
5. Are farmers more likely or just as likely to accept new technologies or information if the 'harta karta' female is reached or if the 'harta karta' male is reached ?
6. Does the sex of the JT or JTA who directly supervises the AA effect the AA's performance and/or the quality and quantity of information reaching female farmers ?
7. Do the answers to the above (1-6) differ for women in the Hills and Terai, and if so, how ?

B. IMPLEMENTATION

1. Curricula Review

In order to answer these questions, a two year project is proposed. The first task of the project would be to carefully review in depth all training curricula using the guidelines discussed in this report. In so far as IAAS and DOA are amenable, revisions in certain aspects of the curricula - especially those having to do with extension education - will be revised immediately. Subject matter specialists will be called upon as necessary to advise on technical matters such as irrigation systems, aspects of group formation among various ethnic groups, agency referrals, etc. In general, however, the curricula review will focus in more detail and depth on aspects of the curricula where gaps currently exist with respect to problems of extension for female farmers as identified in this report.

2. Development of Audio Visual Materials

In order to standardize the information and ensure that the essential information is included in academic and training courses, a few audio-visual packages will be prepared. These might cover such areas as:

- 1) organizing informal groups for women: lessons and suggestions;
- 2) accessing rural services in agriculture, health and cottage industries;
- 3) small-scale irrigation schemes: guidelines for female user groups;
- 4) Nepali women in agriculture; an overview. These materials would be developed for specific courses and trainees in close collaboration with future users.

3. Action Research

The main thrust of the project would be to monitor female extension agent activities in the field. Insofar as possible, HMG recruitment, training, and employment practices will be followed. The research will be done in close collaboration with the DOA's planning and evaluation division with the view to ensuring long-term institutionalization of monitoring in this area.

a) Research Design

For the one-year period of pilot testing the research design as depicted in Figure 5 will be followed.

Figure 5 - Research Design

		Hill District			Terai District		
Sex of Female JT/JTA	Group	Individual	Control	Group	Individual	Control	
		3 WAAs	3 WAAs	No WAAs	2 WAAs	2 WAAs	No WAAs
Male JT/JTA	Group	Individual	Control	Group	Individual	Control	
	3 WAAs	3 WAAs	No WAAs	2 WAAs	2 WAAs	No WAAs	

- NOTE:1. Each cell represents one panchayat.
 2. Each 3 celled group horizontally represents one district.
 3. If both DOA and ICP sites are selected a maximum of 8 districts may be used.

As shown in Figure 5, a total of 20 female AAs and 2 female JTs or JTA's would be recruited at the outset. Three panchayats in four districts respectively would be selected; preferably contiguous panchayats as they should be under the supervision of one JT or JTA. Within each Hill panchayat, 3 AAs will divide their geographic responsibilities discreetly. In the Terai panchayat, two AA's will cover one panchayat.

Within each district, AAs in one panchayat will be instructed to carry out their work by organizing informal women's groups. The group meeting could be monthly or bi-monthly at a pre-arranged time and place. The group might just receive new information on agriculture each time; it might center around a group loan, it might be organized around a community project like an irrigation or kitchen gardening scheme. Whatever it is, the AA will use that venue to pass along relevant information.

In the second panchayat, the AA will practice the normal T and V or other extension system whereby she will visit different houses on prescribed days and talk to the woman who is the main farmer. The AA will adopt the local form of extension method. For instance, if she is working in Parsa, where the T and V system is in operation, she will function as other AAs do in that system. What is important here is that women do what their male counterparts are doing; what is of interest is whether the current system is also effective for women farmers.

In the third panchayat, the JT or JTA will conduct his or her normal duties. No female AAs will be recruited. Where there are male AAs in place, they will be supervised by the JT/JTAs. If there are male AAs, their effectiveness in terms of number of farmers of both sexes reached and acceptance of information being disseminated will be compared with that of the female AAs in the other panchayats. The impact of supervision by a female JT/JTA and/or a male JT/JTA who has been given orientation in reaching female farmers can also be assessed.

In all cases the message will be the same - it will be based on DOA's AA curricula and priorities, presumably with revisions to reflect the recommendations put forward in this report.

In order to compare the ICP production block model with DOA's current extension approach (i.e. to answer question 5 above) 20 female PLs and two female Production Officers will be recruited and placed like the AAs and JT/JTAs in the model described previously. Training and activities would be modified to suit the production block extension and information priorities of that project. This is discussed in more detail below.

C. RECRUITMENT AND TRAINING

Candidates who are hired under this project will be treated as any DOA employee in their category. For instance, female AAs will be considered regular employees, not project staff, and will be reviewed annually as with other AAs.

1. AAs

The project team will work in close collaboration with DOA to identify female farmers who show leadership qualities and are interested in becoming AAs. The criteria discussed in Chapter V.C.3 will be used as guidelines. Ideally, training of the AAs for this study will coincide with DOA's regular training schedule. Special courses for women are not recommended, as they will most likely not be feasible in the future. Although clearly distance from their home is one major determinant of an AA candidate's willingness to participate, it is not recommended that special training sites be selected. Sites where training is normally conducted should be used, and transportation and lodging facilities provided for the trainees. Also daycare facilities for up to two children per woman are highly desirable.

In addition to the normal training, a one to two day orientation to the study will be held for the participating women.

2. JT/JTAs and FOs

Three and possibly four female JT/JTA/Production Officers will be needed for this study, Likewise, between two to four male JT/JTA/PO's will be needed. Because it may not be possible to fit site selection with the previous posting of a female JT or JTA in that site, it may be necessary to either a) transfer a JT or JTA to the site or b) recruit a female candidate to fill the position. A JT or JTA who has some work experience is obviously preferable, as she will know the 'ropes'. However a new recruit may have the advantage of being more eager, and possibly could be recruited from her own area.

3. District Staff

A short orientation at district centres will be held for ADO's, AADO's, participating campus staff, as well as participating JT/JTA's, PO's, and AA's. In this context, the project will be explained and discussed. This will avoid misunderstanding and misutilization of female personnel. Representatives from DOA will attend.

D. COORDINATION/IMPLEMENTATION

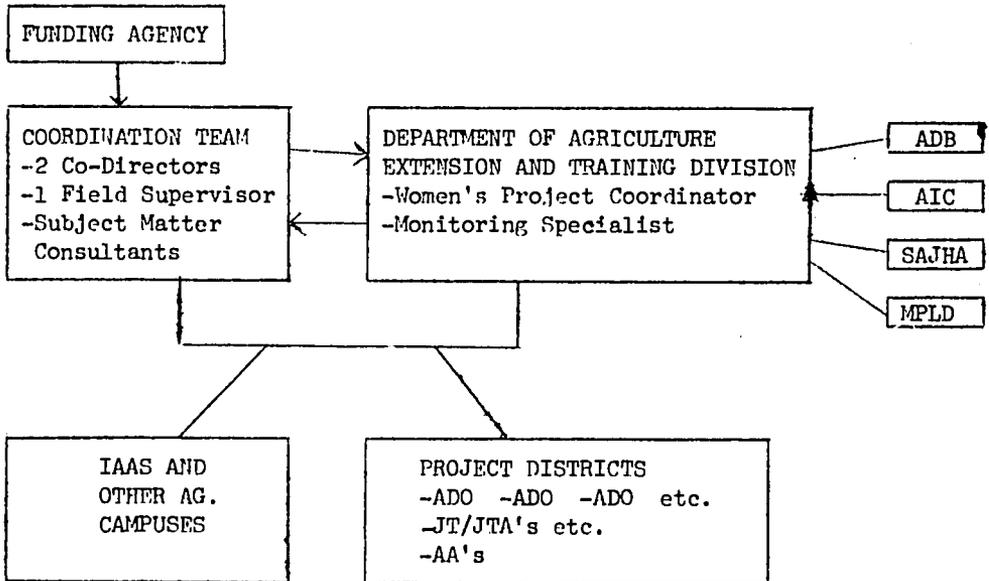
The responsibility for the coordination of Phase II will be shared by the project team and the Department of Agriculture's Extension and Training Division. A special coordinator for women will be designated within this division. She will report directly to the Chief of this Division. Her role will be to insure that the project is being implemented according to HMG regulations, and that linkages with cooperating agencies are maintained. DOA will be responsible for hiring, training, salaries, content of extension packages, etc. and she will provide that link.

In addition, a monitoring specialist will be appointed to assist in this component of the project. Although the monitoring specialist

(a sociologist, statistician, or other professional with the needed expertise) may be deputed to this Division, it is advisable that she or he also reports directly to the Division Chief to insure flexibility and minimize bureaucratic hassels. Nonetheless, neither of these individuals need be full time on this project and could share this work with other responsibilities. The coordinator should contribute about 3/4 time whereas the monitoring specialist would work about 1/2 on this study.

Figure 6 diagrams the institutional relationships implicit in the project design. The project team will relate directly to the funding agency, DOA and the field. DOA will have a major supervisory role in the field as well. It will also relate directly to other relevant agencies which may be brought in depending upon the needs of villagers and extension agents.

Figure 6 - Institutional Linkages



E. MONITORING

Monitoring will be the responsibility of the project team in close collaboration with the monitoring specialist and the Extension and Training Division. Before the project starts, baseline data will be collected in all involved panchayats. This will include information as to the status of extension services, other development problems, women's and men's awareness of new information or technologies, and basic demographic information.

Ideally, the baseline and follow-up data will be collected in collaboration with a local agricultural training institution. This would not only lower costs, but it would give students hands-on training in survey research and in the issues related to extension for female farmers. If this is not possible, local leaders such as school teachers will be employed part time to help with data collection. The project team will send data collectors to the field three times during the course of the project. Participating JT/JTA's will submit periodic reports, as will ADO's and project staff.

F. OUTPUTS

The following outputs are anticipated as a result of this Phase II;

1. Curricula revisions for all levels of agricultural extension agents to reflect a greater sensitivity towards the needs of female farmers.
2. One to five audio visual packages to be used as training tools;
3. A comprehensive long term plan for more effectively reaching female farmers in the context of the DOA's extension system;

4. A monitoring system within DOA which to provide feedback from the field to the central offices with respect to the progress of female extension agents (it is anticipated that the proposed exercise will strengthen DOA's monitoring capability in general);
5. Recruitment and employment of forty female AA/PLs and 4 JT/JTA/PO's;
6. Hands-on experience in program implementation and monitoring for various agriculture students;
7. First hand experience on the part of four to eight ADO's in undertaking a deliberate effort to reach female farmers.

G. TIMETABLE

The project is estimated to require two years to carry out. Figure 7 gives a summary of tasks, timing and institutional responsibilities. As can be seen from the Figure, the first eight months of the project will be spent reviewing the curricula and developing audio-visual materials. At the same time, sites and potential trainees will be identified. It is anticipated that the JT/JTA's of both sexes will not need to be trained but can be recruited from within the cadre of JT/JTA's already working under DOA or recent graduates of the IAAS program.

Figure 7 - Timetable of Events

Project Month	Task	Responsibility
1-4	Curricula review and revisions	Project team, DOA*, IAAS, TU, Ministry of Education
5-8	Development of audio-visual materials	Project team, DOA DOA's information production unit with media production firm's assistant**
6	Site identification	DOA, ICP, Project Team
7	Identification of AA and JT/JTA candidates	Project team, DOA, ICP
8	Training of AA s/PL s	DOA/ICP
9	-Orientation of Supervisors -Collect baseline data	Project team, DOA, ICP Project team, DOA, AA's IAAS, etc.
10	Implementation phase begins	Project team, DOA, ICP
16	Mid-term data collection	Project team, DOA, IAAS
21	Final data collection	Project team, DOA
22-24	Report Writing Presentation of results	Project team, DOA, ICP, IAAS

* DOA in this case refers to the Extension Division.

** Could be Group Three PVT, LTD, Worldview International Foundation, or production units within the HMG system - Panchayat Training Institute, for instance.

Once curricula revisions and training materials are completed, AA training followed by district level extension agent orientation will take place. Ideally, a special training course for these AA's will not be necessary; the scheduling of their training will be flexible to try to coincide with DOA's AA training agenda.

Before AA s begin work, baseline data will be collected as described above. Both AA s and JT/JTA's will be involved, thus giving them first hand feedback on the situation in the panchayats/wards where they will be working. On-going feedback from the sites and monthly field visits from the center are also anticipated. After six months, a formal mid-way assessment will be undertaken. If minor adjustment in the implementation strategy are deemed necessary, they will be undertaken at that point.

After a full year - or one full annual cropping cycle - final data collection will take place. After this it is anticipated that all of the DOA extension agents who have worked in this project will continue their field work as usual.

The project team will work closely with DOA's Planning and Evaluation Unit, the IAAS, TCP, and other concerned agencies to analyse the data and prepare usable long term recommendations.

H. STAFFING

A small project team is recommended as follows:

- 2 Co-Directors, one Nepali, one Expatriate
- 1 Field Supervisor
- Subject Matter Consultants, as needed

In addition, it is strongly recommended that DOA identify two individuals (preferably female) to be placed in Extension Division as described above to backstop this project.

The individuals who have worked on the Phase I of this project are the local candidates for the above mentioned project team. They combine expertise in extension, curricula, women's programs, media for development, project implementation, monitoring systems and policy planning. Specific substantive areas having to do, for instance with irrigation, kitchen gardening, daycare centers, production of media, etc. may require short term inputs from outside consultants. The core staff, however, would be full-time. Resumes of key staff can be obtained upon request.

I BUDGET

The total budget for this two year project is estimated at NRs. 13,90,600 or \$88,856. This assumes that DOA covers the cost of extension agents' training and salaries plus the salaries of other involved DOA officials. It also assumes some, but not all, assistance from ICP and/or DOA with transportation. Orientation training and all other aspects of the project are covered by this budget.

A detailed budget can be obtained upon request.

APPENDIX -- A

LITERATURE REVIEW

The following pages contain reviews of some of the articles most relevant to the women's farmer extension training project of the Integrated Cereals Project. Many of the articles contain pertinent background information, while some offer recommendations for targeting women in extension training. Included is a paper by Marlin Van Der Veen reviewing the Status of Women in Nepal studies.

Manandhar, Dr. Keshari L., 1981 "Women's Participation in Paddy Production in Nepal". Paper presented at workshop on Women's Participation in Paddy Production and Processing, Kuala Bharu, Malaysia, 21-28 October 1981.

Dr. Manandhar examines the results of some socio-economic research done at four cropping systems research sites. The working hours devoted to various activities were compared between men and women and between ethnic groups of different villages. It was found that men do almost all of the plowing and upkeep of the terraces, whereas overall the women spend more hours engaged in compost carrying, transplanting, weeding, harvesting and post harvest activities such as drying, cleaning, and threshing of the grains.

With regard to decision-making in farm and household matters, overall men make more of the labor decisions as to hiring labor and on work outside of the home. Women make more decisions on what to plant and seed selection slightly more in fertilizer application.

Some of the problems facing women in agriculture were identified and recommendations made by Dr. Manandhar. Women have little exposure to modern ideas and technologies which had an adverse effect on agricultural production. Women have to spend more time in food processing, child-bearing activities, and household activities, so they have little access to information resources. Loans and credit are not generally available to female farmers. One of the major recommendations made for targeting women were to hire women agriculture workers who can understand the problems and communicate more effectively with woman farmers. The Institute of Agriculture and Animal Science needs to train more mid and high level women agricultural extension workers. It should be compulsory that in JTA and JT training, a certain number of women participate. Women should be given some priority in obtaining foreign scholarships for agricultural training. Loans and credit should be made more easily available to women and, finally, there should be training in the field for women farmers advising them in new farming methods.

Acharya, M. and Bennett, Lynn, 1982, "Women and the Subsistence Sector: Economic Participation and Decision-making in Nepal." World Bank Working Paper #526.

In this study, the village economy has been divided into four main concentric spheres: domestic work, agricultural production activities, local market economy, and outward migration for employment purposes. In studies done by Acharya and Bennett, women were found to be concentrated heavily in the first two spheres, performing 86% and 57% of the work in these areas respectively. In the third and fourth spheres, their participation rate dropped to 38% and 25% respectively. Overall, women were found to do 50% of all labor, men 44% and children 6%.

Acharya and Pennett make some recommendations as to how to improve the status of women in rural communities so that their valuable input is integrated into the development process. Rural women generally have no spare time, thus labor saving devices are strongly desired. The current male oriented approach to agricultural extension needs to be overhauled to help this process and to increase women's awareness of new methods. There needs to be increased awareness of the contribution of women to the village economy and more women workers need to be deployed. Women need to be involved more in the development process and their activities expanded into the third and fourth spheres. This may also change certain social attitudes and decrease fertility.

Acharya, Meena, 1981, Integration of Women into JTA Training Programmes in Nepal". Unpublished Paper.

Ms. Acharya begins by pointing out that the current five-year plan emphasizes integrating women into the development process. She goes on to summarize major findings of the Status of Women Project and uses these findings to examine current and possible ways to train women as agriculture extension workers.

Acharya points out that at present (1981) there are only seventeen women JT and JTAs and they work on with 4-H and youth clubs, not as extension agents. These women received training mainly in home economics, not agriculture. In 1981, 550 and 300 JTAs and JTs respectively were trained - none were women, although seven women were found in the JTA training course in Paklihawa. The only training programs for women specifically are at the Women's Affairs Training Centres located in four regional centres and administered by the Ministry of Local Development. These courses provide training in multi-purpose rural development with 30%, at most, of the training devoted to agriculture. Some plans exist to train women as AA's

but not for the higher positions. The current training materials for agricultural extension agents are particularly weak with regard to post-harvest processing methods, and compost storage and preparation, all activities performed mainly by women.

Because male-female communication lines are weak, women JTA's would be most effective at reaching women farmers. This is not to say, however that the training of women agriculture agents should be treated as a separate entity from that of male JTA training, but should be integrated into the current training. They both should be trained in the same areas although it might be appropriate for the sexes to emphasize some sex-specific subjects in their training. It might prove useful to assign male-female teams to an area so that they would complement each other in their areas of expertise. The women may be useful in advising village women in other matters such as nutrition, child care etc.

Initially, due to cultural considerations and the relative freedom of hill women, it might be advantageous to begin training programs with hill women. At present, only high school graduates who have passed the SLC are eligible for JT or JTA training. This poses a problem however, in that urban youths are more likely to have taken the SLC but are less likely to want to work in the field and also more men are likely to be eligible as they have greater access to education. It may be necessary to alter the requirements given the difficulty of finding women who qualify for JT or JTA training. It might be possible to draw from the larger group of people who have not passed the SLC but have had ten years of education. Women should be recruited locally and assigned locally since a single woman working away from home is somewhat of an anomaly. Acharya suggests that it might be best to begin recruitment in areas covered by the Integrated Rural Development Project which covers twenty districts. Personnel in many of these areas have expressed interest in having women trained and are willing to employ them after training

Zivetz, Laurie and Chitrakar, P.L., [98], "Concept Proposal: Dissemination of Agricultural Information through Female Extension Agents in Nepal," Prepared for IDS.

In [98], a proposal was made by IDS to carry out a project involving women's agricultural extension programs. It was proposed that research be done concerning why women are not becoming agricultural extension agents and to determine the effectiveness of those few women currently employed as JT's, JTA's, and AA's. The project was planned to examine the attitudes of women who are qualified for extension training as well as attitudes of the training institutions about possibilities for training and employing female extension workers. An assessment would be made of the capability of current institutions to train women extension agents.

The methodology included surveys and observations of various components of an agricultural extension training program. A random sampling of female students in secondary and vocational schools from representative districts would be taken using a standard questionnaire. This questionnaire would concern students' backgrounds, their career objectives, and attitudes and perceptions about agriculture training, employment opportunities, and the need for female extension workers. JTA's in the field and the farmers with whom they work would be surveyed to determine their attitudes about female JTA's and the JTAs' effectiveness. An inventory of current institutions and their programs' curricula would be made to determine their ability to include training for women agricultural workers. Finally, employment opportunities for female extension workers would be examined to assess the feasibility of employing women given current employment situations. The Project was proposed to cover a six month period but was never actually carried out.

National Research Associates, 1983, "INMR Female Candidate Survey."
Prepared for SECID and RCUP.

In the INMR study young women and their guardians were interviewed about perceptions of higher education for women, particularly in the area of renewable natural resources. Many of the comments and ideas expressed here would certainly be applicable to women in agricultural training programs.

In 1980, 19% of those individuals in higher education programs in Nepal were women, although there were no women enrolled in the Institute of Forestry. Almost all of the young women and guardians interviewed aspired to higher education, especially favoring the sciences, largely with the intent of entering the medical professions. A major reason for participation in higher education expressed by the young women was "to be equal to men".

Both the guardians and the women preferred study at a campus near home and preferred indoor jobs as opposed to field-based employment. No legal measures exist to ensure increased participation by women in education. Some recommendations were made as to how to involve women more in higher education. Programs need to be more widely publicized and employment opportunities ensured for the women after graduation. Recruitment should be done locally and security measures provided on the campus. Scholarships would also be a useful motivating factor to encourage women to participate.

Cooper, Carol and Davidson, Debra, 1983, "Women and Resource Conservation and Utilization in Nepal." Occasional Paper Series: Women in Development, Vol. I, Project of SECID.

This series of six papers was prepared by Cooper and Davidson for SECID's Resource Conservation and Utilization Project (RCUP) to offer recommendations

as to how women could be targeted more effectively in resource conservation and agriculture activities. Their research was carried out in Deurali Panchayat, Gorkha District over a four month period in 1982. A summary of the major points in each of the articles follows.

1. "Women and Resource Conservation and Utilization in Nepal: Findings and Recommendations for the Involvement of Rural women in RCUP Activities".

Fuelwood and fodder collection is done almost exclusively by women and 98% of them use wood. They are the local experts on the uses of various species and where to collect, but they know very little about the planting and care of trees. They perceive their immediate needs as the most important and planning for the future is not seen as a viable possibility. They generally did not know where to go for advice and were reluctant to seek it out.

Some recommendations were made to consider in planning programs for women. Cultural factors of male-female communication lines dictate that women would be more effective as extension agents. The village women should be consulted as to their needs in terms of desired information, their seasonal and daily time schedules, and what training activities would be the most appropriate. Caste and ethnic group hierarchies need to be considered as well. Possible courses of action would be to train women as informal advisors and non-technical agents in addition to training women to work formally as extension agents. Information could also be presented to young people in school and in night literacy classes. In village-based training, non-formal techniques are generally the most appropriate.

2. "Rural Nepalese Women's Present and Future Relationship to Agriculture and Forestry Extension".

Most of the current JTA's are not aware of resource conservation and forestry issues. The interrelationships between agriculture and forestry need to be emphasized as they are inextricably linked in the life of village women. Most extension agents now work from their offices rather than in the field, thus many women are not even aware of their existence or could not go to seek out help because of time and distance. The women surveyed expressed enthusiasm for talking with a female extension agent as opposed to male and they also indicated that there was little communication between them and their husbands. A male JTA stated that talking to women was useless because men make all the decisions. Although this view is not supported in the research on women, it is a common perception on the part of male workers.

3. "Women as Nontechnical Extension Agents in Nepal".

In addition to extension agents in the present system, there is a need for informal advisors to disseminate information about various topics to women. Women who are already community leaders, formally or informally, could be trained in some useful areas. Schoolteachers and female AA's could use further training in agriculture, resource conservation, nutrition, and basic health care. Recruitment and training should be done locally, followed up by periodic refresher courses of practical, hands-on training.

4. "Training for Rural Nepalese Women: Recommendations".

Rural women need to define their own priorities and needs for information. This information should be given in such a way that it relates to their daily lives and is immediately applicable. Training needs to be scheduled at times which are feasible and convenient for the women in light of their full work days. A series of sessions over a short period of time is the best method to maintain interest and for retention of information.

5. "Rural Female Teacher in Nepal: Their Role in Development".

All available resources in the villages should be used in training activities. A major resource is the cadre of schoolteachers who are usually the most educated women in a village. They could serve as leaders of women's groups, testers of new innovations and as advisors to other women as well as disseminating information in their school-teaching roles. The education process in resource conservation and agricultural innovations need to begin at an early age. Schoolteachers could also help to locate other women who would be appropriate to serve as informal advisors. Their status in the village is usually quite high thus they are respected and could influence women in positive ways.

6. "Nepalese Women's Recruitment into Training Programs at the Institute of Renewable Natural Resources: Problems and Possibilities".

One of the major constraints to training women as extension agents or to educating girls in general is that their labor is usually required in the home. Also there is less priority for money to be spent on a girls' education since daughters are an economic loss when they marry. The fear of not finding a husband after spending time away for an extended training period also makes it less likely for single women to participate. On the other hand, daughters-in-law are responsible for most of the work in the extended family, thus

they usually could not be spared, except in the case of very wealthy families. Education also tends to lessen the desire for remaining in the village and having a field-based job.

Bhattarai, A.N. and Karmacharya, C., 1981, "Women and Agriculture". Paper presented at the Seminar on Integration of Women into the Mainstream of Development, 9-11 June 1981. Kathmandu, Nepal.

Bhattarai and Karmacharya begin by pointing out the lack of women in any official agriculture posts. A total of 35 women work at agricultural research farms and stations throughout Nepal and only 2 of these work outside of the Kathmandu valley. Of 1600 JT's and JTA's, only 17 are women while 12 of 3000 AA's are women. The only training specifically aimed at women's agriculture was one special session held at Khairentar. The Small Farmers Development Projects involve approximately 445 women in 35 women's groups, but none of these participate in agriculture training; rather they emphasize home economics.

As new methods are introduced and crop intensities are increased, the amount of work is also on the rise thus increasing the women's role even more, making inclusion of women in training a necessity. A number of recommendations are made on how to increase women's participation.

1. Use scholarships and wide publicity through the media and word-of-mouth to encourage and motivate young women to choose a career in agriculture and to encourage their guardians to allow them to do so.
2. Lower the qualification required for entrance to training programs.
3. Train the wives of JT's and JTA's and use the couple as a team in the field.
4. Motivate youths through rural youth clubs.
5. Mandatory inclusion of women in all village-based trainings.
6. Encourage women's training centres to expand agriculture programs.
7. Training centres should have at least 4 training periods a year involving 30-40 women each so that through the multiplier effect many women can be reached.
8. Regulations should be made to include women in all Sajha and ADB loans as well as to make loans more accessible to women.
9. Mandatory inclusion of women on all Sajahcommittees.

IDS, 1982, "Mid Term Review in the Areas of Women's Income Generation, and NGO's Programmes". UNFPA

This paper is a review of 5 Projects funded by UNFPA and of several NGO's in Nepal and their effectiveness in program implementation. All of the projects have population education as an integral part of the project design, but other aspects of women's education and training are included as well. One of the most important overall points made in the review is the need for linking activities across all sectors. An integrated development thrust needs to be implemented involving all aspects of women's lives.

The Population Education through Agricultural Extension for Women (UNFPA) was the third project reviewed. This project trained 40 female agricultural assistants for 1 month in various agricultural and home economics subjects. This training was found to be insufficient and inadequate materials provided. The JTA's are expected to continue agriculture training in monthly meetings, although the women say that the male JTA's do not provide adequate support and do not listen to their needs. The population training is considered the weakest part of the training in this project.

IDS, 1983 "Bartalaap" (Dialogue Workshop Proceedings) Sponsored by ILO, MPID, IDS, Nepal.

This workshop brought 26 village women involved with various projects in 13 districts to Kathmandu for a discussion on problems in women's projects. It represented an opportunity for target beneficiaries to communicate directly with project implementors. Some areas were identified and groups formed to discuss the relevant issues.

Women felt that neither the local panchayats nor the women's organizations lent much sympathy to them and their problems or they could not provide needed support. The bureaucratic structure of local agencies was hard for women to break into and often local personnel did not understand their reason for being. Male JTA's were not useful to the women. It was felt that projects need to be designed more according to the target groups needs and skills.

It was thought that male-female teams would be most appropriate for agricultural extension and training activities if it is appropriate for that society. Training groups composed of both men and women could help to speed decision-making and increase effectiveness.

The "Status of Women in Nepal" Studies and their Implications
for I.C.P. Women Extension Programs

by Marlin Van Der Veen

This note presents some of the pertinent findings and recommendations of the Status of Women in Nepal Studies. Also discussed are possible approaches I.C.P. could take in trying to make increased efforts towards involving women in cropping systems work.

Findings and Recommendations

The main finding of the status of women study was that "Women's roles in subsistence agriculture and the market economy, including their considerable decision making responsibilities, are not reflected in any development agency strategies for extension, training, credit, employment, etc. Instead these strategies are targetted almost exclusively towards men, resulting not only in a failure to mobilize the full production potential of women, but in the tendency to actually lower their relative status by not reaching through the inside/outside dichotomy to draw women into the highly complex and increasingly important structures of the development process and the wider spheres of society" (pp XXXV). It was therefore recommended that "To fully mobilize women in the development process and to provide them increasing (rather than the current decreasing) opportunity to lead secure productive lives, women should be specifically targetted within each development sector" (pp 314, 315) and that "development planners can intervene to encourage greater equity in the distribution of benefits" (pp 314) between men and women.

The main focus of the recommendations are on the means by which the status of women in Nepal can be increased.

That training, women for agricultural extension, will result in increased farm production is implied by the authors because they found women to be "the centre of subsistence production and farm management decisions in the rural household".

- 1) Women carry out many of the crop production activities,
- 2) Women most commonly decide on which variety of a crop to use (traditional versus improved),
- 3) Women most commonly decide on which crops to grow (although many of these decisions would be based on tradition especially for rice, wheat and maize), and

- 4 4) Women have a fair amount to say on how the household budget is spent.

However, the studies also showed that the men generally decide on how much chemical fertilizer to use and that men apply the fertilizer.

No evidence was presented in the studies which showed that the lack of extension or poor extension was a bottle-neck for increased agricultural production. Further, no evidence was presented of a communications gap between the women and their men (who had more exposure to the male dominated extension service) concerning the recommended agricultural practices.

However, some of the findings suggested that the use of women as extension agents could be difficult:

- 1) "According to 1975 census estimates, five percent of the female population in Nepal of 10 years and above were literate and 95 percent illiterate (p 106);
- 2) In some ethnic groups, especially those of higher caste, it could be culturally very difficult for women to act as extension agents.
 - A) "Patterns of extreme deference to affines decree that the young wife must be silent, self-effacing and obedient in the family. Above all, she must be modest and retiring in her interaction with the rest of the village" (p 228),
 - B) "It is considered demeaning if a household must allow its women to perform wage labor for others and only among the very poor or the low castes in either community to women work for wages" (p 228),
- 3) There is probably a large Inter as well as an Intra Community Variation in the difficulty involved in effectively using women as extension agents as well as in the methods to be employed; in part because of differences in the relative predominance of the various ethnic groups and their interactions with each other;
- 4) "Many men in the Ministry of Agriculture express doubt that the 15 women currently being trained will actually accept placement and become practicing J.T.A.s" (p 320).

The studies did enable some recommendations to be made on how women could be better used in extension activities.

"Training, Extension and Functional Adult Education: The problem of the inside/outside dichotomy which to varying degrees in different communities effectively cuts women off from participation in the development process can only be overcome through special efforts to involve women in training and extension. All studies point to the need to recruit local women from the community to serve as extension personnel. This will require either amending the current recruiting standards to waive the education requirements at the lower levels of service or preferably, the creation of special pre-entry job categories for locally recruited personnel. After initial training and two or three years service as "Assistant" Auxillary Health Workers, ward level "Agricultural Assistant", etc, these local level extension personnel, could become eligible for more extended training perhaps combined with special courses to prepare them for eighth class or SLC exams. An effective policy to encourage recruitment of local women would also require that explicit instructions to this effect and guidelines on the required qualifications and the degree of flexibility therein be issued from the central ministries or institutions to the regional and district offices responsible for the actual recruitment.

Another point to be considered in the recruitment of local level women is the importance of selecting women who are well integrated and respected in the local community. For example, age was revealed as an important status factor in all the communities studied and this suggests that the best and perhaps only way to reach rural women in some of the more dichotomous communities is through mature married women. Such women have the credibility and prestige to move into the domestic sphere and gain the trust of their fellow villagers-male and female. In non-dichotomous communities such as the Rai, Kham Magar, Baragaonle and Tamang, unmarried girls may be effective as channels for the diffusion of information and initiation of new income generating schemes. Since young women are allowed considerable mobility in these groups, they can be brought to centralized training centres, however, in more conservative villages like Sirsia and Bakumdol, change agents should be mature married women and such women are rarely able to leave their own households, therefore, training in these communities must increasingly be brought to the villages rather than asking the trainees to come to urban training centres. Some steps have been made toward mobile training by the WATC and others but much remains to be done to upgrade the skills of the trainers themselves, to ascertain and develop means of delivering training in areas that are relevant to the concerns and needs of village women. One serious constraint to effective mobile training programs is the fact that the TA and DA allowances provided are simply insufficient to motivate the trainees to spend extended periods in the field. In addition, ongoing support in terms of materials, supervision and regular remuneration must be provided for the trained extension workers once they are in place. On the policy level an important step which could do much

to streamline and regularize training would be the creation of a specific budget category for training. Currently, training is budgeted under Category-8, "Grants and Prizes" or Category 9, "Contingency/Miscellaneous" or it is split between category 3, "TA/DA" and Category 7.5, "Expendable Materials". A separate category for training would highlight the critical importance of providing the departments with funds to do local level training .

In view of women's major role in agriculture, it is encouraging to learn that the Ministry of Agriculture is organizing a special training program for female JTAs. This program will fill a long standing need and will hopefully provide a model for other "technical" extension such as forestry and soil conservation which, unlike health, family planning and nutrition extension, have been viewed as purely male concerns to be directed solely towards male clients in the villages.

To be effective however, such special training programs for women may need to be supplemented with some initial support in terms of preferential placement after training. For example, many men in the Ministry of Agriculture express doubt that the 15 women currently being trained will actually accept placement and become practicing JTAs. A similar problem has already been encountered in the ongoing training for Auxillary Health Workers; Women want the training, do well at it and then are unable to accept posting which place them long distance away from their families. Initial posting for female trainees near their homes or within a day or two walk would re-inforce greatly the benefits of such targeted training opportunities.

Bringing extension into women's sphere in the home and village is one important step towards overcoming the inside/outside dichotomy. The other complimentary approach is to equip women with the skills they need to move out and interact with the structures of government, the judiciary and development bureaucracies. Women's adult education should be strengthened and focused around the reading, writing and accounting skills which are required to fill out loan applications, read extension materials and conduct business. The most productive approach would be to integrate literacy and numeracy training with practical on-the-job training in employment generation activities. For most women, unless their time spent away from household and agricultural chores can bring in some visable contribution to the family income, neither they nor their household will feel that the time is justified. The variation in seasonal workloads mentioned earlier as well as the daily schedule of essential domestic tasks must be kept in mind in the design of extension training or adult education for women (or men for that matter)".

"More flexible scheduling may also be needed in the formal education system if the enrollment of girls is to be increased. Both the time allocation findings and the data on attitudes towards female education show that the

family's need for girl's labor is one of the major reasons girls are not sent to school. This suggests that perhaps upto fifth or sixth class, the length of the school day should be shortened from the current six hours to a more intensive two or three hours concentrated on basic literacy and numeracy skills. In compact villages where children would not have to travel long distances, perhaps evening literacy classes could be given as is presently being done in the Tharu village studied. Another factor which should be mentioned in this connection in all education, training and extension efforts is the need for teachers and extension personnel to know how to communicate in the local language. In the Tharu, Maithili, Kham Magar and Baragaonle villages studied, learning is currently made even more inaccessible by the fact that Nepali texts and training materials are used without someone who can interpret and explain their meaning in the local language. This reinforces the previously mentioned importance of local recruitment for teachers as well as extension personnel". (pp 319-322).

Considerations

The goal of the I.C.P. is to help increase agricultural production and farmers' (households) income and not explicitly to increase the status of women. Since the studies focus on the status of women in Nepal and how to increase that status, questions remain un-answered on how, and on the need to use women as extension agents.

It is well documented that women do play an important role in Nepal agriculture. Women carry out many of the crop production related tasks. Women also carry out some of the important decisions concerning crop production especially in selecting which variety to plant. Women's knowledge on the relative performance of recommended crop technology could be a factor in determining how quickly adoption initially takes place. Women's knowledge on how to apply the new technology and to derive good results could be an important factor in determining if adoption continues and if production increases.

It is uncertain to what degree and how quickly closing the farmers' knowledge gap on new crop technology will lead to increased womens' knowledge through discussions in the household or otherwise.

The womens' knowledge on improved technology could most probably be improved more certainly and more quickly if women were involved in village level extension activities such as training sessions, field days, yield contests, etc., then if men alone were involved.

Research at the cropping systems sites indicated that the farmers' (head of household) lack of understanding of the recommended technology and the benefits that could be derived from following it, was one of the constraints to be faced for a successful production program.

Because of their general low rates of literacy, it may be very difficult to train women in some aspects of the new technology. The proper kinds and doses of fertilizers and other chemicals to apply, may be the most difficult information to relay, especially when reading, measurements and division or multiplication may be required.

It may be useful, however, to target women for training in activities they generally carry out. These activities include compost making, compost handling, seed storage, seed treatment, seeding, weeding, harvesting, threshing, etc.

The relative merits of using men or women to train women in agriculture is unclear.

If women are to be used as trainers, it is also unclear what the best approaches are in using the women. The best approaches could vary, to some extent, from community to community.

The effective use of women as extension agents would be especially difficult, in the I.C.P., because of the short amount of time before the Project is completed.

Possible Activities of the I.C.P.

- 1) More emphasis could be placed upon having higher rates of participation of women in regular extension activities in the villages and or getting feedback from women as well as from men about the new technology.
- 2) Women could be targeted for certain types of training or activities i.e.
 - a) field days to view and discuss the relative merits of crop varieties,
 - b) training on:
 1. Compost making,
 2. Compost use,
 3. Seed storage,
 4. Seed treatment,
 5. Seeding,
 6. Weeding and
 7. Harvesting and threshing, etc.

- 3) A short term consultant could be hired to give ideas on how best to carry out activities "1" and "2" above. Included could be information on the need for and the best means of using women as extension agents.
- 4) The I.C.P. could continue to try involve local women as extension agents in selected sites.
- 5) The I.C.P. could also try to work with women J.T.A.s to help train extension agents working in their local villages and to carry out women focused extension activities.

Source:

"THE RURAL WOMEN OF NEPAL" An Aggregate Analysis and Summary of 8 villages. Studies by Meena Acharya and Lynn Bennett, Centre for Economic Development and Administration, Tribhuvan University Kathmandu, Nepal, 1981.

FAO Consultancy on Women's Development in Nepal, Kathryn S. March

March's consultancy was designed to review current policies concerning development for women in Nepal. She examined the current administration and work being carried out, mainly with respect to MPLD. She pointed out that in the past, women were mostly considered welfare recipients and dependents needing protection rather than those needing productive development efforts. The current Sixth Plan is the first to specifically address women's needs.

1. The Women's Services Coordinating Committee (WSCC) formed in 1975, has carried out several efforts for women. They sponsored the Seminar on Integration of Women into the Mainstream of Development, carried out an inventory of women's projects, and have begun to formulate a National Plan of action, although as of yet it does not appear to be particularly coherent or effective. The combined budgets of the women's projects studied was \$6.7 million.
2. The National Planning Commission operates with several objectives for women which begin to move away from the idea of women as welfare recipients. Their first objective is to increase agricultural training programs for women. Despite their ideals, they are far removed from actual implementation.
3. MPLD has taken the lead with respect to women's programs. Their dominant theme is training but they need to increase resources and outlets for current skills as well. The two main women's components of MPLD are the Women's Development Section (WDS) and the Women's Training Centers (WTC's) (formerly WATC's). The WDS is more tied to the actual implementation of projects and has the most coherent program within HMG. The personnel structure of women in the field are the WDO's, CWW's, and WW's. The WTC's are older, begun in 1956 with an emphasis on home economics. In 1962, with the panchayat system, roles were expanded to include community development. Some of the problems identified by March and recommendations follows:
 - A. Currently, the roles of WDOs, CWWs, and WWs are unclear. WDS administers them but they operate out of WTCs, PTCs, or district offices depending on proximity. Some changes made during the consultancy were to increase the authority of WDS over CWWs and WWs with respect to administration and monitoring and also to increase the responsibility of junior staff at WDS to handle field requests so that senior staff could be freed to plan and initiate new activities. The WDOs however are split between the WDS and the LDS of MPLD.

- B. Potential conflicts could occur between WDS and WTCs. If WTCs are to train WDOs, CWs, and WNs for specific projects, the curriculum must be changed. The coordination of these organizations was begun during the consultancy with the formation of the Women's Development Training Commission. This group is also to link the Agriculture and Cottage Industry Departments more closely with MPLD. The link between WTC and WDS should be strengthened and roles more clearly defined.
- C. The subject matter of WTC trainings needs to be reoriented to be relevant to local needs. Most trainings do not have enough depth in any one subject. The root of the problems need to be solved irrespective of the sex of the people with the problems. Presumably most recipients would be women, but for example, widowed fathers could benefit from childcare activities. The WTCs and PTCs should be on more equal footing and have separate subject areas covered in their trainings. The focus for WTC trainings should be on post harvest activities particularly seed storage and food preservation to prevent losses.
- The age and literacy requirements for trainings need to be examined as currently it is mainly young women who are recruited but the lack of both freedom and credibility can make them less effective.
- D. MPLD needs an umbrella framework to coordinate its various programs. WDS should be upgraded to a division so that there can be representation on the National Planning Commission which currently has no representative for women's interests. There is some fear that other groups will also want representation such as handicapped or other "special interest" groups. They have to be convinced that women are not a special interest group but rather a long neglected part of the population.

Strategies for Reaching Rural Women in the Context of Integrated Rural Development Programmes, Draft Report, Integrated Development Systems, April 1983 for the Ministry of Panchayat and Local Development/INMG.

The study reviewed eleven women-specific projects in Nepal which are on-going or recently completed with an eye to learning from past experiences. Only one out of the eleven projects was found to be successful in that it was on-going after outside funding finished, although others were in beginning stages at the time of the review. The major findings of the study were:

1. Projects for women in Nepal have been designed by in large without consulting the recipients themselves. Particularly with income-generating projects, little attention was paid to the economic viability, in terms of market for goods produced by the women.
2. Whereas most projects for women target poor villagers, these women are often not capable of grasping the message in the time allotted, say for training, and sometimes they do not have the time to carry out the work after the training. It is hypothesized that more elite and educated women would be better candidates for training and that they in turn would pass along the information to other women in their village.
3. Training should take location and time constraints of women into account.
4. Projects for women showed a lack of institutionalization. That is, most were run by consultants and trained people who had no hope for permanent employment after the project finished (e.g. in the case of agricultural extension agents), or trained women with skills they could not really use.
5. There is a lack of coordination and communication among agencies who are supposed to help women, thus weakening a sector with already scarce resources.

The project proposed a strengthening and expansion of the Women's Development Section of the Ministry of Panchayat and Local Development to operate as a motivating and information disseminating body for other ministries and backstop an active cadre of female extension agents.

APPENDIX B
QUESTIONNAIRES

BACKGROUND DEMOGRAPHIC INFORMATION FOR ALL QUESTIONNAIRES

1. Date _____ Code No. _____
2. Name _____
3. Age _____
4. Sex: Male Female
5. Marital Status: Single Married
 Widowed Divorced
6. Ethnic Group: Brahmin Chhetri Newar
 Gurung Rai Kami
 Tharu Other
7. No. of children living Male
Female
No. of Children born Male
Female
8. Education: None 1-5 class
 6 class to S.L.C. I.A.
 B.Sc. M.Sc.
 Ph.D. Other training
9. How many children do you send to school, (Write in number.)
Boys Yes No Too young
Girls Yes No Too young

10. Are you using Family planning ,

- Yes No

What kind of family planning do you use ,

- Pill Condom Depoprovera Vasectomy
 Female sterilization Other _____

11. If using, how long have you used current method,

- Under 1 year 1-2 years
 2-5 years Over 5 years

12. If not using, why not , check one

- Want more children
 No information
 No access
 Side effects
 Other _____

QUESTIONNAIRE FOR ADO's

Code Number _____

1. How long have you been working as an ADO?

- under 1 year 1-2 years 3-5 years over 5 years

2. How many extension agents are working under you?

	male	female
JT		
JTA		
PLAA/AA		
Other		

3. What percentage of time do extension agents devote to the following activities?

	JT		JTA		AA		Other	
	male	female	male	female	male	female	male	female
Home visits								
Demonstration of new methods								
Demonstration of new technologies								
Office work report writing								
Group formation								
4-H clubs								
link person								
other								

Totals should be 100% in each category

4. On average, how many field visits do extension agents make per month?

	male	female
JT		
JTA		
PLAA/AA		
Other		

QUESTIONNAIRE FOR ADO'S

5. Do male extension agents visit farm women purposely yes no
 If yes, what percentage of visits are to farm women?
 5% 15% 25% 25%-50% more than 50%

6. Have there been any of the following activities in _____ Panchayat
 in the last year? How many farmers attended? How many were women?

Activity	# conducted	# of participants	# of women
Demonstrations			
Trainings			
Exhibitions			
Study Tours			

7. In your opinion, what percentage of farm work is shared by women?
 under 10% about 25% about 50% 50-75% more than 75%
8. In your opinion, what percentage of farm decision making is done by women?
 under 10% about 25% about 50% 50-75% more than 75%
9. In what three(3) areas do male farmers need extension the most?
 (Rank in order)

- | | |
|---|--|
| <input type="checkbox"/> crop selection | <input type="checkbox"/> kitchen gardening |
| <input type="checkbox"/> seed selection | <input type="checkbox"/> plant protection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> irrigation |
| <input type="checkbox"/> planting methods | <input type="checkbox"/> fruits/cash crops |
| <input type="checkbox"/> composting | <input type="checkbox"/> fodder/fuel tree plantation |
| <input type="checkbox"/> chemical fertilizers | <input type="checkbox"/> livestock |
| <input type="checkbox"/> weeding | <input type="checkbox"/> marketing of surplus grain/cash crops |
| <input type="checkbox"/> harvesting methods | <input type="checkbox"/> cottage industries |
| <input type="checkbox"/> seed storage | <input type="checkbox"/> drinking water |
| <input type="checkbox"/> grain storage | <input type="checkbox"/> health/nutrition/family planning |
| <input type="checkbox"/> threshing | <input type="checkbox"/> other |

(3)

QUESTIONNAIRE FOR ADO's

10. In what three areas do female farmers need information the most? Rank in order

- | | |
|---|---|
| <input type="checkbox"/> crop selection | <input type="checkbox"/> kitchen gardening |
| <input type="checkbox"/> seed selection | <input type="checkbox"/> plant protection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> irrigation |
| <input type="checkbox"/> planting methods | <input type="checkbox"/> fruits/cash crops _____ |
| <input type="checkbox"/> composting | <input type="checkbox"/> fodder/fuel tree plantation |
| <input type="checkbox"/> chemical fertilizers | <input type="checkbox"/> livestock |
| <input type="checkbox"/> weeding | <input type="checkbox"/> marketing of surplus grains/cash crops |
| <input type="checkbox"/> harvesting methods | <input type="checkbox"/> cottage industries |
| <input type="checkbox"/> seed storage | <input type="checkbox"/> drinking water |
| <input type="checkbox"/> grain storage | <input type="checkbox"/> health/nutrition/family planning |
| <input type="checkbox"/> threshing | <input type="checkbox"/> other _____ |

11. How can farm women be contacted better?

- | | |
|---|--|
| <input type="checkbox"/> individually | <input type="checkbox"/> in an informal group |
| <input type="checkbox"/> when they are in the field | <input type="checkbox"/> in an organised group |
| <input type="checkbox"/> other _____ | |

12. When women extension agents are trained, do you think their curriculum should be the same or different from that of male extension agents?

- same different

Explain: _____

13. Please give your views on how female farmers can be contacted more effectively in your area. Use the back side if necessary.

PEAMLE FARMERS QUESTIONNAIRE

Code No: _____

1. What is your relation to the male head of household? (If head of household is female explain under 'other'.)

- wife daughter-in-law daughter
 sister sister-in-law other

2. In your house, how many people eat at the same stove?

- Adults 1-2 3-6 6 more than six
 Children 1-4 5-7 8-10
 (under 14)
 11 and above

3. Who spends more time doing farm activities?

- me my husband (harta karta logne manchhe)

4. Who makes more of the farm decisions?

- me my husband (harta karta logne manchhe)

5. How much land does your family own?

- none 1-6 ropanis 7-13 ropanis.
 14-25 rop. 25-50 ropanis 50+

How many animals does your family own? (include only cows, water & buffalo, pigs, goats, and sheep)

- none 1-5 6-10
 11-20 21+

7. Have you been contacted by an agricultural extension agent in the last year? If, so, how many times? (Note: If ext. agent contacted only the husband, it does not count)

	yes	no	how many times
Male JT/JTA			
Female JT/JTA			
Male AA			
Female AA			
Other			

8. If you have been contacted by an agricultural extension agent, what subjects did you talk about? Check as many as necessary. Read the list.

- | | |
|--|--|
| <input type="checkbox"/> Crop selection | <input type="checkbox"/> seed selection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> planting methods |
| <input type="checkbox"/> composting | <input type="checkbox"/> chemical fertilizer |
| <input type="checkbox"/> weeding | <input type="checkbox"/> harvesting methods |
| <input type="checkbox"/> threshing | <input type="checkbox"/> grain storage |
| <input type="checkbox"/> kitchen garden | <input type="checkbox"/> plant protection |
| <input type="checkbox"/> irrigation | <input type="checkbox"/> fruits/cash crops _____ |
| <input type="checkbox"/> fodder/fuel tree plantation | <input type="checkbox"/> marketing of surplus/cash crops |
| <input type="checkbox"/> seed storage | other _____ |

9. Have you used improved seed varieties and from whom did you get them?

	yes	no	other farmers	extension agent	male family	other
rice						
wheat						
maize						
other						

10. Have there been any extension activities in your area? Did you participate?

	yes	no	do not	participated	sex of ext. agent conducting
demonstrations					
exhibitions					
trainings					
study tours					

11. In what three (3) areas have you had the most difficulty in farmings (Rank in order)

- | | |
|---|---|
| <input type="checkbox"/> Crop selection | <input type="checkbox"/> Seed selection |
| <input type="checkbox"/> Seed availability | <input type="checkbox"/> Field preparation |
| <input type="checkbox"/> Planting method | <input type="checkbox"/> Composting |
| <input type="checkbox"/> Chemical fertilizer | <input type="checkbox"/> Weeding |
| <input type="checkbox"/> Harvesting methods | <input type="checkbox"/> Seed storage |
| <input type="checkbox"/> Kitchen garden | <input type="checkbox"/> Crop protection |
| <input type="checkbox"/> Irrigation | <input type="checkbox"/> Fruit/cash crops _____ |
| <input type="checkbox"/> Fodder/fuel tree plantation | <input type="checkbox"/> Livestock plantation |
| <input type="checkbox"/> Marketing of surplus/ cash crops | <input type="checkbox"/> Threshing |
| <input type="checkbox"/> Grain storage | <input type="checkbox"/> Other _____ |

12. In what three (3) areas do you need information the most? (Rank in order, Read list).

- | | |
|--|---|
| <input type="checkbox"/> Crop | <input type="checkbox"/> Kitchen garden |
| <input type="checkbox"/> Seed selection | <input type="checkbox"/> Plant protection |
| <input type="checkbox"/> Field preparation | <input type="checkbox"/> Irrigation |
| <input type="checkbox"/> Planting methods | <input type="checkbox"/> Fruits/cash crops |
| <input type="checkbox"/> Composting | <input type="checkbox"/> Fodder/fuel tree plantation |
| <input type="checkbox"/> Chemical fertilizer | <input type="checkbox"/> Livestock |
| <input type="checkbox"/> Weeding | <input type="checkbox"/> Marketing of surplus/cash crops |
| <input type="checkbox"/> Harvesting | <input type="checkbox"/> Seed storage |
| <input type="checkbox"/> Grain storage | <input type="checkbox"/> Cottage industry |
| <input type="checkbox"/> Threshing | <input type="checkbox"/> Health/nutrition/family planning |
| <input type="checkbox"/> Drinking water | <input type="checkbox"/> Other |

13. If a male extension agent is in your area, would you go for advice?

Yes

No

if no why not ?

family members object/social constraints

no need for information

can get information from male family members

no time

other _____

14. If a female extension agent is in your area, would you go for advice?

Yes

No

If yes, why ?

easier to talk to a woman

she has the needed information

family members will not object

other _____

15. If a male extension agent comes to your house, would you talk with him?

Yes

No

If no, why not?

family members would object/social constraints

no need for information

can get information from male family members

no time

other _____

16. If a female extension agent comes to your house, would you talk with her ?

- Yes No

If yes, why?

- easier to talk to a woman
 she has the needed information
 family members will not object
 Other _____

17. In your opinion, which of the following characteristics are important for an extension agent for you to want to talk with them? Read list

	Yes	No
similar ethnic group/caste		
female		
married with children		
respectable age		
educated		
from your village		
know a lot about agriculture		
friendly with local officials		
Other		

18. How would you most like to participate in extension activities rank in order. Read list.

- individually at home
 informal group
 while working in the field
 organised group
 other _____

1. How long have you been working as an AA ?
 - under 1 year
 - 1-5 years
 - 5-10 years
 - Over 10 years

2. Where were you trained? _____
Date: _____
List additional training _____

3. Who spends more hour on farm work?
 - me
 - my husband (harta karta logne manchhe)

4. Who makes more of the farm-related decisions?
 - me
 - my husband (harta karta logne manchhe)

5. How many field visits do you make per month?
 - 1-2
 - 3-5
 - 6-10
 - 11+

6. How many people do you contact per month?

- 1-5 6-10 11-20 20+

7. How many among them are women?

- 0-5 6-10 1-15 16+

8. In your opinion, what were the three(3) most valuable things you learned in the training course which you have been able to use in your work? (Rank in order. Read list)

- | | |
|---|---|
| <input type="checkbox"/> Crop selection | <input type="checkbox"/> seed selection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> planting method |
| <input type="checkbox"/> composting | <input type="checkbox"/> chemical fertilizer |
| <input type="checkbox"/> weeding | <input type="checkbox"/> harvesting method |
| <input type="checkbox"/> seed storage | <input type="checkbox"/> grain storage |
| <input type="checkbox"/> drinking water | <input type="checkbox"/> kitchen garden |
| <input type="checkbox"/> plant protection | <input type="checkbox"/> irrigation |
| <input type="checkbox"/> fruits/cash crops | <input type="checkbox"/> fodder/fuel tree plantation |
| <input type="checkbox"/> livestock | <input type="checkbox"/> marketing surplus/cash crop |
| <input type="checkbox"/> threshing | <input type="checkbox"/> cottage industries |
| <input type="checkbox"/> health/nutrition/
family planning | <input type="checkbox"/> extension methods/group organizing |
| | <input type="checkbox"/> others |

9. If you had one more month of training, what are the three (3) things you would like most to learn to help you in your work? Rank in order. Do not read list.

- | | |
|---|---|
| <input type="checkbox"/> Crop selection | <input type="checkbox"/> Seed selection |
| <input type="checkbox"/> Field preparation | <input type="checkbox"/> Planting method |
| <input type="checkbox"/> Composting | <input type="checkbox"/> Chemical fertilizer |
| <input type="checkbox"/> Weeding | <input type="checkbox"/> Harvesting methods |
| <input type="checkbox"/> Seed storage | <input type="checkbox"/> Grain storage |
| <input type="checkbox"/> Drinking water | <input type="checkbox"/> Kitchen garden |
| <input type="checkbox"/> Crop protection | <input type="checkbox"/> Irrigation |
| <input type="checkbox"/> Fruits/cash crops | <input type="checkbox"/> Fodder/fuel tree plantation |
| <input type="checkbox"/> Livestock | <input type="checkbox"/> Marketing of surplus/cash crops |
| <input type="checkbox"/> Threshing | <input type="checkbox"/> Cottage industries |
| <input type="checkbox"/> Health/nutrition/
family planning | <input type="checkbox"/> extension methods/
group organizing |
| | <input type="checkbox"/> Other |

10. Do you listen to the agriculture program on Radio Nepal ?

- Yes No

If yes, how many times per week?

- 1 2 3

If yes, do you understand the information given ?

- Yes No

If yes, do you use the information in your work ?

- Yes No

11. What characteristics are important, in your opinion, for a female AA? (Road list.)

	Yes	No
Similar ethnic group/caste to the villagers		
married with children		
respectable age		
educated		
from the local area		
know a lot about agriculture		
friendly with local officials		
Other		

1. How long have you been working as a JT/JTA?

- under 1 year
- 1-5 years
- 5-10 years
- over 10 years

2. Where were you trained , _____ Date: _____

List additional training _____

3. Did you receive training in the following areas ? (check all relevant) Read list.

- | | |
|---|---|
| <input type="checkbox"/> crop selection | <input type="checkbox"/> kitchen gardening |
| <input type="checkbox"/> seed selection | <input type="checkbox"/> plant protection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> irrigation |
| <input type="checkbox"/> planting methods | <input type="checkbox"/> fruits/cash crops |
| <input type="checkbox"/> composting | <input type="checkbox"/> fodder/fuel tree plantation |
| <input type="checkbox"/> chemical fertilizers | <input type="checkbox"/> livestock |
| <input type="checkbox"/> weeding | <input type="checkbox"/> marketing |
| <input type="checkbox"/> harvesting methods | <input type="checkbox"/> cottage industries |
| <input type="checkbox"/> seed storage | <input type="checkbox"/> drinking water |
| <input type="checkbox"/> grain storage | <input type="checkbox"/> health/nutrition/family planning |
| <input type="checkbox"/> threshing | <input type="checkbox"/> extension methods |
| <input type="checkbox"/> other _____ | |

4. In which three areas would you most like more training? (Rank in order)

- | | |
|---|---|
| <input type="checkbox"/> crop selection | <input type="checkbox"/> kitchen gardening |
| <input type="checkbox"/> seed selection | <input type="checkbox"/> plant protection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> irrigation |
| <input type="checkbox"/> planting methods | <input type="checkbox"/> fruits/cash crops |
| <input type="checkbox"/> composting | <input type="checkbox"/> fodder/fuel tree plantation |
| <input type="checkbox"/> chemical fertilizers | <input type="checkbox"/> livestock |
| <input type="checkbox"/> weeding | <input type="checkbox"/> marketing |
| <input type="checkbox"/> harvesting methods | <input type="checkbox"/> cottage industries |
| <input type="checkbox"/> seed storage | <input type="checkbox"/> drinking water |
| <input type="checkbox"/> grain storage | <input type="checkbox"/> health/nutrition/family planning |
| <input type="checkbox"/> threshing | <input type="checkbox"/> extension methods |
| <input type="checkbox"/> other _____ | |

5. How many field visits do you make per month, on average?

- 1-2
- 3-5
- 6-10
- 11-15

QUESTIONNAIRE FOR JT/JTA

6. What percentage on average are to women?
 0-5% 6-10% 10-15% 15-25% more than 25%

7. How many of the following activities did you conduct last year ?
 How many people participated? How many were women?

Activity	# conducted	# of participants	# of women
Demonstrations			
Trainings			
Exhibitions			
Study Tours			

8. Do you think male farmers understand and accept what you tell them?
 Yes no sort of if no or sort of check two below
 lack of education no time to listen
 no interest traditional resistance to new ideas
 difficult communications with other
 the opposite sex (ask female
 JT/JTA only)

9. Do you think female farmers understand and accept what you tell them?
 yes no sort of if no or sort of; check two below
 lack of education no time to listen
 no interest traditional resistance to new ideas
 difficult communications with other _____
 the opposite sex (ask male
 JT/JTA only)

QUESTIONNAIRE FOR JT/JTA

10. In what three areas do male farmers need information the most (Rank in order)

- | | |
|---|---|
| <input type="checkbox"/> crop selection | <input type="checkbox"/> kitchen gardening |
| <input type="checkbox"/> seed selection | <input type="checkbox"/> plant protection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> irrigation |
| <input type="checkbox"/> planting methods | <input type="checkbox"/> fruits/cash crops |
| <input type="checkbox"/> composting | <input type="checkbox"/> fodder/fuel tree plantation |
| <input type="checkbox"/> chemical fertilizers | <input type="checkbox"/> livestock |
| <input type="checkbox"/> weeding | <input type="checkbox"/> marketing |
| <input type="checkbox"/> harvesting methods | <input type="checkbox"/> cottage industries |
| <input type="checkbox"/> seed storage | <input type="checkbox"/> drinking water |
| <input type="checkbox"/> grain storage | <input type="checkbox"/> health/nutrition/family planning |
| <input type="checkbox"/> threshing | <input type="checkbox"/> other |

11. In what three areas do female farmers need information the most? (Rank in order)

- | | |
|---|---|
| <input type="checkbox"/> crop selection | <input type="checkbox"/> kitchen gardening |
| <input type="checkbox"/> seed selection | <input type="checkbox"/> plant protection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> irrigation |
| <input type="checkbox"/> planting methods | <input type="checkbox"/> fruits/cash crops |
| <input type="checkbox"/> composting | <input type="checkbox"/> fodder/fuel tree plantation |
| <input type="checkbox"/> chemical fertilizers | <input type="checkbox"/> livestock |
| <input type="checkbox"/> weeding | <input type="checkbox"/> marketing |
| <input type="checkbox"/> harvesting methods | <input type="checkbox"/> cottage industries |
| <input type="checkbox"/> seed storage | <input type="checkbox"/> drinking water |
| <input type="checkbox"/> grain storage | <input type="checkbox"/> health/nutrition/family planning |
| <input type="checkbox"/> threshing | <input type="checkbox"/> other _____ |

12. What percentage of the agricultural work do women do?
 less than 10% about 25% about 50% 50-75% more than 75%

13. What percentage of on farm decision making is done by women?
 less than 10% about 25% about 50% 50-75% more than 75%

14. Do you feel difficulty in talking to female farmers? yes no

- | | |
|---|--|
| <input type="checkbox"/> no if yes, why? | |
| <input type="checkbox"/> no interest | <input type="checkbox"/> she has no time to listen |
| <input type="checkbox"/> difficulty in talking to the | <input type="checkbox"/> traditional resistance to new ideas |
| <input type="checkbox"/> opposite sex/shyness | |
| <input type="checkbox"/> other | _____ |

QUESTIONNAIRE FOR JT/JTA

15. Do you think female extension agents would be effective talking to farmers?
 Yes No if yes both men and women women only

16. Looking back, what have been the two major problems in your work as a JT/JTA? (Read list)

- | | |
|---|---|
| <input type="checkbox"/> personal time constraints | <input type="checkbox"/> restrictions from family members |
| <input type="checkbox"/> lack of childcare | <input type="checkbox"/> lack of sufficient training |
| <input type="checkbox"/> insufficient salary | <input type="checkbox"/> lack of support from local offices |
| <input type="checkbox"/> lack of supervision/
backstopping | <input type="checkbox"/> resistance in area to working with women
(for male JT/JTA only) |
| <input type="checkbox"/> too large a working area | <input type="checkbox"/> other _____ |

17. If female extension agents are trained, do you think their curriculum should be same or different from that of male extension agents?
 same different
explain:

18. How can female farmers be better contacted? (Read list)

- | | |
|---|--|
| <input type="checkbox"/> individually | <input type="checkbox"/> in an informal group |
| <input type="checkbox"/> while working in the field | <input type="checkbox"/> in an organised group |
| <input type="checkbox"/> other _____ | |

19. What are two most important roles of your direct supervisor? (Rank in order)

- technical backstopping/advice about ag. related subjects
- administrative backstopping/helping with logistical support
- evaluation of subordinates
- attending functions as representative of the district
- monthly reporting to Kathmandu
- other _____

20. Please give your opinion on how to reach women farmers more effectively.
(Write on the back if necessary) _____

12. Looking back, what are the two major problems you faced in your work as an AA? (Read list)

- Personal time constraints
- Restrictions from husband/family members(ask female AA only)
- Lack of children
- lack of sufficient training
- Lack of supervision/backstopping from superiors
- Insufficient salary
- Too large a working area
- Resistance in the village to working with women (ask male AA only)
- Other _____

13. In what three (3) areas do male farmers need extension the most? (Rank in order/Read list)

- | | |
|---|---|
| <input type="checkbox"/> Crop selection | <input type="checkbox"/> Seed selection |
| <input type="checkbox"/> Field preparation | <input type="checkbox"/> Planting method |
| <input type="checkbox"/> Composting | <input type="checkbox"/> Chemical fertilizer |
| <input type="checkbox"/> Weeding | <input type="checkbox"/> Harvesting methods |
| <input type="checkbox"/> Seed storage | <input type="checkbox"/> Grain storage |
| <input type="checkbox"/> Drinking water | <input type="checkbox"/> Kitchen garden |
| <input type="checkbox"/> Plant protection | <input type="checkbox"/> Irrigation |
| <input type="checkbox"/> Fruit/cash crop | <input type="checkbox"/> Fodder/fuel tree plantation |
| <input type="checkbox"/> Livestock | <input type="checkbox"/> Marketing of surplus cash crop |
| <input type="checkbox"/> Threshing | <input type="checkbox"/> Cottage industries |
| <input type="checkbox"/> Health/Nutrition/
family planning | <input type="checkbox"/> Other _____ |

14. In what three (3) areas do male farmers need extension the most? Rank in order/Read list.

- | | |
|---|--|
| <input type="checkbox"/> crop selection | <input type="checkbox"/> seed selection |
| <input type="checkbox"/> field preparation | <input type="checkbox"/> planting methods |
| <input type="checkbox"/> composting | <input type="checkbox"/> chemical fertilizer |
| <input type="checkbox"/> weeding | <input type="checkbox"/> harvesting methods |
| <input type="checkbox"/> seed storage | <input type="checkbox"/> grain storage |
| <input type="checkbox"/> drinking water | <input type="checkbox"/> kitchen garden |
| <input type="checkbox"/> crop protection | <input type="checkbox"/> irrigation |
| <input type="checkbox"/> fruit/cash crop | <input type="checkbox"/> fodder/fuel tree plantation |
| <input type="checkbox"/> livestock | <input type="checkbox"/> marketing of surplus/cash crops |
| <input type="checkbox"/> threshing | <input type="checkbox"/> cottage industries |
| <input type="checkbox"/> health/nutrition/
family planning | <input type="checkbox"/> other _____ |

15. Do you think male farmers understand or accept what you tell them ?

- Yes No

If no or sort of, why ? check two below

lack of education

no interest

- traditional resistance to new ideas
- no time to listen
- communication with the opposite sex difficult
(ask female AA only)
- Other _____

16. Do you think female farmers understand or accept what you tell them?

Yes

No

If no or sort of, why? Check two below.

Lack of education

no interest

communications with the opposite sex difficult
(ask male AA only)

no time to listen

traditional resistance to new ideas

Other

17. Who is your direct supervisor?

ADO

JT

JTA

Other _____

What are two (2) most important roles of that person? Rank in order

technical backstopping/advice about ag. related

administrative backstopping/helping with logistical support

evaluation of subordinates

attending functions as representative of the district

monthly reporting to Kathmandu

Other _____

18. What is the best way to reach female farmers?

individually

... an informal group

when they are in the field

in an organised group

other _____

(7)

19. Do you listen to the agriculture program on Radio Nepal ?

Yes

No

If yes, how many times per week ?

1

2

3

If yes, do you understand

Yes

No

If yes, is the information useful for your farming ?

Yes

No

Appendix C

Persons Contacted During this Study

1. Dr. T. N. Pant - Joint Secretary, Ministry of Food & Agriculture
2. Mr. Purusottam Gorkhali - Director General, Dept. of Agriculture
3. Mr. A. Moin Shah - Deputy Director General, Dept. of Agriculture
4. Mr. A. M. Pradhanang - Deputy Director General, Dept. of Agriculture
5. Dr. Carl Hittle - Project Supervisor, I.C.P.
6. Mr. A. N. Bhattarai - Chief of Agronomy Section, Khumaltar
7. Mr. R. C. Gupta - Chief of Training and Extension Division, Dept. of Agriculture
8. Dr. Janet C. Ballantyne - Deputy Director, USAID/N
9. Mr. Gary Alex - Project Officer, USAID/N
10. Mr. Charles Hash - USAID/N
11. Dr. Dilbagh Athwal - IADS Vice President
12. Rini Van Heel - FAO/ADB
13. Mr. I. C. Bolo - Agronomist, ICP
14. Dr. Kenneth Sayre - Agronomist, ICP
15. Mr. B. P. Sinha - Dean of Rampur Campus, IAAS
16. Mr. S. N. Tewari - Dean of Lamjung Campus, IAAS
17. Dr. K. L. Manandhar - Senior Plant Pathologist, Khumaltar
18. Dr. Paul Kaplan - No-Frills, Kathmandu
19. Dr. Herb Whittier - MUCIA/IAAS, Rampur
20. Mr. M. Subedi - Professor/IAAS, Rampur
21. Mr. Shambhu Lal Shrestha - Assistant Agronomist, Khumaltar, DOA
22. Mrs. Pramila Shrestha - ADB/N
23. Ms. Ann Lewis - USAID/N
24. Mr. Babu Ram Gurung - ICP, Socio-Economic Group, Khumaltar
25. Mr. Devi Gurung - ICP, Socio-Economic Group, Khumaltar
26. Mr. Ratna Babu Shrestha - ICP, Socio-Economic Group, Khumaltar
27. Ms. Jenny Wood - RCUP Intern, Small Irrigation Project, USAID/N
28. Ms. Anita Sharma - USAID
29. Sandy Burt, Kathy Ross, Carol Slaymaker - Peace Corps/Kathmandu
30. Mr. David Lipinsky - ICP/PCV
31. Mr. David Mergen - ICP/PCV
32. Mr. B. K. Singh - Agronomist, ICP
33. Dr. Lynn Bennett - UNICEF
34. Mr. William Hart, RCUP

Appendix D

List of Acronyms

AA	-	Agricultural Assistant
ADO	-	District Agricultural Officer
ADB	-	Agricultural Development Bank
AERP	-	Agricultural Extension and Research Project
AIC	-	Agricultural Inputs Corporation
CEDA	-	Center for Economic Development and Administration
CSP	-	Cropping Systems Project
DDG	-	Deputy Director General
DG	-	Director General
DOA	-	Department of Agriculture
HFPP	-	Hill Food Production Program
HMG	-	His Majesty's Government
IAAS	-	Institute of Agriculture and Animal Sciences
ICP	-	Integrated Cereals Project
IDS	-	Integrated Development Systems
IRDP	-	Integrated Rural Development Project
JT	-	Junior Technician
JTA	-	Junior Technical Assistant
KHARDEP	-	Kosi Hills Area Development Programme
MOA	-	Ministry of Agriculture
MPLD	-	Ministry of Panchayat and Local Development
PL	-	Production Leader
PO	-	Production Officer
RCUP	-	Resource Conservation and Utilization Project
SLC	-	School Leaving Certificate
SPISP	-	Seed Production
UNFPA	-	United National Fund for Population Activities
USAID	-	United States Agency for International Development

APPENDIX E
BACKGROUND TO THE SLIDESHOW

Planning Extension for Farm Women

Produced by: Laurie Zivetz and Susan Anderson

Produced for: Integrated Cereals Project, Kathmandu, May, 1984

Summary: This slideshow documents a six month study aimed at identifying how to reach female farmers with agricultural extension information who should reach them and what the message should be. The presentation is 10 minutes. It covers the approach to and findings of the project from the perspective of farm women themselves.

Appropriate Audiences: The presentation is in simple English' and identifies problems and solutions which are of potential interest to: 1) government planners and policy makers in agriculture and related fields; 2) professors and trainers in agriculture and related fields; 3) extension agent training situations (either academic or non-formal); 4) workshops on women in-development.

Background: The report "Planning Extension for Farm Women", Integrated Cereals Project, 1984 is the best reference introduction to this presentation. The executive summary (attached) gives an overview of the findings and recommendations of the study, and a basis for introduction and follow-on discussion to the slide show.

Use: The slides should be arranged in a 80-slide carousel in numerical order (indication on the slide). The cassette has some introductory music during which time the first slide should be displayed. The arrows on the script(also attached) indicate the point at which a new slide should be shown. So slide '2' comes on when the voice says: "It took a long time to find enough wood for the whole day".

When there is no narration or voice, there is a pause between slides, indicated by the number of seconds the slide should be held on the screen. That is : '4 sec' means count 4 seconds (slowly) and change the slide again.

SCRIPT: SLIDESHOW ON REACHING FEMALE FARMERS
INTEGRATED CEREALS PROJECT

Laurie Zivetz and Susan Anderson
June, 1984 Kathmandu, Nepal

Voice: This morning I woke before the sun came up.

I went to fetch water and wood

The tap is far and it was only enough for the morning. ↙

It took a long time to find enough wood for the whole day.

We will have to use dung as well. ↙

When I came home, I cooked for my husband and five children.

My baby is sick so I left her with my mother and went to the field. ↙ It is transplanting time.

When I came home, I was tired, but I pounded grain and ↙ cooked dinner for my family.

Narr: ↙ Nepali women work very hard.

↙ Their responsibilities on the farm and in the household are many ↙ 5SEC ↙ 5SEC ↙ 5SEC ↙ 5SEC

↙ If they are partners in farming is their contribution not vital to raise production for the / family and the nation ?

↙ How can agricultural information and inputs reach them ? ↙

In an effort to answer these questions ↙ the Integrated Cereals Project, ↙ and the Department of ↙ Agriculture ↙ with funding from USAID ↙ launched a small study.

↙ The assumptions underlying the study are

1. Women contribute 63% of the total male female hours in farm related activities.
2. Women make 42% of farm-related decisions.
3. To date, female farmers have not been reached by agricultural extension.

↙ The goals of the project are to raise production by more effectively reaching female farmers.

↙ The study looked at who can best reach female farmers, what are the most important curricula components for extension agents, and how can female farmers best be reached.

Voice: ↙ If you ask me, my biggest problem is water - for irrigation and drinking ↙ 4SEC

↙ Also, I would be happy to have more vegetables for my family to eat and to sell.

Voice: ↙ I would like to know how to sew and weave. Tailors and clothes are expensive; may be I could sell what I make. ↙ I heard they give these kinds of classes for women.

Voice: ↙ I would like a doctor or nurse. My children are sick so often...

Narr: ↙ Why don't these women ask for agricultural information ?

↙ They spend almost 11 hours a day in farm related activities, ↙ whereas their husbands spend about 8½.

↙ Few of the women had been contacted directly by an extension agent ↙ Only 7 out of the 240 female farmers contacted in Dang, Parsa, Lamjung and Dhankuta Districts ↙ had ever participated in extension activities. ↙ Hill and Terai women showed very little difference in felt problem areas and information needs.

Voice: ↙ When there is an extension agent in my village, I don't go and talk to him. It doesn't look nice.

↙ If he came to my house, I might talk to him, but I don't know, usually they meet the men in the teastalls.

Voice: ↙ The extension agent brought new seeds to my husband. Usually I choose the seeds for next year's crop ↙ but my husband didn't tell me anything about it.

Later he complained that there wasn't the necessary fertilizer.

↙ I used to do all the composting.

With the new seeds, we had more insects on the plants. I thought our harvest would be better, but well....

Narr: Women do not consider themselves eligible recipients of extension. Most extension agents are men and even when the input has to do with what women do, it has reached them only second-hand, if at all.

Voice: I would like it if a woman came. If we could meet in a group; that would be nice.

That way, we could help each other.

If the extension agent were from our village, she might not know as much, but she could move freely, and wouldn't leave to take a job somewhere else.

Maybe we could help one another with the children. I heard once in another village one woman watched the children while the others were busy working. The extension agent might be able to help us organize this.

MUSIC 4SEC

Narr: At present, only 2.5% of students enrolled in courses to train extension agents are women. It is the dearth of female extension agents (only 1% of the workforce), that is in part responsible for the fact that women farmers are not being reached.

In a review of curricula for all levels of extension agents, no mention was made anywhere of women's important role on the farm.

3SEC 4SEC

A role different from men's. There are few female extension agents, and male extension agents are not trained or inclined to talk to female farmers.

Narr: The solutions are straightforward and inexpensive.

They do, however, require careful back-stopping and monitoring.

- ↙ First, all curricula should be reviewed, especially courses on extension education, to integrate information on more effectively reaching female farmers.
- ↙ Second, enrollment quotas and scholarships should be designated for women in academic and short-term training courses. ↙ This will ensure that trained women are available to fill positions at all levels.
- ↙ Third, housing facilities should be made available for women students.
- ↙ Fourth, local women should be recruited to work as Agricultural Assistants.
- ↙ Fifth, daycare should be available at training courses for grassroots level extension agents.
- ↙ Sixth a one year pilot study should be launched to explore in more depth the role and potential impact of female AA's.
- ↙ This study should also look into the informal group as a means for disseminating information.

The study should be done within the context of the ↙ Department of Agriculture's existing system so that it tests the real life potentials and constraints of bringing more women into the extension system.

Voice: ↙ We have been working as AA's for two years. Last year the villagers used the new seeds and fertilizers we gave them. ↙ It was a very good harvest ↙ 4SEC ↙ OUT

MUSIC