REACHING MALAWIAN SMALLHOLDER FARMERS WITH AGRICULTURAL EXTENSION PROGRAMS: A CASE FOR INCREASED USE OF WOMEN-FARMER GROUPS

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Introduction

A global critique of agricultural extension holds that its efforts are directed towards, or its benefits are accrued by, the relatively large-holder rather than the smallholder farmer. This is of particular concern in Malawi where the average farm size is about 1.1 hectares, about one-half of farms are less than one hectare, and about 5% of farms are over three hectares (Ministry of Agriculture, 1990).

The overall aim of Malawi's National Rural Development Program V is to increase the farm productivity and the quality of life of smallholder farmers. Malawi's Ministry of Agriculture (MOA) administers this program through its research, extension, and other departments. During 1986-1992, the Malawi Agricultural Research and Extension (MARE) Project provided technical assistance to further build MOA capacity to reach national rural development aims. The Project, led by the Consortium for International Development, was funded by Government of Malawi and United States Agency for International Development. An institution-building project, MARE focused on research, training, and extension within the context of smallholder agriculture. Moreover, it emphasized further strengthening the Women's Programme in the MOA Department of Agricultural Extension and Training (DAET). Women farmers are an explicitly identified client group of Malawi's Department of Agricultural Extension and Training. Women farmers are the nation's primary producers of food (Koopman, 1989, p. 2). They account for two-thirds of all full-time farmers responsible for the daily food supply (Chibwana, 1989). They make numerous agricultural production decisions. Recent survey results report that extension staff and local leaders estimate women make at least one-half of agricultural production decisions (Culler, Patterson, & Matenje, 1990). They are involved in both food and cash crop productions. A review of several studies suggests "that in households where cash crops are grown, women do as much work as men, often doing activities believed to be done only by men" (Ngwira, 1987, p. 25).

Malawi's smallholder women farmers advise, and the literature confirms, they typically face land, labor, and capital constraints to increasing
their agricultural production (Culler et al. 1990; Ariza-Nino, 1991; Koopman, 1989). This is particularly so for female household-heads, although there are variations in constraints among female household-heads (Rao Gupta, 1990).

In Malawi, intensification of the effort to reach and respond to rural women's agricultural needs and opportunities began around 1981 with the reorganization of the MOA Women's Programme. Delivering extension programs via Women's Groups is central to this effort.

Women's Groups are organized primarily for the purpose of interacting with the agricultural extension service. They are a critical contact point for field-level extension agents. Both men and women agents organize and interact with Women's Groups. Primarily agriculturally-focused, these groups aim to increase production in such diverse crops as maize, vegetables, sunflower, and cotton. Income-generating activities and home and farm management skills are also included in the extension offering. Group members are women only. Members may obtain agricultural credit through their Women's Group, although not all Women's Groups opt to do so.

Purpose of the Paper
The purpose of the paper is to report and discuss research findings which explore the following question. How effective are Women's Groups in reaching smallholder farmers, compared to other extension methods used in Malawi to reach smallholder farmers? The paper reports data on land holding size of farmers, who are members of Women's Groups, and compares these data with the land holding size of farmers reached through other extension methods. These other extension methods include: personal visits, field visits, demonstrations, meetings, and day training courses taken together. For purposes of this paper, these other extension methods are identified by the term, customary extension methods.

Methods and Data Sources

Individual interviews, Focus Group Interviews, and a Participatory Action Research group interviewing technique were the primary data collection methodologies used in the field-based study. A desk review of secondary data was also conducted.

Based on a stratified sampling procedure, primary data were collected in Malawi during 1992 from 30 Extension Subject Matter Specialists, 73 extension field-level agents (Farm Home Assistants and Field Assistants), and 162 women farmers belonging to extension-organized Women's Groups. The membership of groups interviewed included both females residing in male-headed households (F in MHH) and female household-heads. Female household-head (FHH) is defined as a woman who is living alone without a male because of being widowed, divorced, abandoned, unmarried, or polygamous or, a woman who has a husband who returns to the home less than once a month (National Statistical Office, 1984). Data were collected from five of the eight Agricultural Development Divisions (the geographic framework for organizing extension). During group interviews with women farmers, women reported the number of hectares they cultivated during the last growing season.

Secondary data, from unpublished data in Malawi's 1987/88 Annual Survey of Agriculture, Worktable 8.3 on Extension Participation Rate by Holding Size Category were analyzed in the study. This survey provided data on (1) number of farmers surveyed by land holding size and (2) percent of farmers surveyed, in each land holding size category, reached through any of the customary extension methods of personal visits, field visits, demonstrations, meetings, and day training courses. To determine the percentage of all farmers surveyed and reached by customary extension methods by holding size category, the following computations were made: The number of farmers reported in each holding size category was multiplied by the percentage of farmer's reported reached in that
holding size category through any of the customary extension methods. This gives a new distribution which can be converted to percentages.

In order to compare data from women farmer's on area cultivated with survey data on land holding size, the figures women reported on area cultivated were increased by a correcting factor. The correcting factor used is based on earlier survey data showing that for male-headed households, an average of 6% of land held was uncultivated and for female-headed households, an average of 8% of land held was uncultivated (Spring, 1984, p. 80). Thus, reported figures on area cultivated were increased by 6% for women residing in male-headed households and by 8% for female-headed households.

**Findings**

Table 1 shows the land holding size of members of Women's Groups surveyed. The data indicate that of all farmers reached through Women's Groups, about one-fifth hold less than .5 hectares and over one-half hold less than 1 hectare. Of the female household-heads reached through Women's Groups, about one-quarter hold less than .5 hectares and the very large majority of about fourth-fifths hold less than 1 hectare.

**Table 1**

Clients Reached Through Women's Groups by Holding Size Category

<table>
<thead>
<tr>
<th>Client holding size category Ha</th>
<th>Cumulative % female household-head</th>
<th>Cumulative % female in male-headed household</th>
<th>Cumulative % all females in women's groups (N of cases: 162)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 - &lt; .5</td>
<td>25</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>.5 - &lt; 1.0</td>
<td>79</td>
<td>38</td>
<td>54</td>
</tr>
<tr>
<td>1.0 - &lt; 1.5</td>
<td>85</td>
<td>56</td>
<td>68</td>
</tr>
<tr>
<td>1.5 - &lt; 2.0</td>
<td>93</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>2.0 - &lt; 2.5</td>
<td>97</td>
<td>83</td>
<td>89</td>
</tr>
<tr>
<td>2.5 - &lt; 3.0</td>
<td>100</td>
<td>94</td>
<td>97</td>
</tr>
<tr>
<td>3.0 - &gt; 3.0</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 2 displays the land holding size of farmers reached through customary extension methods. The data suggest that of farmers reached through customary extension methods, about one-tenth typically hold less than .5 hectares and about one-third hold less than one hectare. About three-quarters of farmers reached hold less than two hectares.

### Table 2

Clients Reached Through Customary Extension Methods by Holding Size Category

<table>
<thead>
<tr>
<th>Client holding size category Ha</th>
<th>% of all farmers surveyed by holding size category</th>
<th>% of all farmers reached by customary methods</th>
<th>Cumulative % of all farmers reached by customary methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 - &lt; .5</td>
<td>24</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>.5 - &lt; 1.0</td>
<td>28</td>
<td>24</td>
<td>35</td>
</tr>
<tr>
<td>1.0 - &lt; 1.5</td>
<td>20</td>
<td>23</td>
<td>58</td>
</tr>
<tr>
<td>1.5 - &lt; 2.0</td>
<td>12</td>
<td>16</td>
<td>74</td>
</tr>
<tr>
<td>2.0 - &lt; 2.5</td>
<td>6</td>
<td>10</td>
<td>84</td>
</tr>
<tr>
<td>2.5 - &lt; 3.0</td>
<td>3</td>
<td>5</td>
<td>89</td>
</tr>
<tr>
<td>3.0 - &gt; 3.0</td>
<td>7</td>
<td>11</td>
<td>100</td>
</tr>
</tbody>
</table>

**Notes.** Customary extension methods defined as: personal visit, field visit, demonstration, meeting, day training course.

*a* Data Source: ASA 1987/88 Worktable 8.3 (unpublished data).

*b* Data Source: based on ASA 1987/88 Worktable 8.3.

Statistical comparison of data in Tables 1 and 2 shows the distributions of land holding size between farmers reached through Women's Groups and farmers reached through customary extension methods are significantly different ($X^2=35, p<.1\%$). Proportionately more smallholders are reached through Women's Groups than through customary extension methods. These distributions are shown in Figure 1. Differences illustrated in Figure One are largely due to the land holding size of the female household-head members of Women's Groups surveyed. An average of 40% of group members were female household-heads. Nationally, data show about one-third of all households in Malawi are headed by females (Ministry of Agriculture, 1982; Culler et al. 1990). Earlier data indicate the average percent female household-heads in the specific areas and districts surveyed is 36% and 31% respectively (Ministry of Agriculture, 1982). This suggests Women's Groups are very effective mechanisms for reaching women farmers who are heads of households.

Comparatively, while just over one-third of the clients reached through customary methods...
typically hold less than one hectare, over one-half of clients reached through Women's Groups typically hold less than one hectare. For those extension clients with even smaller holdings (less than 0.5 hectares), Women's Groups reach about twice the percentage of these farmers reached through customary methods. The point illustrated in this paper is not that Women's Groups reach women farmers. The data could have shown Women's Groups reach mostly large-holder women farmers. However, the data clearly show Women's Groups are notably more successful than are the customary extension methods studied in reaching smallholder farmers and these smallholder farmers are women.

**Discussion**

The available data strongly support the premise: As an extension method, Women's Groups are more successful in reaching smallholder farmers than are collectively the extension methods of personal visits, field visits, demonstrations, meetings, and day training courses. From a policy and resource-investment perspective, the question of whether Women's Groups are as effective as other group methods currently used in Malawi to reach smallholders deserves further consideration.

Farmer Clubs, traditionally organized to obtain access to and as the primary channel for agricultural credit, are widespread in Malawi. Reported figures for 1990/91 show there were about 11,000 Clubs, with members who received agricultural seasonal credit (Chibwana, 1992). Of these members, about 70% were men and
30% were women (Chibwana, 1992). There is little evidence to suggest Farmer Club members are the "smallest of the small" smallholders. To the contrary, Ariza-Nino states: "Members constitute in fact the larger and more progressive farmers in the smallholder subsector" (1991, p. 15). This is confirmed by Koopman who indicates the category of farmers, with over two hectares of land, has nearly exclusive access to credit for fertilizer and improved seeds (1989, p. 6).

The MOA is aware of and actively addressing this situation. In order to expand the reach of extension to a broader farming clientele, current extension policy supports the Block Extension System (BES) of which Women's Groups are a component. BES adapts Training and Visit and organizes farmers based on geographical areas called Blocks. Extension agents, deployed by Block, are expected to meet with both men and women farmers belonging to the particular Block and to demonstrate practices in the Block garden or on farmer fields (Matenje, 1991).

Farmers, organized by Blocks, are often referred to as farmers in Farmer Groups/Mixed Groups. Women are encouraged to join these groups. There is currently very limited data available on land holding size of farmers in Farmer Groups/Mixed Groups. To the extent the holding size of clients reached through these mechanisms is reflected in the holding size of clients reached through the customary extension methods of meetings and demonstrations, the available data tentatively suggest Women's Groups reach proportionately more smallholders than Farmer Groups/Mixed Groups. Women's Groups are a component of the BES. Farmers, who are members of Women's Groups, may well be reported as being reached through demonstrations and meetings. However, it does not appear their participation is sufficiently high to substantially influence the proportional distribution of clients reached by land holding size.

Conclusions

In Malawi, utilizing Women's Groups as a method of extension outreach, substantially increases agricultural extension's chances of achieving its goal of serving the smallholder farmer. In other African nations—where the policy aim is to target smallholders, where women farmers are making substantial contributions to agricultural production, and where the sociocultural context is similar to Malawi's—organizing and utilizing Women's Groups provides a concrete strategy for policy implementation.

Educational Importance

Further developing the skills, men and women extension staff need to better serve women farmers, will result in improving extension's capability to reach smallholder farmers. This can be accomplished through pre-service and in-service formal and non-formal agricultural education. Skills needed include those required:

- To carry-out gender analysis of farmer activities, resources and constraints, and benefits and incentives.
- To organize and sustain Women's Groups, as a specific extension method.
- To utilize functional teaching techniques for working with women farmers considering their high illiteracy rate.
- To practice professional methods of interpersonal communications between agents and women farmers.
- To understand and to develop appropriate strategies for addressing sociocultural constraints to farmer/agent interaction.
- To apply team building concepts so that men and women agents can effectively collaborate in their work with women farmers.
References


