The Voice of the Farmer
In Agricultural Extension

A Review of Beneficiary Assessments of Agricultural Extension and
An Inquiry into their Potential as a Management Tool

AKIS Discussion Paper

Lawrence F. Salmen (SDV)
November 18, 1999
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Forward

The Agriculture Knowledge and Information Systems (AKIS) Thematic Team in the World Bank has been concerned with better monitoring of the impacts and results from agricultural research and extension investments. Impacts of extension investments are difficult to track as they are literally scattered across a country on hundreds of thousands of farms. Traditionally, extension programs have monitored use of inputs (numbers of extension agents) and perhaps outputs (farmers trained, demonstrations conducted), but evidence of what farmers think of programs, how extension affects farmer practices and incomes, and how extension services can be improved are less frequently monitored in a systematic way. Beneficiary Assessment is a procedure for gathering information on beneficiaries' (i.e., farmers') views of a program. Ten countries in Africa have undertaken Beneficiary Assessments of extension programs. This provides a set of experience of wide potential interest to extension practitioners seeking methodologies for monitoring and evaluating extension programs. For this reason, the AKIS team commissioned this AKIS Discussion Paper to summarize the experience with use of Beneficiary Assessment in African extension programs.

AKIS Discussion papers are informal publications used to disseminate views, experience, and ideas, which may assist World Bank Team Leaders, national counterparts from Borrower counties, and other partners with preparation and implementation of projects to strengthen agricultural research, extension, and education programs. They attempt to promote discussion and exchange of ideas and identify lessons from innovative experiences in World Bank projects and elsewhere. Discussion Papers are placed on the AKIS website and are intended to make information readily available for comment and use by project teams.

AKIS is the Agricultural Knowledge and Information Systems Thematic Team, composed of World Bank staff working on or interested in research, extension, and education programs. The overall team objective is to enhance the effectiveness of Bank support to agricultural knowledge and information system development and thus contribute to the Bank's objectives of alleviating poverty, ensuring food security, and improving sustainable management of natural resources. The AKIS team emphasizes policy, institutional, and management issues associated with agricultural research, extension and education, recognizing that other thematic teams will focus on technical issues. The Team mission is to "promote the development of sustainable and productive agricultural research, extension, and education systems in Bank client countries."

This AKIS Discussion Paper was prepared by Lawrence Salmen based on experience in ten African countries.

David Nielson
Chairman
Executive Summary

This paper is divided into two parts. The first part reviews the ten completed beneficiary assessments of agricultural extension programs in Africa. The second part examines the potential for institutionalizing this monitoring and evaluation approach into Bank-supported agricultural extension projects. Part one was carried out by a documentation review; part two is the result of in-depth interviews with project managers, both in-country and in the Bank.

Beneficiary assessment (BA) is defined as an approach to information gathering which assesses the value of an activity as it is perceived by its principal users. The ten BAs which form the basis for this review were carried out between 1994 and 1999 with this general feedback objective in mind. Each was conducted in a different country: Cameroon, Cote d'Ivoire, Ghana, Guinea, Madagascar, Mali, Mozambique, Senegal, Uganda, and Zambia. These beneficiary assessments were the first efforts of these extension agencies to register in a systematic manner the expressed reactions of the persons they served, the farmers, so as to improve the quality of their work. Each of the programs assessed was national in scope; the average number of farmers sampled was roughly 1,200. Women averaged 39 per cent and “contact farmers” close to half (44%) of all farmers sampled.

Agricultural extension programs were found to generally increase the rate of adoption among farmer-beneficiaries of the techniques put forward. The most explicit reference to this increase in adoption is found in the BAs on Cameroon, Madagascar, and Mozambique where an average of 85% of farmers modified their traditional methods of production after contact with the extension agent. Demonstration plots were generally found to be the most effective way to induce change in farmers' production practices.

The beneficiary assessments made it clear that extension did in fact increase the production of those directly affected; they also raised important questions about how far this impact reached beyond those persons and, in some cases, whether increased production translated into increased income. Where samples were broken down by contact group vs. non-contact group farmer, it appears that the farmers directly contacted realized considerably greater benefits than did farmers not contacted. The extension message often does not get passed from contact group to non-contact farmers. Contact farmers, either individuals or groups, are often better-off farmers who retain whatever they learn from extension agents for themselves.

The training and visit system as generally practiced up to now has not been participatory, particularly as regards women. All but one of the countries (Mali) reported serious inequity concerning female farmers. The prevailing situation for women is exclusion, from the staff of extension agencies, from contact groups, and from day-to-day conversation with either extension workers or contact group members. Agricultural extension is an activity designed and implemented by and for men. Yet, women do want to participate. Better integration with women’s associations would more importantly help bring about the greater participation of women in extension activities.
The three major shortcomings of the extension service, in the eyes of the farmers, were: (a) a lack of renewal of extension themes with poor linkage between extension and research; (b) a low coverage rate with poor diffusion via contact groups; and (c) a lack of means to apply the message, e.g., seeds, fertilizer, insecticide, credit. Farmers' recommendations can be broken down into four areas: the need for the extension agency to (i) reach down and become more participatory, (ii) reach out and build partnerships at all levels, (iii) improve its own effectiveness through capacity building and better management, and (iv) amplify its range of services. There is a widespread recognition that extension agencies cannot be effective by doing their work in isolation from other institutions, public and private. Indeed, national policies should encourage agricultural extension entities to be proactive in creating partnerships with appropriate related governmental and non-governmental agencies.

Generally, Task Managers (TM)s stated that the BA was an extremely useful tool for them in making mid-course changes to their projects or in designing subsequent projects. The cost of the BAs ranged from US$20,000 to US$80,000 in the projects for which this information was available. When asked if the benefits outweighed the costs, most TM{s} responded positively, in terms of both the information gathered and the overall benefit to the project. The TM{s} found these BAs useful because: (a) BA results often provided independent confirmation of what the TM{s} already believed were problems and successes of the projects; (b) the TM{s} often had only anecdotal evidence before the BA of the major issues in their projects and many found it helpful to have their "suspicions" systematically confirmed; (c) the BA allows one to prioritize the difficulties in the training and visitation (T&V) approach and to address each matter according to its immediacy; (d) finally, the BA can be used to monitor progress within a project and to make mid-course corrections. The changes brought about by the BA have been important in improving the sustainability of extension efforts and have played a role in improving the project outcome. Most TM{s} asserted that the cost of conducting this type of assessment (averaging $48,000) was greatly outweighed by the benefits and intend to use the BA in future projects.

For the five host country managers of agricultural extension programs interviewed for this review (in Cameroon, Ghana, Guinea, Senegal and Uganda), the prevailing rationale for having these BAs done was for the purpose of taking stock after four or five years of project implementation, to assist with the mid-term review or as a management tool which would provide a useful view of reality. The single most important finding for all managers interviewed was the reaffirmation of the value of agricultural extension to the farmers who were directly in contact with the extension agents. The most important critical finding was the apparent poor performance of the contact group as a transmitter of information to non-contact group farmers. Changes in policy brought about by the findings of BAs were in four major areas:

(a) Increase attention to improving the functioning of contact groups.

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1 Cameroon, Mozambique, Guinea, Mali and Madagascar.
(b) Go beyond the communication offered by contact groups, especially by using more participatory extension approaches.
(c) Adapt extension to local needs and realities.
(d) Increase institutional linkages at all levels.

The clearest indicator of the utility of the beneficiary assessment (BA) approach as perceived by the host-country managers is that all host-country managers want to continue using BAs on a periodic basis as an iterative feedback tool. The consensus was that this systematic listening to the farmer, the extension staff, and partner institutions should become institutionalized as an important input towards the continuous self-improvement of national agricultural extension services.
Introduction

This paper is divided into two parts. The first part reviews the ten completed beneficiary assessments of agricultural extension programs in Africa. The second part examines the potential, as assessed by both Bank and host-country managers of agricultural extension programs, for institutionalizing this monitoring and evaluation approach into most or all agricultural extension projects. Part one was carried out by a documentation review; part two is the result of in-depth interviews with project managers, both in-country and in the Bank. The conclusions, while drawn from both these written and verbal sources, are those of the author.

Beneficiary assessment (BA) is defined as an approach to information gathering which assesses the value of an activity as it is perceived by its principal users. The ten BAs which form the basis for this review were all carried out since 1994 with this general feedback objective in mind. Otherwise, they are quite disparate exercises. Each was conducted in a different country: Cameroon, Cote d'Ivoire, Ghana, Guinea, Madagascar, Mali, Mozambique, Senegal, Uganda, and Zambia. While one assessment (Mali) was done by staff of the extension agency, most were carried out by teams which were either mixed agency/non-agency or entirely external to the agency. The methodologies employed differed widely, with most of the BAs relying far more on closed questionnaires than is the norm for the qualitative BA approach, with its emphasis on conversational interviewing, either one-on-one or in focus groups. Sampling also varied widely, both as regards the number and the kind of persons interviewed (see below for details). Most important, these beneficiary assessments were the first effort of these extension agencies to reach out and register in a systematic manner the expressed reactions of the persons they served, the farmers, so as to improve the quality of their extension work. What they heard by giving voice to the farmers and whether they wish to continue listening systematically to them are the main topics of this paper.

I. The Review

Given the aforementioned disparities between the ten beneficiary assessments involving, essentially, time, place, assessor, and method, this is not an exhaustive review. Rather, salient features of these BAs which might shed light on the value of the BA approach as a monitoring and evaluation tool are brought out. For the same reason of extreme diversity, there will be no pretense of strict comparability. Inasmuch as a number of themes are treated by two or more (many by a majority) of the BAs, they will be discussed in generic fashion, drawing on the particular findings of the relevant cases. While the principal value of this review will be to assist the Bank in formulating a policy regarding the monitoring and evaluation of agricultural extension programs, the picture of these programs as seen through the eyes of the farmers and, where incorporated, the extension field staff is one that should be of interest to practitioners in this important field of developmental activity.

A. Methodology
In the kind of user survey represented by the beneficiary assessment approach, who one decides to listen to is of the utmost importance. While each of the programs assessed was national in scope, it is noteworthy that the number of farmers sampled ranged from a low of 199 in Cameroon to a high of 2,442 in Senegal; the average was 1,156 for the eight countries (all but Cote d'Ivoire and Zambia) for which data was available. The breakdown of these farmer samples was also important. Whereas a majority of those persons engaged in agricultural production are women, in all cases women made up less than half the sample; they averaged 39 per cent for those six BAs for which this gender breakdown was available. As will be seen below, the extension service has generally had a far greater impact on those farmers who are either contact farmers or who belong to contact groups. While precise data is hard to come by (and does not appear in these BA reports), it is commonly believed that those farmers who are directly contacted by the extensionists (individually or in groups) make up a small fraction of the total number of farmers in the areas covered by the extension service. Yet, these “contact farmers” comprise close to half (44%), on average, of the farmers sampled for the seven BAs for which this data is available. In assessing the impact of the extension service as perceived by the farmers, it may well be useful to compare those farmers in areas served by the service with those farmers in areas not so served, the latter acting as a control. In half of the BAs (Guinea, Madagascar, Mali, Mozambique and Senegal) control farmers were included in the sample (where they averaged 22%). Finally, the BA approach is supposed to give voice to the key stakeholders in an activity. This, one might assume, would include the extension agents as well as the farmers. In only four BAs (Cameroon, Ghana, Mali, and Uganda), however, were extension workers interviewed as well as the farmers.

The less-than-qualitative nature of most of this BA work has been commented on. Suffice it to say that it is harder to listen with a questionnaire than an interview guide; the former makes the interviewee the object of a prestructured inquiry, while the latter allows the interviewee to become the subject of his or her own discourse. People also may express themselves on some topics in useful and revealing ways when in groups (as opposed to one-on-one). Beyond the construction of the sampling frame mentioned above, a further limitation of the BAs reviewed is that only half (Guinea, Madagascar, Mali, Mozambique --partially, and Senegal) used open-ended, semi-structured interview guides, while only four (Ghana, Mali, Mozambique, and Senegal) used focus groups.

B. Adoption

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2 Cameroon, Ghana, Guinea, Madagascar, Mali and Senegal.
3 Cameroon, Ghana, Guinea, Madagascar, Mali, Senegal and Uganda.
4 In two cases the BA reached other groups as well. In Madagascar 26 partner organisations were interviewed; in Uganda 119 other members of the extension agency filled out questionnaires as part of the BA survey.
If one were to measure the success of an agricultural extension program by the rate of adoption among farmer-beneficiaries of the techniques put forward, then the ten extension programs assessed here would appear to have made the grade. The most explicit reference to this increase in adoption is found in the BAs on Cameroon, Madagascar, and Mozambique where the percentages of farmers modifying their traditional methods of production after contact with the extension agent were 75, 81, and 99, respectively. Most of the reports did not specify which techniques were most readily adopted. Two that did were Cameroon – composting, coffee sizing, spacing, and the utilization of agricultural inputs, and Uganda – the use of improved planting materials and pest and disease control.

Extension may be considered a form of directed communication. As in other domains of activity, some forms of communication are more effective than others. Whatever the form, the communication will come up against certain limitations, or obstacles, which may impede its functioning beyond a certain point. While many reports did not disaggregate the various extension methods, indicating which were the most effective, those that did unanimously placed demonstration plots as the best way to induce change in farmers’ production practices. In Uganda 75 per cent of the farmers sampled adopted new techniques after seeing demonstration plots (63% adopted following training courses); in Cameroon, over half (56%) of the farmers adopted after demonstrations, as compared to roughly a third (30%) after contact with the extension worker and half this amount (14%) after meeting with a contact farmer. Yet, even in Uganda, with its high adoption rates, major constraints to adoption were given by farmers as lack of capital (57%) and lack of inputs (16%). That these constraints (and others) can be important in diminishing the impact of extension comes from a separate study of extension in Kenya carried out by Madhur Gautam (OEDST) wherein, from a survey of 596 households, he finds that “about 60% of those farmers who ‘normally’ receive advice at least one a year ... report that they have not applied any of the recommendations. Just over one -half of the CFs [contact farmers] have not applied the extension recommendations”.

Presumably, the constraints affecting adoption also influence production and income.

C. Production and Income

Indeed, while production was seen to have increased generally as a result of extension – particularly for those in direct contact with the extension agents -- the linkage between cultivation techniques and production is arguably stronger than that between production and income according to farmers in a number of the countries surveyed by

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5 BA reports for Cameroon, p.xiv; Madagascar, p.v; and Mozambique, p.19.
6 BA reports for Cameroon, p.xiii and Uganda, p.48.
7 Uganda BA, p.27 and Cameroon BA, p.40.
8 Uganda, Ibid p.57.
these assessments. In Senegal, the most important factor influencing production was seen by the farmers sampled as being cultivation techniques; this was echoed in Cameroon, where farmers said that only climate matched the importance of cultivation on production. In Cameroon, a significant majority (82%) of the farmers said that the quality of their production improved due to the advice of the extension service (the PNVA), and 25% of the farmers experienced an actual increase in production of 10 to 50%. while another 41% produced over 50% more due to the extension presence. A little over a third (37%) of the farmers sampled in Uganda reported increases in production resulting from the adoption of techniques learned from extension, while in Ghana almost all farmers said they had increased both production and sales due to extension activities.

While the beneficiary assessments made it clear that extension did in fact increase the production of those directly affected, they also raised important questions about how far this impact reached beyond those persons and, in some cases, whether increased production translated into increased income. The highly positive impact of extension reported for Ghana above may well be due in large part to the high percentage (75) of contact group members in the sample. Most of the BAs did not break down the sample by contact group vs. non-contact group farmer in analyzing growth in production. Where this was done, however, it appears that the contact group members (included here are also contact farmers or members of contact families) realized considerably greater benefits than did the non-contact group farmers. In Mali, 38% of the contact group members experienced an increase in production compared to 28% of the non-contact farmers in extension areas (and 20% in the control groups). In Guinea the discrepancies are even greater: close to two thirds (64%) of contact group farmers experienced increases in agricultural production over the last three years compared to well under half (39%) for both non-contact group farmers in areas covered by extension and control group farmers. In Madagascar, the differences are the most striking: 71% of the contact group members reporting increases in production compared to only 28% for both the non-contact group members in villages covered by extension and for the control group.

Assertions regarding income are difficult in any survey work, qualitative or quantitative, due to people's reluctance to discuss the topic openly. Relating income to agricultural extension is also problematic given the many other intervening variables which come into play. Nevertheless, the little data which we have from these beneficiary assessments which touches directly on income leads to a tentative conclusion that extension advice does positively affect income but with less impact than on production. In Uganda, of the 188 respondents who reported increased yield, 82 or 44% also reported increased income.

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11 Ibid, pp.47,74.
13 Mali report, p.28, Guinea report, p.11 and extrapolation from Madagascar report.
14 Uganda report, p.71.
farmers sampled felt that the cultivation techniques they were learning from extension were income-producing (rentables); this percentage was not higher, they felt, because of a total lack of direction from the PNVA (extension agency) regarding the marketing of their produce. In Mozambique the situation was more dire; only 12% of the farmers interviewed said that they put more products in the market due to the application of messages learned from the extension service.

D. Diffusion

Agricultural extension is a form of education which takes place in a vast “school without walls” comprised of the entire rural area of a country. As in all education, instruction must reach and affect the student for learning to occur. Given the large number of students (farmers) and the expense of the teachers (extension agents), it is imperative that information be relayed through intermediaries (or transmitted electronically, an option not discussed here). Generally, the training and visit (T&V) system of agricultural extension – the system which is used in the ten projects assessed here – uses contact groups or contact farmers as disseminators of the messages to be imparted. In Cameroon, the BA states that the objective of the extension service is to have each member of a contact group transmit information to three or four non-contact group members. As could be surmised from the differentials in production increases recorded above for members of contact groups and non-members in Mali, Guinea and Madagascar, the extension message often does not get passed from contact group to non-contact farmers. In the words of the Madagascar BA report: “the members of contact groups are good receptors but bad relays”. Dissemination could also be made via other community-based institutions, but the extension services assessed here did not generally relate to these other entities. This self-containment and reliance on transmission of information through contact farmers (individually or in groups) clearly poses problems for the T&V system as presently constituted in Africa.

The picture that emerges from this review of ten beneficiary assessments of agricultural extension is that the contact farmers, either individuals or groups, are most often the better-off farmers who are sometimes related to each other but more often than not retain whatever they learn from extension agents for themselves and do not pass information on to fellow (non-contact) farmers. Clearly, there are disparities between countries. Even in a country where the extension system is portrayed as working well, such as Cameroon, just under half (48%) of the members of contact groups said that they spoke of the methods of agricultural production promoted by the PNVA (the extension agency) to non-contact farmers in their villages. Perhaps it is the demonstrations given by the extension agent which best extend his (few are women) reach beyond the contact

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16 Mozambique report, p.23.
17 Cameroon report, p.4.
18 Madagascar, p.vi.
19 Cameroon report, p.31.
farmer. In Mali, most of the contact, as one would expect, is between the extension agent (AVB) and the contact farmer. The AVB is given as the key source of information on agricultural production by two thirds (66%) of the members of contact groups. Yet close to half (45%) of the non-contact farmers in Mali who live in areas covered by the extension service also give the AVB as their major source of information about agricultural production. Worthy of particular note is that, while 78% of these latter non-contact farmers know of the existence of the contact group in their area, only a tiny percentage (1.4%) of them state that the contact group is where they receive their information on agricultural production. This lack of communication between contact and non-contact farmers was also found in the previously cited study by Madhur Gautam (OEDST) of the agricultural extension system in Kenya, where less than 8% of the non-contact farmers were reported to have received advice from contact farmers on a regular basis.

There are a diverse set of factors which prevents the contact farmer from playing the key intermediary role envisaged for him in the T&V system. These include class, caste, ethnicity, and parentage, as well as inadequate understanding of role and lack of incentive to play it. While not a generally-reported phenomenon, it is significant that three reports mentioned a bias on the part of extension workers in favor of more affluent farmers. In discussing extension practices, the Uganda BA discusses “the tendency for extension staff to give more attention to progressive farmers’ problems at their farms”. Similarly, the Ghana BA states that the FLS (extension agent) meets farmers individually and in groups especially “as a means of addressing the needs of more endowed farmers”. In Zambia the criteria for discrimination were more specific: in the selection of members of contact groups there was a bias against farmers with no formal education and landholdings of less than one hectare; farmers with over ten hectares were reported to be over-represented in village extension groups. In Madagascar the ties were more familial and ethnic than class. One quarter (26%) of the members of all contact groups were related to other members of contact groups; in one region of the country (Ambanja) this percentage rose to 61. And in half of the six regions covered by the assessment the contact groups were composed largely (75%) of recent immigrants of a different ethnic group than those previously settled in those areas. Similar to gender (discussed in the following section), ethnic groups tend to talk largely to themselves.

The impression from this review is that there is a real confusion and/or ignorance about the roles of the various players in many if not all of the countries where the assessments were conducted. Many of the farmers were unaware of the existence of contact groups. In Senegal, over two thirds (68%) of the farmers in areas covered by the extension service said that they either did not know that a contact group existed in their

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20 Mali report, pp. 35, 38, 44.
22 Uganda report, 21.
23 Ghana report, p.29.
24 Zambia report, p.23.
area or flatly denied the existence of one.25 Similarly, in Ghana, over half of the non-contact farmers did not know of the demonstration sites and less knew of demonstration days. Much of this ignorance can be attributed to ineffective outreach on the part of the contact farmers, “the majority” of whom “are not aware that one of their roles is to pass on information received from the FLS [extension agent] to non-contact-group members regularly.”26 Another factor is simply a lack of willingness on the part of the contact farmer to take the effort to pass the extension message on to his or her neighbors. In Madagascar this low motivation became clear when half of the members of contact groups stated that they did transmit the extension message, but only when asked to do so, i.e. on demand. The other half said they refused to transmit the message, either for reasons of ethnicity or for fear of transmitting techniques insufficiently tested.27 Relevant here is a question posed by Ansoumane Camara, the Chief of the monitoring and evaluation unit of the SNPRV, the extension agency of Guinea, “What is the incentive for a contact farmer to pass on the extension message to a non-contact farmer?”28

One channel for diffusion as yet relatively unexplored is that of other community-based institutions. In Madagascar, over half (58%) of the members of contact groups said that they were willing to collaborate with these other community associations29. In Cameroon the BA reported that a number of farmers wished that the PNVA, the extension agency, would modify its practice of working largely through contact groups and concentrate its efforts on existing community associations.30 It is clear from this review that the pivotal link represented by the contact farmer or group has not worked as it was meant to and that some other channel of communication which allows for greater participation of the farmer must be found. As the Mozambique report concludes,31 where the channel is the group, dynamism is generated from traditional social and cultural ties which go back prior to the introduction of extension work and which must be tapped for this work to succeed. It is to this general topic of participation and gender that we now proceed.

E. Participation and Gender

From this collective listening to farmers in nine African countries comes the clear message that the training and visit system as generally practiced up to now has not been participatory, particularly as regards women. It is to the credit of the architects and senior policy officials behind T&V that increasing attention is now being given to what is known as the village level participatory approach (VLPA), presumably to counter what is generally recognized as a top-down kind of development intervention. Still, it behooves the practitioner of agricultural development to see how the farmers have perceived their

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25 Senegal report, p.17.
27 Madagascar report, pp.16-17.
29 Ibid. p.18.
30 Cameroon report, p.15.
31 Mozambique, p.54.
own participation in the mode of extension which prevails to this day. Participation in agricultural extension, or the lack thereof, takes many forms. One is who selects the themes for extension. In Cameroon, a third (32%) of the farmers say that the themes are imposed on them by the extension agents – a fifth (19%) of the extension agents agree. Similar critiques were registered in the BA from Cote d’Ivoire, which stated that many extension agents do not carry out participatory diagnoses. Another way to consider participation is to weigh how carefully extension agents listen to the farmers. In Madagascar, the message was a clear-cut absence of listening. In the words of one farmer:

“The agricultural extension worker came into our community two years ago. He has never called us together to hear our point of view ... far be it for him to come and chat with us after work hours. Once evening falls, he goes into his house ... to exit only the following morning.”

One positive result from listening, of course, is that it can serve to improve the quality of service. An indicator of the paucity of listening comes from Uganda, where the BA informs us that only 12% of the extension agents reported that recommended production technologies were modified on the basis of farmer feedback. Another way participation becomes manifest is in the way the members of contact groups are selected. In Mozambique contact groups were reported to be chosen in 60% of the cases by the extension agents. The Madagascar report stated that the AVB (extension worker) chose the farmers whom he wanted: “We do not know why the AVB has not chosen us to work with him. And yet, he passes near our house, near our fields but doesn’t even deign to stop.” There are also cases such as Ghana, where farmers who have been chosen by extension workers to participate in contact groups refuse to do so due to distrust of the extension worker “because in their view FLS [extension workers] have been used by some organizations to deceive them [the farmers]. These organizations have made vain promises of all kinds of assistance to them”. Finally, there is the simple issue of language. When extension documents are printed in the official language of the country but not in the local vernacular – as was reported to be the case in Madagascar, where only 10% of the farmer/beneficiaries read French – this can clearly be an impediment to participation as well.

Gender: The greatest unmet challenge facing agricultural extension is the inclusion of women. With the single exception of Mali, all of the other nine countries which had beneficiary assessments reported serious inequity concerning female farmers. The prevailing situation for women is exclusion, from the staff of extension agencies,

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32 Cameroon report, p.35.
33 Cote d’Ivoire report, p.20.
34 Madagascar final report, p.30.
35 Uganda report, p.80.
37 Madagascar report, p.27.
38 Ghana report, p.25.
from contact groups, and from day-to-day conversation with either extension workers or contact group members. In Madagascar, only 6% of the staff of the PNVA (extension agency) is female. In Mozambique, only 6% of the contact groups are women; in Cote d'Ivoire the proportion is roughly the same (6-8%). Part of the problem is that women, with their household and child rearing responsibilities, are less free to attend extension events than men. In Uganda, only 27% of the women as compared to 69% of men attended demonstrations and training courses. True, the vast majority (89%) of households are headed by men, but, as the BA report points out "women carry out most of the farm work including planting, weeding, harvesting, and processing". Another part of the problem relates to cultural constraints placed on women. The Mozambique report provides telling statistics that close to three quarters (71%) of the women farmers stated that they had to ask their husbands' permission to apply the techniques taught by the extension agent; more than 30% said that their husbands got angry when they received visits from male extension workers.

The beneficiary assessment teams were made up of roughly equal numbers of men and women. As stated at the outset of this paper, the samples of farmers were drawn from both sexes such that approximately 40% on average were women. Women were generally those chosen to interview women (and men to interview men). The scenario that unfolds in almost all of these BAs is one of an activity (agricultural extension) which is designed and implemented by and for men. As seen, women are generally not invited to be part of the contact groups, which are the major recipients of the extension message. In Senegal, the message delivered by the extension agent (AVB) went almost entirely to the members of the contact groups, who were generally men; women were said to be marginalized by the extension service. Even where women comprise a significant percentage of those contacted directly by extension agents, as in Guinea (37%), considerably fewer register increases in production than men (58% vs. 67%, respectively). Perhaps more telling, among farmers in areas of Guinea covered by extension who are not members of contact groups/families not only did less women register increases in production than men (33% vs. 43%, respectively) but these same women were outperformed by women in the control group, in areas receiving no extension from the Bank-supported project. This unusual finding may point to some sort of prejudicial discriminatory practices perpetrated by the extension service or effective, gender-sensitive activities by NGOs, or both. Further research is clearly called for.

Yet, women do want to participate. In Cote d'Ivoire, the women complained that the extension staff did not care about them despite their willingness to form contact groups. Much of the gender problem boils down to one of communication. As the

40 Mozambique report, p.34; Cote d'Ivoire report, p.22.
41 Uganda report, p.25.
42 Mozambique report, p.36.
43 Senegal report, pp.22-23.
44 Guinea report, p.11.
45 Cote d'Ivoire report, p.19.
Ghana BA reports, male extension workers (FLS) “find it difficult to interact with female farmers,” while women farmers in Zambia “said that they didn’t feel male extension workers communicated effectively with them”.\textsuperscript{46} The result of this lack of inclusion of women was generally what was reported for Cameroon -- a country where major advances were made for male farmers: “changes in the way of working of rural women were not yet perceptible”; and for Cote d’Ivoire: “ANADER [the extension agency] hasn’t yet truly redynamized the women in areas visited.”\textsuperscript{47}

The case was made above of the need in agricultural extension work for greater outreach to and collaboration with community-based institutions. In many African countries, few community associations are so well organized or so willing and ready to engage in development activities as women’s associations. In Mali, it was these women’s groups that were seen by the farmers as being the most apt to serve as effective partners in the diffusion of the extension message.\textsuperscript{48} Better integration with women’s associations would more importantly help bring about the greater participation of women in extension activities generally, still seen to be so woefully lacking.

\section*{F. Farmers’ Assessment of Extension}

Farmers reacted differently to agricultural extension depending on the program (country) and on whether they were contact farmers or not. The suggestions for ways the extension agents could improve their work were surprisingly similar across national lines, as was the manner in which the farmers saw themselves helping to defray the costs of the extension service. The most appreciated extension programs were in Mali and Uganda. In the latter, 77\% of the farmers considered the techniques of extension adequate provided that demonstration and training materials were available.\textsuperscript{49} In Mali, while a majority of all farmers in areas served by extension stated that they had benefited from the techniques they had learned, a far greater percentage (85) of the members of contact groups than of the non-contact group farmers (56\%) expressed this favorable opinion. This differentiation in appreciation according to membership in the contact group was far more pronounced in Senegal, where the 50\% of the sample that judged the extension message useful were all members of contact groups, while the 7\% that judged the message not useful and, more significantly, the 43\% that received no message were all not members of contact groups.

The least appreciated extension service appeared to be in Zambia, where “farmers expressed very unfavorable views of the agricultural extension services which they received ... villagers viewed agricultural services as basically non-existent”. The report on Zambia proceeded to elaborate that farmers felt that extension had limited impact when the constraints of poor infrastructure, and the non-availability of seeds, fertilizer

\textsuperscript{46} Ghana report, p.71; Zambia report, p.21.
\textsuperscript{47}Cameroon report, p.75; Cote d’Ivoire report, p.37.
\textsuperscript{48} Mali report, p.50.
\textsuperscript{49} Uganda report, p.24.
and markets were most binding.\textsuperscript{50} This critique of the T&V system as overly minimalist was common in most of these ten countries. In Cote d'Ivoire, farmers were seen to appreciate extension but deplore the lack of credit.\textsuperscript{51} In Mozambique, where, as has been seen, adoption of the extension techniques was nearly universal, the majority (57\%) of the farmers gave their first priority for extension workers to be providers of inputs (seeds and insecticide) and marketing agents. Here and in Senegal, the two countries where the assessments discussed farmers' perceptions of extension most fully, the major three shortcomings of the extension service, in the eyes of the farmers, were:

1. The lack of renewal of extension themes with poor linkage between extension and research;

2. The low coverage rate and poor diffusion via contact groups; and

3. The lack of means to apply the message, e.g., seeds, fertilizer, insecticide, credit.

It is rare to find any country where the extension service is not criticized by farmers for at least two of these three shortcomings.

From those assessments that touched on cost recovery it appears that most farmers would like to contribute to help defray the costs of extension but few are able to do so. Three quarters (74\%) of the farmers in Cameroon are willing to contribute to the expenses of the PNVA but roughly half (46\%) of these cannot pay because they are too poor.\textsuperscript{52} In Uganda the situation is similar: 66\% of the farmers are willing to contribute, but most of these can provide food and drink (for the extension agents) only.\textsuperscript{53} Similarly, in Ghana most farmers were reported as being willing to pay for extension services, but here it was the extension agents rather than the farmers themselves who felt that most farmers were too poor to pay.\textsuperscript{54} It is to the perceptions of these other major stakeholders in agricultural extension, the extension agents, that we now turn.

G. The Perspective of the Extension Agent

While only four countries\textsuperscript{55} systematically interviewed samples of extension agents, others registered their opinion less formally. The reading one gets from the ten BAs of these stakeholders is far less complete than of the farmers, nevertheless a number of issues arise in more than one country which give some insight into the perceptions, and constraints, of the extension agent. The Ghana BA is unique in reporting the humility in which the extension worker views his own effectiveness: 61\% of the agents say they

\textsuperscript{50} Zambia report, pp.21, 23.
\textsuperscript{51} Cote d'Ivoire report, p.19.
\textsuperscript{52} Cameroon report, p.52.
\textsuperscript{53} Uganda, p.83.
\textsuperscript{54} Ghana, p.37.
\textsuperscript{55} Cameroon, Ghana, Mali, and Uganda.
solve less than 40% of the farmers’ problems. Reflecting the farmers’ own complaints regarding inadequate coverage and inputs, close to half (44%) of the extensionists feel that some of the farmers are neglected and more than half (57%) of the agents said the major reason farmers did not use extension services was limited resources. The paucity of resources in the extension agency itself was a major problem cited by agents in Cameroon, Uganda, and Zambia. This institutional financial constraint, in turn, lay behind the other key weaknesses cited by the extension agents:

Inadequate and/or irregular payment of allowances for transport (Cameroon, Uganda, Zambia).

Poor supervision – in Uganda two thirds (68%) of the extension agents were visited by supervisors less than the two times a month required; 21% were not visited at all. (Also noted in Cameroon and Senegal.)

Little participation of field staff in planning at headquarters (Zambia).

The result of these frustrations felt by the extension field staff is an understandable lowering of morale and motivation, reported particularly for Senegal and Zambia.

H. Recommendations

As might be expected, the recommendations coming out of these beneficiary assessments reflect the concerns of the farmers and extension workers described in the body of this paper. Essentially, these recommendations can be broken down into four sometimes overlapping areas: the need for the extension agency to (a) reach down and become more participatory, (b) reach out and build partnerships at all levels, (c) improve its own effectiveness through capacity building and better management, and (d) amplify its range of services.

As if echoing the new directions being taken in the village level participatory approach, the Cameroon assessment recommends that the priority needs of the farmers should be the basis for the selection of themes for extension. The Mozambique BA makes a more sweeping recommendation that extension should be demand driven and farmer groups should be locally managed.

There is a widespread recognition in these assessments that extension agencies cannot be effective by doing their work in isolation from other institutions, public and private. Indeed, one may infer from this review that national policies should encourage agricultural extension entities to be proactive in creating partnerships with appropriate

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56 Ghana report, pp.8-9, 11.
57 Uganda report, p.82.
58 Cameroon report, p.78.
related governmental and non-governmental agencies. In Cameroon, the advice is to collaborate with grassroots organizations, to improve outreach and enhance legitimacy, and with other organizations that provide agricultural inputs to broaden the range of services provided.\textsuperscript{60} The Uganda report also urges the extension agency to link up with other institutions (including NGOs) to facilitate credit, in response to farmers' demands.\textsuperscript{61} Recognizing the difficulty of recruiting and training women to be extension agents, the Senegal assessment recommends that the extension agency join forces with the Ministries of Interior and of the Woman, Child, and Family, both of which already employ large numbers of women working on various aspects of rural development who could become para-extension agents.\textsuperscript{62}

Recommendations aimed at improving the functioning of the extension agency itself come largely from Cameroon and Mali. The former asks for training programs for extension agents and supervisors, more and better monitoring and evaluation, and the recruitment of more female extension workers.\textsuperscript{63} In Mali, attention is given to introducing new themes for extension and insisting on the extension worker adhering to his schedule of two visits per month to assigned communities.\textsuperscript{64}

The call to broaden the range of services offered by extension was general. Most pronounced were Senegal (regarding both infrastructure and agricultural materials), Ghana and Mali (regarding credit), and Mali (urging the creation of a magazine published by the extension agency in the local—vernacular—language).\textsuperscript{65} This effort to communicate more effectively with the farmers via a publication written in their own language addresses a problem of extension having either an overly-low or negative profile, as raised in both the Cameroon and Madagascar reports.\textsuperscript{66} Agricultural extension cannot in itself resolve all of the myriad problems faced by farmers nor, as sometimes occurs, should it be expected to do so. However, the effectiveness of agricultural extension services will clearly be enhanced when they respond more directly to the needs and concerns expressed in these ten beneficiary assessments and becomes a catalytic and participatory force. This process now appears to be underway.

II. The Management Response: Potential for Institutionalization

The key arbiter of the utility of beneficiary assessment work is the manager for whom it is primarily intended. While the principal managers targeted by this approach are those that lead extension agencies in the field, the Bank's borrowers, a second important group of decision-makers for this work are the task managers (TMs) on the

\textsuperscript{60} Cameroon report, p.78.
\textsuperscript{61} Uganda report, p.88.
\textsuperscript{62} Senegal report, p.34.
\textsuperscript{63} Cameroon report, p.78.
\textsuperscript{64} Mali report, pp.53-4.
\textsuperscript{65} Senegal report, p.28; Ghana report, p.35; Mali report, p.55.
\textsuperscript{66} Cameroon, pp.18-19; Madagascar, p.33.
Bank staff who have the crucial responsibility of designing, presenting for appraisal, and supervising agricultural extension work. We begin with the response of this latter group to beneficiary assessment work.

A. Bank Task Managers

Beneficiary assessments can provide a vital instrument to Task Managers in overseeing their projects at all stages. For this section of the paper, eight task managers were asked a series of questions regarding the reasons they conducted BAs, the important findings these studies yielded and the changes brought about as a result of the findings. Most of the Task Managers interviewed stated that the BA was an extremely useful tool for them in making mid-course changes to their projects or in designing subsequent projects.

Rationale

The rationale for conducting BAs is fairly consistent across projects. Most TMs believe that it is difficult to evaluate their own projects credibly and that an outside, systematic, objective evaluation is valuable to their effectiveness as team leaders. The BA methodology allows the TM to gain a comprehensive picture of the quality of extension services by gathering direct evidence from the farmers, or beneficiaries. Several TMs stated that before they had a BA, most of their evidence was anecdotal and therefore less credible. The BA provides a third party evaluation of the program that the TMs can take to the host government and to the Board at the Bank in order to leverage necessary adjustments and changes to the project. In addition, in projects like Zambia that have used multiple BAs, it can be used as a benchmarking tool. It can track changes in the project by observing progress in agricultural methods and production, by identifying new problems as they arise, and by examining whether old problems have been solved and how this was accomplished. This iterative use of the BA helps to embed learning in the project cycle.

Cost versus Benefit

The cost of the BAs ranged from US$20,000 to US$80,000 in the projects for which this information was available. Most of the money came directly from project funds, but two projects, Uganda and Mali, received their money from trust funds. When

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This section draws heavily on interviews conducted and synthesized by Seema Tikare, consultant.

The eight task managers lead projects in Cameroon, Guinea, Madagascar, Mali, Mozambique, Senegal, Uganda and Zambia.

One TM had reservations about maintaining the objectivity of such a tool as the BA; however, the BA in that case was the source of several major changes to the approach of that country team to agricultural extension (Senegal). A second TM felt that the BA was severely compromised by the bias of the consulting firm which conducted the study, but was supportive of the BA methodology in general (Mozambique).

 Cameroon, Mozambique, Guinea, Mali and Madagascar.
asked if the benefits outweighed the costs, most TMs responded positively, in terms of both the information gathered and the overall benefit to the project. The Mozambique BA was an exception. It was considered by the TM to be biased and unreliable; the results were largely unused.

Reactions of TMs to the Findings

While many of the TMs did not believe the findings of the BAs to be new or surprising, they offered a variety of reasons for judging them useful. First, the BA results often provided independent confirmation of what the TMs already believed were problems and successes of the projects. Second, the TMs often had only anecdotal evidence before the BA of the major issues in their projects and many found it useful to have their “suspicions” systematically confirmed. Third, there are certain problems that are inherent to the training and visitation (T&V) methodology that are predictable, but the BA allows one to prioritize the difficulties and to address each matter according to its immediacy. Finally, the BA can be used to monitor progress within a project and to make mid-course corrections. For instance, it can be used to identify bottlenecks like a shortage of fuel for extension agents going out to the field. As one TM stated the issue, “As a TM, one is interested in good results, so it is difficult to evaluate your own project objectively.”

Changes brought about as a result of BA

At the time of this review, based on discussions with eight Task Managers of agricultural extension projects, five out of eight countries had made changes resulting from their BAs. Guinea only recently received the results of its BA and has been unable to implement any changes. Mozambique was unable to use its data reliably. Uganda underwent a recent major reconstructing of its Ministry of Agriculture, Animal Industries and Fisheries which has derailed any change in its agriculture extension program for the time being.

Of the countries that have been able to make changes, Senegal appears to have made the most sweeping changes according to information provided by host-country managers to Bank staff. First, the entire responsibility for extension has been consolidated under one agency. Previously, several agencies, some not in the Ministry of Agriculture, had responsibility for the extension service, causing confusion, redundancy and conflicts of interest. Under the new system, such problems will no longer arise. Second, all extension agents will have to leave the civil service and work on a contract basis. As a result, they will be held accountable for their work and will have to demonstrate a high level of performance and commitment. Third, contact groups will not be used as conduits for information to villages. Instead, the extension service will build on existing farming organizations. These organizations will operate under contracts for

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71 See Footnote No.67.
72 Cameroon, Mali, Madagascar, Senegal and Zambia.
researchers, extension agents and the farmers to spread research findings and gather feedback. The organizations will be supervised by a steering committee made up of representatives from the various farming organizations. The farmer will be at the center of this system.

The changes made in the other countries, while not of the same magnitude, are nonetheless considered by TMs as very significant. In Madagascar, government and World Bank officials are working together to downsize the central coordinating apparatus for extension to only 10 staff members. In order to decentralize operations, they are deploying additional staff to the 29 districts. Eighteen out of the 29 districts have been decentralized so far and the remaining 11 are on track. The government has instituted a program to encourage the voluntary departure of staff from their full-time civil service positions. A systematic evaluation of extension staff skills and past experience is being conducted and a comprehensive training program to upgrade staff competency is being put in place. Other changes resulting from BAs in this sample include better transportation allowances given to extension agents, better back-stopping for field agents from researchers and the central office, an exploration of better linkages between the village assemblies and contact groups, a revision of the composition of the contact groups, and a reevaluation of the role of media coverage in extension.

In conclusion, the Task Managers interviewed agree that BA has proved enormously useful to their projects. Systematic study of the beneficiaries clarified for them many issues and brought to light the immediacy of certain problems in the provision of extension services. The changes brought about by the BA have been important in improving the sustainability of extension efforts and have played a role in improving the project outcome. Most TMs have asserted that the cost of conducting this type of assessment was greatly outweighed by the benefits and most intend to use the BA in future projects.

B. Host-Country Managers

Due to the logistics and related expenses of interviewing all ten host-country managers of extension agencies which had beneficiary assessments, it was determined that a "sample" of five of these managers would suffice. Managers of the Senegal extension program, on which the first BA was conducted, were interviewed in December, 1966. All of the other managers were interviewed between January and the end of March, 1999. The interviews were conducted by the author in a conversational manner and, with the exception of the first in Senegal, which concentrated on new policies, covered the themes presented below:

1. Rationale for undertaking BA – While the Bank may have played an important role in convincing host-country managers to undertake beneficiary assessments, not once was the Bank mentioned by them as a reason for doing this work. Rather, the prevailing rationale for having these BAs done was for the purpose of taking stock after four or five years of project implementation, to assist with the mid-term review (Ghana and Uganda).
Elsewhere, the rationale was put in more functional, less programmatic, terms: as a management tool (outil de gestion) which would provide a useful view of reality (Guinea), particularly useful in that it came from external observers (Cameroon).

2. **Most Important Findings** – Perhaps the single most important finding to all managers interviewed, and certainly the most welcome one, was the reaffirmation of the value of agricultural extension to the farmers who were directly in contact with the extension agents. As seen in section I, the growth in production and, to a lesser degree, in income, which farmers attributed to the new techniques learned from the various national extension services was significant and much appreciated by these direct beneficiaries. On the other hand, with the exception of Cameroon, all of the host-country managers stated that the most important critical finding was the apparent poor performance of the contact group as a transmitter of information to non-contact group farmers. The Cameroon manager did not mention any specific finding but preferred to emphasize the over-all importance of the BA in showing the extension service of his country how top-down (dirigiste) it had been. Other major findings were brought out as the relative failure of extension to reach women (Guinea and Senegal) and the overconcentration of extension on agricultural crops as opposed to animal husbandry (Ghana). While BA findings often are useful as confirmations of managers’ hunches, in the case of most of the host-country managers interviewed the findings regarding the poor intermediation role of the contact groups and the relative neglect of women farmers both came more as news than as confirmation of known issues.

3. **Change in Policies** – As might be expected, most of the changes in policies which resulted from the BA work related directly to the findings cited above:

(a) Increase attention to the contact groups. Provide training in group formation (Ghana). Increase the accountability of the contact groups by having recorded attendance at meetings, of members, extension agents and supervisors, and replacement of persons frequently absent (Senegal). Heighten the competence of contact groups by rotating their leadership according to the type of expertise needed for particular training/demonstrations (Uganda).

(b) Go beyond the communication offered by contact groups. This entails, on the one hand, an increased appreciation of the importance of participatory development efforts involving the whole community along the lines of the Village Level Participation Approach (VLPA) program (espoused particularly in Cameroon, Guinea, and Uganda) and, on the other hand, a recognition of the need to use mass media – audio-visual presentations, radio, “fact sheets” more extensively (Ghana).

(c) Adapt extension to local needs and realities. Following from the observation of the manager from Cameroon that the BA helped his staff see the need to move from what had been a top-down approach to a more client-oriented one, where the farmer is now seen in all dimensions, social,
economic, cultural, and psychological, all of the managers voiced similar “grounding” benefits of the BA work. In Ghana, the managers stated this change as one of “making extension more contextual, more adapted to local realities.” In Guinea, beyond the aforementioned move to VLPA, the manager spoke of the findings of the BA confirming the need to give increased attention to one region (Basse Guinee) where farmers in areas covered by extension had registered the same, or even less, increases in production than control farmers in areas not covered by extension. In Senegal, farmers are now surveyed periodically to ascertain the nature of specific needs; results of these needs surveys are fed back into all phases of the extension agency’s operations: programming, training, implementation, and evaluation.

(d) Increase institutional linkages at all levels. As a way to increase the diffusion of the extension message, efforts are being made to strengthen ties between contact groups and community associations (Guinea and Senegal). Recognizing the legitimacy of the farmers’ demands for increased access to inputs and credit, Ghana is working on improving the collaboration with partner organizations (government, NGO, and private). Finally, as a testament to the intractability of the gender issue, only in Senegal is there any concerted effort at bringing about greater inclusion of women in extension, and here it was still a matter for research and entailed the bringing together of the PNVA (extension agency) with two ministries, Women, Children, and the Family and Interior, both of which have far larger numbers of women extension agents than does the PNVA.

4. “Cost-Benefit” of BAs – The average local cost of BAs (other than Senegal, where the issue was not addressed) was $29,000. All four host-country managers said that the benefits received from the BA work far outweighed the costs.

5. Institutionalization of BA Approach – The clearest indicator of the utility of the beneficiary assessment (BA) approach as perceived by the host-country managers is that all four of those managers still responsible for their national agricultural extension programs want to continue using BAs on a periodic basis as an iterative feedback tool. Not all managers were fully satisfied with the quality of the assessments conducted; two, those in Cameroon and Ghana, stated that their BA work should have been monitored more closely. Nevertheless, the consensus was that this systematic listening to the farmer and to extension staff and partner institutions, should become institutionalized as a major input towards the continuous self-improvement of national agricultural extension services. In the words of two managers, “Now we have to do this all of the time” (Guinea); “we want to look at ourselves in a mirror” (Cameroon).

73 The Ugandan agricultural extension program was terminated last year; the manager interviewed in Uganda had been responsible for that program but could not authoritatively discuss its future.
Conclusion

This report has reviewed beneficiary assessments conducted on ten national agricultural extension programs in Africa. No similar qualitative assessment work was found for agricultural extension work elsewhere in the world. The report presents a synthesis of reactions to these assessments from both Bank task managers and host-country managers of these extension programs. The review of findings from the BAs came up with a surprisingly similar depiction of agricultural extension across all ten countries: farmers in direct contact with extension agents benefited with increased agricultural production; farmers not in direct contact with extensionists realized far less, if any, benefits. Diffusion via contact groups was seen to be a problem everywhere. Related to this communication issue, women were excluded from the benefits of agricultural extension, which was seen to be largely a service of men for men. A common critique of extension services centered on their narrowness; farmers wanted more than advice on new techniques; they wanted additional means to make these techniques work: improved seeds, fertilizer, farm tools, and credit.

Managers of agricultural extension programs in Africa and in the Bank were overwhelmingly positive in their response to these beneficiary assessments. Rather than adopting a defensive stance, there was a unanimous readiness to learn and act on what had been learned. All managers felt the benefits of the assessments far outweighed the costs. In all of the five countries where managers were interviewed the BAs were seen as producing policy changes in the national agricultural extension programs. These centered on improving the effectiveness of contact groups, increasing the inclusiveness of extension via more participatory approaches, bringing extension into closer linkage with existing institutions, both grassroots organizations and partners (public and private), and, generally, making extension more responsive to the particular needs of its farmer clientele. The fact that all host-country managers interviewed now plan to institutionalize beneficiary assessments in their agricultural extension programs as a feedback mechanism for continuous self-improvement is testament to the utility of this operational learning approach.

74 Cameroon, Ghana, Guinea, Senegal, and Uganda
ANNEX

Bibliography


