



Agricultural Services Innovation and Reform Project (ASIRP)

Performance of Extension Service Providers
in Bangladesh
Quality or Quantity of Service?



March 2003

**THE AGRICULTURAL SERVICES INNOVATION AND
REFORM PROJECT**

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Abbreviations

ASIRP	Agricultural Services Innovation and Reform Project
ASSP	Agricultural Support Services Project
BADC	Bangladesh Agricultural Development Corporation
BBS	Bangladesh Bureau of Statistics
BDHS	Bangladesh Demographic and Health Survey
BRAC	Bangladesh Rural Advancement Committee
BRDB	Bangladesh Rural Development Board
BS	Block Supervisor
BWDB	Bangladesh Water Development Board
CHT	Chittagong Hill Tracts
DAE	Department of Agricultural Extension
DFID:B	Department for International Development: Bangladesh
DLS	Department of Livestock Services
DoF	Department of Fisheries
DPIF	District Partnership Initiative Fund (of ASIRP)
DWA	Department of Women's Affairs
DYD	Department of Youth Development
ESP	Extension Service Provider
ESS 2000	Extension Services Survey 2000
FAO	Food and Agriculture Organisation
FD	Forest Department
GO	Government Organisation
Ha	Hectare
Hh	Household
i-PRSP	Interim Poverty Reduction Strategy Paper
ISSA	Integrated System Survey Analysis
LGED	Local Government Engineering Department
NAEP	New Agricultural Extension Policy
NGO	Non Government Organisation
NPIF	National Partnership Initiative Fund (of ASIRP)
OVI	Objectively Verifiable Indicator
REA	Revised Extension Approach
T&V	Training and Visit
TA	Technical Assistance
TCCA	Thana (Upazila) Central Cooperative Association
UPIF	Upazila Partnership Initiative Fund (of ASIRP)

The views expressed in this report are those of the ASIRP TA team and should not be interpreted as those of MoA/DAE or DFIDB and other ASIRP donors.

Readers are encouraged to refer to the primary source document, Extension Services Survey 2000, which includes a full appraisal of the strengths and weaknesses of the methodology and results. This partly arises from debate with the Department of Agricultural Extension, who have some reservations about the ESS 2000 methodology and therefore results. Copies of the analysis of ESS 2000 are available on request from ASIRP.

1 Background

The country has a long history of public sector extension services, and an internationally renowned network of Non-Government Organisations (NGOs) providing micro-credit services allied to technical information. Public sector services date back to the colonial period, and have been significantly developed since then, particularly at the birth of India and Pakistan in 1947 and at the independence of Bangladesh in 1971. The turbulent period leading to independence, including a large cyclone in 1970 led to a difficult dawn for the country, but also spawned the formation of small philanthropic agencies which were later to form the backbone of a massive NGO movement (Halim, 2001). The Bangladesh Rural Advancement Committee (BRAC) and Grameen Bank are now among the largest in the world, with over 6 million 'members' between them (Mallorie, 2001). The formal private sector remains a relatively small player in information exchange, though on an informal level, farmers still tend to get most of their agricultural information from friends, neighbors and colleagues. In the public sector, the Department of Agricultural Extension (DAE) is the largest player, with around 25,000 members of staff and an annual budget in the region of £ 35 million. The last 20 years have witnessed great debate on the nature, roles and performances of the various extension agencies that make up this agricultural knowledge system, not least because services are expensive and returns are difficult to attribute. The T&V system as operated in Bangladesh by DAE was premised on the Block Supervisor (BS) having direct contact (face to face, by a visit to the farm) with 10% of the farmers in the block. The block comprised about 800 farm households and the assumption was that there would be 10:1 secondary adoption rate. With the demise of T&V as the DAE extension approach, the prescription changed to BS s having more of a group focus. DAE was part of the reform (it is unclear what the response in other GO extension service providers was), but there were never any clear targets as to how the reformed service would operate and the relative balance of direct versus group approaches. This has been further distorted by project led approaches that were well resourced but largely fiscally unsustainable. The evolving nature of what is the core function of public sector extension remains a moving target. This document adds to the debate by suggesting that the role needs to be set in the larger rural development agenda and because of the diverse needs a more focussed role for public service extension is required. This policy paper describes the key findings from Extension Services Survey 2000, and makes a preliminary assessment of resulting policy choices.

2 ASIRP

The Agricultural Services Innovation Reform Project (ASIRP), co-financed by the Department for International Development, World Bank and Government of Bangladesh, aims to strengthen extension service performance across the country. Though it grew from interventions designed to support DAE, it now supports integrated service delivery across a range of government and non-government partners - particularly in support of the New Agricultural Extension Policy (NAEP, 1996). In 2000, ASIRP commissioned a survey of extension service performance to inform the public policy debate and provide a reality check on service delivery. During ESS 2000, over 5,000 rural people from all walks of life were interviewed, over half of whom were women. Further, this is the only national survey of it's kind in Bangladesh - all other work has been conducted in a project framework assessing the performance of time and space bound project interventions. The study was primarily designed to answer three questions

1. *“What proportion of each category of farm household is aware of and able to access a range of extension services relevant to their needs?”*
2. *Having received advice from an extension service, what proportion of each category of farm household reports significant benefit and intends to keep using the advice?”*
3. *In what proportion of households do female members receive extension advice?”*

The survey was national in coverage (apart from the Chittagong Hills Tract) and relied on separate interviews, but predominantly the same questions, with men and women from the same households. The survey provides valuable insights into both the qualitative and quantitative aspects of extension service provision.

3 Performance Statistics for the Department of Agricultural Extension

Prior to ESS2000 and over the last 10 years, numerous studies have been conducted to examine the performance of DAE, many as part of the Agricultural Support Services Project (ASSP), the predecessor of ASIRP. Table 1 places results from these studies in the form of a time line. These findings form the backdrop to the findings of ESS2000. Sources are cited in the reference list. Readers are encouraged to examine the performance timeline and draw their own conclusions.

Table 1: DAE Performance Timeline

Indicator	Level
1993	
Proportion of male farmers who know the Block Supervisor	51%
Proportion of male farmers who have met the Block Supervisor	28%
Proportion of farmers who received "new" information in the last 12 months	38%
1995	
Proportion of farm households participating in DAE (ASSP funded) extension events	2.8%
Percentage of marginal and small farm participants in DAE (ASSP funded) extension events as a proportion of all participants	10%
Proportion of farmers who decide to test homestead crop technologies after extension involvement	20%
Proportion of farmers who decide to test field crop technologies after extension involvement	45%
1997	
Proportion of farm households participating in DAE (ASSP funded) extension events	9%
Percentage of marginal and small farm participants in DAE (ASSP funded) extension events out of all participants in events	65%
Percentage of marginal farm participants in DAE (ASSP funded) extension events out of all participants in events	15%
Proportion of demonstrations conducted with medium and large farm households as a percentage of all demonstrations	60%
1998	
Proportion of farm households participating in DAE (ASSP funded) extension events	7.5%

Blocks with extension events for all categories of farmer in any one season	20%
Proportion of BSs preparing lists of farmers problems and needs	65%
Proportion of BSs with a "good relationship with existing farmer groups"	18%
Proportion of thanas with an inventory of existing farmer groups and parent bodies	50%
Proportion of BSs with block level information on existing farmer groups and parent bodies	0%
Proportion of BSs with absolutely no relationships with existing farmers groups	29%
Proportion of farmers pleased with BS ability to listen, identify and solve problems	18%
Proportion of farmers recognizing BSs as an "important source of agricultural information"	76%
2000	
Proportion of male farmers contacted by DAE	7.7%
Proportion of BSs sharing information and resources with other extension service providers	93%
Proportion of BSs linking farmers to other sources of advice and information	13%
Proportion of landless farmers who, having tested a new innovation, will repeat adoption	53%
Proportion of medium and large farmers who, having tested a new innovation, will repeat adoption	88%
Proportion of BSs able to solve farmers problems instantly	90%
2001	
Proportion of BSs with an "unfavorable" attitude to NGOs	23%
Proportion of BS with "poor" extension knowledge	17%
Proportion of BS with "poor" technical knowledge	32%
2002	
Prior to involvement in UPIF, the average time that had passed since farmers had received information from DAE	34 months
Proportion of activities conducted with small and medium scale farmers through UPIF	81%
Number of secondary adopters per direct UPIF beneficiary	3.8
Proportion of farmers involved in NPIF who had previously received any information or inputs from any other service provider	15%
Number of secondary adopters per direct NPIF beneficiary	4.4
Prior to involvement in NPIF, the average time that had passed since farmers had received information from any other service provider	3.18 years

4 Summary of Results of ESS 2000

ESS2000 used a different household classification to the norm under the Bangladesh Bureau of Statistics. Table 2 shows the farm size structure of the country, derived from BBS (1996) and including the incidence of poverty in each household class from the Bangladesh Institute of Development Studies (2001). Table 3 defines the ESS2000 categorisation and shows the distribution of households under each category.

Table 2: Farm Size Structure of Bangladesh Using the BBS Classification

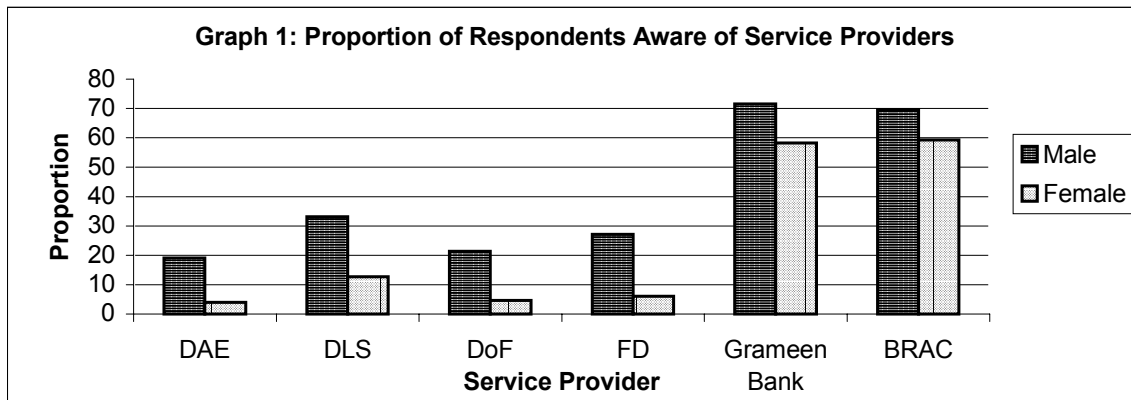
Operated Farm Size (Acres)	Number (million) and Percentage of Households	Proportion of Operated Area (%)	Incidence of Rural Poverty (%)
Landless (0.00 to 0.49)	9.39 (52.65)	4.50	64
Marginal (0.50 to 1.49)	4.19 (23.53)	18.50	44
Small (1.50 to 2.49)	1.87 (10.50)	18.20	34
Medium (2.50 to 7.49)	2.08 (11.65)	42.40	25
Large (Over 7.50)	0.30 (1.67)	16.40	16
Total	17.83 (100)	100.00	45

Table 3: Household Categorisation Using ESS2000

Category	Definition	Proportion
Landless	Households who do not own, rent in or sharecrop any land but derive an agricultural income	6%
Homestead	Households only owning land around their house	19%
Pure tenant	Households that do not own field crop land, but do rent-in or sharecrop such land	14%
Small owner	Households cultivating up to 1 hectare and may rent-in or sharecrop additional land	45%
Medium and large owner	Households owning and cultivating over 1 hectare of land	11%
Non-agricultural	Mainly landless households with no agricultural incomes	5%

The low proportion of landless households under ESS2000 is a reflection of the rigorous definition. ESS2000 linked extension service providers to households on the basis of their involvement in various agricultural activities. Findings indicate, not surprisingly, the DAE is a highly relevant service provider to nearly all families, whilst the relevance of DLS was also quite high. However, DoF is more likely to find culture fisheries clients among the land-owning categories. Some 58 per cent of medium and large households were involved in fisheries.

Having determined the proportion of households within each category for which the key GO Departments are a relevant extension service, ESS2000 goes on to show the proportion of these households that were aware of the services these extension services offered - Graph 1. Graph 1 shows that DAE has a long way to go to close the gap between awareness and relevance compared to DoF.



Clearly, men are more aware of government service providers than women. Second, a high proportion of households for whom DoF is a relevant service provider are already aware of that service. Third, households are far more aware of large NGO services than government - Grameen Bank and the Bangladesh Rural Advancement Committee (BRAC).

A partial answer to question¹ is offered: the proportion of farm households aware of the range of major GO extension services (DAE, DLS, DoF) relevant to their farming activities was determined to be: Homestead: 9%, Pure Tenant: 8%, Small Owner: 15%; and Medium/ Large Owner: 26%. This is shown in Graph 2, clearly identifying the trend for larger farmers to be more aware.

In both the men's and the women's questionnaire, respondents were asked to provide information about their sources of information for many specific technologies such as making compost, stocking and maintaining fishponds, feeding cattle etc. The results to a sample of these questions are presented in Graph 3. The responses to this sample of questions show that:

- GOs are always more important information sources than NGOs, even for homestead activities such as vegetable production.
- Male farmers receive more advice than female farmers do
- NGOs are better at providing advice to women than GOs.

However, ESS2000 also shows that in all cases, all categories of household get most of their advice from other farmers, family and neighbors - local knowledge.

¹ the report did not determine findings for 'ability to access services:'

ESS2000 assumed that if the recipient had tested a received technology and continued, or planned to continue using it, then the perceived benefit must be significant. Table 4 overleaf shows the proportion of recipients of information whom, having tested it, will continue using it. Figures are high, demonstrating significant benefits to extension, and high quality advice.

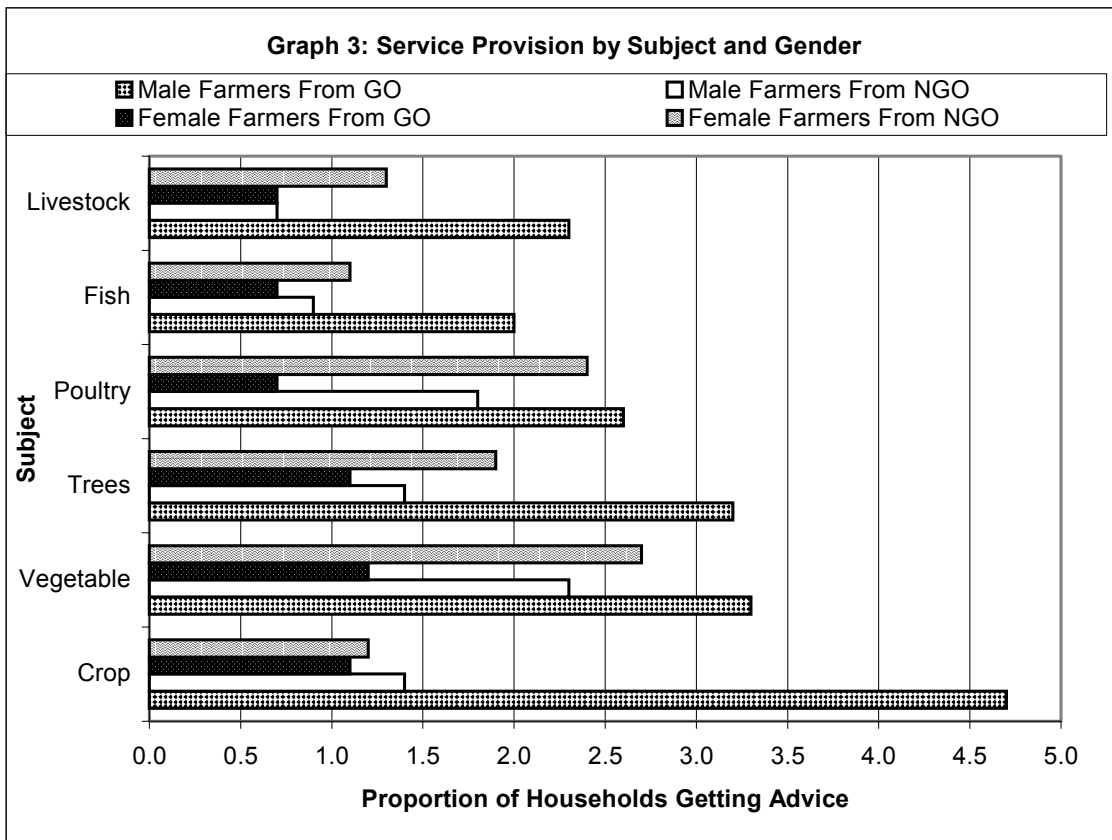
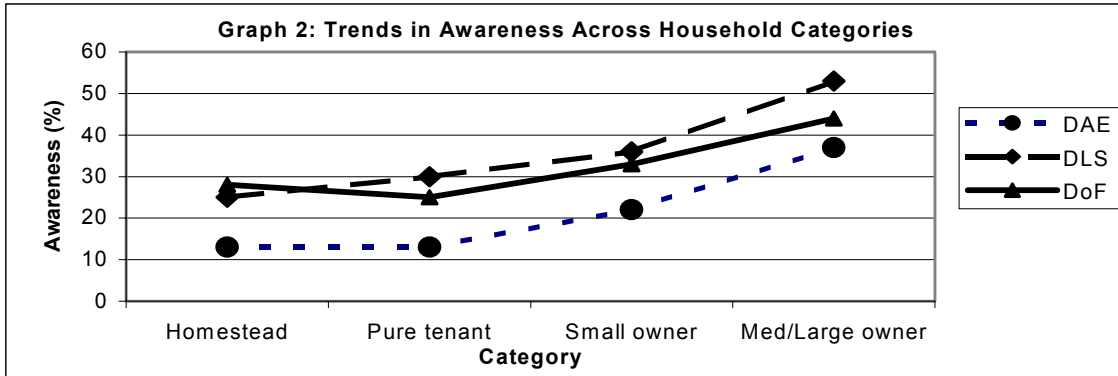


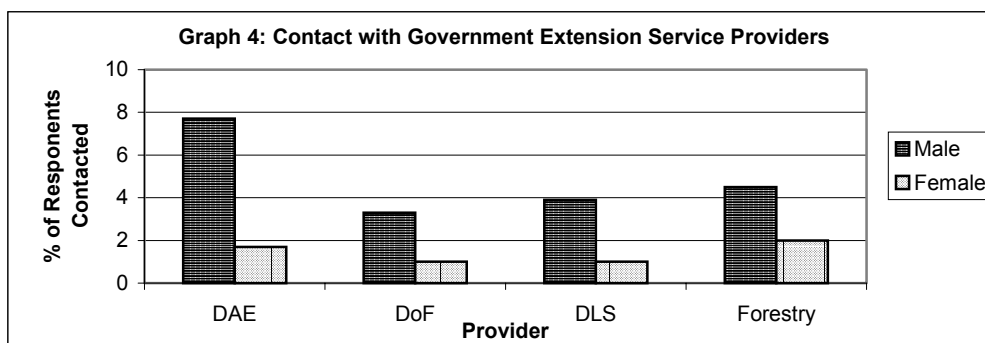
Table 4: Proportion of recipients of information who, Having tested it, will continue using it

Category	Proportion of recipients of information who, having tested it, will continue using it (%)
Homestead	72
Pure Tenant	90
Small Owner	84
Medium /Large Owner	88

ESS2000 also assessed findings for the proportion of respondents **receiving advice through a direct visit** in the year prior to the survey. Results from both the male and female respondents indicate low levels of direct visit by GO, NGO and ‘Other’ ESPs. Results for the proportion of respondents that **sought advice** in the pre-survey year are also presented in ESS2000. The results indicate that for all agricultural activities female respondents sought advice from NGOs rather than GOs and ‘Others’ (particularly in the areas of poultry, vegetables and looking after trees.) Proportionately more males than female respondents reported that they had sought advice from GO ESPs as opposed to NGOs during the pre-survey year.

There are however positive indications that between 80% (NGO) and 96% (GO) of respondents that received advice do intend to use it in the future. Furthermore, of the households that had followed advice given to them from GO, NGO and ‘Other’ sources through a direct visit, the percentage that got good results varied between 91% (Other) and 99% (NGOs). These results are similar for households that **sought advice** during the pre-survey year.

ESS2000 defined contact as: ‘the number of households that were visited in the last year + (plus) number of households that sought advice in the last year – (minus) the number of households that were both visited AND that sought advice in the last year.’ For female respondents, contact with NGO ESPs for all agricultural activities was higher than with GOs and ‘Other’ ESPs. The agricultural activity for which female respondents received the most advice from NGO ESPs was in relation to vegetable production and poultry raising. Contact by individual GO Extension Service Providers is presented in Graph 4.



DAE contacted the greatest proportion of male respondents, followed by Forestry, DLS and then by DoF. Out of the key GO ESPs, the Department of Forestry contacted the greatest proportion of female respondents 'during the last year', however not by a large margin. DAE, DLS and DoF all contacted similar proportions of female respondents. Findings clearly indicate that 'during the last year' GO ESP's had a much higher contact rate with male respondents than female respondents. In relation to the other GO ESPs, DAE is performing well. However, this is perhaps not surprising bearing in mind that DAE is the only GO ESP with field staff at the Block level. Fedder et al (1999) indicates that 'many public extension agencies are reaching only 10% of potential clientele, a minority of which are women.'² DAE's results clearly fall in line with these international levels, however the other GO extension service providers of DLS, DoF and Forestry still have some way to go before they achieve such levels.

ESS2000 presents results that relate to involvement in the programmes of individual extension service providers. Due to the wording of the questionnaire it is not clear whether 'involvement in programmes' relates specifically to agricultural activities. Results show that 14.5%, 13% and 11.4% of male respondents indicated that somebody in their household had at some time in the past been involved with programmes of Grameen Bank, BRAC and 'Other NGOs' respectively. The results from the Women's database are similar. The proportion of female respondents indicating that somebody in their household had been involved with programmes of NGOs (particularly BRAC and Grameen Bank) is relatively much higher than GOs.

5 Key Findings

Overall performance has been disappointing, irrespective of service provider, client, topic or sector, and despite massive government and donor investment in both public and non-government service providers. For example, from 1991 to 1999, the Department for International Development alone invested 47 million pounds in sustainable agriculture services with government and non-government service providers in the country (ITAD, 2002). However, the only actor in the agricultural knowledge system exhibiting any degree of performance are farmers themselves, who continue to act as the primary source of information for one another on most agricultural activities, though their original source for this information may have been research or extension service providers.

Most of the male population in Bangladesh is aware of the services provided by BRAC and the Grameen Bank (69.6 and 71.6 per cent respectively). Fewer women are aware of their services (59.3 and 58.3 per cent respectively), despite the rhetoric of poverty targeting and the reality that women are more vulnerable members of society. However, BRAC and Grameen Bank are not pure extension agencies - their core business is micro-credit.

² Attention should be drawn to the fact that the definition of contact used in this reference is not certain. It is not clear whether this reference refers to a combination of direct contact as well as contact through mass media e.g. radio

Only 19 per cent of men and 4 per cent of women are aware of the services offered by the DAE, with slightly higher figures for the Departments of Fisheries, Livestock and Forestry. Smaller farmers are even less likely to be aware of free public sector services (only 9 per cent of households who only have homestead land are aware of government service providers). Awareness of DAE services is likely to be lower as they are more nebulous than, for example, vaccination services offered by the Department of Livestock Services.

Given that awareness is so low, actual service delivery is even lower. Less than 5 per cent of households reported that they had been visited during the year prior to the survey by a government agency offering crop production advice. Non government agencies appeared to offer the majority of their advice in vegetable production (in line with their strategy of targeting female farmers) yet still only visited 2.3 per cent of households during the pre-survey year for that purpose. Indeed, government service providers outperform non-government providers as more important sources of information on every aspect of agriculture, even homestead farming.

Demand for services is likewise low, despite the public policy concentration on facilitating demand driven services and non-governmental agency focus on participatory extension methods that place farmers at the centre of decision making. ESS 2000 shows that only 3.7 per cent of male farmers purposively sought advice on crop production from a government agency in pre-survey year. Only 0.3 per cent of male farmers sought such advice from NGOs. Overall figures for women are lower - only 0.4 per cent actively sought governmental advice on vegetable production, though 1.8 per cent did demand such services from NGOs.

Overall, ESS 2000 shows that only 7.7 per cent of men and 1.7 per cent of women are contacted by DAE. It should be noted that these figures are based on individual face to face contact, excluding contact through group extension methods - as such they may underestimate DAE's overall contact with the farming community. Only 2.1 per cent of male farmers reported that anyone in their household had ever participated in a programme run by DAE, with similar results for the other government service providers. Although BRAC and the Grameen Bank performed significantly better (between 12.8 and 14.5 per cent of male and female farmers reported someone in their household had been involved) they are still low given the scale of the poverty problem.

One positive finding from ESS 2000 was in the area of quality of services provided. Agricultural extension concentrates on the provision of information - software to support farm level decision-making. Key factors in assessing the quality of advisory services relate to the extent to which advice is practically tested by farmers, and the extent to which they continue to adopt or apply new ideas they have received from service providers. In all cases, performance is high. Irrespective of source, most male and female farmers followed advice, got good results, and intended following the advice again.

Another positive finding relating to DAE is the fact that 12 per cent of male farmers had visited a *krishi mela* (farmers' fair) in the pre-survey year - DAEs service has been significant. Interestingly, through a mass media campaign, 43 per cent of farmers in Bangladesh are now aware of the NAEP - however, that awareness has not provided them with information upon which they can either act or demand services (Premier, 1999).

6 Policy Choices

Quality is not necessarily a problem - but quantity certainly is. This runs contrary to conventional wisdom, which has identified quality gaps and sought to improve service quality - for example, by decentralizing planning and ensuring that local extension agents address farmer needs. All sorts of complex management, institutional and human resource interventions have been designed to improve extension quality. Very few have focussed on quantity. Even the NAEP is fundamentally couched in the quality arena, though it recognised the utility of both mass media and working with farmer groups rather than individuals as mechanisms to improve outreach.

It is possible that returns to extension investment have been perceived to be positive because of the relative success of service delivery within a project framework - services can be delivered and the livelihoods of the rural poor can be strengthened when projectised activities are implemented. These projects have generally been time and space bound. The problem has been moving from this micro level success to macro improvements in service delivery across the country. ESS 2000 has revealed inadequacies at the macro level. In order to significantly increase the performance of extension services, some key policy choices are apparent:

1. Strengthen the use of **mass media** in extension, particularly rural farm broadcasting and print media. Relatively small financial investments could bring the benefits of agricultural information to a very high proportion of farmers. Literacy is not necessarily a barrier, as access to literacy can nearly always be ensured. Likewise, service providers need greater concentration on extension methods that do work (such as the *krishi mela*) as opposed to those which do not.
2. Encourage a **rights based approach** to extension which would seek to ensure that all farmers, male and female, but particularly the poor, are aware of their rights to access specific free public services and actively pursue these rights through both voice and choice. Such an approach seeks to support the good governance agenda particularly in the context of strengthening accountability. For example, citizens' or farmers' charters could be developed and widely advertised to precisely explain the services (with standards) that farmers should expect of service providers (particularly in the public sector).
3. Support a move from large numbers of discrete **projects to programmes** offering greater coverage and flexibility and the chance of overall alignment with the national policy framework. Fewer programmes would be easier to manage, have lower transaction costs, and offer the further chance of improving core service delivery. Direct budget support may be an option to consider in support of a programme approach.
4. Strengthen the reality of **partnership** between complimentary service providers as part of the normal routine of the business of service delivery, rather than as separately packaged contracts. The trend of the last 10 years to contract services to non-government organisations may have ring-fenced agencies into projectised frameworks that do little to strengthen core service delivery. Further, rather than one partner continually providing contracted financial resources, partnership needs to be considered in the context of harmonizing budgets from all partners.

5. Ensure rational and productive use of **existing resources**. This applies to the distribution of public sector staff (who need to be in the field, with farmers, rather than in offices), and operating expenditure (which needs to be focussed on areas that offer opportunities for pro-poor agricultural growth). It also applies to existing physical resources such as extension materials (which need to be far more widely circulated).
6. Seek significant **public sector reform** to reduce costs and improve effectiveness. For example, the draft National Strategy for Economic Growth and Poverty Reduction (iPRSP, ERD, 2002) supports the implementation of the recommendations of the Public Administration Review Commission (PARC, 2000) which seeks the devolution, transfer and integration of all public sector extension service providers within a local government framework. Such an approach should see significant reductions in the cost of public sector extension. For example, based on current DAE costs, to run a service at Upazila level and below would require approximately 1.74 billion Taka (£19 million) per year, or 96 Taka (£1) per farm household per year. The current approach with separate public sector line agency services in fisheries, forestry, livestock and crops costs approximately 8.67 billion Taka (£94 million) per year, or 482 Taka (£5) per farm household per year. Obviously, if service delivery remained skewed towards a relatively small proportion of households primarily in the larger farm size categories, there would be no benefit in change. Budgeting (as part of public sector reform) therefore needs to become driven by the requirements of pro-poor service delivery. It is unlikely that an undifferentiated approach to public sector service delivery is fully justified – there should not be a one size fits all approach and as stated in the iPRSP all routes matter
7. Encourage the growth of **private sector** agencies with agricultural advisory services that have a vested interest in efficiency and effectiveness and seek to find means of cost recovery - every farm household should be able to apply new agricultural information in order to generate significantly more income than the per household cost of delivery, and there should be means of recovering some of that cost

All these policy options need to be supported in an overall framework of alignment behind the poverty reduction goal. As such, all partners in the process would do well to engage with and seek to support implementation of the Government of Bangladesh National Strategy for Economic Growth and Poverty Reduction (i-PRSP). DAE has already begun this process through the preparation of their 2002-2005 Strategic Plan, which, in draft form, addresses local government alignment, institutional restructuring and pro-poor service delivery.

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