"Exhausted Messages"

TRAINING AND GROUPS : A COMPARATIVE EVALUATION
OF ZIMBABWE'S TRAINING AND VISIT SYSTEM*

by

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The views expressed in this paper are those of the author and not necessarily those of the Dept. of Agric. Econ & Ext.
This paper sets out to look at some of the contradictions inherent in the Department of Agricultural Technical and Extension Service's (Agritex) approach to agricultural extension in Zimbabwe. Through a comparative evaluation of how Agritex operates in two communal areas in the Midlands province - Chisungu in the Gweru region, and Chirumhanza in the Mvuma region - discrepancies between Agritex's stated objectives and the agency's activities will be indicated. In this evaluation, by relating what extension agents do and then actually say about their activities, the paper will try and clarify what attitudes and actions, on one hand, perpetuate contradictions between aims and actual practices, and on the other are cognizant of the need to effect change.

Two broad subject areas will be focused on in the analysis. The first is the use by Agritex of fixed packages of recommendations to achieve sustainable increases in communal area farmers production levels. The second is the emphasis on group-oriented extension strategies to enable Agritex's operations to become less elitist in focus.

To begin with, let us look at Agritex's extension goal. This is: 'To stimulate the adoption of proven agricultural practices leading to increased, sustained and profitable production (PAEO, Midlands, 1986 : 1); and reiterated by B.M. Ndimande, Director of Agritex, at a National Extension Framework Study Workshop in Harare on 12/5/87). What does this mean? Agritex's Midlands province annual report for 1982 has a more complex attempt at phrasing this goal:

"The overall provincial (and national) aim is to promote the optimum output of ecologically suited and nationally needed crop and livestock products from the land on sustained and economic lines. The realisation of this aim depends upon the adoption of improved crop and livestock management practices by the farming community in general, as a result of effective extension on the part of properly organised, fully staffed adequately trained, sufficiently motivated and dedicated teams of people working towards clear and well-established objectives".

(PAEO, Midlands, 1982 : 2).

In response to this statement, this paper poses the question: Why should it be taken for granted that packages of agricultural practices developed from research carried out in controlled environments with no resource constraints, will lead to increased, sustained and profitable production in the ecological and social contexts of Zimbabwe's communal areas? This implicit assumption is the nexus around which Agritex's whole extension approach revolves, although it has no proven basis to it.

Take for example the World Bank sponsored Training and Visit extension system presently being utilised in the Chisungu communal area of the
Gweru region (district, in the terminology of other governance agencies). Despite officer staff at all levels in the region telling me that the system operates two ways, with farmer groups’ training priorities being included in training programmes, to the contrary it is a top-down, message-oriented extension approach. In this approach, what are taken as ‘proven agricultural practices’ are translated into packages of practice recommendations (particularly for crops), and these are passed down from agricultural extension officers (AEOs) to extension workers (EWs) to members of farmer groups, sometimes through farmer training leaders (FTLs).

This message-oriented approach is widespread within Agritex. Yet, thus far I have not heard anyone in the agency, from the Deputy Directors (Technical and Field) downwards, actually commit themselves to stating, that these recommendation ‘packages’ are appropriate for assisting all types of farmers to generate sustainable and viable farming systems, especially in natural regions III, IV and V.

If there is consensus that the packages are inappropriate for many, even the majority of farmers, it may well be asked why does Agritex continue to adhere to such an approach? The only answer I have been provided to this question was by the extension supervisor in Chiwundura. His comment was that crop packages, in terms of set amounts of seed, inorganic fertiliser and pesticide, to be applied per unit area in prescribed ways, provide a standard against which farmers’ actual practices – and presumably the ‘correctness’ of these – can be measured. Yet what sort of standard can the packages actually provide? As the research which has backed them until now looks neither at the generation of sustainable yield levels, nor the viability of communal area production, the only area where the packages might provide a standard is in terms of a short-term drive to increase crop production output levels.

This is not however what Agritex in its overall goal says it hopes to achieve as an agency. So it seems that the package of practices approach, although it has been included as part of Agritex’s stated goal could well be incompatible with the physical and economic outcomes Agritex aims at.

As I shall also develop in this paper, one of the major reasons for the continuation of this approach in areas such as Chiwundura, is that despite Agritex’s intention to reach more farmers than it did prior to independence, its internal method of evaluation does not express this shift. This ‘method’ is the annual good farming competition Agritex has in each EW’s area. In Chiwundura it is only the leading farmers who are judged by extension workers, who win, and whose practices are held up as examples to others on the annual field days (agricultural rallies, as one extension officer called them). This means that the fact that many farmers cannot fully adopt these practices because they do not have the necessary land, labour, draught power and capital resources, is not explicitly acknowledged. Hence the message system can be continued, because the logic of the farming competitions - some
farmers have achieved these yield and output levels, therefore you all can - legitimises the approach.

In the southern part of Chirumhanzu, the second area in which I worked during the 1986-87 season, there is a fledgling move to shift away from this approach. The AEO there has begun to initiate a more learning-oriented approach in his relationship with EWs. This is hampered though by the relatively weak contact system EWs have with farmers.

These themes I shall now develop more thoroughly. In the following section the context in which the Training and Visit (T and V) pilot project was initiated in the Gweru region of the Midlands will be looked at. Against this background of how Agritex staff saw their altered post-independence role in the communal areas, the training methodology - and hence the attitude adopted towards 'messages' - currently used in the T and V extension system, can be evaluated. It will be show that, despite statements to the contrary, there has been little change in Agritex's system of handling information, to the dissatisfaction of extension workers.

Extension since Independence: Groups and the Handling of Information

In January 1982, the new Department of Agricultural Technical and Extension Services was formally established through the merger of the two pre-independence agricultural extension agencies, the Department of Conservation and Extension (CONEX) and the Department of Agricultural Development (DEVA). These had been operative in the commercial farming areas, and the communal farming areas, respectively. In the Midlands, the provincial head (PAEO) of the new agency, from the time of merger until the end of 1985, was R.E. Vaughan Evans. In an interview in March 1985, he expressed the type of organisational and attitudinal change that senior staff members in the province were trying to initiate:

"(Prior to independence)... The felt needs of the people were supposedly determined through processes of consultation. But in practice it was more one of dependence. Total & utter dependence, to the point where even the (staff) in the organisation depended for almost everything they did upon decisions taken for them. Maybe here and there, there was a spark of an attempt to try and create independence in the people they were working with, but it wasn't possible until after independence for that to emerge... But that I saw as the most important thing that had to be done for the staff and for the department. We had to try and create... an attitude of mind now which would encourage people to think for themselves. That's the start. And in turn to encourage the clientele to stand on their own feet and think likewise." (Interview with Midlands PAEO, 21/03/85)

Senior Agritex staff in the Midlands therefore adopted as an aim to encourage those under them to display initiative and to become creative, and to similarly foster such an attitude in farmers. The means
whereby it was hoped this would be achieved was through the institution of dialogue between extension staff and farmers. This was to be facilitated by the organisation of the latter into groups. An opportunity to launch a pilot T & V extension project in the Gweru region was seized upon in the hope that the T and V might provide a suitable vehicle for dialogue.

The Training and Visit pilot project was launched in June/July 1963. Its two principal objectives were stated by the then Gweru Regional Agricultural Extension Officer (RAEO) as:

i) "To develop a team of Extension Workers that are highly trained in knowledge and skills and timeously service the relevant needs of their farmers.

ii) To develop through this team of Extension Workers farmers who are self-reliant and able to play a major and increasing role in the training of fellow farmers". (RAEO, Gweru, 1964:1)

The T & V system thus focuses quite narrowly on EWs and farmer leaders and herein lies its strengths and weaknesses. One of the strengths of T & V is summed up by two remarks made by EWs on separate occasions. In a staff meeting, whilst discussing some of the problems being faced, the first commented, 'Before we started T & V there was no system at all'. And on another occasion, the second EW remarked: 'This T & V, one of the advantages I see is that the extension worker is always in touch with the farmers.

Indeed, from my observations there is a system and EWs do maintain a high contact profile with farmer groups, which does not, for instance, occur in the Chirumhanzu area. But the issue here though, is whether T & V has resulted in information being treated any differently.

In the interview I had with the PAEO he was explicit about the changed ways it was intended information and knowledge should be regarded and handled in the training component of T & V.

"... whilst we are pumping information one way down this pipeline, we want to be receptive to the fact that there is a hell of a lot of innovation going on in those groups and in some instances, like that ploughing (demonstration), we would be spectators learning how tractor-ploughing and ox-ploughing is done from the farmers. So it is not an agency which sees itself as the master of all knowledge, but rather as ... true dialogue, in which the progression is shared as much between ideas up from the field as it is with ideas down." (Interview with Vaughan-Evans, PAEO, Midlands, 21/3/85).

Let us now look at how the training is carried out and information handled in practice in Chiwundura, one of the Gweru region's three communal areas.
The T & V training system is only constituted in theory as a one-way, three (or two) stage system: from AEO or subject matter specialist to EWs, from EWs to farmer training leaders, and from FTLs to farmers. The bottom-up loop, added by Agritex, is intended to occur through the drawing up by farmer groups, in conjunction with their EW, of programme plans. The annual training programme for Chiwundura is then supposed to be drawn up from the amalgamation of all groups’ programme plans. By restricting the so-called dialogue aspect of training to programme plans, it has been made rather bureaucratic and it does not work.

The Chiwundura extension workers (seven in all, including one each respectively from the adjacent Gokomere small-scale commercial farming area and Masvori resettlement area) and their extension supervisor, attend two regularly scheduled training sessions per month. Most of these are conducted by the AEO for the area. In their turn, the EWs should also be holding two training sessions per month for the FTLs of groups, and be visiting their 6-8 groups (the resettlement EW has 12 groups, which is too many) at least three times every two months for follow-ups or to attend the report back sessions conducted by the farmer leaders.

After I queried the AEO’s assurance that the training programme was drawn up with the participation of farmers, he then went on to explain why, in fact, it was not. He cited four reasons. Firstly, groups are likely to derive different training priorities so that there is no joint consensus (and no joint meeting is held to obtain one). Secondly there is a need to ‘remind’ farmers of various practices, such as planting and fertiliser application, top dressing and stalk borer control, winter ploughing and so on. Thirdly, there is also a need to ensure a ‘balanced’ training schedule by, for instance, including aspects related to livestock management and conservation, which farmers themselves might not include in their programmes. Finally, there are also new subjects to be introduced, originating from national or departmental policy (and policy does function top-down). In the 1986-87 season these included a drive to promote oilseed crops (national policy) and savings clubs and projects (provincial policy). Consequently, to meet all these requirements, the training programme is drawn up by the region! Even the EWs themselves denied that they were actively involved in this process.

Thus in the way it is set up, the training programme still functions in an entirely top-down manner. Examples are used by the extension staff to show that the content of this programme is not entirely generated and passed on from the top only. The most cited example — in the evaluation reports and verbally by staff — is the technique suggested by farmers of using the hoofprints of oxen to measure 30cm. in-row spacing when maize seed is planted. Actually few farmers I observed used this technique. Not all draught animals are large enough for their hoofprints to be of the requisite spacing; often the person ploughing may walk in the furrow, therefore obscuring the hoofprints; or the soil may not be soft enough to show them clearly. For the sake of speed, anyway, most people planting (usually women) simply guesstimate, and if they are experienced their spacing is about right.
This is not a good example therefore, and as a planting technique is only a matter of detail it perhaps just obscures the fact that farmers have little or no choice in the content of the training they receive. This is borne out by the experiences and statements of extension workers in Chiwundura.

Although the first level of the T & V training, that of EWs by the AEO is held regularly, EWs themselves operate a more flexible training schedule with farmers. Some of the reasons for this are unrelated to the content of the lessons themselves. For instance, funerals are a frequent disruptive factor. Funerals are held immediately after the death of somebody, and one is expected to drop everything and travel to the home of the deceased to fulfil the various ceremonies which accompany the passage of the soul into the spirit world. All prior arrangements go by the board.

Another disruptive factor is the other local meetings, field days or visitors the EW is expected to attend to. The farming competitions themselves consume much time in February and March. Provincial training courses can claim an EW at any time for a week. (A Chirumhanzu EW I was working with was expected to attend three courses in January/February, one of which was postponed).

Another reason why flexibility is demanded in the way EWs carry out training schedules is because of the variability of the climate. This factor is relevant to the content of extension worker and farmer training, as can be seen if one looks at how farmers are necessarily acutely sensitive to climate. This is aptly illustrated by the 1986-87 season.

In Chiwundura farmers cultivate three types of fields. All farmers have a homefield area and between half and two-thirds of households probably have access to a separate dryland arable and/or wet garden area. Those farmers that do have garden areas are able to dry plant their garden areas, as the soils remain soft enough to do so. In the homefield and dryland arable areas, early planting of maize and groundnuts however usually only begins immediately after the first rains fall. In 1986, these fell at the end of October (72mm). November however was then rainless, so after the middle of the month further ploughing and planting had to be suspended as the fields had become too dry. Then, with further rain in the first eight days of December (83mm), another round of feverish activity began as farmers sought to complete their planting of grain crops.

This unpredictable rhythm of more and less intense activity periods means that farmers themselves have to schedule their activities in a flexible and incremental manner. Accordingly EWs must respond to this. The area I mostly worked in Chiwundura was Mtengwa West. The six farmer farmer groups in this area usually only scheduled their activities for the week ahead, and rarely beyond two weeks ahead. This was especially the case with the two groups, Phumelela and Vukuzenzele, which were carrying out mushandirapamwe resource-sharing activities. The next week's sessions were agreed upon at the conclusion of the previous one. In order to offer encouragement and advice when required, the EW, Mrs.
Mazonde, therefore had to fit the activities of these two groups - and in fact all six - into her itinerary when she could. Like the other EWs she used an incremental system of planning. For the following month the staff meeting and AEO-EW training sessions were fixed dates; as might be events such as field days, workshops, and other events called for by outsiders. Within this fixed framework, farmer leader or group training and follow-up visits are then gradually filled in. Thus for the week ahead the EW normally has a fully planned programme, although this too may be adapted because of contingencies, whilst for two to three weeks ahead activities for some days have yet to be arranged.

But although EWs in practice must respond to this variability within and between seasons, it is not reflected in the content of training. This results in inappropriate and wrongly timed lessons, of which there were several examples this season.

The training session for maize top-dressing and stalk borer control, one of those intended as a reminder to farmers only, was a case in point. The initial AEO-EW session was scheduled in the week between Christmas and New Year, but was postponed. Bureaucratically this may be a dead period, but for farmers it is an active one for the bulk of maize top dressing that is done is carried out between mid-December and the end of January. If stalk borer is a nuisance, pesticide is applied often at even earlier stages of growth. Eventually however the combined lesson was given to EWs in mid-January, which this year was too late. As a result the EWs did not then hold their own training sessions on the subject. Mrs. Mazonde just remarked that if she had tried farmers would have said, 'Where have you been?'

Besides the wrong timing, the lesson itself was also inappropriate for the prevailing dry conditions. The advice for maize top-dressing on the hard-out sheet given to EWs read:

"Heavy textured soils - 4-6 weeks after emergency(sic) Light textured soils - splitting gives better results.

First application - 4-6 weeks after germination
Second application - 8-10 weeks after germination."

Most farmers who use ammonium nitrate (AN) top dressing actually time their applications by the height rather than age of the crop. If two applications are used, they are made at knee and chest height respectively, if just one, then between knee and waist height. Whether one or two applications are used depends on the time of planting and the type of season. This season, early planted maize yielded best and if any crops did receive a double application it was this crop. In a year of good rainfall, larger proportions of the crop received double dressing. But the dilemma farmers faced this season was whether to apply dressing at all, and if so when. The lengthy dry spell at the end of December, and then from mid-January, meant that soils were often dry at the height top dressing should be applied to plants. The moisture content of the soil effects timing, and application method if burning of the crop is to be avoided, and maximum benefit of the fertiliser to be obtained. And as AN was costing Chiwundura farmers $27 per 50kg bag.
this season, the matter was of no small importance to them. Yet here there was no advice passed down this season.

Mrs. Mazonde, who was in her first season as an EW, arranged for one group in her area to hold a reminder demonstration on 2 January. She was then able to observe the methods the group members used and make her own decisions on what aspects could be adapted and improved upon. This meant that using her own intuition she could then respond to any queries farmers from other groups had on the subject this season. She had been first asked for advice on 19 December, a month before the AEO-EW training lesson was held.

During the course of the growing season, maize top dressing was not the only lesson inappropriately timed. Most EWs did not pass on a lesson held on sugar bean production at the end of January, because they said it was too late this season. But perhaps the most ironical lesson of all though was that on fish farming held in mid-March. By then the drought was well settled in and most small pools and ponds had already dried up — and with the winter still ahead.

In the way the training aspect of the T & V extension system is currently being handled therefore, the capacity of EWs to adapt advice to seasonal factors is not being catered for. Lessons are prepared by AEO’s from technical literature and sources, not from prevalent conditions on the ground. Because of this, in one discussion two EWs told me that they used their own notes more than lessons in their work. Yet this approach to training is the dominant method used by Agritex throughout the country. It has led to the 'exhausted — (or inappropriate) message' syndrome (Kinsey, Agritex NEFS workshop, Harare, 12/5/87), which three and half years on from the commencement of T & V is now leading to falling membership attendance at farmer training sessions. Even if the top dressing and stalk borer lesson had been delivered on time, many farmers would not have attended a lesson on the subject as they had heard it two or three times before. The reminder demonstration Mrs. Mazonde held is different, because then practical issues can be raised.

In the discussion referred to above the two EWs expressed their own feelings in no uncertain terms. Following on from each other they remarked:

1st EW: "If the decision was given to everyone, including farmers, to say how T & V could be improved, the decision would be pouring..."

2nd EW: "...Because the real problems are lying on the EW and the farmer. Those people in the office are just imagining things, and not knowing things practically".

According to these two, the issues that really needed to be tackled with regard to top dressing were whether it should be applied, taking into account the nature of the season, the cost and the comparative
benefit that could be expected, and if so, when.

The Gweru RAEO is aware that the training schedule is unsatisfactory, though not of the depth of EWs feelings. In a discussion meeting held in Gweru he stated that it was hoped to improve the degree of discussion and feedback in staff training sessions. He thus acknowledged that at present dialogue and a two-way transfer of information does not occur in the current training format of the T & V system.

There is some contrast between the approaches to agricultural extension used in Chiwundura and southern Chirumhanzu, the second area I worked in during the 1986-87 season. In southern Chirumhanzu, the AEO has begun an attempt to make the training component of Agritex's extension work more flexible and responsive to seasonal conditions. In an interview, he interestingly virtually echoed the words of the two EWs in Chiwundura:

"On maize, again, we can actually see that... we have for quite a long time, been dealing with packages from maybe natural region II, which were prepared for natural region II. Instead of emphasizing on, say the use of fertiliser, looking at the rates of fertiliser application and the like, I think... we should actually be looking at a situation where we help the farmer on what he should do in the event of a drought; whether he should fertilise or not". (Interview with C. Zawe, AEO, Mvuma, 9/3/87).

Efforts to adapt the training component of Agritex's work in Chirumhanzu, are however hampered by, in contrast to Chiwundura, the weaker nature of EW-farmer contact. It is nevertheless worth analysing the contrast in the approach to training in Chirumhanzu.

Training and Follow-ups: Chirumhanzu

In the Mvuma region, the RAEO and his staff have tried to institutionalize a system of dialogue, at least amongst the extension staff in the region. In the Gweru region, the only regular staff meetings held which involve the Chiwundura extension staff, are monthly staff meetings held in the area. These are conducted usually by the extension supervisor based in the area and they are ghastly affairs. Their purpose is form-filling - travelling and subsistence claims, monthly itineraries, monthly reports, quarterly reports, crop estimates .... The meetings drag on for three to five hours and they deaden rather than stimulate any initiative.

Mvuma region staff meetings are not like these. Regional staff meetings, involving all personnel, are held quarterly, and although these are also long, they are lively and a great deal of discussion does take place. They are chaired by an AEO and EWs participate in an unconstrained way. Then, as in Chiwundura, zonal staff members are held monthly, at which all the staff meetings in an AEO's area gather. This is the only occasion the AEO meets all the EWs in a month, for unlike the T & V
In Chwundura, the absence of such follow-ups has disappointed EWs. As one expressed, back-up visits by officers to farmers are very important, both for motivating farmers and for widening the knowledge of specialists. This can help ensure that messages are kept relevant to farmers' problems and particular situations.

This is what is being attempted in southern Chirumhanzu. Through observations made on follow-ups the AEO there is beginning to make the effort to introduce farmers' own situations - as perceived by him and other staff - into the extension and research information system. At each of the monthly zonal meetings the EWs present short progress reports, from which the AEO compiles a monthly technical report. One of the immediate benefits the AEO gains from working with the EWs is to be able to call their bluff on the inevitable bland assurances that seasonal progress is satisfactory. This year, because of the government's call for greater oilseed production and the problems farmers are experiencing with production, of these crops the AEO focused meeting January and February on groundnut and sunflower production, respectively. These two crops, especially sunflowers, are controversial, and will be dealt with in some detail.

The problem with groundnut production in southern Chirumhanzu, as identified by the AEO, is that yields have declined in recent years. Consequently at the January staff meeting, the AEO agreed with the extension staff on a set of groundnut trials they wish to carry out in the area next season. The hypothesis for the trials is that the decline in yields is because 'there are some aspects of groundnuts production which are being neglected by the farmers' (Minute from Chirumhanzu South, mid-January staff meeting). The twelve plot trials the staff wish to carry out will investigate the effects of four types of fertiliser - lime and manure, both of which are ploughed into the soil prior to planting; compound S, which is applied at planting; and gypsum, a top dressing. Of these four types of fertiliser, one, manure, is organic, two, lime and gypsum, are cheap, and only the fourth, compound S is an expensive fertiliser to purchase. In short, if local farmers are able to see from this type of local trial that higher yields than those they are currently obtaining, can be gained in a cost-effective way, there is a likelihood that they can be encouraged to improve their groundnut yields.

These proposed trials can be compared with a similar type of groundnut nutrient trial carried out by the Department of Research and Specialist Services (DR&SS) in the Gambiza ward of Chwundura. This trial, one of thirteen crop trials carried out this season in the area, was investigating treatments of seed inoculum, potash, phosphorous, and nitrogen (in the form of ammonium nitrate). But, in addition, blanket applications of manure, nematacide, trace elements, gypsum and lime were applied to all plots. The economics of the trial were not something DR&SS were, or could investigate; it was purely an agronomic trial. No-one I spoke to in Agritex could see the sense of carrying
out such a trial in a communal area, if it ignored completely communal area conditions. In fact this trial, and several others of the thirteen, were failures because DR&SS had had insufficient funds to pay travel and subsistence allowances to deploy field assistants in late October. As a result the early ins were missed, planting eventually only took place in early December, and the trials, by their extremely poor yields, proved only the value of early planting.

The case of groundnuts thus provides an example where an AEO is trying to respond to farmers' problems, conveyed through EW's, and noted from his own observations. Sunflowers are a different case, in that incipient problems have been created through Agritex hastily urging a crop onto farmers, without considering the consequences.

Although farmers had grown the crop before, the 1986-87 season was the first year that sunflowers were extensively grown in Chirumhanzu. Of the fourteen extended case study farmers I worked with in the Maware and Mavhaire areas, nine of them grew sunflowers this year. Previously only five had grown the crop, and then over a significantly smaller area. In terms of crop area, 11.5% of land cultivated by the case study farmers was under sunflowers this season, replacing rapoko (11.1%) as the second most extensively grown crop to maize.

This expansion in sunflower area occurred following the Minister of Lands, Agriculture and Rural Settlement's call, shortly before crop planting began, for increased oilseed production this season, owing to the maize surplus. This call, coupled with the improved producer price for sunflowers, provided the incentives for farmers. Agritex staff regarded as a success the fact that even at late notice, more farmers had been persuaded to grow the crop, thus meeting government policy. For instance, the AEO in southern Chirumhanzu commented:

"... As you can see in our annual work plan.... we hadn't budgeted for a lot of oilseed crops like sunflowers. But due to a series of meetings we actually managed to inform the farmers to change slightly to sunflowers and the like".

(interview with C. Zawe, AEO, Mvuma, 9/3/87).

However in spite of the stress laid by Agritex on recommending correct packages of practices for each crop, in the haste to meet the Minister's call, Agritex breached their own norms. Farmers, although heeding the call to grow more sunflowers because they understood it would be profitable, were not well advised. In the Mavhaire area farmer group members received a combined lesson on all oilseeds in October, which laid no particular stress on sunflowers. In the Maware area, no lesson was given at all as no farmers in the group had seed at the time. Several farmers however subsequently acquired and planted seed.

Many problems arose consequently, some of which will only be realised by farmers and EWs in the next season. Most of these are associated
with the fact that farmers have interpret 'drought resistant' as
meaning that sunflowers are a crop which can be grown in any soils
with no fertilizer. This is how the drought resistant grains —
mhunga, sorghum, rapoko — are grown. However it is instructive to
note the caution with which commercial farmers have approached
sunflowers:

"Farmers have had a low opinion of sunflowers as a crop,
saying it has inconsistent yield, removes too much from the
soil and is susceptible to nematodes".

(Financial Gazette, 12/12/86)

All hand out literature on the subject used by Agritex stresses
the importance of fertilisation to increase yields and because the
crop is a 'scavenger'. The importance of liming soils with a pH of
less than 5.3 is noted because sunflowers 'are very sensitive to
acid soil' (Lever Brothers booklet). Lime is a cheap agricultural
input, yet currently Agritex do not widely recommend farmers to
use it and nor do they encourage farmers to test their soils (at
a cost of $2 per sample). Again, in this context, I was struck by
a comment made by the commercial farmer wheat grower of the year
for 1986, on how he optimises yields: 'We soil test every land
every year' (Agritex farm diary Radio 1, 22/5/87).

Manure can also be used, or compounds L, C or B. Yet if any
fertiliser was used by farmers it was compound D, which they use
on maize. Because sunflowers are high nutrient users, thinning of
the crop is important, as is weeding, to prevent competition for
water and nutrients. Few farmers knew about or performed these
practices.

The point of all this is that unlike groundnuts, the other oilseed
crop communal farmers grow widely, sunflowers are not nitrogen
fixing. They deplete soil fertility drastically. Two farmers who
have grown sunflowers before, indicated this to me. One pointed
to four contours of maize, all planted in mid-November and all of
which had had compound D fertiliser applied at planting. In one
of the four contours the maize was terrible. This was where
sunflowers had been grown the previous season. The second farmer
remarked on how badly a field of mhunga, grown with no fertiliser,
had done also following sunflowers.

At a discussion meeting held with provincial Agritex staff in
Gweru the issue of this crop was raised. At the end of the
discussion, the Assistant PAEO (Field) commented:

"So we as an extension agency, I think... there is need for
us to be very careful in terms of what we are putting across
to... our farmers. It must not be a short term effect, but
one has got to look at what will be the effects in 10 years
time when research is trying to redirect the efforts".

(Discussion meeting, Gweru, 13/4/87).

In southern Chirumhanzu, from his follow-up work with EWs, the AEO
discussed the problem with EWs at their February zonal staff
meeting. Yet subsequent to this meeting, neither of the two EWs
I was working with spoke to farmers at all on the subject.
Throughout the remainder of February and March they were busy organising and carrying out crop judging and field days.

The AEO agreed that it was not presently possible to tackle problems arising in the course of a season, during that season. It could only be hoped that improvement would occur the following season [Interview, 9/J/87]. Having been urged to grow the crop, it was this season though that farmers wanted advice and farmers I worked with were dissatisfied with the lack of it given.

So even in terms of Agritex's own technical rationality, because the Minister of Agriculture wanted oilseed production increased, the crop slipped into recommendations made by Agritex staff to farmers, with negligible technical forethought given to possible consequences.

In this first part of the paper, problems associated with Agritex's standard training procedure - the passing on of packages of recommendations - have been looked at. Shortcomings to this approach can be seen both in terms of its own technical rationality (the sunflower example), and because it is only a form of instrumental rationality (i.e. the way in which technical messages have been simply passed on without active questioning of their appropriateness). At the outset of the T & V project in the Gweru region, the then Midlands PAEO identified this technocratic approach as stifling initiative and creating dependence amongst extension staff and farmers. It was hoped the T & V project would engender greater dialogue between levels in the extension hierarchy: technical specialists, extension workers and farmers. Although improved EW-farmer leader contact has been achieved, further advances in dialogue have been blocked at the technical specialist level. This has not been helped by the fact that since independence six different AEOs have worked in Chiwundura. In Chirumhanzu, the converse has occurred. Farmer-EW contact does not take place in any systematic form, but specialist staff in the region have begun to institute much greater dialogue amongst the region's staff members.

Now, in the final part of the paper, attention will be turned to the second level of contact emphasized by the T & V model, the EW-farmer group contact. One of the aims in the Midlands since Independence, has been to encourage the formation of farmer groups to enable more farmers to be reached by the extension agency. It is intended that extension advice should become available to and meet the needs of a wider range of farmers, making Agritex less elitist in its operations. To what extent has this occurred in Chiwundura?

Farmer Leaders and Groups: Chiwundura

The second objective of the T & V project, to develop 'self-reliant' farmers, has greater significance than most Agritex staff currently realise. When to `encourage self-reliance' is used as an aim by those who have been used to exciting a paternalistic or even an authoritarian
control, self reliance can often be translated as meaning, 'we would like you to organise yourselves, hence reducing our work, to do the things we would like you to do'. The frantic reaction by Gweru regional office, in summoning the Chiwundura extension supervisor to come and explain when Robinson Gepare, National Farmers' Association of Zimbabwe chairmen, accepted an invitation, which had not been channelled through Agritex, to attend a field day in the Masvori Resettlement area, illustrates the ambivalence with which Agritex actually does view farmers becoming self-reliant. Given the general government framework of control of land use in the communal areas, as well as of communal farmers access to further land, there is however little likelihood of communal area farmers gaining much independence.

So what does Agritex then mean, when the intention of encouraging farmers to become more self-reliant is stated? In the T & V project there are four interconnected aspects to this. The first is in the explicitly stated role of farmers learning to train other farmers. This then implies, secondly, that the leaders should go beyond this to encourage group activities, which leads, thirdly, to the establishment of group projects. This latter is the type of activity which Agritex specifically encourages. Fourthly, in their annual agricultural competitions and field days, the farmer leaders should be responsible for as much of the judging and organising as possible. These aspects will be considered in turn.

One of the prime intentions of farmer leader training was that it should not merely be the group leaders who receive this, but that for different subjects, members of the group should rotate as trainees. This was expounded on further by the PAEO in 1985:

"The subject-matter farmer leaders come forward in this spirit in order to go and be trained and to go back and volunteer their knowledge to the rest of the group, so that in time that group will become very proficient. And they rotate the leadership, because it is not the leadership of an organisation that is administering, but rather one which is putting technology over. By rotating you give more members an opportunity in becoming proficient in this this. We think that once [knowledge] becomes the group's possession at any point, you start to find members within that group...are elements of...the total knowledge of that group, and can make contributions to it, because they each have an opportunity now of going through more intensive training with the extension worker".

[Interview with R.E. Vaughan-Evans, PAEO Midlands, 21/03/85]

Aspects raised in this extract will be referred to in the following discussion.

The first point to raise is that farmer leader training is not occurring in the manner envisaged. In fact for many lessons farmer leader training is no longer occurring at all. Even though distances within an EW's area are probably shorter than in most other communal areas in the Midlands, for farmers from all six groups in Mtengwa West to
gather at one place means a walk of over 6 km. for those furthest away. As a result, many crop lessons are given individually to groups, or with farmers from adjacent groups attending, so that altogether two to three lessons on that subject is given by an extension worker.

Furthermore, even when farmer leader training is held, there is no real rotation of leaders. It is only committee members of the groups who participate. Three of the extension workers in Chiwundura, when questioned on the subject, commented amongst other things:

"Some illiterate farmers resent attending farmer leader training sessions for fear of being unable to impart the lesson to the group."
"There is a tendency of FTLs and/or group leaders to delay report backs to suit their liking."
"The capability of FTLs is doubtful considering that (1) many farmers are illiterate, and (2) there is a lack of confidence in their teaching by most fellow farmers."

The latter point is connected with criteria such as 'domestic quarrels' and disputes and social status', or 'personality complexes,' as another EW phrased it. Certainly examples of these are common. One of six groups in Mtegwa West was extremely poor at organising training sessions or report back demonstrations, because of disagreement between the chairman and vice-chairman. If she had any message for the group, Mrs. Mazonde would inform the two men separately. In a second of the six groups, a small, all-women's savings club also collapsed whilst I was working in the area, because of a dispute between members, based on mistrust as to where the savings were being put.

Despite these drawbacks, some of the farmer leaders are capable of presenting lessons in a highly competent manner. The most interesting example of a lesson given by a farmer leader, was in the Masvori resettlement area, north of Chiwundura. The particular lesson was on the benefits of autumn ploughing. Between the EW and the farmer leader the list of benefits had grown larger than that presented at the initial AEO-EW training session. For instance, it now included a point relating to the fertility of the granitic soils of the area:

"When you do your autumn ploughing, you have to plough deeper than the top soil, by bringing up some of the subsoil which has organic matter in it and giving it time to weather before planting. This way you can add to the top soil."

However in recommending practices such as autumn (or early) ploughing, it is presumed by Agritex that all farmers have access to the draught power. The means whereby farmers who do not own draught power acquire access to such, is not an area in which Agritex participates. That is up to farmers themselves. Thus, although the Agritex staff in Chiwundura have encouraged group formation, whether or not the groups engage in resource sharing activities, is their own concern.
In this light, the two groups I worked with intensely in Mtengwa West, Takunda and Phumelela, have adopted very different approaches. The vice-chairman of the Takunda group, who is also chairman of Mtengwa West area committee and a member of the Salvation Army, is an avid entrepreneur. How each household carried out its activities during the 1986-87 season was up to that household; group cooperation did not occur. The only practical demonstration sessions to take place in the area during the past two seasons have been arranged in the fields of either the Takunda chairman or vice-chairman. The area chairman's philosophy was illustrated at an area level meeting in March, at which the entry fee for the annual area farming competition was among the items discussed. This had been set earlier at $5 per crop, and as farmers to do well have to enter two to three crops, they were expected to pay upwards of $10. This rate was higher than any I encountered elsewhere in Chiwundura or Chirumhanzu. With the drought, few farmers were prepared to pay this and in the end only 37 farmers from the Mtengwa West area entered the competition before the annual field day, out of a total of over 500 households in the area. Most of the people attending the meeting wanted the fee reduced. However the chairman remained adamant: if few people are entering, to have enough money for prizes we must keep the fee high. And those members of groups who do not enter should be fined.

In contrast to the Takunda group leadership, that of the Phumelela group have been developing a successful mushandirapamwe operation which does assist all categories of members. The group now carries out, at members' request, autumn ploughing, spring ploughing and planting, and the carting and spreading of manure and anheap organic fertilisers. At the start of the 1986-87 season, by completing quickly and efficiently, the whole ploughing and maize planting operation required for an area of land up to 1ha., thus maximising moisture retention and the chances of healthy plant germination, the group benefited all members.

Groups, such as the Takunda group, which have little function other than conveying technical advice, are passive. Others like Phumelela which are more active, have become so because they have generated their own social dynamism through being able to meet members' resource needs.

One of the concerns of the Phumelela group is to assist poorer farmers. Their chairman expressly stated this in one discussion we had, and I attended an operation of the group when they did voluntarily assist one of the poorest families in the area. The group ploughed and planted 1ha. of the family's land, some members even donating a little rapoko and sorghum seed. During the 1986-87 growing season the mushandirapamwe group had 16 members (this had expanded to 21 by the time autumn ploughing began). Of these 16 member households most have secured a greater harvest of maize this year than they would have done otherwise, for six members do not have draught power, and others are short of labour. Yet when the award for the best group in Chiwundura was made this season - the judging being carried out by the Chiwundura extension supervisor and overall farmer committee of
whom the Takunda vice chairman is again chairman—it was the Takunda group which won. Considering the emphasis of T & V, the group competition is decidedly low key compared with the individual household farming competition, which the field days are all about. Judging for the group competition was limited to an excursion tour in the extension supervisor’s vehicle.

If Agritex extension staff do not significantly encourage resource sharing activities, what has become an element of their group-oriented approach over the last two seasons, is the promotion of group projects. The intention of such projects, according to the Chiwundura extension supervisor, is to help improve farmers’ income levels. Yet the one group in Mtengwa West undertaking such a project, consists of the farmers who already have some of the highest incomes. This group has a poultry project, located in the homestead area of the group’s treasurer. The group does not engage in any other resource sharing activities, because most of its members, in addition to their other arable land holdings, also hold plots on the nearby Mutorohuku irrigation scheme. This means the members are some of the wealthiest farmers in Chiwundura. To start the poultry project however, the group managed to obtain a $520 grant from the Ministry of Community Development and Women’s Affairs. From the figures provided by the treasurer, if the project is run efficiently, the twelve members could earn up to $40 each every two and a half to three months. For poorer families in Chiwundura this would constitute a large proportion of their annual income; for these members it will not.

That projects of this type tend only to be undertaken by the wealthier farmers, is borne out by a large piggery project at Chinyuni in southern Chirumhanzu. In April 1987, there were 103 pigs in total in the piggery, and although more regular selling was slowly being achieved, the huge maize feed bill being faced this year has meant the project is far from attaining a level of economic viability. Apart from taking out a loan of $10,000 from the adjacent savings club, each of the 16 members has so far contributed $300 from his/her own pocket. Thus the prerequisite qualification for being a member is to have a sizeable alternative income; several of the members are local teachers. Near Chinyuni, another goat and garden project has been started up by a cooperative of disabled people; but this has been made possible only through EEC and Swiss missionary funding.

The economics of many projects and just whom they are expected to benefit, presents many difficulties therefore. The Phumelela type of mushandirapamwe enterprise—there are accordingly to extension staff, perhaps another half-dozen groups carrying out this type of activity in Chiwundura—is the sole type of group operation I have witnessed where members of leading, middle and poor households participate.

The final area where Agritex is attempting to mobilise groups, is in the carrying out of preliminary judging and organising for field days. In Mtengwa West the farmer groups made arrangements for judging this season.
at a meeting held in February. Three members from each group were supposed to do the preliminary judging of the fields entered by members of an adjacent group. Three farmers would be selected, making a total of eighteen in Mtengwa West. These would then be narrowed down to six farmers by the area committee in the second round of judging. The third and final round would then be carried out by an EW from another area.

The whole procedure went wrong at each stage. After the arrangements had been made, postponement of the preliminary judging was forced because of the disruption created by two funerals. When this round was eventually completed, the second round was a fiasco because the area chairman was busy earning money building a house for someone, abdicating responsibility. He tried to delegate other area committee members to carry out the judging, but arranged it through the vice-chairman of the group where the chairman and vice-chairman do not communicate, and so nothing happened. When this second round judging finally did take place, the area chairman, who had remained uninvolved, named the names of one farmer from each group, instead of the best six overall, to the visiting EW.

On the day before the actual field day this whole affair precipitated a lengthy dispute between five members of the area committee over the marking system used, and particularly over third place. The farmer adjudged third, was the chairman of and only entrant of a predominantly women's group, the remainder of whom had boycotted the competition, because of the high entry fee. As he was the group's only entrant, the members of the area committee felt that he should not have been allowed to proceed straight into the finals. The alternatives were to replace him with the farmer positioned fourth, or the farmer who had actually come third on marks. The latter had not been entered into the final round because he was only second in his own group. Mrs. Mazonde and the Phumelela chairman vetoed any change, and their view eventually prevailed. What remained unsaid, although all were aware, was that the person who had come fourth was the area chairman, and the person third on marks, the area committee secretary! The next day on checking marks, I also discovered that the farmer placed second overall had only come second in his group; the area chairman had forwarded the wrong name for the final judging. Finally, the winner told visitors at the field day that he had planted some long season SR 52 maize seed, left over from his irrigation plot, on his dry land field, which in terms of the criteria being used, should have prevented him from winning.

If this all appears to verge on the incestuous, with the judges and winners all being leading farmers, the account is related because the fact that groups do largely organise their own field days is held out by Agritex as an example of successful farmer group development. There are no prizes in the field competitions for new group members, first time competitors, farmers without draught power, windows, or so on.

Farming competitions provide the means whereby Agritex extension staff are able to evaluate whether farmers are adopting the practices being recommended. The field days are then used by Agritex staff to hold up
successful farmers as examples to others. However as a form of evaluation this procedure merely reinforces the current message system. The winners are the few farmers who have adequate access to production resources - land, labour, drought power, equipment - whilst the bulk of farmers who do not have adequate resources are labelled as failures in terms of the competition criteria. The fact that extension messages are inappropriate for these farmers because they have inadequate resources, is passed by.

Competitions and Groups: Chirumhanzu

In southern Chirumhanzu in contrast with Chiwundura, it is the winning group which is chosen to hold the annual field day, not the winning individual. This difference is mainly because of the relationship between land use patterns and social organisation. In Chiwundura, the growth of a smallholding land use arrangement has resulted in the greater development of a private social sphere. Field days are held within the winner's smallholding. However in southern Chirumhanzu, most arable land still occurs in the open block arrangement of the land husbandry era. Field days are held out in these blocks, so the affair is immediately less privatised and individualised. Prizes are still awarded to individuals, but on the actual field day, it is the group adjudged to having attained the highest overall level of achievement, which is held up. The raison d'être behind the farming competition - to evaluate how much farmers are adopting Agritex recommendations - is still the same however.

Although the field days are group affairs, because of the weaker cohesiveness of groups, I witnessed no resource sharing activities amongst group members. In southern Chirumhanzu Agritex staff face greater problems in encouraging groups than in Chiwundura. The area is drier - natural region IV, compared with natural region III - and EWs have to cover both larger distances and more households. In Chiwundura the average number of households per EW is estimated at 475 (RAEO, 1985 : 2), whilst in Chirumhanzu all EWs have more than this. For example, the EW for the Mware and Chingwena wards had twelve groups and a total of at least-830 households, whilst south of him, the EW in Chinyuni ward has fourteen groups. This makes the Training and Visit method, which requires regular training and follow-ups, difficult to implement. Nevertheless, a system with clearer principles for EW-farmer group contact is needed in Chirumhanzu. Between November 1986 and April 1987, the two groups I was working with in the Mware and Mavhaire areas received only one reminder lesson each. In the Mware area there was a high unmet demand for extension advice. Even now though, with their mileage allocations restricted to $45 worth of fuel per month - between 300 and 350 km. - most EWs subsidise at least some of their work travel each month.

With the open field pattern too, there are still basic social problems to be solved in many parts of Chirumhanzu. One area where clusters of households do assist each other is in the herding of livestock, but this usually only begins in January, after children have returned to school.
In December children herd, but in November few people herd cattle and goats at all. People who do try to use the first rains and plant early therefore face terrible problems trying to keep animals out of their fields once crops germinate. In the interview with the AEO for Chirumhanzu South, this caused me to make the following response at the end of an exchange in which we had been discussing the problems being encountered with the current drive to encourage group projects:

AEO: In fact we were thinking of looking at a situation where each group had to have a project of some sort. But looking at the rate at which these projects are going and the management that is needed, I think maybe we would be safer off without very expensive projects.

M.D.: "As I suggested earlier, one always looks at projects in terms of an income generating activity... a group one, like a garden or whatever. But... it seems to me that one of the best projects many groups could do would be to try and organise their herding so that people can early plant. Because that is such a massive problem — and yet, if they could early plant, then they would improve their incomes almost more than any other project could do".

AEO: "Yes, I think we are going to... seriously look into that project and see what we can do".

[Interview with [Zawe, AEO, Mvuma, 9/3/87].

The AEO did consider the herding issue worth tackling. At field days subsequent to this interview he addressed farmers on the problem. However it will not be easily resolved. Community leaders I spoke to in Maware Ward — the councillor, ZANU (PF) district chairman, VIDCO chairmen, the ward headman (sadunhu) and village headmen (vasabhuku) — all vehemently concurred this was a major problem they faced. But when they had discussed the issue at community meetings, they had failed to find ways of solving the problem in practice. The Maware councillor now wanted the District Council to pass a bye-law on the issue; another farmer, leader from Mavhaire had taken the problem to a NFAZ meeting in Gweru. It is a major problem facing agriculture in the area, yet engrossed in the package approach, Agritex have let it pass by until now.

Dialogue and Groups

In this paper I have not sought to discuss the extent to which different types of farmers actually do adopt and adapt Agritex recommendations. Nor have I analysed farmers' own crop economics and the viability of current recommendations made by Agritex for crops like maize. These issues are examined in another working paper. For the purposes of this paper it has been assumed that there is a broad consensus in Agritex that these packages are inappropriate for the majority of communal area farmers in natural regions III, IV and V. It is sufficient to say here that the few leading and middle farmers in Chirumhanzu who do make some profit on crops like...
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Meize, do so by applying often substantially less than the recommended amounts of inorganic fertiliser to the sum total of the area under the crop. The variability of the climate, labour and other resource constraints, would make yielding a profit very difficult if they were to fully apply recommended input packages.

When discussing the financial problems farmers face with the AEO for Chirumhanzu South, his first reaction was that they were trying to tackle the problem of lack of finance by encouraging the formation of savings clubs (credit for which is due rather to the Catholic Development Commission). The savings clubs have yielded many benefits for members, but it is the viability of packages of recommendations that is the problem for many farmers with land, labour, drought power, equipment and capital constraints, it would rather seen that it is this area which Agritex could afford to scrutinise more closely.

How could the package approach be reoriented? Well, it would seem, for a start, by really tackling the two new operational directions senior Agritex staff in the Midlands set for the agency after independence. Currently, despite the aim to foster it, minimal dialogue exists between extension agency and farmers. This means it is still not well grasped by technical staff in Agritex, why farmers do what they do.

The second leg of Agritex's redirected operational policy in the Midlands, is, through a group approach, to reach more than just the leading farmers, who were the members of the old master farmer clubs. Yet although a group approach has been successfully initiated, especially under the T & V system, the focus of this approach - on passing down 'exhausted' or inappropriate messages, on income generating projects, which only the wealthier farmers can afford, and on field days, where only the leading farmers win- are unlikely to have the effects that are intended. Agritex extension staff who work with the groups and are honest, admit that they are not all they are cut out to be. For instance, in one discussion with extension staff in Chirundura, two of the EWs agreed that farmer attendance at meetings during the growing season was often low: 'The groups won't change drastically as most people might want'. And the groups, which have become active and engage in activities such as musandirapamwe which benefit all types of farmers, have done so through their own initiative. Certainly Agritex has helped encourage group cohesiveness, but the ideas that some groups have of how they can benefit their own members are more appropriate than those currently employed by the extension agency.

In conclusion, I wish to let some of the Agritex extension staff in the Midlands speak for themselves, by quoting some of the measures which they feel could improve the responsiveness of Agritex's operational methods.
Improving Responsiveness: The Ideas of Agritex Staff

AEO, Chirumhanzu South:
"The main problem is that we are mainly emphasizing on technical know-how, but we are not really putting any emphasis on management. I think this is where we should improve... as a department, although it involves a lot more work... we should be agriculture managers of some sort, whereby we can influence the change. We can actually monitor our extension message, to see whether farmers are really doing what we think is right". (Interview, 9/03/87).

RAEO, Mvuma:
"I think we are confining training to downward showering of theoretical knowledge by the officer to the extension worker. I believe we must be flexible... because the learning atmosphere itself, you know, once you don't treat it well, you are already killing the whole plan of training.

PAEO, Midlands:
"The principle of adult education, to add onto what he is saying, is that everybody in a training situation has got some experience of some kind, and has got a contribution to make to the overall learning situation. So we should not assume that the one we say to be above everybody else is the one who has got more knowledge. He should be looked at more as a facilitator rather than as a trainer. And if we pursued that attitude in a training environment, I think we would all learn a little bit more (Discussion meeting, Agritex, Gweru, 13/04/87).

M.D.:
"How can farmers' interest in attendance and group membership be kept up?".

1st EW:
"This can only be kept up if the specialist's interest is kept up. They need to check up...".

2nd EW: "... and face farmers directly".

1st EW:
"Backup visits by officers to farmers is a very important weapon, both for the motivation of farmers, and for widening the knowledge of specialists. This can ensure messages are kept relevant to farmers' problems and particular situations". (Discussion, 13/1/87).
AEO, Chirumhanzu South:
"I think some of the aspects of T & V are appropriate. For example, if we could in our zonal staff meetings include group leaders, so that when we discuss a problem of groundnuts, a problem of sunflowers, a problem on cattle, any problem or whatever agriculture aspect we have got, the group leaders actually get in and give us their views on what we think. Then maybe they can go back and hold meetings and pass on whatever we have agreed on to the farmers before the extension worker arrives. So that when the extension worker arrives to give that message, it is probably a revision.

M.D.:
"Yes, you are actually adapting T & V slightly... What you are saying is, in fact not to train the group leaders first, but to discuss with them first..."

AEO:
"But we will always meet with an obstacle there in that... we would probably want to transport these farmer leaders ourselves".
(Interview, 9/3/87).

ES, Chiwundura:
"Researchers should try and start where the people are and modify their research to the tools the farmer has". [Extract from speech at Gambiza ward field day, Chiwundura, 12/3/87].

PAEO, Midlands:
"... the attitude of our sister department the research personnel in that department, must be more positive. They must be more sensitive to the needs of the farmers. O.K., they do conduct some on-station trials, but at the same time they must go out more often and meet the farmers and field staff to discuss and sharpen the problems farmers are facing. They tend to make too many assumptions, which might create problems".

Farm Management Specialist, Midlands:
"I think the problem is that most people don't look at why some farmers are doing some activities and then try to develop there... rather than coming from outside and then just trying to shower something, which is contrary to what the farming community will be doing... But a question why farmers are doing some of the activities... Probably that's when development will come".
Notes

1. It is worthwhile to provide an example of this logic, because it illustrates an attitude held by many Agritex staff. At one Agritex staff meeting, an EH claimed one farmer had achieved a yield of 6 tonnes per ha on part of his land this season. This claim was used by the senior officer present to defend the viability of crop packages. He stated that if one farmer could achieve such a yield, then all farmers could - and thus the packages were appropriate as a general recommendation.

2. Information also provided by A. Nduku, Agritex research assistant, in a report based on one week spent in each of three extension worker's areas, during March - April 1987.

3. A few farmers also have access to irrigation plots on one of Chiwundura's two schemes, which would be a fourth type of arable land.

4. Sixty percent of the fifteen extended case study households I worked with had access to a dryland and/or wetland arable area separate from their homefield area.

5. Information from diarised notes of Mrs Mazonde's activities.


7. This is a general trend countrywide. Makombe, Bernstein and Rohrback (in Rukuni and Eicher, 1987) suggest that on average, yields have declined by 50% over the last 10 years. (They actually state that area planted has fallen by 60% and output by 80%, which amounts to this).


10. The classification of these three categories is given in the working paper, 'Loans and Manure: The dilemma of access'.
11. See Table I in 'Loans and Manure'.

12. The case study farmer who uses closest to the Agritox fertilizer recommendations for maize in southern Chirumhanzu is the chairman of the Ruware Farmers Club, Mazowe area. He is an exception in the area because he has an intensive, fenced smallholding. He also has adequate labour, draught power and good soils. But he has been able to achieve this only by running against many local social norms. He cannot be just held up as an example to others, because most farmers are not in a position to emulate him.

13. Some of these advantages of the saving clubs are detailed in 'Loans and Manure'.
