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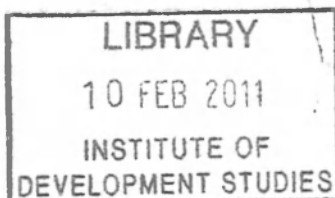
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THE SOCIAL STRUCTURE OF THE AGRICULTURAL EXTENSION
SERVICES IN THE WESTERN PROVINCE OF KENYA

by

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Abstract

The Social Structure of the Agricultural Extension Services in the Western Province of Kenya

David K. Leonard

Agricultural extension visits in Western Province are heavily skewed in favour of progressive farmers and are infrequently paid to the non-innovative majority. This pattern is certainly undesirable in terms of income distribution but it also probably does not maximize the possibilities for economic growth in agriculture. In a Tanzania study, Thoden van Valzen argues that a similar distribution of government services is caused by the fact agricultural extension officials are part of an isolated, cohesive, social elite and that this involves them in a social class alliance and exchange of benefits with the richer farmers. Data from Western Province confirm that the senior agricultural staff are part of an isolated, relatively cohesive elite group. The junior staff, who are in direct contact with farmers, form groups distinct from their seniors' however, are local in their orientation, are part of the middle, not the upper, rural elite, and are not very cohesive. Furthermore, neither their middle elite social status nor any private exchange of benefits account for their stress on work with progressive farmers. Instead, it seems more likely that the progressive farmer bias is caused by a combination of factors, including extension ideology, the psychological response to receptivity and distorted perceptions of the rural reality.

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SERVICES IN THE WESTERN PROVINCE OF KENYA

David K. Leonard

In his study of Bulambia Division in the Rungwe District of Tanzania Bonn Thoden van Velzen found that the social structure of administration was itself a constraint on socialist and economic development. Government employees were seen by peasants and by themselves as a highly cohesive, mutually interdependent elite group. They had very frequent social contact with one another, apparently without regard for rank or speciality, but interacted much less often with local peasants. Maintaining a relatively high standard of living and speaking Swahili among themselves, they had a paternalistic attitude toward peasants and were disdainful of doing any manual work. Those locals with whom government staff did have social contact were almost invariably rich farmers. Staff built up a symbiotic relationship with these rich peasants, which involved the latter providing land, food, and assistance on government projects to the staff. They in their turn helped the well-off farmers with access to government aid, supported their dominance of local political institutions, and assisted in their conflicts with other peasants. The consequences of this social system were such that staff were themselves prime examples of inegalitarian behaviour and, in their support for the rich peasants, were reinforcing and accentuating inequality within the rural society. Their isolation from poorer peasants was such that they seemed to learn little from them and to provide them with relatively little in the way of direct positive benefits. The tension between rich and poorer peasants was such that we may infer that diffusion of innovations from the first to the second was limited.¹

For convenience we can summarize Thoden van Velzen's argument in three propositions: (1) the distribution of extension benefits is skewed in favour of the wealthier farmers; (2) this favouritism accentuates rural inequality and may prevent the maximum possible economic growth; and (3) part of the reason for the inegalitarian administration of these programmes is that the civil servants responsible for agricultural extension are part of an isolated, cohesive, social elite and that this involves them in a social class alliance and exchange of benefits with the richer farmers.

Thoden van Velzen's work seems to us to be provocative and important. For this reason we propose to examine his propositions as they might apply to the administration of the extension services of the Ministry of Agriculture

in the Western Province of Kenya. The data analysed here are drawn from two sources. The first is 213 interviews we conducted with junior extension staff and 25 interviews with senior staff of the Ministry in all of Western Province.² The former represent a 40% random sample of all junior staff in the Province.³ The latter comprise 85% of all senior staff in the Province, other than those assigned to the Provincial headquarters of the Ministry. The excluded senior staff were either in the Mechanization Division, which is not examined here, or were very new to the Province at the time of interviewing. The second set of data examined here is drawn from a large survey of small farmers which the Agricultural Statistics Section of the Ministry of Finance and Economic Planning conducted during the 1970 long rains.⁴ The survey gives us detailed information on 637 randomly selected farmers in Western Province.⁵

1. The Distribution of Extension Benefits

From an analysis of the Agricultural Statistics data we can gain an accurate picture of the distribution of various easily identified farm characteristics. The growing of hybrid maize is one of these. Maize is the basic food for the great majority of people in Western Province, and hybrid maize is a relatively recent but well-established agricultural innovation in the area. The package of hybrid seed and fertilizers was introduced in the Province in 1963, and hybrid maize (with or without chemical fertilizers) is now grown by 48% of the farmers there. The return on the use of the hybrid and fertilizer package varies, but it is not likely to be less than a 100% net profit over a farmer's extra cash investment. Thus, a farmer is likely to have accepted hybrid maize if he has been innovative over the last few years. Nonetheless, the use of hybrid seed varies from an estimated high of 80% of the farms in Kimilili (Bungoma) and Lurambi (Kakamega) Divisions, where land holdings are large and maize is a major market crop, to a low of 4% in the Central and Southern Divisions of Busia, where soil and climate are less favourable and where cassava competes with maize as a food staple.

Different cash producing farm enterprises are appropriate to each of the ecological zones in the Province, and the profitability of these enterprises varies considerably. Grade dairy cows have a very high return on investment, whereas the profitability of cotton is relatively low. The prices on the robusta type of coffee (but not the arabica) are so low now that many owners of these trees do not consider it profitable to care for them or to harvest the berries. Nonetheless, ownership of one of these farm enterprises does indicate that the farmer has had investment funds

available at some point in the past and that he is now or was once deriving a cash income from his produce. This marks him as being of above average wealth in what is still a predominately subsistence economy. Farmers with such cash producing farm enterprises constitute 15% of the total in Western Province.

We can define a progressive farmer as one who both uses hybrid maize and has one or more cash producing farm enterprises. Only 10% of the farmers in Western Province meet these two criteria. Our impression is that this definition approximates the minimum behaviour that Agricultural staff in Western Province expect of what they call a progressive farmer. Such a farmer probably has been innovative over a fair period of time, has access to small amounts of capital, and is well-to-do relative to his neighbours. Conversely, we will define a man who has neither hybrid maize nor a cash enterprise as a non-innovator. In Western Province, 47% of the farmers fall into this category. For these farmers the adoption of new farming methods is not a habit and access to investment capital is often a problem.

Table 1. The Distribution of Agricultural Enterprises Among Farms in Western Province.

	Have Cash Farm Enterprise	No Cash Farm Enterprise	Totals
Have Hybrid Maize	10%	38%	48%
Have No Hybrid Maize	5%	47%	52%
Totals	15%	85%	

Based on a weighted sample of 637 farms. Excludes Northern Division, Busia and the settlement schemes in Bungoma and Kakamega Districts. Data collected by the Agricultural Statistics Section of the Ministry of Finance and Economic Planning during the 1970 long rains.

A cash farm enterprise is defined as one of the following:
grade cattle, coffee, cotton or tea.

Of course, it does not follow automatically from a farmer's being progressive that he is relatively rich. For this reason the Agricultural Statistics Section's survey data on cattle holdings is particularly interesting. In the past cattle were overwhelmingly the symbol and substance of wealth in rural Kenya. Although this traditional attachment to cattle has diminished in Western Province, a Luhya's wealth is still likely to be reflected in his livestock holdings. Thus, it is interesting to note that those who grow hybrid maize in Western Province are twice as likely to have five or more cattle as those who do not grow it. (For the purposes of this

exercise one grade cow is counted as equal to two local cattle, the difference in their market value.) Furthermore, those whom we have defined as progressive farmers are one eighth as likely to have no cattle as those whom we have labeled non-innovative. (See table 2)

Thus we see a fairly clear relationship between progressiveness and wealth. The only exception is that small category of farmers who have adopted a cash crop but not hybrid maize. These are very much like the poor farmers in their livestock wealth. The bulk of farmers in this category raise cotton in Busia. As cotton seed is provided free to the grower, it is the one cash crop which does not require a capital investment to plant and hence is accessible to the poor. Unfortunately, cash investment is required for insecticides if the plant is to produce yields, so most farmers in this category will be disappointed by their harvest and remain poor.⁶

Having identified the proportions of farmers who can be called progressive and non-innovative, we now have a base line against which to compare the actual distribution of agricultural extension services. The basic technique of extension in Western Province is visits to individual farmers. On average, 2.9 days in an agent's five day week will be spent on this activity.⁷ In our interviews we asked each staff member who works in direct contact with farmers to name for us all the farmers to whom he had paid extension visits in the previous week. For each of these farmers we then inquired as to whether he grew hybrid maize and as to whether he had a cash farm enterprise. In the Province as a whole, the average extension agent spends 57% of his visits with progressive farmers (who are 10% of all farmers) and 6% of his visits with non-innovative ones (47% of the total). Thus extension attention is very greatly skewed in favour of the more progressive and wealthier farmers, exactly as Thoden van Velzen found in Rungwe, Tanzania. Furthermore, the concentration on progressive farmers is achieved at the expense of the non-innovative ones. Farmers who have either hybrid maize or a cash crop but not both are 43% of the total and extension agents devote an average of 37% of their visits to them. A farmer in this middle category, who has shown some innovative drive, has about 1/7th the chance that a progressive farmer has of receiving an extension visit. But his odds are still 6.5 times those of a non-innovative farmer, who has 1/44th the chance of a progressive farmer. (See Fig.1.)

Table C. The Cattle Holdings of Non-innovative, Middle and Progressive Farmers in Western Province

Number of Cattle	Non-innovative Farmers Neither cash crop nor hybrid maize	Middle Farmers Cash crop but no hybrid maize	Farmers Hybrid maize but no cash crop	Progressive Farmers Hybrid maize and a cash crop	All Farmers
0	198 (63%)	132 (61%)	117 (55%)	4 (8%)	311 (45%)
1 - 4	56 (18%)	11 (14%)	54 (24%)	19 (37%)	136 (21%)
5 or more	58 (19%)	9 (19%)	51 (41%)	29 (56%)	187 (30%)
TOTAL	312 (100%)	48 (100%)	222 (100%)	52 (100%)	634 (100%)

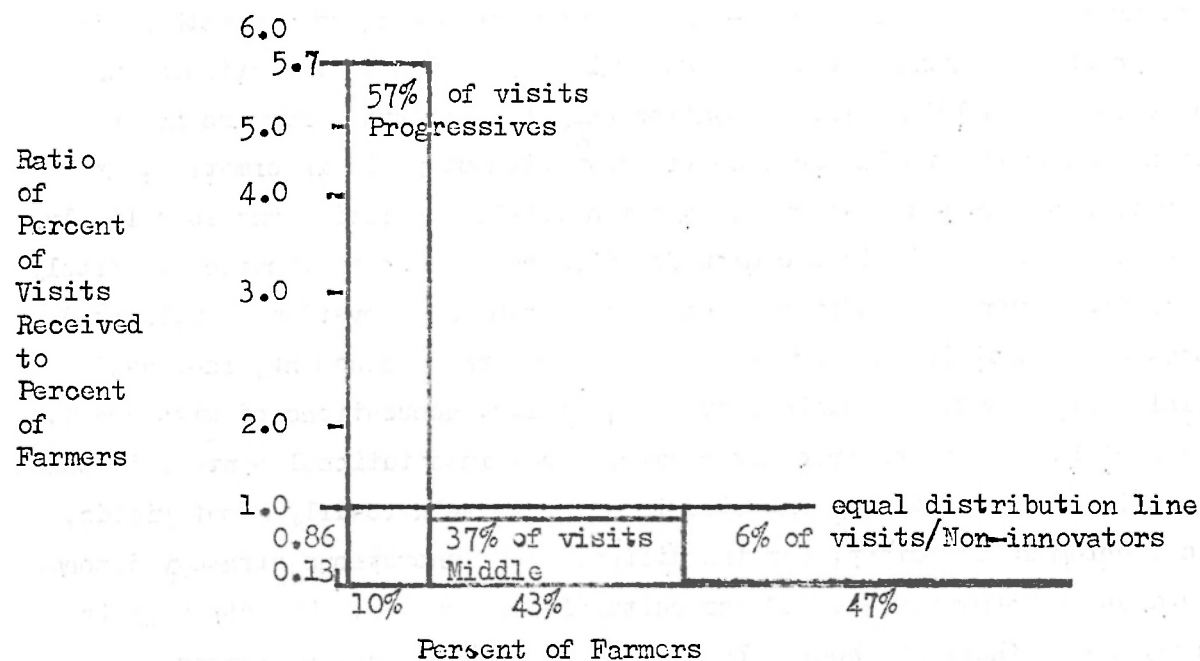


Figure 1. The Distribution of Agricultural Extension Visits Between Progressive, Middle, and Non-innovative Farmers.

II. The Progressive Farmer and Economic Growth

Is the stress that is placed on progressive farmers in extension work necessarily undesirable? After all, the mass of extension workers openly and consciously favour an emphasis on progressive farmers. In a Tanzania-wide opinion survey of farmer contact extension agents, R.G. Saylor found that 87% agree with the statement "If I worked most of the time with a few of the better farmers, I would get better results". This sentiment was expressed despite the fact that it runs contrary to the official policy of the Tanzanian Ministry of Agriculture, Food and Co-operatives.⁸

As Thoden van Velzen notes in his article, there are powerful arguments associated with the "betting on the strong" position. It was once the official ideology of agricultural extension throughout East Africa, and it is widely accepted by extension officials in Kenya. The strategy concentrates on getting the most receptive farmers (i.e. progressive) in an area to adopt a new agricultural practice and then letting the innovation diffuse to other farmers by the force of their example. We have neither the evidence nor the inclination to settle the debate over the progressive farmer strategy for Kenya, but we do have a few tentative thoughts based on a small number of interviews which we conducted with farmers in the Vihiga Division of Western Province. At least some farmers who have no personal contact with extension workers are getting new agricultural information from other farmers who do have such contacts. Thus diffusion of new information does occur. Nonetheless,

it seems to us that this second-hand information often loses something in the process of transmission. The several farmers who we interviewed who had heard of a hybrid maize innovation only through other farmers had no idea if the change would increase yields.⁹ Without yield information, an innovation communicated to others carries little conviction and is unlikely to be adopted. Yet it is uncommon for farmers in Western Province to freely reveal the amount of profit they have made from an innovation. Publicized income differentials may give rise to a higher tax assessment, increased social obligations, jealousies, or even, rarely, accusations of witchcraft. Thus most Luhya farmers probably require a new institutional context in which discussions on profits are expected in order to talk readily about yields.¹⁰ This problem is important, for the diffusion of innovations strategy depends on widespread communication of agricultural information. The strategy is unsound where there are social barriers to the transmission process.

Whatever the advantages of the progressive farmer as a diffusion point for information, it seems undesirable that the method should be translated into an undifferentiated philosophy of working only with progressives. When a broadly applicable innovation, such as hybrid maize, is first being introduced, it may be wise to begin with the progressives as being those most able and willing to take the associated risks. Once the new practice has gained a foothold, however, it would seem desirable to shift attention toward the less innovative farmers so as to speed the spread of adoption. It can be inferred from Table 3 that such a strategic change in focus does not occur. General extension agents, who carry the burden of work on hybrid maize, give only a tiny proportion of their time to the half of the Province's farmers who do not grow it. Further, they devote at least as many visits to progressives as do their specialist colleagues, who have much more justification for working with an advanced clientele.

Table 3. Average Percentage of Extension Visits to Progressive and Non-innovative Farmers By Agents with Differing Functions.

<u>Function:</u>	<u>Average % to Progressive Farmers</u>	<u>Average % to Non- innovative Farmers</u>
General (88)	60	3
Coffee (10)	91	0
Animal Husbandry (7)	57	0
Supervisory (13)	52	4
IDA Loans (19)	39	5
Cotton (9)	57	19
Veterinary (32)	51	17
All (178)	57	6

It is also interesting that those extension agents who give the least attention to progressives are those concentrating on loan investigations and that those who work most with poor farmers are veterinary and cotton specialists. The areas in which a farmer is most likely to expressly demand an agent's services are loans and veterinary medicine. Despite the fact that wealthier farmers (by virtue of having more cattle and better credit worthiness) are more likely to ask for these services than are the non-progressives, the latter receive a better share of the attention of these specialists than they do in other extension fields. Thus, progressive cattle owners receive only 7 times the attention given by veterinary staff to non-innovative cattle owners, whereas the ratio for agricultural visits between progressive and non-innovative farmers is 44:1. This phenomenon suggests that general extension agents are overemphasizing progressive farmers, even within the framework of a "betting on the strong" approach. That this bias in farmer visits can be overcome to some extent even within the present system is suggested by the cotton workers, who, faced with a campaign to extend cotton acreage, are reaching out to some previously non-innovative farmers. This is not to deny the difficulties of working with poor farmers. As we noted earlier, it is easy to get cotton planted, as the seed is free, but hard to get it adequately cared for, as the purchase of insecticides takes money. To convince a farmer to plant cotton when he has no prospect of finding the cash for its care is self-defeating. Nevertheless, the data reported earlier on livestock holdings suggests that a third of the non-innovative farmers could sell one cow in order to make alternate investments.

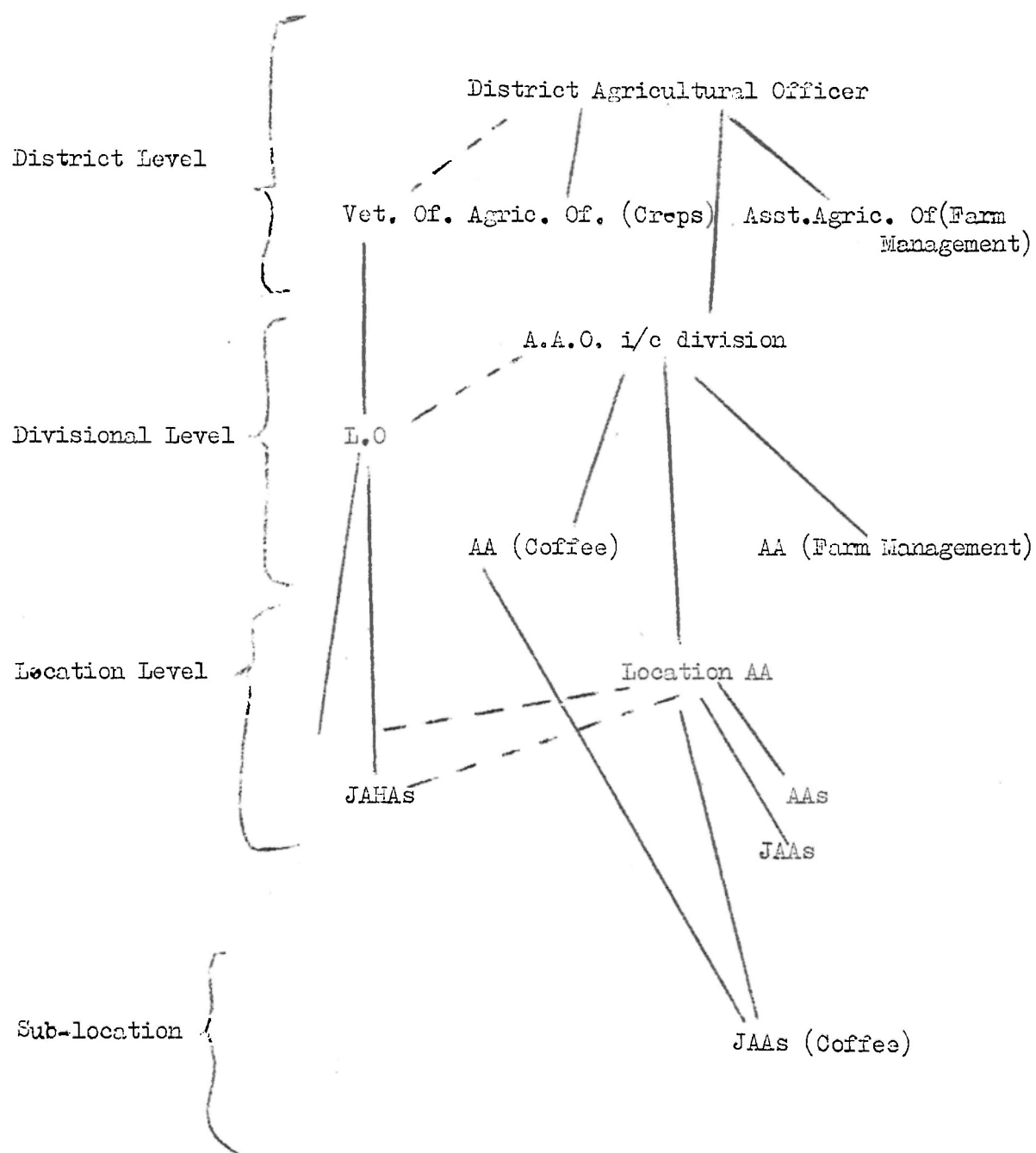
To this point we have indicated some reservations about the effectiveness of the progressive farmer approach as an optimum strategy for diffusing innovations. We also have argued that even if the strategy is accepted, many actual and potential farm innovators are being ignored through a concentration on the most progressive cultivators. If these points are accepted, it follows that the current distribution of extension services in Western Province is not maximizing the possibilities for economic growth. We feel that a broader range of extension contacts would probably lead to profitable innovations achieving wide-spread acceptance more rapidly. Further, that the bulk of these services is being provided to the progressive and wealthier farmers means that they also are helping to increase the gap between the rich and the poor. We do not mean here that rural inequality is caused by the agricultural extension services. The farmers who are already somewhat better off than their neighbours are in the best position to invest in new, profitable farm enterprises, and we must expect that they will do so and hence increase their wealth. If the farm economy is based on land, labour, capital and knowledge, those who have more of these will make more money from their

farming. But it does not follow that those who have the most of the first three should also be provided with a disproportionate advantage by extension workers with respect to technical knowledge. From the point of view of income distribution and economic growth, the middle farmer, who has some capital and a demonstrated interest in change, would seem the rational target for extension. Although evidence is lacking, it seems likely that profitable innovations will spread speedily to his more progressive neighbours (more quickly than the other direction). The less wealthy also will be provided with a resource (knowledge) which will partly compensate for his disadvantage with respect to capital.

III. The Social Systems of the Agricultural Staff:

We have accepted Thoden van Velsen's propositions that the distribution of extension benefits is skewed in favour of the more progressive and wealthier farmers, that this favouritism does not produce the maximum in economic growth and that it increases rural inequality. We now need to examine his proposition that this inequalitarian behaviour is partly caused by the fact that agricultural extension agents are part of an isolated, cohesive social elite. This requires that we begin with a detailed analysis of the social structure of the Ministry of Agriculture in Western Province.

Let us start with an outline of the formal structure of agricultural administration. (See Fig.2). At the district level, the Ministry is headed by a District Agricultural Officer (DAO). He is supported at the headquarters by several specialist personnel of both degree (Agricultural or Veterinary Officer) and diploma levels (Assistant Agricultural or Livestock Officer). In charge of each division is an Assistant Agricultural Officer (AAO), who is sometimes joined by a Livestock Officer (LO). At the divisional headquarters there are usually a few holders of certificates in agriculture (Agricultural Assistants, AAs) or veterinary medicine (Animal Health Assistants - AHAs). These AAs and AHAs will be performing specialist duties, such as processing IDA loans, farm planning, and organizing 4-K Clubs. Very occasionally these AAs and AHAs may be assisted by a Junior Agricultural Assistant or Junior Animal Health Assistant, who lack any formally recognized training in agriculture. Each location will have a team of extension workers, varying in size from seven to twenty-one. The agricultural part of this team will be headed by a Location Agricultural Assistant (LAA) and will be comprised of AAs and JAAs. In addition the Veterinary Division will be represented by one to seven AHAs and JAHAs. Most of this team will be assigned to specific sub-locations for general extension work, although the Animal Health personnel and one or two Agricultural ones may work on a speciality, such as coffee or cotton, over the entire location.



_____ a line of formal and actual authority and responsibility

----- a line of formally established but challengeable authority and responsibility

Fig. 2. An Example of a 'Typical' Organization Chart for the Ministry of Agriculture in Western Province.

The Animal Health personnel used to have an autonomous organization from that of the Agriculture staff, although the basic characteristics of the two groups are quite similar. Rather than further complicate the following presentation with two parallel sets of statistics, we will exclude the junior veterinary staff from our analysis from here forward.

Following the generally accepted convention, we will term those staff who have degrees or diplomas senior staff and those who have certificates or no formal training junior staff. To state it another way, those whose title includes the word "Officer" are senior staff and those whose designation involves the word "Assistant" are junior staff. As a rule junior staff work in or near their home area, while senior staff work outside it. In order to more easily discuss the AAs who are in charge of locations or on divisional duties (and who enjoy superior status and responsibility to the other junior staff) we will label them senior AAs.

So much for formal hierarchies. What then are the characteristics of the informal social system of the agricultural administration? My main data for studying this question are the friendship choices of staff. At the end of each interview, which was very much work oriented, we asked, "Now finally, we find that an extension agent's work is often helped or hindered by his personal relations with those around him. For this reason we would be grateful if you would name for us your friends whom you see regularly." Where the respondent was unclear, we stated that we were interested in his friends in this general geographical area and that our question included all types of friends. After this first query was answered, we probed with "Now, in addition, what (other) friends do you have in the Ministry of Agriculture?" In total we recorded up to 15 friendship choices of which no more than 10 were from outside the Ministry of Agriculture. In only a very few cases were these upper limits reached. In addition we ascertained the nature of each friend's occupation and where he lived. Co-operation in answering all these questions was generally very good. In using this sociometric data to describe the informal social system of the Ministry of Agriculture, we do not want to imply that social structure consists only of friendship patterns. This is obviously not the case. When one claims another as his friend, one is not saying either that he sees this person often, or that he does not interact frequently with others. A friendship choice only indicates those with whom one likes or would like to have contact. Nonetheless, this information is extremely useful in locating the boundaries of peoples' affections, which in turn is helpful in identifying status and other barriers between people.

Our first problem is to establish the social units we are to analyse. If we define a socially salient group as one within which friendships are formed, it is clear that we can take the Ministry of Agriculture as a meaningful unit to its staff. An average of 51% of the friends named by senior staff are from within Agriculture, prior to any probing by us in this direction. Junior staff name an average of 24%, which indicates a less intense but still significant social involvement in the Ministry. For senior staff an average of 37% of their friends are in other Government employment and only 12% are not civil servants. Junior staff name an average of 35% in other Government employment and 41% outside of the civil service. Thoden van Velzen's proposition that Government employees are enmeshed in an almost exclusively civil servant social circuit is verified for the senior staff. Junior staff in Kakamega are only predominately involved in Government circles, however, and retain a significant number of contacts outside. One explanation for the difference between junior and senior staff in this regard is that the latter are more distant from their places of birth, and, more importantly, live in Government staff compounds.

The Ministry of Agriculture itself is not an undifferentiated social unit. The senior staff at district headquarters tend to be a socially cohesive group, and this social system reaches out in a weak but distinct manner to include the senior staff in the divisions. Kerlinger suggests that we measure the cohesiveness of a group by the proportion of reciprocal friendship choices made out of the number possible.¹¹ On this measure the ratio among the headquarters staffs of the three districts are .30, .33, and .17. The figures for the whole senior staff in these districts are .19, .13, and .06. Another way to measure the same phenomenon is to give the average proportion of other group members which individuals name as their friends. Here the headquarters' figures are .42, .50, and .30, while those for the full districts are .36, .30, and .16. The involvement of the divisional AAOs and LOs in a district wide senior staff social system is clearly weak, although existent. This is not surprising as they would need transportation to reach their counterparts, and this is a notoriously scarce resource in the Ministry. Although the cohesiveness for two of the three headquarters team is moderately good, it does seem low for groups which share common offices, a common speciality, and common problems. The high rates of transfer in the Kenyan senior civil service doubtless depress the levels of group cohesion.

The junior staff at location level are very weak in their cohesiveness. The average proportion of other group members named as friends is .26 (with a

range of .06 to .46). The proportion of reciprocal friendship choices averages only .06 (with a range from .00 to .25). Despite these low figures, 46% of the Ministry friends that an individual names are working in the same location with him, and we estimate that an additional 27% are in another part of the same division. Furthermore, no less than 85% of the junior staff are named as a friend by at least one other junior member.¹² These statistics indicate to us that the level of junior staff interaction is by no means as great as Thoden van Velsen's work would have suggested. Nonetheless there does appear to be some kind of weak informal social system among junior staff, focused on the location and even more weakly including the division, but not reaching beyond it.

But do the senior and junior staff social systems overlap? If they do, they are certainly not cohesive, for only one Officer (anAAO) makes a reciprocal friendship choice with a junior staff member. If we include all of the senior staff in our analysis, the statistics show clearly that they do not belong to the junior staff social systems and vice versa. But we wish to argue that the Luhya, i.e. local, members of senior staff are involved in the junior staff systems, weak as they are, and that the others are isolated from them. In order to make the point, let us compare the two groups of senior staff with the senior AAs, who are the junior staff with any comparable status and visibility. Table 4 shows how the Luhya senior staff are seen in ways very similar to the senior AAs while both are quite different from the non-Luhya senior staff. Table 5 takes the point further by demonstrating that Luhya senior staff themselves relate socially to their juniors much more than

Table 4. The Frequency With Which One is Named a Friend by Junior Staff

	Average times chosen	Number in category
Non-Luhya Senior Staff	1.79	14
Luhya Senior Staff	4.48	11
Senior AAs	4.21	34
Other AAs	3.82	45
JAAAs	2.16	89

Table 5. Frequency with which One Names Non-Senior AAs and JAAAs as Friends

	Average Number of Choices	Number in Category
Non-Luhya Senior Staff	.21	14
Luhya Senior Staff	1.27	11
Senior AAs	2.41	31

do their non-local colleagues. All of this means that Luhya members of senior staff, especially if they are stationed in a division, are often part of the divisional informal social system of the junior staff (although not quite as

much as their senior AAs are). The other senior staff are isolated from their subordinates' informal networks. Thus for any one area there are two distinct social systems, a junior and a senior one, and usually only the Luhya senior staff enjoy the possibility of overlapping membership. On a divisional basis it is clear that Thoden van Velzen's suggestion that the staff social system is strongly cohesive and undifferentiated is not applicable to Western Province.

Having established their distinctness, let us now proceed to analyse the senior and junior staff systems separately. We might begin by asking what is the social status of the people with whom senior staff associate? The pattern is quite different between those stationed at the district headquarters and those in the divisions. Table 6 analyses the friends chosen outside of Agriculture and presents the average percent chosen at each status level. We see that district senior staff draw 83% of their friends from people of equivalent status to themselves, in effect the highest status group in the area. Socially speaking, this makes them very isolated from the reali-

Table 6. Average Percentage of Friends Chosen From Each Status Category

Status or Equivalent of Friends	Respondent		
	District Senior Staff	Divisional Senior Staff	All Senior Staff
District head of dept.	61%	13%	37%
Divisional head of dept. or district aid	22	36	29
Chiefs, Teachers	10	20	15
Lesser employees, traders, farmers	7	30	19

ties of their areas. The divisional staff name friends in this high level group only 49% of the time. Nonetheless, this is far in excess of the 14% or less named in this category by senior AAs, and supports the hypothesis that when divisional senior staff do interact with farmers, the farmers are almost certainly rich ones.

Turning again to the junior staff social systems, we have already established that these groups are not very cohesive or intense, drawing only 24% of their members' friendship choices. The social units seem concentrated on the location although they involve divisional level interaction as well. Approximately 73% of the friends that junior staff name in the Ministry live within their home division and 46% are members of their location work group. Junior staff friendships with non-Ministry people are even less cosmopolitan. Forty-five percent of these live in the extension agent's home sub-location, and 30% more are from within his location.

What is the social status of the friends with whom the junior staff interact socially, and, by inference, what social status do they assign to themselves? We asked respondents to tell us what kind of work each friend does. On this basis each non-Ministry friend was assigned to one of four predetermined status categories and the percentage of friends in these categories was calculated for each respondent.¹³ Table 7 defines the four categories and gives the average percent of friends in each one. From these figures it seems clear that junior staff see themselves as part of the rural elite, but in the lower or middle part of that group. The data confirm our

Table 7. The Average Percent of Non-Ministry Friends Named by Junior Staff in Various Status Categories

Percent	Category	Exemplary Definition
7	High	Chiefs, headmasters, County Councillors, big businessmen, other relatively well-to-do.
39	Upper Middle	School teachers, sub-chiefs, moderate businessmen, big farmers, middle salaried group.
33	Middle	Small businessmen, traders, moderate farmers, Lesser employed.
20	Low	Average farmers.

impression that they belong to a status a bit lower than that of a primary school teacher. As the Western Province progressive farmer fits more into the middle status group, the agricultural extension agent is probably more often his social equal rather than his status superior, contrary to what is suggested by Thoden van Velzen's analysis. Nonetheless, these data do support his assertion that staff associate very largely with the richer peasants in their social contacts with farmers. The approximately 90% of the rural population which falls into the Low Status category received only 20% of the friendship choices.

IV. The Causes of Extension Bias

Is it then true that agricultural extension staff visit progressive farmers because these are their acquaintances or are the people most like themselves socially? Our limited evidence indicates that the answer is no. There is no positive correlation between the percentage of an agent's high and upper middle status friends and the proportion of his visits which he devotes to progressive farmers ($r = -.12$, Sig. = .08). If anything, there is a slight tendency for those who name the smallest percentage of friends in the high and upper middle groups to give a larger proportion of their time to progressive farmers than do the staff who identify more with the elite. Nor does it seem credible to argue, as Thoden van Velzen does, that extension

services are being provided to progressive farmers in Western Province as a reward for their help in official and private affairs. This exchange of benefits does occur in Kenya, but it will not serve as a dominant explanatory variable.¹⁴ Those services that are most desirable to progressive farmers - loans and veterinary medicine - are better distributed among the classes of farmers than are the other types of extension visits.

Extension agents make more visits to the most innovative farmers than is rational even within the framework of a progressive-farmer strategy. But they seem to us to do so for considerably less exciting reasons than a social class alliance or a trade-off in favours. First, many extension agents believe in the strategy as an undifferentiated one of always stressing the progressives. They would accept the figures on visit differentials given here as a reflection of a sound approach. The progressive farmer ideology is a strong one in extension circles. Officers are not yet aware of misgivings about the strategy that are now being expressed in academic circles, and its acknowledged problems are often dismissed as inevitabilities. Furthermore, extension agents see their function primarily as that of maximizing economic growth, not as assuring a better distribution of income. This reasoned, conscious policy choice is obviously the major cause for stress on progressive farmers.¹⁵ Nonetheless, it is true that the bias toward progressive farmers also exists for veterinary visits, where no issue of extension strategy is involved. The rational arguments for stress on the progressives are probably buttressed by unconscious variables. One of these is that a visit to a progressive farmer is psychologically more satisfying. One can expect to encounter less resistance to new or difficult farming practices, and one is more likely to see a change on that particular farm. Therefore, the agent feels he is getting better results, as did the extension workers polled in Tanzania by Saylor. It is emotionally difficult to accept that a better long-run, total impact may be achieved in one's area by working with somewhat less receptive farmers. Net effects are hard to see whereas the contacted farmer is immediate and real. The second reason for junior staff visiting progressive farmers is that these farmers are the ones most likely to complain to a senior officer if extension is not provided to them. AAs and JAAs do only a small amount of work and often seem to organize themselves informally to reduce the amount of effort they put into their jobs.¹⁶ In such a situation, the agent sees the complainers and forgets the rest. This helps to explain the fact that those junior staff working on specialities for which there is wide demand also show the broadest distribution of their services. Finally, extension ignores poor farmers because it has a distorted picture of the small agriculture world. Senior staff in particular are likely to have an optimistic view

of the degree of acceptance of modern farming. Joseph Ascroft was told by agricultural officers in Nyeri that Tetu Division had 100% acceptance of hybrid maize, but his random survey of 354 farmers found only 31% growing the crop.¹⁷ The social isolation of senior staff from the areas in which they are working helps sustain these distorted perceptions. Even junior staff, who are largely drawn from the communities in which they work, have an optimistically biased view of their areas. This is well illustrated by the reactions of the AAs who conducted the preliminary survey of farmers for the current Vihiga Division extension experiment. Confronted with a genuinely random sample, they confessed that they had never realized that such poor people even existed in the areas in which they were working. That they neglected these farmers partly out of ignorance is shown by the fact that these AAs apparently now have a strong commitment to working with these rural poor.¹⁸

In summary, Thoden van Velzen is correct that the distribution of extension is skewed in favour of the wealthier farmers and that this favouritism accentuates rural inequality and probably prevents the maximum possible overall economic growth. In fact, this phenomenon is probably general to all agricultural extension systems and only the degree of the problem varies.¹⁹ Our data from Western Province also confirm that the senior agricultural staff are part of an isolated, relatively cohesive elite group. We found, however, that the junior staff, who are in contact with farmers, form groups distinct from their seniors' and that they are local in their orientation, part of the middle, not the upper, rural elite, and are not very cohesive. Consequently they are only partially isolated from their communities. Furthermore, neither their middle elite social status nor any private exchange of benefits accounts for their stress on work with progressive farmers. Thus this proposition of Thoden van Velzen's is not sustained in Western Kenya. The bias of junior staff toward progressive farmers seems to be better explained by a combination of an imperfect understanding of the progressive farmer strategy, a weak commitment to their work, the pattern of farmer demand for extension services, and a somewhat distorted perception of the proportion of rural societies made up of progressive farmers. An even more optimistic view of their areas is held by the senior staff and is doubtless sustained by the isolation of all except the officers of local origin from their subordinates and the local community. The explanations which we have advanced for the progressive farmer bias leave us more hopeful than would the exchange and social class alliance proposition of Thoden van Velzen. The factors we have advanced as leading to the disadvantage of the less wealthy farmers may be

organizationally manipulable. The skew might well be lessened by Ministry programmes that carefully redefined extension strategy, developed very specific guidelines for working with the middle or even bottom rungs of farmers, and gave the agent some solid basis for resisting progressive farmer demands. Thus the social barriers to a more egalitarian administrative penetration of the countryside may be surmountable.

FOOTNOTES

1. H.U.E. Thoden van Velzen, "Staff, Kulak and Peasant", preceeding chapter in this volume.
2. These data were collected during 1970 and early 1971 while I was a Junior Research Fellow of the Institute for Development Studies of the University of Nairobi. The research project out of which these data are drawn has been supported generously by the Institute. I also would like to express my appreciation for the invaluable research assistance of Bernard Chahilu, Edwin A. Luchemo, Jack K. Tumwa, and Humphries W'Opindi. Thanks are also due to Neils Roling for comments on an earlier draft of this paper.
3. Details of the sampling strategy followed may be found in David K. Leonard, Humphries W'Opindi, Edwin A. Luchemo, and Jack K. Tumwa, "The Work Performance of Junior Agricultural Extension Staff in Western Province: Basic Tables" (Nairobi: Institute for Development Studies, University of Nairobi, 1971), p.1. Note too that the settlement schemes in Kakamega and Bungoma were not studied and that on the basis of random selection, the Northern Division of Busia District did not fall in the sample.
4. We are extremely grateful to the Ministry for making these data available to us. The analysis and interpretation of these data are our complete responsibility, and the views expressed should not be interpreted as reflecting those of the Agricultural Statistics Section nor of the Kenya Government.
5. This number of 637 excludes interviews conducted on settlement schemes and in the Northern Division of Busia District. Neither of these had been included in our initial study of extension workers, and they were excluded here so as to give us comparable information between the two sets of material.
6. I am grateful to my colleague W. Ouma Oyugi for this insight, which he gained during research in South Nyanza.
7. D.K. Leonard, "Organizational Structures for Productivity in Agricultural Extension", in D.K. Leonard, editor, Rural Administration in Kenya (Nairobi: East African Literature Bureau, forthcoming).
8. R.G. Saylor, "An Opinion Survey of Bwana Shambas in Tanzania", (Dar Es Salaam: Economic Research Bureau, University of Dar Es Salaam, 1970) pp. 12, 17.

9. David K. Leonard with Bernard Chahilu and Jack Tumwa, "Some Hypothesis Concerning the Impact of Kenya Government Agricultural Extension on Small Farmers", (Nairobi: Institute for Development Studies, University of Nairobi, 1970) pp. 6, 7, 10-12, 13.
10. I am indebted to former chief Mathew Mwenesi for this particular point and to him and former locational clerk Benjamin Kapitan for confirming my intuition on this general problem.
11. Fred N. Kerlinger, Foundations of Behavioural Research (New York: Holt, Rinehart and Winston, 1964) p. 559.
12. As our sampling unit was the location and not the division we only rarely interviewed all the staff in a division. This means that some staff may have had friends who would have named them but whom we missed.
13. My Luhya research assistants and I established these categories on the basis of our perceptions of status differentia in Western Province. They are judgemental only and are open to criticism, even though we believe them to be basically accurate. The main problem with the classification system concerns the placement of farmers who are not running large commercial enterprises. Generally, what we have here termed the progressive farmers would have been put in the Middle category and all others in the Low one. Unfortunately, there were doubtless errors of judgement here when the coding was done in the interview. We believe that this problem was not serious enough to invalidate the results.
14. Mr. J.D.N. Olwe, now of the Institute for Development Studies, University of Nairobi, has some information on such trading of favours in the co-operatives in the Kisumu area.
15. That what we have reported of extension behaviour is consistent with intended action was firmly driven home in a discussion we had with Mr. Kimani, the Provincial Director of Agriculture, and Mr. Gatheru, the Provincial Farm Management Officer. Both men are in positions too high for them to be influenced in this policy decision by the social persuasions or favours of local farmers.
16. Leonard, "Organizational Structures for Productivity in Agricultural Extension".
17. Joseph Ascroft, "The Tetu Extension Pilot Project" (paper read at the Workshop on Strategies for Improving Rural Welfare, University of Nairobi, 1971), p. 17

18. Private communication from Peter Moock, Institute for Development Studies evaluator of the Special Rural Development Programme in Vihiga.
 19. C.F., E.M. Rogers, J.R. Ascroft and N.G. Roling, Diffusion of Innovations in Brazil, Nigeria and India, (East Lansing, Michigan; Department of Communications, Michigan State University, 1970) pp. 4-53 to 4-55.
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