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An analysis of cohesiveness in farming groups

JOSHUA B. AGUNBIADE AND JOHNSON A. EKPERE
Department of Agricultural Extension Services, University of Ibadan, Ibadan Nigeria.

Abstract

The concept of group farming has been introduced, developed and accepted in Oyo State as a workable strategy for accelerated technology transfer and food production in the recent past. Evidence of such a policy is shown by the high input delivery and technical advisory assistance that such groups have received from the Ministry of Agriculture and Natural Resources, the Agricultural Credit Corporation and other functionaries of Government in Oyo State.

However, the expected advantages of group processes in agricultural production, input delivery and technology transfer has been difficult to implement in reality. A major constraint to the effective utilization of farming groups is the relative levels of cohesiveness consistent with sustained survival and operational efficiency essential to the attainment of group goals.

In order to better understand this important phenomena, a study was conducted to investigate cohesiveness within maize production groups in Oyo State. A total of two hundred and two members of ten group farms in two ecological areas of Oyo State were interviewed using a combination of interview schedule and pre-coded questionnaire.

The results show that group cohesiveness was affected by access by individuals to group on-lending loan facilities, magnitude of shared profit (or perceived profit), quality of group leadership and individual member objective for group membership.

Increasing attrition rates among members due perhaps, to unfulfilled personal expectation was the most single important reason for lack of cohesiveness within the farming groups.

Introduction

Farming groups had been encouraged in Oyo State as farm production units to increase food production for the steadily increasing population. This decision was taken because of catalytic role which the farming groups can play in the socio-economic transformation of the rural areas of Nigeria where agriculture is the mainstay. Besides, farming groups like cocoa cooperatives, cassava-, tobacco- and maize-producing groups are thought to be better utilizers of governments' production resources like production loan and extension technical advice.

In its efforts toward implementing the ongoing Agricultural Development plans regarding food production, the Oyo State Government of Nigeria had placed its agricultural credit and extension education facilities more at the disposal of the farming groups (Nigeria, 1974). This orientation derives from the assumed advantages and inherent potential of farming groups as more efficient users of farm resources for increasing production. Maize has recently become an important commodity in Oyo State since its consumption increased both for use in compounding livestock feed and for human food. It is also assumed that these groups should organise for better land utilization through consolidation of small parcels of contiguous farming lands. Operating on a large scale confers the benefits of the economy of scale through integrated production, processing and marketing. (Olayode, 1973). More important is the assumption that the farming groups will constitute more efficient systems through which agricultural extension specialists could disseminate modern farm information to farmers to increase farm productivity and therefore farm income. Group method in extension of course, is belived to be cheaper teaching method known to have a snow-ball effect where dissemination of new ideas is concerned (Kelsey and Hearne, 1963).

The Oyo State government's faith in these farming groups is demonstrated by the fact that in 1974, 93.4 per cent of the agricultural production loans granted by the Agricultural Credit Corporation to maize production units went to maize groups while the remaining 6.6 per cent was granted to individual maize farmers (WSACC, 1974). Beside this, the State's Ministry of Agriculture and Natural Resources expected each agricultural extension worker in its service to organize at least, six maize groups each year and provide them with appropriate farm inputs and technical advice on modern maize production (Miller, 1973).

The problem, however, is that the maize groups were observed to be falling short of expectation not only in the size of farms cultivated and their use as labour force, but also in terms of the internal cohesiveness of the groups. The profitability of the maize groups was even in doubt having regard to the fact that many groups find it difficult to repay their loans. The purpose of the study therefore was to determine the level of cohesiveness within the maize

groups as a means of measuring for how long the groups may stay together to achieve the objectives set for themselves. It was also designed to identify the factors which promote this attibute to group cohesiveness. Since the strategy of using groups in the rural sectors for agricultural production seems to be one main scheme to stem the rural-urban drift, such identified factors affecting group cohesiveness could provide good guidelines for rural development planners, lending Institutions, the extension services, health and social development workers.

Since the maize farming groups had been the major beneficiaries of government's agricultural production loans and the extension services, the specific objectives of this study are -

(a) to analyse the level of group cohesiveness as a measure of the extent to which groups can weld together to achieve their set agricultural production objective;

(b) to identify the factors affecting cohesiveness in the maize groups;

and (c) to ascertain the type of relationship (positive or negative) between group cohesiveness and group size and age.

Research methodology

This research covered two ecological areas, namely the low forest areas of Egbeda about 25 kilometers East of Ibadan, the capital city of Oyo State of Nigeria and the derived savanna area of Fashola and between 60 to 166 kilometers North-West of Ibadan city.

These areas were selected for four main reasons:

(1) Maize cultivation constitutes a main food crop in the areas for farmers and many maize groups exist.

(2) Agricultural Credit and extension service programmes of the State government had operated in the zones for many years,

(3) No research had been carried out to evaluate the operations of the farming groups since the loans and extension services started there, and

(4) The State Government still intends to use these groups as agents for food crop production in the future.

The unit of analyses was the group member who had become a member only by being sponsored by an old member or by an elder in the village. Information was elicited by means of precoded interview schedule administered to maize group members. A separate instrument wasdesigned to get information about the internal working of the groups from group leaders, namely, either the Chairman, Secretary or Treasurer of the group.

The sample of group members to be interviewed was drawn from existing list of maize group participants at the divisional offices of the Ministry of Agriculture or sometimes at the divisonal offices of the Oyo State Agricultural Credit Corporation where the maize group obtained its production loans. From the list of operating maize groups in the given area, ten groups each were randomly selected. Since a record showing members' names exist at these offices, prospective respondents were randomly selected from a list to make a total sample of 202 (Two hundred and two) group members in all areas. A separate instrument was administered on maize groups to obtain input-output data. From these data, the total loans got and revenue realized from maize production was calculated. Three out of the 202 original respondents had to be dropped due to response inconsistencies. Final analysis, therefore, was based on 199 respondents.

Measuring Group Cohesiveness

Cohesiveness within any group is a social attribute which, enables groups to positively influence their members. Cartwright and others (1953) had shown that cohesiveness within groups is capable of improving groups' enterprise productivity and promote group effectiveness in a dynamic pence. A study by Berkowitz and Mills (1967) confirmed this. One of the best methods for operationalizing group cohesiveness is through the determination of attitudes of group members towards the group.

In this study, the "Group Evaluation" method developed by Maun and Banmgatel (1953) was used to measure group cohesiveness. This method was adopted for three reasons. First, it enables the group members themselves to be used as major informants to determine members' attitudes to groups. Second, the method gives ample room for probing a vast universe of relevant factors that may affect members' attitude towards groups. Third, the questions asked lent

themselves to empirical analysis and validation.The group evaluation techniques used is based on "Likert's Summated Scale". This method is known to have been successfully used by Bovard, Converse and Campbell (1953) to study a group of children in a children welfare agency and to measure cohesiveness among American Catholics, Jews and Negroes in order to determine, in advance, the direction of their voting in a United State's Presidential Election.

Attitude Scale Construction

To construct a Likert's attitude scale, a total of 21 (twenty one) items were developed which were thought to be capable of probing both the social and economic indicators of phenomena which may influence a group member's positive or negative attitude to group. Being largely agricultural work groups, a lot of interpersonal interactions occur, especially, on group farm work days during the season. Two categories of items or questions were asked, namely, positive and negative statements. The schedule as developed, was reacted to by both undergraduate students of the Faculty of Agriculture and Forestry and by senior members of staff of three different departments of the University of Ibadan. In the process of scrutiny, four additional items were included to the schedule.

Scale values were then attached as follows: Strongly Agreed, Agreed, Undecided, Disagreed and Strongly Disagree with scores of 4, 3, 2, 1 and 0 assigned respectively for positive items.The scores were reversed to 0, 1, 2, 3 and 4 for negative items respectively. Finally, twenty three items were subjected to item analysis from which individual respondents were scored accordingly.

Reliability and Validity Tests

The "test-retest" method on a randomly selected group members in Egbeda area was used in this study to establish the reliability of the scale. A test-retest correlation coefficient of 0.896 was found the first and second test. Content validity of the scale was taken care of by submitting the scale initially to knowledgeable experts in social sciences for validation. The concurrent validity was ensured through the use of reliable "external criteria", using Borg's "known group" method (Edwards, 1957). A correlation coefficient of 0.70 was found when the scores assigned by the external criteria were correlated with the scores derived from the final scale.

Item Analysis

For each item or question, a t-ratio or critical ratio was worked out using the following formula.

$$\text{t-ratio} = \frac{\bar{X}_H - \bar{X}_L}{\sqrt{\frac{\Sigma (X_H - \bar{X}_H)^2 + \Sigma (X_L - \bar{X}_L)^2}{n(n-1)}}}$$

where $\Sigma (X_H - \bar{X}_H)^2 = \Sigma X_H^2 - \frac{\Sigma X_H^2}{n}$

and $\Sigma (X_L - \bar{X}_L)^2 = \Sigma X_L^2 - \frac{\Sigma X^2_L}{n}$

where $\bar{X}_H$ = Mean score on given item for the high group.

$\bar{X}_L$ = Mean score on the same item in the low group.

$\sum X_H^2$ = Sum of squares of the individual scores in the high group.

$\sum X^2_{L_H}$ = Sum of scores of the individual scores in the high group.

The total frequency for each item was fed into the tabular format used for computing the critical ratios for each item or question on the schedule. Tabular format for computing critical ratio follows:

The rule of thumb used for accepting or rejecting an item on the Likert's Schedule was a calculated critical ratio for each item equal to or higher than 1.78. This was to show that the average response to statements of the high and low groups differ significantly. The respective t-values were then set against each item on the schedule.

TABLE 1: CRITICAL RATIO OF ITEMS FORMAT

Response Category	Low group				High group			
	X	F	FX	FX^2	X	F	FX	FX^2
SA								
A								
U								
D								
SD								
Sum								
	N		XL	XL^2	N		XH	XH^2

where; Total

X = Score of individual Respondent per item on the Schedule.

F = Number of respondents giving particular response in the low or High scoring group.

FX = Product of the values of F and X.

FX^2 = Product of the value of F and square of X.

Findings of the Research

From the 100 respondents representing groups randomly selected from a total of twelve villages in Egbeda and Fashola areas of Oyo State, an upper 25 and a lower 25 with respect to their individual scores, were selected as the "criterion group". On the basis of their scores, three different categories or levels of group cohesiveness were found as indicated in Table 2.

The highly cohesive groups were 43.3 per cent of the groups, 46.6 per cent were the cohesive groups while 10.0 per cent of the groups sample were not so cohesive. As agricultural production groups, they are of two categories. While 49.9 per cent of the sampled groups were organized by the Agricultural Extension workers, the other 46.6 per cent are pre-existing

TABLE 2: THE FREQUENCY OF THE DIFFERENT LEVELS OF MAIZE GROUP COHESION

Categories of Score percentage	No. of Groups	Percentage of Total
70 to 89	13	43.3
60 to 69	14	46.6
50 to 59	3	10.0

village groups which have incorporated agricultural production into their activities. The age of these groups were found to be greater than those started by the Extension workers. Table 3 shows an analysis of the farming groups by their age, farm size and cohesion score:

TABLE 3: MAIZE GROUPS ANALYSED BY GROUP SIZE, AGE AND COHESION SCORE

Areas and Group No.	Group Size (No.)	Age of Group (Years)	Group Cohesion Score ( )
Fashola Area			
1	8	2	52.4
2	5	6	71.0
3	7	2	55.1
4	9	2	72.8
5	9	3	67.8
6	7		67.6
7	5		74.7
8	24		65.6
9	7	2	68.8
10	20	8	66.6
Isoyin Area			
11	10	5	78.9
12	5	7	74.2
13	10	4	79.8
14	11	7	84.7
15	7	8	69.2
16	9	24	80.4
17	8	2	81.5
18	18	9	71.6
19	7	4	77.6
20	10	4	75.7
Egbeda Area			
21	105	4	67.3
22	28	3	68.3
23	9	2	60.6
24	22	4	68.1
25	60	4	62.4
26	43	3	52.8
27	28	3	60.1
28	18	3	60.0
29	20	3	65.2
		3	

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6	7	2	67.6
7	5	3	74.7
8	24	3	65.6
9	7	2	68.8
10	20	8	66.6
Isevin Area			
11	10	5	78.9
12	5	2	74.2
13	10	4	79.8
14	11	7	84.7
15	7	8	69.2
16	9	24	80.4
17	8	2	81.5
18	18	9	71.6
19	7	4	77.6
20	10	4	75.7
Egbeda Area			
21	105	4	67.3
22	28	3	68.3
23	9	2	60.6
24	22	4	68.1
25	60	4	62.4
26	43	3	52.8
27	28	3	60.1
28	18	3	60.0
29	20	3	65.2
30	50	3	70.2

For convenience, the ages of groups were categorized into two. The first category being those between the age of 1 and five years while the second were those that are 6 years and over. About 83.3 per cent of all the groups sampled were in the first while 16.7 per cent were in the second category.

Table 3 shows that the older groups were, in fact, the most cohesive while cohesiveness score in the younger group tends to be related to the separative age between groups in their category.

The Trend in Group Participation:

Group membership size varied substantially between the derived savanna and the low forest zones of the survey, even though membership in each case is entirely voluntary. While membership ranged between 4 and 105 in Egbeda, it ranged from five to twelve in the Fashola and Iseyin areas of the survey as shown in Table 3.

It was found that membership changed within groups between 1974 and 1976 during which time the survey was carried out. Table 4 shows the fluctuation of group size and membership during the period.

It was found, as shown in Table 4, that there was a falling trend in the mean differences of group membership in both areas of the survey. However, the trend in group membership in Iseyin area consistently rose within the period. Though, the falling trend was found not to be statistically significant in

TABLE 4: MEAN DIFFERENCES IN GROUP MEMBERSHIP SIZE BETWEEN 1974 AND 1976

Year	Mean Size Fashola	t-ratio	Mean Size Iseyin	t-ratio	Mean Size Egbeda	t-ratio
1974	12	-	8	-	65	-
1975	10	N.S	9	N.S	44	N.S.+
1976	8	N.S.	10	N.S.	28	N.S.+

+t-ratio is significant at 3 per cent level

N.S. - Coefficient not significant

Fashola area, this trend indicated drop-out of group members. In Egbeda area, on the other hand, the falling trend in group membership was statistically significant as indicated by the t-ratio. A falling or rising trend in group membership has implications not only for group performance in group work but also for the morale of the remaining members and for future group stability.

Farming Group Objectives and Member Participation

The empirical explanation for the consistent fall in group membership between 1974 and 1976 was found in the apparent conflict in the group official objectives and the individual members' objectives for participating in group farming. The official objectives of the farming groups included a raising of capital from maize farming for investment in both agricultural and non-agricultural ventures and increased members' annual farm incomes through sharing of group farm profit.

TABLE 5: MEMBER OBJECTIVES FOR JOINING GROUP FARMS

	Type of objective	N = 198 No. of group member	Percentage of total
1.	Increased shared annual farm Income	193	97.4
2.	Personal Loan Objective +(1)	127	64.1
3.	Learning modern agriculture. +(1 and 2)	79	7.0
4.	Mere Association +(3)	11	5.5

The objectives of many individual members on the other hand were more personal. The most important objective in the minds of many maize group members was the getting of individual loans through their groups with which they can then establish their own farms. Other objectives were increased shared annual farm profit for supplementing the cost of sending children to school, meeting other expenses and also

learning new methods of agriculture. It was found that while the official objectives were out for long-term ventures, the members' own individual goals favour only short-term ventures.

It would appear that, the failure of many groups to attain their long term goals, led to the drop out of members during the three-year period. Another incentive to farming group participation is the financial assistance which the members expected their groups to render to them. It was found that the total savings of many groups could not go round if these were to be distributed as loans to members. Many members do ask the farming groups for financial aid for tiding over a financially difficult time.The use of subjective criteria for granting loans to certain group members and not others, is believed to threaten group cohesion.

Agricultural production loans were usually taken from the Oyo State Agricultural Credit Corporation for maize production. The loan was taken by each maize group in 1975 and was repayable by early 1976. But the non-repayment of the loans before the beginning of a new season made any defaulting group liable to court action. In the rural set-up, to be involved in any kind of litigation is highly dreaded. Groups and group members will do anything to avoid it.

The survey revealed that maize group members ranked first, the estimated benefit cost ratio of joining a group before deciding to participate in group activities. Where the estimated social and economic benefits of participation are higher than the estimated social and economic costs, group participation is encouraged. On the other hand, where the costs outweigh the estimated benefits, members' incentives to participate tends to be dampened and group cohesion impaired.

As far as group members were concerned, prompt repayment of group loans when due, enhances group reputation in the opinion of villagers and is considered a social benefit. The members' share of increased annual profit and easy access of occasional credit from group by members to tide them over difficult periods, is considered an economic benefit. On the other hand, insolvency on the part of a group, being a disgrace to group members, is considered a social cost. The economic profit and loss to each group and group members is shown in table 6.

TABLE 6: THE LOANS REPAYMENT ABILITIES OF MAIZE GROUP FARMS IN 1976 BY AREA

Group No.	Amt. of Loans got (N)	Total Amt. repayable to Lender with interest (N)	Total Output value of crop (N)	Net Profit or Loss to Group	Group Size	Amt. of Profit or Loss to Individuals (N)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Derived Savanna Area						
1.	400.00	415.23	340.00	-75.23	8	-9.40
2.	790.00	820.12	1710.00	+889.88	5	+177.97
3.	400.00	415.23	319.50	+ 23.73	9	- 3.39
4.	400.00	415.23	1005.19	+589.96	9	+ 65.55
5.	400.00	415.23	472.50	+ 57.27	9	+ 6.36
6.	752.00	783.50	1800.00	+1016.50	7	+145.21
7.	800.00	830.64	337.50	- 493.14	5	- 98.62
8.	1205.00	1250.46	2158.00	+ 907.54	24	+ 37.81
9.	400.00	415.23	536.50	+ 121.27	7	+ 17.28
10.	752.00	755.80	800.00	+ 44.20	20	+ 2.21
11.	810.00	844.91	3120.00	+2275.09	10	+227.50
12.	640.00	674.70	300.00	- 374.70	5	- 74.94
13.	608.00	634.46	1120.00	+ 485.54	10	+ 48.55
14.	608.00	634.49	3600.00	+2965.51	11	+269.59
15.	960.00	1012.41	199.00	- 813.41	7	-116.20
16.	960.00	1015.94	310.00	- 905.94	9	- 78.43
17.	640.00	674.70	1800.00	+1125.30	8	+140.66
18.	608.00	634.46	2400.00	+1765.54	18	+ 98.08
19.	608.00	634.46	450.00	- 184.46	7	- 26.35
20.	405.00	422.69	336.00	- 86.69	10	- 8.69
Forest Area						
21.	730.00	756.43	945.00	+ 188.57	105	+ 1.79
22.	500.00	520.63	432.00	- 88.63	28	- 3.16
23.	379.00	379.75	252.00	- 145.95	9	- 16.21
24.	730.00	756.43	660.00	- 96.43	22	- 4.38
25.	730.00	756.43	841.00	+ 84.57	60	+ 1.40
26.	197.00	212.25	182.00	- 30.25	43	- 0.70
27.	455.66	476.57	750.00	+ 373.43	28	+ 13.33
28.	309.00	321.36	166.00	- 155.36	18	- 8.63
29.	550.00	573.07	560.00	- 13.07	20	- 0.65
30.	730.00	756.43	768.00	+ 11.57	50	- 0.23

About 50 per cent of the sampled maize groups were unable to repay their loans fully. This was because the group net farm income realized was less than the amount of loans got. About 27 per cent of the groups were only able to break even, but in such cases, the profit accruing to the individual group participant for the production season ranged between ₦1.70 and ₦13.33 and was considered by many to be too small to worth the trouble taken. The third category of group income was that in which group

fully paid up their loans and their members still shared profits ranging between ₦37.81 and 269.59 per member, depending on farm size and the total farm Income. These findings gave some indications as to the necessary conditions for group cohesion for rural development to proceed more rapidly.

Necessary Conditions for Cohesion in Farming Groups

(a) an arrangement whereby individual group members could get loans from lending institutions with the group as guarantor;

(b) groups being in a position to render financial assistance to their members especially when required to pay school fees of children or tide over some difficult time;

(c) group leadership striving to be impartial to all members, enforcing group rules and upholding group norms at all cost;

(d) well-trained rural development agents(such as Agric. Extension, Cooperative, etc.) working closely with the groups so that groups can be supplied with necessary farm inputs and learn improved farming techniques as well as cooperative principles.

The Relationship between Cohesiveness, Group Age and Size

It was found that there was an evolutionary trend in the growth process of farming groups in terms of their age, size and cohesion, over time. Groups that were once large in membership, thinned down in number but became more stable, over time. The relationship between group cohesiveness and group age and size is shown in Table 7.

The Pearson's correlation coefficients in Table 7 showed that groups became more cohesive the older they become. Although the coefficients are positive, they are not statistically significant. They, however give a direction of relationship between the two variables. In Fashola and Iseyin areas of the study, cohesiveness was negatively correlated with membership size. There was also an overall negative correlation between group cohesion and size. This suggests that groups may be less cohesive, with increased membership

TABLE 7: PEARSON'S CORRELATION BETWEEN GROUP COHESIVENESS AND GROUP AGE AND SIZE

Area	Age of Group	Membership Size
Fashola	0.244**	-0.179*
Iseyin	0.291**	-0.173*
Egbeda	0.249**	0.506
All Areas	0.274**	-0.036*

*Coefficient is negatively correlated with group cohesiveness.

**Coefficient is positively correlated but not significant at 5%

size. It also indicates that for group farming, membership should not be allowed to be too large(i.e. should not be more than between 10 and 15) as this may impair group cohesiveness and agricultural productivity. This size is considered adequate to provide the necessary farm labour under the existing technological level.

Discussion of the Results

Leagans and Loomis (1971) and Mosher (1972) in their discussions on strategies for agricultural development, emphasized the unique role of mass education. This need is considered even more pressing in developing countries like Nigeria. Groups have rightly been selected by the Oyo State government as accelerators of agricultural development through production. Such groups need to be viable, stable and strong.

The surveyed farming groups consisted of pre-existing groups as well as those organized by extension workers. Each has a Chairman, a Secretary and a Treasurer who are members of the same village, nominated by the groups to serve.

As agricultural production units, size could create a labour supply advantage for groups, especially in these days of labour scarcity and soaring labour wage rates. This survey revealed that 50 per cent of the total groups maintained their memberships during 1974 to 1976. However, there was a fall of 33.3 per cent in group membership, all groups taken together between 1974 and 1975. The membership decrease rate ranged between 20 and 70 per cent. There was also a fall in group membership of 30 per cent in 1976 over 1975 and the fall was at the rate ranging between 20 to 80 per cent.

The only farming group membership increase experienced was in Iseyin area of the survey. There was an increase of about 17 per cent in the 1975 over 1974 at the rate of between 20 to 100 per cent. Membership increases in 1976 over 1975 occurred in 10 per cent of the groups at the rate of 5 to 100 per cent. The group membership increases in Iseyin area was not surprising because the idea of grouping for agricultural production was relatively new and members' enthusiasm looked very high. Though fresh enthusiasm was still generating in Iseyin area over group participation, the motives for group participation were identical with their counterparts in Egbeda and Fashola areas. There is therefore a likelihood that unless steps are taken to stabilize the groups, farming groups in Iseyin areas may soon start losing members.

The survey found that although the maize groups tried to operate like cooperative organizations, they lack the requisite cooperative education that would have groomed the members and leaders along cooperative lines. Consequently, group leadership was largely ineffective. This ineffectiveness adversely affected deployment of group labour for performing group farm operations. Poor crop and low yield mostly resulted. Uncertainties in marketing and in market prices of commodity had resulted in low net farm income and therefore, total distributable group farm income.

The farming groups as they now exist in the rural areas of Oyo State provide a viable alternative to sustained growth in farming. The promise of liberal production loans, input supplies, marketing facilities and necessary technical advice by government to the rural farmers had temporarily stemmed rural-urban migration among farmers and encouraged formation of farming groups. Any policy measure taken to stabilize

these farming groups is a step in the right direction, since the tendency was always there for them to disintegrate.

Groups when properly stabilized can serve purposes other than being agricultural production units. They can serve as:

(a) readily accessible group on which to concentrate agricultural extension, cooperative and health education for the benefit of rural dwellers.

(b) means through which small production loans could be passed on to individual groups members for use on their own farms to increase aggregate production of food;

(c) a means of securing the necessary motivation for executing self-help rural development projects through group togetherness and willingness to stay with the group.

(d) instrument through which government directives affecting rural dwellers on demographic and fiscal matters can be disseminated.

(e) a rallying ground with hope for individual villagers who would otherwise migrate to the cities looking for wage-paying jobs.

Conclusions and Recommendations

The concept of group farming in rural Nigeria was studied in two maize growing areas of Oyo State. The most important factor constraining group sustenance is the degree of cohesiveness that exist within the group. The results of the analysis indicate that smaller groups are more cohesive and tend to work better to meet their production goals and profit sharing objectives. The age of the group was also important in the productive life of maize group farms.

While group farming is not the panacea to all rural small production efforts, its initiation in Oyo State has been to the advantage of the small farmer and the agricultural information and technology transfer systems. It is therefore valuable that this new institutional arrangement for agricultural production be recommended to other functionaries of government.

Where on-going traditional groups are known to be in existence, they should be encouraged, streng-

thened and assisted to operate efficiently. Where no groups exist, the cooperative divisions or similar organs in the private sector should organize production groups as a medium for extension teaching, information giving and technology transfer. Specifically it is recommended that:

1. The supply of working capital, chemical and biological inputs should be diverted through groups to ensure increased production.
2. Government Extension systems should use pre-existing groups in rural area for disseminating agricultural information. It is cheap, effective and has high pay-off due to its snow-ball effort.
3. Profit sharing on an annual basis, using predetermined criteria should be encouraged to enhance cohesiveness and continued membership.
4. Agricultural extension and education activities with rural people should be backed simultaneously with the formation of cooperative societies and small group efforts to do better, what the individual farmer can ill afford to accomplish.
5. Agricultural extension and cooperative education should emphasize the evolution of leadership of high integrity while farm management education should focus on the more efficient management of group labour and other production resources.

In conclusion, most rural groups exist for social gratification, interpersonal mutual help, satisfaction of individual gregarious propensity and survival in a comfortable social environment as these non-economic incentives are major determinants for group cohesiveness.

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