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Farm Decision-making With Respect to Social Psychological Elements and the Human Factor in Agricultural Management

1. INTRODUCTION

Decision-making for the farm family is the settlement of questions which arise in the day to day, season to season, operation of a farm. It implies mental confrontation with the structure of ideas, problems, or even formless information, and the settlement of these issues into concrete action guidelines or actionable opinions. It involves taking into account all factors within the farm's production and social environment; making choices, discriminating on the basis of feasibility, and hence identifying consequences for alternative actions. However, the farm family makes decisions often on limited information and limited understanding of its environment.

In the past there has never been any great disagreement that farmers, even peasant farmers, make decisions. The great debate has been; "How do they make decisions? What logic do they use? Are they rational decision-makers? Who/what influences their decisions?"

This paper is not an attempt to resolve any of these questions. It is based on the assumption that farmers make decisions. It attempts to evaluate the social and management environment of farm decision-making and shows how this has led to serious social psychological problems.

The farm is defined as the average peasant farm in East Africa, with a modal acreage of about 3.5 hectares in the case of Kenya. This farm is directly linked with various information systems such as extension services, agro-service firms, and also to the "rural community" in as far as this forms the socio-cultural and political environment of the farm.

Our studies (Mbithi, 1974) on the farm decision-making process in the area of transfer of technology indicate that farmers make many types of inter-related decisions:

- (a) Specifically decisions on farm activities (what, when, how, for whom) on cash crops, food crops, livestock and off-farm activities.
- (b) Effects of such activities on family goals – educating children, paying

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self-help dues, treatment of illness, social debts (such as reciprocal payments of bride-wealth).

(c) The relations of such decisions to past events and the serious influence of past actions of change agents, marketing agencies, etc. In one case, heavy pressures by government agents for farmers to grow cotton were seen by farmers as dangerous precedents especially since the agents were meddling in allocation of farm family labour "and pretty soon will take over our homes".

(d) The influence of such decisions, and the resultant activities, on one's "standing" with one's peers, with one's social group. Buying a new plough may bring social prestige or lose one's closest friends. Investing in new noisy equipment may attract the attention of witch-doctors and those with an evil eye. It may therefore mean that before such investments are made, one may have to decide whether one's Christian principles will be compromised, if one brought in a medicine man to insulate the farm family and property.

2. THE FARM HOUSEHOLDER DECISION-MAKING PERSPECTIVE

Decision-making model builders in the field of farm management are aware that farm householders in rural East Africa operate an essentially indivisible complex reality (Webster, 1970; Heyer, 1969, Hunt, 1973). This reality constitutes what social scientists divide neatly into areas of farm decisions — farm management, general production economics, political parameters, social inter-action patterns and "institutions", public relations, religious beliefs and behaviour, health beliefs and treatment behaviour. Thus, to social scientists, peasant farm development occurs as a result of discrete activities of specialized institutions such as agriculture, community development, health, the Church, agroservice agencies, etc. Each institution, operating any one of a combination of activities, assumes that its activities are necessary and sufficient to effect total change to the farm household. As this assumption is critical in ensuring institutional survival, image projection, it often leads to its logical absurdity when agencies compete in their attempts to reach the farmer and sometimes sabotage each other's efforts.

As Mbithi and Mutiso (1974) show, the independent decision-making framework of the farmer is that of a responsive actor and adaptive actor in a teaming, dynamic and fluid environment. His social decision-making environment is described by his culture, of which he is a product, and whose complex values, cognitions, beliefs, and experiences are important components of his decision-making frame of reference. Technical and economic factors are extremely important, but not necessarily the only factors and in some decisions not really critical. This becomes more important when one realizes that farmers are not trained engineers or economists but products of their social background, inheritors of well-proven indigeneous practices.

It is against this background that the results of a recent study to test the hypothesis that change agents are not really critical in farmer decision-making did not surprise scholars at the University of Nairobi. Table 1 shows the findings.

The communities which have high percentages on consultation with the

TABLE 1. "When you wish to move into a new farm activity, for example adopt hybrid maize or the new drought escaping maize, whom do you consult?"

Community & Province	People Consulted				Total	Sample Size as % of Population
	Chief/ Agricultural Officer	Local Farmer	Kinsman/ friend	Himself		
Tetu, Central	54	30	10	6	100	15
Machakos, Eastern	30	25	30	15	100	10
Karaba, Eastern	56	20	22	2	100	10
Ishiara Eastern	50	10	35	5	100	10
Shiakago Eastern	20	25	36	19	100	100
Ngoliba Central	20	28	32	20	100	30
Average	37	23	28	12	100	—

chief and agricultural officer are those with a strong farm cash crop economy. Tetu is in the high potential coffee and dairy farming agricultural areas of Central Kenya; Karaba a pioneer settlement with a strong cash crop production of green grams, coriander and maize, and borders the famous Mwea Rice Irrigation Scheme; Ishiara an intensive peasant-holder irrigation scheme.

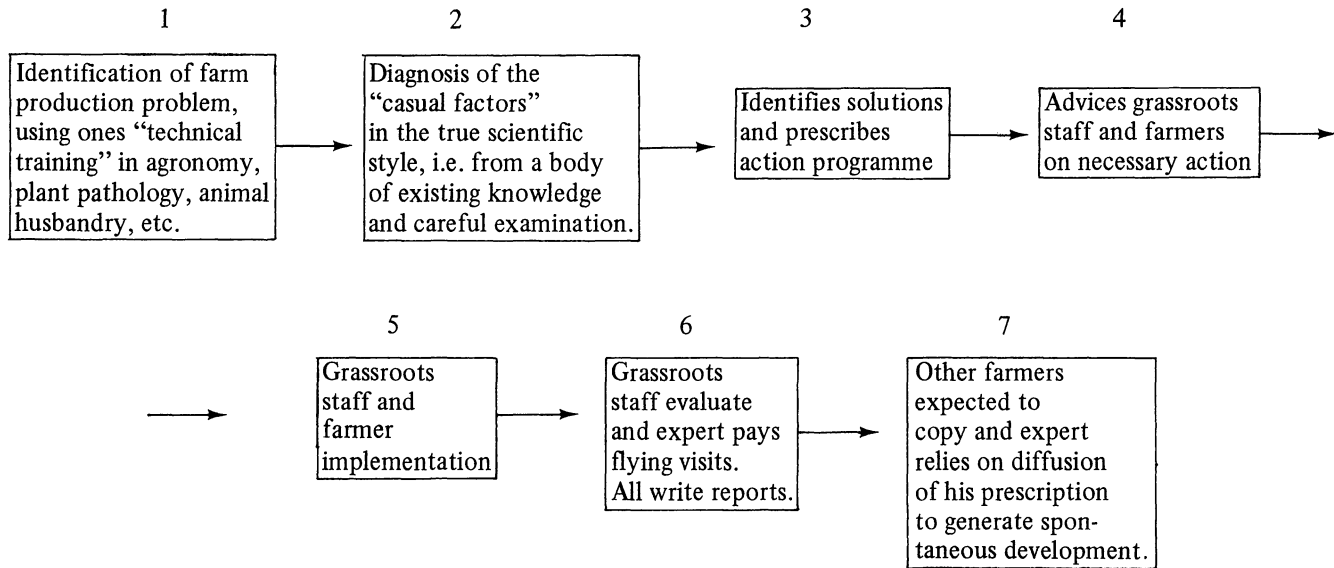
The findings in the above-mentioned study, that in any one day a farmer may be visited by a health visitor who may advise on the need to reduce cash crop acreage to increase food crop acreage and the nutrition of the family; that some time later on the same day he may be visited by the crop specialist who reprimands him for not expanding his acreage of macadamia nuts, and he may yet, if he is near the road, be visited by the District Officer who threatens to "take him in" if he does not pay his taxes. These findings throw light on the confusion and frustration these encounters may generate. In certain areas, they appear to have confused farmers to a standstill.

3. THE CHANGE AGENTS PERSPECTIVE

Leonard (1974) and Mbindyo (1974) found that grassroots workers are very susceptible to commands from up the extension agencies hierarchy. They define their duty as essentially responding to, and following the directives of, the professional. The professional has an extremely technical approach to the farm. His approach tends to follow the sequence outlined on the next page.

This approach assumes the following:

- (a) That the rural farm can be seen as a responsive, expectant production firm which can be organized on true scientific principles according to prescriptions from experts, whoever they may be.
- (b) That the farm is operating in a knowledge vacuum and there is not need for the expert to integrate existing knowledge, or pay attention to



SOURCE: Mbithi, P. M., "Integrated Social Science Approach to Development Planning", UNESCO, September 1974.

other factors such as historical or social environmental, or to pay attention to the personality of the farmer. This assumption is very useful for medical doctors, although even then the need to “treat the mind” and the use of “bed-side manners” reduces its negative and alienating influence.

(c) That the change agent is operating with all necessary information: that he is well trained to assess local micro-level situations and resource patterns and has a battery of alternative prescriptions to suit each case or that he has originality, adaptability and foresight to bridge any gaps in knowledge or prescription. Given that most training in agriculture tends to rely on teaching materials from Europe and America, from temperate agricultural regions and given that little local systematic research on farm inputs, pests, diseases, resource management has been done, it is rather difficult to accept this image of the professional change agent.

(d) That the farmer understands and appreciates the technical nature of the expert prescription and has the resources to implement them.

Careful studies have shown that there are many things wrong with these assumptions:

(a) The change agent in East Africa is a member of the educated elite, who became alienated from his illiterate parents when he went to school at the impressionable age of between 6 and 8, spent at least fifteen years “learning” acquired book-keeping, western value systems, and life styles. He shares little with his rural folk and has no empathy with their thought processes. He may be arrogant or paternalistic but he does not recognize them as independent managers of their holdings.

(b) Alternatively, the rural farmer has, for the past seventy years been subjected to systematic brainwashing, through ethnocentric western religion, colonial administration, and all other contacts. He has been told repeatedly that he is backward, heathen, ignorant, illiterate and heading straight to “hell”. As Mbula (1974) argues, this orientation, exalting the supremacy of western technology, western value systems, western religion, saps self ascertainment, self identity from the humble rural farmer, and even makes him apologize for daring to see things differently. This approach generates a schoolboy mentality among rural adults who are very willing to suspend their world view, abandon it and embrace that of the expert, who may have just recently scraped through an agricultural exam based on a narrowly designed curriculum.

4. SOCIAL PSYCHOLOGICAL OUTCOMES

4.1. *Dependence*

The extension approach which aspired to subjugate the farmer to the control of the change agent was based on the assumption that farm management decision-making could be understood and initiated, reinforced and directed by the expert.

The change agent ignored the fact that in East Africa change agents reach only about 10–15% of the farmers and, even with increasing extension

saturation, the agent-farmer ratio was 1:1500. By undermining the farmers' self-assertiveness the agent undermined the farmers' creativeness and originality. In certain cases, those defined as worthless "laggards" retreated into reactive exhibitionist traditionalism; others became hesitant, vague and extremely dependent on "advice". It is not unusual to be told that a farmer has not adopted such a recommendation because the agent has not come round to clarify this or that, or because the agent has not supplied the commodity free or at the farm gate.

A strong agent influence, reinforced by a from top-down planning and resource flow pattern, has created dependency among farmers by enhancing the perception that government will, and can, do everything, i.e., will organize the farm inputs, subsidize them, transport them, send someone to advise, offer loans, take risks on failure, write off loans, organize marketing and give you the money in a bag not through an account. It should be clear that many of the members of this Conference would be strongly tempted to fake helplessness to receive such "service". It should also be clear that governments in developing countries cannot spread such "service" very far, as the financial resources and technical manpower is limited and farming populations constitute over 80% of their total populations.

The need for farmers to be self-reliant is therefore obvious. Farmers must become inquisitive, creative and must experiment with new methods on their own. They are more conversant with the peculiarities of their farm resources and their needs, and must become adaptive and independent.

4.2. *Alientation*

By ignoring local world view, local practices and social control, to which farmers are continuously exposed, extension agents become alienated and isolated from the general thrust of community life. By using national resources to win a few "progressive" farmers, the majority "non-progressive" are pushed to the periphery of development investment. They are thus alienated from the innovation process and resource flow process, and increasingly lag behind. The progressive farmers in turn increase their production and incomes. In certain cases they begin to expand by buying land from the non-progressives, expanding into non-farm activities, and increasingly control community labour, land and capital.

Apart from the implication of exploitation, the ego problems of the non-progressive are critical. He is openly ignored as a laggard, illiterate, poor and receives very little reinforcement. Roling (1971) argues that such neglect in the face of increasing materialistic aspirations for a better life, education of one's children, etc., leads to acute frustration. He argues that the major sources of frustration in rural areas is the ever increasing aspiration generated by a bombardment of new life styles, by mass media and the demonstration effect of urban elite achievements. However, these rising aspirations are not matched by concomitant improvements in material possessions. The gap between aspirations and achievements constitute a measure of frustration. This frustration leads to demonstrations of energy where, though some may innovate, the majority may retreat in apathy or escape into pseudo-religion, drunkenness, and pseudo problem solving such as magic.

4.3. *Resource immobility*

Many students of rural development are convinced that many farm and community resources are locked into immobility due to the dependency problem and the poor personality non-rejuvenating, ego suppressing, morale sapping, rural development approaches of the past decades.

When farmers rely on government agents, they do not exploit their long-term grasp of farm production issues. They are relatively less imaginative and are willing to go on using the same old tools, following the same practices, year in, year out.

However, more significantly, they normally do not release all physical resources. In East Africa, in non-cash cropping areas, men do not perform most farm tasks. If they were committed, enthusiastic and excited creative actors, their participation would be assured, and meagre farm capital would not be diverted to non-production activities.

An example of release of resources by local villagers is discussed by Mbithi and Rasmus (1975) where they show that through Harambee self-help activities, grassroots investment in rural development activities accounts for about 30% of the total national investment in rural development. They show, through careful analysis of labour and capital contributions, that families contribute such items as eggs, beads, designing working songs, farm produce, and that all cash contributions which are not in kind are in very small denominations. They show that, however, in spite of the size or quality of donation, the contributor is praised, publicly mentioned and made to feel he/she belongs, is important and should contribute whatever he/she has. In this manner, rural people contribute over 90% of the total investment in Harambee self-help as compared to governments 6% and foreign donors 0.3%. The other 3-4% comes from big businessmen and rural elite.

4.4. *Suppression of indigeneous adaptation techniques*

Current international studies on drought and famine have become critical of traditional stop-gap relief measures and also of the extreme multi-million dollar large scale development programmes. The argument is that relief measures are too little, come too late and are too short run whereas large scale projects threaten the delicate ecosystems. The need to study the rural man and his responses to his environment and study his systems of adaptation has been articulated by social-ecologists. They claim that much wisdom is enshrined in traditional institutions and practices in social organizations in folklore and oral tradition etc. Recent studies by Mbithi (1974) in patterns of technological adaptation to marginal farming environments confirm the seriousness and worth of this orientation.

5. POSSIBLE RE-ORIENTATION

The emergence of a strong ethno-scientific approach to rural development has entrenched the necessity to utilize local systems of knowledge. Efforts to obtain a coherent local world view which is the basis for farm and community decision-making are gaining momentum. According to W. F. Thomas,

“what men define as real, is real in its consequence”.

Thus, local decision-making frameworks can be seen as specific socio-cultural, socio-technical and ecologically bound knowledge models. They incorporate:

(i) the priorities as defined by local communities and farmers, (ii) an approach to a problem in its total context, (iii) within East Africa, a strong component of reinforcing the individual and collective personality in its capacity to tap local opinion, contribution and involvement.

In this context there is a strong need to:

(a) Re-open discussion on farm management and production models whose formulation was earlier dominated by agricultural economists.

(b) Re-discuss the concept of technology to shift it from a sterile scientific outlook into the psychic world which is dominant in indigeneous agricultural decision-making criteria. In our studies in Kenya we found that agricultural practices such as time of planting, harvesting and storage, were governed by strict observances, rituals and taboos.

This is not unique to rural folk. In launching a ship the Queen of England breaks a bottle on its side. At a Christian Wedding the couple is showered with rice. The role of witchcraft in football in East Africa is becoming a big worry to sports administrators.

The professed sterility and objectivity of fertilizer applications, for example, is often treated with scepticism. At one session, a young agricultural officer was asked whether he knew what he was talking about when he said that fertilizers were not European medicine. Had the Europeans told him it was not and had he naively believed them?

(c) Reject totally the “trickle-down effect theory” and its justification for the progressive farmer strategy in agricultural extension which is now known to lead to rigid barriers in access to national farm resources for the majority of farmers and perpetuates unacceptable income disparities.

(d) Accept that for rural East Africa, and possibly other developing countries, the displacement of the less able farmers from agriculture, in the true European tradition is no longer desirable or realistic given the acute unemployment and slum developments in urban areas. Thus farm management planners will need to rediscuss their assumption of a bottom ceiling on land size and their love for the progressive farmer who systematically displaces all “incompetent” farmers, saves extension costs and diffuses technology.

(e) Support current search for an integrated rural development strategy where the aim is to: (i) integrate goals of agricultural and rural development, (ii) integrate those rural poor who have been left out of the development, process, (iii) integrate the programmes and agencies of rural development.

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RAPPORTEUR'S REPORT* — John Cleave, *I.B.R.D.*

Although each takes a different perspective of agricultural decision-making, largely in an African context, the two papers presented to the Group do complement each other; Dr. Anthonio's paper suggests a hierarchy of levels of decision-making against which the process of reaching decisions, and proposals for improvements at all levels, can be analyzed. Dr. Mbithi's paper focuses on the environment in which the "lower-order" or farm-level decisions are made, suggests some social-psychological problems which results from it, and proposes new approaches to avoid these problems.

It was generally agreed that improved decision-making at all levels is an important element in agricultural development, and that an understanding of the process of arriving at decisions and the constraints which influence decision-makers is an essential first step in aiding such development. In discussion, it was emphasized that Dr. Anthonio's hierarchy (from "first order" decisions over which the individual has complete control; through "second order" decisions made by a homogeneous group with common objectives; and "third order" decisions made by a heterogeneous group not necessarily bearing the consequences of its actions; to "higher-order" or policy decisions, also outside the control of farmers) is a continuum of interdependent and interacting decisions. Not only do higher-order decisions (touching, for example, on crop prices, market organization, or regional resource allocations) have enormous impact upon the setting in which lower order decisions have to be made, but equally, if they are to be effective policy decisions have to take account of the responses, goals and values which go into farm-level decisions. Moreover, agriculture cannot be treated in isolation from other sectors nor, in an open economy, in isolation from the decisions of other countries. There

* The texts of opening statements were not available

was wide agreement also on the desirability of improving the means of reaching a consensus of opinion in policy-making and avoiding the predominance of sectional interests.

Speakers emphasized the need to improve the involvement of farmers in higher-order decisions, both through insitutional improvements to enhance communications between groups at all levels and by improving the quantity, quality and timeliness of information on which decisions are to be based.

There was general agreement with Dr. Mbithi's characterization of extension agents as alienated technicians who tend to underrate the experience and knowledge of farmers, and to over-rate their own understanding of the farmer's production environment and operational constraints. Following from this, there was considerable discussion on the need to find ways to improve extension services. The importance of improving the training of extension workers, and especially of enhancing their understanding of the farmer's resource constraints and conflicts so that advice could be modified to fit the needs of the individual farmer, was generally agreed upon, although the question of how to do it when extension staff are few and poor in quality was not answered. The desirability of organizational changes to associate extension workers more closely with farmers by drawing them from villages and de-emphasizing the "Progressive Farmer" approach was also suggested.

The group did, however, take issue with the characterization of the farmer as a dependent, subjugated, and largely helpless pawn. Speakers emphasized the rationality of farmers, the breadth of their knowledge derived from experience — both good and bad — and their sharp understanding of their resource constraints and the risks under which they operate. Indeed, the very independence of farmers has frequently been bemoaned by those who see irrationality in their refusal to adopt innovations which are, in fact, often ill-adapted to the farmer's circumstances.

Speakers suggested that new technology frequently increased the risks with which farmers are faced, including the risks attendant upon greater dependence on unreliable government input, marketing and advisory services, and on government policy-level decisions which do not adequately take account of their effects on farm operations.

Related to this point, a speaker stressed the need to include high-level decision-making as an element in farm-level models, and a useful characterization of the farm-level decision-making process was made by Dr. I. J. Singh. He said that the time had come to move away from the static "neo-classical model" of the decision process, which had proved useful in the past, but which viewed farmers as optimizing single-valued goals, with full information and without risk or learning, and adjusting fully and instantly to changes in their external environment; to a dynamic "adaptive model" wherein farmers can be viewed as "satisfying" multiple and heirarchical goals and operating without full information in a risky environment and adapting only cautiously over time to external changes, and then only in the light of their own experience and learning ability.

It is clear that decision-making on the African farm involves a complex interaction between goals, constraining factors, resource limitations, enterprise

choice and techniques, on which higher-level decisions impinge critically. The papers presented by Doctors Anthonio and Mbithi, it was agreed, provided a useful focus on a range of issues and the factors involved in the decision-making process.

A third, contributed, paper presented at the Conference (John H. Cleave *Decision making on the African farm*) further analyzes the nature of farm decisions and provides illustrations of the way African farmers modify their production strategy within the limits of their resources, objectives, and constraints, and could be read in conjunction with those discussed at this session.