

(871)

# Institute of Development Management

[Botswana, WHO THE AFRICAN  
SUSTAINABILITY]

INSTITUTE OF  
28 SEP 1980  
DEVELOPMENT MANAGEMENT  
LIBRARY

THE SOCIAL AND ECONOMIC  
CONTEXT OF AGRICULTURE  
IN BOTSWANA: SOME INDICATORS

BY  
HOYT ALVERSON  
IDM RESEARCH PAPER NO. 6  
JULY 1979

wana  
tho  
ziland

INSTITUTE OF

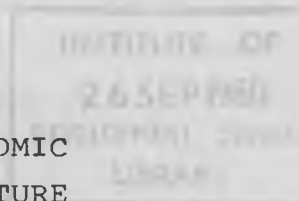
THE SOCIAL AND ECONOMIC  
CONTEXT OF AGRICULTURE  
IN BOTSWANA: SOME INDICATORS

BY

HOYT ALVERSON

RESEARCH PAPER NO. 6

JULY 1979



1764

## F O R E W O R D

The IDM is keenly interested in exploring practical policy related issues to assist the process of development management. In mid 1977 the IDM began work on policy research in the rural development sector of the BLS region. With the financial support of USAID the IDM was able to recruit Dr. Hoyt Alverson of Dartmouth College to join the IDM for the period June to December 1978 to work on rural development policy issues in Botswana. While Dr. Alverson was with the IDM he worked closely with Government of Botswana officials through the Arable Lands Development Policy (ALDEP) Working Group and contributed a number of working papers to this Committee.

Dr. Alverson also conducted a field based research study in three sub-wards of the village of Molepolole which explored a number of questions that face policy makers in framing an arable lands policy for Botswana. His findings and their implications are discussed in this paper.

Dr. Alverson has had extensive experience in Botswana and the southern African region and his book Mind in the Heart of Darkness, which explores various aspects of the Tswana culture and the confrontation of a people with their changing environment, received the Melville S. Herskovits award for 1978. This award is given to the best work on Africa each year by a committee nominated by the Board of the African Studies Association.

J.G. Campbell  
Assistant Director/  
Research and Consultancy

JULY, 1979

The Social and Economic Context of Agriculture  
in Botswana: Some Indicators

Introduction

This report summarizes results of a small-scale study of the principal social and economic features of contemporary farming practice as followed by numerous farmers in general and in the Kweneng district in particular. The representativeness or generality of its findings must, however, be construed as very limited. The number of farming households studied was but 20. The area studied comprised three sub-wards of the village of Molepolole. The study has been carried out with a narrow, two-fold view in mind -- (1) to contribute to an understanding of those aspects of rural, social-economic structure that will directly affect, and be affected by, the design and implementation of the putative "arable-lands development policy" which is now (January, 1979) being formulated, and (2) to suggest fruitful lines of further inquiry in agricultural research undertaken as part of policy formulation.

The principal questions or hypotheses investigated here are as follows:

- (1) What are the basic characteristics of class structure in rural Botswana? That is, what are the major institutional arrangements whereby crucial economic resources are distributed?
- (2) What are the major entailments of this class structure in terms of agricultural practice, including such considerations as education, non-farm occupations of household members, scale of cultivation, goals pursued by means of farming, major constraints with which the household must cope in its farming activity, capacity for using so-called modern techniques, strategies of farm management, etc.?

- (3) How do farmers react to proposals for helping them to increase their agricultural production?

The pertinence of these questions was assumed a priori. Thus, the study necessarily confirms this pertinence. But nothing emerged in this study (nor in any other of which the author is familiar) to controvert the validity of these suppositions.

## Methods

### Sampling: Criterion and Stratification.

The setting for this study included three Molepolole sub-wards: Ntloedibe, Moiphetlho, and Gamosima. Approximately one-third of the twenty respondents came respectively from these three wards. The sampling was purposively drawn from three strata, based on the criterion of "hectarage planted the previous season." That is, the sample was chosen by selecting about seven farming households from each position on the following continuum: 0-5 hectare sowed, 5.1-15 hectare, and 15.1+ sowed. Obviously, this stratification, with one-third of sample farmers from each stratum, did not present the actual frequency distribution in Botswana. The sampling reflected a desire to look at the class structure as such, not to identify the distribution of the population in terms of class structure. In fact, over 60 percent of Botswana's farmers fall within the first sampling stratum. In the analysis of the data, it became apparent that a slight reassortment of farmers in terms of the "hectarage" criterion was necessary. When other attributes of the class structure were taken into account (e.g., ownership of farming implements and cattle), the existence of a three-class system was clearly upheld, but the actual individuals in the three classes were slightly different in the final analysis from what they were in terms of the initial sampling. Thus, for example, the people initially deemed to represent the smaller or poorer farming households (by virtue of the hectarage criterion) did not in every case remain defined as "poor" in the analysis, because in a few cases these smaller farmers might have owned numerous cattle. By dint of the latter, one or two might be

reclassified as "middle" farmers. This reclassification was carried out for all levels of the sampling stratum. The end results are presented below in tabular form.

<u>Class</u>	<u>Hectarage Cultivated</u>		<u>Units of Farm Equipment*</u>		<u>Number of Cattle Owned</u>		<u>Number of Individuals</u>
	<u>Mean</u>	<u>Range</u>	<u>Mean</u>	<u>Range</u>	<u>Mean</u>	<u>Range</u>	
Wealthy	41	33-62	16	7-27	116	21-176	6
Middle	9,1	6-12	2,3	1-4	36	27-59	7
Poor	4,6	2-7,5	1,6	1-3	8	0-16	7

\* Farming units computed in terms of approximate monetary value of the equipment. Thus, a used tractor equals 10 units; a used single-blade mouldboard plow equals 1 unit.

Development of Questions and the Interview Schedules

The interview schedules developed were not empirically pre-tested. Hence, it is not surprising that several of the questions asked were not as effective as hoped in eliciting cogent responses. Further, several questions should have been developed or included that were in fact not thought of. Hopefully, these deficiencies will constitute knowledge from which subsequent work can draw. These shortcomings are discussed below under appropriate headings.

For various reasons, the author did not participate actively in the actual interviewing process, which was in fact carried out entirely by a research assistant. Numerous probe or guide questions could well have been utilized in the administration of the interview schedules that would have brought additional, important information to light. Certain inconsistencies in the responses could have been checked, but were not. Overall, the quality of the work gathered warrants serious but cautious interpretation of the results presented here. The level of confidence that reasonably can be invested in the various data will be suggested throughout the report.

## Principal Findings

### Class Structure of Rural Areas

While rural Botswana exhibits a fairly uniform "culture," it is typified by a prominent and fairly rigid economic class system. While the ideals, values, and modes of belief are fairly uniformly distributed, especially among the non-educated, there exist great wealth differentials brought about and sustained by a class system -- institutional means for distributing scarce yet crucial means for production of wealth. This class system, like most, incorporates individuals in virtue of their individual entitlements to membership in one of the system's classes. While there is some "mobility" among classes, the existence of untaxed, societally protected means for bequeathing and inheriting wealth assures a low rate of change in any family's or lineage's fundamental life-chances. Opportunities for wage labor, earnings from which can subsidize agricultural pursuits, make it possible for a few of the poor families to become "middle" class agriculturalists. But basically formal wage employment has the effect of increasing wealth differentials in the agricultural sector by providing the few, better-off formal sector employees the wage surpluses to be used to increase the scale of their already considerable agricultural activities. In turn, control of substantial agricultural production enables some wealthier rural families to provide the advanced education which is the sine qua non of urban, formal sector advancement.

Since the vast majority of rural households are headed by individuals with neither permanent formal sector employment nor education beyond primary school, the formal sector subsidization of agriculture remains the luxury of a small coterie of urban elites. Thus, the class system of the rural areas must be seen as basically grounded in the traditional culture and sustained by institutional arrangements that are both efficacious and exist quite autonomously of the formal employment sector. "Modernization" to date has reinforced

and buttressed this class system; indeed, it has increased the degree to which the command over resources enjoyed by a given superordinate stratum has been attained by the appropriation of surpluses created by subordinate strata.

#### Direct Implications of the Rural Class System

(1) There are no significant differences among rural classes in the amount of formal education attained by male heads of households. The vast majority have fewer than four years' primary schooling. However, the educational attainments of the children vary markedly as a function of the household's economic class membership. The wealthy typically send one or more children through secondary school and often to higher education. The middle households see many of their children complete primary school; some complete secondary school. The poorer households may see but one or two children complete primary schooling. Insofar as the current younger generation goes into agriculture in significant numbers, Botswana should witness the emergence of an educated rural gentry, functionally literate prosperous peasants, and the continuation of a large, minimally-schooled poor peasantry. It remains to be seen whether the better educated offspring of rural families will in fact take up agriculture as a livelihood.

(2) Formal employment varies as a function of class position. While the wealthy do receive remittances from children in town, the household is able to provide for its own labor needs from agricultural production. The heads of wealthier households may have worked in the mines years back, but have not undertaken wage labor in many years. Their children almost never undertake mine labor migration. The heads of households of middle farmers do not typically seek work themselves, but do regularly receive remittances from formally employed "children." The heads of poorer



- 6 -

households are highly dependent either on remittances from formally employed household members or on their own earnings from occasional or regular formal employment. In the sample studied here, every one of the poor households had at least one member working in the mines at the time of the interview. The middle families had one or two children in the mines; the other members who were formally employed were working in Botswana's towns. The curtailment by South Africa of labor recruitment is going to hit the poor farming households very, very hard, unless alternative formal employment or self-subsistence and cash incomes from agriculture can be achieved for them and by them.

(3) Farming, in terms of the abstract system of rules, knowledge, and principles at work, does not vary substantially among the economic classes. This is reflected in the simple fact that on average the per hectare yields of cereals does not differ markedly among classes. While the scale of farming is very different (as the class indicators show), the richer farmers simply plow more extensively than do the poorer farmers. This fact is reflected in the aggregate weight of harvests. The wealthy farmers' range of total harvest weights is: 5,220-23,800 kilograms. The range for middle farmers is: 900-3,780 kilograms. For the poor farmers, the range is: 450-2,610 kilograms. Interestingly, the wealthy farmers consume for domestic use between 1,400 and 2,240 kilograms; the middle and poorer farmers consume between 120 and 1,350 kilograms. The latter figures fall far short of the caloric minima for the households in all cases. Significant selling of cereals takes place among all farmers in all classes. This suggests that the middle and poorer farmers are selling harvest and then buying back part of their subsistence with money that has in part to be earned in wage labor.

While the wealthier farmers have adopted some of the "lower cost" modern practices like contour or row plowing, they have not adopted practices which are either inherently costly or which would reduce profit margins under conditions of extensive, non-labor-intensive agriculture. The premier example of the latter is use of commercial fertilizer, which no one in the sample studied here has ever used. The richer farmers use manure (sporadically) because they often have large herds near the land and adequate labor to haul it. They also use tractors which on large hectarages are as "economical" as cattle, given the labor constraint. All farmers of all classes believe December is the ideal time to plow and in fact strive to plow at that time, though over half the poor farmers failed to plow until late December or early January.

(4) Constraints faced by farmers in attempting to increase either yields or hectarage cultivated or both vary directly as a function of class position. The wealthier farmers are the only ones to suggest that basically there are no big problems. What problems they do face are: (a) pest and stock damage to crops and harvest, (b) lack of water near lands for human and stock consumption, (c) inadequate or distant repair services for implements, especially tractors, (d) lack of labor (at rates they are willing to pay). The middle farmers report (a) lack of ready cash for purchase of inputs they desire, especially seeds and implements, (b) severe labor shortage, (c) pest and stock damage to crops and harvest, (d) lack of water at lands. It is only among the poor (the vast majority of the country as a whole) that (a) draft power is reported as a serious lack; (b) labor shortage is also a serious constraint; (c) lack of implements, (c) seeds, and (d) crop damage are also reported.

Interestingly, all farmers reported acute labor shortages. This claim they could substantiate and elaborate at length.

In the case of the wealthier farmers, the constraint is felt in terms of the scale of production, especially in harvesting and thrashing. In the case of poorer farmers it is felt in plowing and in weeding. Labor organization differs somewhat among classes. This point will be discussed below under appropriate headings.

For the middle and wealthier farmers the severest constraint to production reported is labor shortage. For the poorer farmers the severest constraint reported is lack of draft power. These results are consonant with the findings of numerous studies in Botswana.

#### Some Aspects of Agricultural Organization

Cash Remittances. As mentioned, all households report receiving cash remittances, typically from a member away in town or in the mines. The sums reported as annual contributions range from P150 to P350. While the sample is small, it should be noted that these sums are much higher than those reported in other studies. In my view, even these figures under-represent the total value remitted to the household, because they do not take account of goods received or remittances not specifically defined as such by employed members. In the case of poorer and some middle farmers, these funds are subventions to agriculture. This inference can be substantiated in two ways: first, respondents in many cases claim no source of cash other than remittances; second, the sale value of stock offtake and agricultural products would not equal in many cases the sums reported as being spent on purchases of inputs to agriculture.

Much of the cash remitted is invested in the purchase of stock. These stock serve to store wealth until such time as cash is required. Stock appreciation has served as something of a hedge against the high inflation of the past half-decade. Many households may receive "gifts" of stock from absent members. These gifts are often not reported as remittances, yet of course they are such as indubitably as cash.

Cattle and Rights of Access to Draft Power

The connection between demand-rights of access to cattle for draft power and the extensiveness of arable cultivation is both direct and crucially important. Above it was shown that the hectarage cultivated in any given year is positively associated with the number of cattle owned. A more direct linkage can be demonstrated. National data collected by the FAO (A Study of Constraints on Agricultural Development in the Republic of Botswana) were based on a national sample of over 1000 households and reveal clearly the linkage suggested:

- 1) Areas cultivated: < 4 - 58% of the farming population  
(hectare) 4 > 8 - 29% of the population  
> 8 - 13% of the population

- 2) % of HH holding cattle sufficient for plowing 50%  
% of HH borrowing some of trek cattle 26%  
% of HH hiring some /(all) of trek cattle 24%

- 3) No. of cattle used in plowing:

< 6 - 14%  
6 > 10 - 63%  
10 < 14 - 15%  
> 14 - 8%

- | 4) Plowing Arrangement | Hectarage Plowed |
|------------------------|------------------|
| Held Cattle            | 5.72             |
| Some/all borrowed      | 3.28             |
| Some/all hired         | 3.40             |

- | 5. No. of Oxen Held | Hectarage Plowed |
|---------------------|------------------|
| 0                   | 3.24             |
| 1 - 5               | 4.56             |
| 6 - 9               | 5.20             |
| 10 - 13             | 6.48             |
| 14 - 17             | 7.88             |
| 18+                 | 4.52             |

6. Area Plowed	% Using other than owned/held draft power
.1 - 1.99	73.5%
2.0 - 3.99	59.9%
4.0 - 5.5	35.3%
5.51+	27.9%

Given these relationships, the actual distribution of rights of access to cattle for draft power can be seen as a major determinant of how arable productive capacity is to be found in the population.

In the context of Botswana, it is very important to distinguish types of access enjoyed by individuals. In recent years the literature has tended to confuse the issue of "rights of access" by use of imprecise terminology. For example, ordinary proprietary ownership is a kind of right of access. About 45% of Botswana's extant rural households do not have ownership of cattle. Many of the households which do not own cattle, nevertheless enjoy use of cattle for plowing, for milk, for other usufruct. It has been estimated that about 30% of rural households lack any kind of demand rights of access (e.g. by proprietorship, by agreement or contract) to cattle for draft purposes. The probable error of these figures could be quite large.

The sample studied here is both too small and too unrepresentative of the country as a whole to shed light on the question of cattle distribution. Suffice it to say, among the "poor" respondents interviewed (60% of rural households are poor by this criterion) all stated that the biggest single constraint to increased production was lack of draft power. This factor of production is not easily replaced by other factors. Thus absolute production limits are set by the limitations posed by this one factor.

Among the "poor" respondents, all had participated in the past two years in some form of long term or short term arrangement for obtaining draft power in exchange for labor (e.g. go tshwara mogoma) or in exchange for management of cattle (e.g. mafisa). Among the middle respondents, two of the seven had done work in return for access to cattle for draft power and four had made their cattle available in return for labor and one had participated in such schemes both as a lender and as a user of cattle. Among the wealthy respondents, the lending of cattle (both long and short term) was frequently done in return for labor.

While the sample is small, the indication is quite clear that both poorer and more privileged households rely heavily on inter-household exchanges of labor and cattle to achieve the "factor inputs" required in the course of the agricultural year. Again, this suggests the error of viewing the individual family-homestead as a largely autonomous decision making, producing, or consuming unit.

Labor. Very few farmers from any social class hire significant amounts of farm labor. There were one or two of the wealthy who paid cash wages for a few workers to work one or two days during a period of peak labor demand. Among all farmers there are, however, numerous labor-sharing arrangements that operate among households but typically within certain narrow circles of blood-kin and in-laws. Most farmers denied at first that there was any "outside" labor engaged in their farming operations. When it was made clear that by "outside" was meant anyone not actually residing in the homestead and who might well be a close kinsman, then most farmers acknowledged extensive reciprocal sharing of labor. Over three-fourths of all respondents reported having been participants in, or beneficiaries of, one or more of the "customary" schemes of labor reciprocity: go tshwara mogoma, go tsenya diatla, go lemisana, go kqweetsa go lema, etc. The wealthy participated in these as fully as did the poor.

- 22 -

Quite expectably, the custom of engaging seasonal labor in return for payments of food (go jaka) was confined to the wealthy and middle farmers. However, some "payment" of food is usually found in any labor exchange, even if it is merely meals received while at work.

The high degree of interdependence among households created by the necessity of pooling labor resources during periods of peak demand confirms the view that the household cannot be seen as an autonomous economic unit of production or indeed of consumption. The household stands as a node in a network of labor exchanges, which under present conditions are absolutely necessary for the attainment of current production.

Except among the poorer farmers, labor availability throughout the season was claimed to be the scarcest production factor, and the principal criterion by which the decision to use given quantities of other inputs to production was arrived at. Most farmers said quite explicitly and without prompting that they could only plow, sow, and thrash that amount for which there was predicted to be sufficient labor, in each phase of the agricultural cycle.

This suggests that any innovation or change in agricultural practice which demands more labor will be seen as highly impracticable by a large number of farmers, especially the more prosperous ones (middle and wealthy class).

While poor farmers generally see draft power as the constraint, it is still labor shortage that ranks second as a constraint to increased production. Further, if the poorer farmers were to obtain draft power whereby they could greatly increase hectarage cultivated, it seems highly probable they would then face the problem of labor shortage as severely as do the more prosperous farmers now.

### Food Purchases

Unfortunately, this study did not inquire into the question of how much of the family's food consumed is derived from market purchases. Data on caloric minima required per capita suggest that in the case of poor farming households, household cereals production supplies no more than one-half of the total caloric requirements. Some consumption of wild foods, animals, and some purchases of food must make up the balance. Among middle farmers, the harvests are often adequate to feed the family, but these farmers report consuming only about half to two-thirds of the minimum calorie requirement in the form of own produced cereals. The remainder must be obtained from other foods produced domestically or from food purchases.

More research is needed to see if in fact among many households food tastes are shifting from a cereals diet to a more varied one, that of necessity requires food purchases. The fact that Botswana imports currently over 30,000 tons of wheat annually, with a 50 percent increase in each of the past three years, suggests diet changes in urban areas are occurring. There may exist more modest but significant dietary changes in the rural areas as well.

Interestingly, the wealthy farmers consume, per household, almost double the cereal that the middle farmers do (household sizes are very similar). This suggests that either the wealthy have a steady diet of cereal (highly unlikely) or that (a) they are feeding a number of people not regularly a part of the household; (b) they are feeding animals; or (3) they eat more per capita than the less prosperous.



### Changes in Settlement Patterns

It has been observed in several studies that some households are settling permanently at the lands while others are settling permanently in the villages and towns. This inquiry has too small a sample to be used with confidence in contributing to knowledge of this phenomenon. However, it would appear from data here that the decision to settle at the lands or in the village is a function of what can be called the "developmental cycle" of the family. This means simply that as the age and membership of the family changes over time, different modes of economic activity will be taken up or dropped. The wants and resources of the family vary with the composition of the household and the ages and activities of its immediate members.

Older people (who are heads of households) seem to prefer living near the villages, delegating more and more of actual agricultural practice to children or in-laws. Younger people (who are heads of households) and who have access to land and other important inputs seem ready to settle permanently at the lands. Clearly there should be some effect of class position on this decision as well. Thus, for example, when a family is reasonably well off and aspires to send a large number of its children to school, this seems to lead to the decision to spend more time in the village. Poorer families may send only one or two children to school, in which case that family may let the children live in the village while the bulk of the family remains at the lands. Data here support these inferences, but the sample is too small to be conclusive.

It is not apparent at all that the decision to settle at the lands is either motivated by, or has resulted in, more efficient, effective, or productive agriculture. The contribution of the family's labor is gauged by reference

to the scarcest necessary input. This may be the labor itself, draft power, land, or implements. Settling at the lands by itself seems not to make much difference in the agricultural calendar or in the availability of other necessary inputs. Hence, the provision of social-infrastructure in lands areas may well affect settlement patterns (i.e., induce people to settle near lands), but the presence of families at the lands year-round would probably not, in and of itself, alter the forces and relations of production.

What does emerge in this (and several other studies) is the importance of absent, wage-earning household members, whose remittances make possible the level of household production achieved. In many cases (especially in "younger" households), the head may himself be working in town or in the mines. In these situations the actual decision-making and much of the actual agricultural labor may be left to persons other than the head himself. This pattern of absence has, of course, both a positive and negative impact on production. Positive, in that it is a source of capital or liquidity; negative in that the personal management exercised by the head is less direct and probably less effective than would be the case if he were present throughout the agricultural cycle. The inducing of permanent settlement in lands areas will in all probability not in itself alter this pattern of inter-dependence between town/mine and countryside.

#### Reactions to "Modern" Practices

Most of the wealthier farmers claim to employ one or more of the standard dryland farming practices recommended by the Research Unit of the Ministry of Agriculture. Expectably, they have adopted some of the practices, not all. This piece-meal adoption has meant, in general, that the yields per hectare for these farmers are about the same as the per hectare yields of farmers who have adopted none of the modern practices. The so-called progressive farmers have not lost money in adopting selectively these practices, because they use those which are economic given the other aspects of their agricultural organization. Thus, for example, contour plowing is quite easy if one has and uses a tractor. Row plowing is quite easy with multiple tyne plows or harrows.

Farmers who have consciously not chosen to adopt modern practices can rationalize their decision in a cogent fashion. They typically have what they deem to be very good reasons for not adopting these recommended practices. This state of affairs is different from what is often claimed -- to wit, that farmers who do not adopt recommended practices are ignorant of them, erroneously believe they are inefficacious, or cannot afford to adopt them. The results of this study indicate none of these is a very significant part of the decision not to adopt these new practices.

More detailed investigation of the reasons for not using modern practices should have been attempted. While several farmers volunteered their reasons, this was not systematically sought. This mistake should be rectified in subsequent research. In general, this author has found that research in agriculture in "third-world" countries has suffered from the tendency to presume that advice which is "scientifically" grounded cannot be reasonably criticized by those not trained in agricultural science. In fact, indigenous farmers typically possess a vast store of valid empirical knowledge which is every bit as capable of standing up to scientific scrutiny as the practices advocated by expatriate (typically Western) agriculturalists.

Among the most important reasons given for not adopting specific practices are those listed below:

- 1) Plant thinning: if seeds are broadcast, the plants are never so thick as to crowd one another out.
- 2) Broadcasting is more cost effective (if labor costs are high) than is using a planter.
- 3) Winter or autumn plowing in fact stimulates the growth of weeds which make summer plowing more difficult than would be the case if the soil were simply left alone.

- 4) Fertilizer is too expensive (i. e., the increase in yield does not even recover the cost of the input).
- 5) Manuring can only be done by people who own and keep near the lands large herds of cattle and can afford to hire the labor to haul the manure.
- 6) The amount one can afford to sow is directly affected by the amount of labor one anticipates one will have for various tasks that come later in the agricultural cycle.
- 7) Many farmers are working soil with so little humus that none of the modern practices will make any difference to yields.

In my view there is considerable scientific merit in these arguments. Agricultural research could profit immensely by further inquiry into farmers' perceptions of the strengths and weaknesses of Western-derived dry-land farming practices and packages.

### Credit

There was a surprisingly uniform and favorable response to the concept of agricultural credit. The question had been raised in the context of comparing the use of credit to the alternative of seeking work in town or in the mines. Elder heads of households were particularly emphatic in claiming that they would rather see credit made available than to see their young people go off to the mines. Town work, claimed elder respondents, was suited only to young people. Thus, if credit enabled one to remain at one's home, then it was to be preferred to the practice of labor migration.

Younger respondents, and the poorer in general, were not so certain that credit was markedly superior to wage labor as a means of raising needed cash. They were concerned especially with hidden charges or "surprise" fees, phenomena they have encountered in receiving small advances of goods from local merchants.

Small-scale borrowing of money (and other valuables) from kin and long-term acquaintances is fairly common, especially among the poorer respondents. This kind of borrowing is usually done without incurring debt service. It is looked upon as a reasonable practice. Clearly, however, the sums are small, even in relation to the modest means of Botswana farmers.

It would appear reasonable from the results of this study to believe that credit could be accepted by many rural people of all economic classes, provided its costs are deemed "economic" by the local people. As a guess, the value of foregone agricultural labor suffered by a mine migrant in a nine-month contract is at present so low that the credit advanced would at first be seen as too expensive if anything more than minimal interest were charged. On the other hand, if agricultural production can be increased, especially for the poorer farmers (who are the labor migrants typically), then the opportunity cost of labor migration would rise. That is, the value of foregone agricultural labor would be considerable. This might induce many who now readily engage in labor migration to seek out credit even if it is available at current market rates.

The problem of risk in accepting credit is very prominent in the minds of most Botswana farmers. Unless some kind of insurance for repayment of credit in the event of crop failure is made, credit will be too risky an undertaking for all but wealthy Botswana farmers.

#### Conclusions and Recommendations

The principal finding of substance has been to confirm the existence of a class system in rural Botswana, which has numerous important implications for the organization and practice of agriculture. Any attempt by government to alter this practice so as (1) to increase

aggregate production and (2) to increase household production for the vast majority of farmers will have to deal directly with this class system. In particular, the resources available to most Botswana farmers all of whom may appear from a Western point of view to be "small farmers" are in fact highly varied and disparate. No single set of policies or package of practices will be relevant to the needs and wants of most current farmers. Arable policy in Botswana will have to embrace a variegated set of strategies and practices. These must in turn be "mapped" onto a varied set of situations defined in terms of economic class and ecologic circumstances. Formulation of effective arable policy must commence by asking the question: which kinds of measures will be relevant or applicable to which classes of farmers, seeking what kind of production goals with what particular or perculiar resources already in hand? This paper has simply begun to suggest some of the issues which underlie the various parts of that question.



This work is licensed under a  
Creative Commons  
Attribution – NonCommercial - NoDerivs 3.0 License.

To view a copy of the license please see:  
<http://creativecommons.org/licenses/by-nc-nd/3.0/>

This is a download from the BLDS Digital Library on OpenDocs  
<http://opendocs.ids.ac.uk/opendocs/>