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DRAFT POWER, DRAFT EXCHANGE AND FARMER ORGANIZATIONS

by

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Introduction

Shortage of land and land reform are not the only themes in the current debate on peasant agriculture in Zimbabwe. A central issue, particularly among agricultural economists, is the shortage of draft power. A conventional view has arisen that farmers with cattle produce more crops than those without. This view is empirically grounded and logically persuasive. It fails, however, to adequately address the institutional question of organized draft exchange. Arrangements have been devised by communal area farmers to provide access to draft animals, particularly for draft-deficit households. The purpose of this paper is to describe the extent of draft exchange, its institutional forms, and its social and economic consequences.

The Importance of Draft Power

In Zimbabwe the transition from human to animal power in peasant agriculture is well underway. The control of tsetse fly and the spread of cash crops have encouraged the replacement of the hand-held axe and hoe by animal-drawn equipment. The vast majority of farmers now use oxen as the basic source of traction for clearing land, ploughing and cultivating, as well as for the transportation of materials to and from the fields. The introduction of "mechanized" draft technologies has helped to make agricultural work more productive and less menial.

Changes in technology usually result in changes to the structure of society and the relationships among people. Cattle have always been the principal form of durable wealth in Shona society and the size of a herd remains an important indicator of a family's prestige (Bourdillon, 1982, 73). In the contemporary era, however, cattle have become more than repository of savings and a symbol of status. They are a basic means of production for arable agriculture. Draft power is the single most important use of cattle in the farming systems of the communal areas, far exceeding their importance as a source of protein or as a saleable commodity (Dankwertz, 1973, 101). Owners of draft cattle might therefore be expected to stand at an advantage in the ability to guarantee household food security and to accumulate wealth through the production of cash crops. Several writers have observed that larger livestock holdings are associated with improved crop output and, in turn, with higher incomes (Collinson, 1982; Ministry of Lands, 1982, Vol. 1, 282; de Swardt, 1983a). Cattle owners are able, for example, to plant larger areas to crops and achieve higher yields per hectare than non-owners.

The productivity advantage enjoyed by livestock owners is considered to rest on a dual foundation (Thiessen and Marasha, 1974). First, livestock owners are able to perform farm operations on time. At least three major operations, all of which involve draft power -- winter ploughing, planting and the first cultivation of weeds -- must be performed opportunely if yields are to be maximised. It is assumed that farmers without cattle must wait to borrow or hire draft animals after the owners are finished (Callear, 1983, D5; Theissen, 76, 28). Second, livestock owners have access to a ready supply of organic fertilizer in the form of cattle manure. Farmers without cattle must make compost from plant and crop residues or gather manure from small livestock. Either way, it is difficult to accumulate sufficient organic matter to nourish large areas of field crops. It is not clear from the research literature

which of the two factors -- access to draft or access to manure -- carries the most weight in ensuring high productivity of cultivated land.

One question addressed in this paper is whether organized draft exchange can ease the production constraints associated with draft shortage. The following line of inquiry is followed. Is draft power available from sources beyond the household? With whom is draft exchanged? What is given in return? Is exchange opportune or untimely? One of the findings reported here is that certain draft borrowers are just as likely as draft owners to prepare land and plant crops on time. Differences in crop yields can therefore be attributed to factors other than the ownership of a traction team. Indeed the whole debate on the shortage of draft may have been wrongly specified as a problem of draft "ownership" when the central issue is really one of draft "access."

This paper is part of a larger study on the role of farmers organizations in allocating agricultural resources and services in Zimbabwe's communal lands. We therefore ask whether there are significant differences in the frequency and method of draft exchange between individual and group farmers. The general finding is that draft exchange is a contextual social practice common to a wide assortment of farmers rather than an exclusive feature of organized groups. Certain farmer groups reinforce the practice; others undercut it; none alone creates it. In a few key instances, however, -- including timely ploughing and planting -- group membership clearly contributes to an improvement in farmer performance.

In general, farmer organizations have a limited effect on the mobilization of local resources for agricultural production. Peasants in Zimbabwe have rarely taken the initiative to establish formal organizations to pool resources in the realm of production. This applies not only to the exchange of draft but, as will be shown in a subsequent paper, also the collectivization of labour. The implication is that in Zimbabwe the social and organizational foundation for building producer cooperatives is fragmentary at best.

Types of Farmer Organization

I have argued in a previous paper that four main types of farmer group exist in the communal lands of Zimbabwe (Bratton, 1984, 7). The same classification will be used to analyse the relationship between group organization and draft exchange:

(a) TYPE A: Information Groups. The exchange of knowledge is an activity common to most groups. But some groups limit themselves to a purely educational function, with further action left to individuals (e.g., g.d.a.'s, M.F. clubs, literacy groups.)

(b) TYPE B: Labour Groups. The pooling of private resources for group benefit -- commonly labour -- is the hall mark of this type of group. Pooling is a local activity, involving village resources, and occurs autonomously at the initiative of the group itself (e.g. "mushandirapamwe" groups, g.d.a.'s, women's groups.)

(c) TYPE C: Market Groups. The purpose here is to engage in market transactions such as group purchases and sales. Marketing generally builds linkages to the outside world. Rather than promoting local markets, the priority is to bring the farmer group into contact with a larger central economy (e.g. M.F. clubs, primary marketing cooperatives.)

(d) TYPE D: Multipurpose Groups. As the name implies, this type of group combines the activities of other groups. Where local resource pooling and joint central transactions are undertaken, a group can be described as multi-purpose. Unlike labour groups, buying and selling is done jointly; and unlike market groups, so are some basic production tasks (e.g. "mushandira pamwe" groups, g.d.a.'s, producer cooperatives.)

In the areas surveyed, labour groups (Type B) and multipurpose groups (Type D) are most common in Wedza, and market groups (Type C) in Gutu and Guruve. (see Table 4.0.)

Enough Draft?

Most peasant farmers keep cattle. In the survey areas, more than three out of four (79%) are cattle owners (see Table 4.1). This figure appears an acceptable approximation since it falls within the range of other survey estimates. Cattle owners are said to constitute 41% of farmers in Chibi (Rukuni, 1984) 66% in Masvingo Province as a whole (Le Roux, 1976), 78 % in Gokwe, and 82 % in Mangwende (de Swardt, 1983a, 11; 1983b, 4.) Clearer specification is needed in some of these studies as to whether reported ownership refers to "total cattle" or only to "draft cattle."

All livestock are privately owned, despite the fact that the grazing lands are communal property. Every household has a right to turn livestock loose to graze, though herding is required in the growing season to protect the fields of green crops. The cattle themselves; however, are acquired by individuals through purchase or ceremonial transaction such as roora or lobola (payment of bridewealth.) Many households, as well as owning their own herd will hold cattle for relatives who are absent in town. Since these cattle can be used for draft power they can be counted as part of the household's draft assets. The use of cattle as a productive resource -- draft or manure -- is also a private prerogative. Arable agriculture takes place on parcels of land identifiable with each household and all crops are retained by that household. A decision by one farmer to pool or exchange draft power with another does not, therefore, imply social ownership of livestock.

A feature of Shona society is that cattle ownership goes together with seniority in the family group. Property is vested with older males and is inherited patrilineally. When a man dies, control of the family herd passes to the eldest son who, in turn, is under no obligation to further distribute the wealth in livestock among his younger brothers. If all the sons are young, the property of the deceased is handled in trust by a brother or patrilineal cousin. In practice, young people coming of age sometimes find it difficult to recover their inheritance, for example when an uncle or older brother has disposed of their cattle in order to acquire wives.

Our survey confirms a strong relationship between the age of the male head of household and the ownership of cattle. Households headed by men are divided into "young" (head under 35 years old), "middle aged" (35-45 years), and "elderly" (55 years and older) for purposes of comparison.

Accordingly, throughout Zimbabwe, far fewer young families are found to own cattle than the middle-aged or elderly (see Table 4.2.). In Wedza, for example, only 39% of young couples say they have any cattle, compared with 84% of their parents' generation.

The size of herds also varies with the age of the owner. Among cattle owners, the elderly household has on average twice as many cattle as the young (see Table 4.2.). A successful man can accumulate a herd of twenty or more -- including bulls, cows, oxen, heifers and calves -- over the course of a lifetime. Newlyweds must make do, if at all, with one or two young animals given as a gift by a benevolent relative or purchased with cash accumulated from working in town. When it comes to oxen, the principal source of draft power, the age discrepancy is even more marked. In Gutu and Chipuriro, for example, the average elderly household enjoys the services of four oxen compared with the single beast that belongs to the average young family.

Although cattle are usually held by men, there is no prohibition on ownership by women (May, 1983, 65). Indeed, marriage transactions demand that one cow is given by the groom's family to the mother of the bride. A woman with several married daughters can in time breed up these "cows of motherhood" into a substantial herd of her own. Women who engage in small commercial enterprises like pottery, beer-brewing and midwifery are able to keep the proceeds and may choose to invest in cattle in their own right. These practices are confirmed by the occasional presence among the survey households of a female head with a herd of average size or above. For the most part, however, women stand at a marked disadvantage in the distribution of cattle and draft. Because inheritance follows the male line, widows and divorcees suffer a loss of property at the time of death or divorce. In all survey areas, fewer female-headed than male-headed households own cattle and the average size of herds is always smaller. In Wedza and Gutu, households headed by women generally hold more cattle than young couples who are just starting out. In Chipuriro, however, women farming alone are the most disadvantaged group of all, with fewer than half of them owning any cattle.

Beyond mere numbers of cattle, the composition of herds determines the availability of draft power. Not all herd animals are old enough or trained to pull implements. One estimate is that a household needs nine to ten cattle, including three to four adult females, to produce enough draft power for itself (Sandford, 1982, 11.) Few household attain herds of this size, especially outside of Matabeleland. (See Table 4.1.) Rather than the ownership of total cattle, the key datum is the ownership of draft oxen. We found that the proportion of oxen in the communal area herds is higher (35%) than normally supposed (25%)(Sandford, 1982, 11) though our figure includes both trained and untrained animals. The "average" herd size is six to eight cattle in the communal areas of Zimbabwe, and the "average" availability of draft oxen is about two per household.

Is this "enough draft?" Peasant farmers in Zimbabwe universally express the view that four oxen are required to form a draft team and that two oxen are inadequate. Several experienced farmers in Wedza whose lands lie on heavy red clay soil, claimed need for a team of six! The preference for large teams stands in contrast to the practice of peasant farmers in West Africa and South Asia who meet all traction needs with only two draft animals (thanks to Ingeborg Roh for this observation.) It also stands in contrast to the actual behaviour of farmers in Zimbabwe. Field observations

reveal that, in practice, farmers regularly use two oxen for light work like opening a seed furrow in a ploughed field or carrying a cartload of thatching grass. A full draft team is used, if available, for heavy jobs like ploughing, hauling manure and firewood, and bringing in the harvest. Farmers complain that small teams cannot plough deeply and that, in any event, animals need to be rotated and rested when draft operations are demanding.

If oxen are in short supply or in poor condition, farmers may resort to female animals for draft power. Even farmers with plentiful oxen report that they train cows to accept a yoke. Others keep donkeys which, in times of need, may be used alone or hitched in tandem with draft cattle. Farmers in Gutu report extensive cattle deaths from drought and a growing reliance on donkeys. Farmers seek a degree of flexibility in the deployment of draft resources and a reserve capacity for use in an emergency.

Hence we arrive at an objective measure of draft sufficiency. In this paper, a household is considered to have "enough draft" if it can compose a full draft team. This usually requires the ownership of four oxen or more. Alternatively, the ownership of two cows is counted as the equivalent of one ox, not because cows possess half the body weight or traction power of oxen, but because farmers are loathe to use cows for fear of reducing their fecundity. For a handful of cases in Gutu, donkeys are counted in place of oxen as a direct draft substitute.

By this criterion, fewer than half of all peasant households (42%) own enough draft to conduct basic small-farm operations (see Table 4.1.) The remaining farmers are about equally divided between those who are "short of draft" (2-4 oxen or equivalent) and those who are "effectively draftless" (0-1 oxen.)

The objective assessment of draft sufficiency accords closely with the subjective judgements of farmers in Zimbabwe. The measure was chosen in part because it "makes sense" within the frame of reference that farmers themselves employ. A similar proportion of peasant farmers (39%) is willing to admit to having enough cattle to do their ploughing (see Table 4.1.) Even if the household owns many adult beasts, some of them are likely to be in poor health or otherwise incapacitated. The peak demand for draft is for ploughing and planting with the first rains from October to December. This coincides inconveniently with the normal calving season and with the low nutritional status of oxen and other range-fed animals after the long dry season. The judgement of draft sufficiency also reflects the amount of land the farmer has under cultivation. Those farmers who objectively have enough draft but subjectively feel themselves to be short are usually those with extensive plots. This is particularly true in the areas well suited to crop production, like Chipuriro, where the imbalance is acute between scarce grazing land and large arable holdings. Finally, farmers are likely to dramatize their draft power shortages if, as many do, they wish to lure tractors into their areas (see Table 4.1.)

The farmers' judgements of their draft situation reveal interesting patterns. Young householders tend to be optimistic, expressing the view that they have enough draft, even in the face of patent draft scarcity. Elderly farmers, by contrast, are prone to complain of draft shortage even if none objectively exists (see Table 4.3.) To a large extent this difference of outlook can be explained by the size of arable land area each has to

cultivate. Young farmers are short not only of cattle but of land (see chapter 2) so that draft shortages are less pressingly felt. All farmers regard the conversion of grazing areas into cultivated plots as imposing a prohibition on the number of cattle they can hold.

Farmers attach great importance to draft shortages in explaining constraints on crop production. In Gutu, where cattle are relatively plentiful, only land scarcity and cash to buy inputs are ranked by farmers as more serious problems (see chapter 2.) In the Zambezi valley, where cattle cannot be kept due to tsetse infestation but where land is abundant, farmers cite the shortage of draft as the primary limiting factor. In the Honde-Pungwe valley, along with other areas in the northeast, veterinary services broke down during the liberation war leaving three-quarters of the population without cattle (Chipika, 1984, 5). A common response came from a farmer in Mhondoro: "Our biggest problem in farming is the shortage of oxen. We have to stagger our planting dates because we cannot get around all the fields when the rains come. We need a tractor if we are going to plant our crops in time." In Mangwende: "Our group was struck by anthrax during the war. Our cattle were taken by the soldiers when we were forced to go to the keeps ("protected villages.") Even now we are losing cattle due to the drought. Those that remain are lean. They are too weak to plough deeply."

Draft Exchange

Farmers have organized collective responses to the predicament of draft shortage. Those with insufficient cattle to mechanize farming as a rule obtain draft animals from households with a surplus to spare. For households that are entirely draftless, the unit of exchange is a span of two or four oxen with yoke, shaft and appropriate implements. These may or may not be accompanied by a driver and an operator to undertake the work. For households with some, but not enough, draft of their own, the lender will provide only supplementary animals. In most cases, exchange is initiated to do ploughing or other forms of field cultivation, rather than for haulage or transport. A variety of arrangements are negotiated, some ad hoc, others regular, repetitive and institutionalized. The form that these arrangements take depends, as will be shown, on the social and organizational relations among participating households.

Within a given agricultural season, almost half (44%) of all peasant households make use of someone else's draft animals (see Table 4.4.) In Wedza where, of all areas surveyed, cattle ownership is lowest, more than half the families (53%) turn to others for assistance in this regard. Not surprisingly, the decision to borrow or hire is strongly related to whether a household has enough draft. Of the households that borrow from others, the overwhelming majority (87%) are objectively short of animal traction.

Fewer households -- less than a third of the total (28%) -- engage in lending cattle (see Table 4.4.) This is partly because fewer households have the wherewithal to do so. Predictably, lending occurs most often among households that enjoy a sufficiency or surfeit of draft, with 63% of such households taking the step of lending out (see Table 4.4.) The remainder of farmers with large herds are hesitant to allow their draft to be used by others. They probably perceive no advantage -- or see a definite disadvantage -- to themselves.

Households can sometimes even find themselves as both borrower and lender. A typical example is of the two brothers interviewed in Wedza who both own two oxen. They regularly swap draft animals in order that each can make up a full draft team. One brother also leases out his two oxen to other farmers during slack periods even though he is technically short of draft. The permutations of draft exchange arrangements are limited only by the need and inventiveness of the farmers concerned.

In sum, draft exchange is a common and popular arrangement. If borrowers and lenders are counted together, then 70% of peasant producers are involved in some aspect of draft exchange (see Table 4.4). Because of its widespread acceptance, draft exchange can be described as an institution of contemporary rural Shona life.

But what kind of institution are we speaking of? Care must be taken to distinguish institutions as "social practice" from institutions expressed as a "formal organization" (see Chapter 1.) On one hand, draft exchange seems merely an expression of social obligations deriving from a traditional order. One old farmer claimed that in the past, " a man with cattle could never refuse to help a poor neighbour or relative who needed to plough" (Master Farmer group member, Zwimba.) The sharing of oxen and ploughs within extended families has been noted in the anthropological literature (Weinrich, 1976, 91.) On the other hand, draft exchange seems also to be a purposive thrust in the movement among farmers to create new community organizations aimed at development goals. A claim often heard from farmer group leaders, especially in Mashonaland East, is that "the sharing of cattle is one of the main reasons for getting together." (Pepukai group, Mangwende.) Others said that "groups exist in order to help the man who has no mombe (cattle)" (Kwaedza group, Wedza) and that "people join groups because they lack the cattle and implements to do their ploughing" (Masawi group, Wedza.)

What does the empirical record reveal? A comparison of the frequency of draft exchange among individual farmers and group members would surely shed some light on whether draft exchange occurs as "social practice" or "formal organization." Before making this comparison, however, we must first note that members of farmers groups are generally more likely than individuals to be self-sufficient in draft power. One half of group farmers (52%) has enough draft compared with only one third (34%) of individuals (see Table 4.5.) The draft ownership advantage is greatest for members of market groups (Type C), the vast majority (77%) of whom have enough. By contrast, members of labour groups (Type B) suffer the same low levels of draft sufficiency (38%) as the average individual.

For purposes of analysis, we can hypothesize that the membership of farmers organizations has no effect on draft borrowing. The logic here is that the propensity to borrow is a simple function of a household's need for draft. Because groups tend to attract farmers who have enough draft, the incidence of borrowing should be lower among group farmers. In general, this is the case. More individual farmers (48%) borrow draft than group members (40%) (see Table 4.6.)

The important point about draft borrowing is not whether all farmers can get access to draft, however, but whether those with a draft shortage can do so. When draft-deficit households are considered alone, the positive effect of group membership begins to appear. More needy farmers within groups (70%) get access to draft than similar farmers outside groups (63%) (see Table 4.5.) This relationship, which refers to farmer organizations in general, however, is not statistically significant.

Nor can we conclude that farmers organizations promote the lending of draft. Overall rates of lending are lower among group farmers (26%) than individuals (29%) (see Table 4.6.) Moreover, the proportion of wealthy draft owners who actually lend oxen out is lower in groups (35%) than outside (51%) (see Table 4.5.) Group pressure does not generally seem strong enough to induce the wealthy to share their assets.

On the evidence presented so far, farmer organizations appear to have little discernible effect on draft exchange. Access to draft may be slightly easier for poor households within groups. But they appear to borrow from a limited pool of group members who are willing to lend. Most importantly, borrowing and lending occur through informal social channels regardless of whether or not supervision is available from a farmers organization. In short, draft exchange has not been fully institutionalized as a formal procedure of organized farmer groups.

There is one important exception to this general finding. The labour group (Type B) has a positive impact on the frequency of both borrowing and lending. When compared with other types of farmer group, the labour group emerges as a distinctive instrument of draft exchange. In part, the relatively high frequency of borrowing among households in labour groups is a function of the tendency of draft-deficit households to gravitate here. Organizational factors, however, play an independent and formative role. Almost all labour group farmers who lack enough draft are able to borrow it (82%) (see Table 4.5) This is an achievement of considerable developmental importance. Only in labour groups is the chance for draft access by needy households significantly better than among individuals. In levels of draft borrowing, the labour group stands apart from existing social practice. It is an organized step forward.

Draft Exchange in Labour Groups: A Description

Based on observations of group meetings and work parties in Wedza, the mechanics of draft exchange in labour groups are as follows. Late in May, after maize has been harvested and crop residues removed from the field, the best organized groups gather at a general meeting. Sitting in the winter sun, the members discuss progress in farm operations. If a member household still has maize standing in the field a work-party is planned to complete the harvest., A discussion then ensues on winter ploughing with the chairman reminding farmers of the benefits of the practice. Each household reports the number of plots to be prepared and whether assistance is required. The draft owners in the group are canvassed to see who is willing to lend draft and on what dates and terms. The secretary draws up a schedule of winter ploughing and enters it in the group record book. The same procedure is repeated in November in preparation for summer ploughing.

In groups that are less tightly organized the contracts for draft exchange are verbal. They are negotiated while working in the fields or among neighbours at home in the evening. Households have a regular spot on the group roster and, when their turn comes, can request draft services. For the most part, arrangements for draft exchange within labour groups appear to be reliable. None of the members interviewed complained of failure of a borrowed draft team to arrive at his field. One farmer did remark, however, that "the oxen were tired when they came to my place" and another that she would "plant more acres of maize" if she owned her own draft team (Kubatana group, Wedza.)

On the day that ploughing is done, the members of the chikwata (work group) gather in the fields. At one such work group drawn from Batanai Bhobho group in south Wedza there were five members present from four different households. A sixth member was out of sight herding cattle for all those present. It was early December and rain had fallen on the previous day. Although the field had been ploughed deeply six months earlier at the end of the season before, the group chairman decided that reploughing was required before the maize seed could be planted. Accordingly, the work group ploughed three plots, each of approximately one acre, in the course of a working day lasting from 6.00 a.m. to 1.00 p.m. Three teams of four oxen were used in rotation, each team belonging to a different owner. Of the participating households, two owned enough draft, one was short of draft and the last, represented by a young woman whose husband was working in town, was entirely draftless. One of the plots ploughed on this day belonged to the draftless household.

Every farmers' group contains both cattle owners and non-owners. As one leader put it, "we do not discriminate." (Tsangamidzi group, Wedza) The proportion of cattle owners in the group is almost always between one-half and three-quarters, though a few groups have a majority of draft-deficit households. In some cases, cattle owners are reluctant to join "for fear of losing their cattle" but in others they are "not jealous of sharing with the poor."

Explanation is demanded as to why farmers with surplus draft would be motivated to share it. Different answers, moral and material, are given by farmers in labour groups depending on whether they work with church or government. In "mushandira pamwe" groups associated with Silveira House, draft is said to be lent as an expression of a "love thy neighbour" philosophy and social action "to uplift the poor." (Silveira House promoter, Wedza.) A farmer in one of these groups called it "helping through friendship" (Batanai Pamwe group, Wedza.) Asked a group chairman: "Since the Catholic Association helped us when we needed credit for fertilizers, why shouldn't we help those without property?" These views reflect the training in "group awareness" that farmers receive at the Silveira House training centre. The extent to which they serve as a guide to action is far from clear.

By contrast, "group development areas" (GDA's) sponsored by the government extension service are suffused with a more secular and instrumental ideology. A GDA leader explained that "if a neighbour is allowed to be poor he will blame us for becoming rich" (Mukowa group, Mangwende.) Another committee member chuckled when asked about the motivation of cattle lenders: "if they don't join the group and share their cattle they find they have other problems: how will their fertilizer be delivered and their maize taken to market?" (Dombwe group, Mangwende.) The tendency to bargain one group service for another becomes more marked as groups take on more functions. Bargaining is central to the organizational culture of multipurpose groups (Type D) but its roots can be found in labour groups (Type B) in which draft is exchanged for other services, usually labour.

Both goodwill and sanction play a part in the operations of labour groups. This complementarity is nicely illustrated in the conditions set for draft exchange by GDA's and "mushandira pamwe" groups in Mashonaland East. The draftless borrow oxen for a probationary period of two or three seasons. During this time they are expected, through improved crop management to increase yields, sales and income. Once they can afford to buy their own draft animals, the draft services of the group are withdrawn. "A person can be helped freely for a while, but not forever: it depends on how many problems he faces" (Dombwe group, Mangwende.) The principle of draft exchange is well institutionalized in labour groups but the operational rules remain flexible.

Other types of farmer group make no institutional provision for draft exchange. For example, in market groups (Type C) very few members borrow draft (20%.) This is partly because market groups are composed of prosperous farmers with plentiful livestock reserves. Indeed, Gutu farmers criticized market groups, particularly Master Farmer Clubs, because "you need livestock to join" (Musimudziwa village.) One group chairman said that "we never think of sharing cattle, only of hiring tractors" (Chihonga Master Farmers club, Gutu.) Market group members who are short of draft must seek a private arrangement and often have difficulty in finding a lender. Even then, the reliability of the exchange is questionable since, as one farmer said, "we are never sure if the oxen will actually come." (Chipuriro.)

As must now be apparent, draft exchange is not practised to the same extent in every communal land in Zimbabwe. The practice is most common where labour groups predominate. Wedza communal land has both the highest level of draft exchange (see Table 4.4) and the largest membership of labour groups in the survey (see Table 4.0.) Draft exchange survives and flourishes in Wedza partly because it has been incorporated as an operation of labour groups. In Chipuriro, the territory of market groups, there is a low, and perhaps declining, level of draft exchange. When it does occur, exchange is among private individuals rather than through organized channels. For this reason the above description and analysis of draft exchange in farmer groups refers mainly to Wedza and environs in the eastern part of Mashonaland.

Who Exchanges Draft?

Most draft transactions take place among the members of extended families. Two-thirds of all draft exchange is with "relatives" (see Table 4.6.) Within a residential community, the network of acknowledged kin is wide, including patrilineal cousins and their dependents. People naturally prefer to transact business with those they know and trust, particularly when it comes to a valued possession like cattle. Shona society imposes an extensive and demanding network of familial duties which must be honoured. Close relatives are permitted to call upon one another for help whenever resources like draft are short. Fathers are expected to share with their sons and sons' families; brothers and cousins are expected to share with their "brothers" and families. Where the farmer is a woman the exchange is usually with relatives by marriage since she lives in the residential locality of her husband's kin.

At first glance, farmers' organizations appear to have no effect on the social relations of kinship that underpin draft exchange. Borrowing and lending with relatives take place in identical proportions among individual and group farmers (see Table 4.6.) One might predict that the creation of formal organizations among peasant farmers would lead to impersonal interactions. This is true for certain types of groups, but not for others.

Information groups (Type A) and to a lesser extent labour groups (Type B), in fact reinforce traditional social obligations by promoting exchange among relatives. In information groups, draft exchange with kin (89%) is significantly more frequent than among individual farmers (see Table 4.6.) We know that the simpler types of farmer group are composed mainly of people who share ties of blood and marriage. The formal organization is barely differentiated from the surrounding social fabric. Members of information groups make no effort to organize draft exchange as an explicit group activity. They come together for the simple purpose of attaining farming "know-how" from the extension service and from one another. The high level of draft exchange among kin does not occur at group behest but is negotiated among family members as social obligation traditionally dictates.

By contrast, draft exchange appears to be one raison d'etre of labour groups and arrangements are codified to ensure that it happens. We know that labour groups draw up a roster of participating households and that each in turn elects an activity for the group to work on. Draft deficit households use this occasion to request draft services from other group members. It is quite possible that this sort of exchange is concluded predominantly among relatives. But the difference here is that the arrangements are mediated through the formal channels of a farmer organization.

Market groups (Type C) and multipurpose groups (Type D) have a quite different effect. They tend to encourage draft exchange beyond the bounds of kinship. Half or more of the exchange in these groups is among unrelated farmers. Kinship is not completely superseded but coexists alongside relationships of greater social distance. Particularly within multipurpose groups farmers who have established initial contacts through group activities will embark on draft exchange. Group savings and group marketing may provide a stimulus to other forms of resource sharing, though causality might well run in the opposite direction. At first the lender will insist on supervising the draft operation to ensure that the "stranger" is not overworking or mistreating his animals. Later, he may grant the borrower full responsibility. In cases of social need, for example where an old widow is incapacitated or left without relatives, the young people of the farmers group will do her ploughing.

The frequency or importance of exchange among non-relatives should not be overemphasized. Draft exchange is, after all, least likely to take place among members of the more complex types of group (see Table 4.5.) Draft exchange is also of necessity localized since cattle cannot be driven to distant work sites. Even if draft exchangers are not relatives, they are likely to be neighbours and as such, well known to one another.

We cannot close the present discussion without enquiring more closely about "who benefits" from draft exchange. Draft exchange that occurs to the advantage of those in need is a socially progressive phenomenon. Labour groups (Type B) again perform distinctively. Draft lending by well endowed households occurs here at a higher rate (45%) than within any other type of group. Of those that lend, almost all (87%) are farmers with the livestock reserves to do so. Most strikingly, the benefits of borrowing accrue without exception to the draft "have-nots" (100%.) Labour groups promote social levelling by effecting a real transfer of draft resources to the needy.

Draft exchange can nonetheless fail to address, or at worst heighten, discrepancies in access to draft power. Social division can arise in two ways. First, some draft-deficit families do not borrow (20%) and therefore remain short of draft or entirely draftless. Women farming alone, especially widows and young wives with husbands in town, are prominent in this stratum. They cultivate by hand or with a sub-standard draft team and must accept a strict limit on area cultivated. Second, some households have enough cattle yet still borrow draft (6%.) They use the additional oxen to extend their cultivated area and put more land under cash crops. Households headed by older males who reside year-round in the communal land are the usual beneficiaries here.

This process of social division and stratification through draft exchange is reinforced by certain types of farmer group. In multipurpose groups (Type D) households with enough draft take advantage of draft borrowing and generally stand aloof from draft lending (see Table 4.6.) The proportion of needy farmers who actually borrow (48%) is lower in multipurpose groups than in any other setting. This suggests that as groups develop -- from labour to multipurpose -- the egalitarian thrust of draft exchange is eroded.

Means of payment

In response to the question "what is given in return?" for draft services, many exchangers (45%) replied, "nothing." One reason for the high incidence of apparently unreciprocated exchanges is that the parties are tied by kinship. The vast majority of the exchanges where "nothing" is given (83%) are among relatives. A farmer leader made the point that "only where people are all of one father can cattle be lent without charge" (Madzimbabwe, Wedza.) Another possible reason is that the survey question on repayment was poorly put. It overlooked the fact that contracts struck between borrower and lender are often implicit. Both parties understand that the lender can call upon the services of the borrower for some task or favour at a future date. Because the currency of exchange and the payment period are never specified, farmers may simply say that the exchange occurs gratis.

Money is widely used in the rural areas of Zimbabwe and has become a means of payment for draft services. After "free" exchanges, cash exchanges are the most common. In almost one out of three instances (30%) the borrower has to pay a fee. Most cash transactions (71%) are entered by people who have no kinship connection. One Chinamora farmer said that he would hire "to anybody" provided they had the money and would not mistreat his animals (Mutondo cash group.) The cost of draft services is calculated according to the size and quality of the land, as well as the operation to be performed. In the early 1980's, a draft team of four oxen could be hired for Z$10-15 for deep-ploughing one acre, though rates as low as $6 and as high as $20 were recorded. The rate varies depending on soil conditions, and whether the land has been previously cultivated. Sometimes the animals are leased out by the day rather than by area, "depending on what can be agreed." Cash transactions are much more common for ploughing at the time of the rains in November than for winter ploughing since at the later date farmers have cash in the pocket from crop sales. Draft hiring is seen as a relatively safe investment: "we prefer tractors, but cattle are cheaper and they are available when we want them". (Nyamhondoro Producers Cooperative, Chipuriro.)

The practice of brewing beer in exchange for draft services has almost died out. On occasion in Gutu, "those without cattle brew nhimbe (work party with beer)" and in Zwimba farmers were said to have a choice between "brewing for oxen or hiring tractors." Overall, only 9% of farmers mentioned beer as an exchange good for draft power. Beer, now usually sweet and non-alcoholic, is seen more as a courtesy to those who work than as a payment for services rendered.

The exchange of draft for labour is the last noteworthy pattern. For draft-deficit households "The best way to get your fields ploughed in winter is to promise the owner that you will help dig in his manure" (Wasawasara group, Murinye). At planting time a division of labour is agreed in which "those with cattle operate the plough and those without do the herding" (Choto Majeti group, Wedza.) Labour need not be supplied at the same time as the draft power, but may be held in reserve until needed. The lender is permitted to call upon the borrower for any type of service -- weeding, harvesting, shelling or herding, even house-building -- but usually within the course of a single agricultural season. The survey data indicate that labour is given in return for draft in only 15% of all exchanges. Because contracts for return labour are rarely explicit, this may be a slight underestimate. Farmer leaders certainly assert the importance of this means of exchange, though again the "myth of majangano" (see Chapter 3) may be at work.

It is interesting to enquire whether individual and group farmers use different means of payment for draft exchange. The answer is clear and positive, at least for information (Type A) and labour groups (Type B.) This type of group farmer is significantly more likely than individuals to engage in "free" exchange. Farmer group chairmen all across the country make claims to this effect: "members without cattle are helped without charge" (Chipuriro); "we make no demand for return" (Murinye) : and "we plough for them to show that the group can help" (Mangwende.) Money is rarely used to smooth the way for a draft transaction in the simple type of farmer group. The provision of labour in return for draft is much more frequent within groups than among individuals. Labour exchange is, after all, a definitional characteristic of labour and multipurpose groups.

The question arises whether free exchange is simply a function of the preponderance of kinfolk in group ranks. After all we have shown that cash exchange is usually with strangers. The data dispel the notion that kinship is the only explanatory variable. Some lenders do charge a fee to their own relatives and when they do so, it is usually outside a group (67%.)

Strikingly, when non-cash exchange occurs with strangers, it is usually within groups (82%.) An argument can thus be made that group organization performs independently of kinship in building social ties of development cooperation.

The members of more complex groups, particularly market groups (Type C), display commercial behaviour. They place heavy reliance on cash exchanges with outsiders, with fellow group farmers and even with relatives. Indeed, members of market groups make fewer "free" transactions than the average individual. The multipurpose group (Type D) displays the

most complicated pattern. Exchange for labour appears to have been institutionalized within these "proto-cooperatives." At the same time, both cash and gratis exchanges are made, with relatives and strangers alike. In short, the multipurpose group offers the widest choice in draft exchange arrangements.

The wealthier farmers have the most to gain from draft exchange in the "advanced" forms of farmer organizations. Surplus draft animals are used to earn money, either for household consumption or to purchase agricultural inputs, including hired labour (Type C.) Alternatively, draft surplus can be deployed in direct exchange for labour (Type D.) In either event, this form of group organization helps the "better-off" farmer to overcome the labour and other bottlenecks that arise as the household expands the scale of its agricultural operations.

Timeliness of Operations

One possible advantage of draft exchange is to enable farmers who have a draft deficit to improve efficiency in crop production. The productivity of labour can be increased by bringing to bear animal traction and labour-saving tools like ploughs and carts. The productivity of land can be boosted by practices like deep ploughing, the preparation of seed beds with an ox-drawn harrow, and early weed control with an ox-drawn cultivator. The size of crop yields, maize in particular, is heavily dependent on the timing of key farming operations. The most critical periods are during land preparation and the establishment of crops at the onset of the rains. In this paper we wish to know whether draft exchange, particularly as organized through farmer groups, helps farmers to do their work on time.

Leaders of farmers groups confidently assert that group organization ensures timeliness. "We formed the group to speed up our farming, especially ploughing and planting. In our group people without cattle are not late because we go to each member's field in turn" (Mutswairo Chihowa Group, Mangwende.) At ploughing time, "we sit down (as a group) and decide where to start. We can start on anyone's land, even if they have no cattle. We plough two to three plots per day" (Bhobho Batanai Group, Wedza.) Households that are short of draft can "get ploughing at the rains or even in winter, as long as they inform the committee in time and brew mahewu" (Gwenzi Farmers Club, Zwimba.)

The recommended land preparation practice for peasant farmers is to plough as soon as possible after harvest. Commonly known as "winter ploughing," this practice is undertaken over a four-month period from May through August. Farmers, especially those whose soils have a high clay content, try to start early. But since the available interval is wide, precision in the timing of winter ploughing is not critical.

Several advantages are associated with winter ploughing. Draft animals, having grazed when the natural pastures are most bountiful, are in prime condition. Soils are still moist from the rains and are therefore relatively easy to work. Moreover, the turning of the soil helps to retain residual moisture below the surface over the long dry

months that follow. Most importantly, winter ploughing enables farmers to get an early start in the subsequent season. When -- or before -- the rains fall, the farmer can easily open a planting furrow in a winter-ploughed plot and get the crop off to an early start.

Peasant farmers in Zimbabwe have keenly embraced the practice of winter ploughing. This is particularly true of households who hold enough draft. More than three out of four of the individual farmers who have their own draft teams begin their land preparation in winter (78%) (see Table 4.8.) The proportion among group farmers is even higher (92%.) Adoption of this improved practice by group farmers cannot here be attributed to draft exchange, however, since the farmers in question are self-sufficient in draft and rarely borrow. The effect of group organization seems rather to lie in providing a forum to spread information on winter ploughing and plan its implementation.

Households with insufficient draft animals naturally experience greater hardship in trying to plough in winter. Even so, the practice is remarkably widespread among them. About one-half of all draft-deficit households is able to till at least one of its plots in the winter months.

For analytic purposes we return to the distinction between farmers who are merely "short of draft" (2-4 oxen) and those who are effectively "draftless" (0-1 oxen.) Each category has a different strategy for tackling the task of winter ploughing. Those farmers who are "short" are just as likely to press small draft teams in service, even if the result is shallow soil penetration, as to resort to borrowing. (see Table 4.8.) The point is that, although peasant farmers in Zimbabwe prefer a full draft team of four oxen, they can often "make do" with only two.

By contrast, the "draftless" have little alternative to borrowing unless they choose to arduously "go it alone" with hand cultivation. There are several major findings that show the effects of organized draft exchange on the performance of these draftless households at winter ploughing. First, those who borrow are significantly more likely to winter plough (48%) than those who do not borrow (18%.) Second, group organization has an added influence. Those who borrow draft under group guidance are significantly more likely to plough in winter (70%) than those who borrow privately (48%.) Third, the most important comparison is clearly between those who fail to borrow and those who borrow in groups. The difference in performance by the draftless (19% versus 70%) is here extremely significant. (see Table 4.8.) Lastly, the positive effect on winter ploughing refers to all types of farmer organization, but the benefits to the draftless are most marked (75%) in labour groups (Type B.)

The implication is that draftless households may on occasion be able to break their central production constraint. The solution is an organizational one. By forming or joining farmer groups with households that are willing to lend draft, they are able to get ploughing services in the winter months.

Let us now turn to a second operation in the agricultural season when timeliness is a paramount consideration: summer planting. The agricultural extension service urges farmers to be prompt in planting maize by

getting seed into the ground while the soil is still dry or as soon as it is moistened by rain. A one-month delay after the first rains in northern Zimbabwe (natural region II) can reduce maize yields by up to fifty percent ( )
In general, farmers are more likely to plant early in areas that have low annual rainfall and a susceptibility to mid-season dry spells. They are also more likely to follow up a poorly-germinated first planting with successive plantings at later dates. Overall, only a few farmers (20%) do dry-planting, though the proportion in Gutu is higher (35%) than elsewhere.

The largest category (46%) plant when the soil is first dampened. Farmers will not always respond to an initial shower of rain, but will wait for a downpour which marks, in their judgement, the onset of the wet season. The practice of planting with the first rains is most common (70%) among farmers in Wedza. For purposes of analysis, farmers who plant maize before or with the first rains are defined as planting "on time."

The remainder of all farmers (34%) start "late," that is, from two to six weeks after the rains have begun. The proportion of late planters in Chipuriro is unusually high (52%.) This is not necessarily due to poor standards of crop management, but because farmers calculate that the reliable rainfall and warm temperatures in their area will bring the maize to quick maturity.

The period for summer ploughing and planting in the drier parts of the country, ideally within two weeks of the first rains, is far shorter than for winter ploughing. Any constraints deriving from draft shortage are therefore likely to be felt severely at this time. We wish to know whether draft exchange, particularly through farmers organizations, can proceed smoothly when the demand for draft is at a peak.

The first finding is not encouraging. Individuals that are "short of draft" and borrow from others are less likely to plant "on time" (42%) than those who use their own draft (69%) (see Table 4.9) These are the households that usually borrow an animal or two to supplement their own draft resources. On one hand, such farmers complain about delays while draft owners finish planting. On the other hand, rather than wait, many "make-do" with a small draft team and dispense with borrowing altogether. If a plot has been winter ploughed, the task of summer land preparation -- reploughing, harrowing, row marking -- does not require a full team. We should not, therefore, be surprised if farmers with only two oxen are able to plant on time without borrowing.

Again the "draftless" have fewer options. They are dependent on the goodwill of owners. It is noteworthy, however, that draft exchange can ameliorate the poverty of draftless families even during the summer peak. Among the draftless there is no difference whatever in timeliness of planting between borrowers (60%) and the average individual (59%.) Those who borrow draft are no less able to get their seed in the ground on schedule with the season. We conclude that, while draft exchange may not put the draftless ahead of other farmers in cropping operations, it at least prevents them from falling behind.

One remaining question is the role of organization in this process. We have shown that farmer groups assist the draftless with winter ploughing. Groups do not appear to play a similar role for the draftless in the summer. Instead, group organization at this time of year serves the interests of the intermediate category of household that is merely "short of draft." This sort of group borrower overcomes the tardiness that is typical of individual borrowers: the former are significantly more likely to plant on time (69%) than the latter (48%.) Indeed, group organization permits as many borrowers to plant early (69%) as individuals who use their own resources (69%) (see Table 4.9.) The use of a roster for ploughing operations in groups, by which members are served in turn regardless of whether they hold assets in cattle, overcomes the delays otherwise associated with draft exchange. Again, the most effective instrument is the labour group in which every borrower -- without exception (100%) -- plants maize on time.

In sum, research on farmers organizations only partly supports the view that "those who hire a plough team will get it late, after the land of the team owner is done" (Callear, 1983, D5.) Draft-deficit households may or may not plough "after" owners. In any event they do not plough and plant "late" in relation to the unfolding of the agricultural season. Contrary to the popular view, draft-deficit households are not automatically disadvantaged in the ability to practise farming in recommended fashion.

Towards Explaining Productivity

This paper does not challenge the accepted view that cattle owners top the ranks in crop production and productivity in the peasant farming areas of Zimbabwe. But I do take issue with the explanatory logic that attributes productivity of owners to the timely availability of draft power. There will, of course, always be non-owners who are unable to borrow draft and who struggle to keep up to date with farming operations. But I have shown that ploughing and planting are just as opportune among draft borrowers as among draft owners. This is not small observation, given that draft borrowers constitute 44% of all farmers. Moreover, the best guarantee of timeliness in farm operations is if access to draft is organized through labour groups.

It follows that any productivity differences between owners and borrowers must be due principally to factors other than the ownership of draft. Many production inputs -- labour, cash, credit, extension -- may be concentrated in the hands of wealthy cattle owners. Only one factor, however, which directly links cattle ownership with crop production, will be considered here. Cattle owners have access to manure. My argument is that the advantage to an owner of a large cattle herd lies in the crop nutrients, rather than the draft services, it provides.

Research trials and observations on farmers' maize fields in the communal areas indicate that a dressing of kraal (corral) manure can substantially increase maize yields above base yields without fertilization (Grant , Bratton and Truscott, 1984).

There is no doubt that cattle ownership makes it possible for farmers to use manure on maize (see Table 4.10.) (Note: in this analysis, draft ownership serves as a proxy for cattle ownership in order to retain the standard household categories employed throughout the paper. Use of manure is treated as a simple bivariate variable according to which farmers apply or do not apply manure as a basal dressing on maize. No attempt is made to gauge the quantity or quality of manure.) Almost all farmers with enough draft use manure (86%) compared with very few (29%) of the draftless.

It is perhaps surprising that the draftless use manure at all, a fact attributable to their ownership of other kinds of livestock. Such farmers gather manure from the one ox or cow that they own, from cattle too young to be used as draft, or from sheep and goats. According to informal interviews, farmers with insufficient draft rarely purchase manure from other farmers. A father or uncle may occasionally supply a nearby son or nephew with manure for a vegetable garden or field plot, but not commonly.

Group farmers are more likely than individuals to use manure, independent of the fact that they own large herds (see Table 4.10b.) But this organizational effect is not due to exchange of manure since no group leader ever cited such exchange as a group activity. The higher incidence of manure use in groups is probably due instead to high levels of technical knowledge among group farmers, including information about organic fertilization. It may also be due to the availability of work parties within labour groups to tackle the heavy tasks of digging, loading, transporting and spreading manure.

Whatever the reason, manure is not a commodity like draft that is exchanged among households. It is a crop production input that households either have or do not have. In this regard the ownership of cattle does have a bearing on the productivity of cultivated land. A farmer must own cattle to have a reliable source of manure for his field crops. But the same does not apply to draft power. A farmer need not own cattle to plough correctly and opportunely. For this reason I argue that cattle owners occupy an advantaged socioeconomic position more because of their access to manure than because of their access to draft.

Summary

By way of summary, several general statements can be made about draft exchange among peasant farmers in Zimbabwe.

(a) Draft exchange is a widespread social practice rather than an exclusinve feature of organized farmer groups.

(b) Labour groups (that conduct reciprocal work parties) are the only type of farmer group in which draft exchange has been formally institutionalized.

(c) At the early stage of group development (in information and labour groups) the frequency of draft exchange increases. At later stages (in market and multipurpose groups) it declines.

(d) The exchange of draft in labour groups is socially progressive. It transfers draft resources from households with a surplus to households with a deficit. In other types of group, benefit sometimes accrues to households that already have enough draft.

(e) At the early stages of group development, draft exchange occurs among relatives by virtue of social obligation. At later stages, cash exchange with strangers becomes common.

(f) For farming operations that require animal traction, draft borrowers are generally as likely as draft owners to do the work on time (e.g. winter ploughing.) In some cases, timeliness is achieved only when borrowing occurs through organized groups (e.g. summer planting.)

(g) Cattle owners achieve high productivity of cultivated land more because of access to manure than access to draft.

Conclusion

One might be tempted to come to an optimistic conclusion. In labour groups there appears to be a model which can help to offset draft shortages by organizational means alone. And being socially progressive, draft exchange in labour groups would seem to provide an ideal vehicle for the construction of socialism at the grassroots. Perhaps labour groups are a germ around which producer cooperatives or even collectives can grow. Why not promote this form of organization nationwide as a matter of policy?

A vigorous campaign to publicize the advantages of resource pooling, including draft exchange, is an appropriate policy for the peasant sector. It fits well into the broader government strategy in Zimbabwe to organize peasant farmers for cooperative action. Government would be well advised to take the "group development" and "mushandira pamwe" approaches of Mashonaland East as the basis of a countrywide thrust to form farmer groups. These are the only extant grassroots organizations with the potential to develop in the direction of producer cooperatives.

While government should be vocal in encouraging resource pooling among producers, it would be unwise to attempt to "organize" it through bureaucratic channels. The emphasis in any campaign, as government leaders have clearly stated, should be on education rather than compulsion. Labour

groups will only emerge voluntarily, that is, where local sentiment demands or where enlightened field workers offer gentle support. Labour groups will multiply only where material benefits demonstrably accrue to all participants, cattle owners and non-owners alike. Because draft exchange is primarily a social practice it is not easily susceptible to engineering by outside agencies. Farmers choose their own collaborators, usually close relatives. Ties of cooperation of this sort cannot be legislated from above and may even be damaged by hasty or clumsy intervention.

It is also the case that at present draft exchange as a formal organization has a very limited scope. A majority of farmers may practise draft exchange, but fewer than one out of six does so through the structured channels of an organized labour group. The receptivity of farmers to labour groups outside of Mashonaland East is presently unknown.

Beyond educating farmers about draft exchange, government should give emphasis to special programmes targetted directly at draft-deficit-households. For example, where tractor services are introduced, first access should be reserved for households that can prove a need for draft power. This would reverse the present policy of including tractor ploughing in the seasonal loan packages of the Agricultural Finance Corporation. AFC loan recipients are proven producers, almost all of whom have adequate draft reserves, and who use tractors as a matter of convenience rather than need. Another example is off-farm employment and other income generating activities. It is doubtful if the communal lands will ever have the land and draft resources to provide every household with a livelihood from cash-crop agriculture. The aim therefore should be to provide alternative sources of income, again particularly to draft-deficit households. It makes sense to encourage those without the resources to become good farmers to consider poultry and vegetable production and artisan work in carpentry, bakery and tailoring. To a certain extent, the poorer households are being reached by women's organizations in the countryside that have begun these activities, but much remains to be done, particularly in skills training.

Whatever its part in policy, one should not expect too much from draft exchange. Any expansion of the practice beyond present levels will occur in the face of strong counter currents. First, trends in demography and climate militate against draft exchange. As human populations rise and cattle populations fall, fewer draft animals per capita are available for exchange. The herds that remain are weakened by drought and the owners become increasingly reluctant to lend them out.

Second, the development of formal farmer organizations may actually stifle traditions of draft exchange. As groups develop, members increasingly take advantage of the technologies and services of the modern economy (Bratton, 1984). Involvement in capitalist relations of exchange works at cross-purposes to precapitalist social reciprocities. Herein lies a paradox of institution-building for rural and agricultural development. The very act of trying to build modern cooperatives undermines traditional cooperation.

In the final analysis, draft exchange is a transitional phenomenon. It assists peasant farmers to bridge the chasm between what Hyden calls "the economy of affection" and the dominant market economy (1983, 1-28). The general trend in Zimbabwe, government strategy for socialism notwithstanding, is from group to individual rights of ownership and towards the commercialization of property and work relations. As May notes, the communal character of the group (chizvarwa) in traditional society is eroding (1983, 89, quoting Child). Group organizations, including adaptive forms like the labour groups of poorer peasant farmers, serve as a stepping stone between the precapitalist and capitalist worlds. In the short run, draft exchange can ease the production constraints of some draft-deficit households and help guarantee household food security. In the medium term, it can contribute to the accumulation of capital by individual households and assist them to invest in their own draft power. For both of those reasons it should receive official support. Beyond this, draft exchange is not destined for any long-run or permanent place in raising general standards of productivity in the communal lands. In time, the practice may even dwindle to little more than an historical curiosity.

The wider implication of this argument is that the development of peasant farmer organizations in Zimbabwe is far more likely to occur in the realm of marketing than in the realm of production. Within the communal lands a few farmer groups may effect the transition from close-knot community to registered socialist collective. Such collective cooperatives may even be able to devise procedures for central ploughing services to member households. This is likely to occur mainly where individually-owned livestock are supplanted for draft purposes by collectively-owned tractors. The attachment of peasants to private ownership or use of assets -- not only land but also livestock -- constitutes a serious stumbling block to collectivization. A much more likely pattern of development is for farmer organizations to drop draft exchange and related practices of resource pooling as households accumulate production assets on an individual basis. Organized cooperation will then decline in the realm of production, even at the same time as it increases in the realm of supply and marketing. In short, for a reliable guide to the immediate development of peasant farmer organizations in Zimbabwe we should look elsewhere than the "primitive communalism" of the African past or the "collective cooperative" of the ideal socialist future.

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Table 4.0: Zimbabwe, Types of Peasant Organizations by Communal Area

	Type A	Type B	Type C	Type D
	Information Groups	Labour Groups	Market Groups	Multipurpose Groups
Guruve	14 (30%)	8 (17%)	17 (37%)	7 (15%)
Medza	9 (9%)	49 (47%)	12 (11%)	34 (33%)
Gutu	10 (18%)	17 (31%)	20 (36%)	8 (15%)
TOTAL	34 (17%)	75 (37%)	48 (23%)	48 (23%)

Table 4.1 Ownership of Cattle and Draft

Household Characteristics	Wedza	Gutu	Chipuriro	Overall
	n=184	n=144	n=144	n=425
Cattle Ownership				
Own cattle	75%	83%	82%	79%
Own 10+ cattle	26%	31%	27%	28%
Own no cattle	25%	17%	18%	21%
Draft Ownership				
Own 2+ oxen	57%	63%	65%	61%
Own Enough Draft (4+ oxen) (objective measure)	35%	46%	43%	42%
Own Enough Draft (subjective measure)	33%	47%	39%	39%
Short of Draft (2-4 oxen)	26%	29%	28%	27%
Draftless (0-1 oxen)	39%	25%	23%	31%

Table 4.3 Sufficiency of Draft by Age and Sex

Household Characteristics	Male Heads of Household			Female Heads of Household
	Under 35 yrs.	35-54 yrs.	Over 55 yrs.	
	n=91	n=150	n=133	n=50
Wedza				
Enough draft (objective)	5%	47%	48%	25%
Enough draft (subjective)	13%	46%	31%	35%
Gutu				
Enough draft (objective)	14%	45%	73%	42%
Enough draft (subjective)	17%	55%	53%	53%
Chipuriro				
Enough draft (objective)	18%	57%	72%	9%
Enough draft (subjective)	35%	73%	67%	0%

Table 4.4 Exchange of Draft by Draft Sufficiency

Household Characteristics	Wedza	Gutu	Chipuriro	Overall
	n=184	n=144	n=97	n=425
Households that Borrow Draft (n=187)	53%	39%	34%	44%
Without Enough Draft[b]	91%	82%	81%	87%***
Households that Lend Draft (n=119)	30%	26%	28%	28%
With Enough Draft[b]	69%	54%	63%	63%***
Total Households that Exchange[a] (n=297)[c]	80%	63%	60%	70%

a. Exchange = borrowing or lending

b. Objective measures: Enough draft = full draft team of 4 oxen or equivalent

c. Total exchange is less than total borrowing plus total lending since some households engage in both forms of exchange.

*** $\chi^2 = .001$

Table 4.5 Exchange of Draft by Farmer Group

Household Characteristics	Individual Farmers	Group Farmers	Type of Group			
			A Info.	B Labour	C Market	D Multi.
	n=228	n=197	n=82	n=73	n=44	n=48
Households with Enough Draft (n=246)	34%	52%	44%	38%	77%	53%
Lend Draft	51%	35%	36%	45%	33%	24%*
Households Without Enough Draft (n=179)	66%	48%	56%	62%	23%	47%
Borrow Draft	63%	70%	67%	82%*	73%	48%

* $x^2 = 4.05$

Table 4.7 Exchange of Draft by Means of Payment

Household Characteristics	Individual Farmers	Group Farmers	Type of Group			
			A Info.	B Labour	C Market	D Multi
	n=150[b]	n=147[b]	n=25	n=72	n=25	n=25
Households that Exchange[a] Means of Payment (n=297)						
Cash	44%	16%***	8%	10%	32%	27%
Beer	8%	10%	8%	5%	24%	7%
Labour	10%	21%**	20%	24%	12%	24%
Nothing	38%	53%**	64%***	61%***	31%	40%

a. Exchange = borrowing or lending

b. Exchangers only (from Table 4.6)

*** x^2 = .001

** x^2 = .01

* x^2 = .05

Table 4.8 Exchange of Draft by Timeliness of Ploughing

Household Characteristics	Individual Farmers	Group Farmers	Type of Group			
			A Info.	B Labour	C Market	D Multi.
	n=228	n=197	n=32	n=73	n=44	n=48
Households with Enough Draft (n=179)						
Plough in winter	78%	92%**	79%	93%	94%	96%
Households Without Enough Draft						
Households with 2-4 oxen (n=107)						
Borrow Draft (n=50)	58%	65%	43%	67%	n/a	57%
Plough in Winter	58%	65%	43%	67%	n.a.	57%
Do Not Borrow Draft (n=57)						
Plough in Winter	65%	76%	n/r/	82%	n.r.	56%
Households with No Draft						
Borrow Draft (n=117)						
Plough in Winter	48%*	70%(***)	57%	75%	67%	67%
Do Not Borrow Draft (n=22)						
Plough in Winter	18%	20%	n.r.	n.r	n.r	n.r

n.r. = not reported because sample size too small for valid comparison

* x^2 = .05
** x^2 = .01
*** x^2 = .001