DEPARTMENT OF
AGRICULTURAL ECONOMICS
AND EXTENSION

WORKING PAPER

THE SITUATION OF ZIMBABWE'S LARGE COMMERCIAL
FARMERS IN A PERIOD OF STRUCTURAL CHANGE
By
Prof Peter von Blanckenburg

Working Paper AEE 1/92

DEPARTMENT OF AGRICULTURAL ECONOMICS & EXTENSION
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June, 1991

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The views expressed in this paper are those of the author and do not necessarily express those of the Department and the University or any other institution.

Working Papers are published with minimum formal review by the Department of Agricultural Economics and Extension, University of Zimbabwe.
This study was undertaken as part of the research programme of the Department of Agricultural Economics and Extension of the University of Zimbabwe in 1990/91. Preparations and pretests for the interview were carried out in 1990. The actual field work with interviews of a sample of 52 large commercial farmers took place from February to April 1991 in four selected areas: Wedza, Marondera, Glendale north of Harare, Masingo East and Marulah near Plumtree in Matabeleland. These areas, representing various important farm systems of Zimbabwe, were selected after consultation with the Head Office of the Commercial Farmers Union, Harare. In each area between 10 to 16 farmers were interviewed using a formal questionnaire. The interview took between 90 and 120 minutes. The selection of the sub-samples was done together with the Chairman of the respective Farmers Association, using as criteria the main production system, size of farm, age of farmer.

With the small sample size: 52 (5 of them black farmers) out of a total of 4791 large commercial farms, the study is, of course, not representative for the large commercial farmers community. However, it is expected to give an insight into the structural changes which have taken place within the farms of these rather typical areas since independence. The findings on attitudes of farmers on the present and future situation may be rather representative for the total community.

I received assistance from many sides. My thanks are extended in the first line to the interviewed farmers who were very cooperative and hospitable. Only one approached farmer rejected the interview. All the others agreed immediately to be interviewed.

The President and the Director of the Commercial Farmers Union, Harare, assisted me in the preparation of the research and cleared, together with the four Chairmen of the Associations the way for a speedy interview programme.

The study was financially supported by a research grant of the University of Zimbabwe and by the Department of Agricultural Economics and Extension of the University which also made its secretarial and computer services available for a fast data processing and report writing. The Chairman of the Department, Mr G. D. Mudimu, assisted me with good advice on operational issues and supported the whole project effectively. Mr Ivan Bond was of help to me as regards the preparation of the questionnaire.

The typing of the draft and of the final version of the report was done by Mrs E. Nyabako. I am very grateful to all of them. My last thanks go to my wife Esther. She assisted me in the organization of the field work, accompanied me to all interviews, helped to find the farms, and drove the car over thousands of kilometers of dust roads in the research areas, giving me time to relax and to prepare for the next interview.

Peter von Blanckenburg
June, 1991
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1. INTRODUCTION

1.1 The large commercial farm sector in the Zimbabwean economy

Since the government of Zimbabwe has come out with new land policy plans in 1990 there is renewed public interest in the large-scale commercial farm sector. Realization of the land redistribution plans as submitted to parliament by the Minister of Lands, Agriculture and Rural Resettlement at the end of July, 1990 will change fundamentally the size, the political and economic position of the sub-sector and its contribution to economic development and food security of the nation. Not only the directly affected group, the large commercial farmers, but a wider economically interested public is anxious because of the far-reaching reform proposals and their potential effects.

Table 1 Land use by farmers' categories 1989

<table>
<thead>
<tr>
<th>farmers’ categories</th>
<th>NO '000ha</th>
<th>% of agric land</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communal farmers</td>
<td>800 000</td>
<td>16 355</td>
</tr>
<tr>
<td>Small-scale commercial farmers</td>
<td>88 000</td>
<td>1 400</td>
</tr>
<tr>
<td>Resettlement farmers</td>
<td>52 000</td>
<td>3 090</td>
</tr>
<tr>
<td>State farms, ADA, cooperatives</td>
<td>884</td>
<td>2 784</td>
</tr>
<tr>
<td>Large Commercial farmers</td>
<td>4 800</td>
<td>11 270</td>
</tr>
<tr>
<td>Farmers</td>
<td>32 999</td>
<td>100</td>
</tr>
</tbody>
</table>

a) In addition to the land used for agricultural purposes there are 4 900 000 ha national parks and wildlife areas, 977 000 ha forest areas and 196 000 ha urban areas.

Source: Central Statistical Office and Commercial Farmers Union.

The base problem is the very unequal land distribution (cf. Table 1). There are between 800 000 and one million families in communal lands which occupy 16.4 million ha (42% of the total land and 50% of the agricultural land). In contrast, the large commercial farm sector consists of 4 800 farms on 11.2 million ha (29% of the total land and 34% of the agricultural land). This discrepancy in land endowment is, from the political and social point of view, in the long run hardly tolerable.

On the other hand, the economic position and the contribution to development of the large commercial farmers are strong. The farmers, in large majority white people, have kept a substantial economic influence even after the country became independent in 1980. Their farms are, on the whole, highly productive. The Minister of Lands, Agriculture and Rural Resettlement, Dr. W.P.M. Maigwende, outlined the importance of the sector for the economy in an address to commercial farmers in Harare on 11 January, 1991, as follows: "The Commercial farming sector provides employment for over 225 000 farm workers, produces 68% of the nation’s gross agricultural output, 82% of crop sales, 94% of marketed livestock offtake and 50% of export earnings". The overall productivity, market supply of food and raw materials and the export contribution of large commercial farms exceed by far those of the other farmers' categories. The market production of some commodities: tobacco, soyabean, sugar, wheat, milk, is a domain of the large commercial farms. These are also the major buyers of agro-industrial goods (chemical inputs, transport, machinery) produced in the country or imported, and they are engrossing much of the private services provided for agriculture.
It must not be overlooked that the high performance is not only due to the competence of the commercial farmers and the efficient organization of the farms. They possess a large share of the productive land with adequate rainfall, whereas the land endowment of the communal farmers with respect to farm size and quality of land is on average far more meagre. Moreover, the sector benefits from the preferential treatment which white farmers, in contrast to black farmers, have received over decades of colonial rule. Many of the institutions and services created then are still functional and fit the needs of large farmers well, even when they serve now also small farmers.

Finally it is of importance that the large commercial farm sector is extremely well organised, much better than other farmers groups (cf. Herbst, 1990, p. 390). Their national organization, the Commercial Farmers Union (CFU), is rather influential in economic policy, is well staffed to negotiate with government and other economic groupings. It advises their members in technical and legal matters. It carries even, by the Agricultural Research Trust, considerable research programmes.

The organization has also a number of commodity-oriented Producers' Associations and reaches down via provincial branches to local Farmers Associations (CFU: Information Brochure). These play a great role for the individual members. Many of the large farmers display a remarkable readiness to cooperate in this self-administration and take over functions in the various organizations.

1.2 Land policy issues since independence

The land issue has played a great role in the liberation struggle for Zimbabwe. It was to be expected that the new post independence government would make the land redistribution a major political programme point. The first government, formed after independence, initiated in 1980 a programme of resettling 18 000 families on more than 1 million ha of white farmers' land. As the target was considered unsatisfactory, the Transitional National Development Plan of 1982 provided for resettlement of at least 162 000 families on 9 million ha, i.e the commercial farm sector had to sell 60% of its total land of 15 million ha to the government.

This very ambitious plan could not be realised, not only because of the high costs arising from application of the "willing seller - willing buyer" principle but also because the other resources needed for functioning settlement projects (material and service infrastructure) were not easily available. The First Five Year National Development Plan (1986-90) set as target a yearly settlement of 15 000 families. 162 000 resettlement farms remained, however, the ultimate target. It was expected that its realization would lead to more equality in land distribution and to a relief for the communal lands farming suffering from over-population, decreasing resource availability and increasing land degradation.

A considerable number of white commercial farmers, in the first years after independence, sold their land to government or to other commercial farmers. The total number of farms decreased from 6100 in 1979 to 4660 in 1988, and the land area declined from 15 to 11.2 million ha during the same period. Between 1980 and 1989 a total of 52 000 families were resettled on 3.2 million ha. The pace of resettlement was faster during the first years than in the later phases of the programme. The average performance of not more than 6 000 families settled per year raised disappointment in the population. Many commercial farmers nourished the hope that the government would not continue its former plans for redistributing more than half of the commercial farm land.

However, in 1990, 10 years after independence, the government renewed its efforts. The Minister of Lands, Agriculture and Rural Resettlement announced a new land policy programme. Its main points are:
- the government will buy 5 million ha of large commercial farm land for resettlement purposes
- the government will determine a fair price for the land and the selling farmers cannot appeal to courts when dissatisfied with the amount of compensation paid.
- the compensation is to be paid within a reasonable period.
Government will designate major blocks of land for resettlement and apply some other criteria for determining which land will be acquired. (This means that the willing seller - willing buyer principle will be given up. The designated lands concept means, moreover, that unproductive as well as productive farms will be taken).

The informations on the extent and the envisaged procedure of planned land acquisition have led to substantial consternation within the large commercial farmers' community. Doubts have been registered also in a wider public whether the programme has been planned realistically. The question is being debated how far major negative effects on the economy can be avoided when the programme is fully implemented. The major concerns of the commercial farmers will be discussed later on. It may be appropriate at this point to look to lessons from land reforms in other parts of the developing world.

1.3 Effects of land redistribution programmes on the economy

In many developing countries, particularly in Asia, land reforms with redistribution of land were implemented after the countries became independent. The objectives were partly political: to change the power structure by disowning the landlord class, partly social: to improve the lot of the poor landless people by giving them land to reach more social equality, partly economic: to bring about more employment and a higher agricultural production by converting areas with a low land productivity to more intensively used small settler farms. Only the experiences with the third objective shall briefly be discussed here.

The record of economic impact of land reforms in countries with a market economy system is rather mixed (for a brief survey see Binswangers and Elgin, 1990, p. 342ff). The employment contribution has been considerable in most cases, especially by providing more secure work-places to former tenants and landless labourers. Reforms aiming mainly at making tenants on medium and small farms owners without changing much the farm structures, were also often successful (examples Japan, Taiwan, Philippines). In some countries such as Iran and Kenya the redistribution of large estates to settlers has, at least initially, led to income and productivity increases. In a great number of other countries redistribution was accompanied by a loss in agricultural production and did not lead to major socio-economic improvements.

Binswanger and Elgin (1980, p. 343) described the problem as follows: "If efficient small farms replace inefficient large farms, there is a benefit. But if smaller farms are not as efficient, there is a loss". To make settlers productive farmers, many requirements are to be met. The new settlers need capital and management skills which, if not available, must be developed by training and extension work. Settlement areas require high investments into physical infrastructure, into support services and perhaps even a system of supervision. Very often governments did not start early enough, i.e. years before redistribution, to train additional extension and marketing personnel and to lay aside the financial means needed for acquisition and resettlement of land.

If one tries to translate these lessons into the Zimbabwean case, doubts on the economic viability of the new redistribution programme emerge. They refer to the following spheres:

1. The planned scale of the reform (redistribution of half of the land now utilized by large commercial farms).
2. The above-mentioned efficiency and the strong contributions of the large commercial farm sector to the economy of Zimbabwe. The country cannot afford substantial declines in food production and export earnings.
3. The rather weak record of resettlement between 1980 and 1990, not only with respect to the number of families settled, but also to the disappointing farming achievements in the resettlement areas.
4. The apparent lack of mobilisation of financial and manpower resources, needed for making resettlement productive.
1.4 Objectives of the study

Among others, it is desirable for decision making on land reform to have a broad picture of the situation and the changes in the large commercial farm sector. Practically all information available on this sector is based on nation-wide statistics of the Central Statistical Office, on data of the Ministry of Lands, Agriculture and Rural Resettlement, e.g. from observations of its extension organization Agritex, or on CFU data. Hardly any micro-studies have been carried recently. The overall information gap cannot be filled by this small study. However, it is tried with interviews of a small sample of farmers (52, cf. the Foreword) to throw light on some important issues:

1. Observation of present farming structures: sizes, land utilization, crop and animal production, labour use and labour conditions.
2. Structural changes in these spheres between 1982 and 1990.
3. The socio-psychological situation of the farmers, especially after the announcement of the new land policy in 1990.

It is hoped that the results give some insights into important aspects of present large-scale farming in Zimbabwe. There remain, however, substantial gaps, not only with respect to the representativeness of the data. For instance, no in-depth analysis of the economic situation and profitability of the farms was carried out, nor could the various productivity aspects be examined in detail. Each empirical study has its limitations. This one may be considered as a pilot study which explores some of the important aspects and reveals starting points for further more extensive studies.
THE RESEARCH AREAS

1. Glendale
2. Wedza
3. Masvingo East
4. Marula
Two of the four research areas, Wedza and Glendale, are situated in natural region II, characterised by ecological conditions favourable for crop production, i.e., good and rather regular rainfalls and soils of good or medium quality. In both areas, farming is characterised by intensive crop production, although, especially in Wedza, a major portion of the land is used for animal production, due to inclination and emergence of rocks which would make crop production marginal. The two other areas, Masvingo East and Marula, have a much lower crop production potential due to low rainfall. Agricultural production is based on beef ranching only.

Whereas in the first-mentioned two areas capital (machinery and irrigation) and labour input are considerable, farming in the two other areas is of low intensity: large farm sizes, capital input mainly for beef stock, low need for labour. Irrigation facilities contribute substantially to a high productivity in Wedza and Glendale, but play an almost negligible role in Masvingo East and Marula. The low and erratic rainfalls and shortage of capital have prevented construction of dams in greater numbers. However, many farmers there aspire now to get some irrigation facilities, mainly for growing crops for winter feeding of their animals.

The author was impressed by the prevailing high management capacity of the interviewed farmers. However, the entrepreneurial element is much more visible in the Wedza and Glendale than in the Masvingo East and Marula sub-samples.

Wedza

The observed farms are between 32 and 70 km from the next major town, Marendera, and about 100 km from Harare. The road systems is rather good. The majority of the farms are on or close to a tarred road, which facilitates input supply and marketing. A minority of them is bordering the communal lands of Wedza and Soswe or some resettlement areas. The rainfall is not secure. The yearly average is 800 mm, but in some farms it has fallen back considerably in the last seasons. Soils are mainly sandy.

The average size of holding of the 16 observed farms is 1900 ha, ranging from 550 to 4200 ha. As in the other areas too, several farmers own more than one farm but they manage them in most cases as one unit. Most of the farms are mixed farms with crop and livestock. Crop farming is dominated by tobacco cultivation. For 11 out of the 16 farms this is, economically speaking, the main enterprise. One farm specializes in grape and wine production, and three are beef ranches. The majority of the mixed farms have beef and 2 are dairy farms. Many farms have game on their natural grassland which in most cases is not managed systematically. However, recently wildlife management has gained some attention, and a number of farmers intend to make it an income-generating enterprise.

Glendale

The Glendale farming area is situated between Concession and Bindura in Mazowe Valley, in 20-30 km distance from Bindura and about 65 km from Harare. It belongs to the most intensive cropping areas of Zimbabwe. The physical infrastructure - tarred roads, irrigation facilities based on large and small dams and rivers, marketing facilities is good. Glendale has an average annual rainfall of 750 - 850 mm with limited inter- and intraseasonal fluctuations. However, the rainfall in 1990/91 was subnormal. Soils are of the red loam type. Glendale lies within a closed region of large commercial farms. Very few of the observed farms are bordering communal lands (mainly Chiweshe and Masembura). This renders the supply of seasonal labour which is in high demand on the Glendale large farms, difficult.

In terms of hectarage the observed 15 farms are smaller than those of the other three areas: in average 820 ha, the smallest 360 ha and the largest 2230 ha. Only a few of the interviewed farmers own more than one farm.
Agricultural production is characterised by intensive crop farming with a number of crops grown in rotation. Cotton is usually the most important crop, followed by winter wheat and maize, very often as seed maize. One farm is specializing on tobacco. Recently some farmers have taken up successfully horticultural production (vegetables, flowers) which they market through a newly established horticultural marketing cooperative. Eight of the fifteen farms produce only crops, the other seven have also beef cattle, and one is producing pigs. Almost all observed farms are highly rationalized, with high investment, mainly in irrigation, and machinery. The contribution to employment, permanent and seasonal labour, is prominent.

**Masvingo East**

This area belongs to the many areas in Zimbabwe which, with respect to ecology and to location and infrastructure, are at a disadvantage. The observed farms are in a smaller part in natural region III, the majority lie in region IV. The nearest town and market place is Masvingo, 30 - 60 km away. All the 10 farms observed can be reached only on dust roads, branching off from the main Masvingo - Mutare road, and some of the roads are in rather bad shape. All farming is influenced by a pattern of low and erratic precipitation. The area has an average rainfall of 500-600 mm, but this is most unreliable. The season 1990/91 had only 210 mm. Rains have failed every year since 1982 and this has had a very negative influence on all farming. The option as on other large farm areas, to become more independent from the rains by building dams for irrigation, is not open for most of the Masvingo East farms. They suffer from severe shortage of capital. Although they are situated in the catchment area of Lake Mutirikwe (Kyle) they do not have access to irrigation water since taking out water from the rivers is strongly restricted. Most of the farms are bordering or in close vicinity to the communal lands of Gutu and Chikwanda. Farming there is even more depressed than in the large farms and many large farmers complain of growing criminality (stock theft), which certainly is caused, to some degree, by the poverty in communal lands.

The average size of 9 of the 10 observed farms is 1340 ha; the 10th farm is exceptionally large: 11000 ha, the smallest has 550 ha. Beef production is the main enterprise; 6 farms have also a limited field crop area. One farm is a pure citrus production farm. The beef ranches have some wildlife, but none has entered into systematic game management so far.

**Marula**

The farms observed in this part of Matabeleland, close to the Botswana border, share many characteristics with those in Masvingo East. They are far from major two centres, Bulawayo is 40 - 100 km away. Precipitation is around 500-600 mm per year but in many years only two thirds of this amount are received; i.e it is one of the driest areas in the country. Most of the soils are very light, with some areas are of semi-desert type. To make a living from rainfed crop farming only is very difficult. The communal land (Ingwezi, Mpande) farmers, as far as they live on their farm at all, must try to earn money from outside. There is a rich supply of labour for large farms. However, as these are managed mainly as beef ranches with a low demand for labour, the chances of communal people to get a job there are rather limited.

Due to the particular ecological conditions the farm sizes are larger than in the other areas. Nine of the 11 observed farms are on average 12 700 ha. The 10th observed farm is exceptionally large 80 000 ha. The 11th is 1 070 ha which is unusually small. The majority of the interviewed farmers own more than one farm, but, similar to Wedza, they operate them mostly as one unit, even when these are not adjustment to other. They practice in such a case some form of specialisation: breeding and growing weaners on one farm, fattening beef in the other.

One feature is very peculiar in this area. Farming has been strongly influenced by the civic unrest, caused by dissidents between 1981 and 1988. This led to high insecurity for the large white farmers. A number of were
attacked by dissidents and a number of interview partners had lost close relatives. A considerable number of farmers gave up and sold their farms to the government. These are managed now by ADA. Others sold land to neighbouring farmers. As a consequence, there has been much more mobility in the land market than in the other 3 areas.

The majority of the 11 observed farms are pure beef ranches. Two have, in addition to beef, dairy. They are closer to Bulawayo than the others. On two farms, a limited acreage is used for crop farming. Irrigation is currently minimal; but some farmers plan to build dams. There is a lot of wild life on all beef ranches, but only 3 farmers have made this an income-generating enterprise.
3. CHARACTERISTICS OF THE SURVEY FARMERS

3.1 Personal and family data, educational matters

The age composition of the sample of 52 farmers is as follows:

- Less than 30 years: 9.6%
- 30 through 39 years: 15.4%
- 40 through 49 years: 30.8%
- 50 through 59 years: 17.3%
- 60 and more: 26.9%

The mean age of all farmers is 49 years.

Forty-six farmers (88.5%) are married, three are single and three widowed or divorced. Six have no children. The average number of children of the forty-six other households with children is 3.3. The most frequent numbers of children per farmer are 2 (for 19 = 17.3% of all farmers), 3 (for 19 = 36.5%) and 4 (for 9 = 17.3%). 4 farmers have more than 5 children. Out of the 46 farmers with children 40 (= 87%) have one or more male children. Grown-up children (over 17 years) are to be found in 32 families. One of the 52 interviewed farmers is female. Five interviewees are black farmers.

There is a surprisingly high number of farmers who did not get any formal agricultural education. Out of 40 farmers, from whom this information was obtained, 22 (55%) had training at a college or school of agriculture, and this partly in Gwébi College (the middle age group before independence), partly in a college or university in Great Britain or South Africa. Some of the old farmers have gone into farming without much training before or after second world war. The younger ones who did not receive a formal agricultural education, learned the job from their father or in some cases through an informal apprenticeship on another farm.

The interviewed farmers do not have much trust in college or university education in post-independence Zimbabwe. Neither has any of the younger farmers been trained at the University of Zimbabwe nor are the farmers inclined to send their sons or daughters for training at the University of Zimbabwe. The reason given for this is the social rather than the academic environment at the University of Zimbabwe. Out of 19 farmers who made a university-type education possible for some children, only three arranged this within Zimbabwe, the rest of 16 (84%) sent the sons and daughters abroad.

3.2 Farm Ownership

Forty-four (=85%) of all farmers interviewed farmers are owner-operators, two are tenants and the rest, six are managers of the farm. Twenty four farms (46%) are in family ownership and 23 (44%) have the status of private company. Another five farms are now in corporate ownership. This is a new phenomenon. In 1982 there were only 27 family farms and 25 private companies.

Thirteen farmers (25%) own more than one farm. The second and eventually the third farm was inherited or it was bought. Several such purchases were made in the eighties. Multiple ownership does, in the majority of cases, not mean that the farms are managed separately. Very often they are run as one economic unit, and in this case some labour division may be practiced, e.g. in cattle ranches breeding cows, calfs and weaners are kept in one and the fattening stock in the other farm.

The duration of ownership of the farms is shown in Table 2. ten out of the 52 farms (19%) were acquired by the farmer's family prior to 1960 and 19 (37%) only after independence. The average period for which the farms of the 47 white farmers have been in family ownership is 45 years. 30 (64%) of these 47 families have come to their present farm before 1960. Understandably these people have got strong ties to the land on which they were eventually born and into which they or their fathers have invested much.
Table 2
Duration of family ownership of present farm

<table>
<thead>
<tr>
<th>Year of acquisition</th>
<th>Farmers Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>before 1920</td>
<td>5</td>
<td>9.6</td>
</tr>
<tr>
<td>1920 - 1939</td>
<td>11</td>
<td>21.2</td>
</tr>
<tr>
<td>1940 - 1959</td>
<td>14</td>
<td>26.9</td>
</tr>
<tr>
<td>1960 - 1979</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>1980 and later</td>
<td>10</td>
<td>19.2</td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Thirty-three interviewees (63% of the 52) were operating on their farms prior to independence. Ten started before 1960, i.e. they have operated their farm more than 30 years. Nineteen have begun to manage 1980 or later.

The farmers actively participate in taking duties in professional associations or in social clubs. Only thirteen or one quarter are without any honorary office. Twenty (39%) hold one and the rest of nineteen (36%) even two or more offices. It is mainly the middle-aged group which is active in self-administration. Most of the older farmers had offices earlier but gave up active involvement.
4. STRUCTURE OF FARMS AND RECENT STRUCTURAL CHANGES

4.1 Types and sizes

In adaptation to the ecological conditions the farm type differs considerably. Ten farms (19% of the total) are pure crops farms. These are mainly situated in Glendale. Thirteen (25%) are animal production farms, most of them in Marula but some also in Masvingo East and Wedza. The rest of 29 (56%) are mixed farms, largely with much natural grassland area for the production of beef and some land cultivated under various crops. The majority of the Wedza and Masvingo farms are of this type.

Farm sizes vary strongly from area to area but also within each of the areas. The total size composition is shown in Table 3.

Table 3

<table>
<thead>
<tr>
<th>size group ha</th>
<th>No. of farms</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 500</td>
<td>2</td>
<td>3.8</td>
</tr>
<tr>
<td>500 - 999</td>
<td>16</td>
<td>30.8</td>
</tr>
<tr>
<td>1 000 - 1 999</td>
<td>13</td>
<td>5.0</td>
</tr>
<tr>
<td>2 000 - 4 999</td>
<td>9</td>
<td>17.3</td>
</tr>
<tr>
<td>5 000 - 9 999</td>
<td>4</td>
<td>7.7</td>
</tr>
<tr>
<td>10 000 - 14 999</td>
<td>4</td>
<td>7.7</td>
</tr>
<tr>
<td>15 000 and more</td>
<td>4</td>
<td>7.7</td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>100.0</td>
</tr>
</tbody>
</table>

More than half of all farms observed have 500 to 2000 ha. The mean hectareage in Wedza is 2180, in Glendale 870, in Masvingo East 2430 and in Marula 11 370 (only 10 farms included, the 11th has the exceptional size of 80 000 ha). The size differences indicate to some degree the variations in economic viability and agro-ecological location. The farmers in Glendale, in the intensively cultivated Mazowe Valley are, comparatively speaking, the smallest and those in Marula whose land, due to the low rainfall, is suited only for ranching, the largest.

No major changes in the farm sizes have taken place between 1982 and 1990. Only at the two extremes of the sizes classes are changes worth mentioning: the number of farms below 500 ha has decreased from 5 to 2 and the number of large farms of 10 000 and more ha has increased from 5 to 8 in this period.

The lease system is surprisingly unimportant. Only 5 out the 52 farmers have rented in and 1 farmer has rented out some land. One may conclude that the land market is rather immobile in the large commercial farmers’ community. However, it should not be overlooked that during the civic unrest in Matabeleland between 1980 and 1988 a number of large farmers gave up and sold their land. A few of the 11 sample farmers in Marula bought such land. Another major buyer was ADA, the parastatal Agricultural Development Authority.
4.2 Crop Production

In the sample of 52 farms, thirty-nine (75%) are crop growing enterprises, pure crop farms, as well as mixed farms with animal production. The crop production structure can be seen from Table 4. Maize is the most widely produced crop, followed by cotton. Wheat, the main winter crop, and soya bean cover rather similar acreages, and tobacco follows with much less land utilized. Sunflower, sorghum and groundnut are of low importance in the four research areas.

Most crops have specific locations. This holds the least true for maize which is cultivated in three of the regions; only in the extremely dry area of Marula it is of no importance. Cotton and soya bean are a domain of Glendale area and tobacco of Wedza. Wheat is grown mainly in Glendale and to a minor degree also in Wedza. As a winter crop, it depends on availability of irrigation water.

Table 4

<table>
<thead>
<tr>
<th>Crop</th>
<th>1982</th>
<th>1990</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no. of farms</td>
<td>total ha</td>
<td>no. of farms</td>
</tr>
<tr>
<td>Maize</td>
<td>34</td>
<td>2957</td>
<td>35</td>
</tr>
<tr>
<td>Cotton</td>
<td>16</td>
<td>2023</td>
<td>14</td>
</tr>
<tr>
<td>Soya bean</td>
<td>15</td>
<td>845</td>
<td>17</td>
</tr>
<tr>
<td>Wheat</td>
<td>11</td>
<td>370</td>
<td>17</td>
</tr>
<tr>
<td>Tobacco</td>
<td>10</td>
<td>310</td>
<td>12</td>
</tr>
<tr>
<td>Sunflower</td>
<td>2</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Sorghum</td>
<td>2</td>
<td>56</td>
<td>1</td>
</tr>
<tr>
<td>Groundnut</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) of which seed maize 1982: 629ha = 21% of total maize hectarage
1990: 938ha = 34% of total maize hectarage

The three crops which have expanded most between 1982 and 1990 are wheat, soya bean and tobacco, facilitated by the strong expansion of irrigation (cf. chapter 5.1). Wheat cultivation has more than quadrupled. Soya bean has come up strongly with a doubling of the land cultivated. The expansion of tobacco (almost a doubling) is induced by high profitability, but is, on the other hand, restricted by crop rotation and high input requirements. Maize which is the least profitable of the major crops has undergone a reduction in acreage. However, many farmers in Glendale have shifted to seed maize production which is economically more viable.

Out of the total of 39 crop-growing farms, 32 (= 82%) have now more land and the rest of 7 less land under cultivation than in 1982.

The changes in the extent of the various crops grown can largely be explained by the changed price-cost relationship for the individual crops. A majority of farmers said that in 1982 tobacco and cotton were the most profitable and maize and soya bean the least profitable crops. For 1990 a majority characterized tobacco and wheat as the most profitable and maize as the least profitable crop.
Table 5
Average crop yields 1982 and 1990 on 39 sample farms and national yields

<table>
<thead>
<tr>
<th>Crop</th>
<th>Sample Farms</th>
<th>National average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kg/ha 1982</td>
<td>kg/ha 1990</td>
</tr>
<tr>
<td>Maize</td>
<td>4256</td>
<td>5366</td>
</tr>
<tr>
<td>Cotton</td>
<td>2333</td>
<td>2425</td>
</tr>
<tr>
<td>Soyabean</td>
<td>2344</td>
<td>2847</td>
</tr>
<tr>
<td>Wheat</td>
<td>5933</td>
<td>6480</td>
</tr>
<tr>
<td>Tobacco</td>
<td>2459</td>
<td>2985</td>
</tr>
</tbody>
</table>

Increase % 1982-90

Maize 26
Cotton 10
Soyabean 21
Wheat 11
Tobacco 21

Source: Roth (1990), p. 133

Table 5 shows the yields per ha of the five most important crops and their changes between 1982 and 1990. As comparative data for only one year respectively are presented the explanatory value should not be overrated. However, it is evident that land productivity for all observed crops has increased substantially (between 10 and 26%). The data of the last column show the national average yield of the five crops in 1988. A comparison with 1990 the yield data of the sample farms confirms the generally valid observation that productivity on large commercial farms is much higher than in the communal and resettlement farms of the country. In the case of tobacco, soyabean and maize the yields of the sample farms surpass the national average by 42, 37 and 31% respectively.

The improvement of land productivity in the sample farms is mainly caused by application of more inputs. No detailed data were collected on amounts of yield-increasing inputs. Forty-four out of all 52 farmers (85%) said they applied in 1990 more inputs in terms of chemicals, machinery or labour than in 1982. Three apply less than in 1982 and 5 an equal quantity.

The question on the main innovations introduced in crop husbandry since 1982 was answered in the negative by 22 farmers (= 44%). The most frequently mentioned innovation is the minimum or no-tillage practice (12 farmers). Other answers referred to a variety of practices such as moving to new crops, to better tobacco curing, and to other practices in connection with irrigation.

A final question on crop husbandry referred to the main bottlenecks which farmers are experiencing in their crop production. Shortage of spare parts, of various inputs and equipments and finally of transport facilities were most frequently mentioned.

4.3 Animal Husbandry and Wildlife

As mentioned earlier, 25% of the 52 farms are pure animal production units mainly beef cattle ranches. Another 55% have crop as well as animal production. Beef and dairy are, in economic terms, the most important enterprises, but other animal species play a role too.

As can be seen from Table 6, beef cattle production is the backbone of animal husbandry. This is true
particularly in the 3 research areas of Wedza, Masvingo East and Marula. The average herd size for 35 farms with beef cattle was 1140 heads in 1982. On the 42 farms which had beef cattle in 1990, the mean head size was 1528 heads which means an increase of 34%. Seventeen farms have a beef cattle stock of more than 900 heads. On eleven farms breeding and selling of calves or weaners is the main enterprise, the rest, 24 farms (68%), fatten of beef is main enterprise.

Table 6

Synopsis of animal production on 45 farms

<table>
<thead>
<tr>
<th>Species</th>
<th>1982</th>
<th>1990</th>
<th>Stock Increase 1982-90 %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no. of farms</td>
<td>total stock</td>
<td>no. of farms</td>
</tr>
<tr>
<td>Beef cattle*)</td>
<td>35</td>
<td>39 871</td>
<td>42</td>
</tr>
<tr>
<td>Dairy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cattle*) Pigs</td>
<td>2</td>
<td>282</td>
<td>3</td>
</tr>
<tr>
<td>Poultry*)</td>
<td>2</td>
<td>1800</td>
<td>2</td>
</tr>
<tr>
<td>Sheep/goats *)</td>
<td>6</td>
<td>1074</td>
<td>14</td>
</tr>
<tr>
<td>Horses</td>
<td>19</td>
<td>198</td>
<td>19</td>
</tr>
</tbody>
</table>

a) only farms with more than 100 heads of cattle
b) only farms with more than 1000 heads of poultry
c) only farms with more than 50 sheep and goats.

The data of the study do not allow an analysis of the efficiency of beef ranching. The information received on the stocking rate and the take-off rate of beef appear to be not reliable in a number of cases. However, out of 38 farmers who provided information on the stocking density on their natural grassland, 31 (= 81%) indicated a stocking rate of less than 10 ha per livestock unit and 7 a higher rate. Data on the take-off rate, i.e the number of cattle sold per year as percentage of the total stock, were given by 33 farmers. eleven have a take-off rate of 30% and more, 13 a rate of 20 to 29 and nine a rate of 10 to 19%.

All other animal production branches are of minor importance in the research areas. There are milk cows on 9 farms, but only 3 of them have a major herd and produce milk for the market. Their milk yield per cow was in all 3 cases over 6 000 kg in 1990. They are highly productive. However, at the time of the interview, 2 of them were not sure whether they could keep up dairy production, as the price - cost relation had become rather unfavourable. Two farms have specialized on piggery and another two on poultry. Sheep or goats are kept on 16 farms, but only 14 have a sizeable stock (between 50 and 900 heads). On 19 farms there are also a few horses.

During the observation period of 1982 - 1990 animal production has become more intensive. Twenty farmers (= 55% of 45 having animals) indicated that their production intensity has increased, another 8 said, it has decreased and for the rest there has been no change. A decrease was noted mainly in the drought-stricken Masvingo farms. The overall rate of increase differs strongly for the production branches, as shown in Table 6. In absolute numbers the stock increase for beef cattle is very remarkable (+ 13 600). Relatively speaking, the rate of increase is highest for sheep and goats and for dairy cattle. The decrease in the number of poultry may be untypical, as one of the two poultry farms has reduced production substantially.
Exactly half of the 52 farms, i.e. the major part of those with a large portion of natural grassland, have wildlife. The interest in wildlife has increased among the farmers and so has the number of the game which, in most cases, is not managed systematically. There are mainly impala, kudu, sable, but also minor numbers of eland or zebras and larger numbers of small game such as bush buck, etc. Five of the 26 farmers with wildlife have up to 31 heads of game, 7 have 50 to less than 200, another 11 have 200 to less than 1000 and finally three have between 1300 to 3200 heads.

Nine farmers have, since 1982 some invested into wildlife by buying additional game. However, it is an income-generating activity (hunting or photo safari, sale of venison and hides) only on seven farms. Fifteen of the 26 farmers with wildlife (58%) have plans to make it a commercially managed enterprise.
5. INPUT DISPOSAL

5.1 Use of irrigation

In view of the country's scarce and irregular rainfall, irrigation is of great importance for farming. Commercial farmers are increasingly utilizing this possibility to stabilize and raise crop yields and to provide drinking water for their animals. According to our observation use of irrigation has grown dramatically in the crop growing farms, facilitated by availability of long-term loans, mainly from the Agricultural Finance Corporation (AFC). For the productivity development of the farms this growth of irrigation is much more important than the incremental use of machinery and yield-increasing chemical inputs. It is remarkable that these changes in irrigation have completely escaped the attention of the authors of the Agriculture Sector Memorandum of the World Bank (1991).

Out of the 52 farms, 22 irrigated some land in 1982. In 1990, forty i.e. more than three quarters of all had land under irrigation. Area under irrigation grew from 949 to 3626 ha, i.e. it has almost quadrupled. In the crop growing areas of Wedza and Glendale it has even quintupled in the eight years. Supplementary irrigation (mainly for summer crops) was practiced in 1982 on 21 and in 1990 on 29 farms. The land under supplementary irrigation increased four-fold between 1982 and 1990, namely from 1134 to 4692 ha. This dynamic development took place only in the two crop growing areas, in Wedza and particularly in Glendale. Fully irrigable area out of the total crop land in Wedza is 41% and in Glendale it is higher (5556 ha) at 45%.

Irrigation in Masvingo East and in Marula is insignificant and rather static, mainly due to the small precipitation which makes farming suitable mainly for extensive ranching. In Masvingo East farmers are also prevented from going more into irrigation by the fact that most of the farms are in the catchment area of Lake Mutirikwe (Kyle) which is the second largest water reservoir of the country. At the time of the survey its water reserves amounted only to 3% of the capacity, and the authorities keep strictly to not extending the water rights of the farmers. Another reason for the limited extension of irrigation is the capital shortage of farmers in Masvingo East due mainly to the abnormally low rainfalls since 1982 which have put farmers in a rather precarious financial situation.

The prevailing type of irrigation used is the overhead sprinkler. Flood, centre pivot or drip micro-jet irrigation are not widely used in the research areas. If additional irrigation equipment is acquired, it is only for overhead sprinklers. Dams (reservoirs) for water storage play a great role, much more than in communal lands. Twenty four farmers have one or two and 19 farmers have three or more dams. These are of different sizes and the numbers include also a few ranchers which use the water stored for their animals. On 32 farms boreholes are being used, largely in addition to dam irrigation. They are more for the supply of drinking water for people and animals than irrigation purposes. Ten farms have one to two, another 10 farms three to four and the rest of 12 farms 5 and more boreholes.

There are three sources of irrigation water apart from the boreholes: public water, joint water procurement and dams owned by the individual farms. Own dams prevail strongly. The 30 farms which have own dams cover, in average, 91% of their water supply from this source. Twelve farmers have access to public and eight to joint water use.

A majority of 80% of the 40 farms with irrigation have bought some irrigation equipment between 1982 and 1990, mainly additional pipes and sprinklers. Two-thirds of all farmers with irrigation are satisfied with the functioning of their irrigation system. If they have problems it is mainly because the electricity supply for pumping of water is irregular. A major complaint is the difficulties in getting spare parts for repairs.
5.2 Investment behaviour

It was not possible in this study to investigate thoroughly the investment behaviour of the farmers, especially with respect to the financial expenditure. It is obvious, however, that farmers have made considerable investments. It seems that most of the profits made are ploughed back into the farm. Moreover, lending agencies support productive investment liberally. One of the more successful tobacco-beef farmers with about 2000 ha of land revealed that between 1982 and 1990, the total amount of investment into the farm came to $620 000; i.e. an average of $77 000 per year. The highest amounts were spent on machinery and tobacco curing facilities in this case.

Purchase of new farm machinery, particularly of tractors and of transport vehicles, was prominent among the farm investments. In 1982, there were 187 working tractors on the farms, i.e. an average of 3.6 tractors per farm. In 1990, the farms had 249 tractors (in average 4.9). The number increased by 33% over 8 years. Half of all working tractors (126) are employed in the 15 Glendale farms. The increase in number in this intensive crop growing area (from 86 to 126 tractors) has been the highest of all regions, followed by Wedza with an increase from 52 to 69 tractors. The majority of farms have not only bought additional tractors but have replaced at least one of the old tractors during the period. Combine harvesters were employed on three farms in 1982 and on 10 farms in 1990. The number changed from three in 1982 to 11 in 1990. Large transport vehicles (lorries) increased from 16 in 1982 to 21 in 1990. For smaller machinery and farm implements no detailed data were collected.

It is apparent that mechanization is a major aspect of development of the crop growing farms, but much less so of the ranches. Certainly the limited possibilities of acquisition, due to the shortage of foreign exchange, have prevented a stronger expansion of farm machinery. Most farmers would have bought more of certain machines, if they were available at reasonable prices.

As things stand one must conclude that the substitution of machinery for labour does not play a major role at present. It is likely that even the considerable increase in the tractor fleet has no major labour-replacing effect as it renders possible at the same time an enlargement of crop land and more intensive cultivation.

The other prominent investment is for irrigation. It cannot be proved here, but most likely the expenditure for additional irrigation has required much more financial means than that for mechanization, and certainly the structural change effected is greater (cf. chapter 5.1).

A synopsis of all major investments made in the 52 farms is given here. With the exception of 4 Masvingo East farmers who bought merely a number of bulls and improved their fencing, all farmers have made substantial investments between 1982 and 1990. The figures below refer to the number of farmers who invested into specific areas.
A. Machinery
- Acquisition of tractors
  - of transport vehicles (mainly pickups)
  - combine harvesters
  - hay balers
  - 38 farmers
- 24 farmers
- 9 farmers
- 4 farmers

B. New Livestock
- 32 farmers

C. Wildlife
- 9 farmers

D. Buildings
- Brick houses for workers
  - of whom more than 10 houses constructed by
  - 46 farmers
  - 10 farmers
- Farm sheds
- Dairy facilities
- Tobacco barns
- Tobacco bulk curers
- Farm stores
- 4 farmers
- 6 farmers
- 2 farmers
- 2 farmers
- 10 farmers
- 32 farmers

E. Infrastructure
- Irrigation facilities
- New farm roads
  - of which more than 20 km built by
  - 41 farmers
  - 28 farmers
  - 18 farmers
- New fences
  - of which more than 20 km built by
  - 38 farmers
  - 27 farmers

5.3 Finance facilities

Public and private finance services are of great importance for commercial farmers, for both day to day operations and farm investment. No questions were asked in the interview on savings' behaviour, but several credit issues were raised. Only one farmer out of the total sample of 52 said that he is fully self-financing and never takes credit. The overall reliance on outside finance has substantially increased. Two thirds, namely 33 out of 51 farmers are using more credit now than in the early eighties. Eleven rely equally and 8 less on credit now. Four-fifths (41) take credit annually, ten take sometimes and one, as mentioned above, never.

Short-term credit, mainly in the form of bank overdraft, is being used for on-going farm operations, whereas long term loans or hire purchase are taken for investments, for instance for irrigation or for acquisition of machinery. At the date of the interview, 15 farmers were servicing short-term credits only, whereas another 31 serviced short- and long - term credits, including hire purchase contracts. For short term business mainly the service of commercial banks is enlisted. Agricultural Finance Corporation (AFC) and finance houses come in for assistance in long - term business. 53% of the 51 farmers said they used only commercial banks as credit source, 20% are borrowing only from AFC and 27% from both, banks and AFC.

A few questions were put to the farmers on the functionality of AFC. When asked what perception they have of AFC and how effectiveness it has served large farmers,

- 32 farmers (62%) said well
- 7 farmers (13%) said partly and
- 3 farmers (6%) poorly.
The rest did not have a clear opinion. The most frequent complaint of those farmers who do not work with AFC is that it is too slow or inefficient (17 replies). Many farmers pointed out that the AFC performance has substantially improved in recent years.

Obviously the respondents are, on the whole, satisfied with the financial services offered. A number of farmers have close relations to commercial banks with the bank management monitoring constantly the business status of the farm and advising the clients.

There is one group in the large farmers' community which has a low access to outside finance: the black emergent farmers. The observation of five cases in the sample showed that these farmers have far less loans than their white colleagues. There are several reasons for this:

- Most of them are not in the habit of taking loans. They fear to get indebted and so they do not dare to apply.
- The lending agencies, both commercial banks and AFC, are apparently rather cautious in advancing loans to this group in view of bad experiences with repayment by the farmers. Most of the emergent farmers are new in the business of managing a large farm and some do not have regular book-keeping.

All five farms observed have developed well in the short period of new management. However, at least four of them appear to be highly undercapitalized. In order to reach the average standard of large commercial farms they must invest and for this they need capital. A special scheme for assisting the successful emergent farmers with advice and, perhaps, specific loan conditions required.
6. **LABOUR AND EMPLOYMENT**

6.1 **Structure of farm labour and changes in employment**

The employment contribution of the large commercial farm sector is considerable. The Ministry of Lands estimates the labour force in the total sector at 225,000 workers (cf. 1.1). Roth (1990, p. 167) has given a number of 137,000 permanent and 110,000 seasonal employees for 1989, based on data of CSO. It is not clear how the number of seasonal and casual workers was calculated and whether, in view of their shorter employment period, this number can just be added to the permanent workers' number. The data of Roth show a decline of 17% in the number of permanent labour and an increase of 83% in the number of seasonal labour between 1982 and 1989.

Before the overall employment contribution of the sample farms is assessed a few remarks are indicated on the structure of the permanent labour force. Out of the 52 farms, 15 employ one manager and another five employ two or more managers. Ten farms have one and another six have two or more assistant managers. The 45 farms have varying numbers of foremen, mainly with one or two. The number of 413 skilled or semi-skilled workers is rather small (an average eight per farm). They are mainly working as tractor or lorry drivers and mechanics. Almost all semi-skilled workers are of the male sex; only 12 are female. The vast majority of the permanent labour force are unskilled workers. The total permanent employment of unskilled labour on 50 farms, from which reliable information on employment was obtained, amounted to 2,300 persons in 1990 of which 94% are men.

The seasonal and casual labour was calculated for each farm by adding up the work days of men and women during the year. The majority of interviewees had to estimate the number of work-days. The figures are less reliable than those on the permanent labour.

The total number of non-permanent work-days was converted into man-years by assuming 300 work-days for one work-year. No differentiation between man- and woman-years was made. The total number of man-years performed in 1990 by seasonal and casual labour on 50 farms was 1,305. This means that 36% of the labour input in 1990 was provided by non-permanent labour.

The rate of employment is highest in Glendale, the most intensive crop growing area of the four areas. But the Wedza farms employ also much labour, due to the strong requirement in tobacco cultivation. The lowest number of workers is employed in Masvingo East. Farming in Wedza and Glendale has a particularly high demand for casual and seasonal labour. In the Glendale farms, more seasonal workers (man-years) are employed than permanent workers. The demand for seasonal labour is to more than 50% covered by members of the workers' families living on the farm, especially by women. However, farms neighbouring communal lands get a considerable number of seasonal workers from there. Some Glendale farms hire workers for a number of weeks from Chinhoyi or Karoi, i.e. from areas a few hundred kilometers away.

Table 7 shows also the changes in employment which have taken place on the 50 farms between 1982 and 1990. There has been a very substantial increase of 22% in permanent employment. The seasonal employment has grown still much more by 66% over the eight year period. Again this increase is rather uneven: in absolute numbers much higher in Wedza and Glendale than in the two other areas. A 22% increase of permanent labour means a yearly rate of increase of 2.6%, and that of 66% for seasonal labour means 8.3% increase per year. This is far more than the national growth of employment in the formal sector of the economy which has amounted to less than 1% per year.
Table 7

Changes in employment on 50 farms between 1982 and 1990

<table>
<thead>
<tr>
<th>no. of farms</th>
<th>no. 1982</th>
<th>no. 1990</th>
<th>change %</th>
<th>permanent workers a)</th>
<th>Seasonal/casual workers b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>man years</td>
<td>man years</td>
<td></td>
<td>1982</td>
<td>1990</td>
</tr>
<tr>
<td>Wedza</td>
<td>14</td>
<td>604</td>
<td>750</td>
<td>+24</td>
<td>109</td>
</tr>
<tr>
<td>Glendale</td>
<td>15</td>
<td>824</td>
<td>980</td>
<td>+19</td>
<td>618</td>
</tr>
<tr>
<td>Masv East</td>
<td>10</td>
<td>114</td>
<td>112</td>
<td>-2</td>
<td>47</td>
</tr>
<tr>
<td>Marula</td>
<td>11</td>
<td>340</td>
<td>458</td>
<td>+35</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>1882</td>
<td>2300</td>
<td>+22</td>
<td>784</td>
</tr>
</tbody>
</table>

a) no differentiation between men and women
b) 300 man/women days calculated as 1 man-year

The increase of non-permanent labour corresponds largely to the afore-mentioned national employment increase. On the other hand, the observation of a growth of the permanent labour force is not confirmed by the national figures. The deviation on the sample farms could be due to the increase in irrigation and other factors of intensification. This should be subject to further research.

Total labour costs have risen strongly during the period of observation due to the increased labour force and to the rise of wages. We got data from 33 farms on this issue. On 22 farms (66%) the total wage bill has risen between 50 and 300% in the period 1982-1990 and in the rest of 11 farms the increase has been between 300 and 450%.

It is an interesting question whether farmers see possibilities for employing more labour. Out of 51 farmers 17 (33%) answered in the affirmative, another 17% see minor additional employment possibilities and the rest of 50% answered with "no" or "don't know". The first reason for this reserved attitude is the labour legislation with the difficulty to fire permanent labour. This is, by the way, also a major motive why farmers in need of additional labour tend to hire casual labour rather than permanent labour. The second reason is the prevailing uncertainty among the farmers about the government plans for land redistribution. It makes many farmers hesitate to plan further farm development.

The farmers have no major problems with the labour situation. Almost all (90%) said that it is easy to recruit permanent and seasonal labour. When asked whether they are satisfied with the work performance of the permanent labour, 23% out of 52 farmers said they are fully satisfied, 73% are reasonably satisfied and only 2 farmers are not satisfied. The degree of satisfaction with the seasonal labour is very similar. The replacement of workers who leave poses no difficulties. The two main sources for hiring new permanent workers are other members of the workers' families (48%) and neighbouring communal lands (33%).
The public image of large commercial farmers with respect to treatment of their workers is not good. As Muir-Leresche (1984, p. 185) said 7 years ago: "Conditions and wages for farm workers are and have historically been worse than for workers in industry and other formal sector employment". Or in the words of Loewenson (1990): "In 1980, surveys on large-scale farms in a number of provinces indicated that communities in these areas generally had poorer health and less access to social services than those in other sectors (communal areas, mine and urban)". Loewenson paints in her paper also a bleak picture of the more recent social development on large farms.

It was not possible, for reasons of time, to interview farm workers or take a closer look at their living conditions in the present study. The information provided by the interviewed farmers which we consider as trustworthy, suggests, however, the conclusion that the social situation of farm labourers and their families has improved since independence.

**Remuneration**

On all farms permanent workers get at least the minimum wage. They get also regularly other benefits: protective work cloth (overalls, rain coats, gum boots), fuelwood. The stockness on big ranches, particularly in Manila, are often entitled to graze some of their own animals on the farm grassland.

A number of other benefits are offered on a selective basis. All 52 farms have some kind of monetary incentive scheme. Forty-six farmers pay more than the minimum wage, but only 6 do this for all workers. Otherwise additional payments are being used as work incentive, they are provided mainly for workers with higher skill (22 farms), for good performance (12 farms) and for long service on the farm (6). The same criteria apply for payment of seasonal bonuses which are provided on 41 farms. Some other monetary incentive schemes do exist on 8 farms.

**Workers Accommodation**

During past years most farmers have built brick houses for workers. Twenty six (50%) said that all farm labourers have got brick houses. On 23 farms the provision is used as an incentive with the afore-mentioned selection criteria. On 34 farms (65%) some land, apart from garden land, which is at disposal of everybody, is allotted to workers for growing own crops. Not all workers make use of this facility. Particularly those who come from neighbouring communal lands and have land there, are uninterested. On 28 farms the land allotted to workers is ploughed by the employer, if the workers wish this.

**Soil Security**

The question what social security is being provided to farm workers is of major interest. By law all permanent workers are on the Workman's Compensation Scheme. Another insurance, the Agricultural Pension Scheme is not compulsory, workers can opt for it. Only on 10 out of the 52 farms all workers are on this scheme. On another 15 farms part of the permanent labour force is participating. The utilization was higher earlier but the labour force of many farms dropped out. On more than half of the farms the scheme is being rejected.

Another issue, quite often debated publicly is how farmers care for workers who retire for age or health reasons. Twelve of the respondents said they had not had such cases recently or since they took over the management. Out of the 40 remaining farmers, one required retiring workers to leave the farm (apparently without further assistance). Another four farmers said retired workers normally wanted to go back to their family in communal lands and these would get then some off-payment. Thirty-five (i.e 88% of the 40 responding farmers) stated that old people could remain on the farm. On 23 farms they can remain on a pensioners' work scheme, i.e. perform some duties for a reduced wage. One must conclude that treatment of old aged farm workers by the employers has changed substantially to the better in recent past.
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