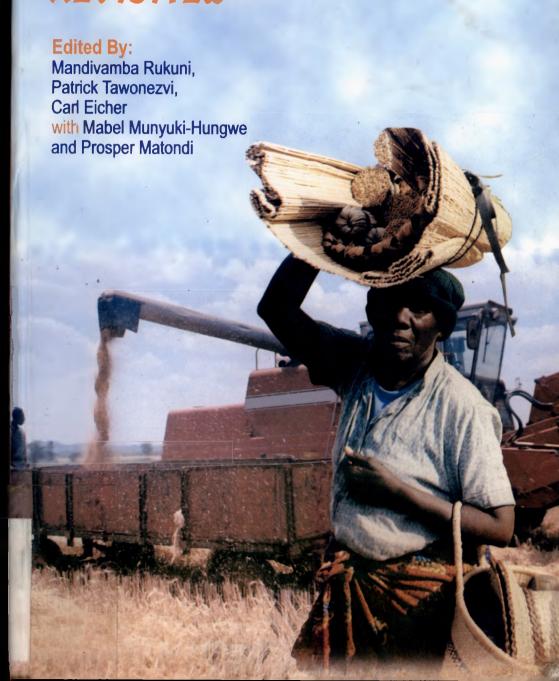
ZIMBABWE'S AGRICULTURAL REVOLUTION REVISITED



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Farmworker communities are some of the most impoverished and vulnerable groups

Social poverty profile of rural agricultural areas

Assefa Mehretu and Chris C. Mutambirwa

In examining the livelihoods of rural agricultural communities in Zimbabwe, this chapter offers an historical perspective on some of the challenges and opportunities facing the agricultural sector. As a former settler colony, Zimbabwe's economy at the time of independence in 1980 was characterized by the commercialization of its agricultural activity together with a high degree of polarity between its commercial and communal sectors. This was evident in the duality of the country's economic sectors, regional development, economy versus resource match and government role in territorial integration of commercial and communal farmers. At the base of the dual economy was the colonial division of resources and related demographics into two exclusive and counter-posed geographic domains: the commercial land and the communal land (former tribal trust lands).

This chapter describes the principal features of poverty in rural communities of Zimbabwe and the spatial mismatch between population density and land, potential problems behind growing land hunger, land degradation and declining agricultural yields. These negative conditions became harbingers for political change and inevitable post-independence land reforms, land redistribution and resettlement. Social poverty profiles of communal land communities are outlined, as well as those of the hitherto unnoticed black communities residing and working on the large-scale commercial farmland. The impact of poor accessibility to basic needs and services on the livelihoods of rural communities and their agricultural activities is also explained to highlight the need for rural development.

Colonial spatial and institutional structures

The first commercialized spaces in Zimbabwe were the best agricultural lands and the mineral-rich Great Dyke area. Large-scale plantation-type farms and manufacturing plants, mostly owned by the white settler community, were located in this region (figure 5.1). The second and least commercialized spaces were the least productive and rugged enclaves of the country that were relegated to the indigenous African (black) majority population as the former tribal trust lands. The agrarian structures based on allocation of land to exclusive

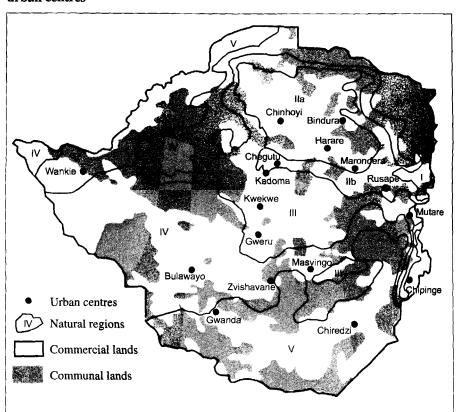


Figure 5.1 Zimbabwe: Communal lands, natural regions and principal urban centres

commercial and communal sectors produced one of the most polarized agrarian structures based on race in sub-Saharan Africa. The structure presented a major challenge to rural development of Zimbabwe (Mehretu and Mutambirwa, 1999). What made these disparities so pronounced was the fact that lands assigned to Africans were not only poor in resources but were also dismembered and isolated from each other (Kay, 1970; Surveyor General, 1984).

In the communal lands, Africans were not only impoverished by virtue of the poor land resources they had but they were also restricted by a variety of social, legal and physical barriers from access to development resources in the commercialized sector. In the face of increasing population pressure, communal lands began to experience high densities which in turn led to degradation of land resources and reduced carrying capacity for livestock and people (Kay, 1975; Palmer, 1977; Whitlow, 1988a and 1988b). Over the years and as better arable land became appropriated for commercialization, the communal lands not only faced high population densities but were also exposed to severe ex-

ploitation of their labour force by the commercial sector (Arrighi, 1970; Palmer, 1977; Moyo, 1986; Mehretu, 1995). In addition to having adverse effects on agricultural productivity in the communal lands, these developments exacerbated and sharpened prevailing profiles of poverty among Africans in both the communal and the commercial sectors who still 'need their land' (Potts and Mutambirwa, 1991) as the rest of the chapter discloses.

Spatial mismatch and land hunger

According to the Central Statistics Office (1992), approximately 73 per cent (over 5 million) of the rural population of Zimbabwe resided in the high-density communal lands with marginal to poor agricultural potential surface. On the other hand commercial farmland had low densities consisting of about 4,000 to 4,500 white settler farmers and their families, and between 1.5 million to 2 million black farm workers and their families (17 to 20 per cent of the country's population). This disproportionate distribution in both land and population and the inequitable land ownership by race have informed much of the debate and discourse on the political, economic and land issues facing Zimbabwe in transition (Martin and Johnson, 1981; Bratton, 1994; Moyo, 2000).

With population growth geographically and over time, the deleterious environmental impacts of population pressure have taken their toll in the communal areas and on the farming activities of their inhabitants. Mehretu (1995) demonstrated the spatial mismatch between population density and land potential by the natural regions which were compiled by the Surveyor General (1984) based upon their moisture availability for agriculture.

Natural regions I and II contain land of high potential suitable for intensive agriculture; natural region III is rated of marginal potential suitable for semiintensive agriculture; and natural regions IV and V are of low potential. Tables 5.1 and 5.2 illustrate the inequities between the smallholder communal (mostly subsistence) farming sector and the large-scale commercial farming sector. The biodiversity resource constraints in the communal areas are aggravated by the poor agricultural productive land which is susceptible to deforestation, overgrazing and soil erosion, resulting in further declines in agricultural productivity. The pervasive barometer of land hunger in communal lands is increasing population density and declining average farm size. The communal lands had, on average, over 25.1 people per square kilometre of land with poor potential (column 6 of table 5.1). By contrast, there were only 9.3 people per square kilometre on commercial land of superior potential (column 12). The population in natural regions I, II and III had a density exceeding 30 people per square kilometre (column 6). Communal lands in natural regions IV and V contained about 63 per cent of the total communal land population with densities exceeding 20 people per square kilometre. Population densities in communal lands of

Table 5.1 Distribution of population and area in communal lands and large-scale commercial lands by natural region

		Communal lands						Large-scale commercial lands				
Natura Region												
1108101	. 1	2	3	4	5	6	7	8	9	10	11	12
Ī	51.7	1.2	0.9	0.5	9.6	57.4	172.1	11.1	8.5	5.1	90.4	20.2
II	625.5	14.6	16.0	9.4	27.4	39.1	735.6	47.2	42.3	25.2	72.6	17.4
III	939.9	22.0	31.1	18.2	45.1	30.2	261.5	16.8	37.9	22.6	54.9	6.9
ĪV	1,857.7	43.5	78.3	45.9	62.9	23.7	243,9	15.7	46.1	27.5	31.1	5.3
V	798.0	18.7	44.2	25.9	57.3	18.1	144.1	9.3	32.9	19.6	42.7	4.4
Total	4,272.8	100.0	170.5	100.0	50.4	25.1	1,557.2	100.0	167.7	100.0	49.6	9.3

KEY: 1 = Population of the region in 000s 7 = Population of the region in 000s

2 = % of population in communal lands 8 = % of population in large-scale commercial lands

3 = Total area in 000s of square kms 9 = Total area in 000s of square kms

4 = % of total communal lands 10 = % of total large-scale commercial lands

5 = % of total rural areas 11 = % of total rural areas

6 = Population density per square km 12 = Population density per square km

Source: Compiled from CSO (1990) compilations of the 1982 national census and Surveyor General (1984–1988). National parks and state lands are excluded from compilations

natural region V are higher than commercial land densities in the fertile natural region II (see columns 6 and 12). Since much of the communal lands are not arable, densities on cultivated land are much higher than the figures reported above.

Table 5.2 shows the percentage of total land in each natural region by population density. The first part of the table shows that communal farmers live mostly in low-potential areas with high population densities, while commercial lands (40 per cent of the land in Zimbabwe) occupied most of the high-potential areas with much lower densities. This polarization, characterized by the spatial mismatch between population density and land potential, was at the root of rural poverty and land degradation in Zimbabwe (Mehretu, 1995). It has also had significant influences on social poverty profile developments in the country and hence the critical need for land and agrarian reforms.

Land redistribution reforms during 1980 and 1984 enabled some of the

Table 5.2 Percentage of total rural land in each natural region located in the communal and large-scale commercial lands by population density

Pop. density			nmunal tural res	147.	2 -	Large-scale commercial lands Natural regions					
persons per km ²	I	II	Ш	IV	V	I	n	III	IV	V	
0-4	0.0	0.0	0.0	0.9	3.3	0.0	0.0	16.0	21.2	31.4	
5-9	0.0	1.0	1.5	3.4	14.8	21.3	8.3	28.5	8.4	0.0	
1-14	0.0	1.9	2.5	13.4	11.4	16.8	32.9	8.1	6.9	11.3	
15-19	0.0	1.7	11.9	12.3	9.5	0.0	12.1	1.7	0.4	0.0	
20-24	0.0	4.2	4.3	7.6	4.1	6.9	5.8	0.6	0.2	0.0	
25-29	0.0	2.2	2.9	6.1	0.0	25.6	3.0	0.0	0.0	0.0	
30-34	0.0	3.5	5.7	3.8	2.8	19.7	8.4	0.0	0.0	0.0	
35-39	0.0	0.0	0.0	4.5	4.6	0.0	0.0	0.0	0.0	0.0	
40-44	0.0	0.6	5.4	7.4	5.5	0.0	2.0	0.0	0.0	0.0	
45-49	3.2	4.2	7.1	0.4	0.6	0.0	0.0	0.0	0.0	0.0	
50+	6.5	8.3	3.8	3.2	0.7	0.0	0.0	0.0	0.0	0.0	
Total	9.7	27.6	45.1	63.0	57.3	90.3	72.5	54.9	37.1	42.7	

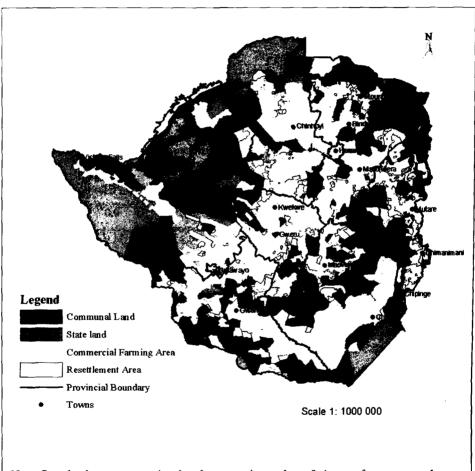
Source:

- 1. Population density classes and figures are compiled from 1982 census (CSO, 1990).
- 2. Land surface area in natural regions compiled using CSO (1990) and Surveyor General (1984, 1988)
- 3. Boundaries for communal lands and large-scale commercial lands based on Surveyor General (1988)

land hungry households (returning displaced villagers, war veterans and the landless poor) to relocate on abandoned large-scale commercial farms bordering their communal lands and the landless also occupied similar land. The programme became known then as the accelerated resettlement programme. Although this early resettlement activity occurred spontaneously, over two million hectares were acquired. The resettlement helped reduce population pressure in some communal lands. A period of land reform inactivity followed until the radical post-1990 land policy phase that began with the Government of Zimbabwe's constitutional amendment of the land policy that allowed for easier

land redistribution (Government of Zimbabwe, 1990). Figure 5.2 shows land resettlement in relation to other land uses as at the end of 1995 and captures a timeframe of the declining land acquisition rate. However the land-use map of Zimbabwe will have changed dramatically after the completion of the post-2000 land acquisition and fast track land redistribution and resettlement exercises.

Figure 5.2 Land-use and resettlement



Note: State land represents national parks, recreation parks, safari areas, forest areas and unallocated land; Commercial farming area represents large and small scale areas.

Land degradation in communal lands

The colonial rural policy was based on dual 'development' of privately-owned commercial lands alongside the communal sector. There were only labour relations between the two sectors based on mobilization of unskilled labour to the commercial lands, with little attempt to develop the communal lands. Communal family life, its society, its political role and its economy, were suppressed by colonial policies (Martin and Johnson, 1981; Denoon, 1983). Communal farmers continued to engage in subsistence activities with minimal commercialization and provided a labour reserve to serve commercial lands (Arrighi, 1970; Weiner et al., 1985). Population growth, the diminishing land base and lack of employment opportunities to absorb the communal labour force resulted in high population density on marginal land which led to land degradation in some communal areas. While some successes have been recorded for communal agriculture (Norman, 1986), land hunger has adversely affected sustainable use of land resources and their stewardship for perpetuity.

Zimbabwe's experience is very different from Boserup's theory of land-use succession (Boserup, 1981; Lele and Stone, 1989). Growing land-use intensity (shortening or eliminating fallow cycles) in communal lands was not a result of voluntary shifts from land-extensive margins to land-intensive margins along the lines of Boserup's theory. Zimbabwe's dual agrarian structure is primarily an outcome of deliberate political decisions by settler-ruled governments (Rukuni, 1990; Moyo, 1986; Palmer, 1977) which created high-density rural settlements in communal lands that contributed to soil erosion and depletion of forests and grasslands (Whitlow, 1988a).

The use of the then tribal trust lands under such patterns of high population density and low-input technology systems produced many negative influences on both the stability of land resources and standards of living. One of the most serious consequences has been increasing land-use pressure and land degradation (Elwell, 1985; Whitlow, 1980, 1988a. 1988b). But there is a large variance in stress among communal lands. For instance, eight of the 55 communal lands in Zimbabwe, supporting about 15 per cent of the communal population are located in low-potential natural regions IV and V with population densities ranging between 27 and 43 people per square kilometre (CSO, 1989). Furthermore, 20 out of the 55 communal lands that existed at the time with 50 per cent or more of their area in low-potential natural regions IV and V-also experienced high land-use pressure with a mean of about 38 people per square kilometre under what Kay (1975) characterized as 'desperate pressure' and 'great pressure'. This is a serious national problem because these 20 communal lands support almost half of the national communal population. This means that the carrying capacity of these lands has been surpassed by several orders of magnitude under presently available technologies and resources.

Settlements with high population densities and/or low land potential are associated with higher magnitudes of erosion. Table 5.2 reveals a clear pattern of geographic association between land-use pressure and land degradation. About a third of the 55 communal lands are affected by erosion on over 12 per cent of their land (Whitlow, 1988a). They are all located in the lower-right sector of the communal section of table 5.2 which is characterized by high population density and low quality of land. Research on deforestation and overgrazing (Whitsun Foundation, 1981; Whitlow, 1988b; Mhlanga, 1982) indicates similar patterns of distribution with the most critical cases being located in the high density/low potential sector (see the communal section of table 5.2). Even where communal lands are located in natural regions I and II, a combination of high population density, extensive rocky outcrops and poor soils makes it difficult to practise suitable sustainable agriculture (Mhlanga, 1982).

Although communal farmers practised various forms of traditional conservation measures in colonial days depending on the physical constraints of their land (Mpofu, 1987), the increasing population pressure was too overwhelming for their traditional solutions (Mhlanga, 1982). By the eve of independence, communal lands had reached such a serious condition of degradation that even the colonial administration at the time began to be concerned. But although the 'low productivity and high rate of destruction of tribal natural resources' (Dankwerts, 1976) was known, there was a total lack of interest from scientists to work on land degradation in the tribal trust lands (Reid, 1976). Faced with problems of land degradation, population pressure and land hunger in communal lands and increasing political nationalism, the colonial administration created approximately 8,600 small-scale commercial farms (former African purchase lands) averaging 124 hectares each and juxtaposed to communal land for settling commercially oriented black farmers. Seventy five per cent of the farms are located within the semi-intensive regions III and IV (CSO, 1987).

A 1991 survey of households in three communal lands in the Mashonaland West province revealed the environmental impact of increasing population density in communal lands (Mehretu and Mudimu, 1991). Interviews of household heads on a variety of indicators of changes in land quality revealed that the lands of the majority of households in all three communal lands were undergoing severe stress from overcultivation. Over half of the households reported a decline in maize yields over the previous ten years. Over two-thirds of them reported that grasslands had become poor or depleted. Forestland depletion was high in communal lands with high population densities as experienced by Zvimba communal land in natural region II. Mupfure, located in natural region IV, in the northwest of Zimbabwe, suffered the least deforestation because of low population density as well as low accessibility. Ten years previously, about a third of the households in Zvimba (natural region II) met their domestic fuel

Table 5.3 Household profile in three communal lands - 1991

Communal lands Natural region	Zvimba H	Mhondoro III	Mupfure IV
Population density (no./sq. km)	56.1	50.5	11.3
Land holding per household (ha)	2.4	2.0	2.3
Changes in average over last 5-10 years		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
% reporting no change	89.6	87.7	82.5
% reporting increase	5.8	6.2	12.5
% reporting decrease	4.5	5.4	5.0
Average household size, all members	1 G-1 2 G-2 3 G-2 3 Hamilian 3 G-2 1 Hamilian 3 G-2 3	e zalaj	
Resident members	4.6	4.2	4.2
Non-resident members	2.5	2.2	2.9
Median age of resident males in years	19.2	16.4	27.5
Median age of resident females in years	24.1	21.0	22.5
No. of years of schooling	6.5	6.4	6.6
% households in agriculture	95.5	93.1	87.5
% households with small enterprises	12.3	25.2	7.5
% households experiencing food deficit	9.7	24.4	42.5
% households with other non-farming activi-	ties 53.9	64.1	75.0
% Households reporting	e i de la companya de		
Resettlement as immediate solution	42.9	23.7	17.5
Occasional or no use of extension	68.2	83.1	82.5
Extension inputs not affordable	42.9	39.2	42.5
Mean annual household income (Z\$)	4.365	3.020	8.052

Source: Mehretu and Mudimu (1991); CSO (1990)

requirements from collected wood compared with only 16 per cent in 1991. In Mupfure (natural region IV), which had the lowest population density of the three communal lands, all households still collected domestic fuel wood from forested areas.

High population densities accompanied a high degree of forest depletion (table 5.3). This resulted in reduced availability of collected wood, high incidence of chopping down forests and increasing need to buy wood for domestic use. In summary, although longitudinal data on land degradation in communal lands are not available, the 1991 survey of households reveals that the quality of soil, grassland and forest resources has deteriorated over time. Given the many economic and social difficulties in Zimbabwe, aggravated by the negative effects of the economic structural adjustment programme introduced in 1991 (Gibbon, 1995; Potts and Mutambirwa, 1999), energy and food insecurities worsened. With increasing population pressure in some areas, these condi-

tions forced some of the residents to either move into poor quality, fragile land within the communal areas or seek resettlement opportunities elsewhere. However, for the resettled communal farmers, it was essential that suitable infrastructure and appropriate land management practices be introduced to avoid repetition of communal lands type of environmental depletion and land degradation. Generally the resettled small landholder farmers clear 'virgin' land of bush and forest cover for agricultural use and, being mostly poor with limited access to capital, the tendency has been to indiscriminately exploit the flora and fauna for household sustenance.

Poverty profiles

Status of communal lands

Social poverty profiles are derived from composite indicators such as ownership of and accessibility to social infrastructure, landholding, production household composition, years of schooling, food security and mean annual income (de Janvry and Sadoulet, 1990). The most visible form of social deprivation in communal lands has been the lack of urban amenities, rail and all-weather road networks, power grids, mining estates, manufacturing activities and various forms of social infrastructure. Virtually all the railway network and macadamized highways (except for a few post-independence developments) are located in commercial areas (Whitsun, 1980; CSO, 1989). As surface transport is geographically associated with land potential, low-potential communal lands in most areas were marginalized from the rest of the country. They lacked electricity as the electric grid system from the Kariba dam and Hwange power stations bypassed them even though the power complexes operated with surplus capacity. Social infrastructure such as schools, hospitals, clinics and other forms of overhead investment were improved after independence but the lagged impact of colonial neglect remains an enormous challenge to rural development.86

The concentration of infrastructure in favour of the large-scale commercial farming areas influenced the type and level of development in communal areas and the form of production relations between the two areas. Modern and diversified activities in agriculture and industry took place in the former white commercial land sector while the communal sector produced food at mainly subsistence levels. Despite various post-independence rural development programmes the disparity in levels of living between communal and commercial domains did not diminish significantly.

The better infrastructure in the commercial sector also tended to attract the best skilled personnel. Health facilities were better equipped, transport (vehicles) were of better quality with impressive communication. Thus communal lands remained as pools for labour mobilization.

The social poverty profile in communal lands was also characterized by expanding population density that, according to the 1991 survey, averaged about two hectares of land per household (table 5.3). Over 85 per cent of the households had not increased their land holdings over the previous 5 to 10 years despite the increase in household size. Land hunger also had adverse effects on the demographic stability of the communal household. Real or perceived opportunities for growth and better living conditions in commercial areas attracted people, especially males of working age, from communal lands in direct proportion to population density and inversely related to distances from centres of development such as Harare. This is indicated in table 5.3 by low median ages for males and higher median ages for females in the high-density settlements of Zvimba and Mhondoro which are among the closest communal lands to Harare. On the other hand, it is observed that median ages were higher for males in lower density and remote communal lands like Mupfure. Household sizes were comparatively large but a third to half of the household members were reported as non-resident, indicating a high-level of absenteeism, especially by males of working age.

Yet, despite growing land hunger and land degradation, the quality of some social services had improved significantly in communal lands since independence. Educational and health facilities expanded in most rural areas. Zimbabwe's primary school enrolment in 1990 (excluding commercial farms) was 100 per cent of the school-age population, the highest in Africa (World Bank, 1991). However the findings from the 1994 sample survey of households revealed that this had declined to 82 per cent in rural areas and 89 per cent in urban areas (CSO and Macro International Inc., 1995). This decline would have begun with the economic structural adjustment programme introduced by government in 1991 that, *inter alia*, removed educational subsidies.

About 90 per cent of communal households depended on agriculture for much of their livelihoods. Half to three-quarters also engaged in non-agricultural activities to supplement their agricultural earnings. The proportion of households that reported food deficits and engaged in non-farm work was inversely related to land potential as expected. The average annual income per household declined with reduced land potential. Although the majority of households in all three communal lands rated the extension system and its technological packages as useful, they reported that they were either passive or non-users of these technologies. This could have been due to the fact that about 40 per cent of them considered the technologies unaffordable (see table 5.3). Nevertheless farmland remained a major source of livelihood for many, especially following the harsh realities of the economic structural adjustment programme (see Potts and Mutambirwa, 1991; 1999).

Status of commercial farm workers

Commercial farms represented an important sector of the Zimbabwe economy

that contributed about 80 per cent of the value of agricultural output and about 40 per cent to the export sector. And yet the social poverty profiles of their black farmworker communities who contributed significantly in this production were some of the worst in the country. So marginalized were they that their plight has been the subject of several recent studies and reports by concerned organizations, especially since land acquisitions and resettlement of commercial farmlands began in earnest. Examples are Save the Children - UK, Panos Southern Africa, Famine Early Warning System (FEWS), Farm Community Trust of Zimbabwe and Zimbabwe Network for Informal Settlement Action (ZINISA). The studies have shown that farmworker communities were some of the most impoverished and vulnerable groups of people in the country with limited access to basic needs such as food, education, decent shelter, health services, clean water and sanitation facilities and political representation. They had limited access to land from which to supplement their meagre farm earnings, except for perhaps some 41 per cent of farmworkers who maintained homes in a communal land (Zimbizi, 2000).

According to the Farm Community Trust of Zimbabwe survey (1999), there were approximately 451,456 permanent farmworkers on large-scale commercial farms, estimated to constitute on average 60-70 per cent of the overall agricultural labour force in any one season. Their spatial distribution in the country varied according to type of farming activity, from cattle ranches in the south and southwest to intensive crop farms that included horticultural production in the northeast provinces (see figure 5.3). On some farms it was estimated that as many as 50 per cent were seasonal farm labourers consisting of female, male and some child workers supplementing family incomes. The majority (over 75 per cent) of farm labourers were classified as poor and depended on a small annual salary that was barely above the poverty datum line, pegged at Z\$10,000 in 2001. Considering that each household could have up to six children, excluding orphans and non-working elderly, this signalled particularly poor livelihoods for many. Hence most permanent farmworkers (and their families) usually supplemented their wages and food requirements from small plots allocated by the farm owner or from subsistence farming on plots in communal or resettlement areas where wives could spend several months away from their husbands. Some households took up offers of seasonal employment for unemployed family members, including children (CSO, 1995).

There has never been government policy regarding the education of children on commercial farms and, as a result, farmworker communities have remained the least educated in the country. Commercial farmworker survey estimates from Farm Community Trust of Zimbabwe (1999) showed that of the approximately 334,000 children living on commercial farms, nearly half of those who could have been in primary schools did not attend school, and only four in 100 obtained secondary school education. Those who attended primary

Central Mashonaland West Harare Matebeleland North Midlands /lanicalan Bulaway Matebeleland South Masvingo Provincial Boundary **Numbers of farmworkers** Seasonal Female Permanent Permanent Seasonal Male Male **മ** 🛭 🗀 1.2 22.8 44.4 5.1 29.7 0.5 3.0 54.3 1.5 13.6 25.6

Figure 5.3 Distribution of farmworkers by province (000s)

school walked 5 to 10 or more kilometres, were taught by unqualified teachers and had inadequate learning facilities. As a result the dropout rate was high and the chances of farmworkers and their children succeeding in education were very slim. Consequently many joined the unskilled labour market on the same farms or elsewhere, thereby perpetuating poverty through generations. As for healthcare, Farm Community Trust of Zimbabwe (1999) and Zimbabwe Network for Informal Settlement Action (2001) reported that health services were

Source: Save the Children (UK) (2000)

provided mainly through the farm health worker programme. The studies also showed that 70 per cent of children on farms had access to basic healthcare, especially the expanded programme of immunization. Seasonal farmworkers lived off farm property and hence their children were not normally entitled to this facility. There were no government health facilities located on farmlands and the distances to the nearest government clinic varied from 9 to over 20kms (Farm Community Trust of Zimbabwe, 1999). Most farmworker households also lived in housing structures constructed of poles and mud. While some households had brick-walled houses with asbestos or thatch roofs, the majority of the houses were usually small, poorly ventilated and crowded.

In recent years the AIDS pandemic has spread into both the communal and commercial farmworker communities, mainly due to poverty and the indiscretions of rural-rural and rural-urban circular migrants. Concerns about the health and socio-economic impacts of the pandemic on the population in Zimbabwe have been the subject of many studies and reports (see, for example, Loewenson and Whiteside, 1997; Ministry of Health Child and Welfare, 1998; and chapters in Amanor-Wilks, 2001). Estimates based on surveys of some rural areas reveal HIV sero-prevalence levels of up to 35 per cent and higher, especially among women. This declined to 26.4 per cent in 2004, however, such prevafence levels increased the probability of occurrence of fatal illnesses through opportunistic diseases that affected rural agricultural communities, particularly those living in unhealthy environments. In addition to the direct socio-economic impact of the pandemic on the family in terms of illness, cost of medical care, death, loss of income, disruption of family units, and so on, there was also the indirect impact on both communal and commercial agricultural production. Some of the major HIV and AIDS related costs of concern to agri-business were absenteeism, loss of workforce, medical service and death benefits, where applicable. For the profit-driven commercial farming sector these costs affected profit margins.

Lastly the disruption and uncertainty caused by farm designations, land acquisitions and occupations, especially since early 2000, had further serious consequences for the welfare of commercial farmworkers and their families. In the resettlement process, the needs of non-indigenous farmworker communities – including some indigenous families – took low priority because of their general characterization as foreigners or unproductive persons (Moyo, 1995; Rutherford, 1997). According to Farm Community Trust of Zimbabwe (2001) most farmworker families who became unemployed suffered from limited and cess to services like education, health and food due to displacement and loss of

Lack of financial resources affected their own ability to construct better dwellings. By then lack of tenure security meant they could not construct permanent dwellings without the consent of owners.

wage income. Even resettled families suffered from limited access to services such as education, health, food and income through loss of jobs and sheer displacement in some cases (Farm Community Trust of Zimbabwe, 2001). In particular, great concern has also been expressed with regard to almost 25 per cent of the black farmworkers who are of foreign origin (mainly from Malawi, Mozambique and Zambia) and had limited rights to land occupation and use. They were generally sidelined in land resettlement programmes compared to their indigenous counterparts. Reports of the Trust also indicated that less than 5 per cent of farmworkers obtained access to land during the fast track land reform period. Hence the fate of many farmworkers rendered jobless by land resettlement remains unknown and is a subject for further research.

Accessibility to basic needs and services

One of the principal outcomes of locational incongruity between areas of high population density and land-potential in Zimbabwe is the dispersion of rural homesteads in communal lands (Davies and Wheeler, 1985). High population densities forced communal households to piece together scattered pieces of land for their crops and cattle. This dispersed settlement pattern left communal lands without the desirable population clusters necessary to efficiently share social facilities such as schools, clinics, domestic water supplies and commercial services without making long trips on foot. In any case, the schools, clinics and water-supply points were located in central places in order to control costs. This meant that rural populations not living close to these facilities had to devote considerable time and energy to gaining access to these basic services.

Settlement dispersion and associated difficulties in gaining access to social and commercial services represented major constraints on development in communal lands. This profile of poverty is demonstrated by the amount of time and energy rural households have to spend to secure basic requirements such as potable water and fuel for cooking. Surveys in communal lands show that domestic chores, especially those involving trips to water points and sources of firewood, become heavy burdens, especially on women. In the Chiduku and Murehwa communal lands of Manicaland and Mashonaland East provinces, respectively, each household spent on average over 30 hours per week fetching water and firewood alone (Mehretu and Mutambirwa, 1992; 1996). Since most of this burden fell on homemaker women who spent about 20 hours on such chores, this was critical for household livelihoods since they were also responsible for most of the agricultural work in food production. The time and energy costs of distance represent the time used to make the trips, sometimes with head or back loads, to secure basic needs. In dispersed communal settlements such costs of distance - that also include routine trips devoted to doing the laundry, herding livestock and purchasing goods at local and regional markets – are very high indeed.

The population density of Chiduku communal land is about 65 people per square kilometre, and that of Murehwa is over 100 people per square kilometre. They are typical of most communal lands with low land potential for agricultural use, severe degradation of land resources, highly dispersed rural settlements, and poor social and commercial services. The survey data on household expenditure of time for routine trips to fulfil five of the most common domestic chores for Chiduku communal land reveals that most households participated in these routine trips (table 5.4). Distances to location of facilities within the local area ranged between one and a half to three kilometres and almost all trips were done on foot. On average, each communal household devoted about 40 hours per week to trip activities. Without question, the high frequency of trips to gain access to basic needs and services was a burden on communal families. Of all the trip-generating chores identified in the 1984 survey, fetching water and visits to local markets were the highest users of time, absorbing almost two-thirds of the total time devoted to the five most common activities. Fetching water required each household in Chiduku to devote about 27 persontrips per week, the highest for any chore. Trips for laundry required 3.4 persontrips per week per household. Because of heavy weights that are usually back or head loaded, each chore required its own trip.

Chiduku and Murehwa, like many communal lands of Zimbabwe, had no access to electric power, except at growth points. Firewood was the most important source of domestic fuel and paraffin oil was used almost solely for

Table 5.4 Weekly time and energy costs of distance per household for trips to fulfil routine domestic needs in Chiduku

Trip- generating activities	% H/hs partici- pating	% Female input	Distance to facility (kms)	Weekly trip freq h/hold	No. trip makers per trip	Weekly time use h/hold
Water	99,4	91.0	0.6	16.9	1.6	10.7
Laundry	99.4	89.0	0.6	2.2	1.5	1.3
Firewood	96.1	91.0	1.9	2.1		4.5
Water livestock	67.4	39.0	1.8	3.4		7.7
Local markets	78.9	63.0	3.2	5.6	1.5	15.0
Total	25.78.17	id.				39.2

Source: Mehretu and Mutambirwa (1991)

home lighting. Trips to fetch wood consumed more and more time and energy as supplies from nearby woodlands ran out (Whitlow, 1979; 1988b). Each household devoted over 3.5 person-trips per week to wood collection sites within a range of two kilometres. Livestock watering was another activity that had a high travelling time requirement. The households in Chiduku reported that they spent eight hours per week on livestock watering. Trips to local markets to sell farm products and purchase household needs were other important activities that required almost six person-trips with 15 hours of trip time per week (Mehretu and Mutambirwa, 1992).

Most routine trips were carried out by female members of the household and more so by mothers as young females increasingly attended schools. Mothers and other females also took most of the burden of farm work in communal lands which meant that time and energy absorbed by routine trips to secure domestic requirements had adverse effects on productivity (Buvinic, 1983). This is one of the crucial aspects of the poverty profile in communal lands. Often, mothers were also burdened by other demands on their daylight time such as taking care of children, processing and storing food stocks and cooking family meals.

Unlike the communal lands, the provision of services on commercial farms to commercial farmworker communities was the responsibility of the employer or farm owner. Hence both the accessibility to and the quality of the services provided varied from farm to farm and depended on the initiative of the employer. For instance, some farms had safe borehole or well water supplies within the vicinity of farmworker compounds but most did not and farmworker households had to fetch water from streams or dams. In some cases the quality of the water was suspect because of poor sanitation facilities in the crowded compounds which were often sited on poorly drained areas, on hillsides or near rivers. Given the limited access to education and healthcare services discussed earlier, the wellbeing of farmworker communities was always under threat. Access to fuelwood was also limited and use of paraffin (bought from the farmers' on-farm shop) was usually the norm. Several farms had such shops which were perpetual 'debt sinks' for most farmworkers who often purchased items on credit against their monthly wages. Thus the poor living conditions of communal land villagers seemed far better than for those on commercial farms.

Conclusion

Social poverty profiles of rural black communities in Zimbabwe have their origins in the colonial spatial and institutional structures that were responsible for partitioning the country into two commercial domains according to natural resource bases. The one domain contained the agricultural and mineral resource rich commercial land owned by and developed for the benefit of white settlers.

The other contained the poor and least resource endowed communal land where the majority of the black population were forced to live and supply cheap labour to the first domain. Consequently the social poverty profile of communal households reflected the concentration of people on poor and declining natural resource bases. The poor potential of the land base in communal lands, reinforced by colonial parliamentary Acts of land apportionment, and rapid population growth interacted over the years to exert pressure on soil, grassland and forest resources leading to population pressure, land degradation and the need for resettlement. Land potential in communal lands rapidly declined with almost a million hectares of cropland estimated to be eroded by the mid-1980s. This is close to 3 per cent of the total national rural area of which over 90 per cent was in communal land (Whitlow, 1988a; Elwell, 1985).

Increasing population density and declining average size of farms contributed to rural poverty and household food insecurity (Rukuni and Eicher, 1987). As observed earlier, such conditions were especially critical in communal lands located in dry natural resource regions. The low rate of economic development in the secondary and tertiary sectors offered limited employment opportunities for communal people. Even economic structural adjustment programmes, introduced to improve economic performance and create employment opportunities, failed to achieve their objectives and resulted in more poverty. The consequent economic hardships made people value the economic security of land ownership even more, as Potts and Mutambirwa (1991;1999) have shown, and may have also pressured government to accelerate land reform for resettlement.

The lack of nucleated settlements in communal lands also gave rise to special problems of accessibility to basic needs and services for communal households. For example, with highly dispersed settlements the household members devoted inordinate amounts of time to routine trips to secure basic needs which most urban dwellers took for granted. Fetching water and firewood alone, sometimes on head or back loads, absorbed precious time and energy that could have been devoted to agriculture. Likewise trips to service centres for agricultural inputs, household requirements and healthcare, also consumed much valuable time. Since women's labour was critical in agriculture, the opportunity cost of time and energy used in such trips had significant implications for not only household food production but also the overall welfare of the household. However, in some communal lands, families benefited from post-independence rural development programmes that improved infrastructure and accessibility to facilities like clinics, schools, clean water supplies (wells and boreholes) and Blair toilets and hence improved their livelihoods. Unfortunately, in recent years, the deleterious effects of the HIV and AIDS pandemic were impacting negatively on the livelihoods of rural black communities in both the communal lands and on the commercial farms. Most of these will not have the opportunity to access anti-retroviral drugs that seem to be the privy of urban dwellers and the élite.

On commercial farms, black farmworker communities had considerably worse social poverty profiles compared to their counterparts living in communal lands. In spite of their important labour contribution to commercial agricultural production, they comprised the most impoverished and vulnerable groups of people in the country with marginal access to basic needs and services such as food, education, decent shelter, health services, clean water and sanitation facilities and political representation. They had limited rights to land occupation and use, and many (especially those with foreign origins) were sidelined in government land resettlement plans. Women on commercial farms were particularly disadvantaged. In addition to performing the normal household chores (similar to communal land females), many worked on the farm to supplement family income either as permanent or casual labour. Some spent part of their time on the family smallholding they may have had in the communal land, growing food crops for the household.

The severity of rural poverty in Zimbabwe deserves the special attention of both government and the private sector. While land resettlement programmes that government is pursuing will reduce population densities in communal lands, conservation and land reclamation programmes need to be accelerated to recover damaged communal land areas and to stabilize fragile environments on newly resettled commercial farmland. In communal lands, on-farm research is essential to develop improved crop and livestock technology to intensify production and accelerate agricultural diversification.

There is need in rural communities for more investment in infrastructure to improve accessibility to essential and affordable services such as education, healthcare, electricity (especially abundant and potentially cheap solar power), tap water, police, legal, postal and financial services, and shopping and recreation facilities. Meanwhile the social infrastructure improvements made by government in communal lands since independence should not be allowed to deteriorate due to poor maintenance and shortages of qualified personnel. Therefore it is essential to train more personnel and promote the expansion of market, industrial and commercial services in growth centres so as to not only attract and gainfully employ the personnel but also service the rural communities better. To sustain these developments they have to be complemented with the expansion of transport, telecommunications, power grids and similar modern technologies that promote rural development and improve agricultural production.

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ZIMBABWE'S AGRICULTURAL REVOLUTION REVISITED

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Zimbabwe's agrarian history is unusual in African development experience in that the country used its own resources to craft an agricultural science base that fuelled the first and second agricultural revolutions. However, the policy environment and prime movers have been seriously eroded and that raises a question on whether the country is capable of generating a third revolution. The unfavourable macroeconomic environment, deterioration of the core rural institutions in the 1990s, a contested land reform programme, economic and political 'isolation' and recurrent droughts have all worked against agricultural recovery.

This book attempts to raise issues of importance for agricultural development. A common theme throughout the book is the need tackle challenges and prompt serious discussions that could lead to the recovery of the country's agricultural sector.

The book is targeted at students, academics, practitioners, policy makers, citizens interested in the agricultural development of Zimbabwe.







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