



Ecological and Poverty Impacts of Zimbabwe's Land Struggles: 1980 to Present*

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he one subject that dominates modern Zimbabwean history is that of land. The theme of land has generated domestic and global debates and acrimonious disputes that have attracted sanctions against Zimbabwe. The issue has deep historical roots dating back to 1890, when British colonialism divided land along racial lines and whites apportioned themselves premier plateau land in good rainfall regions. The indigenous

population was relegated to the “reserves”, communal areas with marginal soils and poor rainfall to induce them to work as ultra-cheap labourers for white miners, farmers, colonial administrators and, later, the manufactures. The status quo remained unchanged for the 90 years of the duration of colonialism. The present study examines the debates on land resettlement during the independence era (1980-present), and analyses the new challenges faced by the Zimbabwe African National Union, Patriotic Front ZANU (PF) government in its attempts to redistribute land. For the first 20 years of independence, the process was stalled by powerful interest groups. Between 2000 and 2002, after a long hiatus, Zimbabwe’s land reform *govavhu* was finally carried out with considerable vigour. By the time the fast-track land resettlement programme was completed in August 2002, an estimated 300,000 small-holder farmers had been endowed with land holdings ranging between 5 and 10 hectares. In addition, land was set aside for 54,000 black commercial farmers. Of the original 5,000 white farmers in 2000, only 600 were estimated to have remained in full production on their farms.

This land reform has had serious impacts on ecology and poverty. The economy has registered negative growth in the 2000-2009 decade, and people have turned to woodland, mining and hunting for their subsistence. These activities have now become an important part of the now dominant informal sector, and are posing threats to the ecosystem. However, because of a lack of available objective scientific data regarding the environmental problems discussed here, the present article discusses the social and economic difficulties underlying the ecological crisis in Zimbabwe rather than the nature and extent of the ecological processes involved.

* This paper is based on oral and written sources, as well as direct observations made in Zimbabwe by the author, who stays in the country for six months every year to carry out field research. Information concerning the *govavhu*, poverty and ecological problems was gathered from various individuals. Access to the relevant written documents was provided by government departments. The dramatic character of the fast-track land resettlement programme inspired me to undertake this study, where I have sought to conceptualise the links between the environment and poverty.

Historical Context

It is difficult to analyse the pre-colonial period with any precision. Zimbabwe was never a single state before British settlers created the arbitrary Southern Rhodesian boundary in the early 1890s. In c. 1700-1800, the Zimbabwean plateau was dominated by the Rozvi Empire of the Shona people. In 1821, Mzilikazi broke away from King Shaka's Zulu Empire in South Africa, migrated north of the Limpopo River and established the Ndebele State (1837-1894), succeeding the Rozvi as the dominant power in the region. British imperial interests in the area were primarily motivated by speculative mineral discoveries thought to rival the Witwatersrand mines in South Africa. In 1888, Cecil John Rhodes obtained the controversial Rudd Concession from Lobengula, Mzilikazi's successor. The Rudd Concession formed the basis of the 1889 Royal Charter granted to Rhodes's British South Africa Company, which empowered the firm to occupy the region. The pioneer column, consisting of 200 white men or *makiwa* led by Leander Jameson, occupied the area in 1890, and Matebeleland was temporarily brought under control through war in 1893. The two major ethnic groups in Zimbabwe, the Shona and Ndebele, subsequently suffered defeat in the First *Chimurenga* or liberation war (1896-1897). Countrywide resistance against imperial occupation was staged separately in Matebeleland and Mashonaland. Following the defeat of the indigenous people in 1898, British settlers regarded the region's natural resources as spoils of war, especially its land, minerals, forests, livestock and wildlife.

Colonial rule lasted three generations. The first period, from 1890 to 1923, was characterised by company rule. Settlers voted for self-rule in 1923 against possible amalgamation with South Africa, but later formed and dominated a federation with Malawi and Zambia (1953-1963). Ian Douglas Smith, the last white Prime Minister, rebelled against Whitehall in 1965 and issued the Unilateral Declaration of Independence to thwart the blacks' own struggle for independence, especially given that Malawi and Zambia had become newly independent in 1964. In response, Zimbabweans rose up in arms against Smith's Government in the Second *Chimurenga*

Table I. Land Apportionment in Zimbabwe, 1930

Category	Square Miles	Acres	% of country
European areas	76 796	49 149 440	51.0
Native Reserves	33 011	21 127 040	22.0
Native Areas	11 663	7 464 320	7.8
Unassigned Areas	27 802	17 793 280	18.5
Undetermined Areas	923	68 480	0.1
Forest Areas	150 302	590 720	0.6
Total		96 193 280	100.0

Source: Report of Native Production and Trade Commission 1944 (Salisbury, 1945), p. 11.

Native Areas were especially designated for land purchases by Africans.

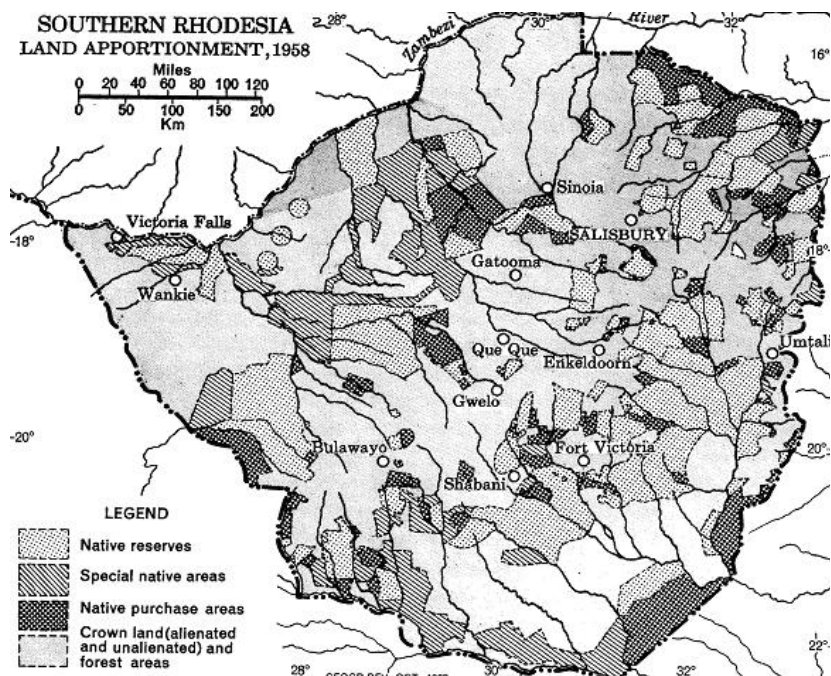
(1966-1979). Their main grievances were land alienation, bad working conditions, and the lack of social services; at the same time, they were animated by a desire for nationhood and independence. The key sectors of the colonial economy, mining, agriculture and manufacturing, had depended and thrived on ultra-cheap African labour to the benefit of the white minority. Environmental discourses tended to apportion blame on the Africans, whose demographic overload in the 40 communal areas caused deforestation, overgrazing and soil erosion. The international community reacted to the Smith Government by imposing sanctions against colonial Zimbabwe. Independence was achieved in 1980 through civil war combined with peace talks known as the Lancaster House Agreement (1979). The two principal nationalist parties that fought for independence were ZANU (PF), led by Robert Mugabe, and the Zimbabwe African Peoples Union, Patriotic Front, ZAPU (PF), under the leadership of Joshua Nkomo. With independence, the top priority of Mugabe's Government was to seek an amicable solution for the long-standing imbalances in land distribution. Table I shows the skewed nature of land distribution in 1930, a situation that changed very little in the 1960s, as illustrated in Table II and Figure 1. Table III indicates a high population ratio of blacks to whites, which did not correspond to resource distribution in the country.

Table II. Land Apportionment in Zimbabwe, 1960

Category	Square Miles	Acres	% of country
European Areas	81 230	51 987 000	53.5
Native Reserves	32 844	21 020 000	21.5
Special Native Areas	20 122	12 878 000	13.0
Native Purchase Areas	12 580	8 052 000	8.0
Undetermined Areas	89	57 000	0.5
Forest Areas	4 984	3 190 000	3.5
TOTAL	151 849	97 184 000	100.0

Source: Chief Native Commissioner Report 1959-1960 (Salisbury, 1962), p. 23. Special Native Areas and Native Purchase Areas were set aside for Africans to buy land on leasehold

Figure 1. Land Apportionment, 1958



National Archives of Zimbabwe, Map Portfolio MND/7/100

Table III. African and European Population in Zimbabwe, 1890-1960

Year	Africans	Europeans	Ratio	Year	Africans	Europeans	Ratio
1890	400 000	800	500:1	1952	2 030 000	152 000	13:1
1902	530 000	25 000	21:1	1953	2 090 000	157 000	13:1
1911	700 000	30 500	23:1	1954	2 150 000	158 000	14:1
1921	847 000	34 000	24:1	1955	2 220 000	165 000	13:1
1931	937 000	48 000	20:1	1956	2 290 000	178 000	13:1
1940	1 390 000	65 000	21:1	1957	2 480 000	193 000	13:1
1945	1 640 000	81 000	20:1	1958	2 550 000	207 000	12:1
1950	1 930 000	125 000	15:1	1959	2 630 000	215 000	12:1
1951	1 970 000	138 000	13:1	1960	2 885 000	225 000	13:1

Source: Central African Statistical Office

Land redistribution, 1980s

Political opposition to a major land reform was carefully engineered, beginning with the 1978 Whitsun Foundation reports, financed by Shell and other companies before independence. The core argument was that the net effect of land resettlement would be an overall decline in output and in the number of people gainfully employed in agriculture.¹ The World Bank and the white Commercial Farmers' Union used the reports for their own purposes. Their argument was that the resettlement of 36,000 households – approximately 250,000 people – on 2 million hectares of land formally owned by white large-scale commercial farmers in 1980-85, against an annual population increment of 180,000 people in the communal areas, would pose threats to the whole economy. In Kenya the figure was 33,000 households resettled on three times the amount of land. In Zimbabwe, the dominant resettlement pattern, Model

¹ Government of Zimbabwe, *The Transitional National Development Plan*, Volume 1, 1983, pp. 66-69; Onesmo Zishiri, Director of Agriculture and Land Resettlement, interview with author, 23-25 June 2003, Chinhoyi, Mashonaland West Region.

Table IV. Land Distribution 1980

<i>Land category</i>	<i>Area in Hectares (million)</i>	<i>Percentage</i>
Large Scale Commercial	15.5	39
Small Scale Commercial	1.4	3
Communal Areas	16.4	42
State Farms	0.3	1
National Parks	6.0	15
<i>TOTAL</i>	<i>39.6</i>	<i>100</i>

Source: Commercial Farmers' Union Annual Report 1982, p. 18

A, provided for considerable areas of common grazing as well as arable family land holdings, a function of the greater significance of livestock and ox-plough cultivation in the Zimbabwe farming system. Much of the land was entirely acquired on generous terms on a “willing-seller-willing-buyer” basis, as enshrined in the 1979 Lancaster House Agreement, but the necessary finance was hard to secure.² The government target in 1981 was to resettle 162,000 families, which would have required redistributing 9 million hectares, or 60 per cent of the total 16 million hectares of premier land held by the large-scale commercial farm sector. Land reform at that scale was judged to entail 60 per cent decreases in output, export earnings and employment, only partially to be compensated by the output of the black settlers. However, output from the large-scale commercial farm sector was not evenly distributed. Most of it came from the most productive quarter of the farms, which however also cultivated only a portion of their arable land, so that even they could afford to lose land without serious loss of output capacity. Table IV provides a summary of the extension of the different land categories in 1980.

² Ibid.

The 36,000 households were resettled during a period of mixed economic performance. The economy grew by 12 per cent in each of the first two years of independence (1980-1981), courtesy of good rains and record harvests. A reconciliation policy prevented a flight of white skills. International recognition produced promises of economic aid at the Zimbabwe Conference on Reconstruction and Development, held in 1981. Education and health services were extended to the whole population, and the Southern African Community and Preferential Trade Area offered exciting prospects of regional integration and cooperation. In 1983, however, the economy contracted, inflation soared cancelling many of the income gains to wage-earners, and employment fell.³ The 1982-84 droughts required major feeding programmes and imports. Disaffection grew in Matabeleland after ZAPU (PF) ministers were sacked from the coalition government. Aid flows slowed down, failed to materialise, or were perceived as having unacceptable political strings, and world markets contracted. South Africa conducted damaging attacks on an air force and ammunition base in the midlands, forcing more costly defence of Zimbabwe's trade routes through Mozambique and making Zimbabwe's reliance on the efficient South African ports a political vulnerability. Nonetheless, enough had been achieved to bring about ZANU (PF)'s re-election in 1985 with an increased majority. For most people, the improvement in their economic situation may not have been large, but social services were visibly improving, regardless of the drought. A short-lived boom in 1985 was followed by renewed drought and economic contraction in 1986-7, the year a unity agreement was signed between ZANU (PF) and ZAPU (PF) to end the violent dissident campaign in Matabeleland. The ZANU (PF) Government's indiscriminate military operations, in which thousands of civilians had been either killed or displaced, had failed to put down the unrest among disaffected ZAPU (PF) liberation fighters.⁴

³ G. Kanyenze, "The Performance of the Zimbabwean Economy, 1980-2000", in *Twenty Years of Independence in Zimbabwe From Liberation to Authoritarianism*, S. Darnolf and L. Laasko (eds), Palgrave, Hampshire 2003, pp. 42-45.

⁴ Mike Auret, Director, Catholic Commission for Justice and Peace, interview

The economic and political circumstances prevailing in the 1980s compelled the government to suspend land resettlement. Certainly, the sustained campaign by white farming interests managed to win important converts in government who maintained the case that the structure of agriculture could not be transformed because of the country's dependence on it for export earnings. There was grave concern that a major land transfer would displace commercial farm workers and raise unemployment, since the farming sector employed 30 per cent of all wage earners. Although the minimum wages were forced up by the government, general working and living conditions remained worse than in the communal areas (malnutrition, for example, was a serious issue among farm labourers). To a large extent, government believed that embarking on a major land reform would lead to a break with the West, an exodus of all skilled whites – and not just the farmers – and loss of aid and trade.⁵

Emphasis was placed on improvement rather than redistribution, despite increasing pressure on the overcrowded communal areas with limited agricultural potential. There was need for higher quality land if successful peasant agricultural development was to take place. Out of over a million peasant households in the communal areas, many faced acute land shortages despite the dramatic but unevenly distributed increases in marketed surpluses. The commercial farming sector had a clear-cut role in Zimbabwe's future economic development, being crucial to food security and export earnings; but its monopolistic hold over the country's land resources required collective willingness and responsibility to redress historical economic imbalances. During the 1980s, there was more continuity than change in land distribution in the country.⁶ The causes of poverty remained structural. The majority of the population's lack of access to productive land was certainly the chief reason for the persistence

with author, 10-13 February 2001, Chinhoyi; Bishop Helmut Rector, interview with author, 10-13 February 2001, Chinhoyi.

⁵ Governor Ignatius Chombo, interview with author, 16-17 February 2001, Chinhoyi.

⁶ Onesmo Zishiri, interview with author, 23-25 June, 2003, Chinhoyi.

of inherited and new poverty. The 1981 Riddell Commission had advised that much more land was required to resettle, in three years, at least 220,000 families from overpopulated communal areas. The Commission also recommended investment in expertise, credit, transport, and marketing facilities, as well as land, along with a policy of viable prices for foodstuffs and agricultural products designed to increase peasant productivity and incomes.⁷ Land reform has historically been viewed as a major tool for alleviating poverty, especially rural poverty, and catalysing the broader socio-economic development process. The experience of East Asia was often cited in support of land reform as a mechanism for the achievement of social equity. The broader framework was one in which land reform would rectify the historical inequality whereby 5,000 white commercial farmers possessed 90 per cent of the most fertile and best-watered arable land while the majority of small-holder farmers were confined to congested and drier communal areas.

Since before the 1890s, rural and urban poverty in Zimbabwe had had a prolonged and extensive character. By the 1980s, it had become chronic. The people affected by chronic poverty were those who had inherited it and remained poor for much of their lives. These were most likely to “bequeath” it to succeeding generations. Chronic poverty can be defined as protracted and significant capability deprivation of individuals or households. A five-tier system for the classification of chronic poverty has been proposed;

this recognizes the “always poor” whose poverty score (income, consumption, nutritional status, human deprivation index etc) in each period is below a defined poverty line; the “usually poor” whose mean poverty score over all periods is less than the poverty line but are not poor in every period; the “churning poor” with a mean poverty score around the poverty line but who are poor in some periods but not in others; the “occasionally poor” whose mean poverty score is above the poverty line but have experienced at least one period in poverty; and the “never poor” with poverty score in all periods above the poverty line.⁸

⁷ Riddell Commission, Commission of Inquiry into Incomes, Prices and Conditions of Service, Harare 1981, pp. 107-110.

⁸ D. Hulme, A. Shepherd, “Conceptualizing chronic poverty”, in *World Development*, 31, 3, 2003, pp. 404-405.

Rural and urban Zimbabweans of the 1980s fell into the broad categories of the “chronic poor” (always poor and usually poor), the “transient poor” (churning and occasionally poor) and the non-poor (never poor to always wealthy). Historically, Zimbabwean smallholder farmers, farm and urban workers have constituted the “always and usually poor”, with a small minority of them among the “churning poor”. In the communal areas, environmental deterioration, even though often emotively bemoaned, remained a pressing problem. Inadequate land reform in the 1980s failed to ease increasing pressure on arable and grazing land. Agricultural and extension service schemes achieved limited success in halting deforestation and soil erosion in the communal areas as more rangeland was converted to farms or *munda* by thousands of young and desperate (GCSE) “O” Level graduates who had failed to secure jobs in the formal sector. The carrying capacity of the communal areas was taxed by human and livestock demands on the soil, rivers and woodland. In particular, pastures suffered doubly from reduction in size and disease, the latter caused by the abandonment of the dip tank system, viewed as a colonial edifice. The loss of livestock wealth through bovine diseases further exposed rural households to poverty.⁹

Land redistribution, 1990s and 2000s

The socio-economic and political framework within which a major land reform programme took place was unique to Zimbabwe. The root causes of the fast-track land reform programme were the underlying and unresolved issues of land redistribution and governance problems. Beginning in the late 1980s, ZANU (PF) unsuccessfully attempted to introduce a one-party political system. Nonetheless, it maintained a highly centralised style of governance in which dissent and political opposition were hardly tolerated. The historical relationship of ZANU (PF) with the minority party ZAPU (PF) during the liberation struggle and the subsequent civil war formed the basis

⁹ Chief James Dandahwa, interview with author, 9-10 May 2003, Hurungwe District, Mashonaland West.

of ZANU (PF)'s policy and attitude towards political opposition. While the Government successfully provided social services such as education, health care, higher wages and better working conditions to the black majority during the early years of independence, it left unresolved structural socio-political and economic problems that would eventually produce national crises. Of these, the land question was the most deeply felt, as the liberation war was fought over land and the promise to return it to the indigenous African population had hardly been fulfilled.

Historical inequity was embedded in the constitutional settlement, the Lancaster House Constitution, which preserved the colonial settlement pattern of white ownership of most of the fertile land. Despite the issuing in 1992 of the Compulsory Land Acquisition Act to address the inequities, the process of redistributing land remained stalled and did not produce equitable results for the majority population. The willing-seller-willing-buyer policy was a failure. Zimbabwe's political elite believed that part of the Western international community was basically preoccupied with "regime change", having no genuine concern for the welfare of ordinary people. Donors who pledged resources for the reconstruction of the country at the Zimbabwe Conference on Reconstruction and Development partially honoured their pledges to sponsor land reform. Over the years, when Zimbabwe appealed for more funds to buy land from white farmers, the international community was not responsive. It was apparent that the African communal areas were congested and no longer able to sustain the increasing population. Western countries did not provide essential funds, even where these had been promised, as in the case of Britain, where the Labour Government argued the issue was a Conservative Party commitment.

In 2000, a national referendum rejected a draft constitution proposing compulsory acquisition of land without compensation. Spontaneous invasions of commercial farms by peasants had started in February 1998, followed by violent "war veteran" commercial farm invasions in some parts of the country. The unpopularity of ZANU (PF) and mounting pressure pushed the Government to initiate the fast-track land reform programme in 2000. The institu-

tional framework of governance in post-colonial Zimbabwe retained the structures, laws and elitist attitude and culture of colonial times. The nationalist elite seemed to have perpetuated the colonial mentality of high living standards for a few at the expense of the majority. In the end, while the liberation struggle had been against the “white settlers” and the economic and political power they monopolized, the Government was not able to reverse the unequal and exploitative nature of colonial capitalism itself. The Economic Structural Adjustment Period of the early 1990s heralded a major economic turning point. The austerity measures it imposed led to, among other things, massive retrenchment of skilled and unskilled labour and of the civil service, the closure of many manufacturing industries, general price increases, and the deterioration of social services. These factors, combined with the liberalisation of the economy, led to a gradual but systematic decline of the formal economy and the growth and emergence of the informal sector, especially in the rapidly growing towns and cities of Zimbabwe, but later to spread into the woodland, mining and wildlife sectors as households struggled to survive.¹⁰

From 1997 onward, an appeasement policy towards war veterans of the liberation struggle was enacted, further worsening the economic situation of most Zimbabweans. The Government decided to issue unbudgeted cash bonuses to nearly 50,000 ex-combatants who had threatened to destabilize the government with a public display of discontent. The demobilisation or “demob”, as the payout was known, not only sparked an inflationary spiral from which the economy failed to recover, but also provided opportunities for corrupt practices.¹¹ Zimbabwe’s unbudgeted military intervention in the conflict in the Democratic Republic of Congo had serious consequences in terms of budgetary allocations and deficits. Also, the fast-track land distri-

¹⁰ Foster Murakwani, Manager Forestry Commission, interview with author, 26 April 2001, Chinhoyi; Peter Mabhande, War Veteran Chairman, interview with author, 30 April 2001, Chinhoyi; Grace Chauke, worker, interview with author, 30 April 2001, Chinhoyi.

¹¹ Ibid.

bution programme negatively affected agricultural production, the mainstay of the Zimbabwean economy. The programme prompted the imposition of “targeted sanctions” by the European Union, the US and some Commonwealth countries. While these sanctions were not directed against the economy *per se*, they contributed to the polarization of national and international media and the domestic political environment, as well as leading to negative travel advisories that heavily affected the tourism industry.¹²

The Zimbabwean economy took a downward spiral, registering growth rates of 0.9 per cent in 1998, 0.5 per cent in 1999, and increasingly high negative growth rates since 2000. There have been no real economic solutions in sight, despite several efforts by the Reserve Bank of Zimbabwe to try and resuscitate the economy. Foreign currency shortages have restricted essential imports needed for industrial and agricultural production, medicines, fuel, energy and basic commodities, contributing to the decline of the formal economy and the Government’s revenue base. Food shortages exacerbated by drought affecting the entire sub-region have become a permanent challenge since 2001-2002, particularly in rural areas. The food deficit was estimated at 1.2 million tonnes of maize for the 2005-6 season. In 2005, the budget deficit exceeded 15 per cent of the GDP and domestic debt exceeded US\$ 1 billion. Unemployment stood at 75 per cent with over 70 per cent of the population living under the poverty line.¹³ With economic stagnation and decline, the informal sector share of employment rose from 20 per cent in 1986/87 to 27 per cent in 1991 and more than 40 per cent in 2004. The informal economy eventually became the mainstay for the majority of the Zimbabweans. International Labour Organisation reported in June 2005 that 3 to 4 million Zimbabweans earned their living through informal sector employment, supporting another 5 million people,

¹² Felicia Munjaidi, Tourism Officer, interview with author, 20 October 2001, Harare. Tourist arrivals to Zimbabwe fell by 25 per cent in 2001-2002.

¹³ *The Financial Gazette*, 25 November 2006; *The Independent*, 30 November 2006; *The Standard*, 5 December 2006. (The three major independent weekly newspapers in Zimbabwe).

while the formal sector employed about 1.3 million people. Faced with these dilemmas, civil society organizations, especially the Zimbabwe Congress of Trade Unions, emerged as pressure groups to oppose ZANU (PF)'s stranglehold on power, charging the party with corruption, human rights violations and poor governance in general. This political space for civil society set the stage for the emergence of a strong leadership, which eventually managed to form a powerful alliance of forces that mobilized Zimbabwe's public opinion.¹⁴

By the time of the referendum in February 2000, 55 per cent of the voting population had successfully mobilised to vote against the constitutional draft. The referendum marked the first political defeat for ZANU (PF), in what became a watershed year in Zimbabwe's political history. The outcome of the referendum prompted a fierce campaign for the legislative elections held in June that same year. As ZANU (PF) was fighting for its political survival, the campaign period provided the perfect opportunity for the war veterans to consolidate their interests in order to augment their political power. It was in this charged political context that land reform became a tool for economic redistribution and political mobilisation. The fast-track land reform programme became an integral part of the campaign process. Many Zimbabweans, including the members of the Movement for Democratic Change (MDC), were supportive of the land acquisition and redistribution exercise. It was, however, expected that the Government would ensure an orderly and fair process, free of corruption. As a pay-off for their electioneering role, the war veterans were promised ownership of 20 per cent of the land taken over by the state in the period 2000-2002. The war veterans had become an important but disgruntled interest group and were key players in this campaign, mobilised by ZANU (PF) as "political shock troops" on a large scale. The systematic use of intimidation and violence against opposition candidates and supporters became the modus operandi, particularly in commercial farming and communal areas, effectively sealing those areas off from opposition access. Against this

¹⁴ Ibid.

background, the MDC emerged as a formidable challenge to ZANU (PF). Although ZANU (PF) eventually won the 2000 parliamentary elections by a narrow and contested margin of 62 against 58, the process was criticised by international observers and many regarded the elections as having been neither free nor fair.¹⁵

In this volatile political climate and after a long hiatus, Zimbabwe's land reform, *govavhu*, was carried out between 2000 and 2002, with much confusion. Only 17,000 households had been resettled in the period between 1985 and 2000, a total of 53,000 households in the first twenty years of independence. When the fast-track land resettlement programme was officially completed by August 2002, an estimated 300,000 small-holder farmers had been each assigned between 5 and 10 hectares of land, in conformity with the A1 village-resettlement model. In addition, land was set aside for 54,000 black commercial farmers, as provided for in the A2 commercial farming scheme, and 2,124,000 people directly benefited from land reform.¹⁶ Of the original 5,000 white farmers in 2000, only 600 were estimated to have remained in full production on their properties. Over 3,000 of them lost close to \$50 billion in moveable assets and property when they were forced off their land estates. A total of 11,5 million hectares of land had changed hands within two and a half years (see Table V). According to Robert Mugabe, "It was up to the British to compensate their cousins. Rhodes and his people did not come here with soil seed, not even an ounce of British soil."¹⁷

This period also witnessed increased unemployment and urban violence, as well as a diaspora of not only the important black middle class, but also the recently dispossessed commercial farm owners,

¹⁵ Peter Mabhande, War Veteran Chairman, interview with author, 30 April 2001; *The Financial Gazette*, 25 November 2000.

¹⁶ Onesmo Zishiri, Director of Agriculture and Land Resettlement, interview with author, 20-21 September 2004, Chinhoyi, Mashonaland West Region; *The Financial Gazette*, 25 November 2004; *The Independent*, 30 November 2004; *The Standard*, 5 December 2004.

¹⁷ Masipula Sithole, *Zimbabwe's Public Eye, Political Essays*, Zimbabwe Publishing House, Harare 1998, p. 7.

Table V. Land Reform 2000-2005 Area (Million Hectares)

<i>Tenure Category</i>	<i>1980</i>	<i>2005</i>
Large Scale Commercial	15.5	6.0
Small Scale Commercial	1.4	1.4
Communal	16.4	16.4
Resettlement	-	8.3
National Parks & Urban	6.0	6.0
State Land	0.3	1.5
<i>TOTAL</i>	<i>39.6</i>	<i>39.6</i>

Source: Ministry of Lands, Agriculture and Resettlement, 2001

and an influx into towns of their former employees. All this led to widespread disenchantment with the Government. Towns and cities emerged as strongholds of opposition to the ruling party and were viewed with suspicion by the government. The presidential elections held in 2002 further polarised Zimbabwean society as well as the international community. While Western Governments considered the elections not to have been free and fair, the African Union and Southern African Development Community accepted them as representative of the will of the people. The 2005 legislative elections were conducted along similar lines, and were followed by years of increased polarisation, politically related violence and mistrust of the ruling authorities. Although the day of election on 31 March 2005 was relatively calm and violence-free, a sense of fear and distrust had prevailed over the entire population. The elections did not resolve the underlying tensions between ZANU (PF) and MDC. The programme for equitable land redistribution could have been better justified by a transparent and fair redistribution of land to full-time farmers with secure tenure to safeguard investments and productivity. In May 2005 the government launched a controversial clean-up operation (*murambatsvina*) that displaced 700,000 urban people across the country, who lost their homes, their source of livelihood, or both. A further 2.4 million peop-

le were indirectly affected to varying degrees. Hundreds of thousands of women, men and children were made homeless, without access to food, water and sanitation, or health care.¹⁸

In rural areas the immediate consequence of the land reform process was the displacement of up to 200,000 farm-worker households or 1.2 million individuals from the dispossessed farms. There had been an estimated 320,000 farm-worker households on the farms prior to land reform. About two-thirds were thus affected by the reform in terms of job losses and diminished access to shelter and basic social services, however rudimentary these might have been. Furthermore, crop production was particularly affected following the eviction of white commercial farmers. There were significant declines in the production of maize (the main staple), tobacco (a major foreign-exchange earner), wheat, soya beans, beef and horticulture. Droughts in 2001-02 and 2002-03 compounded the food shortage crisis. The whole 2000-2009 decade was one of acute hunger and extreme poverty. Most farm workers who had lost their jobs were not absorbed into the land reform programme, and less than 5 per cent of them were granted land. When *govavhu* was completed, the simultaneous loss of jobs and income, shelter and basic social goods such as health care had made farm workers even more vulnerable. In a historical perspective, it appears that a vulnerable social group, the farm-worker population, made a mixed outcome of land reform. Their social exclusion explains the historical and present marginalization of farm workers, with profound social consequences for this group especially as regards the loss of employment.

Deforestation

Closely linked with the *govavhu*, official conservation policy and practice in the independence era since 1980 has been preoccupied with three major issues, viz., the conservation of forests, land and

¹⁸ *The Financial Gazette*, 3 August 2005; *The Independent*, 23 August 2005; *The Standard*, 25 August 2005.

wildlife, managed, respectively, by the Forestry Commission, the Ministry of Agriculture, and the Ministries of Environment and Tourism. Generally, natural resource management practices in Zimbabwe ranked least in government priorities as reflected not only in the lack of a comprehensive conservation policy, but also in the meagre financial and manpower resources allocated for conservation purposes. Local rural communities holding different development priorities often refused to cooperate with conservation schemes perceived as a colonial hangover. For much of the independence period, small-holder farmers with inadequate access to land resisted the principles of forest management, especially where policy emphasised protection rather than production. The Natural Resources Board played an important role in providing seedlings for woodlots before and after independence. The board held competitions in conservation programmes and rewarded communities in cash and kind for efforts to conserve soil, water sources, woodland and wildlife. Most conspicuously, conservation efforts of the 1970s through to the 1990s made it a punishable crime to cut down trees. Both the commercial farm and small-holder sectors were designated for pastures and cropping. In wintertime, springs, streams and rivers usually flowed with fresh water and vegetable gardens graced the landscape. The Forestry Commission protected several forested areas and parks in the country.¹⁹ As regards to wildlife, game wardens and rangers, the police, and the army and courts in the case of rhinoceros poachers, achieved relative success in preserving wild fauna. Shona traditions regarded the discovery of wild pangolin a miracle or *mashura*, and the animal was supposed to be handed over to the local chief. *Mashura* occurred throughout Zimbabwe in the 1980s and 1990s when members of the public stumbled upon and surrendered more than ten pangolins to President Mugabe at State House ceremonies emblematic not only of a general awareness of conservation ethics, but also of the widely held belief that many Zimbabweans

¹⁹ *Forestry Commission Annual Report*, December 2000, p. 5; Foster Murakwani, Manager, Forestry Commission, interview with author, 26 April 2001, Chinhoyi.

would suffer retribution from land spirits for not paying homage to them after the liberation struggle.²⁰

From the mid 1990s, ecological issues were further marginalised due to changes in the socio-economic and political environment. In 1980, out of Zimbabwe's total 39,600,000 hectares, 19,300,000 hectares or 50 per cent were forested areas. The human and livestock demographic overload in the communal areas as well as the volatile economic and political situation in the country increased pressure on the wooded areas, which were cleared for timber, energy and agriculture. Since more than nine tenths of the country lacks electricity, firewood and charcoal are widely used for domestic cooking and heating. Mashonaland West Region (MWR) (see Figure 2) typifies the national pattern in woodland exploitation as an integral part of the informal sector. Wood fuels account for as much as 95 per cent of the total national energy use, including energy for small industries such as brewing, baking and brick-making. The demand for wood energy has been exacerbated by increases in oil prices and foreign currency shortages preventing the switch to non-wood based fuels. The rural Shona people in MWR cut and lop trees not because of ignorance or a lack of conservation values, but because of the non-existence of timber or energy alternatives. The use of woodlands and forests, including forest reserves, by growing populations to meet their fuel requirements is one of the most frequently cited causes of deforestation in MWR, the country in general, and elsewhere in Africa. Some densely populated districts in the region such as Zvimba and Chirau lost more than 80 per cent of their woodland cover, in spite of the annual national celebration of Tree Planting Day on 1st December to remind the nation of the need to conserve vegetation.²¹

Some farmers resettled under the fast-track system, including farmers in the Mhangura and Lions Den areas of MWR, have cut

²⁰ Chief James Dandahwa, interview with author, 9-10 May 2003, Hurungwe District, Mashonaland West.

²¹ *Forestry Commission Annual Report*, December 2004, p. 5; Foster Murakwani, Manager, Forestry Commission, interview with author, 26 April 2001, Chinhoyi.

Figure 2. Mashonaland West Region: area 57,441 km², population 1.2 million (2002). Chinhoyi is the capital of the region



down trees to an extent not witnessed before in order to clear land for cash and food crop production. According to Tanzikwa Guranungo, urban dwellers retrenched from their jobs in Harare, Chinhoyi and Chegutu have increased the numbers of these farmers, putting further pressure on woodland. The urban unemployed also migrated from the cities to rural areas in the 2000s in search of alternative sources of livelihood. According to Mutizwa Munyimi, a village head in the Makonde District: “Many people have returned home following retrenchment and are cutting down trees to clear land for cultivation and for various domestic purposes like building

houses, erecting open grain silos, cattle pens, thatching and fencing poles. They require wood fuel and the scenario is just very distressing.²² The Chief Executive Officer for Hurungwe District, Jorum Moyo, argues that:

Unlike the small-holder farmers, farmers originating from urban areas diversify their economic activities with the indiscriminate cutting down of important rare tree species such as the *Mukamba* and *Mukombegwa* [hardwood tree species] to manufacture household and office furniture; tables, cabinets and wardrobes for sale. This new generation of farmers lacks training and experience in modern methods of conserving farming environments. They collect most of the dead wood available and use axes and machetes to cut down green mature trees for firewood for sale in the lucrative urban markets where people experience widespread electricity load shading day and night. The livelihoods of some new farmers depend entirely on cutting trees for sale as firewood.²³

The high prices of firewood and acute shortage of paraffin or gasoline pushes urban people to drive out to farms and cut down trees. Guranungo points out that poverty drives many unemployed people into the firewood trade. In Chinhoyi, Karoi and Chegutu towns, youths drop out of school and invest in axes, wheelbarrows and scotch carts for use in the firewood trade. Curio-wood carvers in the Dete, Trelawney and Darwendale areas exploit hardwood tree species of commercial value without restriction, attracted by a profitable trade that pays handsomely, mostly in foreign currency.²⁴

Tobacco farmers in the Nyabira and Banket Districts have played a major role in deforestation, since they do not stop at clearing land for farming, but also use firewood for curing tobacco. Large and small-scale tobacco growers are compelled to use wood fuel due to coal shortages and the lack of adequate rail wagons, as well as the general collapse of the public transport sector. Hwange Colliery, the country's sole coal producer, and the National Railways of Zimbabwe lost skilled person-

²² Mutizwa Munyimi, Village Head, interview with author, 10 March 2003, Makonde Business Centre.

²³ Jorum Moyo, Chief Executive Officer, interview with author, 22 March 2003, Magunje Growth Point.

²⁴ *The Chronicle*, 17 April 2003; *The Herald*, 4 May 2003.

nel to the diaspora and are crippled by severe shortages in spare parts, fuel and electricity. Thomas Nherera, General Manager of the Tobacco Growers Trust, notes that nearly all tobacco farmers in the country have substituted coal with firewood. During the 2001-2002 tobacco season, 160 million kilograms of tobacco worth US\$ 370 million was processed, largely using firewood. The 110 million kilograms of flue-cured tobacco and 5 million kilograms of barley tobacco produced in 2003 was processed using wood fuel.²⁵ The Forestry Commission Manager for MWR, Murakwani, observes that;

the newly resettled small-holder tobacco producers are self-motivated and profit-driven, and clearly lead in forest clearance, timber and fuel wood consumption. To cure the crop they construct wooden sheds with a thatched grass roof supported by forked poles on which they hang drying sticks on timber racks. The perennial building of tobacco sheds requires termite-resistant straight poles due to damage from weathering and pests. Few sheds last two years because most need refurbishment before dismantlement. The total volume of timber expended by old and new tobacco growers in Mashonaland is frighteningly unsustainable.²⁶

The Agricultural Extension Service Officer, Peter Mazeze, argues that the most severe deforestation problems in MWR occur in areas where tobacco is a major cash crop, particularly Trelawney and Nyabira. The greater demands for wood associated with tobacco growers account for almost a quarter of all household consumption of wood in the region. A fuel wood deficit in the region will largely arise out of overexploitation of existing woodland resources by tobacco growers. The most striking effect of tobacco growing is the near depletion of both natural and planted woodlots. It is inconceivable that farmers would switch from growing cash and food crops to trees for fuel wood, a sure way to starvation and a route nobody will risk. Dependence on woodland for energy requirements has certainly created acute shortages of wood in the Zvimba, Chirau, Magunje communal areas, and the newly resettled areas of Obva, Banket, Siyakobvu, Gachekache and Nyabira, forcing many

²⁵ *Business Chronicle*, 12 March 2003; *Business Herald*, 12 March 2003.

²⁶ Foster Murakwani, Manager, Forestry Commission, interview with author, 26 April 2001, Chinhoyi.

Table VI. Zimbabwe Forest Cover 2000-2005

Year	Total forest cover (ha)	Total change over the period	Average annual change (ha)	% Annual change
1990	22,234,000	--	--	--
2000	19,105,000	3,129,000	312,900	-1.41
2005	17,540,000	1,565,000	313,000	-1.64
1990-2005	-	4,694,000	312,933	-21.11

Source: Compiled from Forestry Commission Reports, 1990-2005

small-holder farmers to cut illegally on state land.²⁷ In recognition of these environmental problems, local forestry officials recommend a shift from tobacco towards other cash crops, such as soya-beans, cotton, sun-flower and groundnuts, although these alternatives do not offer equally competitive prices and market opportunities as tobacco.

Resettlement schemes in high population zones of India and Brazil have also shown that forests come under pressure from rising populations requiring expanded farming space, food and energy supplies. Forestry officials estimate that Zimbabwe's woodlands are disappearing at a rate of 2 per cent per annum. Table VI illustrates the extent to which forest cover was lost in one and a half decades in Zimbabwe between 1990 and 2005. The combined impact of unregulated multiple domestic energy requirements, firewood traders, wood carvers and tobacco farmers poses serious threats and endangers the survival of woodlots. Lack of shade for livestock and wildlife is another serious environmental issue. The Environmental Management Act of 2002 was considered as "panic legislation" and too little too late to provide adequate measures for environmentally-friendly projects. Non-governmental organisations such as Environment Africa, which campaign against deforestation and encourage the planting of fruit and shade

²⁷ Peter Mazeze, Agricultural Extension Service Officer, interview with author, 29 April 2001, Chinhoyi.

trees in both rural and urban settings, are being prosecuted – along with other non-governmental organisations – by the state, which perceives them as MDC supporters and opposition financiers.²⁸

Mining and Soil Erosion

The disappearance of forest cover is producing further consequences for the environment, such as exposing the soil to baking by the summer heat. Unprotected soil becomes susceptible to erosion from either the wind or rain. Humus from rotting leaves and twigs will no longer be available to enrich the soil. The greater impact of land liberalisation in Zimbabwe resulted from increased human interference with the environment in association with legal and illegal small-scale mining activities, particularly of precious metals (*ngoda*) such as gold, emeralds and diamonds. Gold is the second largest foreign-currency earner after tobacco in the country. Gold production has been unstable on the decline since 2000 due to domestic economic problems and a fall in international prices: from 22,007 kilograms in 2000 to 18,000 kilograms in 2001 and 15,400 kilograms in 2002. According to Gold Fields, 19,700 kilograms of gold were produced in 2003. Many people show interest in gold as a safe-haven or traditional hoarding vehicle in times of economic uncertainty. Gold buying concessionaires holding government permits to sell to the Reserve Bank of Zimbabwe often compete with non-permit holders who sell on the black market, creating leakages and illegal exports that reduce foreign currency earnings for the country. In general, the mining sector has been on a downward spiral due to shortages of foreign currency, equipment and new technology, as well as weakening metal prices on the global market. Zimbabwe has extensive gold-bearing zones but the reefs are narrow, geologically complex and erratic in grade, making standard commercial mining operations generally unviable.²⁹

²⁸ Foster Murakwani, Manager Forestry Commission, interview with author, 26 April 2001, Chinhoyi.

²⁹ Joseph Tasosa, Director of the Zimbabwe National Environment Trust, inter-

Environmentalists have been concerned by unregulated and informal small-scale mining activities in Zimbabwe. Joseph Tasosa, Director of the Zimbabwe National Environment Trust, notes that mining activities carried out without due consideration of the environment are causing a series of problems. An estimated 1 million *makorokoza*, a Shona word meaning “panner”, operate countrywide, producing in total between 400 kilograms and 600 kilograms of gold a month. Their mining equipment includes picks and shovels, pots and dishes. The *makorokoza* probably account for between 25 and 37 per cent of Zimbabwe’s gold output. According to Tasosa, “Land degradation has become serious, especially from 2000 due to the increase of *makorokoza* whose activities leave a trail of destruction to the environment.”³⁰ Clever Mhangami points out that open-cast mining methods for gold and other precious minerals have pockmarked swaths of fertile and arable land with treacherous pits as diggers burrow for precious metals. People, livestock and wildlife have been killed or maimed by open pits, prompting calls for concerted efforts to fight and ban illegal mining.³¹ However, several factors are pushing miners onto mineral bearing land. Tsitsi Matope reports that hundreds of hunger-stricken families in the Mwami and Chikuti Districts, MWR, a farming and livestock raising area, turned to gold mining after structural adjustment and drought affected farming activities.

The *makorokoza* live in tents and “bivvies” made of plastic sheeting or hessian sacks, right next to their mine workings. *Makorokoza* build makeshift compounds near the Mwami and Karoi Rivers where unsanitary conditions expose women and children to prostitution and diseases such as malaria and HIV/AIDS. Apart from the harsh working and living conditions, many risk long-term health problems because they use mercury to form the gold they recover into a crude

view with author, 3 March 2003, Harare; Sabele Moyo, Clever Mangami and Tsitsi Matope, Forestry Officers, interview with author, 10 March 2003, Chinhoyi.

³⁰ Joseph Tasosa, Director of the Zimbabwe National Environment Trust, interview with author, 3 March 2003, Harare; *The Herald*, 23 April 2003

³¹ Sabele Moyo, Clever Mangami and Tsitsi Matope, Forestry Officers, interview with author, 10 March 2003, Chinhoyi; *The Herald*, 26 April 2003

amalgam for smelting. The *makorokoza* employ late nineteenth century technology. They crush their ore with stamp mills instead of the vastly more efficient, but expensive, ball mills. The *makorokoza* refuse to use ball mills. They prefer stamp mills because they can watch their ore being treated. One miner said: “There’s a *mukiwa* [Shona for white man] in the ball mill stealing our gold.”³² Some gold is lost as fine particles get trapped in the cracks between the liners of a ball mill. The trapped gold is recovered through clean-up operations when the liners wear down and have to be replaced, which happens every few months. The *makorokoza* cannot afford stamp mills. These are often owned by the holder of the mining permit for the area being exploited, frequently a white farmer affected by the land reform programme who has himself turned to gold mining to survive. *Makorokoza* sell the gold ore to middlemen as well as the Fidelity Printers & Refiners, who buy it on behalf of government. As in the firewood trade, from the age of 8 children drop out of school to help their parents mine gold. Kiyasi Sibanda states: “The drought situation here is very serious. Every family has lost at least four cattle with some villagers left with none. We have no choice but to let the youths go and mine for gold while elders look after the villages.”³³

Desperate villagers are pushed into gold panning by poverty. They occupy the mineral-rich Great Dyke mountain formation stretching from MWR to the Midlands, the areas around Shurugwi and Kwekwe being the most affected. Food relief programmes and community projects also fail to provide adequate social security. As with agriculture, retrenchment and unemployment in the urban areas and former large scale commercial farm sector increased the number of *makorokoza*. Violent confrontations with officialdom are common. According to Clever Mhangami;

Thousands of gold panners have established settlements around Zvishavane and Shurugwi where they operate from, and these campsites have become

³² Ellen Chaumba, gold panner, interview with author, 19 January 2008, Siyakobvu.

³³ Kiyasi Sibanda, gold trader, interview with author, 20 December 2007.

flash points for wanted criminals. Some of the *makorokozas* have become so daring that if a few police officers confront them, they usually attack them. The police are arresting them but this has not deterred them. Some of these panners have become so daring that they are attacking police officers on duty. The *makorokozas* are armed with dangerous traditional weapons such as picks, axes, knives and iron bars.³⁴

One of the most successful efforts to curb illegal gold panning by the police in MWR involved a large-scale operation code-named *Mariyawanda*, which saw more than 800 panners arrested in June 2004. They were made to pay fines ranging from Z\$ 5,000 to Z\$ 10,000 (£ 2 to £ 3 respectively, on the black market). The fines did not deter the panners, who earn a lot of money. A gram of alluvial gold sells for Z\$ 10,000 to Z\$ 14,000, depending on the middlemen. Even if other jobs were available, gold mining pays better than most skilled and unskilled occupations. A panner can recover as much as 10 grams of gold a day, from which he will make a maximum of Z\$ 140,000 (about 140 South African Rands), a Zimbabwean teacher's monthly wage.³⁵

Riverbed and alluvial gold panning has caused damage to riverbanks and basins, in the form of soil erosion, water pollution and heavy siltation affecting the country's major water sources and dams. The horizontal tunnelling method of extracting minerals has been particularly destructive along the Karoi, Mwami and Mucheri Rivers. The method often results in the collapse of river banks and disused mine shafts, leading to loss of human life and vegetation, erosion and siltation. Panners deface attractive river sites. Massive siltation is evident in many rivers and poses a threat to reservoirs supplying water for domestic consumption. Panning activities have also negatively affected aquatic life. Elements such as mercury are often used adjacent to water sources, contaminating the river system. Over 3000 tonnes of mercury are said to be discharged into rivers every year, killing aquatic life, particularly fish, frogs and larvae.³⁶ Multinational mining corpora-

³⁴ Sabele Moyo, Clever Mangami and Tsitsi Matope, Forestry Officers, interview with author, 10 March 2003.

³⁵ Ibid.

³⁶ Sabele Moyo, Clever Mangami and Tsitsi Matope, Forestry Officers, interview with author, 10 March 2003.

tions such as Hartley Platinum and Anglo American Corporation are also causing similar environmental problems, particularly when they compete with small-scale miners over mine claims. In Chegutu, transnational companies are encroaching on mineral-rich areas claimed by small-scale miners. Mining Commissioners, surveyors and the local courts are slow to solve disputed claims, giving ample time for big firms to extract and exhaust minerals of export quality, leaving nothing but mining dumps and toxic waste. The disputes, over-pegging and extensive working of mine claims by both large and small-scale miners in the country are threatening the eco-system.³⁷

Wildlife

Apart from deforestation and soil erosion, *govavhu* affected national parks and forest reserves, the principal habitats for Zimbabwe's biodiversity in plant, tree and wildlife species. The country is home to 40 amphibian, 661 bird, 222 mammal and 180 reptile species. The total wildlife diversity is thus 1103, including 10 endemic species and 24 threatened ones. Wildlife poaching is carried out near mining campsites, on newly occupied land and in national parks and forest reserves. Unregulated hunting is threatening rare wild flora and fauna, especially in cases where hunters set fire to forests to flush out game. Due to the collapse of the cattle industry, in MWR game meat from Mana Pools and Mavhuradona National Parks has become a substitute for beef.³⁸ With their flourishing variety of game, national parks and game reserves have been important to the Zimbabwean economy in generating tourist revenue, stimulating protection programmes, and heightening public awareness of wildlife conservation issues. In the 1980s and 1990s Zimbabwe used to have a solid reputation as possessing one of the finest national park infrastructures in the African continent. Topflight ecologists planned the development of the parks and wildlife estate and a core of highly dedicated and trained

³⁷ Ibid.

³⁸ Ibid.

management officers carried those plans to fruition. Law enforcement was vigorous and transparent. The investigation branch of national parks was able to convict senior government officials caught contravening conservation laws. The late Vice President Joshua Nkomo's "VIP Hunting Scheme" was brought to heel.³⁹

As a consequence of the volatile political situation in Zimbabwe, however, military-style firearms were issued to the "militia" and war veterans with little accountability. These weapons are now being used to hunt illegally within the parks and wildlife estates. Available evidence suggests that this is happening on a large scale, approximating state-sponsored poaching. The depredation of the country's wildlife is yet to be quantified. Zimbabwe's rhinoceros, wild dog (*lycaon pictus*) and impala population, along with other species, are under threat of extinction. Law enforcement is politicised to the extent that no one with the "right" credentials will be investigated for anything.⁴⁰ For instance, Wisdom Mudzungairi says hunting permits were issued to two people, the Harare businessman E. Kadzombe and prominent rancher Charles Davy, both for the Matetsi Unit One concession area. Such arrangements threaten the wildlife population of that area with the possibility of over-hunting. The lucrative sport hunting industry is increasingly tied to the country's indigenisation policy, but some indigenous people granted hunting concessions extend their permission to third parties. To cover up the corruption in the permit-issuing department, the National Parks and Wildlife Management Authority cancelled the hunting licence for Davy, an American national granted hunting permission under unclear circumstances in the country's premier game area of Matetsi near the Victoria Falls. The cancellation of permits attracted an orchestrated vilification campaign by Western media against the country as a tourist and hunting destination.⁴¹

Organised fish poaching is also threatening many species, such as the tiger fish and the *kapenta* (sardine). The Zimbabwe Conservation

³⁹ *Zimbabwe Independent*, 7 May 2003.

⁴⁰ Onesmo Zishiri, interview with author, 23-25 June 2003, Chinhoyi.

⁴¹ *Business Herald*, 4 April 2003.

Taskforce, an independent environmental organisation, notes that the fish populations of many rivers and dams have been depleted by unsustainable fishing methods. For example, fish is netted in rivers flowing out of the Kariba dam basin, a restricted breeding area. "Fish swim down the streams to spawn and they are netted before the roe (fish eggs) has a chance to hatch."⁴² According to Johnny Rodrigues, head ecologist of Zimbabwe Conservation Taskforce, the country faces total decimation of the tiger fish population at Kariba, and the collapse of the *kapenta* industry. There are more than 600 trawlers belonging to 73 registered fishing co-operatives. The trawlers operate on a daily basis, putting a strain on the fish population of the lake. Other trawlers owned by unregistered fishermen invade the lake during the night, employing nets that destroy fish eggs. Unregulated fishing methods disturb the reproductive cycles of some fish species, notably *kapenta*. Fish poachers set nets at night and come to retrieve them at dawn while others use trawlers with no lights for fear of detection. The police have arrested several people on charges of fish poaching but the small fines imposed by the courts are an insufficient deterrent.⁴³

The National Parks Authority could limit the number of permits issued to co-operatives and companies wishing to engage in fishing activities in the lake. Liberty Nyaguse, an aquatic ecologist, has also suggested that the authority, rather than allowing year-round fishing, might impose two-month breaks to allow the fish to breed. During this time, endangered fish species could be restocked for breeding purposes. The University of Zimbabwe Research Station agrees. Other countries impose fishing quotas or periodic bans to allow certain fish species to breed so that stocks are maintained at sustainable levels. A shift to catching smaller species, which are more profitable, is leading to a worldwide decline in fish stocks. According to the Food and Agricultural Organisation, an at least 30 per cent reduction of the world fishing capacity would be required to rebuild over-fished resources.⁴⁴

⁴² *The Chronicle*, 6 March 2003.

⁴³ *The Chronicle*, 6 March 2003; *The Chronicle*, 8 March 2003.

⁴⁴ *The Chronicle*, 10 March 2003; *The Chronicle*, 11 March 2003.

Conclusion

Zimbabwe is a nation at a crossroads. Zimbabwe's problems stand a good chance of being solved in the long run as the ruling and opposition parties continue to be pressured by other African leaders to reach a political settlement and form an all-inclusive government. The prospects of a unity government are high as the country remains largely peaceful and without civil unrest or war. A new government would require the goodwill of the international community to end sanctions and build capacity to enforce pro-poor and environmental policies and programmes. To offset the escalating costs of living and high unemployment, the agricultural sector requires comprehensive restructuring to assist the new land-holding class in realising their potential as food and cash crop producers, a process that would in turn provide not only food security but also essential raw materials to resuscitate industries and employment creation. As more opportunities arise to market crops, rural accumulators have a great deal more scope to expand their agricultural operations. As a consequence, serious ecological issues are arising in both the resettlement and communal areas, which require government intervention right from the beginning. The government and the private sector are best placed to develop more capacity in electricity generation to mitigate the impact on woodland to supply wood fuels, food and environmental protection for local people. Many people, including the MDC, were supportive of the land acquisition and redistribution exercise. It was expected that the government would ensure an orderly, fair and corruption-free process. New landowners however are seriously undercapitalised and have been struggling to operate on minimum inputs, and the critical food shortages are a testimony to the farmers' failure to feed the nation. Nonetheless, Zimbabwe's long term prospects as a regional food producer remain bright.