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The Environmental Impact of the Armed Conflict in Southern Mozambique, 1977-1992

By

Estêvão Pihale

(PHLEST001)

A dissertation submitted in fulfillment of the requirements for the award of the Degree of
Master of Arts in Historical Studies

Department of Historical Studies, Faculty of the Humanities

University of Cape Town

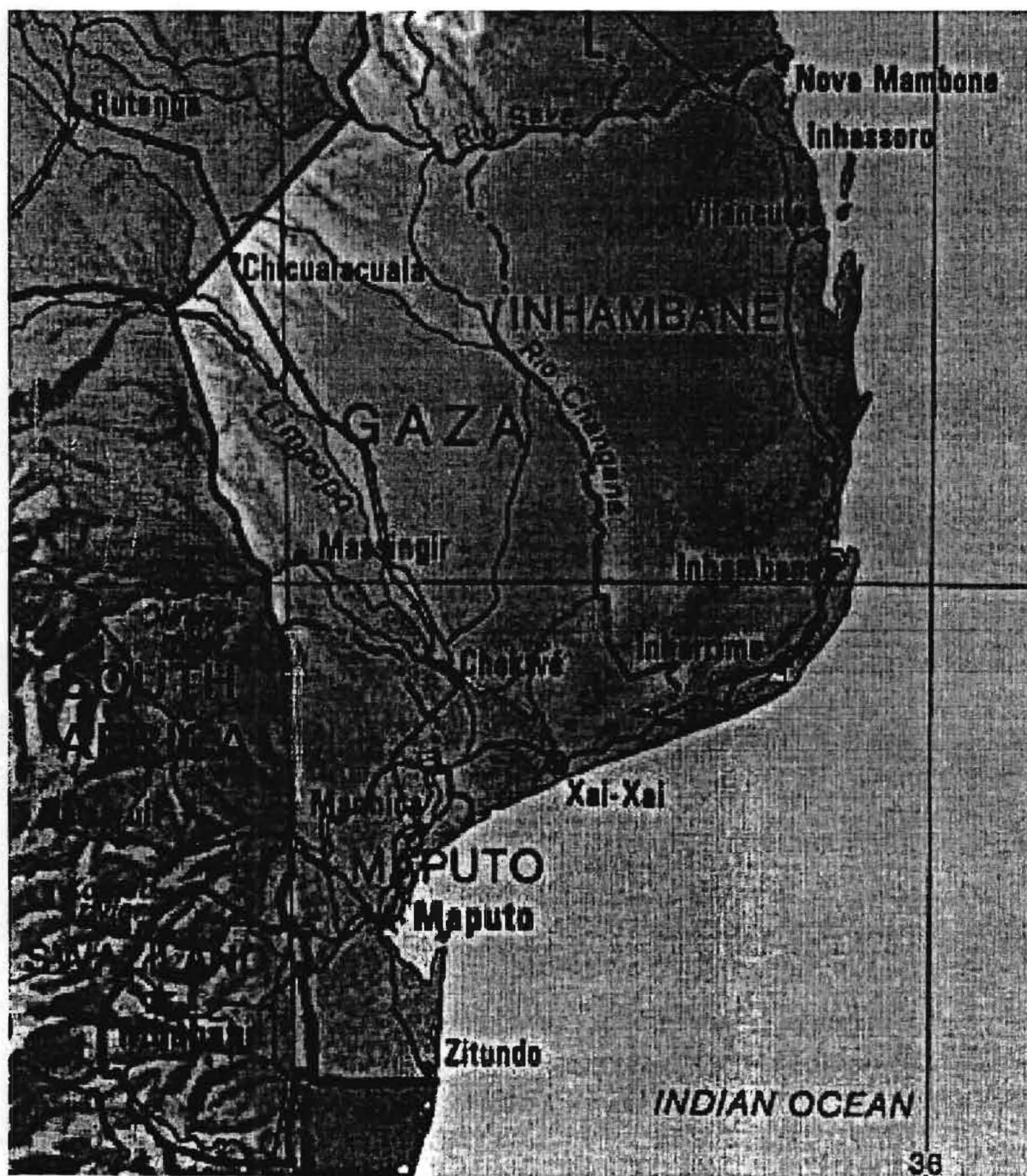
May 2003

Table of Contents

Table of Contents.....	i
Southern Mozambique Map.....	iii
Declaration.....	iv
Dedication	v
Acknowledgements.....	vi
Abstract.....	vii
Abbreviations.....	ix
Chapter 1.....	1
Introduction.....	1
Chapter 2.....	6
The Political Economy of the Region of the Save River.....	6
Migrant Labour Situation.....	6
List of Districts and Provinces of origin of Miners.....	12
Peasants, Cooperatives and State Farms.....	13
Chapter 3.....	20
The Character of the Armed Conflict.....	20
Military Characteristics.....	20
An Attempt at Periodisation.....	32
The Start of Armed Conflict in Southern Mozambique, 1980-1984.....	32
Drought, War and Environmental Problems.....	33
Operation Production.....	37
Early Attempts at Negotiations, and the Nkomati Accord.....	38
The Intensification of the Armed Conflict, 1984-1988.....	39

The Failure of the Talks and Intensification of the Conflict.....	41
Pre-Negotiation and Political Changes, 1984-1990.....	42
War, Drought, Floods, Displaced Persons and Food Shortages.....	43
Pre-Negotiation.....	43
Renamo's Position.....	44
Negotiation, the Rome Talks and the General Peace Accord.....	45
Chapter 4.....	47
An Environmental Profile of the Effects of the Conflict in Southern Mozambique.....	47
The environment in the Context of Conflict.....	47
Problematizing the Conflict of the Environmental Impact of Conflict:.....	51
Displaced Persons and the environment.....	51
Environmental Problems in the Coastal Zone.....	60
Deforestation, Soil Degradation and Soil Erosion.....	67
The Impact of the Armed Conflict on Wildlife and Wildlife Reserves.....	73
Natural disasters, Drought and Floods, and their influences on Public Health.....	78
Chapter 5.....	93
Conclusion.....	93
Bibliography.....	95

Southern Mozambique

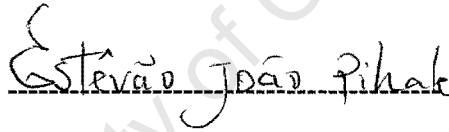


Source: <http://africa-map.net/mozambique> [accessed 13 May 2003]

Declaration

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has attributed, and has been cited and referenced.

Signature


A handwritten signature in black ink, written over a horizontal dashed line. The signature reads 'Estêvão João Pihale' in a cursive script.

Estêvão João Pihale

Dedication

I dedicate this dissertation to:

The memory of my father Pihale Tupia.

University of Cape Town

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Abstract

This dissertation analyses the main environmental problems that were faced during the armed conflict in Mozambique between 1977 to 1992.

The subject matter covered by this dissertation is diverse, including the political economy of the Region South of the Save River, the character of armed conflict and the environmental profile on the effects of the conflict in Southern Mozambique. Because when South African regime backed Resistência Nacional Moçambicana (RENAMO) in the early 1980s, the conflict had escalated in Southern Mozambique, and accelerated environmental problems, combined with natural disasters such as floods and droughts.

The introductory section also examines how the region was transformed into the place of military operation both FRELIMO (Frente de Libertação de Moçambique) and RENAMO, because up to 4 October 1992 South of Mozambique faced a devastating military conflict. The signing of the General Peace Agreement in Rome had triggered an immediate invitation from government of Mozambique to the United Nations to undertake a comprehensive peacekeeping operation that would guide the country from conflict to democracy and peaceful elections.

The second section, devoted to the political economy of the Save River, years after independence until the signature of the General Peace Agreement on 4 October 1992. It discusses the economic and social implications when South African government ordered the repatriation of Mozambicans employed on South African mines and farms in 1986.

The section also includes peasants, cooperatives and state farms in southern Mozambique in the 1980s. It analyses the interaction between FRELIMO's project of socialist transformation, through the development of agricultural cooperatives and state farms. The third section analyses the phases of the armed conflict and its brutal military character.

Finally the dissertation looks at the interaction between the armed conflict and the environment and the environmental profile on the effects of conflict in Southern Mozambique. Therefore, the section analyses conflict, displaced person, environmental problems in the coastal zones, deforestation, soil degradation, soil erosion, the impact of the war on wildlife and wildlife reserves and its interaction with natural disasters and their influence on public health.

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Abbreviations

AHM	- Arquivo Histórico de Moçambique
AIDS	- Acquired Immune Deficiency Syndrome
AIM	- Mozambique Information Agency
ANC	- African National Congress
ARPAC	- Arquivo do Património Cultural
CAIL	- Limpopo Agro-Industrial Complex
CAN	- National Environment Commission
CCPCCN	- Coordinating Council for the Prevention and Combat of Natural Disasters
CEA	- Centro de Estudos Africanos
CENE	- National Executive Commission for the Emergency
CIO	- Central Intelligence Organization
CITES	- Convention on International Trade in Endangered Species of wild Fauna and Flora
DNA	- Direcção Nacional de Águas
DNFFB	- National Forestry and Wildlife Directorate
DPCCN	- Department for the Prevention and Combat of Natural Disasters
FAM	- Mozambique Armed Forces
FAO	- Food and Agriculture Organization
FRELIMO	- Frente de Libertação de Moçambique
HIV	- Human Immunodeficiency Virus
LOMACO	- Lonrho-Mozambique Agricultural Company
LONRHO	- Roland Rowland's London Rhodesia

MCC - Mozambican Christian Council

MICOA - Ministry for the Coordination of Environmental Action

MIO - Mozambique Information Office

MNR - Mozambican National Resistance

MONAP - Mozambique Nordic Agriculture Programme

NGOs - Non-Government Organizations

OEOA - United Nations Office for Emergency Operations

PRC - Peace and Reconciliation Commission

PRE - Programa de Reestruturação Económica

PRONAR- National Rural Water Supply Programme

RENAMO- Resistência Nacional Moçambicana

SADC - Southern African Development Community

SADCC - Southern African Development Coordination Conference

SARDC - Southern African Research and Documentation Centre

SEMOC - Empresa Sementes de Moçambique

SIREMO - Sistema do Regadio Eduardo Mondlane

STDs - Sexually Transmitted Diseases

TB - Tuberculosis

UEM - Universidade Eduardo Mondlane

UNHCR - United Nations High Commissioner for Refugees

UNICEF - United Nations Children's Fund

UN -United Nations

USAID - United States Agency for International Development

US - United States

USSR - Union of Soviet Socialist Republic

ZANLA - Zimbabwe African National Liberation Army

ZANU - Zimbabwe African National Union

ZDF - Zimbabwe Defence Forces

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Chapter 1

Introduction

This dissertation analyses the environmental impact of the armed conflict in Southern Mozambique in general, and in the valleys, wildlife reserves, urban, peri-urban and in the coastline zones of Maputo, Gaza and Inhambane provinces in particular, from 1977 to 1992. During this time, the armed conflict played a central role in the transformation of both economic, social and environmental impact of the Region South of Mozambique.

All sections of the dissertation, which cover the beginning of conflict until its end in 1992, provide an overview of the political economy, social and the environmental impact of the armed conflict in the three southern provinces of Mozambique, and examine why and how the region was transformed into RENAMO's preference to intensify the war against FRELIMO's Government. Finally the dissertation looks at the impact of these constraints of the armed conflict on the environment in whole southern Mozambique, and the causes and the effects of this political tension.

When Mozambique became independent from Portugal in 1975, the new government immediately faced enemies on its borders. The new Government's strong opposition to white minority rule in both Southern Rhodesia and South Africa provoked fierce hostility from both the regimes.¹ In 1976, Mozambique closed its transport links to land-locked Southern Rhodesia, in support of the Zimbabwean liberation struggle. At its III Congress in 1977 FRELIMO declared itself a Marxist-Leninist vanguard party. The Government subsequently signed aid agreements with Union of Soviet Socialist Republics (USSR) and Cuba.²

¹Judith Maureen Marshall, War, debt and structural adjustment in Mozambique: The social impact, Ottawa 1992, p.1.

²William Finnegan, A Complicated War: The Harrowing of Mozambique, London 1992, p.112; and Boutros Boutros-Ghali, The United Nations and Mozambique, 1992-1995, New York 1995, p.9

RENAMO grew rapidly in size and in military effectiveness, which enable it to destroy the social and economic infrastructure through wide areas of the country. Between 1980 and 1982, RENAMO's strength increased from less than 1,000 to estimated 8,000 fighters, and its operations spread from central provinces of Manica and Sofala into Southern provinces of Gaza and Inhambane; and in 1985/6 RENAMO occupied some zones of the Maputo province. By 1987 the war had spread to every district of the three southern Mozambique provinces (Maputo, Gaza and Inhambane), severely crippling the region's economy and displacing over 100,000 people from their home³

The disruption of peasant and state farms caused by the conflict, compounded by severe drought and flood conditions throughout most of this period (1977-1980s), soon created widespread food shortages affecting a further 200-300,000 people. For example, the droughts of 1981-1983 provoked migrants moving through the districts of Matutuine and Namaacha.⁴ This fact could be identified in two waves of out migration. The first was a relatively small movement provoked by drought and second was a full scale exodus accompanying of the armed conflict. Rural-urban migrations had sky-rocketed, as people continued to flee the countryside in search of some measure of security in the cities and in coastline zones, greatly straining already overburdened urban and other infrastructures.

These situations had provoked several environmental problems because of the excessive number of displaced populations. Thus the main environmental threats were almost exclusively located along the coastal littoral, peri-urban and urban areas of southern Mozambique. The population fleeing the fighting in interior and, also looking for safe places because of the floods and droughts had concentrated along the coastal, peri-urban and urban areas, and the environmental pressure in these areas were becoming severe.

³Ghali, The United Nations and Mozambique, pp.9-10; Human Rights Watch/Africa, Landmines in Mozambique, New York 1992, p.6

⁴Otto Roesch, Renamo and Peasantry in Southern Mozambique: A View from Gaza Province: paper prepared for symposium "Mozambique: Contemporary Issues and Current Research, organized by the Refugee Studies Programme and the Standing Committee for Africa Studies, Oxford University 1993, p.5

Thus half the population had been affected through massive civilian losses, malnutrition, displacement and migration, and no reasonable environmental management strategy was initiated under these circumstances. Therefore, in some places, where the displaced persons lived faced environmental problems because a major part of the villages were built on a swamp. This situation was found in Maputo (Mafalala and Luis Cabral), and Gaza (Xai-Xai, Macia-Bilene and Chokwe). The governmental was being denied access to the hinterland. Primary health and educational services gradually ground to be a halt in the rural area.

Southern Mozambique consists of large expanses of semi-arid grasslands, cut by occasional forest reserves and by fertile river valleys and swamplands which can be drained for irrigation. Large state farms producing food crops for the urban market and citrus and sugar for export were concentrated in the valleys, as were a wide range of capitalist enterprises, from Lonrho to small capitalist farms and state farms like Limpopo Agro-Industrial Complex (CAIL).⁵ Peasant cultivation dominated in the dry land areas, and many families maintained substantial herds of livestock, goats, cattle and pigs, the latter particularly in the Inhambane province.

Just as the position of Mozambican migrants in the South African labour market was sharply differentiated, so also was their relationship to agricultural production in Southern Mozambique. Moreover, the ways in which a migrant's salary was used varied from region to region, in relation to different farming conditions. In Homoine, Inhambane province, for example, miners who returned home as prosperous men invested mainly in the construction of cement houses and water tanks. And in the districts of Magude, Moamba and Namaacha in Maputo province, however, returning migrants put their savings into cattle and had few permanent crops.⁶

Nevertheless, there was no single homogeneous Mozambican peasantry, but rather different strata of peasants and work-peasants who organized their farming in quite

⁵Centro de Estudos Africanos/UEM, Mozambican Migrant Workers in South Africa: The impact of the expulsion order, Maputo 1987, p.13

different ways. Some had irrigable land and others only rain fed farms. Some had cattle and oxen for ploughing, others had goats or pigs, and others had no livestock at all. Some own ploughs and others had only hoes. Nevertheless, this rain fed production had been decimated in many areas by years of natural disasters, such as drought and floods, and by armed conflict. However, in southern Mozambique the armed conflict generally affected the populations later (mid-1980s then Centre/North).⁷

During this period of armed conflict atrocities were carried out against the civilian population by both sides in the conflict. Inland areas, much of the population lived as displaced persons or refugee, however, there was very different according to people were refugees in neighbouring countries, as for example to South Africa and Swaziland, and whether they lived in camps or in the local communities. The conflict not only displaced 100,000 of Mozambicans in southern Mozambique to ecologically sensitive areas in neighbouring countries and along that country's fragile coast, from 1980s to 1990s, but also exerted excessive pressure on the environment, decimating wildlife parks and reserves, causing widespread and disrupting environmental management. Therefore, during the armed conflict, the rural population was the principal victim, and to a lesser extent of environmental hazards.⁸

Thus this conflict provoked the assimilation of new behaviours and attitudes in relation to natural resources and caused weak cohesion and solidarity among people. These people found themselves in situations of extreme poverty. This situation obliged them, to survive, to collect out from the nature all what could be immediately marketer used. They cut mangroves in the coastal zones and other protected trees for woodfuel or charcoal production. However, at the time, most woodfuel came not only from cutting trees for fuel, but from surplus wood left over from clearing land for agriculture, or from lopping branches of trees standing on farms that were valued for many other purposes besides

⁶Ibid., p.16

⁷Martin Whiteside, Perspectives on the Effects of Conflict at Village Level-Mozambique: Environment and Development in an Age of Transition, University of Leeds 1996, p.10

fuel supply (e.g. shade, fruit, or building poles). Therefore, the environmental functions and services of the forest ecosystem were reduced or lost, depending on the extent of deforestation. During the war, deforestation increased soil erosion, especially in coastal zones where the high concentration of people living within 50 kilometres of the coastal, increased the real population density.

The urban population, however, bore the burden of population inflows to escape the armed conflict and of structural adjustment which could create enormous difficulties such as food, water or fuel since the volume of basic commodities and the value of earnings had both declined. Over three million people in rural areas suffered from food shortages either because of displacement or because armed conflict had affected rural production systems. Therefore, the key environmental problem that had to be tackled was the displacement of rural population zones where the essential resources, secure land, was in scarce supply and where a reduction in wage-earning opportunity had reduced the capacity to purchase farming inputs. Sustainable land use strategies had to be devised in a context of intense population concentration and resource scarcity. However, these problems influenced the major concerns in the contemporary environment and development debates in Mozambique, including deforestation, range land degradation, soil erosion and the depletion of wildlife biodiversity.

⁸Ibid., p.10; I.Cherrett et al., Norwegian Aid and Environment in Mozambique: The Issues, Bergen, December 1990, p.46, and Phil O'Keefe, Mozambique environmental Problems: myths and realities. In: Public Administration and Development, Vol.11, London 1991, p.322

Chapter 2

The Political Economy of the Region South of the Save River

The South Region of the Save River is an area which reflects the convergence of two economic forces: agriculture, temporary migration to the Mozambican cities of Xai-Xai, Inhambane and Maputo, and to the gold mines and plantations (Farms) of South Africa. But when the armed conflict affected the region in the 1980s, the political economy of the region changed.

Migrant Labour Situation

Up to the time of Independence, the system of migratory labour was relatively stable. The standard path for a young man who wished to marry and to establish his own family was to sign on for the mines. He worked for a varying number of contracts and only returned definitively to the countryside when the income from family production could provide an alternative to the salary from the mines.⁹ The number of contracts worked depended, therefore, on differences in the strength of family production as well as on the presence of alternative wage-employment in Mozambique. In cases of natural disasters and illness, or when the family needed to finance major expenses such as the purchase of oxen, the peasant once again became a proletarian and returned to the mines.¹⁰

Since Independence, migratory labour to South Africa was most deeply rooted in the three southern provinces of Mozambique where the dominant form of capitalist penetration was the exploitation of Mozambican workers on the South African mines. This form of exploitation transformed the men of the countryside into a semi-proletariat, moving between the mines, where they spent a good part of their life, and village, where the family maintained a small plot under cultivation.¹¹ Although Southern Mozambique had been eclipsed since independence as the predominant source of mining labour for South Africa, the unexpected repatriation order of 1986 dealt a heavy blow to the

⁹Centro de Estudos Africanos/UEM, Mozambican Migrant Workers in South Africa, p.4.

¹⁰Ibid., p.4.

¹¹Ibid., pp.iii-3.

Mozambican economy as a whole and to the wage-dependent families of Southern Mozambique in particular.¹²

The years after independence South Africa started to lay off Mozambican workers and the cash flows from the Rand earnings began to dry up. In 1975 113,488 Mozambicans had been officially recruited by the South Africa.¹³ For 1977 only 30,000 Mozambicans were wanted for fourteen specified mines, and only men holding “bonus cards” (Re-employment and Early Return Bonus Certificates) could be taken on. Bonus cards had been introduced as a means of encouraging Mozambicans to accept recruitment again as soon as they had home for the required minimum of eight months. The card entitled a man to return to the same job on the same mine at the same rate of pay. Originally intended to encourage migration to the mines, bonus cards later served to stop men from coming.¹⁴

In the 1980s, migrant labour from Mozambique was defined by Pretoria as an important economic target to hit, because the political relations between Mozambique and South Africa were not good. The South African regime knew that a reduction in migrancy would have a serious economic and social impact on thousands of rural families in southern Mozambique who had depended on regular incomes from migrancy for almost a century.¹⁵

However, when Mozambique and South Africa signed the Nkomati Accord in 1984 it was intended by Samora Machel’s government and Pretoria to herald a new era of cooperation between the countries and Mozambique’s government was expected to lead to the defeat of RENAMO. Part of the dialogue after the signing of the Nkomati Accord centered on migrant labour, and Mozambique expected to increase its quota of migrants.

¹²Ibid., pp.iii-3.

¹³Malyn Newitti, *A History of Mozambique*, London 1995, p.551.

¹⁴Simon E. Katzenellenbogen, *South Africa and Southern Mozambique: Labour, Railways and Trade in the Making of a Relationship*, Manchester University Press 1982, pp.154- 155.

¹⁵Luís António Covane, *Migrant Labour and Agriculture in Southern Mozambique; with special reference to the Lower Limpopo valley, 1920-1992*. PhD Thesis. Institute of Commonwealth, University of London 1996, p.7.

Despite the Nkomati Accord, political relations between Mozambique and South Africa continued to be very delicately balanced. The political divergence between the two states was used to threaten economic relations. Indeed, the South Africans continued to put economic pressure on the FRELIMO government in addition to providing military support to RENAMO.¹⁶

Thus, in October 1986 the South African government ordered the repatriation of 61,500 Mozambicans employed on South African mines and farms following a land mine explosion which injured six white South African soldiers patrolling the border with Mozambique. They were to be repatriated when their contracts expired.¹⁷ Employers were not consulted by the government and they were faced with having to phase out their Mozambican workforce over a period of eighteen months.¹⁸ Therefore, using alleged ANC activities as a pretext, South Africa announced the repatriation of all legally employed Mozambicans. However, after pressure from the mining industry which was dependent on skilled Mozambican labour and farmers of the eastern Transvaal who relied on cheap Mozambican workers, the expulsion order was amended so that effectively only unskilled miners would be immediately affected.¹⁹

At the time the apartheid regime announced its ban, claimed that was acting in retaliation against the KaNgwane landmine incident of October 6th. Pretoria alleged that was carried out by ANC members based in Maputo with the support of members of Mozambican security forces.²⁰ It had become apparent, in the light of subsequent tragic developments, that the KaNgwane incident was no more than a convenient pretext. The banning of migrant labour was, in fact, part of a broader strategy of destabilization intended to

¹⁶Covane, Migrant Labour and Agriculture in Southern Mozambique, p.306.

¹⁷Colin Darch, A Guerra e as mudanças sociais recentes em Moçambique (1986-1992): cenários para o futuro. Trabalho apresentado ao II Congresso Luso-Afro-Brasileiro de Ciências Sociais: in Cadernos Candido Mendes, Estudos Afro-Asiáticos, No.23-Dezembro 1992, São Paulo, 4-7 de Agosto de 1992, p.218.

¹⁸Covane, Migrant Labour and Agriculture in Southern Mozambique, p.306.

¹⁹Fion de Vletter, “Foreign labour on the South African gold mines: New insights on an old problem”. International Labour Review, Vol.126, No.2, March-April 1987, pp.199-218.

increase pressure against Mozambique in the hope of bringing about major political change in the country.²¹

The impact of the expulsion of Mozambican migrant workers from South Africa posed three immediate and immense problems, not only for the migrants and their families, but for the entire Mozambican economy: unemployment, the reduction of goods and services in local trade circuits, and a sharp loss in foreign exchange earnings.²²

The tactic was only one of a series of crippling and destabilizing initiatives directed against Mozambique. This measure, decided unilaterally by the apartheid regime, was not initially communicated either to the Mozambican government or to the various South African enterprises affected by it. Instead, it was announced in a joint declaration by no less than four senior ministers of the regime-Foreign Office Minister, Work Minister, Mineral Resources Minister and Home Office Minister. According to this declaration, further recruitment of Mozambicans would be prohibited and those working in the country at that time would be dismissed and deported from the country as soon as their contracts expired.²³

As above mentioned , the October announcement led to intense lobbying by organizations representing capital employing Mozambican migrant workers-the Chamber of Mines and Lowveld farmers in particular. These were anxious at least to minimize the potential disruptive impact on production of having to replace at short notice the many thousands of Mozambican workers in their employ-a significant number of whom were both skilled and experienced. In negotiations between the representatives of these organizations and officials of the regime during November 1986, the employers sought

²⁰International Migration for Employment: Mozambican Migrant Workers in South Africa: The impact of the expulsion order, Maputo 1987, p.10; and Darch, A Guerra e as mudanças sociais recentes em Moçambique (1986-1992), p.218.

²¹International Migration for Employment, p.10.

²²Darch, A Guerra e as mudanças sociais recentes em Moçambique (1986-1992), p.218; and International Migration for Employment, p.11.

²³Centro de Estudos Africanos/UEM, Mozambican Migrant Workers in South Africa, p.1;and Darch, A Guerra e as mudanças sociais recentes em Moçambique (1986-1992), p.218.

permission to retain for a longer period the services of long-serving and skilled Mozambican workers.²⁴

The peasant economy of the southern provinces, subjected to the migrant labour system during at least four generations, became gradually so dependent on agricultural inputs and wage-goods acquired with the salary from the mines that it lost its capacity to survive without exporting migrant workers.²⁵

Confronting unemployment, about 65,000 families comprising 325,000 people were directly affected by the return of migrant workers in 1987. Within five years, 100,000 families had been to reintegrate migrant workers. In a deeper sense, however, the crisis of unemployment represented by the decline of Mozambican mine labour affected almost all rural families in the three southern provinces. The total ban on the recruitment of novices, which only sharpened the general tendency already clear since independence, meant that all those young men who in the past would begun their working lives on the mines, they found alternative forms of wage-employment.²⁶

In confronting the question of unemployment, there was therefore distinguish sharply between different groups of migrants with quite different work-experience, qualifications and economic resources:

- i) men of 30 and 40 years who had worked from 3 to 10 contracts and who held positions of responsibility within the black labour force. They earned well, relative to the salaries of black workers in South Africa, and very well compared to other Mozambican migrant workers. These men returned regularly to Mozambique, but for very brief periods. They were migrants only in the sense that their families continued to live in Mozambique and that they were classified as foreign workers under South African labour law. They were not affected by the expulsion order, because they were skilled miners.²⁷

²⁴Centro de Estudos Africanos/UEM, Mozambican Migrant Workers in South Africa, p.1.

²⁵Ibid., p.3.

²⁶Ibid.,p.11.

²⁷Centro de Estudos Africanos/UEM, Mozambican Migrant Workers in South Africa, p.11.

- ii) less skilled workers, without job security, who made up around 45 per cent of the Mozambican labour force on the mines. Less was known about this group because its labour profile was not publicized by the Chamber of Mines.²⁸ The expulsion order was immediately hit this more poorly paid group and, possibly, skilled miners employed by the independent mines not linked to the Chamber of Mines. This group was generally younger, less experienced and with fewer investment funds than the first group;
- iii) beside these two groups of miners, there existed the vast majority of Mozambican migrants: poorly paid, working in the farms or other unregistered jobs, often young, unskilled and subject to brutal exploitation and political blackmail. This was the sector that was most immediately affected by the expulsion.²⁹

In considering how to reintegrate those affected by the expulsion order into production in Mozambique, whether in industry or in agriculture, one could take into account the different position and resources which each group had. The first group, experienced miners, had considerable skills and savings, and many of them had already made a substantial investment in agricultural production. Their return was gradual and their integration into their home communities relatively smooth. Others were absorbed by industrial or even artisanal employment. For the vast majority of those in the last three groups, however, no integration was possible without the creation of more-wage-labour positions in industry or of new forms of agricultural production.³⁰

However, though levels of labour recruitment to South Africa had declined, men continued to look for legal or illegal migrant work in South Africa as the preferred way of meeting long-term household monetary needs and also, because there were no real economic alternatives in Mozambique.

²⁸Ibid., p.11.

²⁹Ibid., p.11.

In short, five years after October 1986, the major part of the current Mozambican mine labour force had returned home permanently. A small number might continue to be employed longer, but within a decade their numbers would be negligible. It was expected that the forced repatriation of many clandestine workers, in agriculture and elsewhere, would continue apace. This massive return of the migrant workers implied that the economy of the three southern provinces of Mozambique (Inhambane, Gaza, and Maputo), historically shaped as a labour reserve for South Africa, faced a radical restructuring.³¹

List of Districts and Provinces of Origin of Miners

GAZA	INHAMBANE	MAPUTO
Xai-Xai	Massinga	Maputo City
Chokwe	Inhambane	Manhiça
Chibuto	Morrumbene	Magude
Manjacaze	Zavala	Matola
Bilene/Macia	Homoine	
Chicualacuala		

Source: Fion de Vletter, *Sons of Mozambique: Mozambican Miners and post-apartheid South Africa*, Cape Town 1998, p.16.

All miners were/are recruited from the southern provinces of Mozambique, even though recruitment has now been opened up to other provinces. Gaza has traditionally been the main supply province and districts such as Chokwe, Chibuto, Chicualacuala, Manjacaze and Xai-Xai have been the principal source districts.³²

³⁰Ibid.,p.12 .

³¹ International Migration for Employment, p.2.

³²Fion de Vletter, *Sons of Mozambique: Mozambican Miners and post-apartheid South Africa*, Cape Town 1998,pp.15-16; De Vletter, *International Migration for Employment: worker paper*, Geneva 1985, pp.14-17.

Peasants, Cooperatives and State Farms.

Southern Mozambique consists of large expanses of semi-arid grasslands, cut by occasional forest reserves and by fertile river valleys and swamplands which can be drained for irrigation. Large State farms producing food crops for the urban market and citrus and sugar for export were concentrated in the valleys, as were a wide range of capitalist enterprises, from Lonhro to small capitalist farms.³³ Peasant cultivation dominated in the dry land areas, and many families maintained substantial herds of livestock, goats, cattle and pigs, the latter particularly in the Inhambane province. This rain fed production had been decimated in many areas by years of drought and of armed conflict. There were, however, also many family producers with a plot of irrigable land. Their number increased as did that of capitalist farms when some land from the State-sector was redistributed as of 1984.³⁴

There was no single homogeneous Mozambican peasantry, but rather different strata of peasants and worker-peasants who organized their farming in quite different ways. Some had irrigable land and others only rain fed farms. Some had cattle and oxen for ploughing, others had goats or pigs, and others had no livestock at all. Some own ploughs and others had only hoes. Some hired non-family labour to work in their fields while others hired themselves out to neighbours on a casual basis. There were some who regularly market agricultural surpluses but many others whose family production was not even sufficient to cover the basic food needs of the family.³⁵

The forms of differentiation of the peasantry in southern Mozambique were interdependent with the process of proletarianization. For some, wage work was the way in which they accumulated an investment fund to initiate irrigated farming. For others, it was the only way in which they managed to buy basic goods, including food, needed for

³³Centro de Estudos Africanos/UEM, Mozambican Migrant in South Africa, p.13.

³⁴Ibid., p.13.

³⁵Ibid., p.13.

³⁵ Ibid.,p.13.

the everyday subsistence of the family. At the same time as the irrigated lands of the south became an important source of marketed produce, there grew a significant demand for purchased food on the part of families residing in the countryside and cultivating small plots but yet incapable of producing enough for their own subsistence.³⁶ The depth of proletarianization and the corresponding process of differentiation in the southern provinces was clear in data on economically active men drawn from the 1980 census. Among those who maintained their official residence in the countryside, the percentage of wage workers was as follows: Inhambane 20 per cent, Gaza 42 per cent, and Maputo, excluding the city of Maputo, 60 per cent.³⁷ Although the percentage of wage-labourers was relatively low in among men residing in Inhambane, sex-ratios and the registry of foreign residence indicated that the process of proletarianisation was deeply embedded in Inhambane. There, as in Gaza, many migrants cut residential ties to their home province.³⁸

Substantial differentiation of family production in Inhambane was reflected both in polygamous and single-women headed households. In determining how each of the different groups of migrants could be reintegrated in agricultural production, it might therefore look at three sharply different modes of farm-organization:

- i) Rich peasants or small capitalist farmers; they organized their agricultural and livestock production principally for the market, and their scale of production depended on the regular use of a wage-labour force. They had at least 5 hectares of irrigated land, they used tractors or animal traction for ploughing and they often had large herds of livestock;
- ii) Poor peasantry; the poor peasantry was principally composed of women and some youths who could not live on the basis of their own family farms without some forms of supplementary wage-income. They depended almost entirely on dry land cultivation, although some had tiny scattered plots of

³⁶Ibid., p.13.

³⁷Ibid., p.13.

irrigated land. They possessed neither ploughs nor oxen and they produced no agricultural surpluses for sale.³⁹

At least one member of the household was a migrant worker and others were agricultural day-labourers. Sometimes they burnt charcoal or made mats and baskets to increase family-income. Since they cultivated dry land, this stratum was especially vulnerable to drought. These families generally tried to become middle peasants, saving enough to invest in oxen and agricultural implements. Alternatively, they moved permanently to the city, abandoning their peasant base.⁴⁰

It was thought, however, that the conditions of drought and war which ravaged the South of Mozambique after 1980, had led to greater emigration of young men and even boys from the rural areas to the cities and clandestinely to South Africa and Swaziland.⁴¹ Sex ratios were thus probably more imbalanced in the lower age-classes. iii) Middle peasants; their farms allowed them to live entirely on the basis of agricultural production. The investment fund for setting up such farms generally derived, however, from a period of migrant-labour rather than inheritance. Middle peasants organized their farms to feed the family and to produce regular marketed surpluses. They own oxen and ploughs and generally had at least 3 hectares for dry land cultivation and 1-2 hectares of valley or irrigable land. Most of the work was done by family members, but they rely on casual wage-labour or various forms of non-reciprocal work parties to resolve labour shortages during busy periods. Many supplemented their income from farming with craftwork.⁴²

The three strata of the peasantry were economically interdependent: the poor peasantry was a labour-reserve for the middle and rich peasantry. Rich peasants generally had a number of permanent workers, who themselves had their own small family plots, and they also recruit seasonal labour from poorer neighboring families. The middle peasantry

³⁸International Migration for Employment, October 1987, p.14

³⁹Centro de Estudos Africanos/UEM, Mozambican Migrant Workers in South Africa, p.14.

⁴⁰Ibid., p.14.

⁴¹International Migration for Employment, pp.14-15.

⁴²Centro de Estudos Africanos/UEM, Mozambican Migrant Workers in South Africa, p.15.

also recruited people from poorer households, particularly women, to supplement their own family labour. They sometimes paid cash, but it was more common to pay in food or to lend oxen and a plough. There were often links of kinship between the families of the middle-peasantry and the women who helped out in their fields.⁴³

Differentiation of the peasantry in southern Mozambique sharpened after independence. Some returning miners gained access to valley land abandoned by colonial farmers and used their higher salaries on the mines to expand private family-production in irrigated areas. Drought and the terror and destruction brought to many inland areas by the armed conflict ruined family production and thus opened up new reserves of cheap labour for small capitalist and rich peasant farmers. In a market characterized by great excess demanded for both consumer goods and means of production, farmers with substantial surpluses to market were often able to defend their position through direct barter, whereas subsistence producers found that their wage-income constantly bought less and less.⁴⁴

During the first two years after independence, peasants farmers established collective fields (Cooperatives) on a spontaneous basis throughout Mozambique as part of FRELIMO's strategy to transform agriculture. In the context of general nationalist euphoria that swept the country after independence, these efforts met a high degree of popular response. One of first concrete expressions of peasant willingness to experiment with collectivization took the form of *machambas colectivas*, or "collective fields"(sometimes also known as *machambas do povo*, "people's fields") which were *ad hoc*, loosely organized, community-based forms of collective agricultural production, which sprang up with minimal mobilizational effort throughout the country in the immediate pre-and post-independence period.⁴⁵ The *machambas colectivas* established in the Baixo Limpopo, in Gaza, like those established elsewhere, enlisted widespread

⁴³Ibid., p.15.

⁴⁴Centro de Estudos Africanos/UEM, Mozambican Migrant Workers in South Africa, p.16.

⁴⁵Roesch, Peasants and People's Power in Mozambique: The experience of the Baixo Limpopo, Trent University, Peterborough, Ontario 1991, pp.13-14.

interest and considerable popular participation, and in nearly all cases served as precursors for agricultural cooperatives proper.⁴⁶

By 1980, only five years after independence, about 120 communal villages had been created housing approximately one third of the province's rural population, most of them in the densely populated, agriculturally important southern districts. The majority of these communal villages were created in the wake of the floods which devastated the Limpopo valley in early 1977, displacing hundreds of thousands of people whom the government was able to rapidly resettle into planned village communities on the high ground above the flood plain of the Limpopo and its tributaries.⁴⁷ Few new villages were created after 1980. The few that were created in the 1980s were either the products of government efforts to resettle severely drought-affected populations in the sparsely populated interior of the province, or the result of forced resettlement by the Mozambican armed forces in the wake of the escalation of RENAMO activities in the province. By 1987 the armed conflict had spread to every district of the province, severely crippling the province's economy and displacing over 100,000 people from their homes.⁴⁸

The disruption of peasant agricultural production caused by armed conflict, compounded by several drought conditions throughout most of this period, soon created widespread food shortages affecting a further 200-300,000 people. Rural-urban migration had skyrocketed, as people continued to flee the countryside in search of some measure of security in the cities, greatly straining already overburdened urban infrastructure.⁴⁹

State farms were being established at a rapid rate during this early period. The creation of state farms on the lands abandoned by departing colonial settlers was seen by the government as the fastest and most effective way of restoring the productive potential of colonial capitalist agriculture-deemed essential to maintaining food supplies to the towns,

⁴⁶Ibid., pp.13-14.

⁵⁸Ibid., p.3.

⁴⁸Ibid., p.3

⁴⁹Roesch, Renamo and Peasantry in Southern Mozambique, pp.3-4.

especially Maputo- and as a rapid and effective way of initiating the socialization of peasant agriculture in the area. A state farm sector was also seen as a way of alleviating the growing problem of rural unemployment caused by the collapse of capitalist agriculture and the decline in migrant labour to South Africa.⁵⁰

By the early 1980s the cooperative movement was in decline. Producer cooperatives that survived were almost entirely based in former settler farms, and they lost members over time. By 1982, only around 2 percent of the rural population were cooperative members, and as the marginalized production units in FRELIMO's socialist development strategy, cooperatives received only 2 percent of the state's agricultural investment up to 1983.⁵¹ Contrary to FRELIMO's plan, members did not pool their individual holdings, plows, draft animals, and other resources to work together. The only exceptions were in the cooperatives surrounding major cities (as for example, the Union of the Cooperatives of the Maputo Green Zone),⁵² where members' households had a diversified income base, and among some FRELIMO veterans of the liberation war, who did most of their farming together.⁵³

The most important part of state sector had 140,000 hectares of land in 1982. FRELIMO divided the agricultural sector into four distinct parts: family farms, private farms, cooperatives and state farms. The state farms were created partly from the abandoned estates of the Portuguese, and pre-empted any possibility that these would be distributed to peasant families or turned into co-operatives. Some state farms were former plantations, but others were formed by grouping the smallholdings of the *colonatos* into huge state-managed concerns.⁵⁴ An example of the latter was the massive *Complexo Agro-Industrial*

⁵⁰Roesch, *Peasants and People's Power in Mozambique*, p.14.

⁵¹Kenneth Hermele, *Mozambican Crossroads: Economics and Politics in the Era of Structural Adjustment*, Bergen, May 1990, p.24.

⁵²*Ibid.*, p. 24.

⁵³L.Marle Bowen, *The State against the Peasantry: Rural Struggle in colonial and postcolonial Mozambique*, University Press of Virginia 2000, p.129.

⁵⁴Alpheus Manghezi, *Ku Thekela: Estratégia de sobrevivência contra a fome no Sul de Moçambique: in Estudos Moçambicanos*, Vol. 4, Maputo 1983, p.22; and Kenneth Hermele, *Land Struggles and social Differentiation in Southern Mozambique: A Case Study of Chokwe*,

do Limpopo (CAIL), consisting of 16,000 hectares and including a rice-dehusking factory, a sausage and cheese factory and tomato and tobacco processing plants. To create CAIL, FRELIMO had to thwart the aspirations of many hundreds of peasant farmers who had hoped either to regain land lost to the original *colonato* or to acquire one of the irrigated farms as a probationer or a *colono*.⁵⁵

The combination of an unmotivated work force, poor management, and a lack of technical skills and resources led to serious financial problems and a collapse in production by the early 1980⁵⁶, and in 1983/1984, CAIL was divided up into 10 new state farms such as, LONRHO/LOMACO, *Empresa Sementes de Moçambique* (SEMOC), *Sistema do Regadio Eduardo Mondlane* (SIREMO), *João Ferreira dos Santos* (JFS), farms of Mapapa, Conhane, Massavasse, Hokwe, Chilembene, and Nwachicoluane. These farms took control of approximately 1,500 hectares each. The remaining area, some 10,000 hectares, were distributed to smallholders (family sector) and larger commercial farmers (private sector).⁵⁷

Limpopo 1950-1987, Uppsala: Scandinavian Institute of African Studies 1988, p.47; and Newitt, A History of Mozambique, p.553.

⁵⁵Manghezi, Ku Thekela: Estratégia de sobrevivência contra a fome no Sul de Moçambique, pp.22; Hermele, Land Struggles and Social Differentiation in Southern Mozambique: A Case Study of Chokwe, Limpopo 1950-1987, p.47; and Newitt, A History of Mozambique, p.553.

⁵⁶Ibid., pp.x-xi; 8-9.

⁵⁷Christopher Tanner et al., Land Disputes and Ecological Degradation in an Irrigation Scheme: A case study of State Farm Divestiture in Chokwe, Mozambique. A Report by the Land Tenure Center, University of Wisconsin-Madison for the Ministry of Agriculture, Government of the Republic of Mozambique, and United States Agency for International Development (USAID-Maputo), of a collaboration project on land policy and state-farm divestiture in Mozambique, University of Wisconsin-Madison 1993, pp.x-xi;8-9.

Chapter 3

The character of the armed conflict.

Military characteristics

From 1964, through its independence from Portugal in 1975, up until the present, Mozambique has enjoyed few prolonged periods of peace. In 1975, the government's opposition to minority rule in both Southern Rhodesia and South Africa provoked fierce hostility of the two regimes.⁵⁸

In 1976, Mozambique closed its transport links to land-locked Southern Rhodesia, in support of the Zimbabwean liberation struggle. At its III Congress in 1977 FRELIMO declared its a Marxist-Leninist vanguard party. The Government subsequently signed aid agreements with both USSR and Cuba.⁵⁹

The armed conflict against the Mozambican Government started in 1977 with the creation of RENAMO. It is now generally accepted by scholars that RENAMO was established by the Rhodesian Central Intelligence Organization (CIO), which wanted to sponsor an anti-FRELIMO force within Mozambique. This force was originally meant to be a fifth column and its primary task was to spy on the Zimbabwean ZANU guerrillas inside Mozambique. Later on, this assignment was expanded to include armed opposition to FRELIMO's government as retaliation for its support for ZANLA (ZANU's military wing), and for closing of Mozambique's borders with Rhodesia.⁶⁰ Even later still, in the 1980s, South Africa's interest in sponsoring such a force was, first, to weaken FRELIMO's support for the ANC (African National Congress), then outlawed in South

⁵⁸Marshall, War, debt and structural adjustment in Mozambique: The social impact, p.1.

⁵⁹Finnegan, A Complicated War, p.112; and Ghali, The United Nations and Mozambique, p.9.

⁶⁰Alex Vines, RENAMO: Terrorism in Mozambique, London 1991, pp.1-16 and Alcinda M.R. Honwana, Spiritual Agency and self renewal in southern Mozambique. Thesis submitted for Degree of Doctoral of Philosophy in Social Anthropology, University of London 1996, p.166.

Africa, second to fight Marxism and last to increase economic dependence on South Africa.⁶¹

When South Africa security forces took direct control over RENAMO's development in 1980 it was just the continuation of an early collaboration with the Rhodesian secret police on matter. RENAMO's mentors kept the military wing separate from the political wing, which was almost completely controlled by white Portuguese-speaking Mozambicans, such as Orlando Cristina who was the secretary general of RENAMO, and Evo Fernandes its spokesperson in Europe.⁶²

FRELIMO's option for a Marxist ideology implied the establishment of a society + built upon a scientific and materialistic interpretation of nature and social reality and free from the values of the traditional and colonial societies.⁶³ However, its opposition to traditional authority and religion had often been unsuccessful, and had created a considerable high degree of resentment among the peasantry. RENAMO quickly capitalized on this suppression of traditional and the consequent flowering of popular resentment, presenting itself as a movement against communism and against the disrespect for Mozambican traditions.⁶⁴

In fact, RENAMO had created alliances with the traditional authorities, regales, outlawed by FRELIMO for their role during colonialism, and other leaders or village elders who had been marginalized. Another important alliance was that with the traditional religious authorities such as diviners, healers, spirit mediums and prophets. These practitioners played a pivotal role in regulating daily life in RENAMO military bases. Major decisions, including the military ones, were often taken after consultation with spirits.⁶⁵

⁶¹João M. Cabrita, *The Tortuous Mozambique Road to Democracy*, New York 2000, p.108.

⁶²Ibid., p.108

⁶³Ibid., p.108.

⁶⁴Honwana, *Spiritual Agency and Self Renewal in Southern Mozambique*, p.170.

⁶⁵Cabrita, *Mozambique: the Tortuous Road to Democracy*, p.108.

Over the years, RENAMO military operations was carried with raids on FRELIMO garrisons and ambushes on the main highway and other roads featuring high in RENAMO's communications. RENAMO developed a communications system that covered virtually the entire country. RENAMO headquarters was equipped with South African-made transceivers with frequency hopping capability, rendering the Mozambique Armed Forces (FAM) detection, location and jamming countermeasures unviable. From the mid-1980s onwards, RENAMO was able to monitor most of FAM's communications networks. In Southern Mozambique, RENAMO's base at Ngungue, monitored Maputo, Inhambane and Gaza.⁶⁶

This played an important role in the forecast of government military offensive while in the planning stage. To success of thus role was to an extent due to information Rhodesia, and subsequently South Africa, obtained from their monitoring of Mozambique military communications, which was then passed on to RENAMO.

The Hammanskraal and Phalaborwa listening posts in South Africa assumed great importance at height of the war. Although supplied with weapons from outside the country, RENAMO had nonetheless to depend even more on the rural population for food, shelter, portage and information than would a movement that relied on safe havens outside the country where it operated. It also meant that RENAMO had to sustain on its own every military offensive mounted by government and allied forces, without having the possibility of retreating to friendly territory.⁶⁷

Until early 1982 RENAMO was operating in largely uninhabited areas which were so vast that it was extremely difficult for FRELIMO to pursue its forces. With South African supplies, they needed no contact with local people and could easily ambush traffic on remote roads and railway line. Bases were established in remote parts of Inhambane, as at Tomé and Gaza at Hati-Hati, generally less than 320 kilometres from South Africa and

⁶⁶ Honwana Spiritual Agency and self Renewal in Southern Mozambique, p.170.

⁶⁷ Finnegan, A Complicated War, pp.195-196; and Cabrita, Mozambique: the Torturous Road to Democracy, p.158.

thus within easy air-drop range.⁶⁸ From there it was not hard to push out to the populated Inhambane coast and simply cut off the main road to Maputo.

But the push south failed to penetrate the populous Limpopo valley and came to a halt mid-1982. Late that year in a much more open showed of support, South Africa sent hundred of RENAMO men across the border from Kruger wildlife park. They tried to move to the sea south of the Limpopo valley and cut off the capital from the rest of the country. There was heavy fighting only 480 kilometres from Maputo. Nevertheless, FRELIMO was better known and much stronger support in Inhambane and Gaza provinces, particularly because a drought relief programme in 1980 saved many lives. Thus RENAMO was forced to switch to terrorizing people there.⁶⁹

In 1980s there was *Operação Cabana* (Operation Shack). *Operação Cabana* was a semi-conventional operation organized by FAM and assisted by a team of Soviet military advisers, and used pseudo-guerrilla units. Their mission was to reconnoitre RENAMO positions and report them to conventional units stationed at FAM's forward command posts. Wearing civilian clothes and posing as RENAMO guerrillas when approaching villagers for information, the Patinas-trained pseudo units occasionally attacked RENAMO bases. The first phase of the operation was supposed to have started simultaneously from the Limpopo valley in the south to the Save River, and from Beira corridor to the north bank of the that river.⁷⁰

As a result of *Operação Cabana*, and other military actions such as Operation Zero, Operation Grapefruit, Operation Cobweb, and Operation Open Way for the Limpopo Corridor; peasants had fled into coastal zones, reserves, game wildlife parks, peri-urban, and urban areas, as well as into in the protected areas of the neighbouring countries, like Zimbabwe, South Africa and Swaziland, looking for safe places, and provoking in these places environmental problems.⁷¹

⁶⁸Joseph Hanlon, *Mozambique: The Revolution Under Fire*, London 1990, p226.

⁶⁹Ibid., p.226.

⁷⁰Cabrita, *Mozambique: the Torturous Road to Democracy*, pp.176-194.

⁷¹<http://www.kas.org.za/publications/seminar>

The government boosted the construction of communal villages. The villagization program was rapidly becoming a military rather than an economic strategy. Peasant families resisting resettlement in communal villages saw their houses and belongings destroyed. In times of drought and floods, the government relief agency, the *Departamento de Prevenção e Combate às Calamidades Naturais* (DPCCN), used food as a weapon, refusing to distribute it to peasants resisting the resettlement program.⁷²

The depopulation of the rural areas worsened agricultural output. Meanwhile, writers closer to FRELIMO have generally attributed the conflict (and, consequently, agricultural collapse) to external causes, especially aggression by South African apartheid regime (see, for example, Hanlon 1984; Minter 1994 and Saul 1985, 1993). In contrast, progressive writers critical of FRELIMO emphasize its own political weaknesses as the main cause of failure of its agricultural policies (and, therefore, of the transformation of foreign-sponsored sabotage into war; see, for example, Cahen 1987, 1993; Chingono 1994 and Geffray 1990; see also Clarence-Smith 1988). These perspectives reflect alternative answers to the question of whether or not RENAMO was primarily a Mozambican, rather than foreign, phenomenon.

Until the armed conflict had disrupted road communications, preventing the flow of produce from the countryside to the main urban centres, the fields were being emptied of peasant farmers with the result that agricultural activity declined dramatically. A new cycle of food shortages ensued, plunging the country into greater food aid dependence from the international community with their involvement in Mozambique, government and non-government relief agencies from a number of Western countries contributed to the protracting of the war in that they strengthened the government's position by making up for the food shortages.⁷³

In September 1982, a RENAMO reconnaissance team left Inhambane for Maputo province to prepare for the start of military operations there. Two months later, a

⁷²<http://www.kas.org.za/publications/seminarReports/PoliticsOfIdentityAndExclusion/thomashausen.p> [accessed 13 May 2003]

RENAMO contingent left southern Inhambane and joined forces with other units in Gaza. The joint force then proceeded to the south. Crossing the Limpopo River and then the Mazimechopes River, finally establishing a base in the northern region of Maputo province. However, Gaza province began to be seriously affected by RENAMO activities in late 1983.⁷⁴

By 1987 the war had spread to every district of province, severely crippling the province's economy and displacing over 100,000 people from their home. The disruption of peasant agricultural production caused by RENAMO attacks, compounded by severe drought conditions throughout most of this period, soon created widespread food shortages affecting a further 200-300,000 people. Rural-urban migration had skyrocketed, as people continued to flee the countryside in search of some measure of security in the cities, greatly straining already overburdened urban infrastructure.⁷⁵

The first RENAMO activity in the province came when the guerrillas attacked FAM positions near Mapulanguene on 6 and 7 December 1982. Ambushes were mounted on the Mapulanguene-Magude road on 12,13,and 17 December. The Magude-Chokwé railway line was sabotaged on 25 December. Gradually, guerrillas extended their activity up to the north bank of the Incomati River.⁷⁶ These developments rang alarm bells in the FRELIMO camp. The government contemplated even more drastic measures in an attempt to halt the spread of the insurgency further south.

Renouncing its amnesty pledge, in January 1983 FRELIMO dispatched two of its most senior members-the deceased Sebastião Marcos Mabote and topical President Joaquim Alberto Chissano-to Macia and Magude in Maputo province to preside over the public execution of prisoners of war. In Magude on 11 January 1983, captured RENAMO guerrillas were put on display before a huge crowd. After a brief speech, Mabote

⁷³<http://www.kas.org.za/publications/seminarReports/PoliticsOfIdentityExclusion/thomashausen.p>

⁷⁴Roesch, *Renamo and Peasantry in southern Mozambique*, p.3.

⁷⁵ *Ibid.*, p.3.

⁷⁶Cabrita, *Mozambique: The Tortuous Road to Democracy*, p.210.

ordered a firing squad to machine-gun the prisoners to death. Five days later in Magude, it was the turn of Joaquim Chissano to officiate at a similar event.⁷⁷

Nevertheless, guerrilla activity resumed in Gaza and Inhambane after pressure from *Operação Cabana* eased off. However, RENAMO claimed to have overrun FAM's barracks at Chigubo, and clashed with government forces in the coastal town of Jangamo in 1983. Ambushes were done in Gaza's Nalzi-Dindiza road. The army barracks at Massangena and Machaíla were attacked in early August. The stretch of the Maputo-Zimbabwe railway line running through Gaza came under renewed sabotage. And there were ambushes on roads in the northern area of Maputo province.⁷⁸

These situations had provoked several environmental problems because of the excessive number of displaced populations. The governmental was being denied access to the hinterland. Primary health and educational services gradually ground to be a halt in the rural area.⁷⁹ Thus three overall impressions came out during the war:

- i) the immense resourcefulness and resilience demonstrated by people in the face of enormous suffering;
- ii) the very different experiences undergone by different communities during the war- differences between coastal and inland and even neighbouring communities and;
- iii) the immense level of destruction, not only of infrastructure but especially of households livelihoods.

In inland areas, particularly Massingir district, in Gaza, much of the population lived as refugees, however this experience was very different according to whether people were refugees in South Africa and whether they lived in camps or in local communities. In all

⁷⁷Ibid., p.210.

⁷⁸Ibid. , pp.210-211.

areas, some households had experience of being displaced internally; often either living in the forest in RENAMO areas or in peri-urban areas controlled by the government. Many households had a whole succession of experiences, losing possessions and sometimes family members at each stage.⁸⁰ The experience of being displaced to a different part of the south of the country and perhaps more living as refugees in neighbouring countries probably broadened some peoples experiences. However it was quite difficult to quantify the practical implications of this on peoples returned. In Massingir the experience of women household members worked for wages while refugees in South Africa was to have changed gender relations. In Namaacha a women tried to start a women's mutual help group in her community, similar to one she had encountered as a refugee in Swaziland.⁸¹

A particular feature of the late year of the war was drought. This increased suffering for those living off the land from 1990-1992, however the drought also helped end the war as the armies on both sides found it more difficult to live off the rural populations.

In southern provinces the guerrilla attacks on government positions and communications routes were frequent. For example, in July 1984, the East Germany Embassy in Maputo ordered the withdrawal of its nationals working in Inhambane's gas fields, following a landmine incident in Macovane in which two Germans were killed. Further to the south, pressure continued to be exerted even closer to the Mozambican capital. Towards the end of January 1984, a 60-strong RENAMO group, led by Pedro Muting, crossed the Incomati River only days before the cyclone Domoina had ravaged the area, making the flooded river an impossible obstacle. The group split into three units of 20 men each, the first operating south of Ressano Garcia, the second north-east of the city of Maputo, and the third on the south bank of the Incomati River near the Moamba area.⁸²

⁷⁹Ibid. , pp.220-221.

⁸⁰Whiteside, Perspectives on the Effects of Conflict at the Village Level-Mozambique, p.10.

⁸¹Ibid., p.10.

⁸²Cabrita, The Tortuous Road to Democracy , p.227.

Because of the RENAMO's pressure, on 16 March 1984, it was the signing of the Nkomati Accord on Non-Aggression and Good Neighbourliness between Mozambique and South Africa. South Africa undertook to withdraw its support of RENAMO; Mozambique, agreed to expel the ANC and open the country to South African investment. Despite the Nkomati Accord, promising an end to South African support for RENAMO, RENAMO's activities within Mozambique had intensified, facing the South African to search for a solution to the conflict.⁸³

By May 1984 the lack of tangible results from N'komati led the Mozambicans to request a top-level meeting in Cape Town at which the former Minister of Security Jacinto Veloso presented a dossier documenting cases of RENAMO allegedly being supplied by South Africa following the Accord. The South Africans responded by denying any government involvement, offering instead their good offices to bring about a negotiated settlement.⁸⁴

The destruction of factories and break-up of the economic infrastructure were also aimed at bringing the government to negotiations. The use of anti-personnel mines, targeted at maiming rather than killing, was also a tactic used in these contested areas of the conflict. Captured arms and equipment had become the major source of supplies within RENAMO, but many of the its forces still had to operate without guns. There was also a psychological dimension to RENAMO's tactics. The objective behind many of these was to make population compliant to RENAMO. The use of maimed people was in a similar mould. Earless, noseless, or handless people were a convenient way of transmitting a permanent image of RENAMO's activities in areas where their presence remained marginal.⁸⁵

The war had involved widespread violence against civilians, including both the systematic use of mutilations and killings and indiscriminate violence during sweeps

⁸³Cameron Hume, Ending Mozambique's War: The role of Mediation and Good Office, Washington 1994, pp.9-11.

⁸⁴Vines, Renamo: Terrorism in Mozambique, pp.20-21.

⁸⁵Ibid., ,p.90.

through contested areas. The mutilations of civilians, by cutting off ears, noses, lips and sexual organs, and by mutilating corpses, had been one of the most characteristic abuses of the war in Mozambique. Contrary to claims by the RENAMO leadership, such abuses were neither isolated incidents, nor were they confined to the movement's days. Such incidents appeared to be a central part of RENAMO's strategy of advertising its presence and its strength, and of terrorizing the local population and the opposing soldiers. Government soldiers were also responsible for incidents of mutilation.⁸⁶

This situation not only displaced a hundred thousands of Mozambicans to ecologically sensitive areas in neighbouring countries and along Mozambique's fragile coast, but also exerted excessive pressure on the environment, polluting these areas, cutting mangroves, decimating wildlife in national parks, causing widespread land degradation and disrupting environmental management.⁸⁷ Also the displaced population was concentrated in provinces with the highest agricultural potential; their settlements near major towns/cities of the coastal zones and safe rural areas had created severe land shortages, increased the demand for woodfuel and fishery resources, and threatened Mozambique's mangroves ecosystems, which are vital to the country's shrimp and prawn industries.⁸⁸

However, forced recruitment was a characteristic both RENAMO and FAM used to obtain soldiers. In principle, all adult males were eligible for conscription into FAM. In practice, standard recruitment procedures coexisted with incidents of forcible conscription, in which young men were rounded up at gun-point to join the army. Forcible conscription also was the most common method used by RENAMO to obtain its combatants. Young men and boys were captured and taken to RENAMO bases, where they were compelled to join the RENAMO army. However, RENAMO did include some

⁸⁶Southern Africa, Peace Prospects in Mozambique: What is Afonso Dhlakama up to?, In: Africa Watch, Vol.5, No.10, July 1992, p.11.

⁸⁷SARDC, Directory of Environmental Information and organizations in Southern Africa, Vol.1, Harare 1996, p.65.

⁸⁸Ibid., p.87

volunteer soldiers, mostly those disillusioned with FRELIMO's former policies of socialist transformation.⁸⁹

In the mid-1980s RENAMO targeted a propaganda campaign against the capital, Maputo, claiming that it would be captured in six months. The aim was to cause a sense of insecurity in the city, which had received many refugees with first-hand knowledge of RENAMO's policies in the countryside. The placing of two landmines on the *Costa do Sol* beach was particularly effective for this purpose, as the beach had become one of the few areas of recreation for Maputo's foreign community.⁹⁰

In late 1982 it repulsed the major RENAMO offensive from South Africa. By late 1983, Zimbabwe had provided combat troops largely to protect its own access to sea. Although Zimbabwe's military involvement in Mozambique between 1982 and 1992 was mainly to protect Zimbabwe's trade routes through Mozambique, that involvement ended up having far-reaching political and military implications. Therefore, in the process of protecting their trade routes, the Zimbabwe Defence Forces (ZDF) literally joined the Mozambican armed conflict on the side of the Mozambican Government and ended up involvement at least 30,000 Zimbabwean troops.⁹¹

Landmines were largely used both sides operations forces but in the end it was the peasants and infrastructures that fell victims. Landmines had been planted on the roads to fields, water sources, health centres, schools, factories and cemeteries. There was evidence that suggested that landmines played a role in discouraging displaced people from returning to their places of origin. In Inhambane and Gaza provinces water wells, clinics, schools, small factories, cashew-nuts groves and cattle-dip tanks were mined. No maps of these minefields were left behind when the conflict ended in 1992.⁹²

⁸⁹Ibid., p.12.

⁹⁰Hanlon, *The Revolution Under Fire*, p.100.

⁹¹Ibid., p.244.

The FRELIMO forces and its allies used defensive mining as recourse to protect key economic infrastructures and other strategic places that could be the targets of sabotage or occupation by the guerrilla fighters of RENAMO. The FRELIMO forces used anti-personnel landmines to protect power pylons. Access of roads and railway lines, dams, factories and water pipelines were protected the same way. Many hospitals and health posts were protected by the use of landmines to prevent ransacking by RENAMO. Nevertheless, landmines accidents occurred/occur in the course of pursuance of the following activities: Work on the farm; search for firewood; illegal crossing of borders; animal grazing; transit; playing with explosives; cutting down of poles for building and unknown activities.⁹³

Therefore, the total impact of conflict on Mozambican society was literary incalculable. Tens of thousands had been killed in the war and hundreds of thousands by the associated hunger and disease. Much of the infrastructure of the society had been destroyed, and national income was at a lower level than before independence. Education had come virtually to a standstill, and an entire generation had grown up without knowing the benefits of even the most basic physical security, let alone social services or economic development. The total cost of the war was incalculable. The United Nations estimated that war and war-related hunger and disease had cost a total of 600,000 lives, but this was no more than a gross estimate. Most of the country's economic infrastructure was destroyed or inoperable. And much of the population was dependent on a massive international aid programme. Hundreds of thousands of people were refugees in neighboring countries or displaced inside Mozambique. Many rural areas had been reduced to a Stone-Age condition, without trade or modern manufactured goods, education or health services and suffering from constant insecurity.

⁹²Arquivo do Património Cultural (ARPAC), Mines and Demining in Mozambique. Proceeding of the Seminar on the Socio-Cultural and Economic Impact of Mines and Demining in Mozambique, organized by ARPAC, Maputo 2000, p.9.p.34.

⁹³Arquivo do Património Cultural, Mines and Demining in Mozambique, p.11.

An Attempt at Periodisation

This purpose of this section is to present a periodisation of the armed conflict in southern Mozambique from 1980 to 1992. The conflict began to affect this region as it spread from the centre of Mozambique in the early 1980s. The section also argues, against the FRELIMO line, that resistance by the Mozambican peasantry to FRELIMO's modernising Marxist project was a *primary cause* of the war. The periodisation divides the conflict into four phases, namely the beginning of armed conflict, crisis and intensification, pre-negotiation and political change, and negotiating the Rome accord.

The Start of Armed Conflict in Southern Mozambique, 1980-1984

In the early 1980s, RENAMO (known in its early years as the MNR) began to grow rapidly in size and military effectiveness, which enabled it to launch a campaign to destroy social and economic infrastructure throughout southern Mozambique. Furnished with ample military supplies from South Africa, RENAMO's strength increased from fewer than 1,000 men to an estimated 8,000 fighters between 1980 and 1982, and its operations spread from the central provinces of Manica and Sofala into the south, especially Gaza and Inhambane.⁹⁴ South Africa had become involved in RENAMO with the independence of Zimbabwe.⁹⁵ The transfer of RENAMO from Southern Rhodesia to the South Africa in 1980 marked a turning point in the armed conflict, which soon began to escalate. The apartheid regime used RENAMO as a tool for destabilising Mozambique and as a counter balance to Mozambique's support for the ANC. Its aims were to disable Mozambique's infrastructure and economy, thereby bringing FRELIMO to the negotiating table, and to overthrow FRELIMO, replacing it with a more amenable RENAMO's government.⁹⁶ Therefore, it was Pretoria's regime strategy to force FRELIMO to stop its support for to ANC.

⁹⁴Vines, RENAMO: Terrorism in Mozambique, pp.1-16; and Human Rights Watch Africa, Landmines in Mozambique, New York 1992, p.2

⁹⁵Ghali The United Nations and Mozambique, p.9 ; Vines, RENAMO, pp.1-16; and Honwana, Spiritual Agency and self Renewal in Southern Mozambique, p.166.

⁹⁶Human Rights Watch/Africa, Landmines in Mozambique, p.6.

The conflict gathered momentum between 1981 and 1984, as the apartheid regime in South Africa pursued its destabilisation policy. South African commandos raided ANC houses in Matola, an industrial suburb of Maputo, killing thirteen ANC members in early 1981. In March of the same year, Mozambican and South African troops clashed on the border. In August 1982 the prominent South African exile, Ruth First, was murdered by a letter bomb sent to her at Eduardo Mondlane University in an action later blamed on a death squad by one of its former members, Dirk Coetzee.⁹⁷

Drought, War and Environmental Problems

The war spread to Gaza and Inhambane in 1982, when RENAMO forces began a major push.⁹⁸ It had begun to intensify in the early 1980s when South Africa took control over RENAMO, moving its base into Phalaborwa, in the northern Transvaal, revitalising the movement and using it in support of its own objectives of regional destabilisation.⁹⁹ Under pressure from RENAMO activities, the FRELIMO government re-introduced the death penalty for crimes against the security of people and state, and for those whose reintegration into society was deemed impossible.¹⁰⁰ At the same time, Mozambique and Zimbabwe signed a security co-operation agreement on 20 October 1980, aimed at destroying the RENAMO movement.¹⁰¹ Agricultural production was disrupted as fields were mined, property destroyed and peasants and rural populations driven away to Maputo, Xai-Xai, Inhambane and other cities, as well as towards the coastal zones, provoking serious environmental problems.

Despite the impact of the conflict, problems such as urbanisation must always be seen in the light of the historical context, geographical constraints and the nature of the governing economy. In the case of southern Mozambique political events of recent years had had such an extraordinary impact on everyday life, in every sector of society, that

⁹⁷David Hoile, Conspicuous Destruction: War, Famine and the reform Process in Mozambique: An Africa Watch Report, New York 1992, p.29.

⁹⁸Ibid., p.29.

⁹⁹Vines, The Mozambican Peace Process in Perspective, London 1998, p.14.

¹⁰⁰Jeremy Armon, Dylan Hendrickson and Vines, The Mozambican Peace Process in Perspective, London 1998, pp.14-16.

¹⁰¹Hoile, Mozambique 1962-1993: a political chronology, London 1994, p.34.

development environmental problems and the attempts to resolve them cannot be understood without some grasp of previous conditions.

Amidst the violence, the entire southern region of Mozambique was also hit by the worst drought of the century in 1983. The most dramatic situation was in the southern third of the country, south of the River Save.¹⁰² In such towns as Maxixe, in Inhambane province, Xai-Xai in Gaza province, and Maputo, the fighting and population movement had provoked an upsurge in building. However, the majority of displaced persons lived in huge, unplanned *caniço* areas (housing built of reeds and mud), on land owned by urbanised Mozambican families. The available land was usually too swampy for normal construction, and was thus avoided by the planners, or it was potentially valuable and was leased only on a temporary and speculative basis.

Surprisingly, the situation in the *caniço* areas was improved by the influx of *the displaced persons* during the conflict, although the whole social and political context was completely different before the armed conflict began.

Water had to be brought from *cantinas*, stores that were linked to the city water network. When they were located in the *caniço*, these stores were provided with boreholes, pumps and reservoirs. The women had to carry water up to a kilometre along sandy lanes.¹⁰³

Displaced persons in towns had a new feeling of security—an end to the constant fear of attack at any time. Those among them who had found employment just started to build wherever they found it convenient. Those who could afford it began building large houses with brick or cement blocks. A construction boom took place and the organic and structure less form of the *calico* areas rapidly started to solidify, further reducing the chances of infrastructural upgrading without major demolition. However, the social

¹⁰²Hume, *Ending Mozambique's War*, p.x.

¹⁰³Ingemar Saevfors, *Maxaquene a comprehensive account of the first urban upgrading experience in the new Mozambique: Human settlements and socio-cultural environments*, Maputo 1983, p.10.

mood, political enthusiasm and belief in the future were more positive and greater than ever.¹⁰⁴

The upgrading methods used by the populations who found employment in the cities were not exceptional, but they had more opportunity to develop than other displaced persons in the rural interior of southern Mozambique, largely due the level of mobilization FRELIMO had already attained for other purposes. The local administrative structures, the *grupos dinamizadores* (literally, 'dynamising groups'), staged campaigns and political meetings, cultural events, adult literacy programmes, street clean-up operations and mass vaccinations. They already knew how to get organised quickly, and therefore methods could be developed taking this asset into account. Furthermore they had a degree of political maturity: even given the high expectations of the government, the *grupos dinamizadores* had a reasonable understanding of unpopular measures benefiting a long term common goal.¹⁰⁵

Among the areas worst hit by the spread of the fighting were Chicualacuala district in Gaza province, and Mabote, Govuro and Vilankulos in Inhambane province. But at that time, with the drought, these zones had had no rainfall. In the three southern provinces (Maputo, Gaza and Inhambane) the drop in agricultural production, was of the order of 70 to 80 percent. In 1983 estimated 1,300,000 tonnes of grain and cassava had already been lost year.¹⁰⁶ Also lost in 1983 was the greater part (30,000 tonnes) of the rice harvest at the country's largest state farm, the Limpopo Agro-Industrial Complex (CAIL). By year in the district of Manjacaze in Gaza, war and drought had made agriculture virtually impossible.¹⁰⁷

Armed conflict and drought forced the people of Chicualacuala district to abandon their homes and move from place to place leading to the separation of families. The immediate food and energy needs of the existing communities exerted strong pressure on forest and

¹⁰⁴Ibid., p.10.

¹⁰⁵Ibid., pp.10-25.

¹⁰⁶Mozambique Information Office (MIO), No.8, 16 June, London 1983.

¹⁰⁷Ibid., No.8,16June 1983.

soil resources. In areas where there was enough security during the war, there was a strong concentration of migrant populations, due to existing production possibilities. This fact associated with the low value and lack of respect given to the existing indigenous knowledge system and ancient agriculture techniques, meant that there were few possibilities for the application of basic norms of land resource exploitation to secure the preservation of resources.¹⁰⁸

People were displaced internally from one area to another and refugee problems were created for neighbouring countries such as Zimbabwe and South Africa. The refugees were accommodated in such refugee centres as that in Chambuta, Zimbabwe, or Giyani, South Africa.

A population concentration in a limited geographic area, without necessary or adequate sanitation, has a profound impact on the sanitary conditions of members of the community. The environmental problems in these areas were partially a consequence of the socio-economic situation of the population, itself a result of the prolonged war between FRELIMO and RENAMO. Environmental problems also arose because of the drought that had been affecting the country. Poor housing conditions, poor nutrition and low levels of production in such concentrated populations made them susceptible to epidemic diseases, without the resources to fight them.

In 1983 it was reported that over 100,000 people had died of famine in Inhambane alone. Famine began to spread southwards, reaching the outskirts of the capital, Maputo. In Maputo province, about 248,000 people faced serious food shortages. Another 22,000 were displaced following RENAMO attacks along the border between Mozambique and South Africa. In Inhambane, some 430,000 people were described as being at risk. In some provinces, including Gaza, over half the peasant surplus production was going to the black market, popularly known as *candongas*.¹⁰⁹

¹⁰⁸ Vielka Garibaldi, Indigenous Knowledge System in Natural Resources Management in Southern Africa: case Studies from Botswana, Lesotho, Mozambique, Malawi, South Africa, Zambia and Zimbabwe, Harare 1995, p.178.

¹⁰⁹ Hanlon, Mozambique, p.89.

The vast majority of deaths caused directly by hunger in this period in drought-stricken southern Mozambique occurred in the areas most badly affected by the armed conflict. In Gaza and Inhambane, eleven districts (out of a total of 17) were badly affected by armed conflict. There were direct confrontations between government forces and RENAMO, resulting in the destruction of RENAMO camps including their "central base" in Gaza at Hati-Hati, and their operational base for southern Mozambique at Tomé in Inhambane province.¹¹⁰ In the eleven districts affected by conflict, seven in Inhambane and four in Gaza, RENAMO started serious military operations in the first quarter of 1982. Between then and October 1983, RENAMO destroyed more than 400 *cantinas* in Inhambane, most of them owned by small traders.¹¹¹

Drought and food shortages are common in southern Mozambique. But these phenomena combined with conflict, drove people to the urban areas, and helped to increase some kinds of pollution, especially in coastal zones. The increased migration to urban and coastal areas had concomitant and adverse environmental consequences. Desertification was occurring as well as the pollution of surface and coastal waters.¹¹²

Operation Production

Operation Production was a massive government and FRELIMO party operation that began in February in 1983 until in the middle of 1985 aimed at forcibly relocating tens of thousands of urban unemployed, single women and other "marginals" from Maputo to forced labour in the far north of Mozambique.¹¹³ It was launched at a time when the southern Mozambican rural economy was buckling under the combined blows of neglect of peasant agriculture, widening armed conflict, and drought.¹¹⁴ The collapse of marketing in the countryside, the government's use of scarce resources to finance inefficient state farms, and Pretoria's decision to reduce the number of Mozambican migrant workers in South Africa, all drove thousands of unemployed into Mozambican

¹¹⁰Mozambique Information Office, News Review no.7, 27 May, London 1983.

¹¹¹Mozambique Information Agency (AIM), 1/12/, Maputo 1983.

¹¹²Hoile, Conspicuous Destruction, pp.45-48

¹¹³Ibid., pp.45-48.

¹¹⁴Ibid., pp.45-48.

towns and cities. Food shortages and crime soared in Maputo and other major southern Mozambican urban centres such as Xai-Xai, Chokwe, Inhambane and Maxixe. At the same time, big state farms, like Xinavane Sugar Cane Plantations were chronically short of seasonal workers.¹¹⁵

Some observers have compared the government's response with the forced labour practices of the colonial period.¹¹⁶ the "Operação Produção" or Operation Production aimed to push the unemployed and petty criminals out of the towns and to the land, an objective that many city residents applauded at the time.. But the plan soon ran into difficulties, and aroused increasing opposition. After a first, voluntary phase in mid-1983, the programme, which was run jointly by the Ministries of Defence, Security, and the Interior, began to roundup large numbers of people who were unable to produce at least four key documents, namely work, residence, and military service cards, and the identity document. Residents in Maputo were given two weeks to update their papers.¹¹⁷

Early Attempts at Negotiation, and the Nkomati Accord

The sustained violence and the devastating famine finally forced the Mozambique government, still ruling over a one-party state under FRELIMO control, to engage in negotiations, at first with the South Africans themselves. The first such attempt to put an end to hostilities came on 16 March 1984 when President Samora Moisés Machel met P.W. Botha, the South African Prime Minister at the border town of Nkomati to sign the "Agreement on Non-Aggression and Good-Neighbourliness".¹¹⁸ Mozambique was required to close down any ANC military facilities in its territory, and in return, the South Africans were to halt their support of RENAMO. However, with airlifts and transport

¹¹⁵Ibid., p.2.

¹¹⁶Hanlon, Mozambique;p. 26; and Hoile, Conspicuous Destruction, p.68.

¹¹⁷Hanlon, Mozambique, p.246; and Hoile, Conspicuous Destruction, p.8.

¹¹⁸Ghali, The United Nations and Mozambique, 1992-1995, p.10; and Kerry Ruth Ward, The Nkomati Accord: An Examination of South Africa's Foreign Policy and Foreign Relations, Cape Town 1985, (unpaginated)

routes through Malawi, South Africa continued to supply RENAMO with food, medication, and weapons, including large numbers of landmines.¹¹⁹

From May to October 1984, the Mozambican government was reluctantly persuaded to engage in direct talks with the MNR. Various carrots and sticks were employed.¹²⁰ President Machel signed the pact in large part to satisfy political conditions placed on the delivery of United States humanitarian aid. The Nkomati Pact had been opposed by Zimbabwe and the other Front Line States, who feared the South Africans were negotiating in bad faith and would not halt their support for RENAMO under any circumstances.¹²¹ The Mozambican government took an independent line by reluctantly agreeing to negotiate directly with RENAMO. However, aware continuing South African support for RENAMO, the Mozambican government insisted that the talks be facilitated and mediated by the Pretoria regime. The two rounds of negotiation took place from May to October 1984. But the mediators were not impartial, nor did they engage in thorough consultations.

An atmosphere of mistrust permeated the talks, and statements were misinterpreted. Eventually failure was declared and both sides adopted extremist positions. Machel publicly stated that he would not negotiate with kidnappers, bandits and criminals. Instead Mozambique would wipe them out, and that day was not far off. On the other side RENAMO demanded the country's presidency for itself.¹²² This half-hearted attempt to negotiate peace marked the end of the first phase of the war in the south.

The Intensification of the Armed Conflict, 1984-1988

After the signing of the Nkomati Accord in 1984, various restrictions were introduced. One of these was the "*guia de marcha*". The *guia* was a kind of internal passport, originally used in colonial times and needed by anyone who wanted to travel from one district or province to another. The *guia* remained in force until November 1990 with the

¹¹⁹<http://www.usc.edu/dept/LAS/ir/cis/cews/database/Mozambique/mozambique.pdf>

¹²⁰ Armon, The Mozambican Peace Process in Perspective, p.20.

¹²¹ Ibid., p.20

promulgation of the new constitution, which guaranteed freedom of movement. Meanwhile, Operation Production was abandoned, and government officials admitted that it had been a failure that cost FRELIMO a great deal of political support. RENAMO supporters argued, with some force, that it had been FRELIMO's agricultural policies that had exacerbated the problem of rural unemployment in the first place, and sent youths fleeing to the cities in search of work.¹²³ Most of those sent to the camps and villages were never able to return.¹²⁴ Many observers as for example, senior church leaders believed that Operation Production, like the communal village program, provided a major boost to RENAMO's recruitment in the south of Mozambique.¹²⁵

Throughout the conflict, a basic aim of both the government and RENAMO forces had been to control as many civilians as possible. Both the government and RENAMO practised scorched earth methods and used military force to move hundreds of thousands of civilians into their own areas of control. Once they had them settled, the local military force established control posts to ensure that the civilians did not flee to the enemy.¹²⁶

In the months leading up to the Nkomati Agreement in March 1984, South Africa delivered significant quantities of military aid to RENAMO, which allowed them to mount attacks throughout southern Mozambique and to bring the conflict closer to Maputo city.¹²⁷ The increased fighting led to second round of talks, in October 1985, when South Africa then proceeded to mediate the first attempt at negotiations between FRELIMO and RENAMO in Pretoria but¹²⁸ The sides signed the Pretoria Declaration (sometimes referred to as "N'komati II") in which RENAMO agreed to recognized the FRELIMO government in exchange for a phased cease-fire under South African auspices. RENAMO,s insistence that it be recognised as a legitimate negotiating partner, however, doomed the new agreement. In November of that year, in 1985, it announced a

¹²²<http://www.usc.edu/dept/LAS/ir/cis/cews/database/Mozambique/Mozambique.pdf>

¹²³Hoile, *Conspicuous Destruction*, pp.69-70.

¹²⁴*Ibid.*, pp.69-70.

¹²⁵Hoile, *Conspicuous Destruction*, p.pp.69-70; Hanlon, *Mozambique*, pp.26-28.

¹²⁶Hoile, *Conspicuous Destruction*, p.70.

¹²⁷James Ciment, *Angola and Mozambique: Postcolonial wars in southern Africa*, New York 1997, pp.66-67.

further escalation of the war, prompting President Samora Machel to accuse Pretoria of failing to destroy RENAMO. These talks soon collapsed.¹²⁹

The Failure of the Talks and Intensification of the Conflict

The failure of the talks led to a further intensification of the conflict between 1985 and 1986. Neither President Machel's death in 1986, nor the ascension of Joaquim Chissano into the presidency had much effect. By 1987 RENAMO had gained substantial ground across southern Mozambique and was receiving indirect encouragement and backing from a number of conservative and right wing governments in the west and elsewhere in Africa.¹³⁰

By 1987, the conflict had begun to take a heavy toll on the government, forcing President Chissano to modify many of FRELIMO's original policies and positions under pressure from the international community. He introduced *Programa de Reestruturação Económica* (PRE).¹³¹ As the conflict intensified in the south, massacres and atrocities occurred. One such was the Homoine massacre on July 18, 1987, in Inhambane. The official death toll was 424. The government blamed RENAMO for the slaughter, a charge which the rebels denied. Indeed, RENAMO later accused the government army of carrying out the killings in order to damage their international reputation.¹³² Also in 1987, the town of Manjacaze in Gaza suffered a similar atrocity as the conflict intensified, when over 90 people were massacred. This left the town in a desolate condition, with shops, warehouses and other businesses in ruins, or reduced to ashes.¹³³

Another badly affected area was Massingir district in Gaza. This district is in the western part of the province (see map) and borders the Kruger Park in South Africa. The war

¹²⁸Ghali, *The United Nations and Mozambique 1992-1995*, p.10

¹²⁹Ciment, *Angola and Mozambique*, p.82 ; and Ghali, *The United Nations and Mozambique 1992-1995*, p.10.

¹³⁰<http://www.usc.edu/dept/LAS/ir/cis/cews/database/Mozambique/mozambique.pdf>

¹³¹<http://www.usc.edu/dept/LAS/ir/cis/cews/database/Mozambique/Mozambique.pdf>

¹³²Hoile, *Conspicuous Destruction*, p.34.

¹³³Mozambique Information Office, London 27/1/89; 24/2/89; and Hanlon, *Mozambique: Who calls the shots?*, London 1991, p.32.

affected the district from 1984 onwards, restricting people's access to their fields, as a consequence of which crop production fell. Attacks intensified, eventually cutting the district capital off from the rest of the province by road. The town had to be supplied by air. People were killed in the attacks and some were captured by RENAMO. From 1986 onwards, people began to flee from the outlying areas and by 1988-1989 most of them, with the exception of those near the lakeshore and in the district capital, were gone.¹³⁴

RENAMO forces attacked and occupied Chibuto district, the main government military headquarters in Gaza province in 1988. For the fifth time in less than two months RENAMO units disrupted Maputo's electricity supplies on 31 December 1988.¹³⁵ Because of this violence in this period, Mozambicans were forced by government forces and RENAMO into refugee camps, became displaced persons or were forced into the urban and peri-urban areas or towards the coastal zones where they felt relatively safe.

Pre-Negotiation and Political Changes, 1984-1990

We now move on to the third period. Three particular aspects of the conflict stand out:

1. it was waged largely in rural areas;
2. it revolved primarily around the control of civilian populations by both sides for tactical reasons; and
3. it was extremely violent.

However, RENAMO in particular developed a reputation for the ritualistic use of violence aimed at instilling incapacitating fear in rural communities. These tactics served severely to disrupt the social fabric and to undermine the legitimacy of the government which was unable to protect large parts of southern Mozambique.¹³⁶

⁴¹Whiteside, Perspectives on the Effects of Conflict at the Village Level-Mozambique, p.140.

¹³⁵Ibid., p.140.

¹³⁶Ciment, et al., The Mozambican Peace Process in Perspective, p.99.

War, Drought, Floods, Displaced Persons and Food Shortages

The south had been severely affected by drought in the 1990s. For example, 240 kilometres of the Limpopo river ran dry leaving huge tracts of sandy trenches where water once flowed.¹³⁷ In combination with drought and conflict there were, for example, at least 1,600 displaced persons in Chokwe district. The province of Gaza had over 100,000 displaced persons.¹³⁸ Crop theft and raids by RENAMO combined with drought to bring dependency and disease to the province.¹³⁹

In central Gaza, particularly in the districts of Massangena, Chigubo, Chicualacuala, Mabalane and Massingir, people constantly moved from one area to another in search of relatively secure areas and food to survive. A total of 3,684 returnees from South Africa and Zimbabwe were settled in Chicualacuala, Massingir and Chokwe in 1989.¹⁴⁰ Over 56,000 people were facing severe food shortage. RENAMO forced people into a nomadic existence, unable to cultivate their fields and produce food for their own subsistence. Excessively the heavy rains that washed away maize sown in September and December of 1989 exacerbated the situation.¹⁴¹ At same time the war was intensified all over the south. On 17 March 1989 RENAMO attacked two warehouses belonging to the Lonrho-Mozambique Agricultural Company (LOMACO), in Chokwe district. Large quantities of goods stored in the warehouses were destroyed, including irrigation equipment, fertilisers and pesticides, worth millions of *meticaís*.

Pre-Negotiation

Although the conflict continued to escalate throughout the mid-1980s, there were already sectors of society, notably religious leaders, and other regional actors who were attempting to initiate a peace process. As early as 1984, the Mozambican Christian Council (MCC)— which united seventeen of the country's Protestant Churches— set up the Peace and Reconciliation Commission (PRC). They argued that dialogue was the way

¹³⁷Mozambique Information Office: Special Report No.10, London 28 May 1992.

¹³⁸Mozambique information Office, No.10, London 28 May 1992.

¹³⁹Mozambique Information Office, No.10, London May, 28/5/1992.

¹⁴⁰Ibid.,No.176, 11 April 1990.

¹⁴¹Ibid., No.176, 11 April 1990.

forward in any dispute. At the same time, the Catholic Church, which had an ambivalent relationship with government due to its historic ties with the Portuguese publicly called for dialogue between the government and RENAMO.¹⁴²

By 1987, under the presidency of Chissano, the Church was openly advocating dialogue. Between 1987 and 1988, the MCC joined forces with the Catholic Church, and held several meetings with RENAMO representatives in the United States and in Kenya. By 1988, these church activities had become public.¹⁴³

Renamo's Position

During these talks, Mozambican government was carrying out a military offensive against RENAMO, and the movement's leaders refused as a result to return to the discussions.¹⁴⁴ President Chissano rejected this position, saying that it was precisely because there was conflict that dialogue was necessary to end the war. In effect, some of the internal conditions necessary for initiating dialogue (war fatigue, stalemate) existed.¹⁴⁵ Externally too, the regional and international political arena was changing. At the end of 1988 Cold War was ending in Southern Africa. FRELIMO abandoned its Marxist-Leninist ideology and dropped its objections to pluralism in 1989.¹⁴⁶ Internationally, the fall of the Berlin Wall and the collapse of communist regimes in Eastern Europe in late 1989 and 1990 marked the advent of a new era of optimism and willingness to end the proxy wars of the Cold War years. Negotiations for a Mozambican peace started in August 1989, but soon faltered as it became evident that the groundwork was still lacking.¹⁴⁷

¹⁴²<http://www.usc.edu/dept/LAS/ir/cis/cews/database/Mozambique/mozambique.pdf>

¹⁴³Finnegan, *A Complicated War*, pp.245-246; and

<http://www.usc.edu/dept/ir/cis/cews/database/Mozambique/mozambique.pdf>

¹⁴⁴Mozambique Information Office, No.187, 5 October 1990, p.2.

¹⁴⁵Hume, *Ending Mozambique's War*, p.22.

¹⁴⁶Hume, *Ending Mozambique's War*, p.22; and

<http://www.usc.edu/dept/LAS/ir/cis/cews/database/Mozambique/mozambique.pdf>

Negotiation, the Rome Talks and the General Peace Accord, 1990-1992

In July 1990, FRELIMO decided to abandon the one-party state in favour of a multi-party system. On 30 November 1990 a new Constitution, unilaterally drafted and approved by the FRELIMO party and the government, came into effect. By 1990 Sant' Egidio, a Roman Catholic lay organization dedicated to social concerns had developed strong ties with the Mozambican government and church groups around the country, as well as with RENAMO.¹⁴⁸ It was regarded as a trusted and impartial intermediary in the conflict, with legitimacy and leverage in the eyes of both sides.¹⁴⁹

From the vulnerability of the displaced persons war, drought and torrential rains had killed over 50 people at Chibuto district, in the southern Mozambican province of Gaza between 1990/1991. The tragedy had also happened at Missavene, on the outskirts of the towns of Chibuto. At the same time, heavy rains accompanied by hail led to a mudslide which swept away flimsy houses built on slopes on the banks of the Changane river. The houses had been built by people displaced by armed conflict. Some of dead were buried in the mud, while others drowned in the river. The storm coincided with a RENAMO incursion which had killed at least five people.¹⁵⁰

Meanwhile, the war was spreading into the outer suburbs of the capital in a generalised breakdown of law and order. In January 1992, eighteen people died in RENAMO raids against the three Maputo suburbs of Patrice-Lumumba, Ndlavela and T-3, less than ten kilometres from the city centre. These suburbs, Ndlavela in particular, had come under repeated attack in 1991. Ndlavela was largely inhabited by displaced people who had fled from the war-torn countryside.¹⁵¹

¹⁴⁷Hume, *Ending Mozambique's War*, p.22; and

<http://www.usc.edu/dept/LAS/ir/cis/cews/database/Mozambique/mozambique.pdf>

¹⁴⁸Ghali, *The United Nations and Mozambique 1992-1995*, p.15; and Hume, *Ending Mozambique's War*, pp.22-25.

¹⁴⁹Hume, *Ending Mozambique's War*, pp.22-25; and

<http://www.usc.edu/dept/LAS/ir/cis/cews/database/Mozambique/mozambiquepdf>

¹⁵⁰Mozambique Information Office, No.226, London 9th July 1994, p.4.

Meanwhile, in Rome, progress was slow but steady. By October 1992, most issues had been resolved. Governments in the southern African region, including a now-democratising South Africa, were supportive. The United Nations agreed to send monitors and troops to uphold the agreement, and the Italian government agreed to donate US\$10 million towards RENAMO's transformation into a political party.¹⁵²

After two years, on 4 October 1992, and with the involvement of Southern African and European governments, the United States, the United Nations, and a major international corporation, not to mention Sant' Egidio itself, the Rome General Peace Accord was signed.¹⁵³ The Mozambican conflict had finally come to an end.

¹⁵¹Vines, RENAMO: From Terrorism to Democracy in Mozambique? University of York 1992, pp.127-129.

¹⁵²Ibid., pp.127-129.

¹⁵³Mozambique News Agency, AIM Report, No.15, Maputo 15th August 1993, p.3.

Chapter 4

An Environmental Profile of the Effects of Conflict in southern Mozambique

The environment in the Context of Conflict

The concept of the environment is a broad term that includes both physical, biological and social impacts in which the men and the organisms live. Changes in productivity of downstream agricultural fields or fisheries are included, as question of population resettlement. Environmental effects may occur upstream, on-site, or downstream. Therefore, the environment is the existence of some impact, on the economic well-being or social welfare of people and societies.¹⁵⁴ That is, the soil and the basement, the atmosphere, the water of the sea, of rivers and of the lakes, the set of the plants and of the animals and forces and actions that link them, are physical, biological and social factors whose balance is necessary so that the human life can endure.¹⁵⁵ Environmental problems are all these external conditions, especially physical conditions, sometimes caused by man, and by natural effects, effecting the lives of people, animals and plants. Therefore, although methods, sources and focus vary, at the core of environmental history is a deliberation on how people use, manage or interrelate with natural resources and natural environment, in specific circumstances at given times and places.¹⁵⁶

The environmental problems in Southern Mozambique existed before conflict. They were provoked by natural disasters such as droughts, cyclones and floods that happened between 1980s to 1990s. As result of these phenomena, there were movements of displaced populations. The armed conflict accelerated these environmental problems.

¹⁵⁴Matiza, and H. N. Chabwela, Wetlands Conservation Conference for Southern Africa: Proceeding of the SADCC wetlands conference, Gaborone 1992, p.46.

¹⁵⁵José Forjaz, Passar às futuras gerações um Mundo onde seja possível viver: O Dia Mundial do Ambiente. In: Jornal Notícias, Maputo, 6 de Junho de 1984.(Unpagened).

¹⁵⁶Stephen Dovers et al, South Africa's Environmental History Cases and Comparisons. In David Philip Publishers, Cape Town 2002, p.4

And these problems have continued after war.¹⁵⁷ Drought conditions applied again in several parts of country and elsewhere in southern Mozambique, but the grave food shortages in the country were attributed by the United Nations and Agriculture Organization (FAO) to military disturbances. But the manner in which drought and armed conflict interacted to cause famine seemed to follow a different pattern. The 1983 famine deaths were, to put it in the simplest terms, a consequence of armed conflict disrupting relief to drought-affected areas. The terror that reigned in the countryside had forced thousands of people to flee from their homes, often leaving their crops in the fields, arriving in the districts or over coastal zones without land, tools, and seed.¹⁵⁸

People had fled from more productive areas to more remote and less fertile areas with lower potential. The further argument was advanced that, being restricted to closed areas, a gradually increasing rural population, over the years reduced the fallow periods, brought poorer land into cultivation, and repeatedly farmed the same plots without time for recovery. These factors tended to reduce the overall production and productivity of an area and certainly reduced the average production levels for each household, and might generate a further downward spiral by adversely affecting the local climate, reducing moisture retention in the soil.¹⁵⁹

Because of these factors, the main environmental threats were almost exclusively located along the coastal littoral, peri-urban and urban areas of southern Mozambique. The populations fleeing the fighting in interior and, also looking for safe places because of the floods and droughts had concentrated along the coastal, peri-urban and urban areas, and the environmental pressure in these areas were becoming severe. Thus half the population had been affected through massive civilian losses, malnutrition, displacement and

¹⁵⁷Lionel Cliffe, et al., Southern Africa the Drought a Breakdown of Social reproduction: in Leeds Southern Africa Studies, University of Leeds 1988, pp.2-26; and Lidia B.Y. Fernandes , National Directorate of Forestry and Wildlife Biomass Energy Unit, Maputo 1996, pp.16-28.

¹⁵⁸Cliffe, Southern Africa After the Drought a Breakdown of Social Reproduction, pp.2-26.

¹⁵⁹Ibid, pp.2-26.

migration, and no reasonable environmental management strategy was initiated under these circumstances.¹⁶⁰

Coral reefs and coastal wetlands are among the most productive marine ecosystems along the tropical southern Mozambique. On the Indian Ocean shore of southern Mozambique coral reefs and coastal wetlands contribute some uncountable tons of fish, providing protein and employment to some million people. However, this food production is but a part of the productive potential of these reefs and wetlands, since they export nutrients and organic matter, not only to the deep ocean, but also to other ecosystems. In addition these systems protect the sea-shore against destructive wave action, and whole reefs and protect beaches provide recreation for increasing number of people.¹⁶¹

These systems were endangered, not only by their traditional use, but by population growth in these areas during the war. The population growth tended to lead to over-exploitation of the limited resources that these sensitive ecosystem supported, and population increase changed in the coastal zone, like pollution, agricultural growth and construction, cutting mangroves and provoking its deforestation and soil erosion. Some of these changes could be harmful, not only directly to the species that build and conserve these systems, but also indirectly, by affecting their physical environment.¹⁶²

Mangroves have been defined as salt-tolerant forest ecosystem of tropical and subtropical intertidal regions of the world, and more broadly, as the characteristic littoral plant formations of tropical and subtropical sheltered coastlines. Mangroves have been variously described as coastal woodland, tidal forest and mangrove forest. Also the mangroves represent a rich and diverse living resource and are valuable to both the economy and protection of coastal environments.¹⁶³ During the duration of the conflict, in

¹⁶⁰O'Keefe et al., Mozambican Environmental Problem: myths and realities, in: Public Administration and Development, Vol.11, London 1991, p.307; Matiza and Chabwela, Wetlands Conservation Conference for Southern Africa, pp.133-151.

¹⁶¹Matiza and Chabwela, Wetlands Conservation Conference for Southern Africa, pp.133-318.

¹⁶²O'Keefe, Mozambican Environmental Problems, p.307.

¹⁶³A.K. Semesi, "Mangrove Management and Utilization in Eastern Africa." Ambo 27, No.8, December 1998, pp.620-625.

parts of Gaza, in southern Inhambane, and the area to the north Maputo, mangroves were destroyed by population concentrations in the littoral zones entailing the risks of environmental degradation and resources depletion.¹⁶⁴

To discuss environmental problems in the context of armed conflict and see a policy for sustainable development in specific conflict context, it means recognizing that the armed conflict had removed the potential population stress on the environment in large areas and magnified it in the sites of fleeing population concentrations.¹⁶⁵ In the coastal areas, environmental stress was experienced, in particular with cutting of the mangroves which had a negative environmental effects and had reduced fishing potential. The mangroves represent a rich and diverse living resource and are valuable to both the economy and protection of coastal environments. The most pressing conservation problems that needed to be solved were the increase in tree cutting for poles, charcoal and fuelled and reclamation for salt pans, agriculture and prawn aquaculture.¹⁶⁶

There was a growing awareness of the importance and fragility of the mangrove ecosystem in southern Mozambique, particularly in Gaza and Maputo provinces. There was not environmental education, technical facility and information network among the populations. Therefore, the environmental stress was both a cause and an effects of political tension, military conflict and natural disasters. Land clearing for refugee camps sites and displaced persons areas, population concentrations in marginal lands because of floods and drought, construction material, fuelwood, agricultural crop production, and wildlife use was a major threat to forest resources in the refugee and internally displaced populated areas.¹⁶⁷

¹⁶⁴O'Keefe, Mozambican Environmental Problems, p.307; and Matiza and Chabwela, Wetlands Conservation Conference for Southern Africa, pp.133-151.

¹⁶⁵A. Ellegard, Cooking Fuel Smoke and Respiratory Symptoms Among Women in Low-Income Areas in Maputo. In: environmental Health Perspectives 104, No. 9, September 1996, pp.980-985.

¹⁶⁶Semesi, "Mangrove Management and Utilization in Eastern Africa.", pp.620-626.

¹⁶⁷Ellegard, "Cooking Fuel Smoke and Respiratory Symptoms Among Women in Low-Income Areas in Maputo," pp.980-985.

In the suburbs of Maputo, for example, the fuels most commonly used were wood and charcoal. Therefore, coal and charcoal for household use was a competitive fuel on the local market. "And wood users were exposed to significantly higher levels of particulate pollution during cooking time (1200 $\mu\text{g}/\text{m}^3$) than charcoal users (540 $\mu\text{g}/\text{m}^3$)".¹⁶⁸

The immediate cause of mass movement of refugees and displaced persons might appear to be political upheaval and military violence. But the underlying causes often included the deterioration of the natural resource base and its capacity to support the population. However, floods and drought also contributed in environmental problems in Southern Mozambique. Half the population was affected with over one million Mozambican refugees, currently in neighbouring countries and many of the rest fleeing to the relative safety of the cities, the coastal strip and transport corridors.¹⁶⁹

Problematizing the Concept of the Environmental Impact of Conflict:

Displaced persons and the environment

In Southern Mozambique the armed conflict generally affected the populations later (mid to 1980s) than Centre/North. And in the Centre/North the conflict started in the early eighties. During this period atrocities were carried out against the civilian population by both sides in conflict. Inland areas, much of the population lived as displaced persons or refugee, however, there was very different according to people were refugees in neighbouring countries such as South Africa and Swaziland.¹⁷⁰

During the conflict, the rural population was the principal victim, and to a lesser extent of environmental hazards. The urban population, however, bore the burden of population inflows to escape the armed conflict and of structural adjustment which could create

¹⁶⁸Ibid., pp.983-985.

¹⁶⁹O'Keefe, Mozambique environmental problems, pp.307-311.

¹⁷⁰Whiteside, Perspectives on the Effects of Conflict at Village Level-Mozambique: Environment and development in an Age of Transition, p.10.

enormous difficulties such as food, water or fuel since the volume of basic commodities and the value of earnings had both declined.¹⁷¹

Over three million people in rural areas suffered from food shortages either because of displacement or because armed conflict had affected rural production systems. 2.7 million people in urban areas were dependent on imported supplies because of the collapse of the Mozambican food production and food marketing system no more than 10 per cent of the marketed food was internally produced. Additionally, over one million people had sought refuge in neighbouring countries to escape the armed conflict.¹⁷²

The displaced persons situation had wrought havoc on the country. They came almost entirely from rural areas, and end up living from somebody else's generosity on land that was not theirs to farm. They had sometimes fled hundreds and even thousands of kilometres and usually left behind all their possessions. Arriving with nothing, with no roots or means of supporting themselves, leaving behind land that was no longer farmed, creating massive burdens in their huge numbers on the areas in which they settled, they were the devastation in southern Mozambique.¹⁷³

The consequences of extreme poverty were particularly severe when combined with insecurity of life style. Displaced persons suffered the full severity of these consequences. Perhaps the most striking consequence of poverty, one that was ignored, was the intense humiliation suffered by people who had been reduced to such a state. Nudity was one of the extent to which psychological normality had suffered in Mozambique as a result of the war.¹⁷⁴

Gaza province began to be seriously affected by conflict in the late 1983. By 1987 the conflict had spread to every district of the province, severely crippling the province's

¹⁷¹Cherrett, et al., Norwegian Aid and The Environment in Mozambique, p.46; and O'Keefe, Mozambique environmental problems, p.322.

¹⁷²Ibid., p.322.

¹⁷³Hilary Anderson, Mozambique: a war against the people, London 1992, pp.95-96.

¹⁷⁴Ibid., p.96.

economy and displacing over 100,000 people from their home. The disruption of peasant agricultural production caused by conflict, compounded by severe drought conditions throughout most of this period, soon created widespread food shortages affecting a further 200-300,000 people.¹⁷⁵

Rural-urban migration had sky-rocketed, as people continued to flee the countryside in search of some measure of security in the cities, greatly straining already overburdened urban infrastructure. In creating this situation in Gaza province, war *modus operandi* had been in keeping with the way it had operated in the other parts of the country. In terms of its conventional military structure, its extreme brutality towards the civilian population, its targeting of communal villages and socio-economic infrastructure, its reliance on forced recruitment, the conflict situation in southern Mozambique confirmed much was known about armed conflict.¹⁷⁶

Villages caught in the crossfire of the war lived in constant fear. Villagers could not travel out of their village safely, and constantly looked at each other with suspicious eyes. Vestiges of normality were few in rural southern Mozambique, and much cherished. Displaced persons who had ended up in the “reed cities” as they were called, the slums of the bigger cities, had the advantage of being in areas where food was at least around, even if they could not access it legally or properly.¹⁷⁷

Most of food aid in the countryside was given out not just because people were too poor to afford food, but because in many rural areas the food was not available. The rural peasant economy had long been a subsistence economy for the majority, and when the peasants could no longer produce their own food because they were separated from their land, it simply was not there to be had.¹⁷⁸ By this situation of the war Maputo was home

¹⁷⁵Roesch, Renamo and Peasantry in Southern Mozambique: a view from Gaza province: paper prepared for Symposium “ Mozambique: Contemporary issues and Current Research, organized by the Refugee Studies Programme and the Standing Committee for Africa Studies, Oxford University 1991, p.5.

¹⁷⁶Ibid., p.5.

¹⁷⁷Anderson Mozambique : a war against the people, p.98.

¹⁷⁸Ibid., p.98.

to about 10 per cent of Mozambique's population. Not so long ago, in 1970s, only 5.7 per cent of the entire population lived in cities. By 1990s, almost 20 per cent of the population was urbanized because of the war. In 1985 when the armed conflict was at its peak, urbanization was increasing at 5.3 per cent per annum.¹⁷⁹

The key environmental problem that had to be tackled was the displacement of the rural population zones where the essential resources, secure land, was in scare supply and where a reduction in wage-earning opportunity had reduced the capacity to purchase farming inputs. Sustainable land use strategies had to be devised in a context of intense population concentration and resource scarcity.¹⁸⁰ The other side of the equation was that many of the remaining peasant producers living in the interior and outside the corridors were cut off from resources, that state and even donors by the insecurity of travel because of the intensity of the armed conflict.

Sustainable development in Mozambique in the context of armed conflict meant ensuring the survival of the population concentrations by enabling an intensification of production within a minimum of environmental deterioration. Intensification of production within a sustainable development approach meant improving resource management. This effectively meant a strategy for the urban, peri-urban zones, corridors and coastline only. The fundamental need in the context of armed conflict and economic collapse always was, however that production for immediate survival could remain the priority and a certain environmental cost could have to be accepted until the country returned to normal.¹⁸¹

In some places, where the displaced persons lived faced environmental problems because a major part of the villages were built on a swamp. This situation was especially found in the neighbourhoods of Maputo such as Mafalala, Magude and Luis Cabral; in Gaza, Xai-

¹⁷⁹Ibid., p.99.

¹⁸⁰Sam Moyo, The Southern African Environment : profiles of the SADC Countries, London 1993, pp.196-197; and Cherrett, Norwegian Aid and the Environment in Mozambique, pp.4-5.

¹⁸¹Moyo, The Southern African Environment, pp.196-197; and Cherrett, Norwegian Aid and the Environment in Mozambique, pp.4-5.

Xai, and Chokwe. Drainage and sewerage were difficult and expensive, surface water was permanent in many places and there was a risk of waterborne disease. Confusing the requirement of urban drainage problem with those of irrigated agriculture was, however, unusual.¹⁸² There was a need to concentrate attention on coastal zone forestry, especially cashew production, and on the ecological interface between mangrove-shrimps-small fish, because many displaced persons fled into these areas, that were relatively safe during the war.

Overcrowding plus malnutrition, the lot of the millions of Mozambican displaced persons and refugees were the breeding grounds of a tuberculosis (TB) epidemic. The level of prevalence of TB could be seen as a register of the extent to which sector of the displaced persons had been exposed to a deteriorating environment, malnutrition, dirty water, inadequate sewerage and overcrowding. Thus, although control and curative operations were necessary, the widespread presence of the TB indicated an environmental crisis which needed to be changed if the disease was to be controlled among the displaced persons.¹⁸³

Reproductive health suffered uniformly among the displaced persons. The incidence of stillbirths and complications of pregnancy and delivery were high in such population, during the armed conflict. The incidence and prevalence of STDs, including HIV/AIDS could also be expected to be high. Nevertheless, Malaria, measles, acute respiratory infections and diarrhoeal diseases accounted for most of the deaths among displaced persons.¹⁸⁴

Internally displaced populations were throughout southern Mozambique who suffered the most because national resources were even more scarce than in the refugee camps where there had been a concentration of international efforts under the umbrella of the United

¹⁸²Vincent Keane, Health impact of large post-conflict migratory movement: the experience of the Mozambique, Maputo 1996, p.9.

¹⁸³Cherrett, Norwegian Aid and the Environment in Mozambique, pp.54-61

¹⁸⁴Keane, Health impact of large post-conflict migratory movement: the experience of the Mozambique, Maputo 1996, p.9.

Nations High Commissioner for Refugees (UNHCR).¹⁸⁵ The communities and regional administrations where the majority internally displaced populations relocated rarely had the capacity to handle them alone, and responsibility for the care and support of internally displaced populations necessarily fell to a combination of the national government and international bodies, such as the United Nations agencies and Non-Government Organizations (NGOs).¹⁸⁶

Civilian populations were used as a commodity in furthering strategic requirements: refugee populations could assist in transport and in shielding combatants, with large populations accompanying military movements against their will. The implication for carriage and transmission of a variety of chronic diseases between refugee and host populations was enhanced because of the disruption of established medical interventions and loss to follow-up.¹⁸⁷

Among refugee and internally displaced persons, infant mortality rates suggested that children were most seriously affected by the conflict. While all internally displaced persons experienced high rates of acute malnutrition, much of the child mortality increase was a direct of this, together with the added burden of frequent diarrhoea, acute respiratory infections, and vaccine preventable diseases.¹⁸⁸

Malaria transmission had increased in Maputo, and some places in Gaza province. The causes of this increase were malnutrition: overcrowding, insufficient drainage systems, inadequate refuse disposal, migration from endemic areas, poor education and lack of vector control. Populations moved to urban areas in times of armed conflict to avoid conflict and seek employment. Overcrowding resulted in unemployment and degradation of family support and values.¹⁸⁹

¹⁸⁵Keane, Health impact of large post-conflict migratory movement, p.10.

¹⁸⁶Ibid.,p.10.

¹⁸⁷Ibid.,p.10.

¹⁸⁸Ibid.,pp.10-11.

¹⁸⁹Ibid.,pp.10-11.

The conflict not only displaced millions of Mozambicans to ecologically sensitive areas in neighbouring countries and along that country's fragile coast, but also exerted excessive pressure on the environment, polluting those areas, decimating wildlife in national parks, causing widespread land degradation and disrupting environmental management. Products from the wild (fruits, tubers, roots, leaves, fungi, honey, fish, shellfish, wild animals, wood) were found to be important in all communities.¹⁹⁰ They became more important in times of crisis.

All communities declined natural resources within easy reach of their homes. A decline in forest around villages and fish along coast and rivers was frequent. In some areas the war had allowed some recovery of vegetation, however, this was often rapidly being cleared to re-open fields. Plants and animals growing wild were considered available to all without restriction.¹⁹¹ Parts of Xai-Xai, some areas land was generally available under tenure arrangements as long as households were prepared to clear the bush, among the displaced persons. Among the displaced persons, competition for surface water resource was a problem in Massingir and Xai-Xai.¹⁹²

Massingir is one of the 11 districts in Gaza province. It is situated on the western edge of the province and borders the Kruger Park of South Africa. The population was estimated to be only 25,000 people. The war had affected the district from 1984 onwards, restricting people's access to their field and crop production consequently fell.¹⁹³ From 1986 some people started to flee from outlying areas and by 1988/9 most of the population, with the exception of those near the lakeshore had fled their homes. The population in the north of the district (Chimangue, Makanadzulu and other villages) sought refuge in South Africa, with often involved walking across the Kruger Park.¹⁹⁴

¹⁹⁰ Whiteside, Perspectives on the Effects of Conflict at the Village Level-Mozambique, p.14.

¹⁹¹ Ibid., p.14.

¹⁹² Ibid., pp.4-15.

¹⁹³ Ibid., pp. 140-141.

¹⁹⁴ Ibid., pp.140-141.

The population in the south of district fled both to South Africa and to Massingir Sede with a few people also moving to places like Chokwe. The fleeing population generally lost all their possession and all their livestock. The refugees in South Africa generally made their base in Gazankulu, where they received limited relief assistance and were able to cultivate around their huts. From there both men and women generally found work on farms, fruit picking and in construction.¹⁹⁵

Those who fled to Massingir survived with the help of relief food and a number of strategies such as selling charcoal, fish, water melons, and obtained from the few more secure areas near the lakeshore. The villages around the lakeshore became insecure during the conflict but were not permanently abandoned. People fled at times and slept in the bush and many lost their livestock. However, people managed in a limited way to continue farming and fishing.¹⁹⁶

As the numbers of displaced spiraled with time, so the capacity of offer the basic requirements of food, shelter, sanitation and protection became increasingly stressed. Funding was less readily available and the region and its people became more and more disadvantaged as conflict dragged on. Compromised individuals who had fled an intolerable situation frequently found themselves vulnerable, with none of the traditional means of coping with the rigours of survival.¹⁹⁷

The reversal of their fortunes was much more complex than a simple return. At end of the war, was a hostile environment with huge population displacements and very little national infrastructure. The task of facilitating a safe and viable return as well as creating an environment in which populations thrived and grew, was a daunting on. The capacity of the international community to assist national bodies in the return and reintegration process was a most vital and difficult aspect of the peace process.¹⁹⁸

¹⁹⁵Whiteside, Perspectives on the Effects of Conflict at the Village Level-Mozambique, p14.

¹⁹⁶Ibid., pp.140-141.

¹⁹⁷Keane, Health impact of large post-conflict migratory movements, p.12.

¹⁹⁸Ibid., p.12.

At end of armed conflict there were approximately eight million displaced persons in Southern Mozambique: two million refugees and six million internally displaced populations. This represented half of the population of Mozambique. It was estimated that six hundred thousand were killed during the armed conflict. A disproportionately high number of infants and children died, agricultural production fell by over 50%; 40% of health services infrastructure were destroyed.¹⁹⁹ Rural populations became inaccessible and health services could not be provided, resulting in dramatic increases in mortality. Over the course of war, no part of the country was spared, although some areas were more affected than others. Provinces as Inhambane (50% of internally displaced populations), and Gaza (about 45,5%), were among the most seriously affected.²⁰⁰ The combination of military strategies and human rights violations had been instrumental in reducing much of Mozambique's population to a state of chronic famine.

While starvation had been rare, if it had occurred at all, millions of people had endured miserable conditions of prolonged hunger, destitution and hopelessness. The famine, including suffering caused by the breakdown of public health and curative facilities, had cost many more lives than had been lost directly on account of the violence itself. The destruction of houses, *cantinas* and trucks, the forcible displacement of large section of the population, the requisitioning of food and labour, and the blocking or looting of relief supplies had all contributed to artificial food crisis in the country and had also contributed on the environmental problems. At the time, natural adversities such as drought and floods had played only a secondary role the calamity.²⁰¹

While there was reliable evidence that RENAMO or FRELIMO's forces deliberately used starvation in order to punish or kill civilians, the creation of widespread famine was an inevitable and predictable consequence of their military strategies, pursued for other reasons. The drought of 1991/2 had again created widespread famine conditions, and the

¹⁹⁹Ibid.,p.12.

²⁰⁰Kaene, Health impact of large post-conflict migratory movements, p.12.

²⁰¹Conspicuous Destruction, War, Famine and the Reform Process in Mozambique, London 1992, pp.25-41.

war was again preventing the provision of adequate emergency relief to the needy population.²⁰²

Environmental Problems in the Coastal Zone

The coastal zone of Mozambique stretches over 2,700 km from the Rovuma River mouth southwards to *Ponta d'Ouro* on the South African border. It contains rich ecosystems and considerable biodiversity and possesses enormous economic potential including tourism, transport, fishing and agriculture.²⁰³ Mozambique's coast can be divided into three zones: the northern third, stretching from Rovuma to Angoche, comprises a relatively narrow rock or coral line continental shelf. The central third, from Angoche to Bazaruto, is where the outflow of the Zambezi, Pungue and Save rivers has created a muddy or sandy shelf. The southern third, from Bazaruto to *Ponta d'Ouro*, has a rocky bottom.²⁰⁴

There are four distinct coast habitats. Enclosed bays, lagoons and estuaries provide the first category. These areas possess crustacean and finfish resources and also include coastal swamps and wetlands which serve as important breeding grounds for fish and bird life. Mangroves form an important barrier against coast erosion but offer a tempting target for the fast growing shrimp aquaculture industry. Finally, there are the atolls and coral reefs which in all probability have a greater potential as a tourist resource than for commercial fisheries.²⁰⁵

The coast is a complex and fragile ecological zone that faces the most profound environmental problems in the country. During the conflict there were multiple demands upon the resource base and inevitable conflicts over resource use which act to the detriment of sustainable development. Approximately 100,000 people were directly or

²⁰²Southern Africa,(Africa Watch), Peace, prospects in Mozambique, Vol.5 (10) (1992), Johannesburg 1992, p.12.

²⁰³João Siteo, Improving Coastal Zone Management. In: Bernardo Ferraz and Barry Munslow, Sustainable Development in Mozambique, Oxford 1999, pp. 124-125..

²⁰⁴O'Keefe, Mozambique environmental problems, p.313.

²⁰⁵Siteo, Improving Coastal Zone Management, pp.124-125.

indirectly employed in different activities, as for example, fuelwood collection and clearance for agriculture.²⁰⁶ The World Bank (1988a) argued that 40 per cent of the wooded area has been degraded towards scrub. Mangroves had been severely depleted and 70 per cent had been removed.²⁰⁷ Removal of trees was threatened the stability of coastal dunes. Urban and peri-urban areas were, however, suffering fuelwood shortages as a result of population concentration. In Maputo, Gaza, and Inhambane provinces there were firewood problems.

Many of the soils of Inhambane and Gaza are sandy and parched. Steep slopes are a limitation to farming in the west, carrying a risk of soil erosion, but during war there were possibilities for expansion of farming both for agriculture, and for pastoral farming. With all these environmental problems, deforestation, soil degradation and soil erosion, Mozambique faced problems in areas of high population density with a vulnerable resource base because of conflict and natural disasters. Degradation and resource shortages were most severe in peri-urban areas and special environments, such as coastal mangroves and dunes.²⁰⁸

Also people were directly or indirectly employed in the fisheries sector. Approximately 40 per cent of the south Mozambique population, were in some way dependent on the living aquatic resources to sustain their livelihoods. The living aquatic resources were common-property resources with multiple competing users. Conflicts of interest frequently arose between the different user groups, as between sporting and commercial fishermen. There was considerable local resentment against foreign fishermen who, under the cover of tourism, removed a considerable quantity of fish for commercial purposes, taking advantage of the weak institutional capacity for control and surveillance of all fishing activities.²⁰⁹

²⁰⁶O'Keefe, Mozambique environmental problems, pp.308-311.

²⁰⁷Cherrett, Norwegian Aid and the Environment, p.29.

²⁰⁸O'Keefe, Mozambique environmental problems, pp.308-311; and Cherrett, Norwegian Aid and the Environment in Mozambique, p.29.

²⁰⁹Sitoe, Improving Coastal Zone Management, p.126.

Problems existed in the fishing sector, where it was necessary to: establish the size of the resource and catch limits; feed the people; and improve the situation of artisan fishermen who lacked all but the minimum resources. Finally, there was a weak institutional set-up in the sector. Some species such as prawns had reached or exceeded their maximum sustainable off-take limit, whilst there was room for a larger catch to be taken amongst some other species. Other problems in the coastal zone involved creating incentives and a framework to develop marine aquaculture, and more seriously the degradation of the coast and marine ecosystems.²¹⁰

New economic activities was taking place without any order or planning, and degradation of the coastal environment was occurring. Mangroves, sea grass beds and corals are essential parts of marine ecosystems. But in some areas there were being degraded through the use as firewood and use as industrial techniques. Mangroves occupied some 500,000 hectares and were found in 17 different stretches of coastline, occupying some 15 per cent of total coastline.²¹¹ The area under mangrove had been reduced by 70 per cent during the armed conflict period, largely because of cutting for firewood and construction. Mangroves are trees growing in the intertidal zone. Such trees flourish in relatively protected environment, such as estuaries where fine sediment has accumulated.²¹² Problems of uncontrolled and inadequately managed tourism soon became apparent in the 1990s in Bilene, Ponta d'Ouro, Xai-Xai and Maputo, involving the unnecessary felling of trees, destruction of dunes, litter, and general degradation of the coastal and marine ecosystems.²¹³

Degradation of land operated at two levels: Firstly, in some areas there were too many peasant farmers trying to cultivate marginal land with inadequate management techniques based on traditional slash-and-burn methods. Secondly, for commercial farmers using irrigation systems, again inadequate land-use management techniques were being

²¹⁰Bernardo Ferraz and Munslow Barry, National Environment Management Programme. In: Sustainable development in Mozambique, Oxford 1999, pp.103-104.

²¹¹O'Keefe, Mozambique environmental problems, p.315.

²¹²O'Keefe, Mozambique environmental problems, p.315; and Cherrett, Norwegian aid and the environment in Mozambique, pp.28-29.

employed which could lead to Stalinization, alkalization and erosion of soil.²¹⁴ In areas of localized population concentrations, the tree resource had come under pressure. Slash-and-burn cultivation meant that between 35% and 45% of the country's forested areas were estimated to be subject to annual burnings. Mangroves were particularly affected in some area. Finally, challenges in the coastal zone included a degradation of the water resource and mineral resource exploitation.²¹⁵

Negative impacts mentioned by United Nations Environmental Programme (UNEP) in 1988, included unnecessary drainage of swamps and marshes; altered conditions for flora and fauna following alterations to hydrologic regimes; contamination of waters by herbicides and pesticides; alteration to patterns of sediment movement; spread of water-borne diseases such as malaria, and diarrhoea diseases; incision of rivers below dams; high sedimentation rates in reservoirs; and explosive spread of exotic plants on reservoirs. These issues had not been assessed in Mozambique but were secondary to the impact of armed conflict.²¹⁶

The direct discharge of industrial and municipal wastes into ocean was a significant threat to the local coast and marine environment adjacent to the main urban centres, during the conflict, in particular Maputo. The environmental risks also increased considerable in the Matola refining near Maputo, came into operation, both as a result of the operations of the plant itself and of the increase in tanker traffic in Matola Channel. The coastal pollution from ships had been limited. However, there was the notable exception of the Katina P oil tanker spilled of 1992, when about 3,000 tons of heavy fuel oil polluted parts of the coast around Maputo Bay.²¹⁷

²¹³O'Keefe, Mozambique environmental problems, pp.317-320.

²¹⁴Ferraz and Munslow, National Environment Management Programme, pp.104-105.

²¹⁵Ferraz and Munslow, National Environment Management Programme, pp.104-105; and Barry Munslow, The Fuelwood trap: A study of the SADCC Region, London 1988, p.96; and Andrews E. Collins, Environment health and population displacement: Development and change in Mozambique's diarrhoeal disease ecology, Aldershot 1998, pp.185-186.

²¹⁶O'Keefe, Mozambique environmental problems, p.320; and Siteo, Improving Coastal Zone Management, p.126.

²¹⁷Siteo, Improving Coastal Zone Management, p.126; and Whiteside, Perspectives on the Effects of the Conflict at the Village Level-Mozambique, pp.26-27.

The population pressure had a number of negative environmental effects in the coast zone. There was depletion of the mangroves, cleaning of vegetation cover more generally, increased river sedimentation, and erosion, and some traditional agricultural practices such as burning reduced soil fertility. Mangrove destruction caused reduced coastal protection. Mozambique is one of the countries at risk from rising sea water levels as a result of global warming, with extensive low-lying coastal plains subject to storms and extremely high tidal rises.²¹⁸

The majority of the coast is of the soft type, vulnerable erosion. Shifting cultivation led to deforestation and destabilized sand dunes, increasing the risks of dune encroachment along the coastline. Inadequate management of dams exacerbated the problems, along with inadequate management of mining activities.²¹⁹ Further causes of coastal erosion included the practice of agricultural on marginal land and allowing four-wheel-drive cars on beaches or dunes: the erosion occurred mainly on the steep slopes of the western Maputo and Gaza, areas that were of the intense refugee settlement.²²⁰

Population concentration, particularly in the principal urban centres, and intensive economic activities as consequence of the conflict created serious problems of conflicting demands upon the natural resource base of the coastal zone. People settled in these environmentally sensitive areas to escape from the war in the interior and to avail themselves of the limited services, Commercialization and aid disbursement networks available. A particular problem that concerned it was deforestation along coastal zone, including destruction of the mangroves. Livelihood-sustaining activities and economic development more generally in agriculture, industry and settlement were having a negative effect on the coastal and marine environments. In the coastal cities, urban and industrial pollution of the bays was a growing problem.²²¹

²¹⁸ Siteo, Improving Coastal Zone Management, p.131.

²¹⁹ Ibid., p.131.

²²⁰ O'Keefe, Mozambique environmental problems, p.309.

²²¹ O'Keefe, Mozambique environmental problems, pp.309-310; and Ferraz and Munslow, National environment Programme, p.103.

During the war degradation of sanitation systems and low quality of drinking water were the critical environmental issues in the urban areas. Specifically this entailed: deficient and obsolete sanitation systems; population pressure and demand in excess of the system's capacity; poor usage and maintenance of the system; and lack of finance from Municipal Councils.²²² Hence water pipes burst, stagnant and polluted pools of water form, surface and subterranean pollution of water occurred and these flowed into the sea and rivers. Lack of drainage systems in the suburbs of cities and in small and medium-sized towns contributed to the contamination of the urban environment and the spread of disease.²²³

People were forced to use waste water for their domestic needs. Many of the population did not have access to a toilet and defecated in the open air, others used toilets incorrectly. This was a serious problem in some cities as for example in Maputo, Xefina and Inhaca islands and some places of the Matola.²²⁴ The population concentration in some areas was not only because of the conflict. Also the postcolonial State had generally been less tolerant of the forms of organization specific to subordinate social groups unpopulated urban areas, because of the wrong understanding of the word "*poder popular*" (popular power).²²⁵

Industrial waste also was a problem in Maputo and Matola in this period of conflict. The Texlom factory in Maputo used 1,000 tons of caustic soda a month plus other chemicals. The treatment of residues were inadequate, with a high alkaline content discharged into Matola River and sea. Municipal waste was a more widespread problem. Only Maputo had a water treatment process for waste water, but it did not operate efficiently. Strong indications of faecal contamination existed in the Bay of Maputo, due the concentration of the displaced persons. None of the nine main ports had facilities to receive, store and treat shipping wastes, nor to deal with any emergency.²²⁶

²²²Ferraz and Munslow, National Environmental Management Programme, p.105; and Ximena Andrade, Families in a changing environment in Mozambique, Maputo 1987, pp. 95-110.

²²³Andrade, Families in a changing environment in Mozambique, pp.95-110.

²²⁴ *Ibid.*, pp.95-110.

²²⁵Jean-Francoise Bayart, The State in Africa: The politics of the Belly, New York 1993, p.187.

²²⁶Ferraz and Munslow, National environment Management Programme, p.104.

Also environmental education sector, during armed conflict was required in Mozambique. But in formal education sector, there was not environmental education. Between 1983 and 1992; 3,402 out of 5,886 schools were either closed or destroyed. The closure of schools plus the increase in population had put the educational system under great stress. That was in the context of poor national indices for literacy and unacceptably low educational level for the population as a whole.²²⁷

There was no coherent, all-encompassing approach to environmental education in the system. In the no-formal sector, problems included: the lack of a government policy to stimulate environmental education; environmental issues did not command the public's attention to the required and were scarcely considered; a high level of illiteracy meant teaching methods had to be adapted to people's culture and traditions. All these educational problems, also contributed in the environmental problems in coastal zone.²²⁸

Moreover, there was weak institutional capacity for the rational management of the natural resource base. Only the 1990 Constitution was for the first time explicit in relation to the environment. Not until the 1990s did the government begin to develop an institutional capacity for environment management. That still remained weak and needed support into the medium to long term. The government took further steps to develop its policy framework with its production of the national report to Rio Earth summit of 1992.²²⁹

Thus, a National Environment Commission (CAN) was set up in 1992 and a Ministry for the Co-ordination of Environmental Action (MICOA) at the end of 1994, yet still in the final years of the 1990s it remained unclear how well top-level inter-sectorial co-ordination would operate, not only at the level of government ministries, but in the

²²⁷Ibid., p.104

²²⁸Ibid., p.104.

²²⁹Ibid., pp.99-103.

increasingly important arena of the interface between state institutions, the private sector and Non- governmental organizations.²³⁰

Deforestation, Soil Degradation and Soil Erosion

This section begins by examining the very particular and grave deforestation, soil degradation and soil erosion situation during the war that was identified by Phil O'Keefe, World Bank 1988a, and UNEP 1988, as the main environmental problem in southern Mozambique. These institutions, had also identified the deforestation as the main environmental issue with logging, fuelwood collection and clearance for agriculture identified as the major causes.²³¹ The environmental functions and services of the forest ecosystem were reduced or even lost, depending on the extent of deforestation.

Forests protect the soils from the tropical rainfall and its effects on erosion. But in southern Mozambique, during the war, deforestation increased soil erosion, especially in the coastal zones of the Gaza(Xai-Xai, Bilene, Chokwe, Chibuto and Guija districts), Maputo (Magude, Inhaca and Xefina islands, Costa do Sol, Moamba, Manhiça, and Namaacha districts), and Inhambane (Mabote, Vilanculos, Tomé and Funhalour districts) where the high concentration of people living within 50 kilometres of the coastal (an estimated 50 per cent), increased the real population density.²³²

The conflict provoked the assimilation of new behaviours and attitudes in relation to natural resources and caused weak cohesion and solidarity among people. The sacred places were violated in reach of fuelwood and there was dislocation of people from their areas of origin. These people found themselves in situations of extreme poverty. This situation obliged them, to survive, to collect out from the nature all what could be

²³⁰Ibid., pp.99-103.

²³¹Cherrett, et al., Norwegian Aid and the Environment in Mozambique, pp.1-3.

²³²Ibid.,p.3.

immediately marketed used.²³³ They cut mangroves and other protected trees for fuelwood or charcoal production.

Some of the worst deforestation, soil degradation and erosion had occurred in the three southern provinces due the population concentration in zones that were considered relative safety. Thus deforestation also changed the proportion of the incident light of the land surface in the region. For example, more particular mangroves had been several depleted at the time.²³⁴

Deforestation and other unsustainable use of marginal lands had left in the southern Mozambique in wasteland increased losses form flooding, and reduced dry season river flows, thus, probability could cause salinization of coastal agricultural lands. Rural people were particularly dependent on forests for meeting part of their basic needs such as fuelwood, and land clearance. Millions of rural people lived on incomes below the minimum on which they could be expected to survive, because their direct access to subsistence goods harvested from natural allowed them to survive on their current incomes.²³⁵

Deforestation was pushing them to the edge of survival driving environmental refugees into city slums. Loss the forest was also leading to the disruption of traditional occupations and greater impoverishment. The number of people in southern Mozambique that lived under marginalized conditions had risen dramatically in this period (1980-1992).²³⁶ In 1986 30% of the population did not have an adequate dietary energy supply. In a number of the south of Mozambique one of the main reasons for this was soil erosion, and yet technocratic and official policies had demonstrated little if any progress

²³³I. Lopes, Pressão populacional na zona Costeira-Mito ou Facto? In: D. Dias, et alii, (eds). Proceeding of the Workshop- o papel da Investigação na Gestão da zona costeira, Maputo 1996, pp.22-25; and J.M. Mafalacusser, The use of indigenous knowledge for Land use Planning in a part of Xai-Xai District, Gaza province, Mozambique. International Institute for Aerospace Survey and Earth Science. Enschede, The Netherland 1995, p.135.

²³⁴Lopes, Pressão populacional na zona Costeira-Mito ou Facto? p.22.

²³⁵G.G. Garland, Erosion, Economic and Rural survival, in: Workbook, 2nd Southern African International Conference on Environmental Management, University of Natal 1994, p.239.

²³⁶Ibid., p.239.

at all towards addressing the problem. This was despite the fact that conservation technicians in this field had realized that much of the technical knowledge necessary to solve the problem of soil erosion had been not available.²³⁷

Nevertheless, in several cases crop failure previously attributed to drought was known to be due in large measure to soil erosion. Erosion degraded land and reduced moisture retention capacity, such that minor droughts which would once have caused tolerable falls in yield could result in catastrophic declines in agricultural production, followed by famine, social collapse and even war. At farm level, the risk of total crop failure was greatly enhanced as land became degraded by soil loss.²³⁸

With all three environmental problems, deforestation, soil degradation and soil erosion, Mozambique faced problems in areas of high population density, in coastal zones, about 50 people per sqkm.²³⁹ Degradation and resource shortage were most severe in peri-urban areas because of the concentration of the displaced persons; and deforestation was severe along the coast and around the capital Maputo.²⁴⁰ Severe deforestation had also occurred due to the influx of the displaced persons in some areas such as in urban, peri-urban and coastal zones between 1981 to 1990s without control. Nevertheless, the World Bank calculated that 40 per cent of the wooded area had been degraded towards scrub during the conflict, in Gaza and Maputo provinces between 1987-1988.²⁴¹

Around some villages of Maputo, as for example, in Namaacha, Boane, Moamba; and in Gaza, Massingir, Chicualacuala and Chokwe districts, women traveled long distances in a search for fuelwood in the 1980s. Thus removal of trees threatened the stability of fragile zones in these places.²⁴² Charcoal played and continues to play an important role in some urban places, during and after the armed conflict. In the inland of Maputo, fuelwood was

²³⁷Ibid., p.239.

²³⁸Ibid., p.239.

²³⁹Mafalacusser, The use of Indigenous knowledge for land use planning in a part of Xai-Xai district, p.135.

²⁴⁰Ibid., p.135.

²⁴¹Cherrett, Norwegian Aid and the Environment in Mozambique, p.18.

²⁴²Ibid., p.16.

transported by women in the head, and by private traders using lorries or vans between 50-60 kilometres to suburbs to the capital city for sale and domestic use.²⁴³ However, the conflict was responsible for destruction of traditional systems of natural source management including common property rights

In southern Mozambique, there had been traditional forms of natural resources management based on common property rights. The example included: (1) exploitation of mussels; (2) salt extraction; (3) fishing in lagoons and use of traditional water sources; (4) common use of sacred areas; (5) common use of rangelands; (6) common use of medicinal plants and some wild fruits; (7) common use of miombo forest for mushroom collection, and (8) common use of forest for various other wood and non-wood forest products. These *modus vivendi* of the populations were altered in the period of the conflict.²⁴⁴

Nevertheless, the generic term “deforestation” is used so ambiguously that it is virtually meaningless as a description of land-use change.²⁴⁵ However, for southern Mozambique, it had been used at time to refer to any or all of the following activities with respect to existing forest: fuel wood cutting; commercial logging, shifting cultivation; forest clearing for conversion to continuous annual cropping, to grazing, to food, beverage or industrial tree crops; and finally where burning had produced a degraded forest or savannah.²⁴⁶

Therefore, rural fuelwood collection contributed to deforestation, because rural house consumption constituted more than 50 per cent of total household domestic fuelwood use in southern Mozambique, in this period 1980 to 1992. Estimates of deforestation caused by fuelwood consumption assumed that all the wood and charcoal used in urban areas

²⁴³Mafalacussr, The use of Indigenous knowledge for land use planning in a part of Xai-Xai district, p.135.

²⁴⁴<http://dlc.dlib.indiana.edu/documents/dir0/00/00/02/35/index.html>

²⁴⁵J. Ives and D.C. Pitt, Deforestation: Social Dynamics in Watersheds and Mountain Ecosystems, London 1988, p.75.

²⁴⁶*Ibid.*, p.135.

came from areas cleared primarily to harvest wood.²⁴⁷ But in accessible areas the forest biomass cleared during land preparation for cultivation was sold or converted to charcoal for sale in urban areas.

However, harvesters therefore did not desertify the lands from which they extracted urban energy supplies and the fact that such deforested lands might later be abused by uncontrolled bush burning which retard forest regeneration had little to do with the provision of fuelwood to urban areas. The consumption for forestland had also contributed the soil deterioration. And the predominant role of agriculture in reducing forest cover was similar in the other southern Mozambique areas.²⁴⁸

At the time, most fuelwood came not only from cutting live trees for fuel, but from surplus wood left over from clearing land for agriculture, or from lopping branches of trees standing on farms that were valued for many other purposes besides fuel supply (e.g. shade, fruit, or building poles). There was not just one, very big problem of energy supply, but many smaller problems of command over trees and their products to meet a wide range of basic needs, including food, shelter, income and investment. Since these problems took different forms for different populations in different places, the range of potential solutions was equally diverse.²⁴⁹ These problems influenced the major concerns in contemporary environment and development debates in Mozambique, including deforestation, range land degradation, soil erosion and the depletion of wildlife biodiversity.

The land resource, despite the seasonally of rainfall, is generally favourable to farming, though the effects of droughts, such as that of 1983-84 and the less severe one of 1988 which affected much of the coastal zone.²⁵⁰ Soil vary considerably, in relation to topographic location and mineral content. The soils of the north of Inhambane, and Gaza

²⁴⁷Ibid., p.135.

²⁴⁸Ibid., p.135.

²⁴⁹Mellisa Leach and Robin Mearns, The lie of the Land: African issues: Challenging received widsow on the African environment, London 1996, pp.2-3.

²⁵⁰Cherrett, Norwegian Aid and the environment in Mozambique, p.18.

in Xai-Xai and Bilene-Macia districts (coastal zones), are sandy and parched. Steep slopes are a limitation to farming in the west of these two provinces, carrying a risk of soil erosion.²⁵¹

During the armed conflict and due the population concentration in these coastline areas, there were expansion of farming for agriculture. State farms were much more than private and peasants farms, in the Baixo Limpopo (for example, CAIL and Chilembene) and they depended on inputs of fertilizer, seed, pesticides and machinery and hired labour.²⁵²

In 1987, there were some state farms in Baixo Limpopo, such as CAIL and Chilembene enterprises, which were involved in monoculture of rice, entailing a higher risk of soil erosion. Technically these farms were inefficient. The prevention of erosion on cultivated land depends essentially on the reduction of soil detachment and the velocity of run-off, and on grazing land on the maintenance of adequate vegetative ground cover.²⁵³ But in the time of conflict, in southern Mozambique, arable land management was through shifting cultivation, and bush reduction by burning of grass, from 1980s to 1990s.²⁵⁴

Though erosion was not a generalized problem, in the coastal zones of the three southern Mozambique provinces, however, there were a number of sites where erosion was a serious issue. On the steep slopes of the lavas of the western Maputo (Namaacha, Boane, and Moamba districts); and in Gaza, Xai-Xai and Bilene-Macia districts), erosion risk was high. In these places, soil conditions were likely to generate in areas where populations had fled but deteriorated in areas of population concentration.²⁵⁵ Nevertheless, the family sector needed land not only for cultivation and fallow, but also

²⁵¹Ibid., pp.18-19.

²⁵²Ibid., pp.18-20

²⁵³Leslie E. Sponsel, et al, Tropical Deforestation: The Human Dimension, Columbia University Press 1996, p.178.

²⁵⁴Cherrett, Norwegian Aid and the environment in Mozambique, pp.18-20.

²⁵⁵Cherrett, Norwegian Aid and the Environment in Mozambique, p.14.

for grazing, firewood, construction timber, and medicinal plants. The importance of these products, usually were obtained from common land.²⁵⁶

Agricultural land use, in the marginal lands had altered significantly, largely in accordance with changes in farm-household organization and the social relations of production in the context of shifts in wider political and economic structure. The cases of the coastal zones exemplified many of the factors implicated in these changes, but these had operated in different ways in different places. As different farming modes had particular impact on vegetation, changes in their balance played a part in patterns of vegetation change. The increases in intensive swamp forest and fallow had been permanently cleared for frequent, ---often annual---cassava or rice cropping.²⁵⁷

Therefore, in southern Mozambique where livestock were important both for traditional and commercial farmers, and overstocking had frequently been cited as major causes of denudation, desiccation and erosion in the 1980s. So growing population in some areas a result of the war, contributed to environmental problems.²⁵⁸ Therefore, there was little evidence of the severe natural degradation, rather it occurred in locally specific sites. Famine, malnutrition and population movements were, however, directly related to the impact of war, not to nature.

The Impact of the Armed Conflict on Wildlife and Wildlife Reserves

Mozambique is one of the Southern African countries with rich wildlife potential, both in quantity and in the diversity of species.²⁵⁹ This potential was used in various ways. It was after independence by the National Forestry and Wildlife Directorate (DNFFB), whose

²⁵⁶Whiteside, Perspectives on the Effects of Conflict at the Village Level-Mozambique, pp.23-143.

²⁵⁷O'Keefe, Mozambican environmental problems, p.130.

²⁵⁸Ibid., p.310.

²⁵⁹António Gumende, Banditry and the Destruction of Mozambique's wildlife, Mozambique Information Office (MIO), News review (132) 30/6/88, London 1988,(unpaginated); and

task is the correct odd, that is, exploitation and protection of animals. With the spread of the armed conflict, in southern Mozambique, from in the 1980s, the situation worsened and there was destruction of important resources, such as elephant population, leopards, Zebra and some medicinal plants, etc., set aside for wildlife protection.²⁶⁰

The use destructive of wildlife resources by commercial poachers and Renamo, during the conflict, on the part of poachers seeking trophies and skins was a major contribution to decimation of protected species such as elephants, and rhinoceros. Also the black rhinoceros and antelopes were too sweeping.²⁶¹ The sad reality was that the wildlife populations had been dramatically reduced, and that the environments in which they occurred were badly neglected during the years of armed conflict. Thus, the unsustainable—and often—illegal use of these resources was leading to their rapid depletion.²⁶²

Management of natural resources in these parks and reserves had been impossible, because the conflict had made wildlife areas inaccessible to control, and thus had caused widespread destruction of the wildlife population. The conflict not only displaced 100,000 of Mozambicans in southern Mozambique to ecologically sensitive areas in neighbouring countries and along that country's fragile coast, from 1980s to 1990s, but also exerted excessive pressure on the environment, decimating wildlife parks and reserves, causing widespread and disrupting environmental management.²⁶³ National parks and protected areas play a key role in preserving the biological diversity of woodland and forest areas. Because with these elements, there is nature balance, avoiding thus, the environmental degradation. Deforestation results in loss of biodiversity. And biodiversity can be protected only if rural poverty is alleviated. There are examples of land-hungry people encroaching on wildlife conservation in many parts of the southern Mozambique. Therefore, Mozambique's protected areas had been affected during the

Moçambique Bureau de Informação Pública, Environment: Mozambique, Maputo 1993, (unpaginated).

²⁶⁰Gumende, Banditry and the Destruction of Mozambique's wildlife, (unpaginated).

²⁶¹Ibid., (unpaginated).

²⁶²Ibid., (unpaginated)

conflict.²⁶⁴ For example, the size of Maputo reserve was reduced three times in 15 years, because of people moving into the area. In reality, even prior to the conflict, southern Mozambique parks and wildlife reserves had a permanent population of settlers.²⁶⁵ As the conflict progressed, more people moved into these places by fear, because both sides, (FRELIMO and RENAMO), looked for to control major number of populations.

During the conflict there were migrations of populations from one rural area to another, especially to the reserves or to the parks, where they found a relative security and bush meat. Because in some parks or reserves there were FRELIMO or RENAMO's military bases. This situation provoked serious environmental problems on the wildlife.²⁶⁶

For example, the majority of the persons who had to flee from attacks of RENAMO or FRELIMO's forces in the communal villages of 3 de Fevereiro in the Manhiça district, in Maputo province; and Massingir and Eduardo Mondlane districts, in Gaza province, in 1984, did not move to cities, but to the other rural areas.²⁶⁷ Therefore, it can consider that during the conflict there were two tendencies of the rural population: the tendency to migrate to urban and peri-urban areas, but also the much more widespread tendency to remain in the rural areas, even under extreme difficult conditions.

The principal parks and reserves of the south of Mozambique are: Banhine park in Gaza province (7,000 square kilometres); Zinhave park in Inhambane province (3,700 square kilometres), and Bazaruto park, offshore from Inhambane province (150 square kilometres). Pomene Reserve in Inhambane province (200 square kilometres).²⁶⁸ And Maputo Elephant Reserve in Maputo province (700 square kilometers). It spreads from the southern tip of Inhaca island to the country's southern border with South Africa. The terrain is distinctive in that it covers a wide spectrum of habitats, from rolling grass plans

²⁶³Ian Michler, *This is Mozambique*, London 1999, p.32.

²⁶⁴Michler, *This is Mozambique*, p.32.

²⁶⁵Ibid., p.32.

²⁶⁶Ibid., p.32.

²⁶⁷Ibid., pp.30-32.

²⁶⁸Ibid.,p.32.

scattered with patches of sand coastal dune forest to lagoons, swampy marshland and length stretch of untouched coastline.²⁶⁹

This territory was once ranged by large herds of elephant and plains game, as well as numerous predator species, but the reserve experienced steep declines in its animal populations due to extensive poaching and the effects of the conflict. The elephant population decreased during the conflict, but 180 animals remained until in 1992.²⁷⁰ Crocodile, hippo and a variety of smaller creatures, such as side-striped jackal, were the only species that survived the slaughter. This situation had been provoked, mainly as a result of poaching both by RENAMO and FRELIMO's forces.²⁷¹

The thirteen controlled hunting areas, known as Coutadas, range in size from just over 1,000 square kilometers to the largest, Coutada 16, at 10,000 square kilometres between the Elefantes and Limpopo Rivers covering part of Massingir and Chicualacuala districts (24,888 square kilometres) and is localized along the border with south Africa's Kruger National Park.²⁷² Although no figures are available, many of the large animals in Coutada 16 were killed during the war. Although hunting had been controlled in the area for many years, in the time of the conflict, small scale subsistence hunting by the local populations had continued.²⁷³

The local population needed access to the Coutada for field, grazing, gathering wild foods and ideally for subsistence hunting. Also the local population needed access to the Coutada because in the Coutada there were a wide variety of plant species that were used for medicinal purposes, construction of houses, domestic utensils, firewood and charcoal.

²⁶⁹Finnegan, A Complicated war, p.120; and Gumende, Banditry and the Destruction of Mozambique's wildlife (unpaginated).

²⁷⁰Finnegan, A Complicated war, p.120

²⁷¹Ibid., p.260.

²⁷²Stefanie Knauder, Globalization, urban progress, urban problems, rural disadvantages: evidence from Mozambique, University of Vienna-Burlington 2000, p.97; and Whiteside, Perspectives on the Effects of Conflict at the Village Level-Mozambique, p.143.

²⁷³Knauder, Globalization, urban progress, urban problems, rural disadvantages: evidence from Mozambique, p.97; Whiteside, Perspectives on the effects of Conflict at the Village level-Mozambique, p.143.

And some wild fruits that existed in the Coutada were as dietary supplements, among the populations, especially during periods of hunger²⁷⁴ The country has seventeen forest reserves totaling an area of about 4,500 square kilometres the majority localized in the province of Maputo, and Gaza only had one forest reserve.²⁷⁵

The indiscriminate slaughter of wild animals by armed conflict in Mozambique's national parks and game reserves had led to a decline in the country's elephant population from 54,800 in 1979 to an estimated 16,600 in 1988.²⁷⁶ The decline in the elephant population was alarming. The greatest slaughter took place in the period 1985-1990 when Mozambique lost between 20-70 per cent of its elephants.²⁷⁷

During the armed conflict, illegal ivory trading was a major source of income for RENAMO. RENAMO passed ivory South Africa Defence Force, in exchange for weapons, ammunition, other supplies or money.²⁷⁸ Matutuine's pre-armed conflict, in Maputo province, elephant population of 350 was depleted during the conflict to an estimated 30-55 head, along with population of rhino, hippo and other animals.²⁷⁹

South of the Elephants River, in southern Mozambique region, great swaths of stunted knob-thorn and marula-tree savannah spread east as far as the foot-hills of Mozambique's Lebombo Mountain. These hot, scrubby plains were the grazing grounds of zebras, wildebeests, and impalas, as well as their hungry predators: leopards, cheetahs, wild

²⁷⁴Whiteside, Perspectives on the effects of Conflict at the village Level-Mozambique, pp.140-144.

²⁷⁵Michler, This is Mozambique, p.32.

²⁷⁶Finnegan, A Complicated War, p.120.

²⁷⁷Ibid., p.120.

²⁷⁸Stephen Ellis, Of Elephants and men: Politics and nature Conservation in South Africa. In: Journal of Southern African Studies. Vol.12, No.1, March 1994, University of York-Herington 1994, pp.53-63; Jon Hutton and Barnabas Dickson, Endangered species, threatened Convention: the past, present and future of CITES, the Convention on International Trade in Endangered species of Wild Fauna and Flora, London 2000, p.53; and Finnegan, A Complicated War, p.260.

²⁷⁹Ellis, Of Elephants and men: Politics and nature Conservation in South Africa. In: Journal of Southern African Studies. Vol.12, No.1, March 1994, University of York-Herington 1994, pp.53-63; Hutton, and Dickson, Endangered species, threatened Convention, p.53; and Finnegan, A Complicated War, p.260.

dogs, and lions. In fact, these mammals were decimated when the armed conflict spread all southern Mozambique in 1982/3.²⁸⁰

Natural disasters, Drought and Floods, and their Influence on Public Health

Mozambique, since gaining its independence in 1975, had been forced to concentrate its limited material and human resources on the defense and survival of its population. The decade-long armed conflict of attrition waged by RENAMO had targeted the economic and social infrastructure of the country with a view to paralyzing its productive capacity and that of its people. As a result of this situation, Mozambique had become dependent on external aid for 90 per cent of its market and relief cereal needs.²⁸¹

The country's per capita income level, estimated at \$US150, was among the lowest in the world. Studies that the UNICEF did, they showed that infant mortality was the second highest in the world, with one out of every three children dying before reaching the age of five. And these studies revealed that 90 per cent of the population was living below the poverty level, with 60 per cent of that number living in absolute poverty.²⁸²

By late 1986 the combined impact of armed conflict and natural disasters resulted in a situation where 3.2 million Mozambican peasants had been displaced or otherwise affected. Facing the combined impact of prolonged drought and floods, cyclones and war, government realized it no longer had sufficient resources to provide the food and other basic commodities necessary to avert widespread starvation.²⁸³

Thus, the first international appeal for emergency assistance for Mozambique was launched at Geneva in February 1987. Over \$US 330 million were pledged by the donor

²⁸⁰Shales Melissa, *African Safari*, London 2000, p.62.

²⁸¹Government of Mozambique, *The Emergency Situation in Mozambique: Priority requirements for the period 1990-1991*. Prepared by Government of Mozambique in collaboration with the United Nations, New York 1990, p.2.

²⁸²Ibid., p.2.

²⁸³Ibid., p.2.

community, including the monetary equivalent of 755,100 tons of food aid.²⁸⁴ Because of the country's widespread food shortages, this aid was necessary to meet the needs not only of the totally destitute displaced and severely affected families in the rural areas who received free food but also the rural wage earners and urban dwellers who purchased the food at subsidized prices through the market distribution system.²⁸⁵

By mid-eighties, the emergency took on additional dimensions as the impact of the conflict overwhelmed events. The Mozambican government recognized that it required more and more relief aid, as the number of internally displaced persons, affected rural populations and Mozambicans seeking security as refugees in neighbouring countries increased. These massive population movements pushed the country to a protracted complex emergency, primarily provoked by conflict, and second provoked by natural disasters (drought, floods and cyclones).²⁸⁶ RENAMO's attacks had devastated Mozambique's economy bringing agricultural production a standstill, and forcing the internal and external migration of close to one quarter of the total population that lived in southern Mozambique.²⁸⁷

Intermittent drought and the intensification of war in the mid-eighties, necessitated the setting up of the United Nations Office for Emergency Operations (OEOA) in Southern Mozambique in 1984. Until 1987, the emergency in Mozambique was defined as being caused in large part by natural disasters i.e. drought, floods and cyclones.²⁸⁸

For example, in the Matutuine district, in Maputo, local communities remaining with RENAMO were small in size and had little significant surplus grain in the wake of the droughts of the early eighties, the destruction wreaked by "Cyclone Demoina" in 1984 and subsequent droughts on January 28, 29, 1984. The Cyclone Demoina struck the

²⁸⁴Ibid., pp.2-3.

²⁸⁵Ibid., pp.2-3.

²⁸⁶Sam Banes, Humanitarian aid co-ordination during and peace in Mozambique 1985-1995, Uppsala 1998, pp.8-11.

²⁸⁷Ibid., pp.8-11.

²⁸⁸Ibid., pp.8-11.

Southern parts of Mozambique, resulting in several storms and floods.²⁸⁹ More than 100 persons were killed, 9,500 families lost all their belongings, some 70,000 families lost their harvests and irrigation systems, roads, bridges, electricity supply lines, buildings and other infrastructure were destroyed.²⁹⁰ The total material damage caused by Demoina was estimated at around \$US75 million. Two weeks later the Ministry of Agriculture presented a programme for the rehabilitation of damaged projects within the second Mozambique Nordic Agriculture Programme (MONAP), amounting to \$US1,650,000.²⁹¹ The estimates had been made by project staff, instructed by the MONAP co-ordination unit to plan the rehabilitation of projects to the same level of activity that each project had achieved before the cyclone. This goal also became the objective of the subsequent rehabilitation programmes.²⁹²

Southern Mozambique has always had to cope with great variations in the natural environment. The droughts of 1981-1983 provoked migrants moving through the districts of Matutuine and Namaacha. This fact could be identified in two waves of out migration. The first was a relatively small movement provoked by drought and the second was a full scale exodus accompanying the first attacks of the RENAMO's forces.²⁹³

Mozambique is rich in natural resources. The agricultural potential is among the highest in Africa, but the people inherited an underdeveloped economy. The people are extremely vulnerable, and even disturbances can lead to disaster situations. Natural hazards are typical phenomena which have led to emergency situations. It was estimated that the drought in southern Mozambique in 1982-83 caused about 100,000 deaths.²⁹⁴

²⁸⁹Tom Alberts and Krister Eduards, Drought and Destabilisation: An Evaluation of Swedish Disaster Relief in Mozambique, 1983 to 1985, Värnamo-Stokholm 1987, p.50; and JoAnn McGregor, Staking Their Claims: Land Dispute in Southern Mozambique, University of Wisconsin-Madison 1987, pp.43-53.

²⁹⁰Alberts and Eduards, Drought and Destabilisation, p.50; and McGregor, Staking Their Claims, p.43-53.

²⁹¹McGregor, Staking Their Claims, pp.43-53.

²⁹²Alberts and Eduards, Drought and Destabilization in Mozambique, p.50; and McGregor, Staking their Claims, pp.43-53.

²⁹³Alberts and Eduards, Drought and Destabilization in Mozambique, p.5.

Western donors did very little during these drought years to assist the affected people. In part this could be explained by reluctance of the West to give support to a staunch Marxist regime. It was probably equally true that because Western donors then primarily directed their efforts to disaster relief programmes in the Sahel region, particularly in Ethiopia, and the effects of the Mozambican drought were not appreciated.²⁹⁵

The drought and famine of 1983 crippled the country. Faced with this dire situation and the reality of a failed Socialist experiment, FRELIMO opened Mozambique to the West in return for Western aid.²⁹⁶ When Mozambique joined the World bank, the International Monetary Fund and had signed an agreement with South Africa in 1984, Western aid to Mozambique had increased substantially. Mounting economic difficulties, armed attacks on economic targets and people, and natural hazards had shattered the economy and left a greater part of the Mozambican population subject to an imminent threat of starvation.²⁹⁷

However, Mozambique has been faced a regular cycle of droughts and floods: Between 1976-1978 there were floods. All major rivers were affected, causing deaths and great damage. The Limpopo River floods in 1977 were the most worst on record; at least 300 people died, and 400,000 were affected.²⁹⁸

Severe flooding which hit the Baixo Limpopo in early 1977, right at the time of the Third Congress, greatly facilitated government attempts to promote the formation and occupation of communal villages in the area. Though the floods compounded the difficulties of the co-operative and state farm sectors, the massive popular dislocations caused by floods made it easier for the government to persuade people in communal villages on the high ground above the Limpopo flood plain, without to observe the

²⁹⁴ Ibid., p.5.

²⁹⁵ Ibid., p.5.

²⁹⁶ Mary Fitzpatrick, *Mozambique*, 1st ed., London 2000, p.15; and Frances Christie and Hanlon, *Mozambique and the Great Flood of 2000*, Oxford 2001, pp.10-11.

²⁹⁷ Alberts and Eduards, *Drought and Destabilization*, pp.5-7.

²⁹⁸ Ibid., pp.5-7.

environmental conditions.²⁹⁹ As a result of stepped up mobilization and a rapidly implemented programme of permanent resettlement of the displaced population, 18 communal villages had been created in the Baixo Limpopo by the end of 1978, housing approximately 80,000 people, or just under half the rural population of the area.³⁰⁰

In keeping with the directives issued by the Third Congress, government authorities also instituted a global planning process for agricultural production through out the province, beginning with the 1977-1978 agricultural campaign. Peasant and private sector agriculture, however, were assigned only a minimal role in the plans which were made.³⁰¹

As a consequence of the floods of 1977 and droughts of 1981-1984 the worst droughts in Southern Africa killed 100,000 Mozambican, and affected 4.5 million others. Since in 1977 agricultural production decreased to alarmingly low levels as a consequence of the floods armed conflict, unfavourable climatic conditions, the adoption of inadequate policies and general world situation, forcing the population to depend on external aid.³⁰² The natural disasters and the conflict not only destroyed the socio-economic infrastructure, but also forced an important part of the Mozambican population to become displaced persons or refugees, thus limiting the expansion of the health programmes.

And the droughts of 1991-1992/3, Mozambique News Agency (Agência de Informação de Moçambique-AIM) warned that the drought of that years had pushed Mozambique to the brink of a major famine, which could be worse than of 1983. Food shortages in rural areas of Mozambique were so serious that RENAMO could not get food for its guerrillas,

²⁹⁹Roesch, Peasants and People's power in Mozambique: the experience of the Baixo Limpopo, Trent University-Ontario 1991, pp.20-21.

³⁰⁰Ibid., pp.20-21.

³⁰¹Ibid., pp.20-21.

³⁰²Christie and Hanlon, Mozambique and the Great flood of 2000, pp.10-11; and Mozambique National Commission of Planning National Direction of Statistics Population and Planning Unit, Mozambique National Report on Population and Development, Maputo 1993, p.1; and Covane, Oral Fieldwork in a war zone: Mozambique, 1991-1992. In: the Societies of Southern Africa in the 19th and 20th centuries, University of London 1994, pp.191-194.

pushing it towards a peace settlement.³⁰³ The drought broke in 1993, but resumed in south of Mozambique during the following season. The Limpopo River had all but dried up, leaving the river valley in Chokwé district, considered a granary under normal circumstances, completely parched and resembling a football field.³⁰⁴

Other consequences of the floods of 1977 and droughts of 1981-1984, in 1992 the locality of Inhamissa of the southern province of Gaza was no longer inhabited only by its pre-1977 population. The combination of the natural disasters with FRELIMO's plan of socialization of the countryside and the armed conflict shaped the demographic picture in Inhamissa.³⁰⁵ In attempt to clarify the social and political environment in Inhamissa at that time, the conflict and famine led to significant emotional and ethical problems. It was clear that people were seriously preoccupied with the challenge of the instability of the economy and their lack of security.

The combination of droughts and war and their negative influence on FRELIMO's attempts at socializing agriculture generally seemed to have undermined people's capacity to read the colonial period. Their current unfortunate and difficult economy situation gave rise to very positive memories of the past. People apparently considered the colonial period as having had more to offer than the post-colonial era.³⁰⁶ Clinging to past memories seemed to be a reflection of their lack of positive hope for the present and future. Their reading of the past was a reflection of the pressure of armed conflict and famine.

The Limpopo's floods and the prolonged war between the FRELIMO government and RENAMO, as well as drought in 1980s, contributed to the failure of the communal villages, state farms and agricultural co-operatives to attract and stabilize male labour in

³⁰³Mozambique National Commission of Planning National Direction of Statistics Population and Planning Unit, Mozambique National Report on Population and development, p.1.

³⁰⁴Christie and Hanlon, Mozambique and the Great flood of 2000, pp.10-11; and Mozambique National Commission of Planning National Direction of Statistics Population and Planning Unit, Mozambique National Report on Population and Development, Maputo 1993, p.1.

³⁰⁵Covane, Migrant Labour and agriculture in Southern Mozambique with special reference to the Lower Limpopo valley, p.286.

the Limpopo valley, and pushed peasants towards new survival strategies mainly in Xai-Xai city and its surrounding area.³⁰⁷ Also there were other several reasons for deterioration in agriculture. The lack rainfall and other natural disasters such as floods of 1977, prevented normal agricultural production in the first years after independence.

Under these unfavourable conditions agriculture was no longer main economic support. Thus, drought, floods and armed conflict increased the migration of Mozambicans into South Africa and Swaziland.³⁰⁸ In this period, in Inhamissa agriculture collapsed due natural disasters such as drought and floods, but mainly due the lack of technical assistance in terms of the regular cleaning of drainage and irrigation channels and provision of improved seeds. Rural trade seemed to have collapsed as a consequence of the flight from the country of the Portuguese Shopkeepers who had virtually monopolized the rural trade. In that period Mozambicans were unable to replace them because they lacked the finances and trade. And from the 1980s the armed conflict worsened the situation.³⁰⁹

Large areas of the countryside soon became dangerous for the movement of both military and civilians. The spread of violence conflict disrupted agricultural production and drove many rural dwellers into the principal cities of Maputo, Xai-Xai, Inhambane, Maxixe, and Chokwé. The onset of drought between 1982 and 1984 accelerated a mounting shortage of food. In the 1983/84 growing season, a famine in Gaza and Inhambane provinces killed tens of thousands of people.³¹⁰ In addition to conflict and natural disasters, the movement of people, including repatriated refugees and displaced people, disrupted productive activities and the satisfaction of basic needs. The structural

³⁰⁶Covane, Migrant Labour and Agriculture in Southern Mozambique, p.186.

³⁰⁷Ibid.,p.286.

³⁰⁸Ibid.,p.305.

³⁰⁹Ibid.,p.305.

³¹⁰Alcinda Abreu, Strengthening Human Resources Capacity for Community-Based Sustainable Development. In: Ferraz and Munslow, Sustainable Development in Mozambique, p.140; and Ghali, The United Nations and Mozambique 1992-1995, p.10

adjustment measures had helped make the situation worse because of the rapid and steep had rose in the price of basic products and other goods and the lying off workers.³¹¹

At the same time, the deterioration of basic services such as health, water supply, education and housing had serious consequences for human capital and social welfare. The drought was also causing people to move from the interior towards the coastal areas and towards government controlled centres. The situation was noted along the Limpopo Corridor.³¹² In 1992 to assess the drought situation confirmed that almost total loss of the main cereal crops in the South of country, and substantial amounts of extra food aid was needed. The drinking water supply was several affected. Perennial rivers and wells were drying up and the water table was becoming precariously low in many areas. At the time, there were long queues for water, putting heavy pressure on existing wells and piped water supply systems.³¹³

There was clear evidence that ground-water levels were dropping and water sources were drying up or becoming saline. The drought had struck against a background of armed conflict in which secure access to the rural areas was limited, thereby preventing adequate supplies from reaching the affected population.³¹⁴ Ambushes and attacks relief convoys only magnified the disaster. An estimated 100 thousands people died in the several drought in southern Mozambique from 1982 to 1984, mainly because relief efforts were hampered by RENAMO attacks. The government was therefore faced with the challenge of securing the efficient management, handling, distribution and protection of food aid, if widespread famine to be averted.³¹⁵

The February 1977 devastating floods in the Limpopo River valley left several hundred thousand peasants homeless and resulted in the loss of large quantities of food crops. Irrigation works, granaries, houses, roads and other transport infrastructure were

³¹¹Abreu, Strengthening Human Resources Capacity for Community-Based Sustainable Development, p.140.

³¹²Mozambique, Mozambique: Emergency Drought Appeal 1992-1993, Maputo 1992, pp.1-2.

³¹³Ibid., pp.1-2.

³¹⁴Ibid., pp.1-2.

destroyed. Drought and floods which had always occurred in Mozambique, strained the Mozambican economy further and mass starvation could occur at regular intervals. Large scale migration was one response to such disaster situations and there were signs that many people were leaving the country.³¹⁶

Other impacts of natural disasters were; the fact that some areas were drought-prone; hunger/food insecurity was the most import risk facing the community; lack of safe and accessible water as well as essential medicines were perceived as key vulnerabilities by the communities.³¹⁷ Drought and floods contributed towards Mozambique's economic and social decline, along with the destruction of the economic and social infrastructure, the mass movement of the population, the mutilation of thousands of people, the disruption of the system of social value, unemployment, low rates of education and a range of diseases which raised the infant and maternal mortality rates.³¹⁸ As result of this situation some population suffered extreme poverty. Malnutrition affected large numbers of families in both the urban and rural areas of southern Mozambique

The key environmental problem that had been seen was the displacement of the rural population to zones where the essential resource, secure land, was in scarce supply and where a reduction in wage earning opportunity had reduced the capacity to purchase farming inputs. Sustainable land use strategies had been devised in a context of intense population concentration and resource scarcity. The other side of the equation was that many of the remaining peasant producers living in the interior and outside of the corridors were cut off from resources, because of the intensity of war.³¹⁹

³¹⁵Ibid., pp.1-2.

³¹⁶Bie Nio Ong and Barry Munslow, Rapid Appraisal. In Ferraz and Munslow, Sustainable Development in Mozambique, p.116.

³¹⁷Ong and Munslow, Rapid Appraisal, p.116 ;and Abreu, Strengthening Human Resources Capacity for Community-Based Sustainable Development, p.140.

³¹⁸Abreu, Strengthening Human Resources capacity-Based Sustainable Development, pp.116-140

³¹⁹Cherrett, Norwegian aid and the environment in Mozambique, pp.4-5.

The armed conflict began in 1977 and lasted until the signing of the Rome Agreement in 1992, coupled with severe droughts and floods, took the country into an emergency situation. In addition to provoking massive and on-going population movements inside the country and across its borders, the conflict caused tremendous devastation in the form of huge populations increases in the urban, peer-urban and in the coastal areas, the virtual extinction of many species through poaching the disappearance of forest, a shortage of firewood and depletion of water resources.³²⁰

Within this context of conflict and natural disasters, from the 1980s onwards Mozambique implemented an Emergency Programme, the Humanitarian Assistance Programme. The conflict and natural disasters forced it to apply its limited resources to the more immediate and urgent concerns within the emergency Programme.³²¹ Subsequently, the programme was reoriented to respond to the impact of a prolonged war. Six years later, in spite of the efforts of the government and the support of the international community, the country still faced a critical emergency situation in which the lives of millions people were endangered, particularly in Southern Mozambique.³²²

Although there were sporadic drought problems, the primarily cause of the emergency situation was the conflict situation which had caused appalling devastation and loss of life. The volatile and unpredictable security situation had led to a continuous process of population movements within the country and across national boundaries. The droughts, floods and conflict had disrupted the administrative, social and infrastructure, thus severely constraining limited capacity of government to respond to the emergency in an effective and timely manner. And the constant movement of populations had also disrupted traditional patterns and structures for coping with hardship.³²³

³²⁰Teresa Neto and Alexandre dos Santos Monteiro, Can International Co-operation Help Create Sustainable Development? In: Ferraz and Munslow, Sustainable Development in Mozambique, pp.78-79.

³²¹Ibid.,pp.78-79.

³²²Mozambique, Mozambique Emergency Programme, Maputo 1991, p.2.

³²³Ibid., p.2.

In order to deal with an emergency situation of such magnitude, the government of Mozambique had taken measures aimed at improving emergency management. These included the strengthening of the Coordinating Council for the Prevention and Combat of Natural Disasters (CCPCCN), the body responsible for the overall policy, strategy and management of the Emergency Programme. The CCPCCN had been placed under the chairmanship of Prime Minister Mário Machungo.³²⁴

The Coordinating Council was composed of 11 government Ministers. The day-to day management and coordination of emergency relief operations remained with the National Executive Commission for the Emergency (CENE), and to coordinate its emergency programme on a regular basis within Government as well as with the donor organizations. The previously established Department for the Prevention and Combat of Natural Disasters (DPCCN) assumed major responsibility for the transport and distribution of food aid and relief items to the affected population.³²⁵

The Council of Ministers had charged the Chief of the General Staff of the armed forces with the responsibility of ensuring overall coordination for the safe passage of goods to the needy population in the rural areas. Measures taken in defence sphere included the secondment of two General Staff Officers with the responsibility of monitoring the security operations. The Government was revising customs procedures and levies in order to speed up the reception and of emergency goods.³²⁶

In 1987 an ambitious structural adjustment programme, known as the economic rehabilitation programme, was also launched by government, focusing on macro-economic policy reforms (exchange rates, trade policies, pricing policies, budget credit) the country's earlier economic decline was reversed and a 4 per cent growth in Gross National Product (GNP) was recorded in 1988.³²⁷ In 1988-1989, the Second Emergence Appeal for Assistance to Mozambique, launched at Maputo, adopted a programme which

³²⁴Ibid., p.2.

³²⁵Mozambique, Mozambique: Emergency Drought Appeal, p.2.

³²⁶Ibid., p.2.

³²⁷Mozambique Government, The Emergency Situation in Mozambique, p.3.

included essential rehabilitation as well as emergency requirements, as it had become increasingly evident that some rehabilitative support was required to provide minimum assistance to the displaced and severely affected populations.³²⁸ Related rehabilitation inputs in the fields of agriculture, water, health and education were therefore included to the requirements for food aid, relief and survival items and logistics.³²⁹

The emergency programme for 1990-1991 thus gave primary emphasis to direct humanitarian assistance for 1.4 million out of an estimated 1.9 million accessible displaced persons in the country, as well as the country's 154,000 externally displaced persons.³³⁰ The programme concentrated on the provision of free food, relief and survival items and logistic support to deliver this assistance.

Consistent with the government's new policy market food aid was no longer included in the Emergency Appeal. However, emergency health care, supplementary feeding for children, the distribution of seeds and tools to displaced families, the improvement of basic water supply and the provision of essential school facilities serving large concentrations of displaced persons, as well as a small number of emergency rehabilitation activities linked to the immediate requirements of the displaced population, remained in the Emergency Programme.³³¹

The Emergency Programme for 1992/93 included some million people displaced by conflict who were scheduled to receive free food assistance. The severity of the drought and the scale of crop losses was such that to prevent mass starvation, the numbers of Mozambicans who needed to receive free food had risen steeply. The number of affected population by drought of 1992/93 in Southern Mozambique was ; Maputo 100,000; Gaza 275,000 and Inhambane 160,000.³³²

³²⁸Ibid., p.3.

³²⁹Mozambique Government, The Emergency Situation in Mozambique, p.3.

³³⁰Ibid., p.3.

³³¹Ibid.,p.4.

³³²Ibid.,p.4.

Maputo, Gaza and Inhambane indicated that the water supply situation was more grave than other parts of the country. In these provinces there were people drinking visibly contaminated water from drainage ditches. The water supply problems were also compounded by hand pumps breaking down and by the armed conflict. Widespread insecurity restricted the area to which people could go to collect water, putting excessive pressure on accessible water source. Livestock were also suffering from the acute lack of water.³³³

The National Rural Water Supply Programme (PRONAR), working with United Nations Children's Fund (UNICEF) had defined a two-phase strategy for mitigating the worst effects of drought on rural water supply. Phase I of the water programme aimed at maximising the already existing capacity within PRONAR in order to construct new water source in selected districts of Inhambane, Gaza and Maputo provinces.³³⁴ It also contemplated financing for the recuperation and deepening of the existing shallow well, and the installation of hand pumps for all new and recuperated sources and for those existing sources with broken hand pumps.

Having guaranteed the full utilization of existing PRONAR capacity in Phase I, the second phase enable that capacity to be increased by providing capital inputs for the construction of deep boreholes in the short to medium term. In the urban and peri-urban areas, given the falling ground water levels and drastically reduced river flows, water supplies to urban areas were becoming increasingly precarious both in terms of quantity and quality. This came at a time when population pressure on urban centres because of continuing insecurity and drought, was greater than ever before.³³⁵

The National Water Department, *Direcção Nacional de Águas* (DNA), had agreed on an emergency strategy to cope with the effects of drought on urban and peri-urban population. Peri-urban areas: i) relieve pressure on water supply systems by construction of additional sources and recuperation of existing ones; ii) repair of hand pumps and

³³³Mozambique, *Mozambique: Emergency Drought Appeal*, p.16.

³³⁴*Ibid.*, pp.14-16.

installation of additional pumps in peri-urban areas; iii) involvement of NGOs, the communities and a part of the Rural Water Workshop capacity in the construction and deepening of wells in peripheral suburbs of towns and cities; iv) and maximize the use of existing well supplies by installing small piped water systems kits (tanks, pumps and standpipes).³³⁶ Urban areas: a) construction of alternative dykes and barrages for water storage and for protection against the inflow of saline river water into city water supplies; b) drilling of additional brothels equipped with motor pumps and connected to water storage deposits in order to reinforce urban water supplies; c) and undertake emergency waterworks in catchments areas to secure regular supplies for cities and towns.³³⁷

Even before the drought of 1992/3, malnutrition was a cause for concern of the health authorities. More than 90 per cent of the nutritional surveys carried out in 1991 indicated high rates of severe malnutrition. The rate of low birth weight among new-born babies was 15 per cent. Therapeutic feeding for acutely malnourished children was provided by a mixture of milk, oil and sugar.³³⁸ The therapeutic feeding programme were carried out by Ministry of Health in hospitals and health centres. Several international and national NGOs had also set up therapeutic feeding programmes.³³⁹

With the onset of the drought, assessments were being done to determine the expanded needs in the most affected areas. The depletion of water reserves had also contributed to the deterioration of public hygiene and the spread of disease. The health authorities had stressed that the drought conditions were likely to cause increases in various diseases, notably diarrhea, cholera, bubonic plague, meningitis, malaria and conjunctivitis.³⁴⁰ Supplies of oral dehydration salts were essential for the treatment of severe diarrheas diseases. Supplies of soap were likewise important, since the lack of soap was linked directly with the transmission of many diseases.³⁴¹

³³⁵Ibid., p.16.

³³⁶Ibid., pp.15-16.

³³⁷Mozambique, Mozambique: Emergency Drought Appeal, pp.15-16.

³³⁸Ibid., pp.15-16.

³³⁹Ibid., pp.16-17.

³⁴⁰Ibid., pp.16-17.

³⁴¹Ibid., pp.17.

The last outbreaks of bubonic plague in Southern Mozambique occurred in 1976 and 1978 under similar drought and famine conditions. Cases of meningitis tended to be more frequent under dry conditions, occurring mainly in Gaza and Maputo city. Malaria had been extremely virulent, with an increase in chloroquin-resistant cases.³⁴² It was feared that drought conditions could force concentrations of people around water sources that could be breeding grounds for mosquitoes, thus increasing the incidence of malaria. The general deterioration of the state of health of the population left children in particular vulnerable to infections of various sorts, while poor public hygiene served to increase the risk.³⁴³

Therefore, the epidemics were aggravated by the constant population movements, overcrowding in accommodation centres and urban areas, poor sanitary conditions and lack of access to clean water. Such conditions, which were compounded by the difficulties of maintaining a functioning cold chain and carrying out vaccination programmes in a conflict situation, also favour measles, outbreaks. Other major causes of illness and death were acute respiratory infections. The number of known AIDS sufferers remained relatively low.³⁴⁴ So influence of local environmental circumstances and of the role key factors of water supply, sanitation, fuel and cultivation environmental health issues were considered for different locales in Southern Mozambique.

³⁴²Ibid., p.4.

³⁴³Mozambique, Mozambique: Emergency Drought Appeal, p.4.

³⁴⁴Ibid.,p.4.

Chapter 5

Conclusion

The chapter of introduction begins with a review of the general problems of the impact of the armed conflict in Mozambique, examining the degree of the problems of environmental stress and economic situation in Southern Mozambique, in particular with regard to migrant labour situation, character of armed conflict and the environmental profile on the effects of conflict. In this chapter of introduction I tried to present and explain that the conflict in Southern Mozambique demonstrated that war and environmental protection were incompatible. However, environmental damage was not limited to episodes of armed conflict, but was implicit in militarisation, the process whereby resources were mobilised for war. Military activities, even in peacetime, affect the environment. In Mozambique, such activities included training and exercises in parks and reserves, the establishment of military bases and installations in unsuitable places. Furthermore, military activities consumed resources urgently needed for economic development and environmental protection.

The second chapter describes the interaction that existed between agricultural economy and migrant labour, years after independence up to signature of the General Peace Accord Agreement on 4 October 1992 between FRELIMO and RENAMO in Rome bringing an end of the armed conflict in Mozambique. When the accord was signed in Rome had triggered an immediate invitation from the government of the Mozambique to United Nations to undertake a comprehensive peacekeeping operation that would guide the country from armed conflict to democratic and peaceful elections.³⁴⁵ Still this chapter analyses the impact of the expulsion of Mozambican migrant workers from South Africa in the Mozambican economy. Because when South African government decided unilaterally, in 1986, the repatriation of Mozambicans employed on South African mines and farms, Mozambique faced immediately the following problems: unemployment, the

³⁴⁵Ghali, The United Nations and Mozambique, 1992-1995, p.23; and Vines, Renamo: From Terrorism to Democracy in Mozambique?, pp.127-129.

reduction of goods and services in local trades circuits and a sharp loss in foreign exchange earnings.³⁴⁶ The section also analyses the interaction between FRELIMO's project of socialist transformation, through the development of agricultural cooperatives and state farms.

In the chapter three I explain the character of armed conflict and its phases. I also explain that the war generated two particular problems one of which was the rapid process of urbanization and the other was a fast increase in the pressure on the resources of the littoral zones and transport corridors. The war had determined that the littoral was a main area of productive activity. The coastal environment offered a unique and fertile combination of flora, fauna, forest and fish.³⁴⁷

And throughout the chapter four I have examined the impact of the armed conflict in the countryside, urban and peri-urban areas. I have also discussed the problematic of environmental impact in an armed conflict context and other environmental problems which were provoked by the rural communities, to deal with war trauma and socio-economic disorders.

Considering that the majority of the population affected by the war were peasants who desperately needed to reorganize their lives, this chapter has suggested that the conflict should not be antagonized as has happened in the past but rather accelerated environmental problems.

³⁴⁶International Migration for Employment, pp.10-11; and Darch, A Guerra e as mudanças sociais em Moçambique(1986-1992), p.218.

³⁴⁷Cherret, et al., Norwegian Aid and the Environment in Mozambique, p.76.

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University of Cape Town