

CUTTING OFF THE FLOWERS:

The Macroeconomic and Human

Cost of War

To Southern Africans

- Reginald Herbold Green

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The effects of sanctions will call for great sacrifices among our peoples. We cannot stand against the sanctions campaign; thus we call upon the rest of the world that as it exercises what it feels to be a moral duty it should... increase support to SADCC states so as to cushion the indirect effects of sanctions to us.

- King Moshoeshoe II of Lesotho (1985),
SADCC Summit

The systematic destruction of the infrastructure indispensable to the functioning of our economies by South Africa's racist army [and its proxies] is in the context of the survival of the racist regime which at all costs seeks to maintain the economic links of dependence created during colonialism... It is not difficult to conclude that it is natural for our countries', which have suffered losses at the hands of apartheid which surpass tens of billions [of USA dollars], continuously strive for the speedy end of that regime since its existence is translated into grief, suffering, destruction and great economic backwardness.

- President Eduardo dos Santos of Angola (1986),
SADCC Summit

We must look for our reward in the faces of our children, the flowers that do not wither.

- President Samora Moise Machel of Mozambique (1985)

Their struggle is our struggle,
Their fall will assuredly be our fall.

- Prime Minister Robert Mugabe of Zimbabwe (1986)
Tribute to the late President Machel

The War, Unseen, Unheard

That the Republic of South Africa is a state based on apartheid - institutionalised, legally required and forcefully imposed racial inequality and oppression - and that it faces an escalating struggle to maintain itself against the black majority of the people under its rule is well known. That

the RSA is a regional power much stronger than its neighbours - the independent states of Southern Africa - and that, in defence of apartheid, it sometimes mounts attacks and invasions against them is fairly well known as is its use of proxy forces (variously termed rebels, armed bandits, MNR, UNITA, LLA, Super-Zapu, Mshala Gang, etc) to destabilise and disrupt the economies, politics and societies of those neighbours. In that sense it is true that there is - well beyond the region - an awareness that the Republic of South Africa is waging war against Southern Africa as well as against its own people.

But the scale, depth and parameters of RSA's regional war of aggression do remain largely unseen, unheard. A few events are heard and noted: an assassination raid against South African refugees asserted to be ANC cadres here; an attempted or successful sabotage of a port or a rail-line or an oil field there; a terrorist kidnapping or massacre somewhere else and a clash between the Republic of South Africa's armed forces and those of a national government seeking to restore sovereignty and civil rule in yet another place. These are real events, they do add up for their readers to a vague impression that a war is in progress. But what they do not show is that the war is a full scale economic war with crippling macroeconomic costs for Angola and Mozambique today and all too probably for Zimbabwe, Malawi, Zambia, Botswana and Lesotho tomorrow. Nor do they show that this is a war that kills people on a massive scale, that every four minutes an infant or small child who in the absence of RSA's war of aggression against Southern Africa would have lived, dies in Angola or Mozambique. The economic and human fronts of this holocaust do remain the war unseen, unheard - even it must be admitted in much of the Southern African region.

A Total Strategy

The leaders of the Republic of South Africa believe they face a "total onslaught" against their state and, therefore, have devised a 'total strategy' to counter that threat. Devised and acted upon for this is not merely war gaming. It is war perceived as war a l'outrance (to total victory or total destruction). The nature and practice of that total strategy within RSA are beyond the scope of this paper and - at least in broad outline - are becoming moderately widely and well known. What is less understood is the scope and

scale of its regional component.

The Republic of South Africa seeks nothing less than to make Southern Africa safe for apartheid and profitable to the apartheid economy. In one sense that is arguably only a more extreme variant of the security and economic goals of any dominant regional power with aspirations to hegemony. However, even at that level it needs noting that historically precisely such goals and the attempt to act on them against regional opposition have given rise to a high proportion of regional conflicts and wars down the centuries.

But the Republic of South Africa and its regional strategy are also specific to itself and its region. The RSA is both a strong, independent regional power less subject to international influence than most and a "special kind of colonialism" (to borrow the ANC's formulation). Therefore, it sees its very existence as at stake in its war for regional military and economic hegemony. Further, it wrongly perceives the basic threat to apartheid as external (whether in terms of exiles and border raids or of hostile independent neighbours and economic delinking) not as internal (the struggle of the black majority in the Republic of South Africa) and so displays what is - given the misformulation of the basic threat - a paranoid perception of the region. Paranoid (and totally inadequate to meet the basic internal challenges to apartheid) it may be and is, but none the less destructive for that.

Regionally the strategy has two broad fronts: that of providing mutual - if grossly uneven - benefits plus bribes and that of waging economic and military war. The former - which is of late rather falling into disuse - can be treated briefly.

RSA builds economic units in neighbouring states which bind them to it when it sees doing so as economically useful in a context it can control. The Cahora Basa dam scheme (with Portugal - then the most dependable and amenable of the states on the Republic of South Africa's periphery) is an example. RSA was to get cheap power, an expanding market in the Mozambique province of Portugal, a strengthened Portuguese line of defence against the *schwaartgevaar* (the 'black peril'). Portugal was to get some power, irrigation water for a 500,000 settler agricultural barrier to the advance of the liberation war, a chance of more secondary industry and foreign investment. The repeated - and ongoing proposals - to buy Lesotho's (and as it is the headwater state of the

Orange River, Namibia's) water for the Transvaal is in its broad parameters another such project. So are the two railway lines linking Swaziland to the South African rail and port system (and by-passing Maputo-Matola in Mozambique). So has been finance for monumental projects in Malawi's new capital at Lilongwe.

On a lesser scale the Republic of South Africa does provide export credit to not very creditworthy buyers - e.g. Zambia in recent years. This creates dependence, a sense of mutual interest, a growing market for the hard pressed manufacturing sector. The South African Transport Services (SATS) provides - at a price in hard currency as well as influence while 'cooperating' and the clear potential for creating a void by departing - technical assistance, specialised services and both several dozen locomotives and several thousand rail wagons to neighbouring independent Southern African rail systems.

This front has three basic aims:

1. to provide room for the expansion of and the earning of hard currency by key sectors (manufacturing, transport) of the Republic of South Africa' economy;
2. to create and to reinforce patterns of dependence causing a looking toward and disinclination to alienate RSA; plus
3. a capacity for RSA to destabilise by suspending links in the event of conflict.

The War Front

The war front of the total strategy has four main strategic instruments which are tactically combined in its individual campaigns. These are: (1) economic sanctions (destabilisation); (2) targetted assassination or kidnapping raids to remove (or seize) specific persons or groups of persons; (3) targetted sabotage against key economic and infrastructural targets; (4) mass terrorism (in the technical sense - violence against persons and targets which are not in themselves of crucial importance designed to create fear and terror, loss of confidence and apathy, dislocation and the collapse both of production and of

civil society) against people, trained personnel and the infrastructure of household economic activity and civil society. These are carried out by the civilian agencies of the South African state and - subject to some reluctance and footdragging in some cases - by South African enterprises (private in addition to public) as well as by the armed forces of the Republic of South Africa (including mercenary units) and its armed proxy forces operating in the independent states.

The main concerns of this paper are with the economic and human costs of this war of aggression, not with its military parameters. These will, necessarily, be alluded to when discussing instruments, results and increasing the capacity to resist but their analysis in any depth or detail lie outside the focus and possible scope of the presentation as well as the competence of the author.

Economic sanctions by RSA (whose opposition to sanctions against apartheid is correlated to its commitment to, and perception of the crucial impact of, its own economic sanctions to defend and stabilise apartheid) take several forms. The most dramatic was the 1985-86 partial blockade of Lesotho cutting off food, fuel, normal external trade and most international movement. The most threatened has been the expulsion of the 350,000 odd Southern African "contract workers" working in the Republic of South Africa (largely in the mining sector) and the up to 1,200,000 seasonal, semi-official and illegal Southern African workers also working there. The effect would be totally destructive of the Basotho economy (Lesotho has virtually no domestic economy in the normal sense; it is a long distance bed-sitting room of the South African Free State and Rand areas) and of the rural household economies of Southern Mozambique; plus to a slightly lesser extent of Southern Malawi and of areas in Botswana and Swaziland. In the case of Mozambicans total phased repatriation was announced in September and begun in October 1986.

A less known sanction has been deliberate (and often uneconomic in the narrow user sense) diversion of South African cargo away from Mozambique's southern rail and harbour net (built up over eighty odd years primarily to service such cargo, the revenue from which was vital to the territorial economy's external economic balance). Traffic has been reduced from over 6 million tonnes a year before independence to under 1 million in 1985 while the average revenue per tonne has also been cut by switches from high or middle to low tariff cargo.

Spot destabilisation has also been achieved by on and off interruption or delay (usually purportedly for "technical" reasons) of key Southern African imports and exports. These have included imports of petroleum products and fertiliser and the supply of leased locomotives as well as chilled beef exports. In 1986 following the Commonwealth Mini Summit on sanctions against apartheid, the Republic of South Africa imposed deposit and control schemes on Zambian imports via, and licensing regulations on Zimbabwean exports to, RSA nominally for statistical and anti smuggling reasons but fairly nakedly to warn what its powers to impose both transit traffic and market sanctions were.

Targetted raids have been aimed at African National Congress (ANC) personnel and refugees. There have been over a score counting less publicised assassinations, kidnappings and border raids. In the past year Maseru, Gaborone, Harare, Lusaka and Mbabane and other points in Swaziland have been raided. In the strict sense of killing key ANC personnel these raids have been literally rather hit or miss. In that of killing both South African refugees and Southern African bystanders or of kidnapping actual 'priority' wanted persons they have been deadly albeit the total deaths are probably of the order of 500 - a very small proportion of the total war related deaths. They have probably disrupted the civil and the information structures of the ANC to some degree, but their main impact has been to force both the ANC and its Southern African hosts to adopt precautionary measures limiting ANC presence and in several cases removing South African refugees to less exposed locations.

Targetted aggression on key economic and infrastructure units has been a central strategic element in full scale RSA armed forces invasions (to date limited to Angola among independent Southern African states although also including the permanent illegal occupation of Namibia); border and long distance sabotage raids by RSA units (sometimes disguised as "proxy" force units as in the attacks on the Pungwe road-rail-pipeline bridges in Mozambique in 1981 and on the Cabinda oil installations in Angola in 1985) and proxy force activities (with or without direct RSA technical and expert personnel 'assistance'). Captured documents from the earlier through the mid-1980s underline this focus.

Targets have included vital productive units, e.g. the Luanda oil refinery and Cabinda oil installations in Angola, the Zambesia province tea estates and

mines and the Sofala and Maputo province limestone quarries feeding cement plants in Mozambique and major infrastructural units, e.g. hydroelectric dams in Angola and the Maputo thermal plant as well as the central power grid in Mozambique. However, their most massive thrust has been against the Southern African regional transport lines which would - if rehabilitated and running normally - end the transport dependence vice the Republic of South Africa has constructed since 1965 (UDI in Southern Rhodesia as it then was).

UNITA has blocked the Lobito Bay line from Zambia to the Atlantic virtually continuously for over a decade. The MNR (and South African units) have closed the Maputo-Zimbabwe, Beira-Malawi and Nacala-Malawi rail lines and kept them closed since 1983/84. The Maputo-Swaziland line is subject to increasingly frequent "unscheduled activity" (i.e. sabotage). The Beira-Zimbabwe rail, pipeline and road corridor as well as the Malawi-Zimbabwe road corridor through Mozambique's Tete province are kept open and running with minor disruptions only by the use of up to 10,000 Zimbabwean and several thousand Mozambican troops along their entire lengths. The key - and unattained - objective of South Africa's launching a full scale UNITA onslaught in central Mozambique has been to break the Beira corridor and thus render Zimbabwe and Botswana totally dependent on transport routes transitting RSA.

The fourth component of the strategy is the use of mass terrorism by proxy organisations - MNR, UNITA, LLA, Super-Zapu, Mshala Gang. They are supplied, equipped, trained, armed, paid, transported, directed and on occasion led by RSA. These are not normal opposition or rebel groups - they are agents of their paymasters and backers with very little (decreasing in the case of UNITA which once was a provincial or regional party) independent existence except as bands of brigands analogous to medieval outlawed rubber barons and broken men (very much so for the remnants of various Portuguese and Rhodesian units). They do not seek to provide a substitute civil society support system (health, education, relief food) or - except in showpiece redoubts as at Jamba in Angola and Milanje in Mozambique - a governmental/administrative apparatus at all. Their raison d'etre is destruction either - as sketched above - in targetted sabotage or by mass terrorism and their overriding instrument vis a vis the civilian population is creating fear overriding hate not building or even seeking loyalty. Certainly they are rendered more effective by despair at governmental non-success (a non-success their actions aggravate) and by over-reaction by security forces, but their roles are virtually wholly

military, negative and totally force based not civil, alternative programme and loyalty grounded.

Mass terrorism has been applied most generally and destructively to Mozambique and Angola. It has been used in Lesotho, Zimbabwe and - marginally - Zambia, but on a much lower level (and one hard to assess quantitatively in Zimbabwe because of the three stream - Super ZAPU, ZAPU politico - military dissidents, apolitical bandits - nature of the "dissidents" there).

Mass terrorism has been used in the majority of the provinces of Angola and in all Mozambican provinces at various times since 1975 with a major heightening in Angola from 1980 and in Mozambique from 1981. It is largely rural attacks on defended cities have been relatively rare except as part of much more overtly RSA forces led joint campaigns, although the late 1986 MNR campaign in Mozambique may reflect a change in tactics in this respect. The targets have been the physical infrastructure of civil society (schools, clinics, water points), of food supply (homesteads, storage transport) and equally the human (kidnapping, maiming, killing of technical assistance personnel, priests, agricultural technicians, drivers, health workers, teachers). No single target is of itself of particular significance and the total damage is caused more by - very real and reasonable - fear leading to abandonment of rural civil society, production and transport - than by the cumulative loss of assets or even of human life.

The results in terms of destroyed or abandoned health posts and schools, burnt out or abandoned and looted homesteads and small villages, looted and wrecked warehouses and shops, killed or lost ("not under control" in Mozambican terminology) livestock and abandoned or burnt fields, in broken (by loss of vehicles and bridges and of capacity to protect those that remain) transport links are ubiquitous and massive. About 3 million Angolans and 5.5 million Mozambicans (half the rural population) have been driven (by force and/or fear) from their homes with severe to total losses of assets, food supplies and ability to produce. Of these about 1 million are so recent or have so little ability to rehabilitate themselves as to be in imminent danger of starvation (repeating 1982-84 war and terrorism linked famine deaths in Mozambique and Angola).

Economic Damage - Eclectic Estimates

The economic costs of war are hard to estimate. Two general approaches are possible. The first seeks to compile a relatively complete list of damage done; output lost by direct war destruction and indirect prevention of investment; other revenue losses (e.g. transit traffic diversion in the case of Mozambique; being forced to use more costly routes in the cases of the landlocked states); resources diverted to security above normal levels.

There are problems with any such calculation. If all capital stock losses and output losses (including indirect ones) are counted a certain confusion among stocks and flows - and a consequential double counting - arises. In practice, lists tend to be incomplete and estimates problematic (e.g. valuing assets destroyed at a melange of historic, present replacement or subsequent replacement cost) with a bias toward underestimation.

The most systematic estimates based on totalling particular costs and the economic growth losses resulting from reduced investment are those of the Southern African Development Coordination Conference (Overview, SADCC Harare, SADCC Gaborone, 1985 Annex B) and a revised estimate by R. H. Green and C. B. Thompson "Political Economies in Conflict: SADCC, South Africa and Sanctions" in D. Martin and P. Johnson, Destructive Engagement, Zimbabwe Publishing House, Harare, 1986, pp.271-273).

<u>Head</u>	<u>SADCC Estimate</u>	<u>Green & Thompson</u>
Direct war damage	1,610,000,000	1,610,000,000
Extra defence spending	3,060,000,000	3,310,000,000
Higher transport, energy costs	970,000,000	970,000,000
Smuggling (looting)	190,000,000	190,000,000
Refugees (including internal displaced persons)	660,000,000	660,000,000
Loss of existing production	800,000,000	800,000,000
Lost economic growth	2,000,000,000	4,000,000,000
Trading arrangements	<u>340,000,000</u>	<u>590,000,000</u>
TOTAL 1980-1984	<u>10,120,000,000</u>	<u>12,940,000,000</u>

The detailed definition of the categories and a review of the methodology are presented in the sources cited.

Adjusting through 1986 - on a basis consistent with the original estimates:

	<u>SADCC</u>	<u>Revised</u>
1980-1984	10,120,000,000	12,940,000,000
1985	7,000,000,000	7,000,000,000
1986	<u>8,000,000,000</u>	<u>8,000,000,000</u>
	<u>25,120,000,000</u>	<u>27,940,000,000</u>

The sharp increase in 1985 over the 1980-1984 average relates to escalation of aggression, the rising defence bill, cumulative output losses and inflation.

The Angolan 1980-85 estimate (in Security Council, S/17648, 22-xi-85, United Nations, New York) of \$10.5 billion would, on the assumption that Angolan losses are 55% to 60% of the regional total which seems to apply to the other estimates cited, implies a regional 1980-85 total of \$17.5 billion to \$19.1 billion dollars which is consistent with the \$17.12 billion and \$19.94 billion estimate set out above. However, the Angolan estimate specifically states that certain indirect costs have not been included.

These estimates are clearly order of magnitude only. They do not include loss of income from remittances - a major item in the case of Mozambique since RSA had deliberately reduced the number of contract workers recruited from 110-120,000 before independence to about 65,000 in 1986 when they announced total termination of recruitment and repatriation on completion of contract. The 1981-86 loss to Mozambique measured in terms of official remittances is of the order of \$600 million over 1980-86 (depending on treatment of exchange rates). However, it is arguable that in part this loss was offset regionally by higher recruitment in Lesotho, Botswana and Swaziland than would otherwise have been the case. All the estimates are nominally at least in current prices except those for asset destruction which are in general historic cost and thus are biased downward in terms of present nominal values by the rapid inflation of the past half decade.

The basic point is not the question of margins of error - plus or minus 25% on the SADCC-Thompson/Green estimates may well be a reasonable guess. It is that \$25-28 billion is of the same order of magnitude as SADCC's 1984 regional GDP as estimated in 1986 SADCC Economic Survey. Even a reduction to \$19-21

billion would leave a massive burden.

Loss of Gross Domestic Product

Gross Domestic Product loss estimates can be approached in another way. This involves estimating the counterfactual (estimated) growth in the absence of war and comparing it with the actual outturn. Using rough direct impact estimates and using a multiplier, or other indirect effect estimation method, to get total macro economic costs is a less elegant variant of this approach. The former method is suitable for Angola and Mozambique subject to the caveat that the counterfactuals are very problematic while the second may be more appropriate to the other seven for whom losses are much smaller and - at least at the first round - less generalised.

Arguably an optimal approach would be to convert all losses into terminal year prices but, given the dubious nature (or absence) of GDP deflators, a sum of current price losses may in practice be preferable.

The GDP loss calculations represent flows over a stated period including output loss during that period from capital stock destroyed or not built because of war induced diversion of resources. However, by definition they do not include the future loss of GDP stream resulting from these asset gaps or from the time lag and resource diversion costs of restoring civil, economic and human infrastructure. Thus an end to the war would not merely not lead to any short term return to the counterfactual non-war output level but might also imply a lower growth rate as well during the early stages of rehabilitation (though possibly a higher one thereafter). As GDP losses do not include damage to capital stock (but only resultant reduction of income flows) nor do they exclude security spending, they are likely to be lower than systematic estimates on an aggregated basis including these items.

Mozambique by 1980 had reorganised from a traumatic last two years of the anti-colonial liberation war and an even more traumatic transition to independence. The productive and governmental structures were functioning with increasing normality, the underlying growth rate was apparently 4 to 5%. As very considerable room for restoration of output existed - as well as for a sharp increase in household agricultural production - a 5% 1980-86 GDP growth path in the absence of destabilisation/war appears not unlikely (comparable to

Zimbabwe's 4.5% even with significant destabilisation and Malawi's 4% odd without comparable margins for growth from output restoration).

On this basis the constant 1980 and current price GDP loss in billions of meticaais is:

	<u>Actual GDP</u>		<u>5% Growth</u>		<u>Loss</u>	
	<u>1980 Prices</u>	<u>Current Prices</u>	<u>1980 Prices</u>	<u>Current Prices</u>	<u>1980 Prices</u>	<u>Current Prices</u>
1980 (Base Year)	78.2	78.2	78.2	78.2	-	-
1981	78.9	81.5	82.11	84.22	3.21	3.32
1982	96.1	92.3	86.21	104.56	10.11	12.26
1983	84.2	91.2	90.52	136.77	26.32	45.57
1984	63.9	108.8	95.05	161.85	31.15	53.05
1985	59.6	147.0	99.98	246.13	40.20	99.13
1986*	<u>55.6</u>	<u>194.6</u>	<u>104.79</u>	<u>366.77</u>	<u>49.19</u>	<u>172.17</u>
Total	<u>479.5</u>	<u>793.6</u>	<u>539.5</u>	<u>1,179.50</u>	<u>160</u>	<u>385</u>

* Preliminary estimate assuming continued 6.5 to 7.0% GDP fall and 42% odd price increase.

Converted at official exchange rates (1980 for the constant price series and current rates for the year for the current price series) these losses total \$4,950 million (\$4.95 billion) in 1980 prices and \$9,266 million in current prices over 1980-86. The conversion from meticaais to dollars poses some problems even though the very great magnitude of the loss absolutely and relative to GDP is evident. The meticaais has become increasingly overvalued since 1980. On a rough estimate of converting at an average value of 60% of the official rate, the loss comes to roughly \$5,500 million over 1981-86. This appears consistent with the World Bank's 1984 GNP estimate of slightly over \$2,000 million which with subsequent output decline would correspond to \$1,750-1,850 in 1984 prices in 1986. It is also consistent with Mozambique's October 1986 estimate of output loss resulting from the war of \$5,500 million.

The pattern of estimated losses corresponds very closely to the rise in the level of RSA and MNR proxy force destabilisation, sabotage and mass terrorism. This rose from low levels in 1980 and the first half of 1981 to sustained high

levels from 1983 through 1985. Over 1984-86 the focus of aggression and terrorism has shifted away from southern to northern Mozambique and from September 1986 the intensity of the war rose to record levels so that the 1986 loss figures may well be underestimates.

Were the loss calculations run against a 3% non-war growth rate assumption, the 1980-81 losses would be of the order of \$4,250 million. While lower this is still very high and still implies that by 1986 war was costing Mozambique almost half of its normal non-war situation GDP.

A cross check on foreign exchange earnings shows losses of the order of \$2,000 million: \$500 million remittances, \$800 million rail and harbour revenues, \$700 million goods. \$500 million would have allowed Mozambique to maintain external debt service and \$1500 - assuming a 3.5 to 4.5 GDP to Imports incremental ratio - would have allowed additional domestic production - \$5,250 - \$6,750 million to GDP consistent with a manageable external balance. These calculations - which do not pose conversion problems because the basic estimates are in dollars or other convertible currencies - tend to bear out the early \$5,500 million GDP loss based on estimated non-war output growth.

For Angola the data are much more fragmentary. Also no period of near peace analogous to Mozambique's mid-1981 interlude exists. But, as of 1979-80, Angola - while still having an output loss hangover of perhaps \$0.50 to \$0.75 billion a year from South Africa's 1985 war to install a proxy government - had achieved a transition to orderly government, economic policy co-ordination and growth. Further in 1979/80 South Africa - for virtually the only time since independence - did not have significant numbers of South African armed forces members on its soil. In that period the combination of near peace, government policy and the oil boom allowed very rapid growth of GDP. Therefore growth at a high rate - but one moderately below Botswana's 10.77% a year of 1973-84 - should have been attainable in the absence of re-escalated RSA and proxy aggression. 8% may be a reasonable estimate.

Very rough actual and projected non-war GDP figures in billions of constant 1981 prices US\$ are:

	<u>Actual</u>	<u>Projected</u> *	<u>Difference</u>
1980	4.11	4.86 (4.61)	- 0.95 (- 0.50)
1981	4.14	5.25 (4.98)	- 1.11 (- 0.84)
1982	3.53	5.65 (5.37)	- 2.12 (- 1.84)
1983	3.71	6.10 (5.80)	- 2.39 (- 2.09)
1984	3.89	6.59 (6.26)	- 2.70 (- 2.37)
1985	4.00	7.11 (6.76)	<u>- 3.11</u> (<u>- 2.76</u>)
Total Loss 1980 Prices			-12.18 (-10.40)
Total Loss Current Prices			-15.60 (-13.50)

* At 8% annual growth

() Figures assume carry forward annual output loss from 75-79 at \$0.5 billion, others at \$0.75 billion.

A reasonable loss range estimate for 1980-85 in 1985 prices would appear to be of the order of \$13 to \$16 billion - just under three times achieved GDP in 1985 and the 1985 loss was equivalent to 70 to 75% of the output actually achieved. A rough 1986 loss estimate is \$3.5 to \$4.0 billion (vs \$3.5 to \$4.0 billion in 1985) for a 1980-86 total of \$17 to \$19.6 billion but this is a very rough guesstimate given the fragmentary nature of Angolan national accounts and the sharp fall in the world petroleum price during 1986.

For the other seven states GDP losses turn largely on extra transport costs (reducing fob export values/raising cif import unit costs), diversion of government revenue to security (with consequential losses to operating imports and to investment), to lower RSA customs payments (an agreed revision held up for political reasons). These probably total \$5,250 to 6,750 million for the 1980-86 period. As the 1984 GDP of these states was of the order of \$15,000 - \$17,500 million even for the 'less affected' the cost of destabilisation and war have been significant. As pointed out in respect to Mozambique while no precision can be claimed for the estimates their order of magnitude is massive. In the case of Mozambique achieved GDP is now down to barely half of non-war probable GDP and in the case of Angola it is at most two thirds (and at best half outside the hydrocarbon sector). The 1980-86 regional total of \$27,500 to \$32,000 million exceeds 1985 or 1986 actual output.

That the GDP loss estimates somewhat exceed those by the aggregated costs method suggests that the latter are incomplete (which is probable) and/or that the GDP losses for Angola - and perhaps the 7 - are overstated (which is possible but not much more likely than that they are underestimated).

The Human Cost/Inhuman Face

The dislocation of virtually half of the rural populations of Mozambique and Angola shows the magnitude and breadth of direct human effects. Indirect are even broader because loss of forex earnings, government revenue and food production interact to cut access to food, to emergency programmes, to education and to health. As these were areas in which at the turn of the decade both of the most severely affected countries were making major progress, the difference between 1986 actuals and reasonably anticipated non-war prognoses is very wide.

The human misery caused by the dislocation itself and by its indirect impact are hard to exaggerate or to set down succinctly. For hundreds of thousands of households dislocation has meant fleeing (sometimes with wounds or loss of a family member) from homesteads with near total loss of housing, food stocks, seeds, tools, cattle, trees and household effects. Because of the war's crippling affect on government resources rehabilitation programmes have been limited even when - as has by no means always been possible - emergency food supplies could be provided. Further, many dislocated persons are now either in overcrowded areas (near towns, bridges, the Beira and Tete corridors or other defended points) chosen for security not farming reasons. This has interacted with limited rehabilitation support to limit their ability to rebuild their productive base and their lives.

Misery has also been caused by the systematic destruction of schools, health posts and clinics, water supplies, agricultural extension stations, local grain stores and shops, transport routes and vehicles and mosques and churches. Up to a quarter of rural units of these types in Angola and Mozambique have been destroyed as a key component of the Republic of South Africa's mass proxy terror campaign. In numerous cases their personnel have been kidnapped, mutilated or murdered. The detailed Mozambican statistics by

province and by year show very clearly how MNR actions have eroded the base of civil society and of the infrastructure vital to averting abject misery and lack of basic services in rural areas.

Direct military and civilian war deaths have been estimated at 100,000 by Mozambique and fragmentary data suggest at least as high a figure for Angola. In both countries mass starvation has resulted from war interference with food production, with transport and with export earnings to pay for food imports. The 1983-84 Mozambican death toll from starvation was 100,000; that in Angola - spread over a longer period - is at least comparable. In Mozambique official estimates indicate that 3,800,000 people cannot be fed from domestic production and are in grave danger of extreme malnutrition or starvation in the absence of very high levels of food aid. In Angola at least 650,000 internal refugees totally dependent on state provision are in the same position, but as data on many rural areas are totally lacking this is certainly a partial rather than a total estimate of the number of human lives at risk.

Perhaps the most chilling estimates are those for infant and child mortality. As of 1980 both Angola and - especially - Mozambique had organised health care around universal access, preventative and simple curative emphases. Coverage was rising rapidly and infant and young child mortality declining. By 1986 it would have been reasonable to assume the "under 5" deaths per 1000 live births would have reached the Tanzania level (itself by no means low) of 185. In fact, with the resurgence of war, the best field estimates place them at 325-350. On the basis of the lower figure (325), 535,000 infants and young children in Angola and Mozambique are dead who, in the absence of war, would have been alive.

The total deaths resulting from war in the region (including much lower numbers in other states) over 1980-81 are thus of the order of 1,000,000. While some double-counting exists in the component sub-totals, the non-starvation nutrition and disease related "excess" deaths of 5 to 14 year old children and of adults have not been estimated and must be significant, so that the 1,000,000 lives lost is a reasonable order of magnitude approximation. For what they are worth, the contrasts between the Angola and Mozambique life expectancies at birth - mid-40s - and population growth rates - 2.6% a year - with those of the 7 'less affected' - mid-50s and over 3%

respectively - bear out this sombre estimate. Even without further escalation or a 'full scale' famine in either Mozambique or Angola the war related death toll for 1987 is likely to be of the order of 200,000 human lives.

The infant and young child deaths are particularly appalling. In 1986 they probably total 140,000 in Angola and Mozambique - 1 every 4 minutes. President Machel's hope for the future is being falsified brutally. Far from being the "flowers that do not wither", the children of Mozambique and Angola are being cut off by the scores of thousands by the war.

Escalation? Generalisation?

At first glance it might seem little more could be done to harm Mozambique and Angola. That unfortunately is not the case. MNR activity (with now overt RSA and passive Malawi support) has risen radically since September; The Republic of South Africa has promised to repatriate up to 300,000 contract and 'illegal workers' and refugees. In Angola to date petroleum production facilities have not been significantly damaged, although - vide the 1985 Cabinda attempt (the best known of several) they are targets.

More generally RSA has threatened to interfere with transit traffic and to repatriate workers as well as acting in ways at least consistent with preparing to step up the terrorism front of the war in Zimbabwe and to relaunch it in Zambia. This would mark a shift as in the past RSA has sought to lock Zambia, Zimbabwe, Botswana and Malawi into its transport and trade system but not to lay waste their economies (and thus its own markets).

Similarly the disastrous results of Malawi's - at the least - tacit acceptance of the role of MNR base, safety zone and resupply route has now virtually destroyed ground routes out of that land locked (and Front Line State locked) country. Excess transport costs for 1985 were already estimated semi-officially at \$140 million a year and for 1986 rough indications suggest a rise to \$160 million or about half the value of merchandise exports. These costs have crippled viability of several key exports notably sugar, groundnuts and maize. They have also worsened Malawi's already precarious external and fiscal balance positions. GDP growth has since the early 1980s declined to significantly under the 3.1% annual population growth.

A renewed offensive to block the Beira Corridor has been launched and one against the Dar Corridor is at least potentially feasible. If these are severed - indeed if their rehabilitation is blocked - the landlocked core of SADCC and the FLS will either have to become clients of RSA or face appalling economic costs. Prime Minister Mugabe was not guilty of hyperbole when he said of Mozambique: "Their struggle is our struggle; their fall will assuredly be our fall".

Are There Practicable Courses of Counter Action?

Any strategy for reducing war costs - given the assumption of at least interim continuation in power of the present rulers of RSA - would require three parts:

1. Survival and Rehabilitation Assistance concentrated on health, nutrition, water and education linked to rehabilitation of displaced persons, workers extruded from RSA and external refugees;
2. Destabilisation potential reduction and structural shift investment centred on transport, power, commercial infrastructure and selected basic goods production in industry and agriculture;
3. Improvement of security both generally and in particular for key economic and social enterprises and units.

Rough estimates for the first two categories have been made and appear to total \$6,000-7,000 million over 3 years. (These were made in the specific context of sanctions against apartheid but relaxation of that assumption affects programme cost or content only marginally.) By the fourth year additional GDP would cover the recurrent costs of the programme and the 'excess' (above normal levels) investment costs should not exceed \$500 million (assuming the first three years' targets had been met).

The first set of programmes would in practice closely resemble a UNICEF/ILO health and nutrition plus productive employment/self employment package. The second is very close to a selective speeding up of the pre-existing SADCC

Programme of Action. The basic problem of attaining implementation of these programmes is cost - most of the added funds would need to be secured internationally.

However, in practice economic strategy, policy and programming - indeed the economy more generally - in Southern Africa must be considered as the economic front of war and its two way interactions with the military front analysed and acted upon. This has not been done to date. The degree to which economic and security planning and implementation remain in nearly totally separate boxes even now and even in Mozambique is remarkable. The degree to which external agencies cooperating with Southern African states are able to avoid explicit recognition of their being in a war zone is no less remarkable.

To analyse these interactions in any detail is beyond the scope or purpose of the present essay. What is relevant is that achievement of the economic programme will require:

1. expanded security capacity;
2. more coordination in location of economic projects with a view to their security and in provision of security for key economic and social units and sectors.

Conclusion - A Lutta Continua

The foregoing survey of data - despite the fragmentary and somewhat speculative nature of much of it leads to several conclusions.

First, in terms of macro economic and of human costs the war of destabilisation and aggression waged by South Africa against its neighbours is a major - not a minor, "quiet", nor "bush" - one. How major it is has been grossly underestimated in the past, even in the region.

Second, the war is the central fact of economic life (and death) in Mozambique and to a slightly lesser extent in Angola. If South Africa applies its total strategy more rigorously to the central landlocked quadrant of SADCC (Zimbabwe, Zambia, Botswana, Malawi), it will become a dominant factor for

these countries/economies as well. This will be especially true if the Beira and Dar es Salaam transport corridors are seriously sabotaged and/or inadequately rehabilitated.

Third, the massive 'employment'/production and human misery problem posed by the present 8.5 million odd dislocated persons (largely the victims of mass terrorism) will be exacerbated by repatriation of workers over 1987 albeit how many is not yet forecastable. In the repatriation cases severe rural household income losses will interact with macro foreign exchange availability reduction to the economies of Mozambique and Lesotho.

Fourth, the war has already severely increased the foreign exchange constraints on Angola and Mozambique as well as Malawi and to a lesser extent Zimbabwe, Zambia, Lesotho and Botswana. In parallel - with respect to displacements' effect on production and the foreign exchange loss impact on ability to import - it has sharply worsened the micro (or household) and national food security positions of Mozambique and Angola.

Fifth, programmatic action to sustain life, reduce 'excess' death rates, rehabilitate key economic sectors, help displaced persons (including returning workers and their households), rehabilitate their income earning capacity and recreate lower cost, non-dependent transport routes is possible. It would - if not destroyed by the war - have high to medium benefit/cost ratios economically and high ones in human survival and welfare terms. However, the cost of such programmes is beyond what SADCC States alone can fund.

Sixth, any programme with a pretence to realism must - in one way or another - face the security question.

Annex

Quality of Life in Southern African States: Selected Health, Nutrition, Education, Demographic/Survival and Economic Indicators 1970-1984

Table 1	Angola
Table 2	Botswana
Table 3	Lesotho
Table 4	Malawi
Table 5	Mozambique
Table 6	Swaziland
Table 7	Tanzania
Table 8	Zambia
Table 9	Zimbabwe

TABLE 1: SELECTED QUALITY OF LIFE INDICATORS FOR ANGOLA 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	260	325-375 ^a
2. Infant Mortality Rate (under 1) for 1000 live births)	175	155	200 ^a
3. Infant deaths (under 1) '1000	-	56	59
4. Life Expectancy at Birth (years): Total	37	41	43
5. One-Year-Olds (%) TB	-	-	40
fully immunized DPT	-	-	8
against: Polio	-	-	55
Measles	-	-	62
6. Number of ORS Packets per 100 infants and children	-	52	16
7. Access to Health Services (% of pop.) : Total	-	30	-
Urban/Rural	-	-	-
8. Access to Safe Water Total	-	21	21
(% of population): Urban/Rural	-	85/10	85/10
<u>Nutrition Indicators</u>			
9. Infant and child Total	-	30	-
malnutrition Mild/Moderate	-	-	-
(%) : Severe	-	-	-
10. Daily per capita calorie intake (% of requirements)	-	83	87
11. Food production per capita Index (1974-1976 = 100)	-	90	82
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	134(g)	66(n)
G = Gross, N = Net: Male/Female	-	146/121	71/61
13. Children completing primary level (% of first grade)	-	24	-
14. Adult Literacy Rate: Total	11	28	28
(15 + years) (%) Male/Female	16/7	36/19	36/19
<u>Demographic Indicators</u>			
15. Total population (million)	-	7.7	8.5
16. Population Aged 0-4 years (million)	-	1.4	1.5
17. Population Aged 0-15 years (million)	-	3.6	4.0
18. Urban population (% of total)	-	21	24
19. Population Annual Growth Rate Total	-	2.6	-
(1973-1983) % : Urban	-	6.0	-
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$	-	490	-
GNP Group: lower-middle-income	-	490	-
21. Population in Absolute Poverty	-	-	-
(urban/rural) %	-	-	-
22. GNP per capita annual growth rate (1965-83) (2980-83) %	-	-	6.1
23. Government Expenditure on health/education/defence	5.8/-/-	6.6/-/-	6.4/-/-
24. ODA (1983): (in US\$ millions)	-	75	75
: As % of GNP	-	2	2
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	-	-	16 ^b

a. Estimated on fragmentary data taking into account impact of war.

b. Economist Intelligence Unit.

TABLE 2: SELECTED QUALITY OF LIFE INDICATORS FOR BOTSWANA 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	110	100
2. Infant Mortality Rate (under 1) for 1000 live births)	100	80	75
3. Infant deaths (under 1) '1000	-	3.6	3.8
4. Life Expectancy at Birth (years): Total	50	54	55
5. One-Year-Olds (%) TB fully immunized against:	91	83	70
DPT	70	71	82
Polio	45	69	77
Measles	68	76	75
6. Number of ORS Packets per 100 infants and children	-	15(1981)	194
7. Access to Health Services (% of pop.) : Total	-	89	-
Urban/Rural	-	100/85	-
8. Access to Safe Water (% of population): Total	-	76	-
Urban/Rural	-	98/72	-
<u>Nutrition Indicators</u>			
9. Infant and child malnutrition (%) :			
Total	-	-	32
Mild/Moderate	-	27	31
Severe	-	-	1
10. Daily per capita calorie intake (% of requirements)	-	94	-
11. Food production per capita Index (1974-1976 = 100)	-	62	-
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	-	76
G = Gross, N = Net: Male/Female			71/81
13. Children completing primary level (% of first grade)		73	-
14. Adult Literacy Rate: (15 + years) (%)	42	61	-
Total	42	61	-
Male/Female	41/43	61/61	-
<u>Demographic Indicators</u>			
15. Total population (million)	-	0.915	1.1
16. Population Aged 0-4 years (million)	-	185	213
17. Population Aged 0-15 years (million)	-	0.473	0.542
18. Urban population (% of total)	-	15	18
19. Population Annual Growth Rate (1973-1983) % :			
Total	-	-	-
Urban	-	-	-
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$			
GNP Group: lower-middle-income	-	-	920
21. Population in Absolute Poverty (urban/rural) %	40/45	-	-
22. GNP per capita annual growth rate (1965-83) (1980-83) %	-	8.5	6.6
23. Government Expenditure on health/education/defence	-	-	-
24. ODA (1983): (in US\$ millions)		184	-
: As % of GNP		11	-
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	-	-	-

TABLE 3: SELECTED QUALITY OF LIFE INDICATORS FOR LESOTHO 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	160	145
2. Infant Mortality Rate (under 1) for 1000 live births)	135	115	110
3. Infant deaths (under 1) '1000	-	6.6	6.7
4. Life Expectancy at Birth (years): Total	44	48	50
5. One-Year-Olds (%) TB fully immunized against:	-	81	91
DPT	-	56	59
Polio	-	54	64
Measles	-	49	63
6. Number of ORS Packets per 100 infants and children	-	11	-
7. Access to Health Services (% of pop.) : Total	-	-	-
Urban/Rural	-	-	-
8. Access to Safe Water (% of population): Total	-	14	-
Urban/Rural	-	37/11	-
<u>Nutrition Indicators</u>			
9. Infant and child malnutrition (%) :	-	-	-
Total	-	-	-
Mild/Moderate	-	-	-
Severe	-	-	-
10. Daily per capita calorie intake (% of requirements)	-	107	100
11. Food production per capita Index (1974-1976 = 100)	-	82	76
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	-	71
G = Gross, N = Net: Male/Female	-	-	60/82
13. Children completing primary level (% of first grade)	-	83	-
14. Adult Literacy Rate: (15 + years) (%)	62	70	-
Total	49/74	58/81	-
Male/Female	-	-	-
<u>Demographic Indicators</u>			
15. Total population (million)	-	1.3	1.5
16. Population Aged 0-4 years (million)	-	224	250
17. Population Aged 0-15 years (million)	-	590	657
18. Urban population (% of total)	-	5	6
19. Population Annual Growth Rate (1973-1983) % :	-	2.5	-
Total	-	21.4	-
Urban	-	-	-
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$	-	-	460
GNP Group: lower-middle-income	-	-	460
21. Population in Absolute Poverty (urban/rural) %	-	50/55	-
22. GNP per capita annual growth rate (1965-83) (2980-83) %	-	6.3	1.2
23. Government Expenditure on health/education/defence	8/20/-	-	-
24. ODA (1983): (in US\$ millions)	-	-	102
: AS % of GNP	-	-	-15
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	-	-	-3

TABLE 4: SELECTED QUALITY OF LIFE INDICATORS FOR MALAWI 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	300	280
2. Infant Mortality Rate (under 1) for 1000 live births)	195	170	160
3. Infant deaths (under 1) '1000	-	54	57
4. Life Expectancy at Birth (years): Total	40	44	52
5. One-Year-Olds (%) TB fully immunized against:	-	86	72
DPT	-	66	66
Polio	-	68	68
Measles	-	65	14
6. Number of ORS Packets per 100 infants and children	-	22	12
7. Access to Health Services (% of pop.) : Total	-	-	80
Urban/Rural	-	-	-
8. Access to Safe Water (% of population): Total	-	41	-
Urban/Rural	-	77/37	-
<u>Nutrition Indicators</u>			
9. Infant and child malnutrition (%) :	-	-	31
Total	-	-	30
Mild/Moderate	-	-	1
Severe	-	-	-
10. Daily per capita calorie intake (% of requirements)	-	94	97
11. Food production per capita Index (1974-1976 = 100)	-	99	101
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	-	46
G = Gross, N = Net: Male/Female	-	-	50/42
13. Children completing primary level (% of first grade)	-	-	28
14. Adult Literacy Rate: (15 + years) (%)	29	36	-
Total	42/18	48/25	-
Male/Female	-	-	-
<u>Demographic Indicators</u>			
15. Total population (million)	-	5.9	6.9
16. Population Aged 0-4 years (million)	-	1.2	1.4
17. Population Aged 0-15 years (million)	-	3.0	3.4
18. Urban population (% of total)	-	12	12
19. Population Annual Growth Rate (1973-1983) % :	-	3.0	-
Total	-	7.3	-
Urban	-	-	-
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$	-	-	210
GNP Group: lower-middle-income	-	-	-
21. Population in Absolute Poverty (urban/rural) %	-	25/85	-
22. GNP per capita annual growth rate (1965-83) (1980-83) %	-	2.2	0.5
23. Government Expenditure on health/education/defence	-	-	5/14/8
24. ODA (1983): (in US\$ millions)	-	-	117
: As % of GNP	-	-	8
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	-	-	20

TABLE 5: SELECTED QUALITY OF LIFE INDICATORS FOR MOZAMBIQUE 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	270	325-375 ^a
2. Infant Mortality Rate (under 1) for 1000 live births)	170	160	200 ^a
3. Infant deaths (under 1) '1000	-	85	90
4. Life Expectancy at Birth (years): Total	43	45	-
5. One-Year-Olds (%) TB fully immunized against:	-	46	-
DPT	-	56	-
Polio	-	32	-
Measles	-	32	-
6. Number of ORS Packets per 100 infants and children	-	-	102
7. Access to Health Services (% of pop.) : Total	-	30	-
Urban/Rural	-	-	-
8. Access to Safe Water (% of population): Total	-	13	-
Urban/Rural	-	50/7	-
<u>Nutrition Indicators</u>			
9. Infant and child malnutrition (%) :	-	29	-
Total	-	-	-
Mild/Moderate	-	-	-
Severe	-	-	-
10. Daily per capita calorie intake (% of requirements)	-	70	79
11. Food production per capita Index (1974-1976 = 100)	-	84	68
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	-	46
G = Gross, N = Net: Male/Female	-	-	51/41
13. Children completing primary level (% of first grade)	-	26	-
14. Adult Literacy Rate: Total (15 + years) (%)	21	33	27(1982)
Male/Female	25/14	44/23	44/12
<u>Demographic Indicators</u>			
15. Total population (million)	-	12	14
16. Population Aged 0-4 years (million)	-	2.2	2.5
17. Population Aged 0-15 years (million)	-	5.6	6.4
18. Urban population (% of total)	-	13	18
19. Population Annual Growth Rate (1973-1983) % :	-	2.6	-
Total	-	-	-
Urban	-	10.2	-
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$	-	230	-
GNP Group: lower-middle-income	-	-	-
21. Population in Absolute Poverty (urban/rural) %	-	-	-
22. GNP per capita annual growth rate (1965-83) (2980-83) %	-	-	5.1
23. Government Expenditure on health/education/defence	-	-	-
24. ODA (1983): (in US\$ millions) : As % of GNP	-	-	211
As % of GNP	-	-	8
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	-	-	-

a. Estimated on fragmentary data taking into account impact of war.

TABLE 6: SELECTED QUALITY OF LIFE INDICATORS FOR SWAZILAND 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	200	185
2. Infant Mortality Rate (under 1) for 1000 live births)	145	135	125
3. Infant deaths (under 1) '1000	-	3.6	3.8
4. Life Expectancy at Birth (years): Total	44	48	56
5. One-Year-Olds (%) TB	-	59	95
fully immunized DPT	-	30	79
against: Polio	-	22	60
Measles	-	30	51
6. Number of ORS Packets per 100 infants and children	-	87	409
7. Access to Health Services (% of pop.) : Total	-	-	-
Urban/Rural	-	-	-
8. Access to Safe Water Total	-	39	48
(% of population): Urban/Rural	-	73/35	80/40
<u>Nutrition Indicators</u>			
9. Infant and child Total malnutrition	-	10	-
Mild/Moderate (%) :	-	-	-
Severe	-	-	-
10. Daily per capita calorie intake (% of requirements)	-	108	-
11. Food production per capita Index (1974-1976 = 100)	-	108	107
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	-	84
G = Gross, N = Net: Male/Female	-	-	83/86
13. Children completing primary level (% of first grade)	-	8	-
14. Adult Literacy Rate: Total	48	61	-
(15 + years) (%) Male/Female	51/45	64/58	-
<u>Demographic Indicators</u>			
15. Total population (million)	-	559	632
16. Population Aged 0-4 years (million)	-	104	119
17. Population Aged 0-15 years (million)	-	265	302
18. Urban population (% of total)	-	20	25
19. Population Annual Growth Rate Total	-	-	-
(1973-1983) % : Urban	-	-	-
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$	-	-	870
GNP Group: lower-middle-income	-	-	870
21. Population in Absolute Poverty (urban/rural) %	-	45	50
22. GNP per capita annual growth rate (1965-83) (1980-83) %	-	-	5.1/-
23. Government Expenditure on health/education/defence	-	-	-
24. ODA (1983): (in US\$ millions)	-	-	34
: As % of GNP	-	-	6
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	-	-	-

TABLE 7: SELECTED QUALITY OF LIFE INDICATORS FOR TANZANIA 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	200	185
2. Infant Mortality Rate (under 1) for 1000 live births)	130	120	110
3. Infant deaths (under 1) '1000	-	116	122
4. Life Expectancy at Birth (years): Total	45	50	52
5. One-Year-Olds (%) TB	-	84	-
fully immunized DPT	-	58	-
against: Polio	-	56	-
Measles	-	82	-
6. Number of ORS Packets per 100 infants and children	-	-	-
7. Access to Health Services (% of pop.) : Total	-	70	-
Urban/Rural	-	100/66	-
8. Access to Safe Water Total	-	47	-
(% of population): Urban/Rural	-	88/41	-
<u>Nutrition Indicators</u>			
9. Infant and child Total	-	50	-
malnutrition Mild/Moderate	-	43	-
(%) : Severe	-	7	-
10. Daily per capita calorie intake (% of requirements)	-	83 ^a	101
11. Food production per capita Index (1974-1976 = 100)	-	96	103
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	-	98 ^b
G = Gross, N = Net: Male/Female	-	-	101/95
13. Children completing primary level (% of first grade)	-	76	-
14. Adult Literacy Rate: Total	-	-	85 ^b
(15 + years) (%) Male/Female	-	-	90/80
<u>Demographic Indicators</u>			
15. Total population (million)	-	19	22
16. Population Aged 0-4 years (million)	-	3.8	4.4
17. Population Aged 0-15 years (million)	-	9.6	11
18. Urban population (% of total)	-	12	14
19. Population Annual Growth Rate Total	-	3.3	-
(1973-1983) % : Urban	-	8.6	-
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$	-	-	240
GNP Group: lower-middle-income	-	-	240
21. Population in Absolute Poverty (urban/rural) %	-	-	15/25
22. GNP per capita annual growth rate (1965-83) (2980-83) %	-	0.9-	6.5
23. Government Expenditure on health/education/defence	-	-	4/8/10
24. ODA (1983): (in US\$ millions)	-	-	621
: As % of GNP	-	-	13
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	5	-	-

a. Not comparable. 1980 estimate based on old series and 1984 on major nutrition survey based on 1976/86.

b. From 1985 UNICEF Country Situation Report.

TABLE 8: SELECTED QUALITY OF LIFE INDICATORS FOR ZAMBIA 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	150	135
2. Infant Mortality Rate (under 1) for 1000 live births)	110	100	85
3. Infant deaths (under 1) '1000	-	25	27
4. Life Expectancy at Birth (years): Total	46	50	52 ^a
5. One-Year-Olds (%) TB	-	72	87
fully immunized DPT	-	44	49
against: Polio	-	77	47
Measles	-	21	56
6. Number of ORS Packets per 100 infants and children	-	4	-
7. Access to Health Services (% of pop.): Total	-	-	75
Urban/Rural	-	-	-/-
8. Access to Safe Water Total	-	-	46
(% of population): Urban/Rural	-	-	-/-
<u>Nutrition Indicators</u>			
9. Infant and child Total malnutrition (%) :	-	-	28
Mild/Moderate	-	-	-
Severe	-	-	-
10. Daily per capita calorie intake (% of requirements)	-	93	89
11. Food production per capita Index (1974-1976 = 100)	-	76	74
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	-	94
G = Gross, N = Net: Male/Female	-	-	100/89
13. Children completing primary level (% of first grade)	-	85	-
14. Adult Literacy Rate: Total	-	51	68
(15 + years) (%) Male/Female	-	66/37	79/58
<u>Demographic Indicators</u>			
15. Total population (million)	-	5.6	6.5
16. Population Aged 0-4 years (million)	-	1.1	1.2
17. Population Aged 0-15 years (million)	-	2.8	3.2
18. Urban population (% of total)	-	43	48
19. Population Annual Growth Rate Total	-	3.2	-
(1973-1983) % : Urban	-	6.5	-
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$	-	-	470 ^b
GNP Group: lower-middle-income	-	-	-
21. Population in Absolute Poverty (urban/rural) %	-	-	25
22. GNP per capita annual growth rate (1965-83) (2980-83) %	-	1.3-	-1.8
23. Government Expenditure on health/education/defence	-	-	8/15/-
24. ODA (1983): (in US\$ millions)	-	-	216
: As % of GNP	-	-	6
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	6	13	-

a. Based on 1983 World Bank estimate of 52.

b. 1984 World Bank Figure.

TABLE 9: SELECTED QUALITY OF LIFE INDICATORS FOR ZIMBABWE 1970-1984

KEY INDICATORS	1970	1980	1984
<u>Health Indicators</u>			
1. Under Five Mortality Rate	-	130	120
2. Infant Mortality Rate (under 1) for 1000 live births)	95	85	75
3. Infant deaths (under 1) '1000	-	29	31
4. Life Expectancy at Birth (years): Total	50	55	63
5. One-Year-Olds (%) TB fully immunized against:	-	64	88
DPT	-	39	68
Polio	-	38	63
Measles	-	56	55
6. Number of ORS Packets per 100 infants and children	-	-	-
7. Access to Health Services (% of pop.): Total	-	-	71
Urban/Rural	-	-	100/62
8. Access to Safe Water (% of population): Total	-	52	-
Urban/Rural	-	-/-	-
<u>Nutrition Indicators</u>			
9. Infant and child malnutrition (%) :	-	-	-
Total	-	-	-
Mild/Moderate	-	-	-
Severe	-	-	-
10. Daily per capita calorie intake (% of requirements)	-	86	89
11. Food production per capita Index (1974-1976 = 100)	-	74	79
<u>Education Indicators</u>			
12. Primary enrolment ratio: Total (1982)	-	-	131
G = Gross, N = Net: Male/Female	-	-	135/126
13. Children completing primary level (% of first grade)	-	-	77
14. Adult Literacy Rate: (15 + years) (%)	55	69	-
Total	63/47	77/61	-
Male/Female			
<u>Demographic Indicators</u>			
15. Total population (million)	-	7.4	8.5
16. Population Aged 0-4 years (million)	-	1.4	1.6
17. Population Aged 0-15 years (million)	-	3.6	4.2
18. Urban population (% of total)	-	22	24
19. Population Annual Growth Rate (1973-1983) % :	-	3.2	-
Total	-	6.0	-
Urban			
<u>Economic Indicators</u>			
20. GNP per capita (1980) in \$	-	-	740
GNP Group: lower-middle-income			
21. Population in Absolute Poverty (urban/rural) %	-	-	-
22. GNP per capita annual growth rate (1965-83) (1980-83) %	-	1.5	-2.9
23. Government Expenditure on health/education/defence	-	-	6/22/17
24. ODA (1983): (in US\$ millions)	-	-	208
: As % of GNP	-	-	4
25. Debt service (as % of Exports of Goods and Services 1970+ 1983)	-	-	32

Glossary

- Republic of South Africa
(RSA, South African) = The apartheid state and its instrumentalities.
- Southern Africa = The nine independent states of the Southern African Region (Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zimbabwe, Zambia).
- Front Line States (FLS) = Angola, Botswana, Mozambique, Tanzania, Zimbabwe and Zambia's regional political and security strategy and policy coordination grouping.
- Southern African Development Coordination Conference (SADCC) = Southern African political economic strategy, policy and programming coordination grouping aimed at reducing economic dependence (especially on RSA) and national economic development in a regional context comprising FLS plus Lesotho, Malawi, Swaziland.
- MNR (Renamo) = Proxy force created by Rhodesian Intelligence and turned over to RSA as an instrument to wage aggressive war on Mozambique. (Officially referred to by Mozambique as "armed bandits".)
- UNITA (Union for the Total Independence of Angola) = Former Angolan regional political and military grouping frequently in alliance with Portugal during Angolan liberation struggle; since 1975 increasingly a 'pure' South African proxy force. (Usually officially referred to by Angola as "rebels".)
- LLA
(Lesotho Liberation Army) = South African trained and directed splinter of former Basotho political party.
- Super Zapu = South African trained and directed band of deserters from ZAPU plus ex-Muzorewa 'Home Guards'. Does not include most of armed ZAPU "dissidents". (Usually officially referred to by Zimbabwe as "terrorists".)
- Mshala Gang = Defunct bandit group operating in Zambia in 1970s, recruited and trained by RSA.
- ANC = African National Congress, principal South African liberation movement.
- Gross Domestic Product
(GDP) = A country's total output of goods and services.
- IMR
(Infant Mortality Rate) = The number of infants per 1,000 live births who die before the age of 1 year.
- "Infant and Young Child Mortality"
(Under 5 Mortality) = The number of infants and children per 1000 live births who die before 5 years of age.

Author Note

Reginald Herbold Green has been a student of the political economy of Africa for slightly over a quarter century. He has been a consultant to SADCC, a member of its London Liaison Committee (and predecessors) since 1978 as well as an advisor to several African governments and organisations as well as to SWAPO of Namibia and to international organisations. He has recently been involved in a UNICEF Study on "Southern Africa's Children: The Price of War", an economic situation report for the government of Mozambique, an evaluation of the cost of South African aggression and a political economic strategic programme for combatting it for SADCC and a study on "Strengthening the Front Line" for ICFTU. An article summarising some of this work appears in Third World Affairs: 1987, Third World Foundation, London 1986, while an earlier presentation of parts of it appears in Destructive Engagement: Southern Africa At War, chapter "Regional Political Economies in Conflict: South African Hegemony vs SADCC Liberation" with Carol Thompson, edited by D. Martin and P. Johnson, Zimbabwe Publishing House, Harare, 1986.