South Africa's industrialization is the key to ending apartheid

During the first half of 1986, the British Commonwealth's Panel on Apartheid will be reviewing the progress of reforming apartheid in the Republic of South Africa, following which member governments and others will decide whether or not to impose sanctions to cripple the South African economy. A policy of sanctions is fraught with great danger for the Western world, since any effort to end apartheid in this way would destroy the economic basis for the future existence of the nation and the entire southern African region, driving unemployed urban dwellers back to an impoverished existence on the land. If new initiatives are not taken soon to unleash the vast economic potentials of the region, any prospect of progress toward peaceful black-white negotiations in South Africa will be blocked, and interstate relations will be governed by Soviet-backed escalation to military confrontation.

A Western policy of sanctions and disinvestment, like the scorched-earth policy of the Soviet Union and its African National Congress (ANC), is de facto a *pro-apartheid* policy. As Zulu leader Chief Minister G. Buthelezi, a leader of South African black moderate forces, stated in a June 1985 article, "The economic interdependence of black and white thus favors the politics of negotiation. Black South Africa is moving into an era of increased bargaining power. . . . If the West wants to increase black bargaining power, it must double up on its investments, not disinvest."

The process of industrial development itself, in particular the development of the infrastructural requirements for an urban industrial workforce, has strained apartheid to the bounds of economic viability. Equally important, but little understood in the West, is that it was the National Party, which has ruled continuously since 1948, which utilized dirigist methods to develop a metal-producing and -processing industry—in part for national security reasons—thereby generating a growing demand for a skilled and semi-skilled workforce. Alongside this, and in increasing conflict with it, the hideous pre-existing apartheid system of the British imperial era was put on a more formal basis, with the concept of "separate but equal" development and the formation of segregated black "homelands."

A potential powerhouse

The question of ending apartheid cannot be separated from the question of the industrial development of all southern Africa. When Zimbabwe President Robert Mugabe demands economic sanctions against South Africa, he certainly does not neglect to add that he, of course, will need large doses of international aid to cushion the impact of a South African economic collapse on his economy. The fact that South Africa produces 54% of the African continent's electrical energy and 37% of its steel, has 20,000 km of Africa's 80,000 km of rail lines and carries 104 million tons of freight/km of all Africa's meager 127 million tons of freight/km, gives an approximate idea of the importance of South Africa's industrial development for the continent as a whole. Forty percent of the motor vehicles, 33% of the trucks, and 44% of the agricultural tractors on the African continent are in South Africa, as well as 25% of cement production.

The importance of South Africa's transportation infrastructure for southern Africa is reflected in the amount of trade from the rest of the region that is routed through South Africa. **Figure 1** shows the findings of a 1982 South African study on this question.

In 1982, the South African Transport Services loaned 38 diesel-electric and 40 steam locomotives to neighboring states. In 1983, a daily average of 5,883 SATS freight cars were operating on foreign rail lines, as against 936 foreign cars on

FIGURE 1
Percent of southern African trade that is routed through South Africa

	Imports	Exports
Zaire	57% 60% of lead and zinc 40% of cobalt	45% of copper
Zambia	70%	40%
Malawi	60%	50%
Zimbabwe	68%	65%

Without an industrial development policy, there can be no solution to the apartheid problem in South Africa. Those who demand economic boycotts are pursuing a pro-apartheid policy.

South African lines. Indeed, the SATS agreements with the neighboring rail administrations is a model of regional cooperation. While part of the regional rail problem relates to civil war conditions in Angola and Mozambique, areas where South African military involvement exists or had existed, the problems of the Tazara railway line between Kapiri Mposhi, Zambia and Dar es Salaam, Tanzania are exemplary. The line has a maximum freight capacity of 2 million tons a year. Some 452,000 tons were moved from Zambia on this line in 1979, as opposed to 637,000 tons moved the same year on the South African route. The underutilization is due to chronic locomotive shortage and terminal bottlenecks.

Aside from the relatively better standard of living available to South Africans, as compared to the rest of Africa, due to this industrial development, its importance for the creation of an urban workforce is reflected in the statistics in **Figure 2.**

"The southern subcontinent has enormous natural resources and South Africa has the technical know-how with which, provided there is cooperation, to bring southern Africa to a level of development comparable with that of the United States within a couple of decades." This comment by leading South African water mangement engineer D.C. Midgley, accompanied a proposal for harnessing the region's water resources, published in *Africa Insight,* a publication of the Africa Institute in Pretoria. South Africa, Lesotho, and Swaziland are projected to attain a population of 95 million by the year 2020, with water demands for domestic, industrial, irrigation, and forestation purposes projected at 40,000 million cubic meters per annum. At that time, based on reasonable domestic water exploitation options, a deficit of nearly 10,000 million cubic meters per annum emerges. Confronted with this problem, one can either adopt Malthusian attempts to restrict population growth (disease is an excellent means) and promote the IMF and World Bank's "appropriate technology" subsistence agriculture and labor intensive "industry"—or, one can solve the problem.

The Okavango and Zambezi Water Transfer Projects demonstrate such a solution. Involving 1,340 km of canals, 80 km of tunnels, pipelines, and siphons linking the Zambezi to the northern Transvaal water system, it would cost 3 billion Rand, at 1980 prices. This price is equivalent with that of a modern Electrical Supply Commission (ESCOM) power plant. It could provide 3,000 million cubic meters of water per annum. Midgley also points out that the other aspect of regional cooperation would be to develop the hydroelectric potential of the region, importing electricity and reducing water requirements for domestic production of electricity. Zaire, Angola, and Mozambique account for 63% of Africa's potential hydroelectric power. The largest untapped concentration of potential hydropower in the world is at the Inga rapids on the Congo River in Zaire. A 120 m-high dam equipped with 35,000 MW of power could generate 300,000 GWh per annum which, according to Midgley, could be absorbed into the South African electrical grid within 11 years. Due to the cheapness of hydroelectric power in comparison with coal-generated electricity, "the net annual benefit of establishing an energy supply from Inga would be sufficient to provide the capital to build a cooperative water supply from the Zambezi."

At this time in southern Africa, the main area with a head start on industrial development, whose further development generates the demand for northern water and hydroelectric surpluses, is the Pretoria-Vereeniging-Witwatersrand (PVW) complex. This region is the economic motor of all southern Africa. It includes the Reef gold mines, associated industrial areas, coalfields, and the ESCOM power stations supplying electricity to much of the subcontinent, as well as the Bushveld igneous complex—perhaps the richest storehouse of the minerals required worldwide to cope with the modern technological age.

Without the continued industrial development of this region, there is no basis to invest in the water and hydroelectric potential of South Africa's black neighbors. Those black nations on South Africa's borders must realize that their bargaining power lies not in sanctions, but in proposals that maximize South Africa's need for their resources and for the skilled labor of black South Africans—a pro-investment policy.

FIGURE 2
The labor force of southern Africa

	Population[1] (millions)	Labor force[2] % in agriculture	% in industry	% of population in urban areas[3]
Angola	8.2	59	16	22
Botswana	1.0	83	n.a.	11[4]
Lesotho	1.4	87	4	13
Mozambique	13.3	66	18	9
Swaziland	.7	75	n.a.	15[4]
Zambia	6.3	67	11	45
Zimbabwe	7.8	60	15	24
South Africa	31.3	30	29	50

[1]1983
[2]1980
[3]1982
[4]1974-77