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# South Africa, Higher Education, and the Future of a Continent

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In a world in which human resources constitute the principal determinants of societal wealth and strength, higher education is assuming unprecedented importance. Natural resources (gold, diamonds, vanadium) and military power (jets, tanks, nuclear weapons) count for less than the knowledge and skills of a healthy populace. Accordingly, tertiary education must form a vital part of the efforts by South Africa's post-apartheid governments to transform that country's largely extractive economy and racially stratified social order and build the foundations for a more equitable, productive, and peaceful society. Projecting beyond its borders, the success or failure of South Africa's initiatives to refashion and make its system of higher education responsive to national needs may impact significantly on attempts elsewhere in Africa to reverse a disabling decline in the quality of higher education.

Higher education is essential to the advancement, transfer, and application of new knowledge, the training of professional, technical, and managerial staffs, the forging of cultural identity, and the realization of democratic process and social mobility. How significant the stakes in higher education are becomes apparent when one examines what happens when university instruction and research is allowed to wither. Just such withering has left Africa chronically dependent on external sources for the technical expertise and scientific and social research required for its pursuit of economic development. Africa is left dependent on expatri-

ate professionals whose background training, salaries, and research foci are per force often inappropriate to local material and cultural circumstances.

In order to fully grasp the role of higher education as a factor influencing the future of South Africa and the continent, it is necessary to take a global view. Parallel to the emergence of a post-Cold War global economy, a rapidly accelerating intellectual traffic is becoming a critical influence shaping world politics, power, and prosperity. The speed and ease with which scholars, students, and researchers cross boundaries and the rapidity with which knowledge, skills, and pedagogy diffuse globally via new communications technology render institutions of higher learning and research ever more international in nature as well as central to national well being. In order to respond effectively to the goals and aspirations of their own societies, universities and research institutions must interconnect globally. They must participate in the fast-paced global traffic in ideas, learning, and technology that is changing the nature of the world and at the same time be adequately financed, politically protected, and imaginatively led. If these conditions are not met, they will be left behind. And once left behind, they and their society may find themselves biting bitter dust in a human resources race destined to determine the character of the world in the twenty first century. For Africa, the challenge is ominous as well as obvious.

With that challenge in mind, this article assesses the relationship of tertiary education to economic development and the extent to which the decline of Africa's universities has contributed to a general deterioration in sub-Saharan living conditions. It then focuses on South African higher education, its prospective role in the creation of a post-apartheid society, and the factors that may lead it to repeat or avoid the disintegrative course of higher education elsewhere in Africa. It looks at the potential for South African higher education to meet domestic needs and to help revivify institutions of higher education and research in countries to the north. Finally, the article considers options for systemic and pedagogical change in South African higher education that might help it better realize its potential for generating the extraordinary levels of human creativity that South Africa so urgently needs.

## **Higher Education and Economic Development**

Most developing countries succeeded in creating "fairly evolved systems of higher education" shortly after gaining political independence. However, as Dimitru Chitoran of UNESCO has noted, they would later come to face "dramatic declines in the quality of their institutions

and a constantly widening gap *vis-à-vis* the industrially developed world with regard to scientific and technological know-how."<sup>1A</sup>

Africa is a case in point. African enrollments in higher education rose precipitously from approximately four hundred thousand in 1970 to over two million by 1986—a five-fold increase. At the same time, a destructive syndrome of higher enrollment demand and diminished funding led to qualitative decline, with a sharp “diversion of resources away from postgraduate studies and from research.” An increasing shortage of qualified science teachers resulted in ill-prepared students. This problem coupled with inadequate university facilities ravaged science education. A related “underproduction” of graduates in fields of science, engineering, and technology—notably in applied fields regarded as key factors in national development—became common place. This, in turn, led to a brain drain of “alarming proportions.” Some thirty thousand African university graduates emigrated to industrially advanced countries between 1984 and 1987.<sup>1B</sup> Simultaneously, the employment of expatriate specialists (eighty thousand in forty sub-Saharan countries as of 1988) consumed as much as half of the 7 to 8 billion dollars in annual foreign assistance allocated to African economic development. Arguing that Africans must draw upon their own human resources and free themselves from dependency on this “roaring industry” of expatriates, Nigeria’s Olusegun Obasanjo ascribed a “special responsibility” to African universities and intellectuals. It is for them to devise solutions and spur action for African development. It is as seen from this vantage point that the strengthening of African universities and research centers, the building and sustenance of libraries, and the education and training of faculty and researchers assumes critical importance.<sup>1C</sup>

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Africa pays a heavy price for the decline and sometimes social irrelevance of its universities and research centers. The descent is one of the factors that explains the sharp contrast between economic trends in Asia and Africa. Jacques Gieri of the Paris-based Strategy, Energy, Environment, and Development (SEED) organization notes: “While South Korea, Thailand, and the Philippines have populations of 40-60 million and more than 1 million [university] students each, sub-Saharan Africa [excluding South Africa] with its 500 million people and 500,000 students lags far behind.” The gap cannot be ascribed solely to different levels of economic development. The per capita GNP in Thailand and the Philip-

pires is comparable to that of the Ivory Coast and Cameroon. The social irrelevance in much of African higher education contributes to the gap and manifests itself in an elitist concern for intellectual image and diplomas that legitimize personal status to the neglect of urgent, practical problems of economic productivity and community welfare that go largely unstudied.<sup>2</sup>

Confronted by economic crises of major proportions, African states have slashed budgets for tertiary education, including student financial assistance, but have characteristically maintained a stifling political control over university research. Decaying laboratories and lecture halls, libraries without up-to-date books and journals, offices bereft of functional telephones or computers, and periodic strikes by students and faculty—increasingly these conditions describe the status of

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most of Africa's universities. Hubert Kahl of Deutsche Presse Agentur cites alarming statistics: the European Union spends an annual average of three hundred dollars per citizen on research while Nigeria spends twenty-two cents; there are twenty-two scientists and engineers per ten thousand European Union citi-

zens while the ratio is one to ten thousand in Africa; half the academic positions at Uganda's venerable Makerere University stand vacant because a university lecturer earns only about nineteen dollars per month. In 1994, Nobel laureate Wole Soyinka fled the military dictatorship that is deadening intellectual life in Nigeria while the noted Kenya historian Ali Mazrui portrayed Africa as being on the verge of committing "academic suicide." Mazrui went on to assert that, paradoxically, the one factor slowing the exodus of African expertise to the West is a rise of anti-foreign sentiment, racism, and legal barriers to immigration in the United States and Europe. The West is no longer as attractive or accessible as it was.<sup>3</sup>

### **Higher Education in South Africa**

Post-apartheid governments of South Africa are fated to confront popular but unrealistic expectations for a rapid expansion of educational opportunity at all levels. In the arena of higher education, estimates based on current success rates in the matriculation examinations that determine entrance eligibility project a near doubling of university and technikon

(college polytechnic) enrollment from 466,000 to 833,000 between 1992 and 2000. That is a growth rate greater than that which any government is likely to be able to fund. A crisis in tertiary education looms, and the actions taken or not taken to meet it will have a major bearing on how successful South Africa may be in escaping

from the social distortions of apartheid. Historically, higher education has reflected and reinforced racial hierarchy in South Africa. Now, belatedly, it must produce the cadres of black technicians, engineers, scientists, educators, and other professionals that alone can create a vital measure of communal equity. It must help to redress the racial imbalance of a system in which per capita white university enrollment at institutions whose academic standards range from parochial to world class, is among the highest in the world and rising.

Under apartheid proportionately low black enrollment has been centered in marginalized, ascriptively black universities. As enrollment pressure mounts, the ability of historically black universities (HBUs) to attract and retain strong faculty and graduate students must depend in good measure upon the degree to which they are able to develop both a vibrant intellectual atmosphere and a social calm. As they emerge from the shadows of apartheid, they must therefore be protected from the destructive combination of "swelling enrollments and shrinking budgetary allocations accompanied by political interference" that has led to "disrupted learning processes and frequent closures" of universities throughout Africa.<sup>4</sup>

Henceforth, all of South Africa's universities, singly and systemically, must be seen as engaged players in the construction of a new South Africa. Despite vicissitudes of reduced government funding, together they must somehow accommodate a substantial increase in enrollment as well as meet student demand for qualitative equity and offer instructional and research programs that respond to the imperatives of past-apartheid reconstruction. In return, by working together, the government, universities, and technikons must limit enrollment to what they can accommodate without incurring a debilitating erosion and disruption of academic quality. It will be vital that government authorities exercise their fiduciary and political responsibilities forthrightly, avoid demagogic temptation to over promise, and not leave academia to face a "mission impossible."

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Were South Africa to neglect to preserve what is strong, reform what is distorted, and invent what is needed in higher education, it would put at risk the entire dynamic of peaceful change in the country. Government leadership, hopefully nourished by the formation of an imaginative and assertive National Commission on Higher Education, will certainly be crucial. So too will be leadership within academia where administrators must enjoin their faculties to transcend turf and tradition and collaborate across institutional, disciplinary, and conceptual boundaries. There must be a willingness to embrace time saving strategies that use telescoping technology, viz., distance learning, and to promote previously shunned research of an applied or practical nature as well as instructional outreach that serves regional communities and local enterprise. By incorporating technikons within the university system, linking teachers' colleges and technical and agricultural schools to the university system, and employing research funding to leverage interinstitutional and cross-sector collaboration among institutions, educational leadership can facilitate the development of a coherent national system of higher education. Such a system could, in turn, serve as a model for emulation and via academic exchange, including programs for faculty development, help to revitalize the higher education systems of other African countries.

In anticipation of a concerted national initiative to reform higher education along lines called for in the African National Congress,<sup>5</sup> universities across the country, albeit with varying intensity, embarked upon internal reviews of their curricular and research missions. They are attempting to position themselves as favorably as possible in preparation for national scrutiny and invitations to civic duty that lie ahead. For the first time, universities are to function within a single educational system governed by common goals and policies. They anticipate that national priorities established within a democratically legitimated system will to some extent inform and leverage their separate initiatives. At the same time, many expect that although higher education has been placed within the jurisdiction of national government, the development agendas of provincial governments headed by ambitious new political leaders will prompt those regions to look to "their" universities and technikons for special cooperation and assistance. In areas where universities and technikons are clustered, e.g. Western Cape, Eastern Cape, and Natal, provincial governments may be expected to press for regional institutional linkages, collaboration, and consolidation.

In order for national and regional authorities to extract for society the potential benefits of higher education, they will have to work with the institutions concerned to design and implement new systems of articula-

tion and creditation between and among tertiary level institutions as well as with secondary schools. Both government funding formulas and internal institutional reward systems will need to encourage support for overarching educational goals and, in particular, for easier student movement and faculty collaboration between and among universities and technikons. Government will need to insist upon systemic flexibility and rationality. Otherwise, many academic administrators and faculty will give vocal commitment to change but continue to pursue largely disparate institutional and individual interests. Clarity of purpose, interactive dialogue, and ingenious use of financial leverage that respects academic integrity will be required of the new state structures as they seek to reconcile societal interests with those of universities and their faculties—while avoiding the crippling pitfalls of political interference.

### **Policy Options**

Though the problems confronting higher education in South Africa are daunting, it is by no means fated to share the plight of its counterparts elsewhere in Africa. Certainly, fresh thinking is in order. As mentioned earlier, one of the ways in which South Africa might respond to the looming enrollment crisis would be to incorporate its technikons, their facilities, and elements of graduate study into the “university system.” The enhanced prestige that the term “technikon university” would bring could enable those underutilized institutions to offer a combination of degrees and, for vocational work, diplomas and to serve an increased share of future tertiary enrollment.

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Another way in which the tertiary system might be made to serve the country’s needs more effectively would be to alter the mandates of the parastatal agencies that fund much of South Africa’s research. They should be asked to support more work of relevance to national and regional development priorities, and in so doing, encourage collaboration across the racial divide by requiring that a certain portion of their funding for programs, projects, and workshops incorporate faculty, graduate students, and postdocs from both historically black and white institutions. “The need for a revision of funding priorities is illustrated by the fact that in 1993 the Center for Science and Development of the Human

Sciences Research Council (HSRC) awarded three times as many grants in theology, religious studies, and philosophy as it did for economic research."<sup>6</sup>

The HSRC and other funders could be required to increase support for training in research methodology and skills and for the development of a "research ethos" or "spirit of enquiry" among growing concentrations of junior black faculty at HBUs.<sup>7</sup> They could be required to set aside a substantial block of funding for research projects engaging faculty and associated researchers at institutions across previously ascriptive racial or ethnic boundaries. Specifically, they might be asked to establish extraordinary five to ten-year funding programs focused on research related to national reconstruction and development— programs that simultaneously promote broad and equitable participation via consortial research projects.

In order to facilitate collaborative interaction across the racial divide, both South African and international funding agencies could help organize and support a series of workshops on the status of knowledge and research methods in priority fields of inquiry. Such workshops could bring scholars and researchers from abroad, with special attention to African states, to share cutting-edge pedagogy and methodology.

Distance education offers another avenue for rapid change. In the form of (1) the University of South Africa (UNISA) with over 120,000 students that employs one fifth of the university faculty in the country; (2) Vista with some 20,000 teachers enrolled in distance education courses; and (3) Technikon SA with nearly 80 percent of its students in Applied Law (of whom 71.5 percent are in Police Practice), South Africa is endowed with a formidable distance education establishment. Given the enormous quantitative and qualitative deficiencies in education inherited from the apartheid system, such institutions must be viewed as a potentially important part of a strategy for redress. At the tertiary level, distance education methods could enhance the capacity to serve increased numbers of learners on a campus, to improve the quality of teaching and remedial support, and to offer opportunities to part-time adult learners and those unable physically to attend an institution. These methods can also enable institutions to offer courses in priority fields of instruction in which they do not have the necessary expertise *in situ*.

In order to serve such purposes, however, distance education must be built on a foundation of excellent study materials. Unfortunately, in South Africa such materials are generally of "inferior quality." As a result, "throughput pass rates are, in most instances, dismally low" and course work "often given expression to and is impregnated with the

antiquated educational doctrines of apartheid.”<sup>8</sup> UNISA courses are widely criticized as dull, didactic, dated, and utterly nonengaging. A privileged sinecure for a self-perpetuating cohort of white male educators who direct an overstaffed, lavishly housed institution with outdated correspondence pedagogy, UNISA consumes an annual

budget of some 425 million rands. South Africa can ill afford the wasteful fiscal and opportunity costs of such an operation. UNISA and its Vista and Technikon SA spin-offs need to be reorganized and reoriented from top to bottom.

Properly conceived and organized, distance education could be used by HBUs and African universities in the north to develop common core course materials, viz. an introductory course on history and culture as well as basic courses in mathematics and science. It could be used to promote common standards in higher education by utilizing external examinations of core courses and theses. Conceived of spatially, as well as in terms of study materials, it could be used to bring graduate students and researchers to appropriately equipped sites to take specialized elective courses or pursue joint activities alongside and/or in electronic communication with peers at other institutions. It might also simply take the form of “block teaching” by which faculty in some key fields would split their week between two institutions thereby building instructional bridges.

South African distance education needs a radical overhaul and reconceptualization that draws upon the content-based pedagogy of successful programs such as the British Open University. But it could also profit from doses of what is sometimes described as a more costly “American mode” of distance education that uses “high technology to increase the size of an otherwise conventional classroom with the instructor [as distinct from the course design] at its core.” As costs of electronic communication give way to efficiencies of the digital revolution, technological advances may be creatively melded with the content-based, or “industrial” model of distance learning.<sup>9</sup> E-mail, Internet, CD-ROM, video, fax, computer assisted learning and databases, interactive television conferencing and on-line library materials—all of these are becoming commonplace bases for linkage within a global academic community.

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They represent one way for South African higher education to leap forward.

## Conclusion

South Africa has a finite period of time, perhaps three to four years, within which to reform and revitalize systems of higher education and research that are essential to the social transformation of the country. If this opportunity were to be missed, a Malthusian logic of over-enrollment, under-funding, and political stress would likely overwhelm and destroy what is by far Africa's best possibility for creating and sustaining an indigenous capacity for human resource development.

It would be tragic if the international donor community were to fritter away the opportunity to help South Africa in meeting this challenge. The danger is that separate, self-determined, and uncoordinated agendas will lead to a scatteration and redundancy of effort on the part of governmental and non-governmental donors. A concentrated effort that focuses on catalytic ventures with potential for spillover and self-sustained endeavor, and which conforms to priorities articulated by South African leadership should be the order of the day. This would suggest a level of communication and division of labor among international agencies, governments, private enterprise, and foundations that does not now pertain.

The South African government might do well to set out its own priorities for higher education, engage the donor community in collective discussion about them, and ask for a *coordinated action plan* that includes and rationalizes initiatives from sources as diverse as USAID, the European Union, the Fulbright Program, Sony, and the Ford Foundation. To this end, it might turn to a professional organization such as the International Association of Universities or to an international consortium of foundations to help it organize a consultative process that would assure maximum collaboration and economy of effort.

South Africa offers a dramatic but fleeting opportunity to forge an economic and intellectual center capable of radiating out and beginning to reverse the negative trends afflicting much of Africa. A timely transformation of South Africa's systems of higher education and research will form a necessary component in any strategy to realize this opportunity. A country and a continent would be the better for its success. ♀

## Notes

<sup>1A</sup> *The Courier* (ACP, European Community), Brussels, September-October 1990.

<sup>1B</sup> *The Courier op. cit.*

<sup>1C</sup> Address by Obasanjo, African Leadership Forum, Ota, Mgeria, October 24, 1988.

<sup>2</sup> *The Courier. op. cit.*

<sup>3</sup> *Washington Times*, October 13, 1994.

<sup>4</sup> John A. Nkinyangi, "African Education in the Age of Student Revolt," *Higher Education Policy*, London, July 1991.

<sup>5</sup> ANC's *Policy Framework for Education and Training*, January 1994.

<sup>6</sup> Andrew Donaldson, *Optima*, Johannesburg, May 1993.

<sup>7</sup> Emmanuel Ngara, "Research Capacity Building in Historically Black Universities," Ft. Hare, 1994.

<sup>8</sup> South African Institute for Distance Education (SAIDE), "Open Learning in South Africa," Johannesburg, 1994.

<sup>9</sup> D. F. Swift, "Distance Education: Two Modes of Learning Separated by a Common Language," SAIDE, 1992.