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A Pedagogy of Hope: Stellenbosch University's Vision for Higher Education and Sustainable Development

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Abstract

This paper re-examines the traditional notions of education in developing countries. Whereas previous conceptions and developmental interventions focused almost exclusively on primary and sometimes secondary education, it is clear that if Africa is to engage the knowledge economy, a new emphasis on the importance of higher education is crucial. This is no easy task, especially when one reflects sub-Saharan Africa's tertiary enrolment challenges. However, if we can establish at a conceptual and policy level the clear link between higher education and socio-economic growth, we may find ourselves at the dawn of a new phase in the history of African higher education., namely of a robust, active and relevant sector that produces knowledge and experts who will lead the sustainable development solutions of our continent.

Each region and country has its own obstacles to overcome on the route towards this new conception. Thus, a picture of the South African Higher Education landscape is presented to reflect commonalities and points of departure from other African and other developing countries. Finally, Stellenbosch University's bold new vision for Higher Education is presented. Its Overarching Strategic Plan is embedded in African development and hope, pointing to a framework that would allow us, our universities, to chart a new course for future education partnerships.

Introduction¹

Knowledge is a path to Truth and Enlightenment. Since its first bold steps from this continent into the unknown, humanity has quested for knowledge and truth. We have learnt, seeking answers from the natural world around us, testing, questioning, researching, enquiring. So, we created lore, legend, myth, language, number systems, cultures, religions, civilisations, disciplines...all the things that drove our development forward. And then we did it all over again. We taught. We educated those who followed.

Knowledge and education is the bedrock of human development. Without it we stagnate, we become inert, we flounder.

¹ This paper is a revised version of a lecture by Prof H. Russel Botman delivered at the India International Centre, New Delhi on 20 January 2009 and subsequently published by the Centre as Occasional Publication No. 6.

Higher education is the capstone of education in society. But more than that, it is a critical pillar of sustainable human development worldwide. In today's lifelong-learning framework, tertiary education provides not only the high-level skills necessary for every labor market but also the training essential for teachers, doctors, nurses, civil servants, engineers, humanists, entrepreneurs, scientists, social scientists, and myriad personnel. It is these trained individuals who develop the capacity and analytical skills that drive local economies, support civil society, teach children, lead effective governments, and make important decisions which affect entire societies.

But, what about higher education in our countries? Is it not a luxury, something for the wealthy elite, a crowning achievement to an education system that doesn't serve the primary needs of countries still experiencing the growing pains of independence from colonial shackles?

It is time to address these important questions facing us by reexamining traditional notions of education in developing countries and the real, not nominal, value it holds. In the interest of time I will not delve into the South African Higher Education landscape as intended, rather focusing on Stellenbosch University's new vision for Higher Education. This is a vision embedded in African development and hope, pointing to a framework that would allow us as African universities to chart a new course for future education partnerships.

Higher Education in developing countries

Traditional perspectives in global development have suggested that developing countries should place significant emphasis on primary and secondary education to experience positive economic growth and eliminate pandemic poverty, malnutrition, poor social, health and welfare services, and ineffective governance. At the same time, this assumption held that higher education and centres of excellence in Africa are of lesser importance; a luxury for the privileged few with private benefit that cannot be extrapolated to society as a whole.

Playing devil's advocate with this scenario, higher education is perceived as having little to no impact in the struggle for poverty alleviation and societal development through civil services. Primary and secondary schooling are considered more urgent and more important for development. At the 2000 Dakar World Education Forum titled "Education for All" scholars and policymakers indeed advocated only primary education as a means to deliver improvements in broad social welfare, leaving higher

education in the background (UNESCO 2000) (see Article 7). If we take this argument further given the global financial crisis and economic slowdown, perhaps we in developing countries should now more than ever direct domestic and foreign investment to basic skills that are provided by the non-tertiary education systems?

But this is not true.

Re-thinking the value of higher education in developing countries

Knowledge societies, opportunity and empowerment

The world is evolving toward, and some may argue that it has already entered, a knowledge-based global economy with intellectual skill replacing physical capital in the search for current and future sustained growth (Bloom, Canning et al. 2006). Knowledge has been found to be a chief determinant driving success and growth through its ability to reduce poverty. Tertiary education imparts knowledge and produces professionals who then directly and indirectly impact on macroeconomic institutions, the information and telecommunication infrastructure, the national system for innovation and the quality of human resources.

The impact of knowledge societies has been so marked it has caused the World Bank to change its policies relevant to higher education in developing countries. Since the turn of the millennium, the World Bank has seen tertiary education as vital to development. Previous policy focused on primary and secondary education but there is now acceptance that the lack of investment in higher education was poorly conceived. The World Bank has recognised the importance of a globalised knowledge economy, saying “As knowledge becomes more important, so does higher education... The quality of knowledge generated within higher education institutions, and its availability to the wider economy, is becoming increasingly critical to national competitiveness” (Task Force on Higher Education and Society 2000; World Bank 2002b).

But how developed is this knowledge society everyone speaks of? While renewed support and investment in higher education is welcome, the concept of a knowledge economy and what it means for society has not yet progressed to the level where it is an accepted, agreed upon reality, even in developed nations. We must proceed with caution; coupling higher education and a knowledge economy is problematic, and this will no doubt prove more so in poorer, transitioning countries.

But it goes deeper. Higher education is also linked to the variables of opportunity and empowerment. And in countries like South Africa, where these variables were highly stratified for so many years according to race, gender, geography and class, the ability of tertiary education to inject change and transformation into these societies has not been given the credit it deserves. Employability, personal mobility, social mobility, ramping up of future income prospects are all outcomes. But social cohesion, reducing wage gaps and income inequalities, creating knowledge across cultures to improve civil institutions, is also improved. However, perhaps more significant is the fact that Higher Education is the one discernable lever a society can use to not only align itself with global development, but directly and positively impact the Millennium Development Goals. How else besides through educational training of skilled persons to impact primary and secondary schooling, and how else besides through training of healthcare professionals, administrators and policy experts, will we as a global village achieve the goals we set for ourselves?

Enrolment

However, who will we train? Who will step into the shoes of the professionals needed to enable the framework for sustainable development as I have just highlighted? I raise this question because of the trend in enrolment rates. In the developed world, enrolment rates have continued to outstrip those in transitioning economies despite the positive statistic that enrolment in the latter *has* increased in recent years. In the USA, enrolment in tertiary institutions is at 72 percent of the eligible age group. In Eastern European countries such as Slovenia and Russia, it is about 60-64 percent. South Africa's is between 15 and 18 percent (although much higher among the white population groups than among the black and coloured population groups), while another important developing country like India's is 10 percent. In much of sub-Saharan Africa tertiary enrolment is at three percent, with cases as low as 0.3 percent of the eligible age group (Teferra and Altbach 2003).

Figure 1 shows enrolment figures for the main regions of the world as a percentage of the age group 15-24. Figure 2 shows the growth of tertiary students per capita in the main regions of the world between 1900 and 2000. The message is clear: develop strategies for enrolment growth that takes into account local challenges such as the impact of HIV/AIDS on demography in Sub-Saharan Africa and rapid population growth in South Asia.

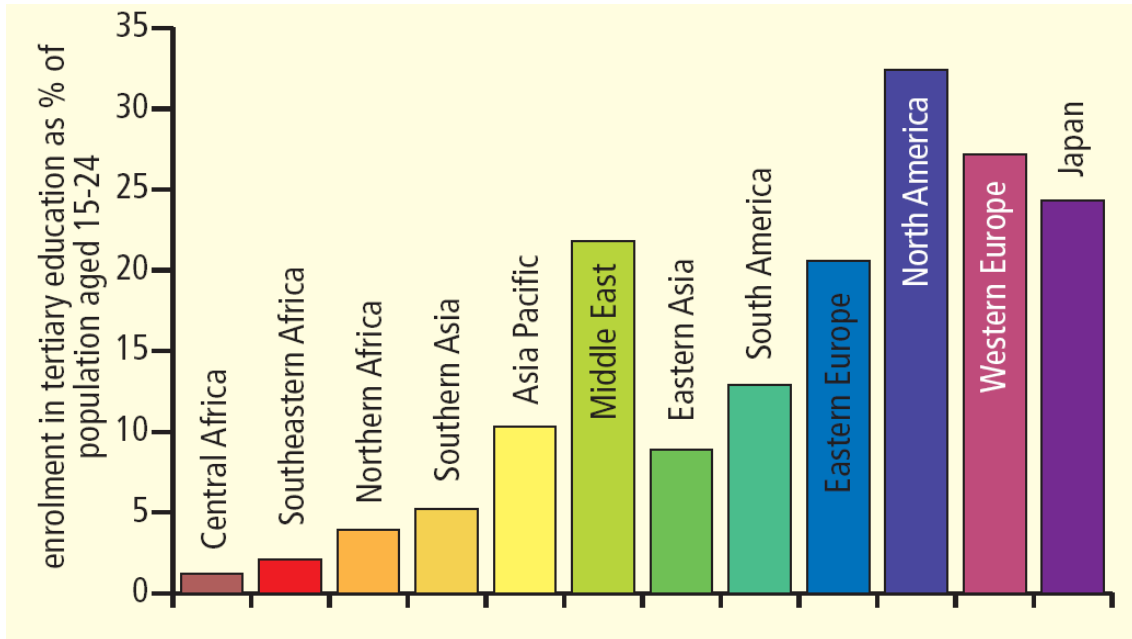


Figure 1: Enrolment in Tertiary Education (SASI Group and Newman 2006)

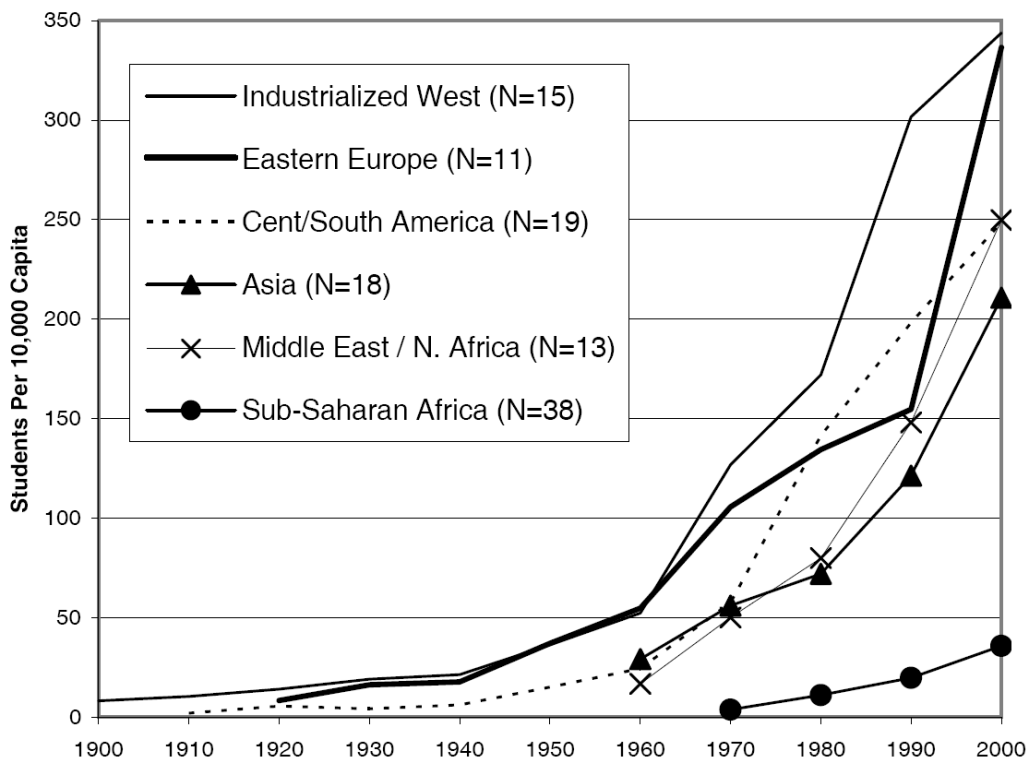


Figure 2: Tertiary Students Per Capita, Regional Averages, 1900-2000 (constant cases) (Schofer and Meyer 2005)

Toward a new conception of Higher Education and Development

In a world where knowledge is the new currency, traditional perspectives are no longer valid. In such a world, developing countries in the South will continue to lag

behind, never closing the gap, never coming close to sharing in the benefits of healthy, functional communities who enjoy even the most basic of services.

Thus, without any malicious intent, the international development community, through its overemphasis on non-tertiary education, encouraged policy in developing countries to overlook higher education, *relatively speaking*. Higher education has, as a result, suffered from reduced donor spending; from 1985 to 1989, the World Bank's worldwide tertiary education funding was 17% of its total development aid, but for the period 1995 to 1999 the portion allocated to higher education fell to just 7% (World Bank 2002a). Subsequently, higher education in developing countries has suffered from these reductions. Low enrolment levels and academic research output, which constitutes only a small percentage of global research production, are but two of the negative consequences. In recent decades, donors and development agencies have not seen this as a significant problem. However, in recent years, the context has begun to change.

Education as both public and private good

In the past, very little empirical evidence showing the link between investment in higher education and economic growth and poverty-reduction existed. Indeed, noted American economist Milton Friedman focused on higher education as a form of human capital, examining only the benefits to the individual, going so far as to suggest that higher education may promote social unrest and instability. More recently, however, evidence has emerged showing a more complex relationship between higher education and income; tertiary study is both a determinant and result of the latter.

Higher education results in greater private good. Individuals are afforded better employment opportunities, higher salaries, and a greater disposable income that leads to a generally improved quality of life with associated enhancement in physical and psychological well-being. There is also the increased propensity to save and invest. These benefits have the propensity to create positive cycles where life expectancy increases to the extent that people can work more productively over a longer period of time.

But public benefits exist too. Higher education creates greater tax revenue (especially if people work for longer periods over a lifespan), increases societal savings and investment, generates entrepreneurship and has the ability to create gains in civil society, healthcare, reduce population growth (less strain on governments) and improve technology. In the area of technological gain, a school of

thought suggests that higher education may enable sub-Saharan African countries to make quicker leaps in advancement, improving capacity to reach its production possibility frontier. This has recently been acknowledged by the World Bank, UNESCO, donor governments and donor institutions that have carried out comprehensive studies reaching similar conclusions; that “higher education is no longer a luxury; it is essential to future national social and economic development” (Task Force on Higher Education and Society 2000).

Better standards of living also promote stability in family life and social cohesion. Those who have a better standard of living are more inclined to embrace democracy and a human rights culture. The correlation between income and tertiary enrolment is demonstrated in figure 3, suggesting that increasing university enrolment can lead to increased national income.

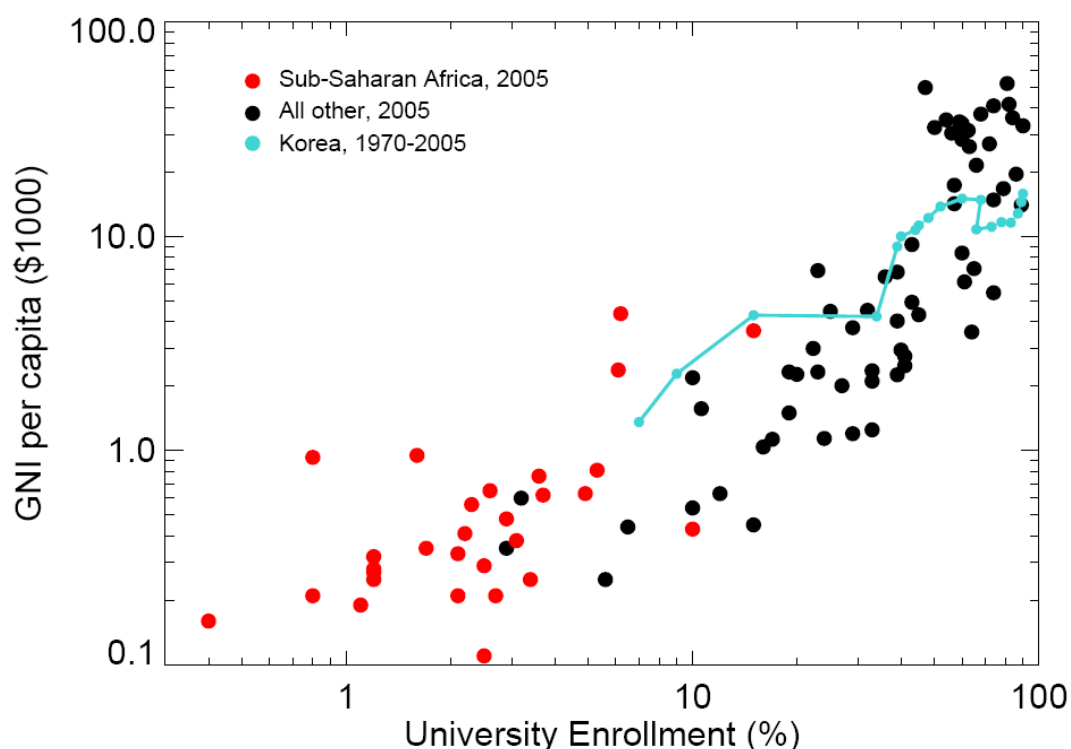


Figure 3: Gross national income and university enrolment (Moyer 2007)

While this link to economic and social development has been recognised, and innovative policies have been implemented, the *relative* progress in developing countries is still very small compared to other world regions. The conceptual link from higher education to economic growth needs to be embedded into policy development of governments as well as the international development and donor community. In an economic analysis of the impact of higher education on growth and GDP, Bloom et al found that increasing the prevalence of tertiary study by just one year would improve

Africa's production capability while increasing the rate of convergence to that frontier. Ultimately, this would result in income gains of approximately 3% after five years (Bloom, Canning et al. 2006). This finding is a direct challenge against the assertion that higher education does little to promote economic growth. This is reiterated in the strategic plan of the Southern African Regional Universities Association (SARUA), as follows:

One of the preconditions for national and regional economic competitiveness as well as sustainable development is the emergence and growth of institutions dedicated to scientific research and innovation. Institutions devoted to research and technological innovation is the foundation of a modern knowledge economy (SARUA 2007).²

However, there are caveats to this assertion, which in turn, are linked to understanding education systems in developing countries, in general. In this regard, South Africa can simultaneously represent a microcosm of Africa, and be a unique case because of the heritage of apartheid schooling systems.

South Africa: a microcosm *and* unique case

South Africa is a dichotomy. It has first-world convenience, but at the same time significant levels of poverty exist. The result is a skewed society with enormous imbalances; the country has one of the highest Gini-coefficients in the world. This is especially salient in the education sector. Decades of apartheid-education has left the schooling system in much need of transformation. Its fractured state is in need of a level of discourse as yet unseen. However, according to the World Bank's Knowledge Economy Index (benchmarking countries' performance based on favourability for knowledge development, education, innovation and information technology), South Africa falls somewhere along the mid-point.

South Africa thus has some of the same problems of poor policy-making and ineffective governance representative of many African countries. But at the same time, it has an economy that has in recent years been growing at a steady rate (between 3-5%), and sound financial, commercial and physical infrastructure to play

² SARUA was established in 2005 as a result of a call by the Southern African Universities Vice-Chancellors' Regional Consultative Workshop in Lusaka, Zambia, May 2004, which "recognised that Higher education institutions in the region must effectively respond to the challenges facing the region, understanding that higher education is pivotal to regional growth, stability, good governance, and an expanded quality of life for all the region's citizens" (SARUA 2007). SARUA recognises the key partners in this process, amongst others the AU, NEPAD, SADC, the African Capacity Building Foundation and the AAU.

a leadership role in Africa. South Africa, because of the legacies of colonialism and apartheid, wants to embark on this leadership role in Africa in a partnership capacity. However, in order to do so, and be one of the drivers of pan-African development, the country needs its higher education systems to be acknowledged and supported.

South African higher education institutions have to, in many cases, offer academic assistance to students with potential who were disadvantaged by virtue of the secondary school system they were part of. But universities are institutions of higher learning. That is, academic remedial support cannot be its primary function. At the same time, the donor community and governance structures must recognise that this type of support requires significant investment.

There are firm foundations in South Africa which can be further developed. Using the context outlined earlier where higher education does indeed positively impact economic growth, South Africa needs to maintain its *relative* high level of enrolment in tertiary education compared to the rest of Africa. In this way, South Africa can produce the “well-trained and insightful economists, sociologists, anthropologists, political scientists, public administrators” (InterAcademy Council 2004) and other professionals which would propel economic growth.

While these firm foundations exist, there are also areas of serious neglect resultant of the apartheid education system. Universities in South Africa face significant challenges in an education systems still highly fractured and fragmented because of Apartheid education policies of segregation, neglect, classification and education with job reservation as a goal.

The Challenges in South African Higher Education

To a large extent the South African education system was sculpted by apartheid ideology, moulding the composition, shape and size of the higher education system. For the most part of the 20th century, education was divided along racial and ethnic lines, effectively excluding black people from quality academic education and training. One of the enduring legacies we are left with is an education structure still dominated by inherent inequality, leaving us with Historically Black and Historically White Institutions. Building a post-apartheid education system in South Africa has to overcome old and new forms on inequity (Sayed, Subrahmanian et al. 2007). Since 1994 enrolments rates for black students have risen to 60 percent of total enrolments. Women students comprise 54 percent of all students in higher

education. Yet their academic success and more representative distribution across subject areas remain a challenge. The education sector needs to:

- Increase enrolment and graduation rates for black students
- Encourage women into postgraduate studies and science and technology subjects
- Promote gender equity (Morley 2008).³
- Reduce the high drop out rates among students unable to afford tuition fees
- Ensure that staffing profiles reflect the country's race and gender demography
- Increase funding for academic and infrastructure improvement (Singh 2008).
- Reverse the brain drain from universities (Teferra 2008).⁴

Curriculum reform is needed. A paper by the Council of Higher Education makes the point that attempts to reform curricula are seen as 'lowering standards' by those who wish to uphold the status quo (Scott, Yeld et al. 2007), demonstrating additional political challenges inherent in curriculum transformation. Higher education investment can also produce the experts needed to address this challenge. This was emphasised by former UN Secretary-General, Kofi Annan, who, in a speech, argued:

The university must become a primary tool for Africa's development in the new century. Universities can help African expertise; they can enhance the analysis of African problems; strengthen domestic institutions; serve as a model environment for the practice of good governance, conflict resolution and respect for human rights, and enable African academics to play an active part in the global community of scholars (quoted in Bloom, Canning et al. 2006).

³ A recent study explored the extent to which gender equity was promoted or inhibited at five higher education institutions in South Africa, Sri Lanka, Nigeria, Tanzania and Uganda (countries were selected based on their national gender policies and their commitment to end gender-based discrimination. The institutions were chosen based on existing organisational policies and practices and affirmative action). The outcomes showed that a highly stratified environment exists relevant to gender. This impedes women's development whether student or staff, impacting negatively on students' learning and academic's identities (Morley, L. (2006). *Gender Equity in Commonwealth Higher Education: An Examination of Sustainable Interventions in Selected Commonwealth Universities*. London, DFID. Online: <http://www.dfid.gov.uk/pubs/files/Gender-Equity-in-Commonwealth-High-Educ-No-65.pdf> [Accessed 23 March 2009].)

⁴ In Africa, there is also intra-continental brain drain; many Africans move to find work in more attractive destinations such as Botswana, Namibia and South Africa. Countries are rapidly losing qualified persons. There is also a brain drain out of academia with many leaving for the lucrative corporate sector. These demographic trends serve to undermine higher education in developing nations.

It also has long-term benefits because it will facilitate transformation, research output profiles, a greater number of black doctorates and academic diversity. In South Africa, we have a choice: either we fund our universities adequately and give South Africa the human-capital means to maintain growth and development, or we neglect the next generation and slowly but inevitably take the low road to mediocrity (Rensburg 2007). African higher education institutions feel strongly that the time has now come for the international development agenda to give priority to tertiary education in Africa. The same holds for tertiary education development in India, Brazil and other developing regions.

Stellenbosch University's Higher Education vision

Stellenbosch University seeks to embody a Pedagogy of Hope through knowledge pioneering scholarship, research and teaching, generating hope and optimism from and within Africa.

The “pedagogy of hope” concept has been adopted as a guiding principle in teaching, research and learning. This philosophy posits that the main idea driving our university should be rooted in the idea of “Hope”. To many, even in academic circles, “pedagogy” is a seldom-heard word. It is nevertheless an important concept reflecting the art and science of teaching, or the *how* of learning. Hope therefore is, or should be, embedded in the skill of teaching and educating. It is a foundation from which the message of possibility over limitations, of opportunity over cynicism, of creation over destruction, indeed, of hope over pessimism is carried through to everyone in our community. Hope is something more than optimism, it is a crucial imperative for the human condition. You cannot have education in the absence of hope; learning cannot happen. Learning is something more than just imparting knowledge through teaching; it is a special process where we absorb and adapt and question. Knowledge, in all its shapes and forms, is the vehicle through which future opportunities and future success is achieved – the better the vehicle, the more suited it is to individual needs, the better the journey and destination.

Generating Hope from Africa is thus a future-oriented vision for education on the continent. The global development agenda is similar in its focus; the identification of social, health and political goals which we as a global community should strive to achieve.

These have been codified in the United Nation's Millennium Development Goals, the far-reaching set of targets that, if worked toward, will significantly improve the lives of millions. The Millennium Development Goals' flaw, however, is that it too also ignores the potential that higher education can play in developing country growth and prosperity. Stellenbosch University has taken the bold step to draw out from the MDGs five themes on which to focus *its* mission and vision, and so marry higher education with development and economic growth in a more comprehensive way. SU will use its expertise to assist in

- Consolidating democracy and ensuring regional peace and security
- Contributing to human dignity and health
- Eradicating endemic poverty
- Ensuring environmental and resource sustainability
- Maintaining the competitiveness of the industry

We have decided to draw everything that we do into these developmental themes – research, teaching and community interaction. Over the past two years faculties have developed research proposals that would direct their expertise into achieving these goals, in a process called the Overarching Strategic Plan (OSP). The result has been the formulation of twenty-one visionary project proposals covering topics such as the socio-economic rights of the needy under our current constitutional dispensation, the use of Geographic Information Technologies for Africa's development, renewable and sustainable energy supply for developing regions, food security in Southern Africa, rural health and development, human dignity, and invasion biology and environmental sustainability, to mention just a few.

Of particular interest with regards to sustainability is a new *Centre for Transdisciplinarity, Sustainability, Assessment, Modelling and Analysis*, also called the *TSAMA Hub*. It aims to build a better understanding of the social, cultural, economic, institutional, political and ecological changes required to respond to the accumulating negative consequences of the unsustainable use and distribution of natural resources. The epistemological and methodological focus of this centre will be transdisciplinary complexity thinking applied to the study of the dynamics of complex social-ecological systems.

While Africa as whole faces skills shortages in the *technological* disciplines of engineering, agriculture, commerce and others, these skills cannot be developed and practiced without the lower level *empirical* disciplines (Physics, Chemistry, Biology, Psychology, Sociology, Anthropology and others) and without the higher level

normative disciplines (Planning, Politics, Law, etc.) and finally the *value-forming* disciplines (Ethics, Philosophy, Theology). A transdisciplinary approach recognises the interlinked nature of science when it is applied to real world developmental and sustainability challenges (Max-Neef 2005).

The TSAMA Hub project is conducted in partnership with the Sustainability Institute and its Eco-Village concept. It also forms part of an agreement between Stellenbosch University and the Stellenbosch Municipality called *Reinventing Stellenbosch: A Sustainable University Town*. These connections express the need for science to move beyond the confines of classrooms to the communities and societies where development is most needed.

Two other OSP projects can be highlighted within the context of the role of universities in development. The first is a programme that aims to support PhD students to develop generic research skills. The proposed *African Doctoral Academy* (ADA) will initially focus on students in the Arts and Social Science areas and with preference to students enrolled at Stellenbosch University, but it is foreseen that the Academy will grow to provide for other disciplines and students at other African universities. An agreement with university partners in Botswana, Malawi, Tanzania and Uganda is underway to open these avenues.

The second is a project of our Faculty of Health Sciences which aims to establish a *Rural Clinical School* (RCS) in the rural town Worcester. The RCS will train health care workers from the surrounding communities. This increases the number of health professionals in the area, while simultaneously opening the route for some to enter degree programmes and offering currently enrolled medical students trainee positions in the RCS. By linking to other faculties the RCS aims to become a truly sustainable rural development project. Details about this project can be found in the paper of Thérèse Fish, also included in this volume.

In figure 4 below the 21 OSP projects are positioned respectively to the five Strategic Research Themes of the OSP. Each of the projects feed into one or more of the themes. Importantly, as shown in Figure 5, the OSP projects have an overtly inter-faculty, interdisciplinary and transdisciplinary orientation. They also engage partners from various spheres of society: industry, government, non-governmental organisations and faith based organisations, urban and rural communities, science councils, and partner universities elsewhere in Africa and beyond.



Content - the OSP Projects



Figure 4: Five Strategic Research Themes and 21 OSP Projects



Crossing faculty borders...

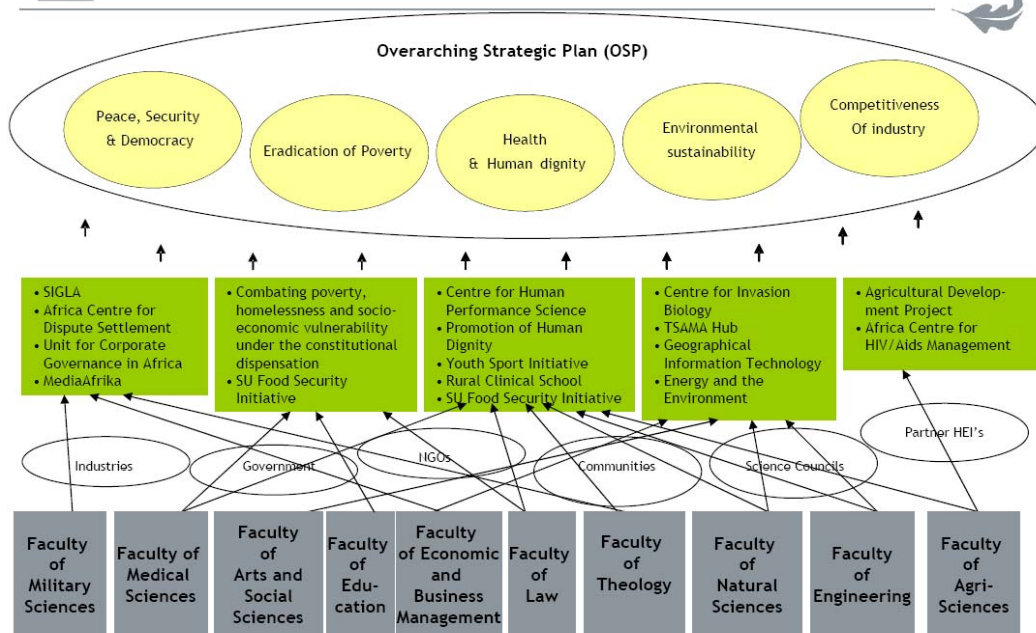


Figure 5: A transdisciplinary approach involving public and private partners

Each of the proposals of the OSP has a clear developmental character with particular application to our South African and African context. As such it serves as a good

example of what the UN Decade of Education for Sustainable Development seeks to achieve. Stellenbosch University is taking a leading role in the initiation and implementation of the international development agenda by incorporating it as strategic focus points in a higher education institution in South Africa. It is hereby laying the foundation for the University to distinguish itself as a knowledge pioneer and bearer of hope in Africa.⁵

One of the ways we envisage achieving our goals is through strengthened partnerships, especially South-South co-operation for sustainable higher education. For me, and my team, our university is keen to build on our relationships with our colleagues and counterparts across this continent.

Hope from Africa

The most famous of Nigerian novelists, Chinua Achebe, once said: “People go to Africa and confirm what they already have in their heads and so they fail to see what is there in front of them. This is what people have come to expect. It's not viewed as a serious continent. It's a place of strange, bizarre and illogical things, where people don't do what common sense demands.”

I believe Africa is at the brink of surprising everyone who sees Africa in this way. An Oxford economist recently stated that Africa currently offers investors a higher rate of return than any other region in the world. Indeed, in 2006 foreign direct investment in Africa eclipsed foreign aid to Africa for the first time, and the gap has been increasing since. Africa's annual GDP growth rate between 2004 and 2008 is more than 6% and Africans living on less than \$1.25 a day has dropped from 59% in 1996 to 51% in 2005. While many developed economies are facing their worst recession in decades due to the current financial crisis, many African economies are predicted to grow by between 5% and 8% in 2009 (Perry 2009). As a recent *Time* cover announced: “Africa is open for business”.⁶

The challenge for us here in Africa will be to harness this growth so as to transform our economies and societies. Much of this growth is currently based on Africa's commodities and natural resources. Our challenge and that of future academics will be to accelerate Africa into the knowledge economy of the 21st century. The goods of higher education lie not only in accelerated economic development, but also in more robust democratic processes and institutions, in the reduction of human rights

⁵ More information about the OSP is available on the internet at www.sun.ac.za/osp.

⁶ *Time*, March 23, 2009.

abuses and injustice, in the environmental sustainability of economic development, and in the cultivation of the values that underlie these goods. In short, higher education must strive to develop a critical society and critical minds that will guide and lead our continent's development. If we are to succeed in this, it will be due to the active participation of our scientists and researchers in the complex interrelations between the global, social and human dimensions of sustainable development.

The more support we can garner for our academics and our tertiary institutions to engage these issues, the greater will be Africa's chance to truly break the cycles of dependency, conflict, and poverty that has for too long held countless Africans under its yoke. Ours must be a future free from poverty, where the human dignity of all people is protected, where our social and ecological systems are healthy, and where peace, security and democracy are safeguarded. All of us in Africa, our scholars, professionals, thinkers, creators, our sons and daughters, should drive us toward hope.

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