Futures Studies for the southern African region: 'from Africa' not 'on Africa'

Roddy Fox, Professor, Rhodes University, Grahamstown 6140, South Africa. R.Fox@ru.ac.za
Kate Rowntree, Professor, Rhodes University, Grahamstown 6140, South Africa. K.Rowntree@ru.ac.za
Juha Kaskinen, Director, Finland Futures Research Centre, University of Turku, Finland. Juha.Kaskinen@tse.fi

Abstract

Futures studies is well established in the Nordic region and its history can be readily charted, but in Africa it barely exists in an institutional form and its evolution and impact is little known or understood. The first two sections of our paper briefly examine the history of futures studies, spending most attention on the African experience. We go on to show that the Higher Education landscape in the Southern African Development Community (SADC) region is very different to that in the Nordic region. Recent futures reports present forecasts and scenarios that show a differentiated Higher Education landscape in the SADC; there are few Higher Education Institutions (HEIs) and even the most optimistic forecasts show that the region as a whole will not meet the international enrollment norm of 30% by 2050. The last part of the paper examines our experience of collaboration with Finland and its well developed linkages between state and Universities. One outcome of three years of collaboration from 2007 to 2009 between two SANORD members, the Finland Futures Research Centre (now a part of the University of Turku) and Rhodes University, was a proposal to develop a multi-disciplinary, inter-institutional futures studies program intended to help Africa find its own voice in futures studies. The final part of our presentation reflects on the unsuccessful experiences that we have had to date in finding funding. We conclude by asking whether our experience can be seen as highlighting some of the challenges SANORD may be positioned to overcome if the SADC region's HEIs are to achieve the *Knowledge Village* scenario and begin to match their Nordic counterparts.

Keywords: SANORD, futures studies, SARUA scenarios, inter disciplinary, collaboration.

Introduction

In his keynote address to the World Futures Studies Federation, Yale's Professor Wendell Bell (2001: 65) posed the following question:

> ' … futurists … cooperate across disciplinary boundaries … adopt perspectives that are holistic, issue-driven, action-focused, value-relevant, and future-oriented. Could futures studies help lead the way in reshaping education for the twenty-first century? The answer, I think, is yes …'

Human beings are futures orientated creatures by nature and we have always planned for the future, even if we are not sure if our plans will bear fruit. What is surprising, however, is that futures thinking has played such a minor role in education. The following quote by Toffler (1974) encapsulates this:

> "All education springs from images of the future and all education creates images of the future … all education, whether so intended or not, is a preparation for the future. Unless we understand the future for which we are preparing, we may do tragic damage to those we teach."

We are near the end of the UN decade (2005-2014) of Education for Sustainable Development and yet the connections between futures studies, sustainable development and climate change are still being forged. In Africa there have been some encouraging initiatives in relation to futures studies thinking but it still tends to be divorced from the groundswell of work being undertaken as regards climate change, risk, sustainable livelihoods etc. This is paradoxical since envisioning, or being capable of imagining positive and better futures, is a foundational skill in Education for Sustainable Development (Tilbury and Wortman 2004). Cole (2001) concludes that futures studies are determined by the intentions and competencies of both the authors and the audience. What is still lacking, however, are the African authors of futures studies and the development of African perspectives to add to those from Europe, the USA, Latin America, India, South Korea and China.

Development of Futures Studies

Futures thinking has interested people throughout history since the time of ancient Greece. Utopian writers such as Plato in the fourth century BC, Sir Thomas More in the sixteenth century and Sir Francis Bacon in the seventeenth century have all posited alternative futures. Early sociologists such as Saint-Simon, Comte, Marx, Durkheim and Weber investigated society and systems in order to build up an analysis of, and prescriptions for, society. In the 1920s Russian economist Kondratiev developed his famous long-wave theory which showed that regular cycles of economic development and recession are repeated globally approximately every 50 years. To this day writers and analysts have embraced the futures ideas of these thinkers.

The development of futures as a field of study started in the 1940s. Cole (2001) and Anderson (2010) give us good summaries of the evolution of the various strands of the discipline, including the founding of the two major transnational bodies the World Future Society in 1966 and the World Futures Studies Federation in 1973. They show us how futures studies developed forecasting and planning activities for nation states and organizations and distinguish between the perspectives of the post World War Two American futurists and their European counterparts. More importantly for

the argument here has been the development of a critically orientated futures studies that embraces global perspectives to literally *think* the world.

Ossip K. Flechtheim invented the concept of *Futurologie* in 1943 and the first attempts to use scenarios were made in military planning during the Second World War. In the USA, futures thinking was first popular in the military sector with the activities of the Rand Corporation. This continued in a number of think tanks and research institutions through to the 1960s and beyond. In France, futures was part of social planning and incorporated in the national planning organization, DATAR, established in 1963. Gaston Berger instigated the Centre International de Prospective and founded one of the earliest journals dealing with futures called *Prospective* (Bell 2003). In the Nordic countries too, the welfare state process encouraged societal planning approaches. In the 1960s civil society's concerns about environmental pollution, developing countries, disarmament, women's rights, participative democracy and peace research fertilized futures thinking. The first conference on futures research was organized in Oslo in 1967. This group was inspired by Robert Jungk's futures workshops for common people. Norway was the obvious place for such a conference as the country of international peace diplomacy and home of Johan Galtung, the famous peace researcher.

Futures studies in the Nordic Region

The Copenhagen Institute for Futures Studies was established in Denmark in 1970: this was the first institutional Nordic futures studies organization. In Sweden, a state secretariat of futures studies was established in 1973 following the recommendation of committee chaired by Alva Myrdal. The Institute of Futures Studies followed in 1987. In Finland, futures thinking emerged in the 1970s in various sectors of society, the first organization being the Finnish Society for Futures Studies of 1980. The Finland Futures Research Centre (FFRC) was started in 1992. In Norway, futures activities have grown more slowly, even if long term planning has taken place in governmental administration since the 1950s.

In Europe, the Nordic region, the USA and Asia the number of futures projects increased through the 1980s and 1990s but the educational response within educational systems has been slow. Two different models concerning the development of futures in higher education can be identified. The first is exemplified by Finland where the Finland Futures Academy (coordinated by FFRC) began in 1998 to offer futures courses to the Finnish university network. A few years later, the Master's program of Futures Studies was started in Turku School of Economics by FFRC and it developed into an international Master's program of Futures Studies in the University of Turku in 2010.

Interestingly to the arguments presented later, the multidisciplinary nature of futures studies means that it lacks the status of a pure academic discipline in the Finnish university system. The alternative model has been to add futures modules to traditional education programs. This has happened, for example, in strategic planning, technology and innovation research, economics and logistics in several European countries like Sweden and Denmark over the last 10-15 years. Our collaboration, described later, was to develop a Masters programme but we ended up with the alternative, a single futures module, as part of an established Geography degree programme.

The demand for futures education has increased in the last 20 years as futures thinking has penetrated through societies all around the world. The number of consultants working on futures has increased. Companies and public sector organization have carried out hundreds of future projects in Finland alone. It is therefore surprising that futures education has developed so slowly in educational curricula and institutions, even more so when we consider that there has been an enormous growth in the output of work concerning sustainable development and climate change.

Futures studies in the African Region

Multi-lateral agencies have been sporadically engaged with futures thinking on the African continent since the early 1990s. The United Nations Development Programme instigated the African Futures/National Long Term Perspective Studies in 1992 (Republic of Mauritius 1997). Their involvement led to the collection of 13 papers in the special issue on Africa in *Futures* 1994 Volume 26 (9). In 2002 collaboration with the Phyllos Institute produced the *Guide to Conducting Futures Studies in Africa* (Cairncross 2002) and in 2009 UNDP produced *Crafting Africa's Futures: National Long Term Perspective Studies* (UNDP 2009). Egypt, South Africa and Kenya all have nodes in the Global Millennium project (Millennium Project 2009) which was instigated in 1996. The South African Node of the Millennium Project was established in 2004. South Africa also has a chapter of the World Future Society since 2009.

The United Nations Environment Programme has been incorporating futures scenarios within its benchmark programme Africa Environment Outlook (UNEP 2002, 2006). UNEP is housed in Nairobi, Kenya, and the organization has a strong history of connections with the Nordic region, as revealed by the chronology of UNEP's mandates:.

1. The 1972 UN General Assembly resolution 2997 (XXVII) which resulted from the Stockholm UN Conference on the Human Environment.
2. The 1992 UN Conference on Environment and Development (Earth Summit), especially Agenda 21, held in Rio de Janeiro.

3. The 1997 Nairobi Declaration.
4. In 2000 the Malmö Declaration (which followed the first Global Ministerial Environment Forum) and UN Millennium Declaration.
5. The 2002 World Summit on Sustainable Development held in Johannesburg.

The futures thinking in UNEP's Africa Environment Outlook Reports can be traced directly back through the Polestar project's *Great Transitions: the Promise and Lure of the Times Ahead* (Raskin *et al* 2002) which was a report of the Global Scenario Group (GSG). The GSG is located in the Stockholm Environment Institute and Tellus Institute and can be seen as profoundly influenced by the 1987 Brundtland Report.

There are few futures studies institutions in Africa but, nevertheless, there have been a number of national vision programs in eastern and southern Africa that have resulted from the application of futures thinking. Some date back to the 1990s and the UNDP's facilitating role, others appear to be independent processes. In the 1990s there were two initiatives. In 1996, thirty years after Botswana's independence, the Office of the President initiated the process that led to the Long Term Vision for Botswana, which encompassed the next 20 years to 2016 (Government of Botswana 2002). In Mauritius, the UNDP facilitated the Vision 2020 process that led to the development of a National Strategy for Sustainable Development 1999-2005 (Republic of Mauritius 1997). The first decade of the twenty first millennium witnessed Rwanda (2002) producing 2020 Vision, Namibia (2004) producing Namibia Vision 2030 and Kenya (2007) developing Kenya Vision 2030 (Republic of Rwanda 2002, Republic of Namibia 2004, Kenya Vision 2030 2011). Each of these visions for the future has normative goals for the nation to aspire to, principles on which their development is to be based and national planning frameworks to fulfill the vision.

The development of futures studies in South Africa has been somewhat different to the other countries mentioned above, being closely aligned to the changing political landscape. There have been a number of scenario building exercises from the late 1980s onwards through the democratic transition period as outlined by de Villiers (2002) and Segal (2007). Clem Sunter's scenario planning exercise of the late 1980s originated in the Anglo American Corporation but was later spread to a much wider audience. The High Road scenario, for example, was presented to both F.W. De Klerk and Nelson Mandela before his release from prison in 1990. It was very influential in showing audiences that they could chose for, and subsequently influence, what Sunter called 'an active future'. We can probably infer that Sunter's activities also helped develop an environment more conducive to futures approaches in South Africa. Certainly South Africa is distinctive in that

futures studies has an institutional home in the Business School at Stellenbosch University. In 1992 a second set of scenarios (The Mont Fleur scenarios) was developed from an initiative of the University of the Western Cape during the multi-party negotiation process. Of the four scenarios the best outcome was for an inclusive democracy and economic growth which, with sustainable policies, led to the scenario called The Flight of the Flamingos. The September scenarios was commissioned by the Congress of South Africa Trade Unions (COSATU). These produced three possible scenarios that might confront the organization in the next 10 years. Skorokoro is the one which seems most applicable to the present (COSATU 1997). Lastly, ESKOM, South Africa's publicly owned electricity generating body, has developed extensive South African, provincial and African scenarios for the period 1997 to 2012.

More recently in South Africa there have been a sequence of futures activities emanating from the Presidency's office. Policy Coordination and Advisory Services produced *South Africa Scenarios 2025: The Future We Chose* (Republic of South Africa 2008). The following year came the green paper on the need for national strategic planning (Republic of South Africa 2009). Finally, *The National Development Plan: Vision for 2030* was published for comment in 2011 (National Planning Commission 2011). There has been more attention paid to environmental concerns, and even environmental collapse, in the more recent of these visions and scenario building exercises.

Despite these various initiatives outlined above, Africa has remained peripheral to the intellectual development of futures studies, We now turn to a consideration of futures studies in higher eduction in the SADC region.

SADC Higher Education: Characteristics and Futures

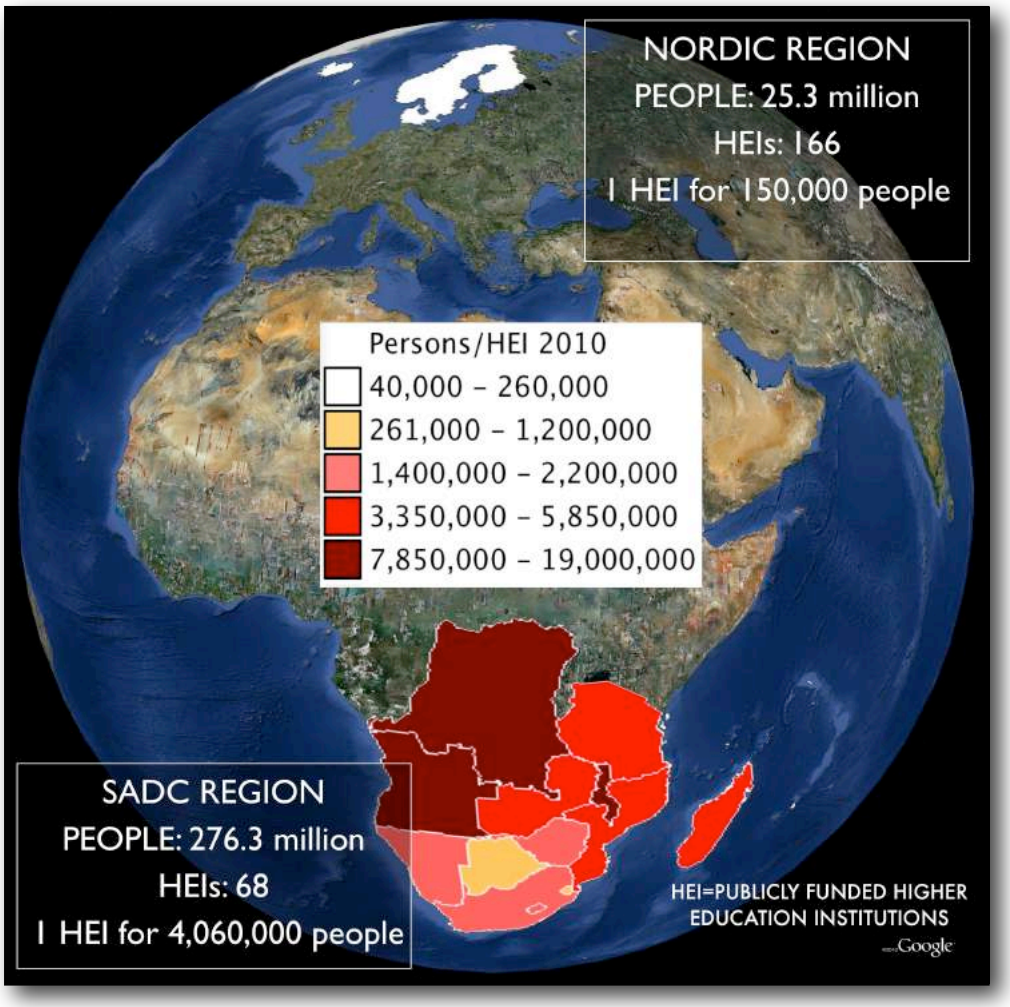
The Higher Education landscape of the Southern African Development Community (SADC) region is very different to that of the Nordic region. In this section we outline some distinctive features of the SADC higher eduction sector and show how futures studies has been used to investigate future possibilities in the eduction system.

The major demographics of SADC's public higher education sector are mapped in Figure 1. Data from the 2010 edition of the World Higher Education Database (International Association of Universities 2011) show a marked difference in the number of Higher Education institutions between the two SANORD regions. The Nordic region had just over 25 million inhabitants in 2010 and 166 Higher Education Institutions. This gives a ratio of one HEI for every 150,000 people. In contrast, the SADC region has 10 times as many inhabitants (just over 275 million) but one-third

the number of Higher Education Institutions (68). The SADC ratio is one HEI for every 4,000,000 people. Recent studies have shown that for SADC to reach levels comparable to current Nordic HEI norms there will need to be a massive expansion in the tertiary sector, backed by a particularly favourable economic environment, low population growth and policy scenarios that promote Higher Education in collaboration with government policy and external stakeholders (Cloete *et al* 2011, Southern African Regional Universities Association (SARUA) 2012).

Figure 1 shows that within SADC there are three tiers. Although not easily visible on Figure 1, the small Indian Ocean island of Mauritius is best provided for with 650,000 inhabitants per HEI. Grouped with it is the southern cluster starting with Botswana with 1 HEI per million people, then Swaziland, South Africa, Lesotho, Zimbabwe and, finally, Namibia with 1 HEI for 2.2 million people. The Eastern SADC countries follow as a regional bloc with between three and six million people per HEI in Madagascar, Mozambique, Tanzania and Zambia. Worse off is Malawi with 7.85

Figure 1: SANORD Countries Higher Education Institutions 2010

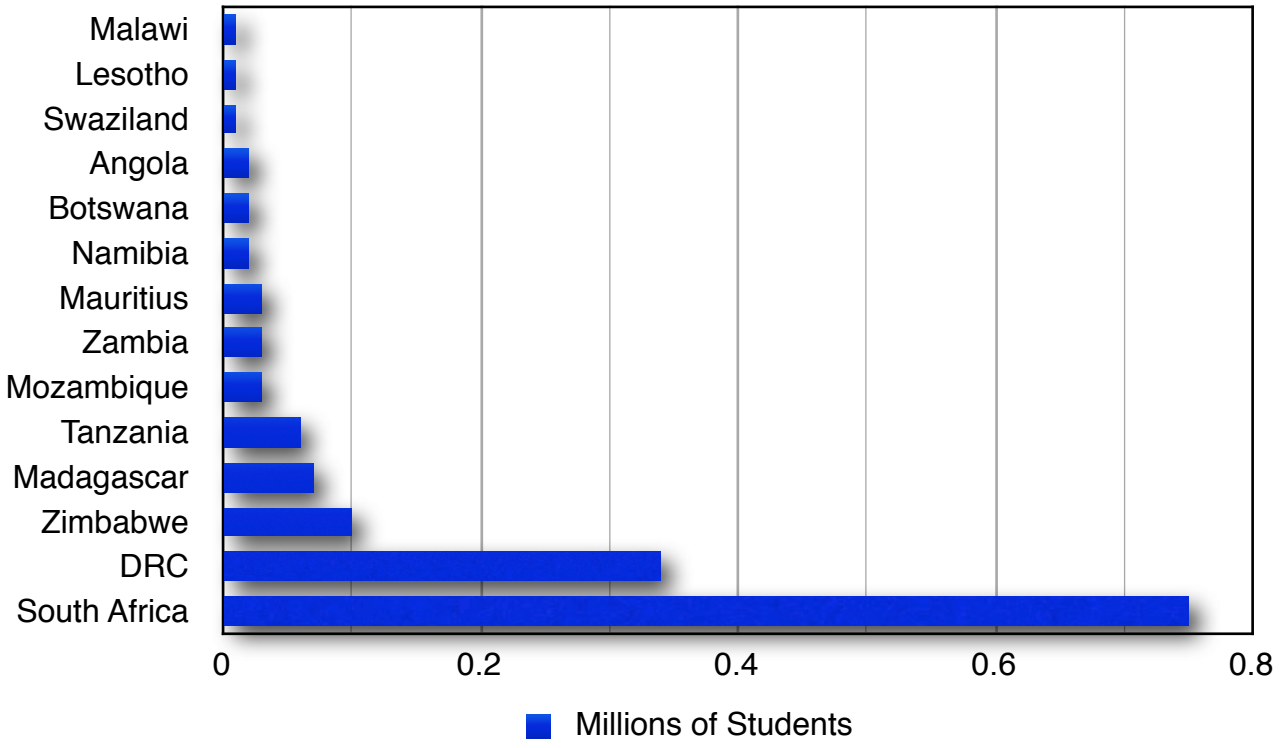


million per HEI. Lastly are the two large western SADC countries of the Democratic Republic of

the Congo (13.56 million per HEI) and Angola with 19 million per HEI. It must be stressed that these data are for publicly funded HEIs; there are large numbers of private HEIs in, for example, the DRC and Angola.

The total numbers of students enrolled in HEI by country is shown in Figure 2, compiled from data presented in the 2012 Southern African Regional Universities Association (SARUA) publication: *Building Higher Education Scenarios 2025: A Strategic Agenda for Development in SADC* (SARUA 2012). It clearly shows the dominance of South Africa (with many public universities) and the DRC (with many private universities) in terms of the number of students enrolled in HEIs. What is also clear is that some countries have far fewer HEI students enrolled given their total population

Figure 2: HEI Enrollments 2010: SADC countries

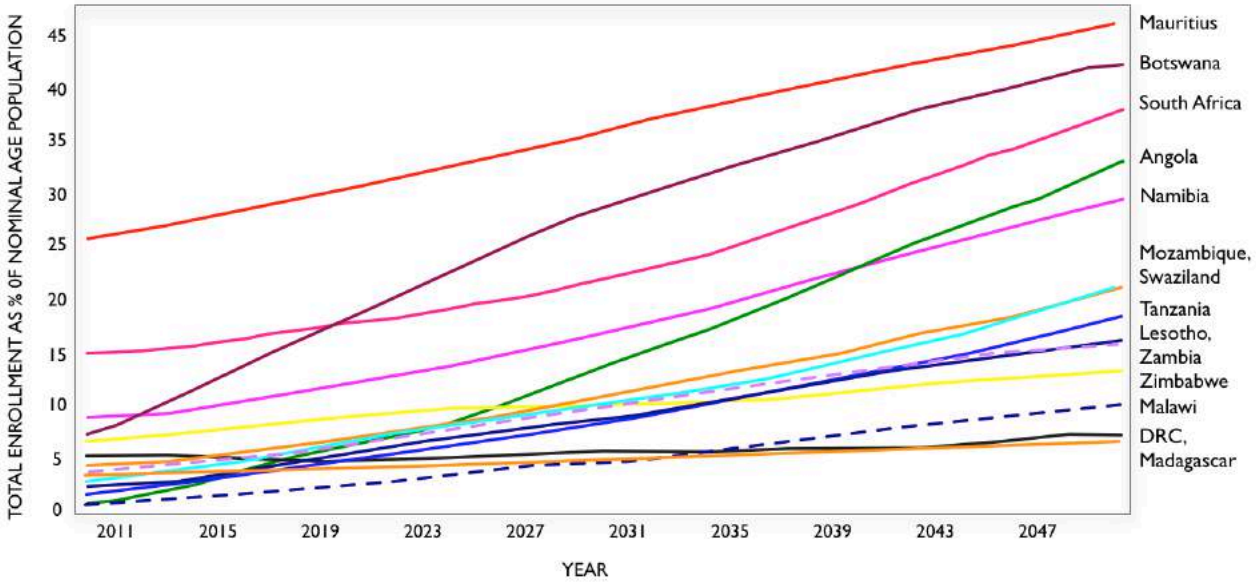


size. Malawi has 15.7 million inhabitants and roughly the same number of students as Lesotho, with only 2 million people. Angola has 19 million inhabitants and similar student enrollments to Botswana with 2 million people in total, Mozambique has 20 million inhabitants and the same number of students as Mauritius which has a total population of only 1.3 million. So there are some very major disparities within the SADC region.

Futures thinking has been applied to develop scenarios for Higher Education in southern Africa. The SARUA report uses the International Futures Model to forecast enrollments by country across the region up to 2050. Figure 3 is adapted from the report for the sake of clarity. It shows their base

case forecast which should occur if current trends and policies continue into the future with no major changes. Five countries will quite clearly dominate the region in terms of the proportion of their students enrolled in tertiary Higher Education: Mauritius with approximately 45%, Botswana 40%, South Africa 35%, then Angola and Namibia with approximately 25%. The bottom tier is made up of countries with a lower than 10% enrollment: Lesotho, Zambia, Zimbabwe, Malawi, the DRC and Madagascar. The international norm of 30% enrollment in HEIs is therefore only likely to be reached in four of the fourteen countries of the region. Some are predicted to stagnate, with very low levels of between 5 and 10%. This may lead to a scenario, described below, that has been labelled the *Demise of Higher Education* in those countries.

Figure 3: Tertiary Enrollment Base Case Forecast, SADC Countries



The IFS was also used to derive the most optimistic forecast for the SADC region based on low population growth estimates, high economic growth and high education spending. This was in order to see how quickly the region's tertiary enrollments could possibly grow. The IFS base rate (used for Figure 3 above) predicted an increase in tertiary enrollment in the region from 5.4% to only 16.3% over the period to 2050. Even under the most optimistic forecast it only grew to 27.5%. This was because the following six countries failed to meet the 30% normative goal, and one of them (DRC) was the largest in the region: the DRC, Madagascar, Malawi, Zimbabwe, Zambia and Lesotho.

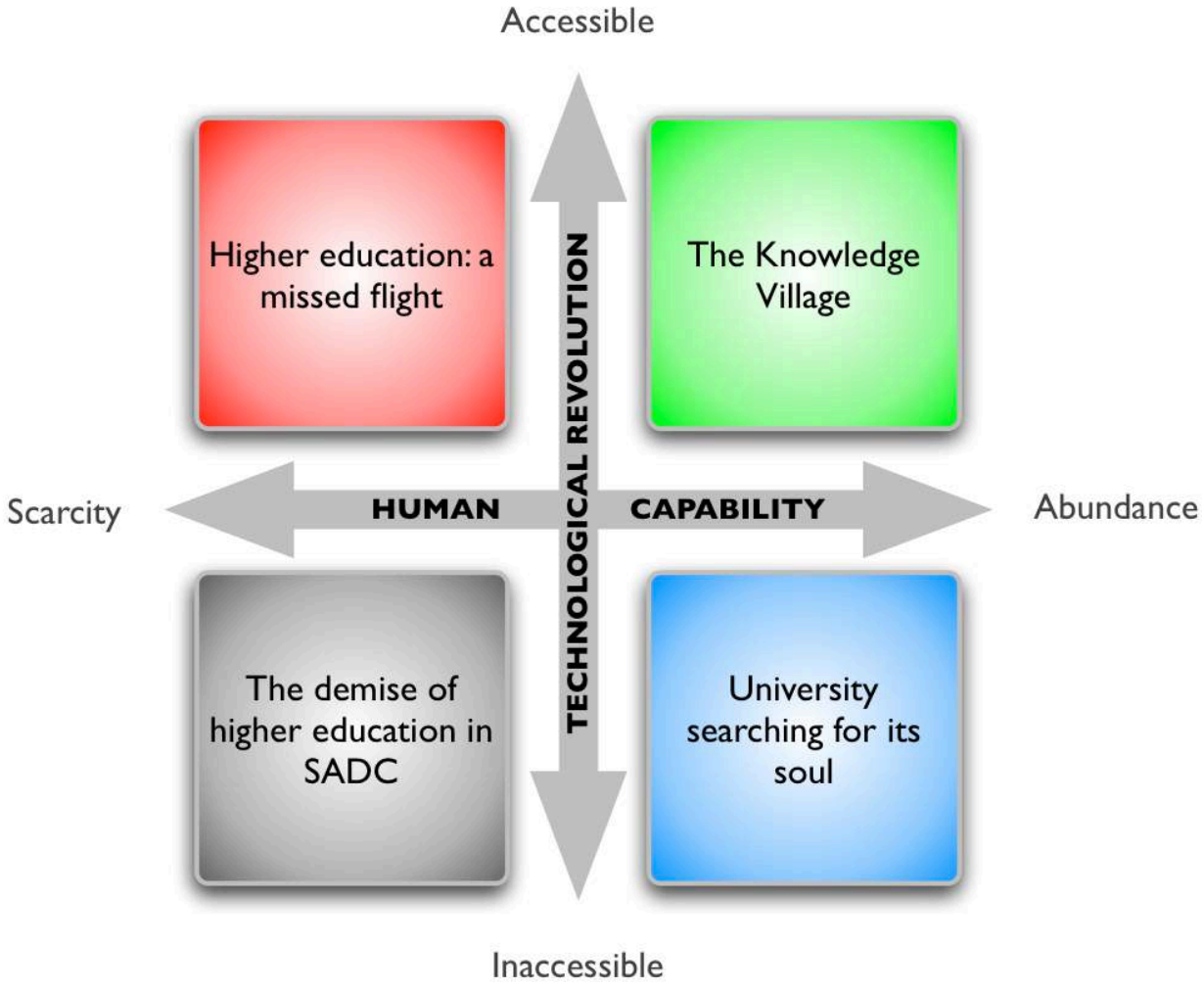
In addition to quantitative forecasts, SARUA also developed four qualitative scenarios. The participants identified two key criteria, or axes, through which to determine four scenarios, one positive, two intermediate and one negative scenario. The axes are shown on Figure 4 with the four

scenarios: the axes were technological revolution (accessible to inaccessible) and human capability (scarce to abundant).

The Knowledge Village is the best-case scenario. Here technology such as hardware and software is accessible, and it has been fully integrated with appropriate management protocols, practices and policies. Education systems' content is freely and equitably available throughout the SADC region supported by a sustainable, well qualified academic component. The HE system is itself fully capacitated and integrated. This scenario replicates much of what is available today throughout the Nordic region.

In *Higher Education: the Missed Flight* the social aspects of the socio-technical systems are what

Figure 4: Four Possible Scenarios for SADC Higher Education in 2025



hampers the development of HEIs. This relates not only to inadequate or incomplete human capabilities and resources, but also to the protocols, policies and practices that enable appropriate use to be made of technology based educational practices. This is a scenario probably familiar to

those in Universities in SADC countries from the upper portions of the base case scenario in Figure 3 above.

The University Searching for its Soul is the other intermediate scenario. It is the mirror image of the *Missed Flight*; here the constraints are due to ICT innovations in education and management simply not being available. There is human capacity, Higher Education personnel and their students can identify their needs and wants and can use the appropriate technology, but the HEI system cannot provide the solutions. This scenario is also one that is encountered throughout SADC today.

Lastly, the *Demise of SADC Higher Education* is a scenario which combines weak human capacity and poor technological support. The result is poor quality students who are inadequately educated, though they may possess a paper qualification, and academic staff who produce very little or no research in institutions that are mired in a culture of mediocrity. Eventually Higher Education becomes of very little relevance to social development.

In order to achieve the most desirable scenario, the *Knowledge Village*, by 2025 the SARUA report recommends the following activities and programmes in response to the four key areas of Financing, Access and Equity, Quality, Research Output (Southern African Regional Universities Association. 2012). These activities are listed below with brief comments where they are particularly relevant to SANORD and the futures programme that is the focus of the next section.

Financing

1. Utilize both public and private sectors;
2. Increase partnerships between institutions in the region, use this to develop collective activities, policies and programmes;
3. Develop re-investment strategies, for example a University endowment fund.

It is pertinent that that both SANORD and the futures studies proposal discussed below address the second of these two recommendations.

Access and Equity

1. Facilitate regional ICT cooperation, harmonization, acquisition and standards;
2. Improving cross-border connectivity through developing and implementing appropriate policies;
3. Develop regional standards to harmonize e-learning, Open and Distance Learning (ODL).

Our proposal for a futures studies programme based in South Africa and networked through the region would definitely benefit from the interventions listed above.

Quality

1. Promote a higher education system that is harmonized across the region;
2. Develop self-regulatory quality assurance systems;
3. Encourage student and staff exchanges at regional, continental and international scales based on considerations that enable credits to be transferred.

It is clear that SANORD, our own experience of collaboration between South Africa and Finland and the proposed activities given below would all relate to mobility and exchanges.

Research Output

1. Joint research programmes and a research development fund are needed at the regional scale;
2. Develop a focus on open innovations and licensing that have effective intellectual property rights protection and which can facilitate international marketing;
3. Facilitate policy making that is evidence based;
4. Increase our production of marketable goods and services;
5. Develop public-private partnerships;
6. Promote and develop regional niches of research excellence around themes such as water or energy.

Our proposed futures programme, presented in the next section, would relate potentially to all of these.

Before turning to an examination of the futures programme that we sought to establish, *Capacity Building through Education for Sustainable African Futures - SAFE*, we need to briefly examine the important Centre for Higher Education Transformation (CHET) report from 2011 *Universities and Economic Development in Africa* (Cloete *et al* 2011). It is relevant firstly because it examines in depth the performance and potential of eight selected African Universities, five of which are in the SADC region: University of Botswana, University of Mauritius, Eduardo Mondlane University in Mozambique, Nelson Mandela Metropolitan University in South Africa and the University of Dar es Salaam in Tanzania. These five encompass the whole range of HEI enrollment described previously and relate to countries with very different likelihoods of reaching the Knowledge Village scenario. Secondly, the report positions and debates HEIs within their contested role as agents for development and economic growth. This is especially interesting since the report singles out three systems as role models for the successful linking of economic development with higher education policy and planning. These three experiences are from Finland, South Korea and North Carolina state in the USA. The text box below gives the key findings verbatim.

What is critical here is both the the overlap and differences between the recommendations of the SARUA report and the findings above. CHET stresses the linkages necessary between government, external stakeholders and universities and highlights the need for understanding of, and agreement about, the role of higher education in development. SARUA are understandable much more interested in how HEIs can work together across the region. Inadequate funding for staff to conduct research are embraced by both, but poor incentive regimes are highlighted by CHET. Perhaps there is scope for SANORD to embrace the challenges raised by both reports?

Findings: *Universities and Economic Development in Africa* (Cloete *et al* 2011, p165.)

- "There was a lack of clarity and agreement (pact) about a development model and the role of higher education in development, at both national and university levels. There was, however, an increasing awareness, particularly at government level, of the importance of universities in the global context of the knowledge economy.
- Research production at the eight African universities was not strong enough to enable them to build on their traditional undergraduate teaching roles and make a sustainable, comprehensive contribution to development via new knowledge production. A number of universities had manageable student–staff ratios and adequately qualified staff, but inadequate funds for staff to engage in research. In addition, the incentive regimes did not support knowledge production.
- In none of the countries in the sample was there a coordinated effort between government, external stakeholders and the university to systematically strengthen the contribution that the university can make to development. While at each of the universities there were exemplary development projects that connected strongly to external stakeholders and strengthened the academic core, the challenge is how to increase the number of these projects."

Capacity Building through Education for Sustainable African Futures (SAFE): joint South African - Finnish proposal

Effective collaboration is foregrounded in both the important reports highlighted above: collaboration within the region and with external donors. The following section describes our experience of building a relationship with Finland Futures Research Centre (FFRC) from 2007 to 2009 which in 2010 led to a proposal for the setting up of a Futures Studies programme at Masters level in South Africa. This was to be a multi-disciplinary, inter-institutional Futures Studies program with Rhodes University and the University of Turku drawing postgraduates equally from SADC countries and South Africa. The proposed funder was Finland's Higher Education Institutions -Institutional Cooperation Instrument (HEI-ICI), which is a good example of Finland's proactive relationship between HEIs and the state. Unfortunately we were unsuccessful in our bid for funding. What follows draws from our experience and the proposal itself, especially where the issues discussed previously in the SADC Higher Education section are pertinent.

Activities leading up to the SAFE proposal

2005 marked the first contact between FFRC and RU when Mr Hietanen visited Rhodes University to explore the potential for collaboration between the two institutions. He initiated the concept of education and development tools for an international innovation network with Professor Fox who made a follow up visit to Helsinki (funded bySouth Africa's National Research Foundation) to take the collaboration forward. In 2006, Mr Hietanen returned to Rhodes to experience the role playing simulation African Catchment Game (ACG) and discuss its potential as an innovative international foresight game. This resulted in Professors Fox and Rowntree being invited to attend the Finland Futures Academy's (FFA) Summer School in 2007 to play the ACG and other role playing simulations with summer school participants. They also attended the Finland Futures Academy (FFA) conference on Regional Foresight.

At the same time as these early activities were taking place, a proposal was drawn up by Mr Hietanen with input from RU partners, that was submitted to, and accepted by, Finland's Centre for International Mobility's North-South-South programme. The *Foresight Game* project received funding for education cooperation through teacher and student exchange to run from 2007-2009. The project brought visiting Finnish academics to South Africa, exposing Rhodes students to futures thinking, while Finnish students were immersed in African realities through experiential learning via the role playing simulations led by South African academics who visited Finland. Rhodes academics had the opportunity to attend two further FFA conferences on Systems and Simulation (2008) and the Future of the Consumer Society (2009). In 2009 three Rhodes staff and four students participated in summer school activities and attended the conference. Two of the students presented conference papers and one incorporated the outcomes of playing the ACG with Finnish students into her MA thesis. In the same year three FFRC staff contributed to RU's postgraduate programme.

The Foresight Game project brought new ways of thinking to both groups. The Rhodes students and academics became aware of futures thinking and the possible applications within a university curriculum; Finnish students were introduced to a new way of learning that brought to the fore the complexities of African development. As academics we explored the potential to use role-playing simulation games to better understand the nature of complex systems and their possible future evolution (Rowntree *et al* 2009, Wilmot and Fraenkel 2009, Fraenkel *et al* 2012).

Developing the SAFE proposal: considerations and constraints

Collaboration through the CIMO Foresight Game project led to drawing up a concept note and the submission of a project proposal to HEI-ICI to develop a postgraduate curriculum in futures studies *Capacity Building through Education for Sustainable African Futures - SAFE*. We wanted to build on our collaboration and use of innovative educational practices (such as the role playing simulations) to develop a programme that would produce a generation of professionals and educators who could address the complex questions concerning the sustainable future of southern Africa. Our region's serious challenges (food security, energy supply, climate change, political insecurity, social cohesion, HIV/AIDS etc) are frequently inter-linked and need creative solutions and appropriate interventions if we are to have Higher Education institutions that enable us to meet our Millennium Development Goals. Currently there is only one other Futures Studies programme in Africa: the M.Phil at Stellenbosch University. We felt that Rhodes University was in a good position to build further capacity in the region and provide skilled professionals who were capable of applying futures thinking in their work across the public sector, private sector and Community Based Organizations.

An important feature of the proposed Masters programme was that in order to address "the inherent complexity of nature and society" it must be interdisciplinary. The US National Academy of Sciences has concluded (2004, p188):

> "Interdisciplinary thinking is rapidly becoming an integral feature of research as a result of four powerful 'drivers': the inherent complexity of nature and society, the desire to explore problems and questions that are not confined to a single discipline, the need to solve societal problems, and the power of new technologies."

This is echoed by the South African Department of Science and Technology (2008, p20) in their Ten Year Plan's presentation of Five Grand Challenges. They see the need for cross disciplinary teams examining the interface between technology, complex change, human and social systems. The practice of interdisciplinarity requires trust between partners and persons. Trust is created by communication, interaction and co-operation between people. SANORD is therefore a key role player in bringing this about through its activities. Some of the principles that were to be incorporated into the implementation of the SAFE project were: voluntary participation, no artificial constructions, the win–win principle, companionship, shared work loads producing shared benefits and, specification of roles of partners.

The development of the proposal to HEI-ICI was undertaken in collaboration with key departments at Rhodes University where there was already either an active interest in futures studies or futures research: Education, Environmental Education, Geography, Journalism and Media Studies,

Sociology and Zoology. Networking beyond our own institutions was also an integral part of the proposal. Partners in tertiary education across the Eastern Cape Province included the Universities of Fort Hare and Nelson Mandela Metropolitan University. We also received support in principle from the National Research Foundation's Akili Complexity and Integration Initiative and the South East African Climate Consortium (SEACC). Further afield across the Southern African Development Community region SANORD was seen as a key platform through which additional partners in SADC and the Nordic region could be sought. Regionally we also planned to work through the newly established Africa Regional Network of PERL, the Partnership for Education and Research about Responsible Living.

The proposed Masters programme would not only contribute to the development of professionals who could work towards a sustainable African future, it also addressed two issues raised by the institutional audit of Rhodes University in 2005 (Council on Higher Education 2006, pp34-36). The first was to encourage the University to "to explore further additional areas of responsiveness where it could maximise the synergies between the three core functions of teaching and learning, research and community engagement within a disciplinary as well as a multidisciplinary framework." The second was to further internationalisation: "The HEQC recommends that Rhodes give continuing attention to the development of a fuller conceptual framework for internationalisation, ….. and how it could be made compatible with local and regional objectives and the African identity signaled in the institution's mission and vision." We have shown above that the CHET and SARUA reports also focus on these issues.

Developing a truly interdisciplinary teaching programme is challenging, especially in an institution such as Rhodes University that prides itself on having a strong discipline based structure. Previous attempts to do this at Rhodes have foundered due to the absence of an enabling structure that rewards interdisciplinary collaboration. There are probably similarities here to the Finnish higher education system's higher status for 'pure' disciplines which we noted earlier. One objective of our proposal, therefore, was to facilitate a debate at RU concerning both interdisciplinarity and internationalisation based on examination of current protocols, practices and mind sets in the institution against the recommendations of international reviews such as the National Academy of Sciences mentioned previously. A key problem is the need for partners to co-operate in a situation where the funding structures produce competition between role-players. This applies both internally within the University and externally between potential partners within South Africa and the broader SADC region. This is the issue of cross-border harmonisation and need for transfer of students, staff and credits systemically in SADC that the SARUA report discusses.

New programmes require new ideas, new structures, innovative teaching methods and a lot of time. Time is probably the most limiting resource in South African universities, especially within formal academic departments where heavy undergraduate teaching loads and small staff numbers are the norm. Elements of the *Higher Education: a Missed Flight* scenario are easy to recognize at present in South Africa and they made collaboration with external stakeholders essential to the proposal to. The survey by the National Academy of Sciences 2004 'Facilitating Interdisciplinary Research (IDR)' concluded (p190): "IDR is typically collaborative and involves people of disparate backgrounds. Thus, it may take extra time for building consensus and for learning of methods, languages and cultures." The challenge also becomes one of developing a strong and exciting interdisciplinary postgraduate programme without forfeiting a sound disciplinary base at undergraduate level. Teaching exchanges through the HEI-ICI funded SAFE programme was to be one answer to this problem, but it would be effective only in the short term and would not in itself help develop academic capacity at Rhodes University. What is needed is a larger South African staff complement that can take on extra commitments. Here we can see the need for the strong pact between HEIs, external actors and the state that could facilitate the finding of funding for such staffing needs.

The intention of the SAFE proposal was to establish the programme through collaboration with the FFA, but thereafter other avenues of funding would need to be found. Although fee-paying students and student related government subsidies contribute to some of the costs of running a programme, there is a need to cover the shortfall and to provide support for the students themselves though adequate bursaries. Most South African and southern African students (or their families) are not in a position to fund themselves past undergraduate studies.

Concluding Remarks

A strong proposal was submitted to HEI-ICI which, ultimately, was turned down but which we will probably address again in 2013. Is this a typical example of a *Missed Flight* and, if so, what can be done to ensure that other initiatives catch their plane to the *Knowledge Village*? Can SANORD facilitate processes and champion structures that promote interdisciplinarity within institutions and further collaboration between regional institutions leading to a more sustainable future for us all? Is there a role for the organisation to address the SARUA report's recommendations as regards financing, access, equity, quality and research? Can we take up the challenge to coordinate between government, external stakeholders and the university to bring about the sustainable development which we all desire? The answer to these questions needs to be yes if we are to fulfill the assertions

of Bell and Toffler that started this paper: then we will have both futures in education and education for the future.

References

Anderson, J. 2010. *The Great Future Struggle: Futures Studies and the Struggle for the World*. [Online]. Available: http://www.interdisciplines.org/paper.php?paperID=93 [08/05/2012].

Bell, W. 2001. Futures studies comes of age: twenty-five years after The Limits to Growth. *Futures 33*: 63-76.

Bell, W. 2003. *Foundations of Futures Studies: History, Purposes, and Knowledge, Volume 1*. Piscataway, New Jersey: Transaction Publishers.

Cairncross, I. 2002. *A Guide to Conducting Futures Studies in Africa*. [Online]. Available: http://www.wfsf.org/ocpr/interieurnew1-38.pdf [09/05/2012].

Cloete, N., Bailey, T., Pillay, P., Bunting, I., & P. Maasen. 2011. Universities and Economic Development in Africa. [Online]. Available: http://www.chet.org.za/books/universities-and-economic-development-africa-0 [13/05/2012].

Cole, S. 2001. Dare to dream: Bringing futures into planning. *American Planning Association 67 (4)*: 372-382

Congress of South African Trade Unions. 1997. The Report of the September Commission on the Future of the Unions. [Online]. Available: http://www.cosatu.org.za/docs/reports/1997/sept-ch1.htm#pap [14/05/2012].

Council on Higher Education Higher Education Quality Committee. 2006. *Audit Report on Rhodes University.* HEQC Audit Report No 8, Council on Higher Education, The Tramshed, South Africa.

Department of Science and Technology. 2008. *The Ten Year Plan for Science and Technology.* [Online]. Available: http://www.dst.gov.za/publications-policies/strategies-reports/The Ten-Year Plan for Science and Technology.pdf [04/04/2010].

De Villiers, R. (ed). 2002. *Southern Africa 2020. Five Scenarios.* Johannesburg: Institute for Global Dialogue and Friedrich Ebert Stiftung.

Fraenkel, L., Fox, R.C., & K.M. Rowntree submitted. Learning about Sustainability through Experiencing Complex, Adverse Conditions Typical of the South: Reflections from the African Catchment Games Played in Finland 2008. Investigaciones Geográficas July 2012.

Government of Botswana. 2002. *A Long Term Vision for Botswana.* [Online]. Available: http://unpan1.un.org/intradoc/groups/public/documents/cpsi/unpan033260.pdf [09/05/2012].

International Association of Universities. 2011. *World Higher Education Database*. [Electronic Resource]. Basingstoke: Palgrave, Macmillan.

Kenya Vision 2030. 2011. *Kenya Vision 2030*. [Online]. Available: http://www.vision2030.go.ke/ [09/05/2012].

Millennium Project. 2009. *About Us*. [Online]. Available: http://www.millennium-project.org/millennium/overview.html [09/05/2012].

National Academy of Sciences. 2004. *Facilitating Interdisciplinary Research* [Online]. Available: http://www.nap.edu/catalog/11153.html [03/02/2010].

National Planning Commission. 2011. *National Development Plan. Vision for 2030.* [Online]. Available: http://www.npconline.co.za/ [10/05/2012].

Raskin, P., Banuri, T., Gallopin, G., Gutman, P., Hammond, A., Kates, R & R. Swart. 2002. *Great Transitions. The Promise and Lure of the Times Ahead.* Boston: Stockholm Environment Institute.

Republic of Mauritius, Ministry of Economic Development and Regional Cooperation. 1997. *Vision 2020: The National Long-term Perspective Study.* Port Louis: Government of Mauritius.

Republic of Namibia. 2004. *Namibia Vision 2030.* [Online]. Available: http://www.npc.gov.na/vision/vision_2030bgd.htm [09/05/2012].

Republic of Rwanda. 2002. *2020 Vision. Online.* [Online] Available: http://www.minecofin.gov.rw/ministry/key/vision2020 [09/05/2012].

Republic of South Africa. 2009. *Green Paper. National Strategic Planning.* [Online]. Available: http://www.thepresidency.gov.za/ [11/03/2011].

Rowntree, K.M., Fraenkel, L. A. & R.C. Fox. 2009. Exploring risk related to future climates through role-playing games: the African Catchment Game. In Koskella, M. and M. Vinnari (eds.), *Future of the Consumer Society.* FFRC eBooks 7/2009. Turku: Finland Futures Research Centre, Turku School of Economics. pp 212-221. ISBN 978-951-564-968-3. ISSN 1797-132.

Segal, N. 2007. Breaking the Mould. The Role of Scenarios in Shaping South Africa's Future. Stellenbosch: Sun Press.

Southern African Regional Universities Association. 2012. *Building Higher Education Scenarios 2025: A Strategic Agenda for Development in SADC.* SARUA Leadership Dialogue Series 3(2), SARUA: University of the Witwatersrand, Johannesburg.

Tilbury, D. & D. Wortman. 2004. *Engaging People in Sustainability.* Gland, Switzerland: IUCN.

Toffler, A. 1974. *Learning for Tomorrow: The Role of the Future in Education.* New York: Vintage Books.

United Nations Development Programme. 2009. *Crafting Africa's Futures: National Long Term Perspective Studies.* [Online]. Available: http://unpan1.un.org/intradoc/groups/public/documents/idep/unpan002403.pdf [09/05/2012].

United Nations Environment Programme. 2002. *Africa Environment Outlook 1.* [Online]. Available: http://www.unep.org/dewa/Africa/publications/AEO-1/ [09/05/2012].

United Nations Environment Programme. 2006. *Africa Environment Outlook 2.* [Online]. Available: http://www.unep.org/dewa/Africa/publications/AEO-2/content/ [09/05/2012].

Wilmot, D. & L. Fraenkel. 2009. Swampfire: An HIV/AIDS Simulation for Enabling Learning about Risk and Vulnerability. In Koskella, M. & M. Vinnari (eds.), *Future of the Consumer Society.* FFRC eBooks 7/2009. Turku: Finland Futures Research Centre, Turku School of Economics. pp 222-231. ISBN 978-951-564-968-3. ISSN 1797-132.