



HSRC
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**Face off:
Traditional leaders
and the contest
for democracy**

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Ina van der Linde

The bitter battle for the soul of South Africa's democracy' and the 'new legal frontiers of South African law' read headlines in the media describing recent court cases won against traditional leaders in the contest for the democratisation of traditional communities.

The most recent case was in October when South Africa's Supreme Court of Appeal upheld a conviction against King Buyelekhaya Dalindyebo of the AbaThembu for arson, kidnapping, assault with intent to do grievous bodily harm and defeating the ends of justice.

Two months earlier, in August, there were two decisive court cases involving traditional leaders: the first on 19 August when the Eastern Cape High Court decided in favour of the Cala Reserve community against the Eastern Cape government, giving them the right to choose their own headman; and on the very next day, 19 August, when the Constitutional Court made a judgement in favour of the Bakgatla-Ba-Kgafela Communal Property Association against traditional leaders.

In reading some of the court cases between communities and traditional leaders, one realises the legal predicament one realises the legal predicament posed by these cases. Prof. Pierre de Vos, Claude Leon Foundation Chair in Constitutional Governance at the University of Cape Town, explains in an article on 'Democracy vs. traditional leadership: the delicate ballet' that while the Constitution recognises the institution, status and role of traditional leadership, according to customary law, it requires that this be done in conformity with the other provisions in the Constitution.

'But this is not an easy task, as traditional leadership is, by definition, undemocratic and hence not easily reconcilable with the democratic ethos of the Constitution. In this specific court case [Pilane and Another v Pilane and Another, 2013], sharp divisions emerged between the justices about the constitutional rights of the members of a traditional community who are unhappy with what they see as the authoritarian and nepotistic actions of the recognised traditional leadership of their traditional community'.

In an article on page 6 in this edition, based on a two-day dialogue on traditional leadership in the Eastern Cape using the court case as an example, we merely scratch the surface of the issues confronting the government, the contradictions in a new Bill passed by Cabinet and the constitutional rights of communities who fall under customary law. Like everywhere else in the country, young people are taking the lead in the quest for democracy. Might this be a case of 'Traditional leaders must fall' or is it merely a storm in a teacup? The future will tell.

In another article, we explore the attitudes of young people towards social inequality, fleshed out during a roundtable supported by the Department of Science and Technology and organised by the HSRC that took place during the World Social Science Forum in September. Some of the issues explored during this session related to young people's concerns and their hopes for the future ending with the touching words of gifted poet and UKZN student Sanam Sitaram:

'We seek to find
 We journey to destinations
 But it is through journeys that we find what we seek
 And we learn to live what we speak
 You and I, we are a work in progress
 We are not the end.'

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PRESIDENT OBAMA'S SPECIAL OCEANS ENVOY VISITS HSRC

President Barack Obama's Oceans Special Envoy, Dr Jane Lubchenco, visited South Africa to share information on oceans and blue economy research opportunities, especially related to Operation Phakisa, and the Indian Ocean Rim Association.

Operation Phakisa focus, among others, on the oceans economy. Lubchenco is a world renowned environmental scientist with experience in the worlds of science, academia, government, and conservation. She is a marine ecologist and environmental scientist by training, with expertise in oceans, climate change, and interactions between the environment

and human well-being. Previously she was the under-secretary of Commerce for Oceans and Atmosphere and Administrator of the National Oceanic and Atmospheric Administration in the US. In 2008 she was nominated by President Obama as part of his 'Science Team'.

The Special Envoy met with Professor Narnia Bohler-Muller, acting head of the African Institute of South Africa (AISA) at the HSRC, and representatives from the Department of Science and Technology, Unisa and AISA to share information and advising policymaking in holistic, inter-disciplinary and multidisciplinary ways.



http://gordon.science.oregonstate.edu/lubchenco

GETTING UP TO SPEED

The HSRC is one of the partners in a project funded by EuropeAid in Uganda as part of its call for support to Public Health Institutes. The three-year project, SPEED, is an acronym for 'Supporting Policy Engagement for Evidence-based Decisions' for Universal Health Coverage in Uganda. The partnership consists of four Ugandan institutions, the Institute of Tropical Medicine in Antwerp, Belgium and the HCRC.

The Uganda partner institutions are Makerere University School of Public Health, the National Planning Authority, Economic Policy Research Centre and the Uganda National Health Consumers Organisation.

The project aim is to boost policy analysis and influence that supports universal health coverage in Uganda by way of four main activity clusters: strengthening resources and expertise for policy analysis; knowledge generation; stakeholder identification and engagements; support for policy developmental; and monitoring selected

policy implementation arrangements. In partnership with Makerere University School of Public Health and other partners the HSRC will undertake tasks such as availing expertise in health policy and health-system research by committing at least one full-time senior academic researcher to this action; the school of public health to organise symposia about the current and evolving situation in universal health coverage

in Uganda; and to contribute to and support the processes for the production of a book documenting the Uganda health system and policy implications for progress to universal health coverage. Other aspect of the work will include the design, protocol development, analysis and reporting for the purpose of implementing policy and contribute to technical analyses, products and support in the implementation of SPEED.



HEALTHY LIVESTOCK PROMOTES THE HEALTH OF THEIR KEEPERS

In 2014 the Human and Social Development (HSD) programme of the HSRC conducted a pilot study that addressed the human and social dimensions of rural livestock farming systems and the relationship to household food security, socioeconomic development and improved livestock health in rural developing farmer households.

The pilot study found that the percentage of cattle farming was high (95%) and contributes to keeping the wolf from the door (also read article 'Conversation on policies: healthy livestock act as security against hunger').

The study was conducted in two small-scale livestock farming communities along the Mpumalanga-Limpopo and was aimed at providing a preliminary picture of small-scale livestock farming communities.

The findings from the pilot study will be used to draw links between the social and socioeconomic

dimensions of farmers' lives and their animal health practices and to upscale the project to four more provinces - the Eastern Cape, Free State, Kwa-Zulu Natal and Mpumalanga - over the next three years.

Leading up to this HSD has engaged in a series of policy dialogues.

The intention with the policy dialogues was to create a forum where relevant stakeholders, including government, researchers, animal health practitioners and farmers, could explore ways of integrating learning into delivery systems and contribute to the implementation of the National Research and Development Strategy and the new 10-Year Innovation Plan.

The first policy dialogue, which took place on 11 May 2015, addressed the topic, 'Primary animal healthcare in the context of disease prevention and scaling-up for small-scale farmer communities: research, policy and delivery'. Discussions focused on

policy interventions for the livestock sector, especially in rural areas. Challenges in primary animal health care and particularly challenges with the provision of state veterinary services in South Africa were also examined.

The second policy dialogue examined the topic 'New generation vaccines and animal health in Africa: research, policy and delivery'. Discussions concentrated on the acceptance and trust of vaccines by farmers and livestock keepers, the role and capacity of the state in vaccination programmes, the social acceptability of new generation vaccines, and the relationships between vaccine manufacturers and the communities they seek to reach.

Participants at both dialogues included animal health specialists, senior government officers, researchers, funders and representatives of various veterinary associations.



A generation apart? Youth attitudes towards social inequality

Prof. Sharlene Swartz, acting executive director of the Human and Social Development research programme at the HSRC with children from the Ogwini Technical Comprehensive High School in Umlazi

Despite depressing poverty, unemployment, corruption and greed that besets their societies, young people who participated in a recent roundtable to discuss youth attitudes towards social inequality, exuded a sense of inspiration, hope and responsibility. **Alude Mahali** and **Ben Roberts** provide an overview of the event at the World Social Science Forum 2015.

The roundtable, supported by the Department of Science and Technology and organised by the HSRC, included five high-school learners from Ogwini Technical Comprehensive High School in Umlazi, six current students/recent graduates of the University of KwaZulu-Natal (UKZN) and six young scientists from two HSRC research programmes.

The 17 panellists were presented with six guiding questions to which they were required to answer three. Questions addressed expectations, agency, governance, civil society, community, individual imaginings and ideas for the future; all under the umbrella of inequality in South Africa.

As spectators entered the room, the youthful atmosphere was energised with Kwaito music blaring from the speakers and pop music videos projected onto the screen, while an exhibition of art by learners from Ogwini High School was on display.

After the introduction of the speakers sitting in a semi-circle, gifted poet and UKZN student Sanam Sitaram, welcomed the audience by reciting a poem written specially for the gathering. Sanam's refrain 'Have dreams they said when we were children' set the tone for the posing of the first round of questioning.

Global hopes and fears

What makes you worried about where we are in the world at the moment?

What brings you hope about where we are in the world at the moment?

In this discussion poverty arose as a major concern, including what Zibuyile described as 'poverty of the mind', is the moral bankruptcy, corruption and greed in society that is as damaging as economic poverty.

Youth unemployment was commonly mentioned, as were problems with the structuring of the labour market, such as the failure to acknowledge experience, and the increasing importance of social capital and networks in getting ahead. A perceived over-emphasis on the quantity of jobs created, instead of employment quality, was also expressed.

Other notable concerns included the continuing fight against HIV/AIDS among young people despite the availability of information. And they mentioned domestic violence, child abuse and reservations about the efficacy of campaigns to address these societal challenges. Basic needs featured prominently, including access to water, sanitation, food security, health care, together with the poor implementation of existing policies.

'Poverty of the mind' is the moral bankruptcy, corruption and greed in society is as damaging as economic poverty

On a more optimistic note, Steven Gordon (HSRC) credited participant for articulating their views and attempts to hold elected officials and political parties accountable, while Hangwelani Magidimisha (HSRC) identified the youth panel as an example of a hopeful happening.

Another participant drew attention to the advancement of women in different professional spheres. Overall, these questions provided the young people with the opportunity to voice their anxieties and doubts about some issues affecting the country, as well as their aspirations. Sanam's poem echoes this state of unease:

What happened to humanity?
Did god stop caring
Or did we stop creating
Instead of stopping the hate and the raping of
innocence
Scraping by with just enough to curb the hunger
pangs with a few cigarettes
Which at one point in American history used to be
called torches of Freedom
But when did we start lighting cigarettes and stop
lighting the way?
Or was it always that way?

But when god raised our cells from the ocean
Each nucleus, a universe of rhythm
Echoing the cycles of storms, she said
You are too beautiful to be painted in one shade so
I will craft a kaleidoscope
And we thanked her for her gifts
And forgot
Dividing ourselves amongst ourselves between
Races, and nations and classes and genders
And patriarchal capitalist agendas
Have dreams they said
When we were children

'But when did we start lighting
cigarettes and stop lighting
the way? Or was it always that
way?'

Poverty and inequality: personal impact and perceived responsibility

How does poverty and inequality - the huge gaps between rich and poor - affect you directly?
Who is responsible (or to blame) for the fact that these differences and problems exist?
How is answering this question about blame or responsibility helpful (or not?)

A second core theme of the roundtable discussion was the direct impact of poverty and inequality on young South Africans and perceptions regarding assigning blame for these

phenomena.

For the Umlazi learners, disparities in living conditions within the township arose as a key issue; wealthier areas that resemble 'suburbs' are placed alongside informal settlements that do not have running water and proper sanitation.

Learners raised the matter of the misappropriation of government funds, which they felt should be used to improve community infrastructure such as clinics, schools, libraries. Learners in township schools want to pursue technical degrees but are frustrated by a lack of school-based resources for scientific experiments and access to computers. These shortcomings contribute to a lack of confidence, feelings of inferiority and perpetuate educational inequality.

Then some township children are attending former Model C and private schools, which is a temporary solution to a persistent problem. The matter of other vocational possibilities was presented, i.e. young people in the township who may be talented in areas such as sports, arts or music, do not have access to soccer fields, tennis courts, ballet classes and musical instruments. A learner highlighted infighting among Africans and another participant added that lack of tolerance and acceptance contributed to the spread of xenophobia and homophobia.

Some township children are attending former Model C and private schools, which is a temporary solution to a persistent problem.

A UKZN graduate mentioned the burden of 'black tax', where young people have to take on the financial care of extended family members immediately after graduation. While this highlights the economic divisions among racial lines, young scientist Kombi Sausi (HSRC) believes individuals should accept responsibility for their communities and called for active citizenship while highlighting UKZN student Philisiwe Cengo's NPO startup, Change SA, as a positive example.

Generation of change?

What in your opinion should your generation be doing to fix what has been broken?
How are you planning to be part of achieving this vision? What needs to change in what you are currently learning/studying/work to help you to reach the vision/aims you have described?

The notion of creating and supporting community and educational initiatives was the common theme in response to questions regarding actions that young South Africans can take to achieve change. Learners from the Ogwini

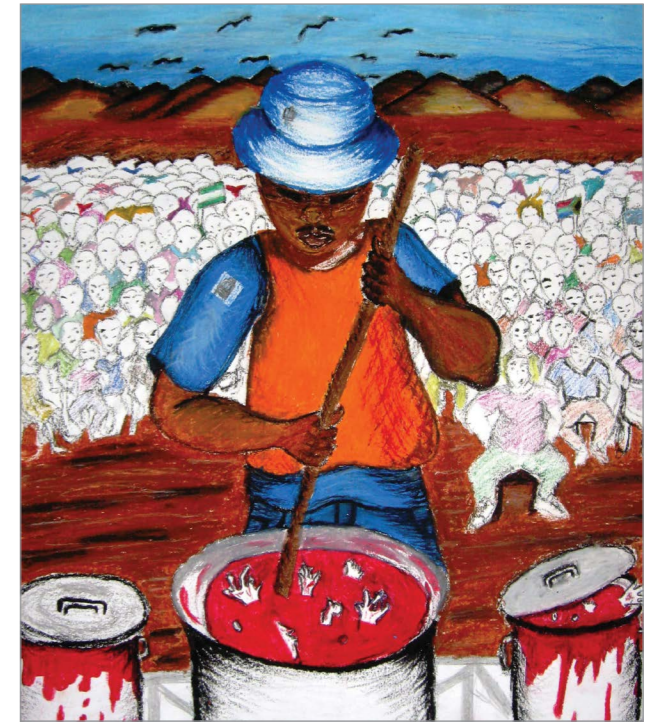
Technical Comprehensive High School called on their generation to participate more in community-based initiatives including community gardens, community clean-up programmes and recycling, such as Soul Buddyz and Junior Rangers. Another learner called for innovation among her generation and said young people should not be driven by fear and limitations. There was also a consensual call for young people to shift their mind-set and attitudes and participate in discussions about social issues; in effect, 'decolonise the mind'.

The burden of 'black tax', where young people have to take on the financial care of extended family members immediately after graduation

Saffiya raised the critical point that people need to grapple more with the reality of the apartheid ideologies South Africans have inherited that will not be shed easily. This view was echoed by Sanam, who remarked that the forum made her middle-class privilege glaring and caused her to reflect. Another participant mentioned the Soweto student uprising of June 1976 as an example of the power of young people rallying together behind a common cause.

Concluding reflections

Finally, there was an opportunity to hear from the audience. One spectator compared the resource constraints that the Umlazi learners face with the educational barriers that she faced growing up during apartheid. A delegate from Mexico drew attention to the similarities between South African and Mexican youth, and expressed her sense of the hopeful energy among this generation. Other reflections included discussion of the potential for social transformation embodied by the young panel, as well as the sense of hope, innocence and sincerity voiced by the participants.



A drawing by a budding artist from the Ogwini Technical Comprehensive High School in Umlazi

The overall sentiment from the panel and attendees was a sense of inspiration, hope and responsibility going forward. This was conveyed by Sanam in the following extract from her concluding impromptu poem:

We seek to find
We journey to destinations
But it is through journeys that we find what we seek
And we learn to live what we speak
You and I, we are a work in progress
We are not the end. ■

Authors: Alude Mahali, post-doctoral fellow, Human and Social Development (HSD) research programme; Ben Roberts, senior research manager, Democracy, Governance and Service Delivery (DGSD) research programme.

| Roundtable Participants | | |
|--|------------------------|---------------------------|
| Ogwini Technical Comprehensive High School | UKZN students | HSRC young scientists |
| 1. Zonke Ntombela | 1. Ayanda Ngubane | 1. Saffiya Goga |
| 2. Mhleli Khomo | 2. Liberty Mamba | 2. Kombi Sausi |
| 3. Thandiwe Nyawose | 3. Philisiwe Cengo | 3. Steven Gordon |
| 4. Thulani Mthembu | 4. Sanele Madlala | 4. Hangwelani Magidimisha |
| 5. Yenziwe Zungu | 5. Ntombikayise Mabaso | 5. Bongwiwe Mncwango |
| | 6. Zibuyile Nene | 6. Jakes Dipholo |

Face off: Traditional leaders and the battle for democracy



The impact of the Xhalanga District Court judgement by a full bench of the Eastern Cape High Court on 18 August 2015 in favour of the local community and against the Eastern Cape government, is reverberating throughout the rural landscape. *Ina van der Linde* reports on a two-day dialogue in East London on research on traditional leadership in the Eastern Cape, using the court case as an example.

With us we don't want the traditional council as we had never had one before, we had *izibonda* [elected councillors] only, and we want the court to liberate us from these atrocities. *Selenditshilo* - I have said what I have said.'

This statement from a young theology student at the University of Stellenbosch, Khayaletu Manzi from the Mxhalanga Location in King Williams Town, captured the mood of a young, educated generation who feels themselves increasingly distant from the autocratic rule of chiefs in rural areas.

And judging from the boisterous two-day dialogue on the impact of the Xhalanga District Court judgement by a full bench of the Eastern Cape High Court of 18 August 2015, young leaders are taking along an older generation who lived under repressive homeland leaders such as Lennox Sebe and Kaiser Mathanzima.

'This ruling could serve as a model to solve the long-standing tension between traditional leadership and the Constitution in democratising traditional institutions' - Lungisile Ntsebeza

The dialogue was hosted by the Department of Science and Technology (DST), the Human Sciences Research Council (HSRC) and the African Centre of the University of Cape Town.

Research done by Lungisile Ntsebeza, professor and holder of the NRF Research Chair in Land Reform and Democracy at UCT was used extensively during the court case to show that historically, the Cala Reserve residents had the right to vote for their own headman, as argued in his book *Democracy compromised: Chiefs and the politics of land in South Africa*. This right was taken away by Chief Gecelo of the Gcina traditional council, but now the court has given it back to the community.

'There are many more of these kinds of cases waiting in the wings', said Wilmien Wicomb, the instructing attorney in this case. 'And they will succeed'. She pointed to another pronouncement concerning the Bakgatla-Ba-Kgafela Communal Property Association, the Constitutional Court issued a 'resounding and unanimous judgment in support of democratic control of land in traditional areas' that established important precedents in the approach to community rights in areas controlled by traditional leaders.

'The traditional rural areas are diverse', said Ntsebeza, cautiously painting a wide-ranging picture of areas that fall under chiefs. Some people agree with the chief's claim of legitimacy and accept his leadership but in other areas people feel that the chiefs are imposed on them and they don't want them. A third category of people have accepted the system of headmanship, but insist that they want to choose themselves.

The implication of the Xhalanga court case, as voiced by Judge Clive Plasket, was that traditional institutions are recognised in the Constitution, but in terms of the Constitution these institutions need to be democratised.

'This ruling could serve as a model to solve the long-standing tension between traditional leadership and the Constitution in democratising traditional institutions', said Ntsebeza.

'Parliament's increasing insistence on entrenching traditional leadership ... continues to reduce members of traditional communities to the second-class citizens that they were under apartheid, but now with a constitutional veneer' - Wilmien Wicomb

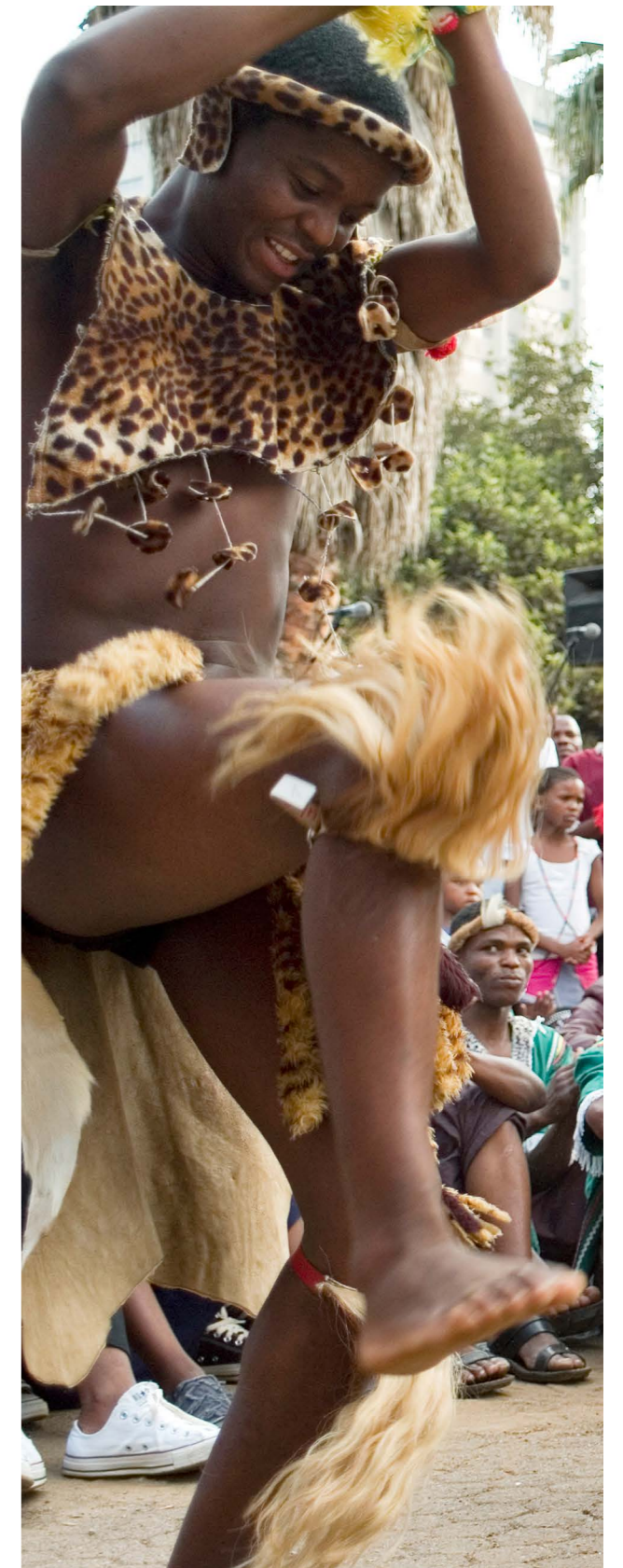
The decision, says Ntsebeza, is inextricably linked to the critical issue of land tenure and property regimes in rural areas, particularly in the former Bantustans where people bore the brunt of forced removals and the discriminatory Land Acts of 1913 and 1936. The intersection between land tenure reform, traditional authorities, and rural local government has important implications, considering the crucial role that land restitution could play in transforming the economy, particularly in a context of endemic poverty and deepening inequality.

Wicomb said the court case, in essence, encouraged communities to develop their own customary law and democratise rural local government.

Not mincing words, several participants said the African National Congress (ANC), under the leadership of President Zuma, is empowering traditional leaders deliberately because they will be able to exert control over their subjects when it comes to elections. Dr Fani Ncapayi, director of the Cala University Students Association who did extensive research in this area, said the government provides chiefs with opportunities and support because of the role chiefs can play 'in bringing votes for the ruling party'.

Said Wicomb: 'Parliament's increasing insistence on entrenching traditional leadership as the sole aspect of customary law deserving of recognition ... is far more than a game of semantics. Instead, it continues to reduce members of traditional communities to the second-class citizens they were under apartheid, but now with a constitutional veneer.'

Deputy chair of the Eastern Cape House of Traditional leaders, Prince Zolile Burns-Ncamashe, gave a long dissertation of where he believed the court case, and



Ntsebeza specifically, were factually wrong. Laying him open to criticisms of 'pompousness' he said what is needed is Africans scholars and intellectuals 'who are proud of being Africans and who are prepared to bring into the discourse such epistemological and ontological trajectories that are consistent with the agenda of affirming endogeneity, Africanity, as against alterity.'

'The customary law practice of the Xhalanga Native Reserve is 'a colonial Westminster construct of common law' that perpetuated a distortion about social systems of indigenous African people' - Prince Zolile Burns-Ncamashe

He hinted that academics submit 'to the soporific deception of neoliberal charisma... [who betray] the selfless sacrifices of their forebears as well as the embedded heritage of our future generations' and that the customary law practice of the Xhalanga Native Reserve is 'a colonial Westminster construct of common law' that perpetuated a distortion about social systems of indigenous African people.

So where does this leave the Eastern Cape leadership and future policy? Themba Naboliti Hani from Municipal Economic Development in the Eastern Cape Department of Local Government and Traditional Affairs explained the challenges of a dual system of governance with traditional leaders ruling communities in rural areas while elected ward councillors managed municipal affairs in urban areas.

The policy implications of the court decisions, among others, is the challenge of involving traditional leaders as power struggles and tensions continue to manifest themselves in relation to all matters pertaining to land.

Hani said it is clear that institutions of traditional leadership cannot easily be destroyed and favoured the establishment of a hybrid model of representatives of traditional and elected leadership at a ward or community level. He also suggested the establishment of a register of compliance to good governance practices that would monitor and audit traditional councils at least once a year.

The integration of chiefs into a new democratic system is important, yet complicated, said Wicomb. 'Maybe this question relates to the dichotomy of traditional governance in a Western-type of democracy at community level'.

On the future of the place of traditional leaders, Ntsebeza aligns himself with the principles of the Constitution in that traditional institutions could only be recognised to the extent that they can bring their practices into line with the democratic principles set out in the Constitution 'and that to me is the future of the traditional leaders'.

'The Bill, if passed, will deny 18 million South Africans living within the former Bantustans the option to escape their imposed status as tribal subjects' - Aninka Claassens.

Author: Ina van der Linde, editor, *HSRC Review*

*Disclaimer: The HSRC Research Seminar series is funded by the Department of Science and Technology (DST). The views and opinions expressed therein as well as findings and statements do not necessarily represent the view of DST.

POST SCRIPT

On 26 August, eight days after the Xhalanga District Court judgement, Cabinet approved the tabling of the Traditional and Khoisan Leadership Bill, 2015 in Parliament.

The statement from Cabinet reads:

'The Bill contributes to the National Development Plan's (NDP) key target of broadening social cohesion and unity while addressing the inequalities of the past by providing for the statutory recognition of the Khoisan communities and leaders.'

'It proposes the establishment of an Advisory Committee on Khoisan matters which will assist government with the recognition process relating to Khoisan communities and leaders.'

The bill came in for robust criticism. Commenting on the Bill, Dr Aninka Claassens, chief researcher at The Centre for Law and Society at the University of Cape Town, said the bill is 'a smokescreen for entrenching autocratic traditional councils, which have dodged fiscal and democratic accountability for more than two decades'.

She wrote in an article in City Press, 'Chiefs bill: Back to the bad old days' that if the Bills is passed, it will deny 18 million South Africans living within the former Bantustans the option to escape their imposed status as tribal subjects.

'Why has Cabinet chosen to bolster the power of traditional leaders rather than enforce the property and citizenship rights of the poorest and most vulnerable South Africans?

'The answer relates, at least in part, to the mining interests of senior politicians and their families. As long as senior politicians benefit from the opaque mining deals brokered by traditional leaders it is in their interest to keep these deals secret, and silence opposition by those whose land is being ravaged in the process,' Claassens asserts.

Dr Sindiso Mnisi Weeks, a senior research associate at the same centre, wrote in an article in the online publication, The Conversation, 'Of a cruel king and the bitter battle for the soul of South Africa's democracy' that the new Traditional and Khoisan Leadership Bill will attempt to give traditional leaders more unaccountable and unconstitutional powers.

'The governing ANC opens up space for traditional leaders' quest for power, exempt from the constraints of the rule of law, to become viable by passing laws that benefit them at the expense of the rights of ordinary people. This all makes it more difficult for the state to rein in traditional leaders who abuse their powers.'

Weeks states that 'these efforts to evade justice are yet another salvo in the battle for the soul of South Africa's democracy: the notion that every citizen is entitled to fearless protection of their citizenship and other democratic rights. And no person, whether king or ordinary citizen, is entitled to special treatment under the law'. ■



Conversation on policies: healthy livestock act as security against hunger

The role of cattle and other domesticated animals in promoting food security should take on an increasingly important position on the policy agenda argue Sarah Chiumbu, Safiyya Goga and Vasu Reddy, reporting on a new project that focuses on the social and human dimensions of primary animal health care for small-scale farming communities in South Africa.

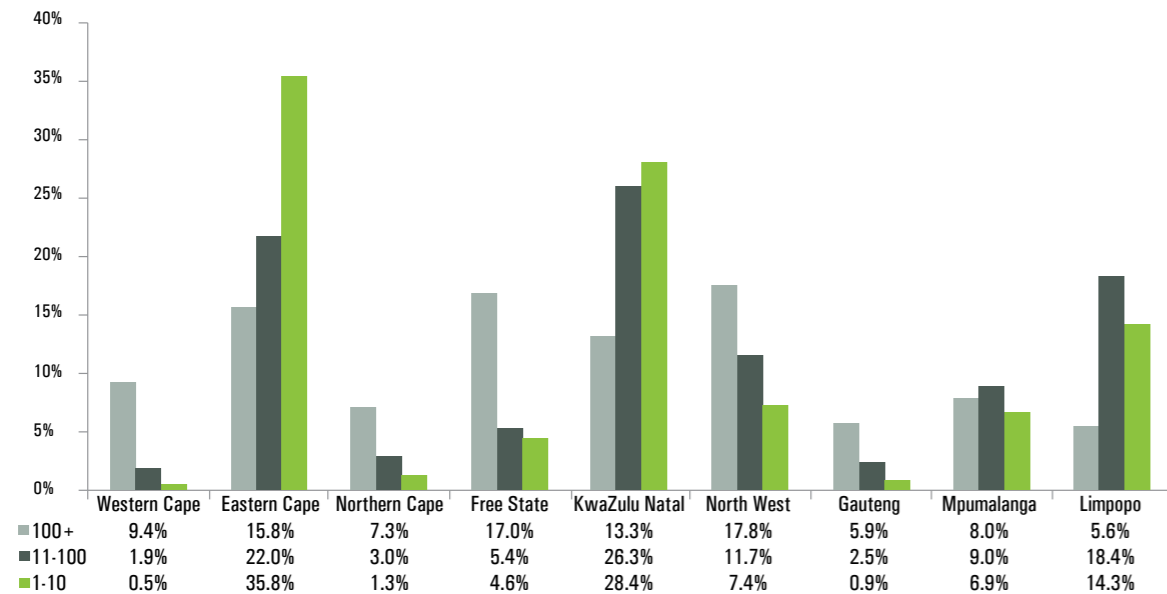
Food security is a concern in South Africa. Child undernourishment continues to be too high for South Africa as a developed, middle-income country. The 2011 General Household Survey of Statistics South Africa shows that 11.5% – that is close to 10 million people – experienced hunger in the 30 days prior to the survey; and according to the Presidency's *20 Year Review: South Africa 1994-2014*, 21% of households continue to experience difficulty in accessing food.

There is increasing recognition within the international development literature, as well as in research on sub-Saharan African economies and livelihoods, that small-scale livestock farming provide pathways out of poverty, towards food security and sustainable livelihoods. According to Dr Rebene Moerane, chair in Public Animal Health Care, University of Pretoria, there are approximately 1 million small-scale

livestock keepers in the country, with 6 million cattle, 3.5 million sheep and 4.6 million goats. Keeping small numbers of cattle continues to be crucial to many agricultural households across the country, as shown in Figure 1:

Smallholder farmers who are already in precarious socio-economic circumstances are worst affected by livestock disease outbreaks

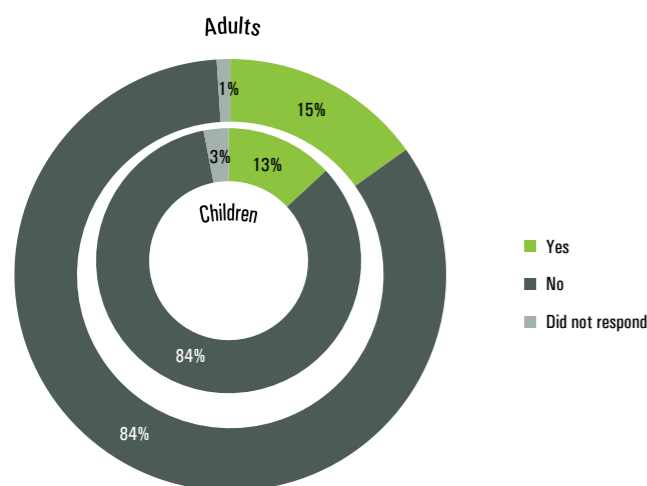
Figure 1: Distribution of agricultural households owning cattle per province



Source: Statistics South Africa, 2013: 6

In a 2014 pilot study on two small-scale livestock farming communities along the Mpumalanga-Limpopo border, it was found that 95% of the households in the sample keep cattle, and that livestock were used primarily as a *household-sustaining* strategy. Livestock keeping seems to contribute to preventing households from stark poverty, as these households sell livestock out of necessity rather than as a commercial activity. Keeping livestock, particularly cattle, serves as a store of value and savings to be sold in times of need and crisis; one participant referred to cattle as a 'traditional bank'.

Figure 2: Household Food Insecurity (in the areas surveyed)



Source: *The gendered dimensions of farming systems and rural farmer households in the context of food security: a pilot study of small-scale livestock farmers in Marble Hall and Rhenosterkop – final technical report, 2014*

Disease and animal healthcare

The livestock sector remains highly vulnerable to disease outbreaks, and the livelihoods of hundreds of thousands of people are affected. In the South African context, smallholder farmers who are already in precarious socio-economic circumstances are worst affected by livestock disease outbreaks where the loss of even a single animal can sometimes have a devastating impact. The study found that disease, after hunger, is the main cause of death of livestock, and that primary animal healthcare (PAHC), particularly *preventative* healthcare is therefore a central concern for small-scale livestock keepers.

Rural livestock farming development cannot be separated from broader issues of social and human development

Collaboration between research councils

Taking into consideration the importance of animal health to social and human development in livestock-keeping communities the HSRC and the Agriculture Research Council (ARC) are partnering on Phase 2 of the Canadian-based International Development Research Centre-funded project, 'Novel livestock vaccines for viral diseases in Africa towards improved food security'.

The project aims to develop vaccines targeted at important viral diseases affecting cattle, sheep and goats. There is growing recognition that the advances in biotechnology

towards improving animal disease control are important, with the use of vaccination strategies proving highly successful in preventing, controlling and reducing the incidence of animal diseases worldwide. Vaccines have been a major contributor in the eradication of major diseases and preventing a significant number of livestock deaths which would have occurred as a result of infectious diseases.

The HSRC was invited to join the project to provide insights into the social and human dimensions of animal health and small-scale farming communities across disease-prevalent parts of South Africa. Our participation comes with the recognition that rural livestock farming development cannot be separated from broader issues of social and human development.

The project, which adopts a multi-dimensional approach involving researchers in micro-biology, agricultural economics and social science, examines the links between vaccine development and social and economic factors in order to evaluate the economic impact and ensure the uptake of the new vaccines by small-scale farmers. Ultimately, the project aims to promote greater food and economic security in livestock keeping households through improved animal health.

Animal health and policy

Evidence and statistics on the importance of primary animal health care for livestock development in South Africa show that stronger policy and regulatory measures and interventions are required. Therefore, an important aspect of the study is the holding of a series of policy dialogues, which are intended to create a forum where relevant stakeholders including government, researchers, animal health practitioners and farmers can explore ways of integrating learning into delivery systems. (also read the NewsRoundup)

The importance of primary animal health care for livestock development in South Africa shows that stronger policy and regulatory measures and interventions are required.

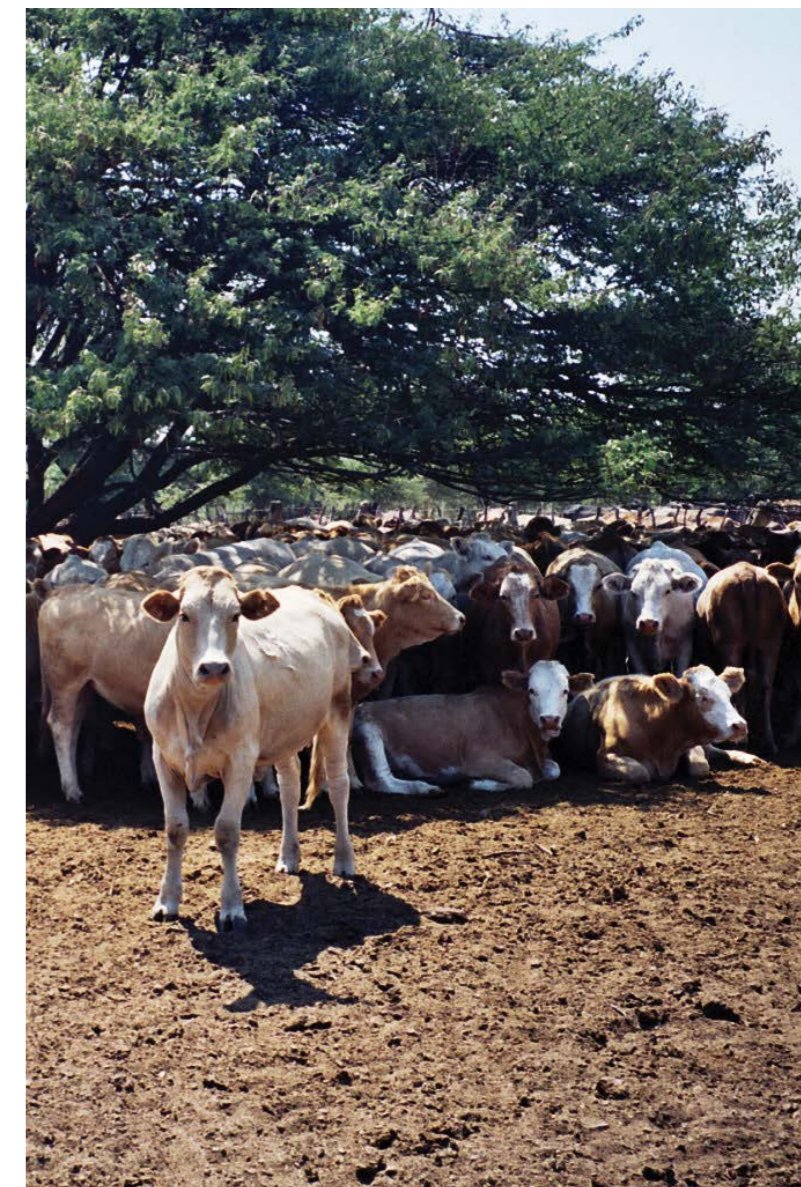
The policy dialogues have the overall objective of contributing to policies and strategies aimed at using scientific innovation and technology to reduce poverty through better animal health, which improves livelihoods and opportunities for household wealth creation in rural livestock keeping communities. The dialogues are aimed at the implementation of the National Research and Development Strategy and the new 10-Year Innovation Plan formulated to help drive South Africa's transformation towards a knowledge-based economy

in which the production and dissemination of knowledge leads to economic benefits and enriches all fields of human endeavour.

Concluding remarks

The area of primary animal health is new to the Human and Social Development research programme at the HSRC, but aligns with key themes in the programme relating to communities, gender and social dimensions of climate change. It is hoped that through the upscaling of the project new and useful insights will emerge on the social and socioeconomic dimensions that impact on community development in rural South Africa. ■

Authors: Dr Sarah Chiumbu, African research fellow, Human and Social Development (HSD) research programme, HSRC; Safiyya Goga, PhD intern, HSD; ; Prof. Vasu Reddy, former executive director, HSD, dean of Humanities, University of Pretoria.



School exiting certificate: old wine in new bottles

Would a 'school exiting certificate,' which is a grade 9 school-leaving certificate as recommended by a ministerial task-team report, offers a route to career opportunities for those who do not complete a matric certificate? Perhaps, but that would depend on the way the concept is marketed, says *Andrea Juan et al.*

The introduction of a General Education and Training Certificate (GETC) at the end of compulsory schooling at the grade 9 level is intended to offer learners an 'alternative' pathway to completing a national senior certificate, or matric.

The GETC is not a new proposal. Providing school-leaving certificates to learners at the end of grade 9 was debated post-1994 and in 2003. The South African Qualifications Authority subsequently recommended a GETC policy. To implement the GETC, the then Department of Education experimented with the common tasks for assessment (CTAs) to form the basis of a standardised test to issue the GETC. Yet, concerns over both the concept and implementation of the GETC allowed the proposed policy to die a natural death.

The recent re-emergence of this debate begs the question of whether there is merit in re-examining the viability of this certificate. A Department of Basic Education ministerial task team, which assessed the quality of the National Senior Certificate, recommended this 'exiting certificate' as a response to the high dropout rate of learners after grade 9.

This debate begs the question of whether there is merit in re-examining the viability of this certificate.

The certificate is intended to firstly act as exit from grade 9 and entry credentials into traditional schooling or vocational education through technical vocational colleges (TVET) and technical secondary schools. Learners could graduate with a National Senior Certificate at the end of each of these pathways. The second intention is to act as proof of educational qualifications for entry into the labour market.

The option is not taken by many students – either because of the poor image of TVET colleges or the lack of awareness of this pathway among grade 9 learners

Viability of the GETC certificate

One of the intentions of the grade 9 schooling certificate is to encourage alternative routes to the grade 12 (or equivalent) examination. Most educational systems around the world have the traditional and the technical vocation education and training pathways, and dual streaming is a common practice internationally (Europe, Egypt, China).

The dual pathway allows a route for learners with different abilities and interests to be educated. In addition, a wide range

of skills are produced for the economy. Currently, South African learners do have the option of leaving compulsory school after grade 9 and registering at a Technical Vocational Education and Training (TVET) college. They can then complete the National Certificate Vocational (NCV). This is not an option taken by many students – either because of the poor image of TVET colleges or the lack of awareness of this pathway among grade 9 learners. Learners should be made aware of the 50 public TVET colleges in the country which offer this option.

Job security

There is no guarantee that the certificate will provide entry into the labour market. The task team report states that the certificate will provide proof of educational status, and thus grant access to employment opportunities by providing signals to the labour market about the competencies of an individual. However, research published by the Centre for Higher Education Transformation found that, on average, South Africans who complete grade 12 have earnings between 40% and 70% higher than those with less schooling. These percentages increase with higher levels of education. The Annual National Assessments (ANA) and Trends in International Mathematics and Science Study (TIMSS) results show a very poor quality of mathematics achievement at the grade 9 level. Taking this into account, the value of the certificate in the labour market is questionable.

Socially acceptability of the GETC

The government cannot allow for exiting the education system with a grade 9 certificate to become a socially acceptable choice for learners. Globally, governments and societies are encouraging higher levels of education due to the extensive benefits which it provides. The 2011 Census statistics show that only 40% of citizens 20 years and older have a grade 12 or higher education qualification. We must continue to strive to increase educational levels of the population to further promote the development of the country.

Potential to hide dropout levels

The certificate has the potential to mask the high levels of dropouts. This is because learners would have successfully exited the educational system with a qualification. Leaving school at this point would therefore technically not be considered as 'dropping out'. This is what Professor Volker Wedekind calls a 'statistical solution' to a major social issue.

The introduction of a new qualification has major cost and logistical implications. If we want to improve the quality and outcomes of our education along with other initiatives, we need to create a greater awareness of the existing technical vocational routes, and introduce a repetition policy that provides additional assistance to learners who are not passing grades 10 or 11 to help them achieve the competences required at that level. ■

This article (slightly modified) first appeared in The Mercury newspaper on 4 September 2015.

Authors: Drs Andrea Juan, post-doctoral fellow; Tia Linda Zuze, senior research specialist; Vijay Reddy, executive director; Ms Sylvia Hannan, junior researcher, Education and Skills Development research programme, HSRC

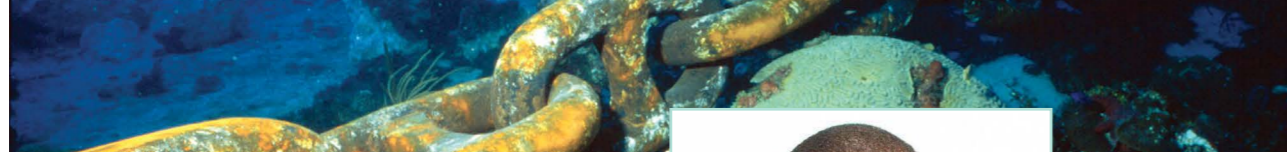
Restoring the health and prosperity of the Indian Ocean

The dead coral reefs at Pointe aux Piments as photographed from a glid-bottom boat.

In many areas ocean ecosystems are under stress. How can the ecological integrity of these areas be preserved and restored in light of a growing interest in the economic potential of sea-bed exploration, intensive fishing operations and increasing shipping activities? These are the issues explored recently at 'the first conference of the Indian Ocean Rim Association (IORA) on the blue economy,' attended by high-level officials and ministers of countries bordering the Indian Ocean. *Ina van der Linde* reports.

Step into the stretch of ocean at one of the many luxury beach resorts at Pointe aux Piments, north of Port Louis in Mauritius, the sea is dead. Here one can view the direct effect of coral bleaching of the fringing reefs: corals have turned white and died after expelling the algae that helped support them. Fringing reefs are reefs that grow directly from a shore.

On the same stretch of beach the first Indian Ocean Rim Association Ministerial Conference on the Blue Economy took place to discuss how to preserve and restore the ocean ecosystems and to promote collaboration and



cooperation between countries bordering the Indian Ocean. The blue economy is a new comprehensive concept, incorporating the 'ocean economy', environment and sustainability to provide basic human. 'Balanced economic development' was the preferred term used by senior government officials and ministers from all countries bordering the Indian Ocean – all except Somalia and Pakistan – who participated in the conference that took place from 2-3 September.

The green economy – a core aspect of the UN Conference on Sustainable Development 2012 or Rio+20 – focuses on growth in income and employment driven by public and private investments that reduce carbon emissions and pollution, boost energy and resource efficiency and prevent the loss of biodiversity and ecosystem services. The blue economy takes this concept a step further: it advocates that a green economy will not be possible unless the seas and oceans are a key part of these urgently needed transformations.

From fish farming to ballast water

The September conference had much to talk about. Consider the issues: fish farming (aquaculture) to contribute to food security; the potential of renewable ocean energy; the impact of enormous container vessels on port congestion; ballast water, which is essential for safe and efficient modern shipping operations but which poses serious economic, health and environmental risks due to the multitude of marine species carried in ships' ballast water; cooperation in security issues such as combating increasing piracy; gathering of big data to better understand the ocean economy; and sharing technology and knowledge to cooperate and to grow their economies.

From the outset IORA was not a body to lay down rules for Indian Ocean Rim countries, says secretary-general K V Bhagirath, Ambassador of the Republic of India. In the IORA Charter it expresses the principle 'to seek to build and expand understanding and mutually beneficial cooperation through a consensus-based, evolutionary and non-intrusive approach'. The Charter states that there are no laws and binding contracts. 'Compliance with consensus-based decisions remains without any rigid institutional structure to specify any rules and regulations.'

Without the option of enforcement of 'rules', it raises the question of conflicting interests of sustainability, versus economic interests, growth in income and employment.

Agreements on sea-bed mining

Dr Lyndon Llewellyn, research manager of the Australian Institute of Marine Science, is pleased with what the conference has achieved. A long list of agreements was reached that reinforced the importance of the sustainable development approach. This includes doing sustainability assessments that evaluate the environment, social capital growth in addition to economic return – a triple bottom line assessment – and clear mechanisms to ensure benefits flow to communities.

The issue of sea-bed mining for minerals, oil and gas and the threat of damage to the environment were of special concern. Participants endorsed the establishment of strong legal and governance regimes prior to engaging



Commander Tsietsi Mokhele

in seabed mineral or hydrocarbon [oil, gas] development activities.

South Africa has much to offer in terms of knowledge and expertise in the blue economy, says Commander Tsietsi Mokhele, CEO of the

South African Maritime Safety Authority. It has long years of experience in seabed mining (De Beers) and in oil and gas exploration through PetroSA, which operates the world's first gas-to-liquid (GTL) refinery at Mossel Bay, using some of the most environmentally friendly processes ever developed. Other expertise is in deep-sea fishing (think I&J) and in the repair and maintenance of ships.

Mokhele is upbeat about progress made in South Africa's plans for the blue economy, as set out in Operation Phakisa. Phakisa is a Sesotho word for 'hurry up'. A series of work sessions or laboratories, with representatives from the government, business, labour, civil society and academia, are working on projects that aim to unlock the economic potential of South Africa's oceans. According to the Presidency, the country's oceans have the potential to contribute up to R177 billion to gross domestic product by 2033.

The first implementation of Operation Phakisa is led by the Department of Environmental Affairs, and focuses on four priority sectors: marine transport and manufacturing, offshore oil and gas exploration, aquaculture, and marine protection services and governance.

Reinforcing these priorities, the IORA conference culminated in a declaration of country leaders, committing themselves to, among others, the sustainable use of marine resources; cooperation in data collection on the ocean environment; sustainable development of the ocean economy, cooperation and networking; funding of different projects; the empowerment of women and micro, small and medium enterprises; and cooperation and a favourable business environment.

And as for restoring the previously rich coral reef heritage of the northern shores of Mauritius, Dr Daniel Marie, principal research scientist at the Mauritius Oceanography Institute, holds out hope. There are concerted efforts to regenerate coral reefs in the Trou-àux-Biches lagoon on the northwest coast of Mauritius, and although the process is in its early stages, there are encouraging signs that these exquisite undersea gardens can be regenerated.

Encouraging too are efforts in creating a sustainable blue economy. It all comes down to 'joining hands' as expressed by the wise octogenarian and Mauritian prime minister, Sir Anerood Jugnauth: 'The ocean economy, due to its broad outreach, cannot be sustainably developed in isolation... Let us share our knowledge, expertise and resources in the fields of seaport and shipping, offshore hydrocarbon and minerals, fisheries and aquaculture, and marine renewable energies.' ■

Author: Ina van der Linde, science journalist and editor, Human Sciences Research Council.

The kingdom by the sea: careful steps in deep-sea exploration



Countries in the Indian Ocean are preparing for seabed mining exploration that could unlock this latent economic power and associated social benefits, but there are concerns about the destruction of habitats and ocean life. Dr Lyndon Llewellyn presented information on the state of seabed exploration in the first conference of the Indian Ocean Rim Association (IORA), held on 2-3 September in Mauritius.

The Indian Ocean blue economic growth will not happen by accident and will require concerted effort by governments, industry and the broader community planning and making decisions using the best possible scientific evidence.

Ocean seabeds already provide over 30% of the global supply of hydrocarbons with exploration expanding as technological advances bring deep untapped reserves within reach of industry. But while marine oil and gas production is a mature industry, these same technological advances are also allowing exploration for deep-sea minerals and exploration.

The International Seabed Authority, an intergovernmental body based in Kingston, Jamaica, that was established to organise, regulate and control all mineral-related activities in the international seabed area beyond the limits of national jurisdiction, has now awarded exploitation leases in the Indian Ocean.

Demand for these new mineral resources is being driven by depleting accessible terrestrial resources and demand for rarer minerals for high-technology manufacturing. While there are no extraction projects currently operating in deep-sea mining, the starting date for commercial operations is getting closer.

Risks, regulations and opportunities

The current lack of information about seabed ecosystems, uncertainty about the risks associated with mining and internationally approved standards all provide hurdles to future development of deep-sea and nearshore minerals.

This is new territory for governments and industries alike who are now having to focus on the risks and benefits of building capability and driving investment in mining but also

offshore oil and gas exploitation for those countries new to this industry, weighing the costs and benefits of the forecast economic development, environmental management needs, social return, and required legal certainty and governance.

In an earlier workshop of member state representatives and technical experts convened to examine the opportunity presented by seabed mining in Indian Ocean and synergies with oil and gas discovery and extraction. The workshop participants identified four key principles that should be adopted in any regional effort to develop this sector: sustainability, strong legal and governance frameworks, regional cooperation and community engagement. This was endorsed by the IORA conference.

Sustainability: there are ongoing challenges to healthy oceans and their importance to environmental health, economy and livelihoods of the countries of the Indian Ocean Rim and reinforced the importance of the sustainable development approach as agreed in the IORA Economic Declaration. Sustainability assessments should include valuation of the environment and social capital growth in addition to economic return – a triple bottom line assessment – and clear mechanisms to ensure benefits flow to communities.

Strong legal and governance regimes prior to engaging in seabed mineral or hydrocarbon development activities. In noting the importance of public-private partnerships it was further agreed that a robust and transparent regulatory framework provides improved certainty for both government and industry, enabling private sector participation and facilitating investment.

Regional cooperation was recognised as important in the creation of long-term and large scale information to

successfully manage the marine resources of the Indian Ocean. Collaboration and sharing of national experiences that builds regional understanding of the ecosystems and resources of the Indian Ocean will transform its blue economy.

Community engagement was endorsed as being critical to provide transparency and establish the 'social licence' to operate. This included the importance of establishing best-practice environmental standards, and which are also integrated to account for multiple uses of ocean space.

More specifically, participants agreed on the following recommendations:

- Implementation of marine-specific policies, legislation and regulations for the protection, exploration and sustainable use of marine resources, along with robust regulatory frameworks prior to exploration and approved exploitation
- Sharing of national experiences and best-practice, particularly from experiences of government and industry cooperating in exploration and development of offshore hydrocarbon resources, which will enhance sustainable development of Indian Ocean blue economies.
- Adoption of international data standards for the collection of benthic habitat, oceanographic and geological data to allow the development of regional scale information was considered an important capability not just for seabed resources but for all pillars of the Indian Ocean blue economy. A metadata repository, hosted by an IORA Member State, would be a valuable and tangible step towards this outcome.
- Agreement on data management, standards and accessibility to inform a regional approach, and identify data expertise in the region.
- Capacity building is a critical need for many member states which can be achieved by technology transfer and targeted training programs, including in environmental

risk assessments and improved assessment of social and environmental value. Capability outside of the Indian Ocean region should also be drawn upon with the example of the capacity building programme implemented by the Secretariat of the Pacific Community, as a specific example.

- Pursuing development of baseline information along with well-designed ongoing monitoring programs and that this may need public-private partnerships which should be formed under suitable standards and governance structures.
- The International Seabed Authority is currently developing exploitation regulations for deep seabed mining beyond national jurisdiction and IORA member states should actively engage with this process to ensure recognition of the specific circumstances and ambitions of Indian Ocean states.

All stakeholders in the exploitation of Indian Ocean seabed resources want three things: secure economic growth, increased certainty, and greater license to operate. By pursuing these recommendations the Indian Ocean region will move closer to these outcomes.

All stakeholders in the exploitation of Indian Ocean seabed resources want three things: secure economic growth, increased certainty, and greater license to operate. Workshop participants believed that pursuing these recommendations will move the Indian Ocean region closer to these outcomes. ■

To read more, go to <http://www.iora.net>

Other reading: www.earthmagazine.org/article/staking-claim-deep-sea-mining-nears-fruit

Author: Dr Lyndon Llewellyn, research programme leader of data and technology innovation, Australian Institute of Marine Science.



Ministers and high-levels officials representing 20 member countries of the Indian Ocean Rim Association. They attended the first Indian Ocean Rim Association Ministerial Conference on the Blue Economy. Mauritian prime minister, Sir Anerood Jugnauth, sits in the middle in the front row.

Photo: Vishal Bheeroo, special correspondent, Expat Times, Mauritius

Africa, women and the blue economy

African countries should promote healthy ocean governance to grow their economies and improve the lives of people, and especially poor women, writes **Narnia Bohler-Muller**.



Dr Nkosazana Dlamini-Zuma

The start of the 25th African Union (AU) Summit in Johannesburg, South Africa, on 8 June 2015 coincided with *World Oceans Day*. This presented an opportunity to consider how African member states, and the AU particularly, are improving their relationship with the seas and how healthy oceans and the prosperity and security of people are intertwined.

The AU's *Agenda 2063* aims at 'a prosperous Africa based on inclusive growth and sustainable development'. On prospects for the continent's blue economy, it outlines that 'Africa's ... ocean economy, which is three times the size of its landmass, shall be a major contributor to continental transformation and growth'. It is important that this goal be followed through with mechanisms that protect and promote environmentally and ecologically friendly policies and practices.

Dr Dlamini-Zuma believes that developing African sea power presents an opportunity for women to thrive

The AU is already undertaking important initiatives in this regard, for instance the Continental Conference on the Empowerment of African Women in Maritime took place in Luanda, Angola in March 2015. The conference theme was *'African Maritime Women: Towards Africa's Blue Economy.'*

In addition, one of the goals of the AU's *2050 Africa's Integrated Maritime Strategy (AIMS)* is to encourage member states to create a blue economy that would foster wealth creation through coordinated and sustainable maritime industries, such as fishing, shipping and resource extraction.

The AU has also declared that 2015 to 2025 will be Africa's Decade of Seas and Oceans. This also happens to be the Decade of Women's Empowerment under Agenda 2063.

Impetus for improved ocean governance has been particularly evident at the intergovernmental negotiations of the United Nations (UN) Post-2015 Sustainable Development agenda. One of the SDGs – goal 14 – is central as it encourages countries to 'conserve and sustainably use the oceans, seas and marine resources for sustainable development.'

Dr Nkosazana Dlamini-Zuma, chair of the AU Commission, delivered a presentation at *The Economist's Third World Ocean Summit 2015*. The message is clear: achieving a balance between ocean health and economically sustainable development is challenging, but necessary. Many parts of the oceans are threatened and need protection, but essential changes are only likely to occur if the oceans are also valued as a source of future African prosperity.

Dlamini-Zuma believes that developing African sea power presents an opportunity for women to thrive. Not only is the blue economy a vital part of Africa's 50-year industrialisation plan, Agenda 2063, but it also provides an opportunity to achieve the continent's post-2015 development goals on women's involvement in employment and leadership:

'Now we're trying to get everybody to focus on this and we are also saying to women that this is an underdeveloped area. Don't let the men develop it. Don't come in at the end. You must be part of that development.'

The South African *Department of Environmental Affairs* leads *Operation Phakisa*, which aims to create a local blue economy that would contribute billions of rand to the country's gross domestic product and create thriving maritime industries. ■

Author: Narnia Bohler-Muller, acting executive director, Africa Institute of South Africa, HSRC



The 2014 Stigma Index Survey: experiences of people with HIV

The Stigma Index measures the level of stigma and discrimination experienced by People living with HIV (PLHIV), and is a survey undertaken by nearly 50 countries, worldwide. *Allanise Cloete et al* describe the 2014 PLHIV Stigma Index Survey conducted earlier this year in all nine provinces of South Africa.

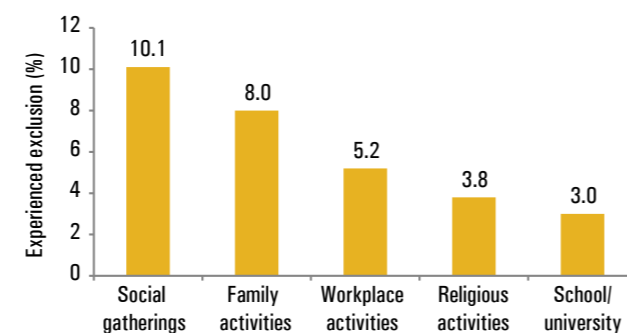
Historically, the Stigma Index was a joint initiative of several organisations: the Global Network of People Living with HIV/AIDS (GNP+), the International Community of Women Living with HIV/AIDS (ICW), the International Planned Parenthood Federation (IPPF) and the Joint United Nations Programme on HIV/AIDS (UNAIDS), who worked together to develop the survey. Under the greater involvement of people living with AIDS principle, the benefits of the index, particularly for those conducting it, go further than just collecting needed evidence. The process of implementing the index is intended to be empowering PLHIV, their networks and local communities. The 2014 South African PLHIV Stigma Index was commissioned by the South African National AIDS Council (SANAC) and undertaken by the Human Sciences Research Council in collaboration with three NGOs belonging to the SANAC PLHIV sector, namely, the National Association of People Living with HIV and AIDS (NAPWA), the Treatment Action Campaign (TAC), Positive Women's Network and UNAIDS.

Overall, the majority of PLHIV who took part in the survey were female. Almost half of respondents reported living with an HIV-positive diagnosis for five years or more. The mean age of the study sample was 36 years. Half were sampled from small towns or villages and most were in a relationship. Two-thirds were unemployed. Of concern is that more than half of the respondents reported having gone without food during the last 12 months.

The study found that PLHIV had experienced moderate levels of external stigma (stigma from others), such as

exclusion from family activities and other social gatherings because of their HIV positive status (Figure 1).

Figure 1: Experiences of stigma and discrimination involving exclusions from social situations reported by respondents



Source: 2014 South African PLHIV Stigma Index

Experiences of external stigma were not extended to services such as health care services, for example only a few survey respondents reported that they had been denied access to health care, or had lost their jobs or income because of their HIV status. Nevertheless over one quarter (27.5%) of the respondents believed that health care professionals had breached confidentiality and one-third (35.3%) believed that their records would not be kept completely confidential.

There is evidence of internalised stigma (self-stigma) among the PLHIV that were interviewed, with some

expressing feelings of shame, guilt, self-blame, low self-esteem and feeling suicidal (Table 1).

Table 1: Self-reported internal stigma among respondents in the survey

| Feelings experienced | % |
|------------------------|------|
| Ashamed | 28.7 |
| Guilty | 28 |
| Blaming oneself | 30.5 |
| Blaming others | 19.1 |
| Having low self-esteem | 22.2 |
| Should be punished | 11.1 |
| Suicidal | 11.2 |

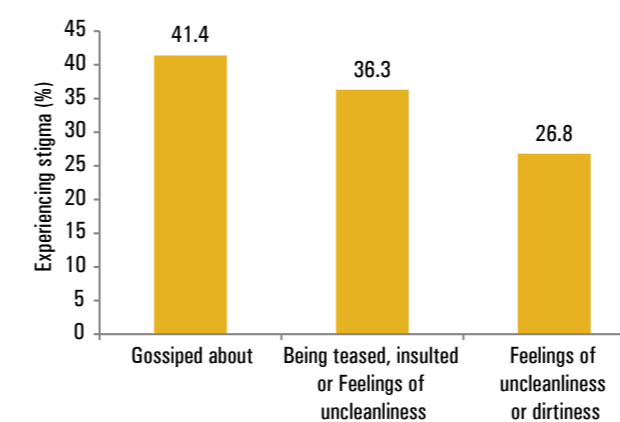
Source: 2014 South African PLHIV Stigma Index

Regarding internalised stigma, 28.7% felt ashamed, 28.0% had feelings of guilt, 30.5% blamed themselves, and 19.1% blamed others and had low self-esteem (22.2%).

Hence there is evidence of internal stigma experienced by a sizeable proportion of PLHIV who took part in the study. Of note is that experiences of internal stigma were found to be higher than experiences of external stigma reported by respondents in the last 12 months. Of concern is that one in ten of the respondents felt that they should be punished as a result of their HIV-positive status (11.1%) and one in ten felt suicidal in the last 12 months (11.2%).

In this study, TB-related stigma was also measured as experienced by PLHIV. During the project initiation phase, the steering committee made a decision to include items that relate to TB-related stigma in South Africa because of the high co-morbidity of TB and HIV (SANAC, 2014a). The study found moderate levels (26.8%-41.4%) of TB-related stigma.

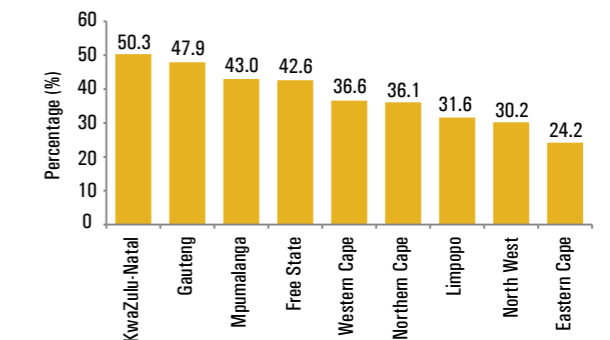
Figure 2: Experiences of TB-related stigma and disclosure reported by respondents in the study



Source: 2014 South African PLHIV Stigma Index

Differences between provinces were also striking with regard to external, internal - HIV related stigma and TB-related stigma. For instance, with regards to internal stigma, proportionately more respondents from Mpumalanga, KwaZulu-Natal and Free State (which have the highest HIV prevalence) had felt some internalised stigma than Eastern Cape and North West.

Figure 3: Experiences of feeling internalised stigma by province



Source: 2014 South African PLHIV Stigma Index

In terms of sexual reproductive health and human rights, 92.6% of respondents indicated never being coerced into sterilisation by a healthcare professional following their HIV-positive diagnosis. However it is of concern that 7.4% of respondents reported forced sterilisation. It is recommended that further investigation be conducted into forced sterilisation by the National Department of Health.

Concerning work, health and education services, 5.3% of respondents reported having changed their place of residence or that they were denied access to rental accommodation, nearly half of whom (48.6% of 5.3%) indicated that their HIV-positive status was the reason, or part thereof, for being forced to change their place of residence or being denied access to rental accommodation. Forty percent of those who reported having lost a job indicated that their HIV-positive status was either directly or indirectly responsible for having lost a job or another source of income during the preceding 12 months. Importantly, over 90.0% of respondents reported never having experienced discrimination in health care settings.

Disclosure of HIV-positive status to spouses and partners was found to be 89.4%. This was also the case with disclosure to other older family members (84.6%). High rates of disclosure of HIV-positive status were found in this study. This was expected because we recruited PLHIV who belong to support group structures. In the workplace however it was found that most respondents in the study indicated that their employers and/or bosses (51.5%) were not aware of their HIV-positive status. Of concern is that over one quarter (27.5%) of the respondents believed that health care professionals had breached confidentiality and one-third (35.3%) believed that their records would not be kept completely confidential.

Results of the survey demonstrate that although South Africa made some good progress in the management of HIV-related stigma, in particular within the health care sector, about one-third of PLHIV who took part in the study reported some form of external stigma while there was evidence of internalised HIV-related stigma and stigma-related to TB. There is therefore an urgent need to develop both national policies and evidence-based stigma reduction programmes to address HIV-related stigma and discrimination in South Africa. ■

Authors: Allanise Cloete, PhD research intern, HIV/AIDS STIs and TB (HAST) research programme, HSRC; Prof. Leickness Simbayi, executive director, HAST; Dr Khangelani Zuma, executive director, Research Methodology and Data Centre, HSRC; Mr Sean Jooste, senior researcher, HAST; Dr Njeri Wabiri chief research manager, HAST; PLHIV HIV stigma team.

BRICS at seven: funding peace, security and development in Africa

How BRICS' New Development Bank (NDB) will operate, with whom, and at what level, is still a blank slate. *Buntu Siwisa* addressed the potential of this new institution to tackle the relationship between peace, security and sustainable development in Africa at an HSRC seminar.

With South Africa having pledged R2 billion to the NDB, which will stagger to R24 billion over the next few years, points to the weight attached to the NDB in generating sustainable development in the Global South. This is even more significant since the Africa Regional Centre (ARC) of the bank will be located in South Africa.

The objective of this article, based on seminar hosted by the HSRC, is two-fold: the first follows from BRICS' acknowledgement of the inextricable relationship between peace, security and sustainable development, as highlighted in all declarations stemming from heads-of-state BRICS Summits. The challenge is that there is no formula for how this will be achieved beyond this acknowledgment.

The development agencies of Brazil, Russia, India, China and South Africa can and should collaborate in finding methods to link peace and security with sustainable development. I suggest ways in which these development agencies can work together in funding peace and security challenges in Africa, by exploring their varied niche focus areas of interests and expertise, and matching them with what the peace and security challenges in Africa require in meeting the demands of sustainable development.

The second objective is in stretching and challenging the thinking on the NDB's main function, which is mobilising resources for infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries, as stated in the 2014 Fortaleza Agreement on the NDB. If not attended to, the NDB will most likely follow the same route as other multilateral development banks, making negligible dents on sustainable development in

Africa. The challenge is to urge the NDB to factor in peace and security challenges in Africa in its developmental mandate, not at the tail-end of conflict, but during conflict, active or latent.

The development agencies of Brazil, Russia, India, China and South Africa can and should collaborate in finding methods to link peace and security with sustainable development

BRICS, South Africa and peace-building in Africa

South Africa links Africa to BRICS and brings to bear BRICS' interests on peace, security and sustainable development in Africa through its foreign policy ethos; her position as a gateway and link to Africa; her African agenda; South-South cooperation; and experience and interests in peace-making and peace-building in Africa. South Africa further enriches this link between BRICS and Africa through its experience and expertise in post-conflict reconstruction and development (PCRD) and strategic planning.

South Africa's rich experience, credibility and legitimacy

in addressing peace and security challenges in Africa are well-established through multilateral diplomatic links with the African Union (AU); the Southern African Development Community (SADC); other African regional economic communities; the UN Ad Hoc Working Group on Conflict Resolution in Africa; and international NGOs.



Finding and funding the connection between peace, security and development in Africa

The role of the NDB in funding development in the global South has become more pronounced as the value of South-South trade now exceeds North-South trade by US\$2.2 trillion. The NDB comes in significantly at this juncture as the World Bank estimates that US\$1 trillion is required to fund the 'infrastructure development gap' in developing countries.

Existing multilateral banks are able to fill approximately 40% of this infrastructure development gap. Peace and security challenges are in-built in these infrastructure development challenges, and their methods of funding will generate strong linkages between peace, security and development. The following section highlights the characteristics of the BRICS countries' development agencies and their typologies, and offer examples of forms of collaboration among them.

The role of the NDB in funding development in the South has become more pronounced as the value of South-South trade now exceeds North-South trade by US\$2.2 trillion



BRAZIL

- The Brazil National Economic and Social Development Bank provides loans and export credits to Brazilian companies overseas.
- It works with the Brazilian Trade and Investment Promotion Agency – (Apex – Brazil).
- 23% of US\$1 trillion is disbursed to Africa through the Brazilian Cooperation Agency (ABC) - a division of the Ministry of External Relations.

- Aid increased to US\$65 million in 2010 – 2012, disbursed to a range of projects covering 37 African countries. Main focus countries are Portuguese-speaking African countries.
- Main focus areas of development are agriculture, health and tropical medicines, and the transfer of knowledge from Brazil through technical assistance.

RUSSIA

- Of the US\$500 million apportioned for external aid in 2011, only US\$10 million was transferred to Africa as bilateral aid, mainly through UN agencies.



INDIA

- In 2003 the India-Africa Fund of US\$200 million in export credits was set up to support economic integration in Africa.
- At the 2011 Africa-India Summit India pledged export credits for African projects worth US\$5.4 billion until 2014.
- The Indian Export-Import Bank is a key instrument in facilitating the entry of Indian companies to development projects in Africa.
- In May 2014 ±60% (US\$6 billion) of the bank's operational lines of credit went to Africa.
- Grant schemes increased from US\$1 million in 2000 - 2001 to US\$67 million in 2003 - 2014.
- Main project areas are: information and communication technology (ICT), education (e.g. the launch of several regional training institutions in Africa), and, the pan-African e-network to provide Indian educational and medical support via satellite technology to medical institutions.
- Vast lines of credit to aid expansion to West and Portuguese-speaking Africa.



CHINA

- Provides loans, export credits and development assistance.
- State-owned banks: Export-Import (Exim); and China Development Bank (CDB), and export credit insurance provider Sinosure.
- State-owned banks disbursed US\$112 billion in foreign loans to Chinese companies conducting businesses overseas.
- China's loans to Africa through Exim and CDB in 2012 amounted to US\$ 30 to 40 billion
- At the Forum on China Africa Cooperation (FOCAC) in 2012 China pledged another US\$20 billion in loans by 2015, mainly through the CDB.
- Funding infrastructure: roads, railways, energy facilities, harbours, among others.
- Two-thirds of 2010-2012 development aid to Africa went to the construction of public facilities and economic infrastructure.



- 56% of Chinese loans are provided as concessional loans to infrastructure projects, and for industrial development, with economic and social benefits.
- 8% of interest-free loans were apportioned to the construction of public facilities.
- Grants: 36% of Chinese aid for welfare projects went to human resources development, agricultural development, technical cooperation etc.



SOUTH AFRICA

- Development agencies: South African Development Partnership Agency (SADPA), Development Bank of Southern Africa (DBSA), Industrial Development Cooperation (IDC), Export Credit Insurance Cooperation of South Africa (an agency of the Department of Trade and Industry).
- Since 2001, South Africa has provided R20 billion (US\$1.1 billion) in export credits and investment insurance cover.
- Southern Africa mining and infrastructure development dominate the development assistance portfolio.

What is to be done? Suggestions on developing a results-based work plan

With South Africa taking the lead on the NDB Africa Regional Centre, the following are suggestions on how the bank should develop a results-based work plan, geared towards linking peace and security development challenges in Africa with sustainable development:

- Main stakeholders in working out the operationalisation of connecting peace and security challenges in Africa with sustainable development should be:
 1. The NDB Africa Regional Centre - (lead resources and mandate-driving stakeholder);
 2. The Department of International Relations and Cooperation (DIRCO) and / or South Africa's Council on International Relations (SACIR) – (mandate-driving stakeholders);
 3. The AU's Peace and Security Department – (mandate-driving stakeholder);
 4. The BRICS' development agencies – (lead implementing stakeholders);
 5. Two leading NGOs on peace and security developments in Africa from each of the African regional economic communities – (implementing stakeholders);
 6. Two NGOs from each of the BRICS countries - (implementing stakeholders);
 7. Two research institutions from each of the African regional economic communities – (knowledge production, recording, publishing and dissemination stakeholders); and
 8. Two research institutions from each of the BRICS countries (knowledge production, recording, publishing and dissemination stakeholders).
- The objective is to draw an implementable, outcomes-based and measurable annual results-based matrix work plan, identifying peace and security challenges in Africa that

- BRICS' development agencies and NGOs can collaborate on.
- The basis for this results-based plan should be the AU's *Post-Conflict Reconstruction and Development (PCRD) policy (2006)*. The PCRD policy is defined as 'a comprehensive set of measures that seeks to address the needs of countries emerging from conflict, including the needs of affected populations; prevent escalation of disputes; avoid relapse into violence; address the root causes of conflict; and consolidate sustainable peace'. The AU PCRD policy can be used as a barometer to measure the outcomes of these challenges, following its six development indicative elements, namely (i) security; (ii) humanitarian / emergency assistance; (iii) political governance and transition; (iv) socio-economic reconstruction and development; (v) human rights, justice and reconciliation; and (vi) women and gender.
- The main stakeholders, with the NDB Africa Regional Centre leading, should constitute bi-annual symposia / conferences in South Africa of the stakeholders listed above, tasked with the mandate of drawing the results-based work plan, and the second symposia / conference set to review and measure the development outcomes.
- This process should be repeated annually, with a clear emphasis on measuring, recording, publishing and disseminating data on the outcomes of the work plan.

Changing our thinking

The area of linking peace and security with development in developing countries is well-charted and has generated its own intricate and dynamic politics since the Cold War. It is the too-familiar realm of donors, development agencies, the private sector's corporate social responsibility, and philanthropy. It is an area often regarded as trailing behind and serving the national interests of donor countries. BRICS and the NDB enter into this orbit with an increasing number of new actors, particularly from developing countries, all operating in an increasingly complex and interdependent world system.

The main challenges facing this area are two-fold. The first is that many donor activities are linked to the national and foreign policy interests of donor countries. The second challenge is that the donor activities, often left to be undertaken by international NGOs and other non-state actors, are often uncoordinated, with outputs difficult to identify and measure. In addition these activities are often viewed as ends in themselves, with little review and monitoring to link them to the broader ideals and goals of donor countries.

The consequence of this, particularly when linking peace and security with development, is that the root causes of conflict are inadequately attended to. This then carries the potential of a relapse into conflict, and wasteful expenditure. The solution for the BRICS countries is to find ways to co-ordinate their activities within their collective goal of development, thus finding and funding the links between peace, security and sustainable development. ■

Author: Dr Buntu Siwisa, independent research consultant on peace and security matters in Africa; member of the South African BRICS Academic Forum in the Peace and Security Cluster; associate of the BRICS Policy Centre.

A reflection on a data-curation journey

Lucia Lötter and Christa van Zyl reflect on experiences of data preservation and sharing (data curation) practices developed at the HSRC. The lessons learned from this journey may usefully contribute to more general reflection on the management of change in data practice.

The HSRC undertakes large-scale research projects that involve nationally representative, cross-sectional repeat surveys that deal with attitudinal, behavioural and health-related matters. Findings from these surveys are of obvious interest to researchers and the organisations that fund such surveys, but are also highly relevant to policy makers, students, journalists and other users of social science data.

Since the early 2000s, when the organisation published results obtained from ground-breaking new surveys, such as the first South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey, the HSRC came under considerable pressure to make the data underpinning its research findings available to a wider audience of potential users. Actuarial scientists wanted to review and use the data to base forecasts on, and academics from other institutions wanted to use the data to conduct their own analyses and make comparisons to feed into new publications.

Reluctance in sharing data

Initially, there was a reluctance to share survey data without careful consideration of various issues. For instance, why – or under which conditions – should others have access to HSRC research data from which they are able to freely analyse, criticise, and gain publication credentials, while they were not involved in the hard work to obtain funding for the survey; of developing and translating questionnaires; obtaining permissions; managing complicated fieldwork; capturing, cleaning, and analysing the data; preparing the report; and engaging with policy makers and the media?

In 2003, an international panel responsible for the HSRC's institutional review recommended that the HSRC should consider making research data available for future use as one of its 'public purpose' roles. This implied that the HSRC would have to make resources available for the management, preservation and effective sharing of its research data. In its cautious response to this recommendation, the HSRC highlighted the following concerns:

- There was no national policy around data sharing; hence the question arose of why only one of several data-generating organisations in the country was required to share its research data with others.
 - There was insufficient funding, infrastructure and resources to make data publicly available and to serve the needs of potential users.
 - There was a need to maintain confidentiality or anonymity of research participants, especially where participants were assured of confidentiality during the processes in place to get informed consent from them.
 - There were complexities around intellectual property rights, data ownership and cost recovery, especially at a research entity that depends on contract or grant funding.
- Other issues identified during subsequent consultative workshops included resistance to change, perceived threats to competitive advantage, reluctance to change established work habits, and concerns about the additional burden of detailed recording of metadata.

Finding the value in research data

Many researchers were not aware of the value of research data, the potential re-use of data, and how technology obsolescence might impact negatively on future accessibility of research data. Some were apprehensive about the limited infrastructure and resources that were available, the extra work required and new skills that would have to be developed for data management. They were also worried about possible criticism from external parties, for instance, if secondary users were to report on problems with the quality of some data sets.

Despite these concerns a survey among HSRC research staff showed that 94% regarded statistics/quantitative data as 'very important' to their work. At the same time there were changes in the external research environment. New initiatives to promote secondary access to data became more prevalent; there were increasing numbers of requests for data from external stakeholders; and there were also changes in the legislative environment.



Bring back our girls and women to careers in physics

Early adopters

By 2006, a core team of data management 'champions' was ready to embark on a learning process. The team had a strong background in research, research data management and systems development within the HSRC. Its members were keen to investigate ways in which data could be better managed, preserved and made available for future use.

With limited resources the team organised workshops with senior researchers and research managers to raise awareness and to do a needs analysis. This was augmented by international benchmarking and learning.

As a first step to prepare for better data management the HSRC's existing project information system was extended to allow for the capturing of metadata of data sets. The team then started to work on data from the first (2003) South African Social Attitudes Survey (SASAS).

They developed an approach to clean, describe and package the data set so that it could be made available on a platform that would be accessible to internal and external users alike. Further workshops and awareness-raising road shows followed.

Challenges that presented themselves included the need to develop 'rules for access'. The aim was to formulate the rules in such a manner that external users would be able to easily access data but that access should nevertheless be managed and the confidentiality of individual participants, or even participants drawn from identifiable geographical areas, be adequately protected. A dissemination interface linked to project information on the web was developed to prepare for the dissemination of pilot data by the end of 2007.

In February 2008, the HSRC co-hosted an international conference dealing with data curation - evidence of a small but growing community of data management practice in the country. This event developed into the annual African Conference for Digital Scholarship & Curation hosted by members of a community of practice called the Network of Data and Information Curation Communities. The HSRC continues to participate in NeDICC activities.

HSRC research staff showed that 94% regarded statistics/quantitative data as 'very important' to their work

Accelerated implementation

Toward the end of 2008, a new HSRC Act was promulgated. One of the clauses required the HSRC to '... develop and make publicly available new data sets to underpin research, policy development and public discussion of the key issues of development, and to develop new and improved methodologies for use in their development'.

With this new sense of urgency, more status was given to the team who had initiated work in the field of data curation. One of the objectives was to develop a long-term data curation, preservation and dissemination strategy for the HSRC.

Based on their earlier work and experience gained through international benchmarking the data curation team could also develop policies and standard operating procedures (SOPs) for data curation. As had been their approach from the beginning, a consultative approach was followed to develop and periodically review these policies.

Engagement with the Research Ethics Committee (REC) of the HSRC ensured that plans for data preservation and sharing would, at least in principle, be built into research protocols from the outset. From 2011 onwards, all HSRC research protocols that were submitted for ethics review were required to be accompanied by a data preservation and sharing plan that would be reviewed by an expert in data curation. This required researchers to think more carefully about the kind of information they would provide to potential research participants about the envisaged use of research data and the kind of consent that would be required.

Managerial support was made even more evident in 2010, with the introduction of a new indicator of institutional performance that would be formally reported on annually - the number of research-generated data sets that had been preserved and, where appropriate, made available for future secondary re-use.

Establish practice

In the course of approximately 10 years, the HSRC has experienced much change and growth in the area of data curation. By 2015, institutional practices are in place to support a data management culture included good governance, curation systems and processes, and a dedicated team to provide support for data curation.

Remaining challenges and opportunities

A remaining concern is how best to ensure appropriate recognition of the contribution of investigators and research teams who planned research, developed instruments, and collected and made available original data for further research analysis. If co-authorship of publications is not an option there is a need to insist on proper citation of data sets to demonstrate the impact of good research surveys. Continued funding for data collection and data management - undoubtedly the most cost- and time-consuming activities associated with original research - is dependent on an ongoing demonstration of its value.

The HSRC's data service has matured to such an extent that formal certification is the logical next step. Research data should be considered as valuable research infrastructure, and the long-term preservation of research data should be prioritised as a national commitment.

Note: This article is an abridged version of the original article and do not include references to various publications dealing with the management of science. The headings used in this article are to a large extent derived from John Kotter's 1996 publication, *Leading Change*. The full article is available on <http://jre.sagepub.com/content/10/3.toc> ■

Authors: Dr Lucia Lötter, head, Data Curation unit, Research Methodology and Data Centre, HSRC; Dr Christa van Zyl, director, Research Coordination, Ethics, and Integrity, HSRC.

Statistics show that around the world the number of women in physics drops sharply when approaching postgraduate level. What are the barriers that hinder their success in physics, and what can be done about that, ask *Portia Tshigoli, Rodney Managa and Palesa Sekhejane*

Science is part of almost every aspect of people's lives and scientific knowledge is central to resolving the economic, social and environmental problems that make development paths sustainable. Sustainable development requires that science and innovation be practiced at local, regional and global level with the equal involvement of women and men, yet women are still under-represented in physics and related career paths.

A 2015 global survey conducted by Rachel Ivie and Susan White, indicated that women were less likely to access resources and opportunities than men. Using data from the Global Survey of Physicists (GSP), a multi-national collaborative effort arising from a series of international conferences, they found that there were no countries in which women had more resources and opportunities than men. For instance, in countries such as China, Spain and Italy, women physicists had fewer resources and fewer opportunities than men.

Marriage and family

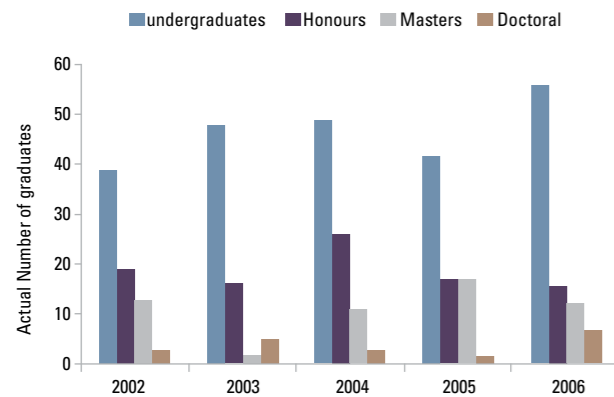
The study also found that in most countries, women were more likely than men to say that their careers as physicists have affected their decisions about marriage and family, and that having children, had slowed their rates of promotion at work.

The authors believe that this trend could be ascribed to the disadvantaging norms that apply to women, for example they found that in most countries, women were more likely than men to say that their careers as physicists have affected their decisions about marriage and family, and that having children, had slowed their rates of promotion at work.

The trend in South Africa follows the same pattern. As shown in Figure 1, there is a general incline in the enrolment of women at the undergraduate level, however, this figure declines at postgraduate level, with severe decline at the PhD level.

In most countries, women were more likely than men to say that their careers as physicists have affected their decisions about marriage and family

Figure 1: The actual number of female graduates from 2002 to 2006 in South Africa. Source: Diale et al., 2009.



Source: Diale et al., 2009

What's to be done?

In response to the concern of not having fair representation of women in physics, the organisation Women in Physics in South Africa (WiPiSA) was launched in November 2005 in Durban to address this concern. How to achieve that? Through creating enabling environments by fostering networks, stimulating viable discussions and proposing solutions towards addressing the under-representation of women in these fields.

The HSRC, with the support of WiPiSA, held a seminar to address challenges that hinder women from participating in physics related studies and careers.

Keynote speaker Dr Malebo Tibane, a senior lecturer in physics at the University of South Africa, (Unisa), emphasised the importance of having women and girls in physics with the aim of pushing gender parity in the 21st century as failure to do so will threaten the development of the nation and economic growth.

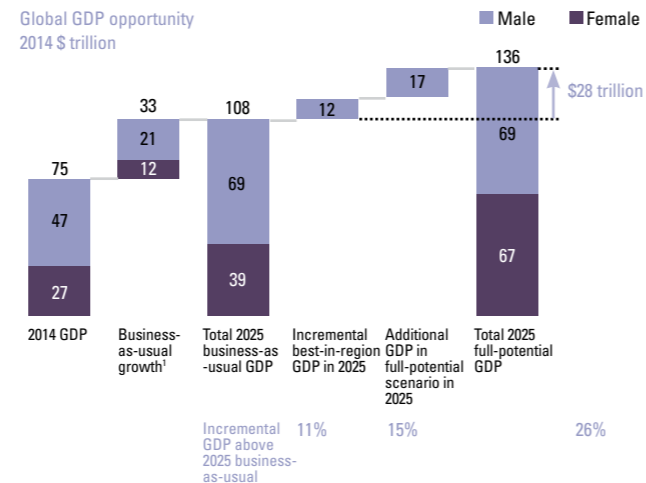
The HSRC seminar benefited young school learners (boys and girls) from grade 10-12, university students and postgraduate scholars in various fields with the hopes of generating a cohort of future physicists and scientists. On the African continent the role of physicists is undermined by various factors such as reluctance to invest financially and development of institutions to breed and drive economic development through physics.

Failure to [pushing gender parity in physics] will threaten the development of the nation and economic growth.

The McKinsey Global Institute report (2015) on gender parity reported the economic consequences of not having a gender equal society. The findings demonstrated that there is a potential to contribute USD \$28 trillion to the GDP if women and men had participated identically in the labour

markets (Figure 2). There are more women than men globally; if women are marginalised in the labour market it means that a large portion of the economy is being neglected, resulting in a weakened economic status.

Figure 2: Closing the gender gap could deliver \$12 trillion to \$28 trillion of additional GDP in 2025



¹ Represents difference between annual GDP in 2014 and in 2025 for the business-as-usual scenario. NOTE: Numbers may not sum due to rounding

Source: McKinsey Global Institute report, 2015

Key Issues

Challenges facing women in physics and related sectors

Statistics show that women around the world face similar barriers that hinder their success in physics. Even in countries where it is as common for girls to study physics as boys, the number of women physicists drops sharply at postgraduate level. Participants at the seminar debated various key issues that are believed to create barriers for women preventing them from making breakthroughs into physics careers.

- The poor image of physics as perceived to be difficult and dull and understood to be a career for men. Physics is portrayed in a masculine manner that consequentially undermines the effort of women to participate and make a breakthrough into the field.
- The teaching of physics in schools is not structured in a way that inspires girls and is presented as difficult and unexciting; a perception worsened by the lack of women teachers.
- Social challenges have a huge impact on the educational success of women as most societies and cultures still believe that women are destined for marriage rather than having a profession.
- Sexual harassment is still rife and women are intimidated not to progress in their careers because male colleagues do not see women as equal, but rather as objects.
- Married women say their careers are not deemed as being as important as that of their husbands – and the issue of gender inequality needs to be addressed on multiple levels, including in home-based education.
- Some organisations have historically denied jobs and opportunities to women on the principle that women's careers are likely to be disrupted by life events such as

maternity leave. It further discourages women who wish to start families from participating in the field.

Recommendations

- There must be an easily accessible database of women who are in the physics and related sectors in order to measure progress and encourage collaboration.
- Women's forums for physical science must be established at local, regional and national level to exchange and disseminate knowledge.
- Women were advised that in order to be successful in taking physics further they need to surround themselves with positive minded people, link up with potential mentors who will encourage them and to have discussions with their peers to stimulate their interest. To drive this, it will require special funding and sponsorship be made available to the women role models and mentors to initiate mentoring programmes in local areas.
- Institutional policies need to be revised with the focus of achieving gender parity as means of addressing the inequalities of the past.
- Collaboration and socialising among the women is essential, so support or formation of peer groups needs to be encouraged among young girls.
- Though women are empowered, they must understand that to make a success, they need the support of men.
- Societal problems of discouraging equal participation in physics needs to be solved collectively, meaning that both men and women must be involved in creating and providing solutions. Discussants also pointed out that women need to challenge policies that limit funding to women who are 35 and above to further their studies.
- Another omitted, but critical issue is the financial and

mobility support for disabled women to participate in physics related fields. Most institutions do not cater for disabled women scientists as the equipment and buildings are not user friendly.

Physics is portrayed in a masculine manner that consequentially undermines the effort of women to participate and make a breakthrough into the field

Science for global development

The seminar was useful to the attendees, HSRC and WiPiSA as well. Vibrant discussions after the presentations gave the high-school learners and university students a rich glimpse of the existing challenges and ideas on how to overcome identified challenges to become the ideal 21st century women in physics.

It was recommended that the teaching of the sciences should be developed at early stages of learning; and prominent in the discussion was that science must be put to good use for global development and not for purposes that could lead to destruction, such as war. ■

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**THE 1% AND THE REST OF US:
A POLITICAL ECONOMY OF DOMINANT OWNERSHIP**

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Extracts from *The 1% and the rest of us*

From Chapter 2, Capital as power, pp 48–49

While the dominant owners worry about both preserving and accumulating more money, the vast majority of humanity experiences daily struggles for survival, dignity and livelihood. In this chapter we will encounter the reasons why such a massive chasm of inequality *can never be equalised let alone significantly narrowed in the present system*. The predominant argument in this chapter is that you cannot solve radical inequality – let alone global poverty – *by pursuing a logic founded upon the very idea of perpetuating ever greater inequality* (Nitzan and Bichler 2009).¹ The goal of capitalists is not to achieve greater equality of income and wealth but to make income and asset ownership more unequal. This, no doubt, comes up against barriers and various forms of resistance, but that does not stop the logic from operating or triumphing. This logic is what Nitzan and Bichler (ibid.) call differential accumulation and it is a pathological, albeit historical, drive pursued by the few. Lest there is any confusion, what I mean by pathological is that the differential accumulation of money, social status and power is the ultimate end of capitalist endeavour. To be sure, this logic is likely weaker in some capitalists than others, but by definition – that is, to be a capitalist – they must obey the logic of differential accumulation regardless of whether other ideas and values they may hold are in direct contradiction with the accumulation of money.

1 – Nitzan, J and Bichler S (2009) *Capital as Power: A study of order and creorder*. London: Routledge

From Chapter 5, Society versus the superman theory of wealth, pp 190–191

Perhaps the most worrisome thing about this is that it is not that the science isn't forthcoming or available. We know about global climate change. We know about the acidification of our oceans. We know about pollution in our waterways and air. We know that our agriculture and food regimes are dangerously reliant on fossil fuels for energy inputs. We know that fossil fuels are non-renewable. We know that we are overworked and do not have enough time to spend with our loved ones. We know that species are becoming extinct at a terribly rapid rate. We know all of this and more and yet virtually nothing is done to halt this 'progress'. The fact that we are not changing course is not due to a lack of knowledge or even a lack of ideas. It is the logic of differential accumulation held by the ruling class of owners, combined with the capture of our political and cultural systems, that represents the greatest risk to our lives and the lives of our children. The aim of capitalists is for their logic to be all-encompassing, all embracing. There have been attempts to curtail and even thwart this power, but in a world where money represents the power to command and where the 1% have appropriated most of it, the needs, desires and even the demands of the 99% have been actively suppressed – often with considerable violence. Again, this is not to suggest that these individuals and their families are evil. However, we have to recognise that they are slaves to the logic of differential capitalisation just as much as the pharaohs were slaves to their own logic of pleasing the gods in the hopes of gaining their favour. Differential capitalisation is the ritual that gives them the *illegitimate* power to control humans and natural resources in an effort to accumulate ever more money and power. It is illegitimate because it is undemocratic and in no way earned on the basis of individual skill or talent. It is the appropriation of social wealth pure and simple. And here Marx was right on the money:

[the purpose of accumulation is] not to satisfy the personal needs of its owner, but to give him money, abstract social riches and capital, more power over the labor of others, i.e., to increase this power (Marx 1978: 464–5).

Marx K (1978) *The Marx–Engels Reader*. 2nd edition. Edited by Robert C. Tucker. New York, NY: W.W. Norton & Company



**PUTIN AND THE OLIGARCH:
THE KHODORKOVSKY-YUKOS AFFAIR**

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**Extract from South African Foreword to *Putin & the Oligarch: The Khodorkovsky–Yukos Affair*
By MZUKISI QOBO**

A study of Russia's political culture, the relationship between political authority and the judiciary, and the state-society nexus is an important one for South African readers of Russian politics. The two countries have grown closer in recent times, with Putin and South Africa's Jacob Zuma enjoying warm ties. Geopolitically, South Africa is turning towards Russia (and China) as a preferred friend, and shifting away from the West. Within a short period of time, South Africa has gravitated sharply towards Russia in deepening both diplomatic and commercial ties, with no less than six meetings having taken place between the two leaders since Zuma became president in May 2009.

At the normative level, there are more differences than there are similarities between the two countries. South Africa is a constitutional democracy with a Bill of Rights and clear separation of powers between the executive, the judiciary and the legislature. Russia is an authoritarian–bureaucratic state. While the legislature has increasingly become weak as a result of the party patronage system wielded by party bosses in Luthuli House, opposition parties in South Africa do not suffer the kind of harassment that can be seen in Russia. The judiciary has on a number of occasions arrived at judgments that contradict the decisions of the executive.

On the economic policy front, South Africa is broadly oriented towards openness and the co-existence of a thriving private sector alongside laggard state-owned enterprises, which are sometimes enmeshed in client-patron relationships with politically connected elites. Russia's multinational companies are largely state-owned and in the extractive, financial and atomic energy sectors. Unlike Russia, South Africa has a clear corporate governance framework, and complies with international best practices on financial reporting.

The fact that South Africa has a broadly liberal constitutional framework does not mean the trajectory is towards strengthening this and clipping the wings of politicians. On the contrary, this constitutional base is being whittled away through political pronouncements that could in time mutate into interference.

There are thus worrying trends of gradual institutional convergence between Russia and South Africa. The African National Congress has cemented party-to-party relations with Putin's United Russia in October 2013, despite the right-leaning ideological thrust of the latter. The two countries are also engaged in highly secretive discussions to conclude an agreement on the nuclear build programme that would be based on Russia's technology and presumably financed by the Russians. This is despite the fact that there is no urgency for this programme. Further, this nuclear build programme – expected to reach a R1 trillion bill – could seriously compromise South Africa's fiscal stance, and be a fetter on the future generation. In addition, it could potentially open up spaces for corruption akin to the arms procurement programme that was riddled with corruption.

What is of great concern in this political closeness and commercial relationship is the fact that there is little normative convergence between the two countries; and that there is lack of transparency and proper oversight in the nuclear negotiations. This could very well breed its own version of oligarchs that have close ties to the ANC. South Africa has developed a culture where under the guise of black economic empowerment, state-sanctioned commercial opportunities are given to those that are loyal to the party or powerful factions of the party.

The ruling party has sought to keep business subordinated to the interests of the party. The hideous umbilical cord between the ruling party and factions of business was expressed by President Jacob Zuma in January 2013 during the ANC's anniversary gala dinner when he admonished business leaders: 'I have always said that a wise businessman will support the ANC, because supporting the ANC means you're investing very well in your business.'

There is also a growing antipathy towards the judiciary by the governing elite in ways that seem to yearn for the kind of unbridled and extra-judicial authority that is enjoyed by Putin. During the Khodorkovsky trial, Putin would make pronouncements while the court case was still in progress, showing disdain for the judiciary. He wanted to reset the relationship between political office and the judiciary in ways that stress the supremacy of the former.

The ANC bosses, too, have questioned the judgment of the judiciary several times. They have even ignored some of the judgments of the courts, including in the recent case where the South African government disregarded the injunction of the court that Sudanese President Omar Al-Bashir should not be allowed to leave South Africa as there is an International Criminal Court of Justice's warrant of arrest upon him. South Africa is a signatory to the Rome Statute and member of the International Criminal Court. Accordingly, this legal architecture is subsumed in South Africa's constitutional arrangement. Yet South Africa chose to flout it, just like Putin ignored the European Court of Human Rights in the Khodorkovsky affair. The increasing hollowing of the rule of law by the political elite in South Africa signals a tension between the emerging political culture that prefers arbitrariness and the constitutional framework that should provide checks and balance in the exercise of political power.

The danger for society is that this tendency could breed cynicism. When those in political leadership disregard the rule of law it will be a matter of time before lawlessness becomes a norm. In Russia, Putin saw the constitution and rule of law as having application in the realm outside of the state, that is, to society and the oligarchs. In his estimation, he exists as a supreme leader free of the strictures of the judiciary. There is a similar mindset at play in the ruling party: if court decisions do not go in their favour, the judiciary is deemed counter-revolutionary or vilified for not considering the political context.

The manner in which the state managed the Yukos affair, and how it harassed those it considered political threats reveal the extent to which absence of constraining institutions can hamper political and economic modernisation. Russia is moribund in its politics and economy. Countries in transition, even when they have an institutional framework that structures the boundaries of power and interaction between the political and the judiciary, and between the state and markets, cannot take such institutions for granted.

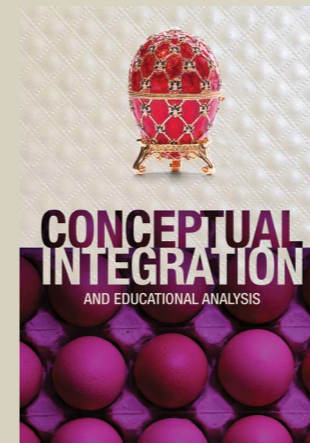
While Russia and South Africa are different in fundamental respects, disconcertingly South Africa seems increasingly to be socialised into perverse elements of Russia's political culture. The direction of change is very important to watch – will South Africa's institutions become more vital or will they be vitiated by political fiat? The study of Yukos holds many lessons of what happens to societies when they allow big men free reign, and when subjective political authority, unmediated by independent institutions, becomes a final determinant of how political and economic life is ordered. The lesson both for Russia and South Africa is that credible institutions matter for progress, and when these are destroyed societies become the worse for it.



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CONCEPTUAL INTEGRATION AND EDUCATIONAL ANALYSIS

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|-----------------------------------|------------------------|
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About the book

Conceptual Integration is a key operating principle in education and a powerful skill for any teacher. Two different concepts are brought together in a way that recognizes what is similar and different in them. This allows for an imaginative synthesis that can illuminate a complex process, such as when the heart is compared to a pump, or the cell to a factory. Good teachers do this intuitively all the time, but the act of conceptual integration is poorly understood and insufficiently researched.

With explicit knowledge teachers can gain productive, conscious control of this vital pedagogic act and educational researchers will have insightful tools to grasp the complex operating principles of the process. Thus the purpose of this book is to make the principles and practice visible.

Conceptual integration and educational analysis provides a clear model that explains how conceptual integration works as well as numerous practical examples that enable the reader to grasp the process theoretically and apply it in practice. This is a must-read book for educators in South Africa and abroad.

Endorsements

'It is not often that educational researchers and classroom practitioners can see each other in one common narrative. Hugo and his team do it systematically and accessibly. The chapters in this book build a novel practice language which draws on the sciences ('cognitive linguistics') and stretches on to the insides of the pedagogical process, prisms it open and excavates its inner workings. In this book pedagogues can recognise the conceptual process they take to elaborate, compress, infer and blend ideas.'

Yael Shalem – Wits School of Education, University of the Witwatersrand

'Hugo and his expert team introduce readers to a powerful new tool - conceptual integration - and put it to work across a range of disciplines and pedagogic spaces. The result is engrossing as it is enlightening. The book is strongly recommended.'

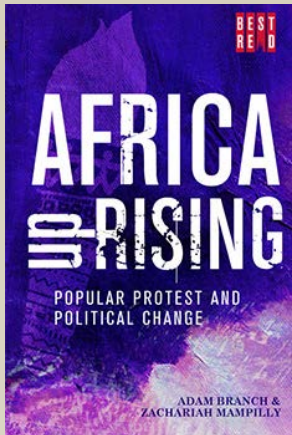
Johan Muller – School of Education, University of Cape Town

'Conceptual integration and educational analysis offers a conceptual system with rich examples for analysing and teaching disciplinary concepts. It is a generative conceptual resource for educators.'

Lynne Slonimsky – Wits School of Education, University of the Witwatersrand

'Through a detailed set of cases, the book provides a fascinating account of the working of a particular aspect of pedagogy that lies at the heart of educational transmission – the shift from the experiential knowledge of the student to a specialized understanding of a discipline.'

Ursula Hoadley – School of Education, University of Cape Town



AFRICA UPRISING: POPULAR PROTEST AND POLITICAL CHANGE

Authors: Adam Branch and Zachariah Mampilly
Publication month & year: October 2015
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Format: B Format (198x129mm)
Extent: 264
Price: R360.00

About the book

From Egypt to South Africa, Nigeria to Ethiopia, a new force for political change is emerging across Africa: popular protest. Widespread urban uprisings by youth, the unemployed, trade unions, activists, writers, artists, and religious groups are challenging injustice and inequality. What is driving this new wave of protest? Is it the key to substantive political change?

Drawing on interviews and in-depth analysis, Adam Branch and Zachariah Mampilly offer a penetrating assessment of contemporary African protests, situating the current popular activism within its historical and regional contexts.

Endorsements

'Increasingly interconnected and better informed than ever, Africa's peoples are more and more ready to go onto the streets in defence of their rights. Branch and Mampilly skillfully show how African politics is changing and how the collective agency of the ordinary citizen is something that will progressively shape political culture and practice across the continent. A luta continua!'

Professor Ian Taylor, University of St Andrews

'This accessible account of popular demands for an end to poverty challenges conventional narratives about democratization, economic development and a rising middle class. Recommended.'

Michael Bratton, Michigan State University

'Provides convincing insights into the complexity of the social and political dynamics behind African protests in a really readable - and enjoyable - fashion. The ideal introduction to the topic.'

François Polet, editor of *The State of Resistance: Popular Struggles in the Global South*

'Africa Uprising insightfully argues that contemporary African protests incorporate both economic and political demands, and their success cannot simply be measured by immediate political effects.'

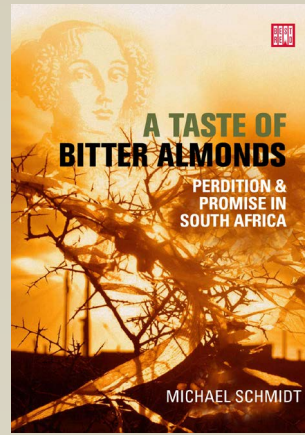
Alcinda Honwana, Author of *Youth and Revolution in Tunisia*

'A powerful account of recent large-scale protests in Nigeria, Sudan, and elsewhere, Branch and Mampilly show us that the internal politics of movements can have a powerful effect on their success or failure. This vivid portrait of the new politics of urban protest in Africa should interest scholars and activists alike.'

Adrienne LeBas, American University

'An inspiring and thoughtful study of African struggles for indigenous self-liberation, taking protests on their own terms and locating them within the reality of politics in Africa. The authors seek out what is specific to protests in Africa, instead of pursuing models of linear preconceptions of what protests should look like, or predetermined expectations of outcomes.'

Abdullahi Ahmed An-Na'im, Author of: *African Constitutionalism and the Role of Islam*



A TASTE OF BITTER ALMONDS: PERDITION AND PROMISE IN SOUTH AFRICA

Author: Michael Schmidt
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Format: A5 210 x 148
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Soft cover or hard cover: Soft cover
Price: R 285.00

About the book

1994 symbolised the triumphal defeat of almost three and a half centuries of racial separation since the Dutch East India Company planted a bitter almond hedge to keep indigenous people out of 'their' Cape outpost in 1659. But for the majority of people in the world's most unequal society, the taste of bitter almonds linger as their exclusion from a dignified life remain the rule.

In the year of South Africa's troubled coming-of-age, veteran investigative journalist Michael Schmidt brings to bear 21 years of his scribbled field notes to weave a tapestry of the view from below: here in the demi-monde of our transition from autocracy to democracy, in the half-light glow of the rusted rainbow, you will meet neo-Nazis and the newly dispossessed, Boers and Bushmen, black illegal coal miners and a bank robber, witches and wastrels, love children and land claimants. With their feet in the mud, the Born Free youth have their eyes on the stars.

Endorsements

'Michael Schmidt will challenge you in this book. He will enlighten you too. You will want to embrace him for going so far out on a limb with his truths. You will also want to punch him in the face for some of those revelations, and draw blood. There is, however, one thing you will never do. You will never say of this man: 'Michael Schmidt never was any good as a writer.' He gripped my attention... and never let it go.'

Eric Miyeni, author of *O, Mandingo! The Only Black at a Dinner Party*

'A raucous, rollicking yet lucid ride into South Africa's often violent, absurd and hilarious past, racing into its schizophrenic, disoriented present and pointing towards its equivocal future. Schmidt, using a motley cast of characters, paints the country's rainbow in shades of grey... yet the Technicolor remains.'

Darren Taylor, Voice of America (VOA) Africa features correspondent