

The life of a domestic worker

These are the people who clean for us, cook for us, look after our children so that we can pursue our careers. They are the unseen force behind a number of households in South Africa – the domestic worker. In a study entitled “Determining the education and income levels of domestic workers in post-apartheid South Africa”, N. Gama looked at the trends and determinants of the quality of life (QOL) of domestic workers in South Africa.

The study contextualised that the plight of domestic workers is linked to the plight of black Africans in post-Apartheid South Africa. Perceptions are that domestic workers are characterised by low education, low income and feminisation.

The Quarterly Labour Force Survey, General Household Survey, Income and Expenditure Survey, Living Conditions Survey and Census 2011 were used in the analysis. Using principal component analysis on asset ownership, the key components were formal housing; black women; marriage and citizenship. Asset ownership was used as a proxy for QOL.

The study found that males were generally better off than females; however, the case is improving for women temporally. Looking at educational levels, higher-educated domestic workers were found in Gauteng, Western Cape and KwaZulu-Natal. Tribal and farm areas had domestics with lower levels of education. Domestic workers with grade 12 and higher were better off than those with lower levels of education. There was a higher concentration of domestic workers with lower education.

When income was examined, it was found that richer municipalities carried large numbers of domestic workers that receive higher incomes. Some domestic workers earn more than some workers in the formal sector. This was confirmed by UIF and Census data. Gauteng and Western Cape led with higher incomes. While the Department of Labour has established a minimum wage for domestic workers, it was found that minimum wages differed in urban and non-urban areas, with minimum wage being lower in farm and traditional areas.

The results confirm the feminisation of domestic work. About 95% of domestic workers were women, which may be due to migration. It is interesting to note there were more female technicians and plant and machine

operators than male. ***Contractual obligations showed that women were worse off than men in their quality of life.***

The policy implications based on these findings suggest that unions are required to give domestic workers stronger voices, and domestic workers should be encouraged to join unions. Domestic workers are protected by the same right as any other worker in South Africa; however domestic work needs to be policed and these protections should be implemented. Efforts should be made to improve the education levels of and benefits for domestic workers.

A recommendation for further study would be to use subjective indicators to analyse the QOL of domestic workers to supplement the objective indicators; this could be done by interviewing domestic workers to ascertain how they feel about their QOL.

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Investigating the ephemeral: Quality of life

The session themed “Quality of Life” had two presentations, one with a broader focus on the SADC region, and the second looking at those living in shacks in the metropolitan areas in Gauteng.

T. Chikowore presented a paper titled “Identifying the changes in the quality of life of Southern African Development Community (SADC) migrants in South Africa from 2001 to 2011”. The SADC region has a number of people on the move. Reasons for this movement include conflicts in neighbouring countries, displacement and pull features such as large economic vibrancy. There are however some controls in place to regulate this movement.

Census variables were used to determine if the quality of life (QOL) differed from 2001 and 2011, using variables such as education, income and others. Gauteng showed improvement in housing conditions, with a decline in the Western Cape. It was noted that more migrants reside in rented dwellings as opposed to owning dwellings, possibly due to economic circumstances.

The results showed that there was an overall improvement in the socio-economic QOL of SADC migrants in South Africa from 2001 to 2011, with the most noticeable improvements being observed in Limpopo, Mpumalanga, Gauteng and the Northern Cape.

However, the QOL of SADC migrants is decreasing in terms of the housing dimension of QOL, especially in the Western Cape.

The QOL for SADC migrants in South Africa and all nine provinces improved slightly between 2001 and 2011, with the exception of the Western Cape, where the QOL of SADC migrants deteriorated.

I. Mahlakanya examined the QOL life of people living in shacks in the metropolitan municipalities in Gauteng from 2001 to 2011.

The apartheid spatial system placed townships at the periphery and did not cater adequately for its residents. Urbanisation increased housing demand resulting in the formation of poor quality of life. The population living in all types of dwellings increased between 2001 and 2011; this could have been fuelled by the increase in the backlog of dwellings.

The main purpose of the paper was to understand what the improvement of the QOL was in rented free standing shacks and backyard rooms (used with material designed for residential use), and backyard shacks (informal dwellings in the backyard) in the metro municipalities of Gauteng.

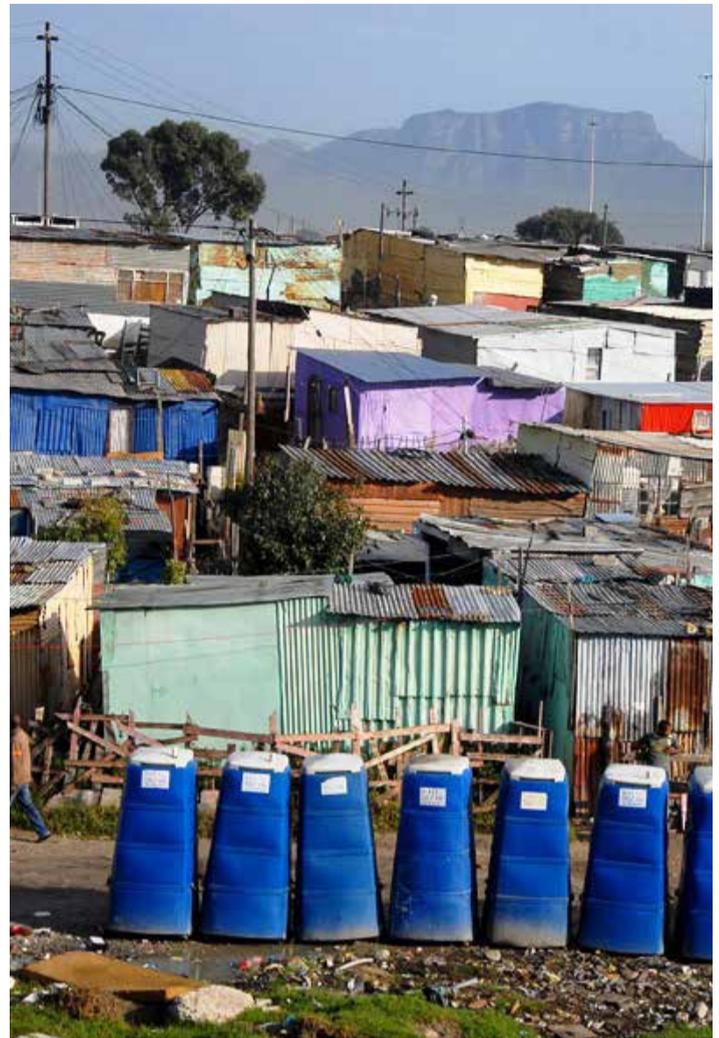


Photo: GroundUp: Masixole Feni

QOL Dimensions included socio-economic (education, employment and household income) and service delivery variables and ownership of household goods. The results indicated that backyard room tenants experienced the highest QOL in all of the municipalities in 2001 and 2011, followed by those resident in backyard shacks and lastly free-standing shack tenants. The distinguishing variables included better education, employment and income levels. Residing in formal housing also offers better service delivery. The opposite was mostly true for backyard shack, but especially free-standing shack, tenants.

Backyard room tenants in the City of Tshwane (CoT) did better in terms of the socio-economic dimension of QOL, while the backyard shack tenants in the City of Joburg and Ekurhuleni outperformed the CoT in the service-delivery and ownership of household goods dimensions of QOL.

There were no differences in the overall QOL between the municipalities, except for the CoT's backyard shack tenants who have a poorer QOL than the same dwelling types in the other municipalities.

A number of policy interventions were considered, including reducing housing backlogs by legalising backyard rooms as acceptable forms of formal housing.

Holding municipalities to account!

If you are interested in the extent of service delivery in South Africa, it might be good to know that it can be measured from two different fronts. In most instances, service delivery is measured from the demand side. Stats SA surveys such as the population census, Community Survey (CS) and General Household Survey (GHS) collect data from households on the extent, type and quality of services that they receive.

Not as widely known is that service delivery is also measured from the supply side. Dr Patrick Naidoo from Stats SA provided an overview during the morning session of the annual Non-financial census of municipalities report, which summarises service delivery data received from local government, the supplier of services.

The latest report, for the financial year ended 30 June 2016, provides valuable information for all 278 municipalities. Included are data on the extent of provision of services and free basic services, compliance to certain minimum standards, vacancies in municipal departments, and the number of indigent households.

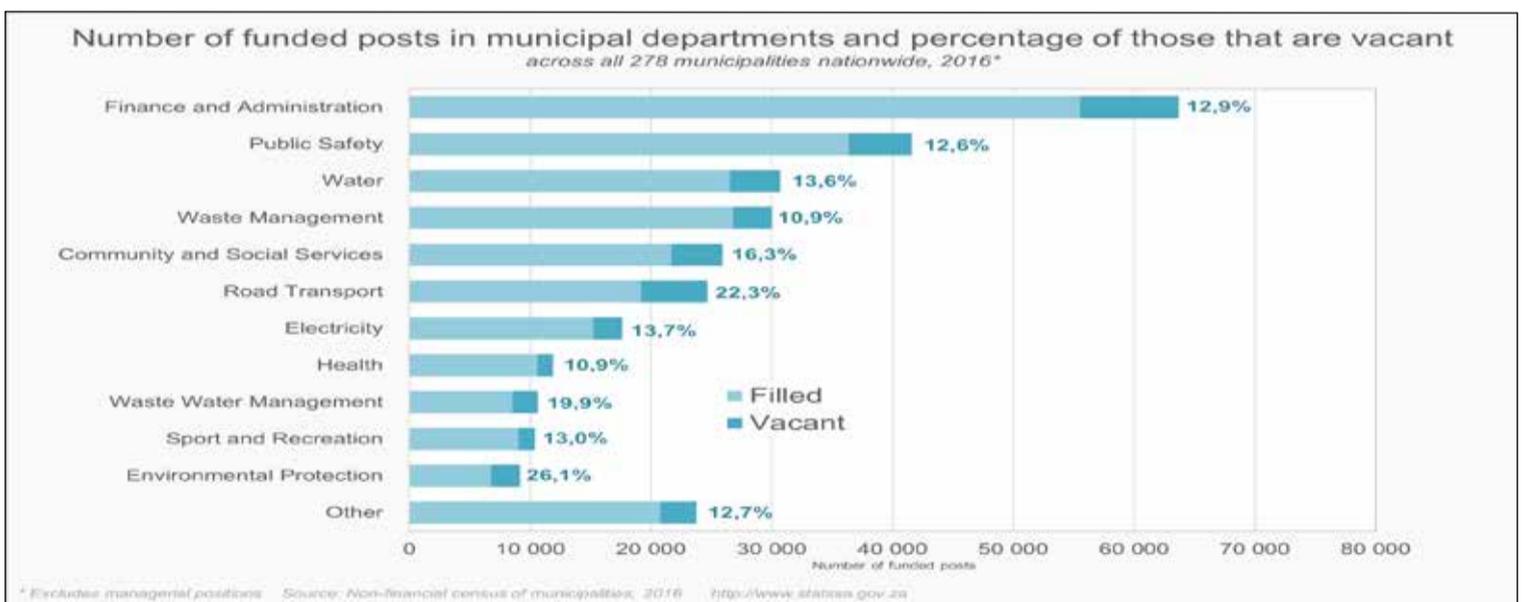
Municipalities provide services such as water, electricity, sewerage & sanitation, and solid waste management. In 2016 municipalities serviced 12,8 million consumer units across the country with water and 11,2 million with electricity.

Free basic services are provided to indigent (or poor) households in economically disadvantaged communities. Recipients are entitled to 6 kilolitres free water per household per month and at least 50 kilowatt-hours free electricity per household per month. Free basic services also include subsidised sanitation and solid waste management services. In 2016, municipalities provided free basic water to 4,7 million consumer units, while 2,5 million received free electricity.



Are municipalities properly staffed to handle the complexities of service delivery? There were 314 117 funded posts across local government in 2016. Of these, 45 096 were unoccupied, translating to a national vacancy rate of 14,4%. Broken down by department, the highest vacancy rates were recorded by environmental protection departments, road transport and waste water management departments.

Sitting at the coalface of South African public life, municipalities are responsible for providing these vital services to communities across the country. Measuring the supply side of service delivery can provide an indication of the extent to which municipalities are fulfilling this role.



Examining regional resilience

A session on regional resilience delivered several interesting papers related to various developments that can assist with the development of regional resilience at various levels of geography.

O. Pretorius & E. Drewes examined whether spatial instruments can achieve spatial economic benefits. The South African Development Community is vulnerable to external economic shocks; the question that was asked is whether improving integration will reduce these shocks and improve resilience.

Available literature shows that regional factors are important to growth, and that strengthening these added to growth. Eliminating barriers both spatially and by reducing legislative barriers was a key enabler.

The study looked at fostering regional economic growth and increasing resilience, with a focus on SADC and the European Union (EU). Reducing traffic barriers was found to stimulate trade and growth in GDP. Development corridors were important as a greater amount of tonnes per km were transported on these routes.

The results showed that different trading blocs showed variation in both impact and time of recovery. SADC trade has still not fully recovered from the 2008 economic shock. Recommendations included that SADC should promote a customs union, as opposed to a single market. Inter-regional trade should be targeted at around 30%.

S. Mpanza delivered a paper looking at whether changes in population size influence the development of plans by municipalities in the iLembe District in KwaZulu-Natal province.

Population growth and size vary due to various spatial advantages and industrial development. A key question was how population change was influencing iLembe District Municipality, and whether the local municipality's Integrated Development Plans were responsive to this.

The presenter put forward that urban development should be part of a national urban development policy agenda. Our historical context should also be taken into account. If we do not address population growth, instability and resource mismatch could result. Zambia and South Africa were examined in how they planned for population changes.

This study used SAMPI and Census data. It was shown that education and population change had a relationship, with those with a higher level of education more likely to migrate. On the question of



IDP's talking to demographics, population change or migration, it was revealed that local municipalities failed to consider education when doing district level planning. Those areas with negative population growth were shown to have higher poverty levels.

In conclusion, it was stated that there is limited use of population change data in IDPs, which results in poor planning. This study should be expanded to include more municipalities, and poverty change should be looked at in more depth.

M. Mokhele looked at the operationalisation of a spatial economic theory for airport-centric developments. This study necessitated looking at firms close to or on airport premises.

Airports have the potential to develop into major economic nodes and employment generators. Airport-centric developments, therefore, need to be investigated. Aerotropolis development has received a fair degree of attention in the recent past, specifically Cape Town International and OR Tambo airports were investigated as they have higher levels of economic activity.

The framework for the study is framed on the interconnections between firms, space, proximity, scale, pattern and links agglomeration economies amongst others.

The usefulness of the model is that it could assist in the analysis of and planning interventions for airports and surrounds. Planners should focus on a range of aspects, including the nature and extent of the economic space that the airport-centric firms are part of.

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Comparing apples with apples

In this session the focus turned to the City of Johannesburg, particularly informal settlements. Mr. A. Jenneker's research: "A topology for backyard housing towards focused implementation: The Case of Alexandra and Diepsloot" used Census 2011 data to investigate backyard housing. Repetitive interpretations of cluster analysis showed that there are clear differences in backyard housing in relation to the "adequacy" of their settlements. For Alexandra, 15% of backyard housing is "comfortably adequate", 20% "down and out adequate", 36% "up and coming" and 39% "almost adequate". Diepsloot, in comparison, had 48% of backyard housing as "comfortably adequate", 18% "down and out adequate", 22% "up and coming" and 11% "almost adequate". Various datasets can complement the census dataset, for example the dwelling frame. Addressing issues of access to services in isolation does not necessarily meet the constitutional imperative. Housing provision should include a more realistic approach, i.e. understanding the real poverty drivers. The study concluded that backyard housing is a response to the current backlog in housing in this area.

Dr. Mohale's research entitled "Measuring the size of dead capital in Johannesburg Metropolitan Municipality" focused on De Soto (2000)'s definition of "dead capital", i.e. capital in the form of unregistered real property, that is considered lost value because the landholder is unable to transfer or leverage his property for capital or capital access. For instance, homes that are unregistered and extra-legal receive little or no infrastructure, are valued less, receive less investment and represent potential areas of vulnerability for those who dwell in them. In essence, this definition of "dead capital" illuminates the effects of wealth that could be used to lift people out of poverty.

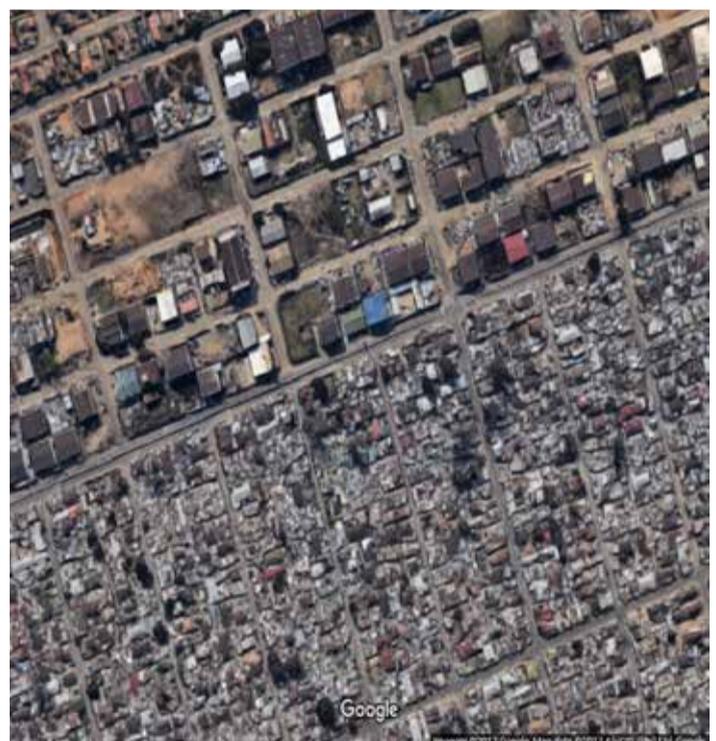
Poor people, especially the "urban poor" are indeed an important entity or group of the population governments cannot ignore. Challenges of "scanty informal property market data" and her justification of "Why the concern on dead capital?" is largely motivated by it being an important indicator of inequality in today's societies. In an informal market valuation, no exact calculation exists. In this research it was ideal to use own cost evaluation (based on responses for cost for building informal structures). She used secondary data from the City Of Johannesburg's (COJ) Valuation Register Roll 2004, Census 2011 data from Stats SA as well as primary data collected from 1100 dwellings across 33 Sub-places.

Some of the results and conclusions were that the informal property market is inclusive primarily of the black (including the coloured) population group; the

value of the properties according to COJ's Valuation Roll is the same for all informal shacks or structures classified under informal settlements in her area of study; RDP houses can be classified as Dead Capital as they require a 7 year stay before they can be sold; Dead Capital represents a store of value and wealth for the poor in Johannesburg, Gauteng and South Africa; Blacks in Johannesburg are impoverished yet in so many ways they are also wealthy if only their dead capital can be turned into "usable" capital.

In closing off, her recommendations included aspects related to the formalisation of tenure; institutional reform; environmental protection for sustainable development and developing credit facilities for the informal market.

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Google satellite image: Alexandra bordering Sandton

Environment and education

IS THERE A RELATIONSHIP? It is well known that education remains one of the South Africa's primary challenges. With concern over drop-out rates, pass rates, and the skill of teachers, much needs to be done to ensure that the quality of education improves, as stated in the National Development Plan.

It may have been one of the final sessions of the entire conference, but the education session was definitely not the least important. One of the papers, delivered by Dr A. Naidoo, stressed the importance of using spatial analysis as a tool in answering some of the questions around education issues. In this particular example, the focus of Dr Naidoo's research was to determine if there were any spatial patterns in Grade 12 pass rates across schools in Cape Town.

There are many possible factors that can contribute to poor pass rates: changing education policies, lack of school funding, poorly qualified teaching staff, unhealthy family environments, and lack of attendance by learners, to name a few.

Socio-economic status also plays a role, and the second aim was to figure out if there was a statistically significant relationship between the pass rates and the socio-economic conditions of the communities in which the schools are located. Three sources of data were used: matric pass rate data for secondary schools, sourced from the Department of Education; location data for each and every school; and suburb level Census 2011 demographic and household data from Stats SA.

Using GIS, the locations for all 261 secondary schools in Cape Town were plotted together with the Census 2011 suburbs. Analysis was then done to find spatial relationships between the pass rates and socio-economic conditions of the suburbs in which the schools are located.

First, Getis-Ord hot spot analysis was applied to the data, showing where schools with high pass rates and those with low pass rates are clustered.

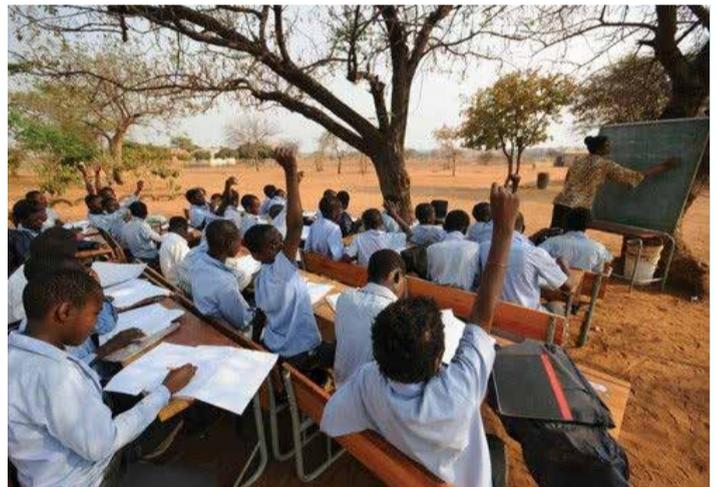
Second, Anselin local Moran's outlier analysis was used to identify those schools in each cluster that didn't share the cluster's characteristics. For example, if you take a cluster where the majority of schools have low pass rates, the technique would identify schools within that cluster that had high pass rates.

The implication of this is if there is a school that does exceptionally better than its local peers, then whatever is contributing to its success should be investigated further to see if it can be replicated elsewhere in that community.

“There are many possible factors that can contribute to poor pass rates: changing education policies, lack of school funding, poorly qualified teaching staff, unhealthy family environments, and lack of attendance by learners”

Third, a regression model was used to determine if there was a relationship between pass rates and the socio-economic status of the suburbs in which the schools are located.

The main finding was that socio-economic factors of an area do indeed influence a matriculant's ability to perform well at school.



Location matters

In one of the last sessions of the conference, S. Molayi presented on job-employed resident imbalance and travel time in Gauteng, and how this impacts on travel times. In developing countries, the poor are located far from city centres, while economic activity is located closer to the city centres. The poor therefore experience longer travel times with associated high travel costs (58% of the region spends more than 10% of household income on transport).

Public housing is located on the periphery where land is available and cheap. The average travel time is highest in housing-rich areas and only marginally higher in job-rich areas. Job-rich areas are associated with the highest proportion of internal capture. Workers who travelled with private transport or on foot had shorter travel times than those who travelled with public transport.

The policy implications are that land use and public transport policies should be integrated to reduce travel time; employment opportunities and economic activities should be brought closer to housing-rich areas; affordable housing should be provided in job-rich areas; there is no one-size-fits-all solution to transportation in different areas and job-rich areas should be complemented with zoning revision promoting mixed land use and transit-orientated development initiatives.

Some limitations of the study were that the cost of housing was not taken into account; occupation status was not analysed; skills mismatches existed; government interventions to remove imbalances were not taken into account; the study looked at place of a place of residence and not place of work and the spatial layer could not be adjusted to optimise the study.

Prof E. Haddad looked at the role of transportation costs on regional growth in Morocco. An interregional input-output model was built around the 12 regions in Morocco. Asymmetries in production activity were elucidated. Each region was modelled as a single entity, and 20 sectors/goods were analysed.

The calibration strategy of the model incorporated transport type, type of trade, network linkages, scale effects in transportation and economy. The functional mechanism was analysed as short run and long run. Findings were that more remote regions had improved access to markets over the short run, the importance of which will increase in the long run.

Different sectors were impacted differently by changes in transport infrastructure. Policy targets and their

linkages were examined. An example was to look at the efficiency of the national GDP on each region. There were both positive and negative effects in each region. The model was used to assess how regional growth is orientated to access markets regionally and globally or improve access to the suppliers they rely on.

Policy implications and issues for governance to consider based on the models were the regional equity and efficiency trade-offs; how budget expenditures are allocated; what indicators should be targeted; what policy goals should be pursued; whether regional inequality is part of the society's agenda and how such information can be used to add value to achieve government activities.

For future studies, the model will be adjusted and applied to measure the impacts of drought; regional impacts of climate change (on agriculture); accessibility to specific transportation projects; simulate total factor productivity to enhance policies (in sectors and regions).

The model was previously applied in Lebanon, with accompanying training and capacity building, which helped to further refine it. It is expected that the application of this model to other countries will result in further refinements and improvements.

“there is no one-size-fits-all solution to transportation in different areas”



South Africa (Africa) as an organisation: LEADERSHIP MESSAGE!

Play your part in advancing regional science in Africa!

"From the Editor's desk..."

"Fearless rationale, the driving force to deliver vision."

"Education is key in solving South Africa's problems."

First Statistician-General of South Africa, Dr Pali Lehohla

I would like to say a word of thanks to all those who were involved in the organisation of this conference. Watching the birth of a fledgling regional science association in Africa was indeed a privilege, and we were honoured to be graced with the presence of so many prominent academics representing the Regional Science Association International.

A special word of thanks must go to the newsletter team, without whom this publication would not have been possible. To the writers – Mahier Hattas, Waleed Jacobs, Faizel Mohammed and Kevin Parry, thank you for capturing the sessions and ensuring that they are brought to a wider audience.

To the photographer, Mbongiseni Mndebele, thank you for the high-quality images that you captured to bring this conference to life for those who could not attend.

To the designer, Albert de Gouveia, thank you for your painstaking attention to detail and consistently high standards in ensuring that what we publish is always of a high standard.

To all of the presenters and delegates, without you this conference would not have happened. Thank you for making the time and effort to join us and to share your knowledge and passion for science with us.

Finally, a huge vote of thanks must go to the Statistician-General and Head of Statistics South Africa, Dr Pali Lehohla, without whose vision and drive, which began in a meeting with Prof H.S. Geyer in 1992, the Centre for Regional and Urban Innovation and Statistical Exploration (CRUISE) would never have been realised.

To date, 71 officials have taken a year's sabbatical to train at this centre, adding to the intellectual and scientific capacity in the country that is desperately needed to realise the SDGs, NDP and Agenda 2063.

The Editor: Tracy Daniels

Flying together, taking RSAI into Africa!

Capacity building in Africa at the highest level



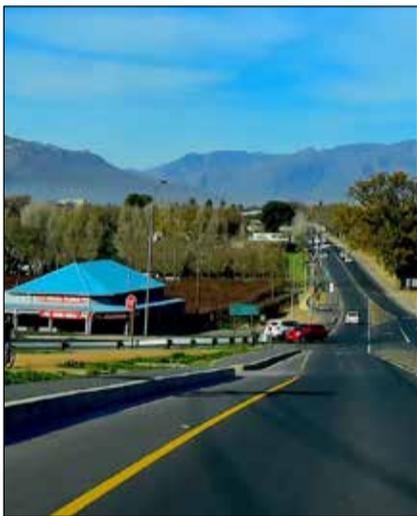
Science in the mix

Building scientific networks through collaboration & partnerships



CRUISE'ing towards innovation

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Submit your paper for publication

Participants in the 3rd ISibalo CRUISE conference are invited to submit complete manuscripts of their papers by the end of July for consideration for publication.

CRUISE, in conjunction with executive members of the *Regional Science Association International (RSAI)*, are planning the publication of a special edition of '*Regional Science Policy and Practice*', an international scientific journal. If enough papers are submitted it might be possible to publish a book through Edward Elgar, a prominent international British publisher.

Stats SA staff who have participated in the conference are encouraged to rework their updated conference presentations into fresh manuscripts that could be considered for publication in one of the two planned publication outlets.

For more information please email Prof HS Geyer:
hsgeyer@sun.ac.za



