



GAUTENG CITY-REGION OBSERVATORY

ANNUAL **REPORT**

2014/15





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PREFACE

PROF TSHILIDZI MARWALA

Deputy Vice-Chancellor: Research, Innovation and Post Graduate Studies,
University of Johannesburg. Chair, GCRO Board



In the year since I have taken over as Chair of the Board of the Gauteng City-Region Observatory (GCRO), I have been struck by the prevalence of the term 'Gauteng City-Region' in many different spheres. A decade and a half ago, the attention of urban researchers was on the reform of local government into its final post-apartheid form, and all the talk was of the new unities, district municipalities and local municipalities. Now that this system of local government has been consolidated, there is increasing space for thinking about the systemic relationships across government jurisdictions. The idea of the Gauteng City-Region is a useful tool for examining, in a more holistic and integrated way, how one of the most significant city-regions on the continent ought to be governed and what its development path should be.

The now extensive body of work produced by the GCRO has played an important part in lodging the idea of the city-region in discussions about urbanism in the province. A contact list of more than 5 000 officials, politicians, media representatives, researchers and members of the public receive notifications of the many GCRO outputs. Here is a flavour of how these outputs over the last year have enhanced our understanding of the city-region:

- These outputs have underscored the many dimensions of unevenness within the Gauteng City-Region. They have provided maps on the Human Development Index, inequality, school performance, and the Quality of Life (QoL) Index mapped to ward level. They have provided insights on the informal economy, food security and social marginalisation.
- Outputs have explored the relationship between people and government. GCRO has produced maps of voter registration,

the provincial election results, and levels of satisfaction and dissatisfaction with local government performance. It has also launched a new interactive barometer to provide a snapshot of government performance in different sectors over time.

- GCRO outputs examined the connections and disconnections between spaces. They did this in the form of maps of commuters' trips between home and work, the patterns of trips to look for work, and social isolation. GCRO also published a major report on mobility.
- Finally, GCRO outputs in the last year taught us more about the relationship between the various residents of Gauteng, and between people and the environment. For example, they have provided analyses of attitudes on sexuality and of trust between black and white people. They have also produced work on green economy, green infrastructure and the resilience of the region.

These and many other elements of GCRO's work are, therefore, giving empirical and analytic content to the idea of the city-region.

At present the GCRO is planning the fourth in its flagship series of surveys, the QoL Survey, which will be run during 2015 and released in 2016. This research tool will not only provide information on trends over time but will ask a suite of new questions on previously unexplored issues. With the remarkable way in which the GCRO collects and combines data, I look forward to the continued flow of insights from the GCRO on the city-region, and to its ongoing challenge to us to think about urban areas and development in regional terms.

Not only has the past year been highly productive, but it has also been a period of reflection and planning as the GCRO began its second five-year planning cycle. GCRO has engaged in many external and internal discussions to define six thematic areas and 26 projects which will set its medium-term agenda.

INTRODUCTION & OVERVIEW

Behind the motivation for setting up GCRO is a vision for South Africa's economic heartland as a region that is competitive, spatially integrated, environmentally sustainable and socially inclusive. GCRO is charged with helping to build the knowledge base that government, business, labour, civil society and citizens all need to make this vision a reality. GCRO collects data and benchmarks the city-region, provides policy analysis and support, undertakes applied research and publishes critically reflective academic work. We make all our data and findings accessible to government officials, citizens and others who need to benefit from the work of GCRO, while also being good academic citizens and feeding data and resources back into teaching, publishing and so on.



INTRODUCTION AND OVERVIEW

This report covers the April 2014 to March 2015 financial year, and sees the Observatory in the first year of the current five-year planning cycle. GCRO is a partnership between the Gauteng Provincial Government (GPG), local government in Gauteng represented by the South African Local Government Association (Gauteng) (SALGA), the University of Johannesburg (UJ) and the University of the Witwatersrand, Johannesburg (Wits). GCRO is an innovative response to the socio-economic, cultural, governance, political, growth and other challenges related to the cluster of cities that makes up the Gauteng City-Region (GCR), the economic engine of South and southern Africa.

OVERVIEW

GCRO is at the end of a three-year funding cycle, the first the organisation has completed with a full staff complement; and the end of the first five-year period of life for the GCRO. These are important milestones in the life of the Observatory. The building phase – building capacity, skills, reputation, datasets, profile and so on – is coming to an end. These activities continue, but they now focus on an existing, capacitated Observatory. At the end of the 2013/14 financial year, the first full five-year planning cycle came to an end (the GCRO was launched in September 2008, and the Director was appointed a month later, so 2008 is not really counted as a functional year for the GCRO) in March 2014 and an external review of the Observatory was conducted, in line with the Memorandum of Agreement (MoA) signed between the founding partners, namely the GPG, UJ, and Wits.

The Observatory continues to balance high quality applied and policy research with academic publication and citizenship. The throughput of academic publication outputs continues to gather pace. Highlights of progress over the recent period include:

- 28 book chapters, journal articles and posters published or published online (advance view) with a DOI number
- A further 10 journal articles and book chapters accepted for publication and in press, bringing the total of works accepted for publication and finalised in 2014/15 to 29
- A further 21 articles submitted for publication and currently in review
- 1 journal article, not written by a GCRO staff member, but commissioned as part of a GCRO project, accepted for publication
- 25 further articles currently being prepared for publication
- GCRO also continues to build an international academic presence through participation in international conferences and events
- One of our researchers, Ms Kerry Bobbins, was selected from over 800 applicants as one of 25 winners of the 2014 international Green Talents Competition, allowing her to spend two weeks in Germany meeting with top research institutes and specialists in the field of sustainability science.

PROJECT OUTPUTS

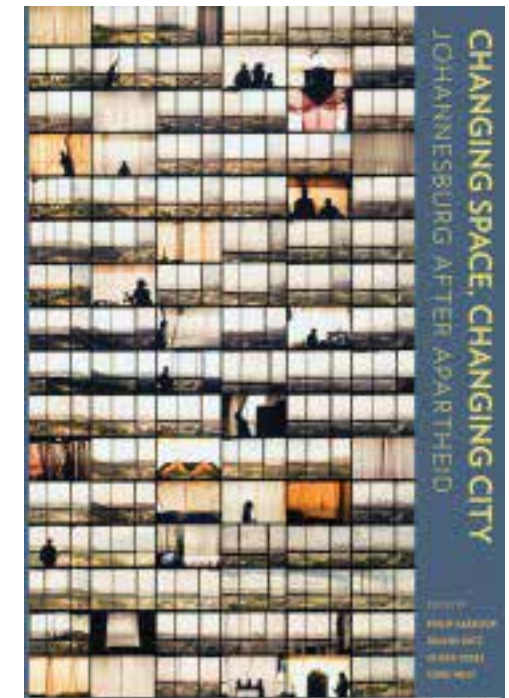
- Scavengers photo essay
- GCRO Barometer (online web tool and Occasional Paper)
- Mobility in the GCR (report)
- Acid Mine Drainage Occasional Paper
- Higher Education Occasional Paper
- QoL presentations and municipal reports
- Peripheries Report
- Poverty and Inequality Occasional Paper
- Green Infrastructure Occasional Paper
- Social Cohesion Occasional Paper
- Informal Entrepreneurship Data Brief
- Mining Landscapes Report
- Food Security Occasional Paper
- Anti-racism Occasional Paper
- Spatial Statistical Analysis of QoL Data Brief
- Urban Gallery and Environmental Systems Research Institute (ESRI) urban observatory online viewer
- New GCRO website (this will only go 'live' after March 2015, but is near-complete)
- GIS website upgrade
- QoL Survey viewer upgrade
- Three advanced data visualisations
- Vignettes and interactive graphs
- Municipal GCR workshops
- On-going academic articles and books
- On-going 'Faces of the City' seminars
- On-going Masters and Doctoral supervision
- On-going support to local and provincial spheres of government.

Given the importance of dissemination – getting our findings out – it is very positive to see earlier projects reporting out with high quality outputs (in various formats).





A key highlight has been the finalisation of the first in a series of books on spatial change in the city-region. The edited collection, done jointly with Profs Phil Harrison and Alison Todes at the Wits School of Architecture and Planning, gathers together 34 chapters on spatial change in Johannesburg. The book was published by Wits University Press in late 2014, and formally launched on 4 March 2015.



On the applied side, GCRO's third QoL Survey 2013 was formally launched at a very well attended event on 14 August 2014, where the Premier of Gauteng and the Chair of SALGA Gauteng/Johannesburg Executive Mayor responded to the results. The launch received significant coverage in the media and insights from the results have been quoted by national Ministers and various members of the provincial Executive. Since the launch GCRO staff members have presented either full or modified versions of the QoL presentation to 13 events/forums, including meetings of the executives of the three metropolitan municipalities.

GCRO released a new kind of output for October 'transport month' with the dissemination of an online Interactive Visualisation on 'Getting to work in the GCRO'. The visualisation was released at the same time as – and was linked to – a conventional vignette and map of the month on the same issue.

GCRO has become an established part of the life of our university and government partners, and we are increasingly turned to as a source of accurate data, high quality maps and policy expertise. This flows from an impressive set of completed projects, data gathering, refinement and cleaning, geographical information system (GIS) mapping, policy work and so on, all done to the best academic standards and published (where possible) in peer reviewed journals. The *raison d'être* of the GCRO is to rely on peer review of our work by our academic peers, locally and globally, to ensure that the data and analysis we provide to government is of the highest quality. This is why in addition to the ambitious project load, staff (including interns) are required to publish in peer reviewed journals. This is a key output, both in locating GCRO on the global academic map, and in ensuring that standards are maintained.

GOVERNANCE

A photograph of two people sitting on a concrete ledge on a rooftop or balcony. The person on the left is a man wearing a blue and yellow striped shirt and dark pants. The person on the right is a woman wearing a black shirt, light-colored pants, and a backpack. They are both looking upwards and to the right. Behind them is a modern building with a grid-like facade of large, square panels. The building has several windows, some of which are reflecting the sky and other buildings. The scene is brightly lit, suggesting a sunny day. The word "GOVERNANCE" is overlaid in white, serif, all-caps font on a semi-transparent dark rectangular background in the upper left portion of the image.



GCRO is overseen by a Board, made up of two representatives from UJ – Prof Tshilidzi Marwala, Deputy Vice-Chancellor: Research, Innovation and Post Graduate Studies, and Chair of the GCRO Board; and Prof Fiona Tregenna from the Economics Department; two representatives of Wits, Prof Zebulon Vilakazi, Deputy Vice-Chancellor: Research, and Prof Anne McLennan from the Wits School of Governance. The Head of the Gauteng Planning Commission (GPC), Mr Rashid Seedat, sits on the Board alongside Mr Khululekile (Khulu) Mase, Deputy Director-General from the Planning Commission. The local sphere is represented by SALGA Gauteng through Mr Dan Mashitisho, Municipal Manager: Mogale City, and Councillor Pinky Mkhonza.

While Wits and UJ serve as GCRO's anchor institutions, our mission involves the harnessing of a range of academic and intellectual resources in Gauteng. A key mechanism in this regard is the Research Advisory Committee (RAC), made up of senior academics and public intellectuals from a range of academic and other institutions. The RAC is not a decision-making structure, but a sounding board and quality assurance mechanism for GCRO and is now a fully functioning part of GCRO's work. (The RAC is covered more fully below.)

The GCRO Board is the most important governance structure. The Board meets quarterly. It receives, considers and debates an annual workplan and associated budget, which sets out the work of the Observatory for each twelve-month period, in turn drawn from a five-year Strategic Framework approved by the Board at the outset of each planning cycle.

All these documents are available on the GCRO website. The Board also assesses the financial and progress reports submitted by the Executive Director and the reports from the independent auditors appointed to conduct an annual financial audit.

During 2014, GCRO developed a new five-year strategy, at the request of the Board. This was approved in the last Board meeting of 2014/15, ensuring that there is alignment between the work of GPG and the local sphere on the one hand, and GCRO's own work on the other. This is always a balancing act between the need to reflect and engage with government work, but also to allow curiosity to drive the GCRO to work in areas that may not be immediate government priorities, but are nonetheless extremely important.

GCRO has been visited twice by the Oversight Committee of the Premier's Office and Legislature (OCPOL) as part of the Committee's oversight role in relation to the work of the Office of the Premier. Furthermore, the Executive Director presents progress reports to the senior management structures of both partner universities and government. Remaining fully accountable to four partner institutions continues to be a priority for GCRO.

GCRO is a publicly funded unit and we regard ourselves as answerable to the anchor universities, governments (local and provincial) and to the citizens of the GCR. The work we do with our grant is open to all and shared free of charge with anyone who wants it (for academic or research purposes). For example, the raw data from the QoL surveys of 2009 and 2011 have already been given to a range of individuals and academic entities; a data viewer allows anyone to log onto the website and run cross-tabulations and download the results; and the 2013 data are available in the same way. The only condition we place on our data is that it is used not for profit, but for teaching or research. Wherever possible, when we purchase datasets, we try to ensure that the licence extends to students and academics at both our partner universities so that the data can be used for both teaching and research/publication purposes, student projects and the like. In essence, GCRO is strongly committed to making data as widely available as possible.



LEGAL STATUS

The legal status of GCRO is based on an agreement signed by the respective parties at the GCRO launch in 2008 in line with the GCRO Founding Document and legislation relating to the management of public finances. As noted previously, these were revised and signed by all partners in 2013, setting up another five-year planning cycle for GCRO. In line with the agreement, Wits continues to host the offices and funds of GCRO and takes responsibility for its financial administration.

STAFF AND STRUCTURE

GCRO is led by Executive Director Prof David Everatt, supported by Research Director Mr Graeme Gotz, Financial and Office Manager Mrs Adele Underhay, and Senior Systems Analyst Mr Chris Wray. In 2014 we appointed Dr Claudious Chikozho as our second Research Director, beefing up the senior management of the organisation. We also appointed Dr Richard Ballard as a Specialist Researcher, and Mr Samy Katumba as our new Junior GIS Researcher. Three post-doctoral fellowships, generously funded by our partner the University of Johannesburg, have also been appointed, and will take up their positions later in 2015.

In short, GCRO has reached a very good point: big enough to be both solid and flexible, not over-stretched by trying to meet all the requests for our time, and with greater research and management capacity. Coming on top of the appointments made in 2013/14, which injected energy and exciting new skills into the Observatory, GCRO is well-positioned to take up the challenges of our current five-year planning cycle.

ORGANOGRAM

The diagram illustrates a network structure with the following roles and connections:

- EXECUTIVE DIRECTOR** (Central node, white circle)
- RECEPTIONIST** (Leftmost node, light gray circle)
- JUNIOR GIS RESEARCHER** (Second from left, medium gray circle)
- SENIOR OFFICE/FINANCE MANAGER** (Top left, dark gray circle)
- SENIOR SYSTEMS MANAGER** (Top center, dark gray circle)
- RESEARCH DIRECTOR** (Top right, dark gray circle)
- SENIOR RESEARCHER** (Middle left, dark gray circle)
- RESEARCHER** (Bottom left, medium gray circle)
- SENIOR RESEARCHER** (Bottom center, dark gray circle)
- RESEARCHER** (Bottom right, medium gray circle)
- SENIOR RESEARCHER** (Middle right, dark gray circle)
- RESEARCHER** (Far right, medium gray circle)

Connections are color-coded:

- Red lines:** Direct reports or primary functional relationships.
- Blue lines:** Collaborative work or cross-functional relationships.
- Yellow lines:** Informal or cross-functional relationships.

STAFF

Professor David Everatt
Graeme Gotz
Dr Claudious Chikozho
Chris Wray
Adele Underhay
Dr Richard Ballard
Dr Sally Peberdy
Dr Koech Cheruiyot
Dr Caryn Abrahams
Darlington Mushongera
Kerry Bobbins
Guy Trangoš
Christina Culwick
Samy Katumba
Farah-Naaz Moosa

STAFF DEVELOPMENT

- Academic staff of GCRO all attended a one day course on the 22nd of January 2015 presented by Prof Paul Fatti on “Survey Design and Analysis”.
- Caryn Abrahams (Senior Researcher) attended a GTI Data Demo. She also attended the Wits Staff Induction in February 2015 as well as the Training for Post Graduate Supervision course at the Wits Centre for Training and Development on the 17th of March 2015.
- Christina Culwick (Researcher) attended the Wits Staff Induction in February and Writing for peer reviewed journals course on the 10th of March 2015.
- Claudious Chikozho (Research Director) attended a 3-day course during November 2014 in Nairobi on “Policy Engaged Research Communication”. This was run by *The Partnership for African Social and Governance Research* (Nairobi) in collaboration with the Institute of Development Studies (UK).
- Guy Trangos (Researcher) attended Evacuation Co-ordinator training on the 22nd of July 2014. He also attended the Wits Staff Induction in February 2015.
- Farah-Naaz Moosa (Receptionist) completed her first year of BA part-time studies at Wits Plus.
- She also attended Occupational Health, Safety and Environmental (OHS&E) representative training at Wits.
- Kerry Bobbins (Researcher) attended the Wits Staff Induction in February 2015.
- Koech Cheruiyot (Senior Researcher) attended First Aid training on the 5th and 6th of November 2014.
- Richard Ballard (Specialist Researcher) attended the Wits Staff Induction in February 2015.
- Samy Katumba (Junior Researcher – GIS) is enrolled at the University of Pretoria for a Masters of Science in Geoinformatics.

The GCRO Board and Executive Director encourage staff development and skills enhancement, both through academic qualifications and learning as well as in the area of personal growth. The Academic partners provide opportunities to all GCRO staff through fee subsidies.

The staff development activities outlined on the left took place during the 2014/14 provincial financial year.



SUPPORT TO GOVERNMENT

12 JOHANNESBURG
M10 Smitstraat
Wits
←

As an institution focused on applied research GCRO hopes that all of its efforts will be useful and relevant to government in some way, supporting processes of decision-making and policy implementation with much needed data and analysis. However, in addition to this generic role, GCRO also works directly for and with government on request, either on an *ad hoc* basis, or on larger and longer policy support projects.

E-TOLLS SOCIO-ECONOMIC IMPACT STUDY

In mid 2014 the Gauteng Premier set up a panel to review the impact of the Gauteng Freeway Improvement Programme and e-tolls, and GCRO was appointed to provide background research and technical assistance. GCRO's role included undertaking desktop research and commissioning primary research where possible. The work was led by the Executive Director with the assistance of a contracted Specialist Researcher, Ross Jennings. GCRO participated in a series of open meetings and expert round-tables, and commissioned environmental modelling, financial option modeling and selected focus groups. It completed a full background report on the socio-economic impact of e-tolls and submitted this in November 2014.

RESPONDING TO THE NEEDS OF GCR MUNICIPALITIES IN A MORE STRUCTURED WAY

In the previous financial year, GCRO met with key officials of Tshwane, Ekurhuleni and Johannesburg to explore possible joint city-focused projects that will help build a collective understanding of and commitment to the GCR. It was decided that the best way to initiate this work would be a City GCR Seminar, that would enable deep level discussion of key issues facing municipalities. The first of these seminars was held in the last quarter of 2014/15. It focused on the draft City-benchmarking Report from the 2013 QoL Survey, and specifically how to understand the key finding of a growing disjuncture between high satisfaction with services and low satisfaction with the governments that provide them.

AD HOC SUPPORT TO VARIOUS GOVERNMENT DEPARTMENTS AND MUNICIPALITIES

GCRO regularly provides information and analysis or technical support to various national and provincial government departments, and to municipalities in the GCR. By way of illustration 2014/15 saw the following:

- GCRO assisted GPC with the provision of data and maps for its 'service delivery war room' initiative. The development of a set of priority ward indicators and a ward profile viewer will further assist GPC;
- GCRO was asked by the City of Johannesburg to provide advance extracts of the 2013 QoL Survey results to assist with a project, being led through the City Manager's Office, to identify emerging middle class wards in Johannesburg. The data were packaged and furnished;
- GCRO assisted the Tshwane Metro with a series of zoomed-in maps of the metro, drawn from various GCRO maps of the month;
- GCRO met with the consultants working on the Gauteng Planning Division's Infrastructure Master Planning process, and furnished a range of maps and data to support the development of their first phase framework;
- GCRO staff contributed to a range of consultation sessions organized by the Gauteng Planning Division on key strategy processes, notably the Gauteng Integrated Infrastructure Master Plan and the Spatial Development Perspective;
- GCRO entered into a partnership with the Central Strategy Unit of the City of Johannesburg on its international Metropolis 'Caring Cities' Barometer initiative. Work on this will be conducted in 2015/16.



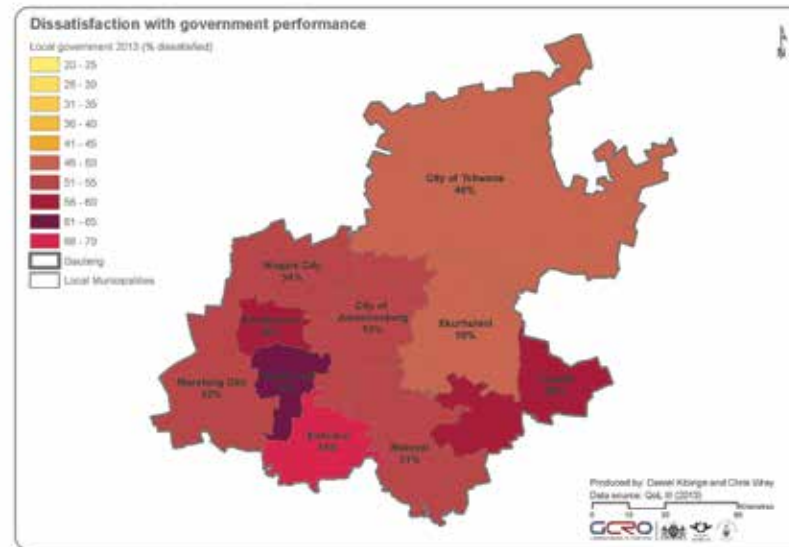
GOVERNMENT, GOVERNANCE AND INTERGOVERNMENTAL RELATIONS

Transformation and change in the Gauteng Higher Education Sector

Higher education institutions (HEIs) in the GCR and elsewhere are increasingly being called upon to do more than their traditional roles of teaching and research. They are now expected to collaborate and engage with other stakeholders with a view to contributing directly and indirectly to social and economic development in their localities. A GCRO Occasional Paper was published in November 2014. The report reflects critically on the role of HEIs in regional development. It also surveys current debates on the matter and draws out some insights on how we ought to think further about the current state of government-industry-academia interaction and collaboration for development in the GCR. The final report was uploaded onto the GCRO website.

The GCRO Barometer

The GCRO Barometer depicts developmental progress in the GCR in a single interactive graphic, using 38 indicators across 10 key sectors. It serves as a tracking and diagnostic tool to inform policy-makers and the public on where development progress is being made, and areas of concern. The Barometer shows progress against three base years (2002, 2007 and 2011) in the last year for which data could be collected across all indicators, 2012. The project is now complete and the first edition of the Barometer, 'GCRO Barometer 2014' was launched on the 14th of August 2014 and is live on the GCRO website. A full analytical report was published as a GCRO Occasional Paper and is available for download from the GCRO website.



Political economy of infrastructure choices

Water services authorities are hard-pressed to strike the appropriate balance between efficiency, equity and sustainability in the overall supply and management of water resources. Understanding the influence of current water pricing and social assistance mechanisms on water consumption patterns is a key step towards the development and implementation of appropriate methods of water management in the future. Using econometric methods and micro-level data, this project aimed to critically analyse, on a comparative basis, different water pricing mechanisms for domestic supply across selected local municipalities in the GCR, and how they impact on water consumption. However, the project suffered a huge setback as the selected municipalities (City of Johannesburg and Mogale City) were not in position to share their household water consumption data. A decision was therefore taken to merge this project with another project on Ethnographies of the State.

*Ethnographies of the state: state function
in infrastructure planning*

This is a long-term project aimed at undertaking deep level analysis of state function in planning and budgeting for service-delivery, with a specific focus on water services. This project was merged with the Political Economy of Infrastructure project following data access difficulties. Writing was started based on series of key informant interviews conducted during 2014/15 and the publication of a GCRO Occasional Paper is envisaged for 2015/16. GCRO Researcher Darlington Mushongera presented part of the work at a local conference hosted by Economic Research Southern Africa (ERSA) in Soweto, Johannesburg and at an international conference hosted by the Nordic Africa Institute (NAI) in Uppsala, Sweden. Both conferences took place in September 2014.

City GCR seminar

A first seminar was arranged for the fourth quarter of the financial year. It comprised:

- a presentation and discussion of the city-benchmarking results from the 2013 QoL Survey, focusing in particular on the gap between service and government satisfaction;
- a presentation and discussion on preliminary GCRO work to explore this issue in more detail through spatial statistical analyses; and
- an initial discussion on possible new questions for the 2015 QoL Survey. This first seminar was held at UJ 6 March 2015 and was attended by several government officials and academics.



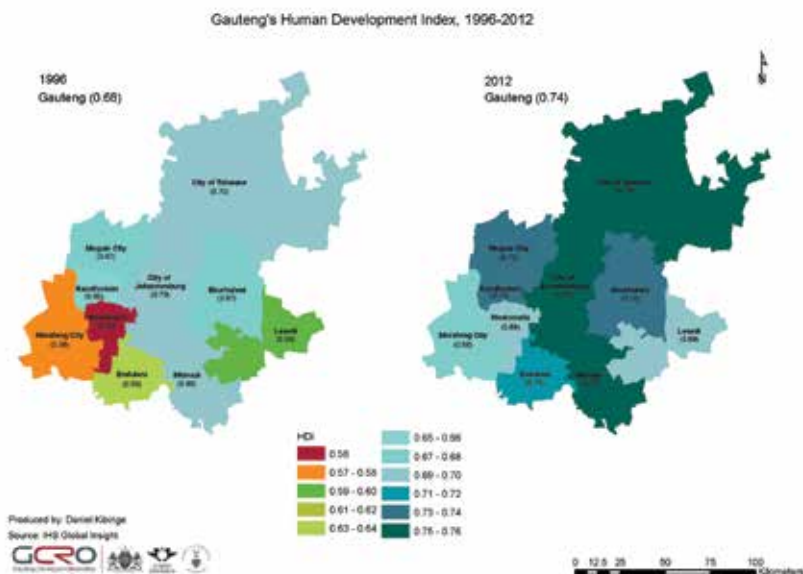
FUTURE REGIONAL ECONOMIES

Understanding Gauteng's urban space economy

The pieces making up a special edition of a GCRO report are being completed. Indications are that the journal *Urban Forum* will be able to carry the special edition in 2015. The Ethiopian quarter piece, titled 'Jeppe - where low-end globalisation, ethnic entrepreneurialism and the arrival city meet', went through the peer review process and was published online in *Urban Forum* in November 2014. Drafting and editing of the remaining pieces of the collection continued.

Transitions to a future economy - trade in the GCR

This is a long-term research project that examines trade flows into and out of the GCR and aims to establish the potential contribution and costs of trade to the GCR economy. It is undertaken in partnership with the African Centre for Cities (ACC), Eduardo Mondlane University (Mozambique), and the Southern African Migration Program (SAMP). A number of surveys were carried on cross border traders in Gauteng, cross border migrant entrepreneurs, South Africans in the informal sector of the CoJ, and policy-makers. A draft report 'Cross border migrant and South African informal sector entrepreneurs in Johannesburg' was completed. As part of the joint project, GCRO Senior Researcher, Sally Peberdy, co-authored a book chapter titled 'Transnational entrepreneurship and informal cross border trade in South Africa' to be published in 2015. Sally Peberdy also presented the results of the research on 'Migrant Entrepreneurs in the City of Johannesburg' at a project workshop that was co-hosted by ACC, SAMP and GCRO on the 9th of February 2015. The report was received with great enthusiasm by the policy-makers, the media and the general



public. As a result of the relevance of the research to debates on the violence against foreign shopkeepers in Soweto, Sally Peberdy was asked to appear on various radio and TV programmes and she published an article in *City Press* (25 January 2015). Sally Peberdy was also invited to present the results of the research on informal entrepreneurs at seminars held by the Institute for Security Studies (February 2015); the GPG African Peer Review Mechanism Provincial Governing Council (March 2015); and the Department of Sociology at UJ (March 2015).

Economic geography of the GCR

Gauteng has a very large and diversified economy and it is necessary to understand the interconnection and spatial distribution of economic activities in order to design effective policies. This project draws in expertise from various academics on a number of issues related the Gauteng economy. An edited volume on various aspects of the economic geography of

Gauteng is envisaged as the final output. A complete book proposal and outline, incorporating internal and other(s) comments, was completed during the current year and a mini workshop was held in November involving different prospective authors of chapters. Six non-GCRO authors were contracted. Work on chapter writing has started and first complete drafts are due on the 1st June, 2015. The book proposal was been completed and was submitted to Springer Publishers for consideration.

Determinants of real estate demand

This project seeks to undertake an analysis of macro-economic and spatial determinants of supply and demand for various property asset classes. An extensive literature review was carried out and the required data were identified. A preliminary data analysis was done and the writing of a GCRO Data Brief was started.





LIFE AND PEOPLE IN THE GCR

Creating and sustaining a cohesive and socio-economically inclusive society is at the heart of what makes up a city-region. With its focus on the residents and communities of the GCR, this area of work is concerned with social inclusion, and those attitudes and perceptions that divide communities, and create mistrust and social disengagement. It also includes a focus on poverty and inequality – the nature, drivers, underlying causes of these pertinent issues facing residents of the city-region. The aim of this theme, as a whole, is to develop a set of ideas about how to create and sustain such an inclusive society. Inclusion is seen as one of the most important markers of prosperous and socially cohesive cities.

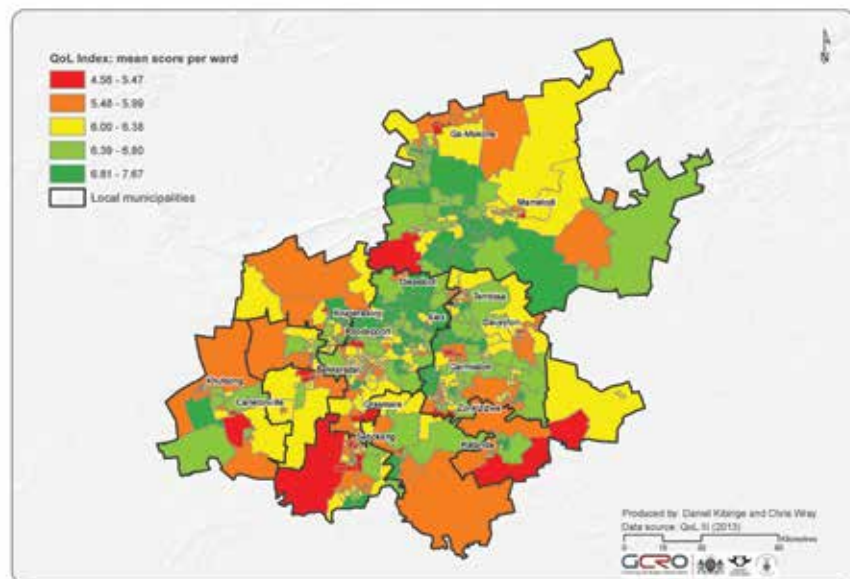
According to UN Habitat, “an inclusive City promotes growth with equity [...] where everyone [...] is enabled and empowered to fully participate in the social, economic and political opportunities that cities have to offer”.

The research is theoretically informed by approaches to questions of urban citizenship, belonging and participation, and the multidimensional nature of poverty and inequality. The research under this theme is also informed by current provincial

policy priorities and the National Development Plan which emphasize equality, nation-building, inclusive citizenship and social cohesion.

Social fabric of the GCR: social cohesion in the city-region

With a focus on the social fabric of the GCR, an occasional paper titled ‘Reconsidering Social cohesion’ was drafted and is currently being revised after having undergone internal review. Due to growing interest in mapping social isolation (through the formulation of an index), a journal article was completed and submitted for publication, and a vignette was also produced. Two further articles were submitted for publication, these have to do with the question of ‘nation’ and ‘solidarity’ in post apartheid South Africa. A book chapter on the future of race-thinking/race/non-racialism in South Africa will be submitted mid-2015, for publication in an edited collection entitled *What now? The next 20 years of South Africa’s democracy* (Publisher: James Currey). Former Deputy President Kgalema Motlanthe agreed to write the foreword to the collection which came out of a conference (*1994-2014: 20 years of South African Democracy*) held at the University of Oxford in 2014. David Everatt presented a series of papers alongside other scholars



and public intellectuals at this conference. The book will be co-edited by Jason Robinson, one of the lead organisers of the conference, and also one of the postdoctoral fellows joining the GCRO later in 2015.

Poverty and inequality in the GCR

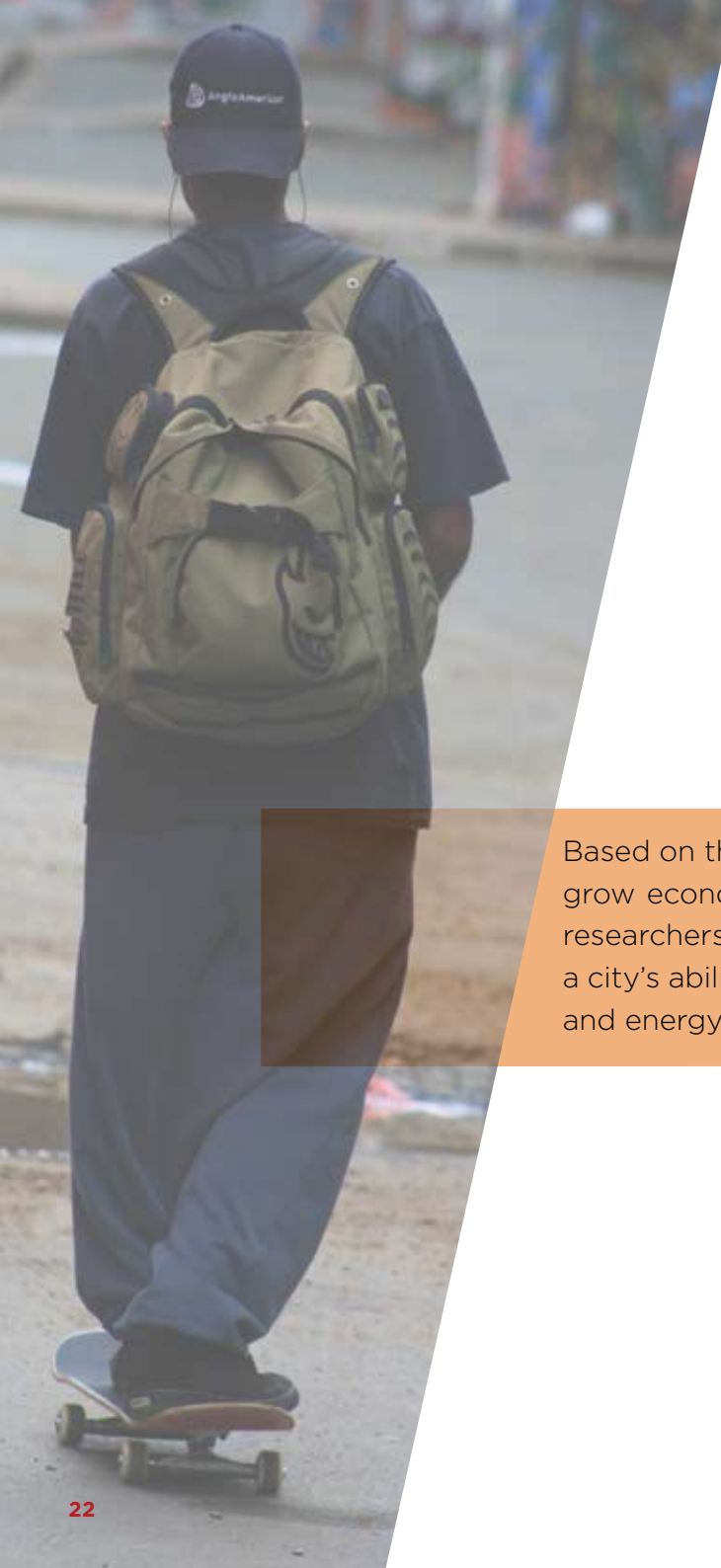
The research aims to understand the nature and extent of poverty and inequality in the GCR, as well as unpack its underlying causes, drivers and dynamics. The final output for the entire project is a GCRO Report comprising three analytical pieces from three different perspectives: (i) income and expenditure, (ii) the labour market, and (iii) multidimensional poverty. GCRO commissioned the first two papers to experts. The complete drafts were sent to Michael Sachs (a member GCRO Research Advisory Council (RAC)) for review. GCRO Researcher Darlington Mushongera worked with two experts from the World Bank on a third piece focusing on multidimensional poverty in the GCR. This paper was reviewed by Professor Ingrid Woolard of the University of Cape Town. The three analytical papers were consolidated into a single report to be published as a GCRO Occasional Report in early 2015/16.

Reversing resurgence of racism

This project is concerned with anti-racism. Its aim is to inform policy and practice with a concerted anti-racism focus. An on-going partnership with the Ahmed Kathrada Foundation (AKF) began in 2011 with a project and subsequent publications on non-racism in 2012 (*Politikon*) and 2013 (Routledge). 2014/15 saw the inception of a project on anti-racism. Two papers were commissioned under this project, and were completed in March 2015. These pieces look at global experience in formulating national action plans against racism, and pathways toward a pragmatic anti-racism strategy in post-apartheid South Africa. The rationale of this work is that attempts to institutionalize an anti-racism framework from the top-down inadvertently bureaucratise an essentially social behaviour, making the project unusable and indeed incongruous with practices of social change/anti-racism that emerge from the ground up. A focus on anti-racism, instead, will reverse the resurgence of racism, xenophobia and ethnic chauvinism in contemporary South Africa. The papers, together with a photo essay and forewords by the GCRO and AKF will be published as a report later in 2015.

Hungry city-region

Hunger and food insecurity are persistent challenges in many cities and regions across the globe. Yet food supply and urban consumption happens within a system of governance, policy, accessible provisioning and retail. The rationale of this project is that urban food security can never be achieved unless that system is taken into account; consistent and positive developments need to occur in each of these dimensions for hunger to be reduced among residents of the GCR. The first part of this project seeks to conduct a scoping study on the state of food (in) security in the GCR, and that of food policy in the region. Scholars within and associated with the University of the Witwatersrand's Geography Department have been commissioned to conduct this study. The researchers are in the process of interviewing key policy-makers in this space, and critically appraising the state of food (in) security in the region. Submissions are expected mid-2015. This project is ultimately concerned with formulating an urban city laboratory on 'the urban food system' in the GCR with the purpose of an integrated urban food policy for the GCR. The citylabs are envisaged to take place in 2016/17.



SUSTAINABILITY IN THE GCR

Metabolic flows and infrastructure transitions

Based on the argument that it is no longer possible to grow economies while assuming unlimited resources, researchers have concluded that it is vital to determine a city's ability to reduce their socio-economic material and energy inputs as well as waste outputs.

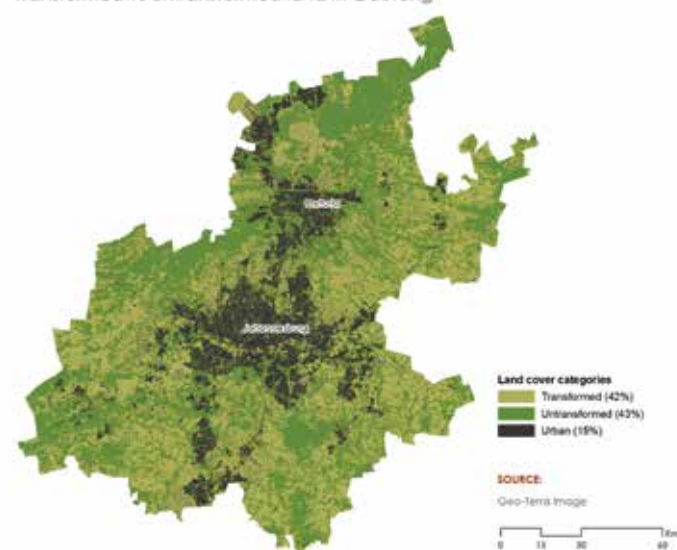
The starting point for this determination is the study of 'urban metabolism'. This involves analysing the throughput of 'material flows': that is, tracking the use of materials in economic activities and daily life, as well as the hardware or infrastructure that conducts flows of these materials into, around and out of the city. During 2014/15 work towards this project included a review of relevant literature and a re-examination of the material collected to date. The intention is for this work to be written up as an Occasional Paper. GCRO is considering opportunities for collaboration with various stakeholders who have approached GCRO to work together in the coming year, in particular with the Sustainability Institute, Stellenbosch.

Green assets and infrastructures

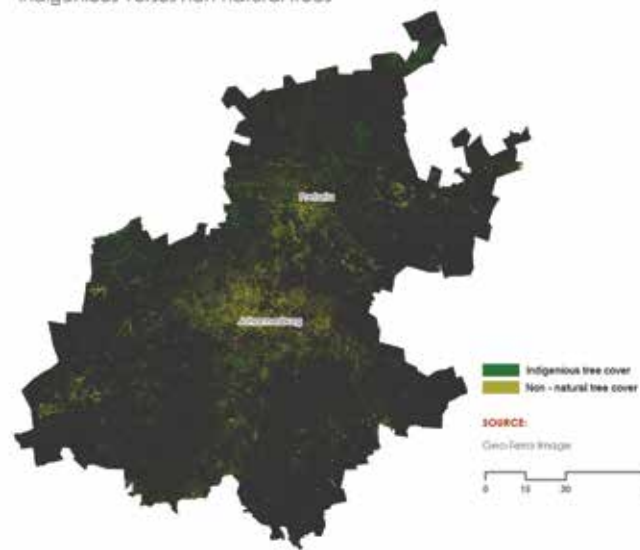
The GCRO has undertaken a multi-year research project on Green Assets and Infrastructures (GAI), initiated in 2012. The project examines the current state of green infrastructure (GI) networks and aims to inform and promote a GI planning approach in the GCR.

Building on the foundations laid by The State of Green Infrastructure Report (SoGI), published in 2013/14, the 2014/15 research has focused primarily on understanding the opportunities and barriers for the uptake of a GI planning approach in the GCR. This has included two parallel tasks. The first was a strategic conversation with municipalities in the GCR, structured through the GCRO's GI Citylab, about the role of green assets in municipal planning and how they can be used to meet infrastructural demands. The second task included the commissioning of three specialists to conduct studies that explored how to value ecosystem services and implement grey-green design solutions at the municipal level. These tasks were supported by on-going inputs from local and provincial players, a research visit to eThekweni municipality (City of Durban) to meet with local experts and specialists in

Transformed vs untransformed land in Gauteng



Indigenous versus non-natural trees



the fields of ecological infrastructure and municipal planning, and a site visit to the West Rand District Municipality.

During 2014/15, a draft GCRO Occasional Paper was produced on the second phase of the GCRO's project on GAI. This paper extends the conceptual foundations laid by SoGI and established the importance of incorporating a GI approach in the urban context, presented the three written pieces, commissioned from specialists, summarised the various forms of stakeholder input, and presented a framework towards a GI planning approach for the GCR.

Informed by the on-going project inputs and the Occasional Paper, a set of investigative studies were conceptualised to assist with building a GI evidence base for the GCR. It is anticipated that three investigative studies will be completed in 2015/16, and include:

1. Investigating the requirements and possible methodologies for developing a green municipal asset registry to inform GI planning;

2. Re-imagining a settlement-wide stormwater plan for Diepsloot using GI instead of a traditional stormwater approach;
3. Monitoring and evaluating the cost-benefits of an existing GI project along the Atlas Spruit (Ekurhuleni).

During 2014/15 the findings of GCRO's work on GAI were presented at three international platforms, in the United Kingdom, Poland and Germany. This allowed for the findings of the project to be shared with international experts, hence forming critical networking opportunities for the GCRO to engage with international academics and researchers conducting similar research in the fields of ecosystem services and GI. Furthermore, GCRO Researcher Kerry Bobbins was selected as one of the winners of the 2014 International Green Talents Competition for her work on GAI. The winners of the competition were given the opportunity to attend an International Forum for High Potentials in Sustainable Development in Germany.

Three academic outputs were published on the GCRO's GAI project. These included: a chapter in the Department of Science and Technology (DST) and National Research Foundation (NRF) resilience project's Urban Resilience Thinking for Municipalities output, a paper in the first volume of the *The Sustainable Green Infrastructure Handbook South Africa* and a blog post for UrbanAfrica.net. Recently, a journal article on GAI and the green economy was submitted and accepted to a special edition of the *South African Journal of Public Administration* and will be published early in 2015/16.

The GCRO continues to be involved in the GPG's process towards creating a Gauteng Integrated Infrastructure Master Plan (GIIMP), which has included GI as a key infrastructure focus. GCRO researchers continued to feed into the DST/NRF Urban Resilience Assessment for Sustainable Urban Development project, and have informed the Gauteng Department of Agricultural and Rural Development's Gauteng Environmental Management Framework, which was completed in 2014/15.



Green economy

This project builds on GCRO's policy support work around a green economy which began in 2010/11. While a lot has been written on the importance of moving towards a green economy, there has been little empirical research on the nature of the green economy that is actually emerging. The research reflects on the actually existing green economy in the GCR. An article for a special issue of the journal *Current Opinion in Environmental Sustainability* was peer reviewed and a revised article submitted for publication in 2015. In late October, GCRO met with officials from the Gauteng Department of Economic Development who have been mandated to review the Green Strategic Programme that GCRO assisted the department with in 2011. Terms of reference for two pieces to be written by external specialists, and assembled into an integrated Occasional Paper, were finalised. One will analyse how municipal fiscal architectures and financial management arrangements positively and negatively impact on possible transitions to a green economy in the region, with proposals for key adjustments that could conceivably be made to local government financial systems. The other will analyse key micro-economic and key policy, regulatory and administrative constraints on the development of green economic industries and practices. A third piece to be incorporated into the Occasional Paper, but not funded by GCRO, was commissioned by the NRF-South African Research Chairs Initiative (SARChI)/ Department of Science and Technology (DST) Urban Resilience programme. This piece looks at green economy developments in the West Rand.

Intersection between disaster vulnerability and sustainability

The GCRO's multi-year project on the Intersection between Disaster Vulnerability and Sustainability aims to understand the prevailing disaster risks facing the GCR and how resilient the region is in the face of these. Through a series of sub-projects, researchers have been exploring the potential resilience of communities and households to disasters and how the vulnerability of the region is being exacerbated by a range of factors, including the way human settlements are designed, and the growing variability of our climate. In 2014/15, progress was made towards the completion of three sub-projects on acid mine drainage (AMD), mining landscapes and scavenger economies of the mine dumps.

During 2014/15 final changes were made to the GCRO's Occasional Paper on AMD and its governance in the GCR. This paper, provides the necessary context to consider the decisions made around the immediate, short, and long-term solutions to AMD and identifies the actors and stakeholders that have been involved in this process. The paper is currently in the design phase and will be published early in 2015/16.

The mining landscapes project, framed by insights gained from the AMD Occasional Paper, focuses on the multi-dimensional issues of the mining landscape legacy that has been inherited by the GCR, with emphasis on urban spatial planning, environmental and socio-economic considerations. The report aims to bring together academic and applied insights from

a variety of authors to comment on the prospects of these landscapes in the future. During 2014/15, progress was made towards the completion of the report and inputs from two external authors were received. Preliminary design work on the report was also completed.

The GCRO's mining landscapes project was showcased at the 9th International Mine Closure Conference exhibition, held in Johannesburg in October 2014. Preliminary project findings were presented at the 2014 South African Association of Geographers (SAAG) conference in a presentation entitled 'Investigating the financial vulnerability of households to mine residue areas in the GCR' and an article on 'City of Extraction: Gold mining exploits and the legacies of Johannesburg's mining landscapes'. This article has been accepted for publication in the 5th edition of the *Scenario* journal.

During 2014/15, a photo essay on the scavenger economies of the mine dumps was completed and uploaded onto the GCRO website. This work showcases some of the opportunities presented by mine waste and illustrates one of the many micro-economies that have emerged as a result of the mining waste legacy. This output will be slightly revised and included as one of the chapters of the mining landscapes report.

This year also saw continued involvement in the mining research networks of Wits and UJ, which included GCRO's participation in the Wits School of Architecture and Planning's post-mining studio and Centre for Sustainability in Mining and Industry's longstanding research programme on mining in the GCR.





SPACE AND MOBILITY IN THE GCR

Spatial change in the GCR

Gauteng confronts mounting concern that spatial trends may be compounding the effects of apartheid, the possibility that its population may double by 2055, and the very real prospect of future economic and environmental risks and shocks. There is an urgent need to understand whether its spatial form, fabric and function are resilient enough to cope with change. A starting point is to understand the rapid spatial changes that are already occurring, for example in terms of population growth and changing land use. In order to document this change, GCRO together with Professor Philip Harrison's NRF Chair, have been working on a series of books that explore spatial change starting with Johannesburg and Pretoria.

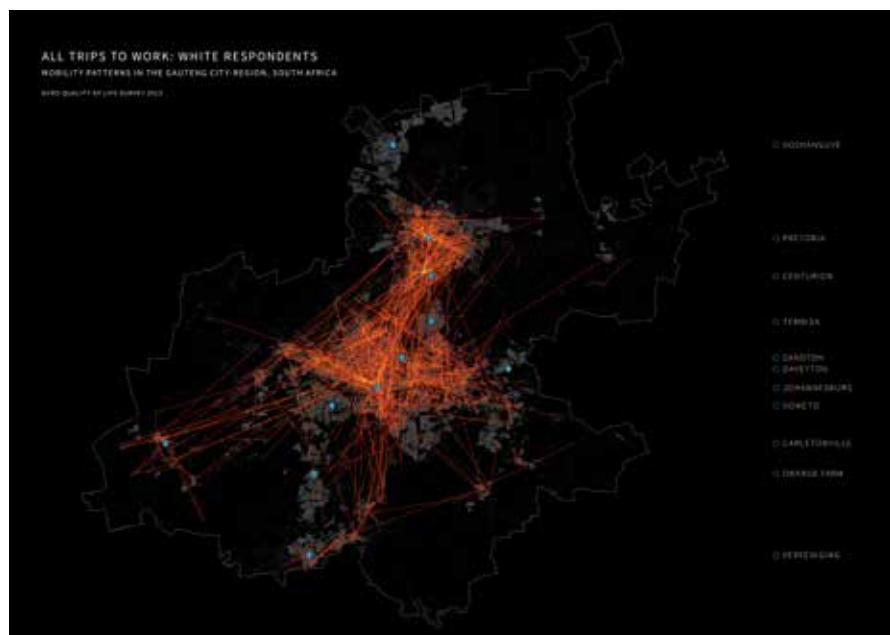
The first book in this series, 'Changing Form, Changing City: Johannesburg after Apartheid', edited by Graeme Gotz and Chris Wray from the GCRO, and Philip Harrison and Alison Todes from the Wits School of Architecture and Planning was published at the end of 2014 by Wits Press. The peer reviewed publication is richly illustrated with maps and images and not only details empirical analyses of changes in the city's physical space, but includes a host of chapters that examine the character of specific neighbourhoods, as well as the social

identities being forged within them. Consideration is also given to the economic, social and political processes shaping the wider GCR. The book volume was launched formally on 4 March 2015 by Wits Vice-Chancellor Adam Habib at an event in Newtown Johannesburg.

Mobility in the GCR

A key factor in defining a functional city-region is the flow of people between its constituent parts, as evident in one of the qualifying criteria for defining an Organisation for Economic Co-operation and Development (OECD) metro-region. Traffic flow is also an important development concern as congestion affects business efficiency and in turn regional competitiveness, as well as the quality of life of residents. For both reasons it is important to understand the existing flows of traffic across the GCR, and to gauge the impact of key transport interventions such as the Freeway Improvement Programme (and associated tolling), Gautrain, and bus rapid transit (BRT) system.

The GCRO's 'Mobility in the GCR Report' was launched formally in August 2014. Edited by Chris Wray and Graeme



Gotz, it contains chapter contributions from Wray and Gotz, and GCRO Researchers Christina Culwick and Guy Trangoš, as well as Prof Christo Venter, and Willem Badenhorst. The report explores a number of the GCR's mobility challenges. In particular, chapters detail transport infrastructure projects and key transport challenges, and an in depth analysis of the 2011 QoL survey transport questions, including the generation of a Quality of Transport Index. A multi-scalar analysis of the public space design around four existing Gautrain stations, and an exploration of the importance of non-motorised transport (NMT) infrastructure rollout are also discussed in detail. The report is available for download on the GCRO website.

Peripheries and rural/urban transitions

This project explores change in the city-region focusing on change, uneven development and dynamics of particular places including small towns, zones of displaced urbanisation and de-industrialising as well as re-industrialising areas. The project is being undertaken in partnership with the NRF-SARCHI chair

in Development Planning and Modelling in the Wits School of Architecture and Planning. The project investigates the spatial, social and economic dynamics of the GCR. In doing so it has examined socio-spatial change and uneven development in the city-region. The GCRO has focused on exploring the socio-demographic dimensions of change in the context of uneven development. In the process the research has explored understandings of core and periphery and how they apply within the city-region. The SARCHI team focused on the place economies of peripheral areas of the city-region, exploring how spatial and economic forces are shaping change on the periphery and how these relate to the core.

During the year, GCRO Senior Researcher Sally Peberdy completed her research for the project and prepared a draft report entitled 'Demographic and Socio-economic Dynamics in the Core and Periphery of the Gauteng City-Region: Uneven Development in the GCR'. The NRF-SARCHI team also completed a draft of their report. Edits to the existing report and the writing of the introduction were completed. A poster

based on the methodology used to define core and peripheral areas was exhibited at the RGS-IGB (Royal Geographical Society - Institute of British Geographers) Annual International Conference in London in September 2014. Sally Peberdy also completed a journal article 'Core and Periphery in Gauteng Province: Negotiating apartheid spaces in post-apartheid South Africa'. A redraft of GCRO and NRF-SARCHI team reports will be presented in May 2015.

QoL spatial statistical modelling

This project will model a variety of variables drawn from QoL 2013 data in order to examine spatial patterns and trends in dissatisfaction with government performance. The project is currently at an early stage with an initial proposal document having been drawn up by Koech Cheruiyot, Chris Wray and Samy Katumba. After an extensive literature review, the team identified the methodology and variables to use for the spatial statistical modelling of QoL respondents dissatisfaction with the performance of government. The preparation of a database



Gauteng confronts mounting concern that spatial trends may be compounding the effects of apartheid, the possibility that its population may double by 2055, and the very real prospect of future economic and environmental risks and shocks.

was finalized, incorporating comments from the inaugural GCRO brown bag seminar held on the 28th of January 2015. Initial results from the modelling were completed in early March 2015. The whole project will be completed at the end of the 2015/16 financial year.

Untangling transport

The GCR has a number of complex transport players operating in a single geographical area. These include, for example, municipal transport services, private public transport operators, private vehicle owners, and provincial bus services. This project seeks to untangle the complex web of transport options in the GCR through a series of mapping processes and a reflective provocation piece.

To date, an initial analysis of QoL 2013 transport data has occurred. During October 'Transport Month' 2014, three linked outputs were disseminated publically. These provide the initial work towards the provocation, which will be finalized in the next financial year. Engagement with key transport stakeholders in the GCR has been fruitful and will continue into

the next financial year. Christina Culwick sits on the Gauteng Transport Commission's (GTC) panel of experts and feeds research from this project into GTC's programmes. A journal article supplemented by innovative maps entitled 'Mobility Patterns in the Gauteng City-Region, South Africa' by Christina Culwick, Graeme Gotz, Samy Katumba, Guy Trangoš, and Chris Wray was accepted for publication by the journal *Regional Studies*, *Regional Science* in early 2015/16.

Government spatial imaginaries and capabilities for sustainable human settlements

This project was originally conceived as a study into how provincial and local governments are defining spatial visions for their areas (with an emphasis on how to develop and redevelop human settlements), and what resources and tools are available to translate vision into reality. With Guy Trangoš taking a leadership role together with Graeme Gotz and new staff member Richard Ballard, focus will now also fall on how provincial and local government spatial visions are contradicted in practice by private developments. Work on this project

began in 2014/15 through conceptual engagement with Prof Jennifer Robinson and Prof Martin Murray. Work continues on this project with a formal report expected in the next financial year.

Publics of the GCR

This research area is an umbrella project for a number of smaller projects exploring notions and ways of 'being public' in the GCR. Public infrastructure is important in cities in order to facilitate public expression, interaction, exchange, and cohesion. Successful public space and public transport, two primary public infrastructures, can be read as vital components of an inclusive and equal society. The divisions entrenched by private modes of transport and forms of space are having increasingly adverse effects of the public nature of cities across the world and few more so than those cities of the GCR.

To date, one journal article has been published entitled 'Reordered Publics' in *City: Analysis of urban trends, culture, theory, policy, action* and a second article entitled 'Scaling Urbanism' has been accepted in the same journal. Both pieces are by Guy Trangoš, who also heads this long-term project.





DATA, DATA INFRASTRUCTURE, DATA VISUALISATION, INDICATORS AND BENCHMARKS

Data acquisition

Understanding and visualising trends in the GCR is a key role of the GCRO, underpinned by quality of life surveys; development of new data sources; GIS mapping and analysis work; and assembly of information into innovative data products. During 2014/15, GCRO continued to negotiate access to, acquire and hold GIS data from a variety of public and private sector sources. These layers will provide the base data and spatial analysis for a number of GCRO projects within the five-year strategic plan, such as landscapes in transition and urban growth modelling. The layers include:

- IEC 2014 election voting stations and districts
- Eskom Spot building count (SBC) 2012 – point per building and polygon per dense informal area, for entire country
- Census 2011 listing database (dwelling frame update)
- South African Multi-dimensional Poverty Index (SAMPI) from StatsSA
- GeoTerraImage (GTI) demographics – 2014 updated population figures at an Enumerator Area level
- GTI 2012 2.5m land cover for Gauteng

- GTI land use per building for Gauteng – a point per building for the years 2001 and 2013
- GTI 1990, 2000 and 2013 urban land cover for the GCR – depicting historical spatial change
- GTI 2014 development initiatives – indicating possible future development based on development applications
 - » Ekurhuleni and Tshwane Metro Municipality GIS layers, such as zoning, cadastral boundaries, building footprints and environmental layers – for use in the Urban Observatory project
 - » 2013-14 South African national land cover from the national Department of Environmental Affairs

2013 QoL survey

In 2009, GCRO commissioned its first QoL survey with a sample of 6 600 respondents to measure the quality of life, socio-economic circumstances, attitudes to service delivery, psycho-social attitudes, value-base and other characteristics of the GCR. In 2011 the second QoL survey was undertaken, this time with some 17 000 sample points across Gauteng. The third QoL survey was commissioned in 2013, this time with co-

investment by the three metropolitan municipalities allowing GCRO to realise a sample of more than 27 000. With three points in time the survey permits the GCRO to undertake basic trend analysis with a degree of confidence.

In the first quarter of 2014, GCRO undertook preliminary analysis of the 2013 QoL data and assembled key findings into a top line presentation. This was presented to an extended Provincial Cabinet Lekgotla on 19 June.

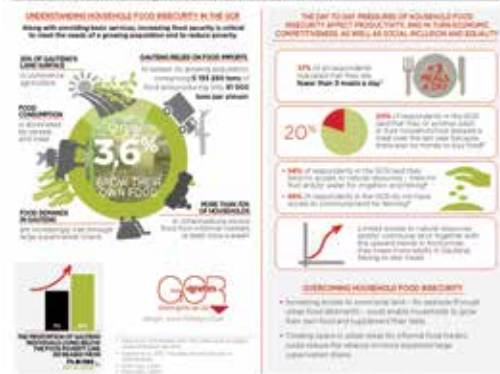
The results were officially launched at a large public event on the 14th of August 2014, attended by (and with response from) Gauteng Premier David Makhura and Gauteng Chair for SALGA Executive Mayor of Johannesburg, Cllr Parks Tau.

At the same event preliminary results from the city benchmarking analysis were presented. The results of the survey were widely covered by local and national media, and quoted by politicians from the local, provincial and national spheres. Subsequent to the launch, either full or customised presentations on the results have been made to a wide variety of audiences:

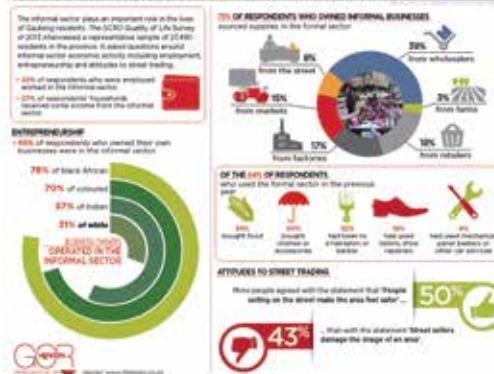
- Provincial Lekgotla, 19 June (David Everatt)
- Tshwane ANC caucus, 6 August (David Everatt)
- Distressed Mining Towns workshop in Westonaria, 15 August (Graeme Gotz)
- Tshwane urban design seminar, 22 August (Graeme Gotz)
- Johannesburg Mayoral Committee, 3 September (Graeme Gotz)
- DA provincial caucus, 17 September (David Everatt)
- Gauteng Safety Indaba, 25 September (Claudius Chikozho)
- Premier's Coordinating Forum, 26 September 2014 (Chris Wray)
- Ekurhuleni Lekgotla, 29 September (Claudius Chikozho, with Christina Culwick and Guy Trangoš)



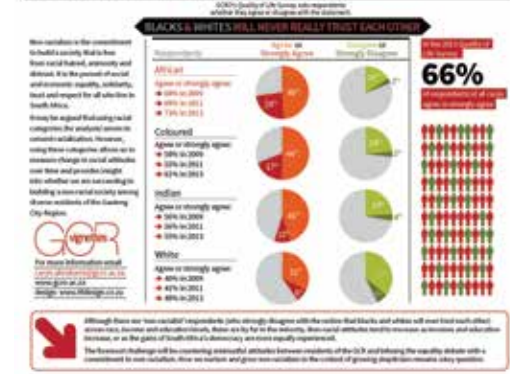
19 Gauteng's bread & butter



20 Informal sector activity in the GCR



21 Social attitudes in the GCR



- Policy Research and Strategy Forum organized by the Gauteng Department of Human Settlements, 30 September 2014 (Koech Cheruiyot)
- Tshwane Mayoral Committee, 1 October 2014 (Caryn Abrahams)
- Ahmed Kathrada Foundation Board Meeting, 11 October 2014 (Caryn Abrahams)
- Ekurhuleni legislature strategic planning session, 4 November 2014 (Christina Culwick)
- Gauteng 2015/16 Programme of Action cluster workshop, 20 November 2014 (Chris Wray)
- City of Johannesburg Spatial Development Framework 2040 workshop, 20 November 2014 (Sally Peberdy)
- Gauteng Department of Sports, Art, Culture and Recreation strategic planning retreat, 11 February 2015 (Caryn Abrahams)

In early 2015, the 2013 QoL survey 'City Benchmarking Report' prepared jointly by staff was released. Data from the survey are being used in various academic pieces and written up in GCRO outputs. For example Sally Peberdy has drafted a GCRO Data Brief on informal sector entrepreneurship and employment using the survey data.

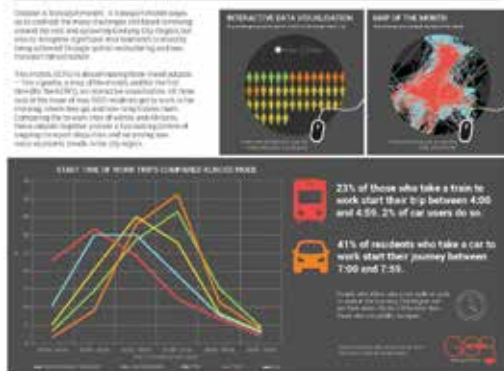
QoL survey viewer data upgrade

Following the release of the 2013 QoL results, focus shifted to updating the QoL survey data viewer to include the latest data. The project was awarded to the Johannesburg Center for Software Engineering (JCSE) and work started in June. The upgrade concentrated on the loading of the new data, with no new functionality included in the project specification. At the end of July, a test site was made available and checked by GCRO. The checks revealed a number of errors in the data exports which required significant re-scripting of the data export functions. Following final corrections and checks of the 2013 survey data tables, the updated QoL survey data viewer was completed and launched in October. As the developers have struggled with out-dated software and data export (from SPSS)/import to MS SQL Server) issues, JCSE prepared a report with recommendations for the development of a new viewer for the 2015 QoL survey data to accommodate an easier integration of QoL data from SPSS and provide for more customisable functionality/visualisation options currently limited in the MS SQL Server reporting application. The QoL survey data viewer can be accessed via <http://www.gcro.ac.za/qolviewer>.

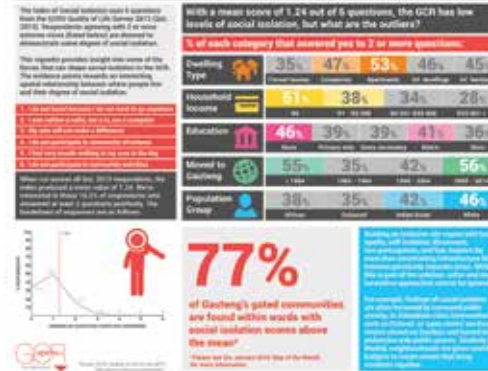
Advancing data visualisation

As part of the advancing data visualisation project, there is a concerted effort to assemble information on the GCR into innovative data products and information systems, indicators and benchmarks. The data products range from a monthly map of the month, which showcase unique spatial visualisations of GCRO's datasets, drawing from various data sources and research projects mapping some of the key issues affecting the GCR; to data briefs, interactive graphs and vignettes which measure and present the performance, development progress and 'competitiveness' of the GCR, and benchmark it against city-regions elsewhere in the world. These data products are distributed to all GCRO contacts and accessible via the GCRO website, including new innovative interactive vignettes (see Vignette #22 or October 2014 map of the month), and are summarised in the following table.

22 Getting to work in the GCR



23 Social isolation in the GCR



24 LGBTI attitudes in the GCR



SUMMARY OF GCRO DATA PRODUCTS

	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
MAP OF THE MONTH	<p>April 2014: Gauteng's Human Development Index, 1996-2012</p> <p>May 2014: a) Voter registration and b) Provincial election results</p> <p>June 2014: Provincial voting results in the cities and 20 priority townships</p>	<p>July 2014: Changing spatial inequality across the GCR</p> <p>August 2014: QoL index per ward</p> <p>September 2014: Dissatisfaction with local government performance</p>	<p>October 2014: Getting to work in the GCR – trips to work by race</p> <p>November/December 2014: Look for work trips</p>	<p>January 2015: Socially isolated wards and gated communities in the GCR</p> <p>February 2015: Urban growth across the GCR</p> <p>March 2015: Best and worst performing public schools in relation to poverty</p>
VIGNETTES	<p>Vignette #19</p> <p>Gauteng's bread and butter</p>	<p>Vignette #20</p> <p>Informal sector activity in the GCR</p> <p>Vignette #21</p> <p>Social Attitudes in the GCR</p>	<p>Vignette #22</p> <p>Getting to work in the GCR (linked to the interactive visualisation and map of the month of the same theme)</p>	<p>Vignette #23 Social Isolation in GCR</p> <p>Vignette #24 LGBTI Attitudes in the GCR</p>
DATA BRIEFS				<p>Data Brief #6</p> <p>Informal sector enterprise and employment in Gauteng</p>

During 2014, GCRO also worked together with Wits Digital Arts students to create seven interactive data visualisations based on the QoL survey data. The interactive visualisations were displayed on touch screens at the launch of the 2013 QoL survey and will be edited and made available on the GCRO website.

Next generation GIS website development

Spatial information on the GCR is publically accessible online via the interactive GIS website. The GIS website has consistently received the most hits on the GCRO website and is utilised by government, NGOs, students and the general public. For a number of reasons, such as the deprecation of the Google Maps API and lack of access to the GIS website via some tablet devices (e.g. iPads), there was an urgent need to redevelop the website. In order to address these concerns, the new interactive GIS website project in 2013/14 investigated the latest available technologies for both storing and serving GCRO's data. Following the development of a prototype JavaScript GIS viewer in early 2014 by the JCSE based at Wits, it was decided to use the Esri WebApp Builder (using JavaScript/HTML5) viewer for the 2014/15 next generation GIS website project. A specification was finalised in early June and JCSE's quote accepted. Work on the re-development began in July using the beta version, but the development experienced a number of delays as a result of changing beta versions released by Esri and limited tools offered in WebApp builder. This meant that GCRO's current Adobe flex GIS website had to be updated in August by Esri South Africa to remove Google maps, as the website would have stopped functioning on 4 September due to the deprecation of the Google Maps Flash API. On-going weekly project meetings were held with JCSE to monitor the progress of the WebApp builder website, with a pilot site (built on the first version 1 public release) to be launched in May 2015. The pilot site will run in parallel with the current Adobe website for a few months, until the current website is switched off.

Urban data gallery/observatory

The urban data gallery/observatory project is a new initiative that kicked off in 2014/15. The project consists of two components. The first component involves the development of an urban gallery viewer to provide a spatial view of key issues down to ward level, assisting both local and provincial government with identifying local areas for targeted interventions. The urban gallery viewer was renamed to a ward profile viewer, as a specific application within a broader suite of

GCRO applications that together will constitute the GCR 'urban data gallery'. The ward profile viewer is designed to provide an update of the now out-dated 50 Priority Wards viewer. A meeting was held with the Gauteng Planning Commission on 22 October to review the ward profile indicators and basic design of the viewer. There was agreement on the use of StatsSA's SAMPI index together with other Census and QoL survey data. A specification was drafted for the development of the viewer by JCSE, building on the WebApp builder viewer and development started in February, with an official launch due for mid-2015.

Secondly, the Urban Observatory component investigated the possibility of working with Esri South Africa and Ekurhuleni and Tshwane metropolitan municipalities, to contribute to the international Urban Observatory website - www.urbanobservatory.org. The Urban Observatory website provides benchmarking and spatial comparisons across a range of cities, with Johannesburg already represented on the website. The project, which aims to create a GCR presence on the internally renowned website, was due to start in the second quarter, but was delayed with the resignation of the GIS intern. Towards the end of 2014, the new Junior Researcher: GIS, Samy Katumba, started investigating the data requirements for more GCR cities to become part of the Esri Urban Observatory website and discussions were held with Esri South Africa, Tshwane and Ekurhuleni. Both cities have expressed an interest and the relevant datasets were obtained and will be loaded by mid-2015.

GCRO website redevelopment

The main GCRO website, www.gcro.ac.za, serves as a portal for the increasingly varied range of data and products produced by the GCRO. The accurate and easy dissemination of information in a clear and accessible format suited to policy-makers, government employees, academics and the general public, is therefore a growing priority of the GCRO. A revised website was identified as an important platform through which the GCRO's various outputs could be made even more accessible. In addition, as the GCRO experiments with more innovative,

web-based applications and data platforms, the enhanced functioning of the new website becomes even more important. These would include the likes of Interactive Maps, Story Maps, Photo Essays, and videos.

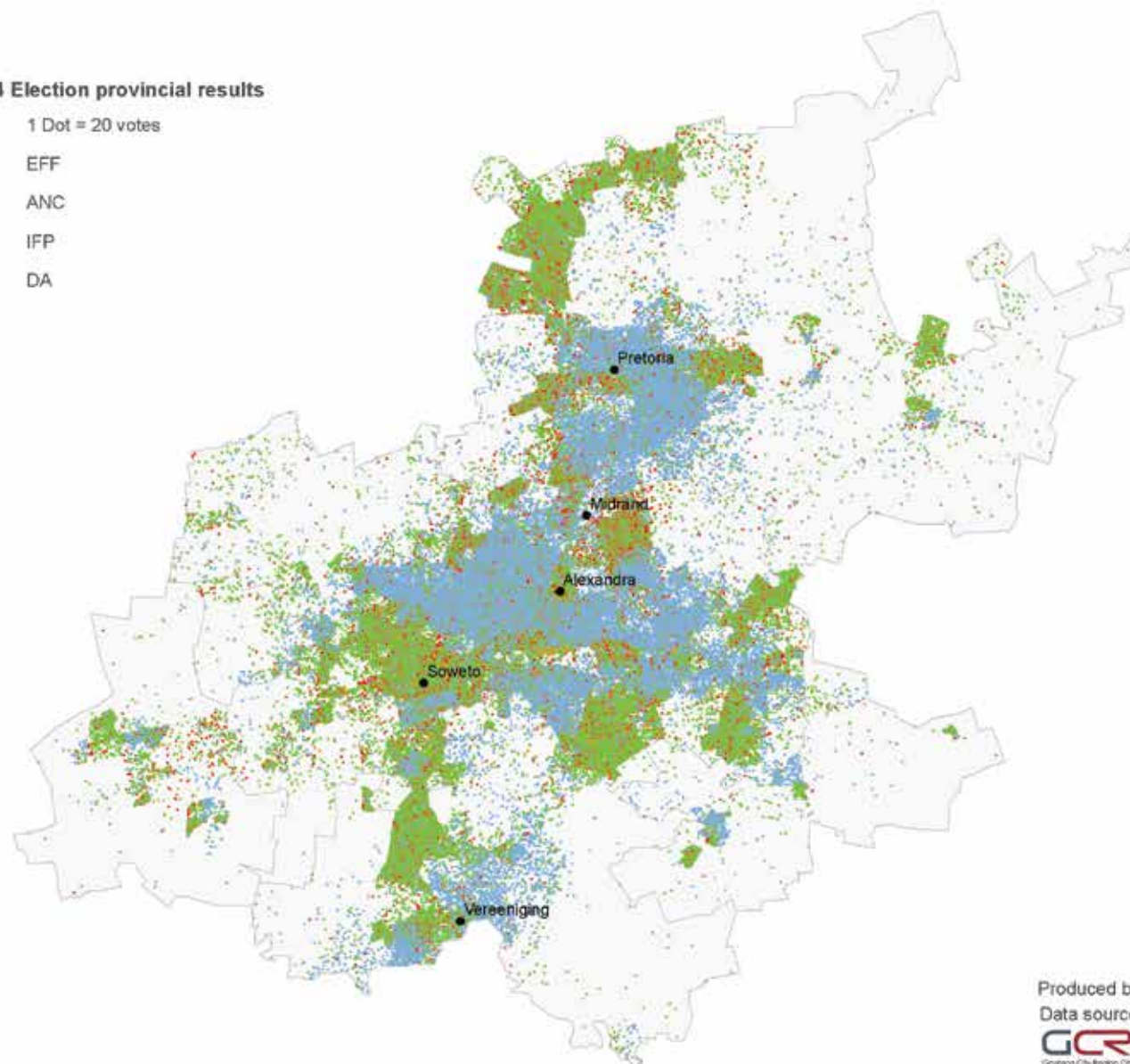
The design of the new GCRO website commenced at the end of December 2014 with the appointment of a preferred bidder following a closed tender process. Various iterations of the website have been presented to the GCRO and we continue to work closely with the design and development company to build and populate the site in advance of an anticipated May 2015 launch date. The new website is evolving into an innovative online hub for GCRO and GCR research and a powerful tool for the GCRO to engage the public with.



2014 Election provincial results

1 Dot = 20 votes

- EFF
- ANC
- IFP
- DA



Produced by: D. Kibirige & C. Wray

Data source: IEC



ACADEMIC CITIZENSHIP

A core part of our work, individually and collectively, is to be good academic citizens as well as good academics! This means a mix of supervision, external examining, teaching and support, coupled with high expectations for academic publishing by all GCRO research staff. The following list gives a sense of the range of fora in which GCRO staff participate, as well as our varied interests and publications. It is very positive to note that publishing in high-impact journals is on the increase, given the five-year review observation that we needed to 'tell the GCR story' to a global audience.

- Kerry Bobbins (October 2014) was selected as a winner of the International Green Talents Competition. The winners of the competition are given the opportunity to attend an International Forum for High Potentials in Sustainable Development in Germany from 27 October – 10 November 2014.
- Sally Peberdy, External examiner for MA and PhD theses for UNISA and the Universities of Cape Town, Fort Hare, Johannesburg, Pretoria, and the Witwatersrand.
- Sally Peberdy continued to be invited to peer review journal articles submitted to various international journals.
- Koech Cheruiyot continues to lecture 'Quantitative Methods for Property Studies', a year-long course in the MSc (Building) Property Development and Management, School of Construction Economics & Management, at Wits
- Kerry Bobbins has taken on an advisory role on a student project at the University of the Witwatersrand's School of Geography. The project is focused on the mapping of active and abandoned mines in the Witwatersrand basin and issues related to data availability, quantity and quality.
- Kerry Bobbins attended the Resilient Cities conference - 5th Global Forum on Urban Resilience and Adaptation, 29-31 May.
- Kerry Bobbins sat on a review panel for a masters student proposal at the School of Architecture and Planning, 9 June.
- Guy Trangoš was external examiner for the UJ course 'Masters Architecture Research Methodology'.
- Guy Trangoš was external examiner on the Wits BAS (Hons) course 'Research Project'.
- Chris Wray was invited to review a journal article for the UFS *Journal of Town and Regional Planning* and *South African Journal of Geomatics*.
- Chris Wray is an external examiner for a fourth year engineering project supervised by Prof Rex van Olst.
- Chris Wray and Christina Culwick presented lectures for the Global Change MSc Programme at Wits, entitled 'Spatial transformation in Johannesburg in relation to the Gauteng City-Region' and 'The state of Green Infrastructure in the Gauteng City-Region' respectively, on 17 June 2014.
- Kerry Bobbins presented a guest lecture at the Wits School of Geography, Archaeology and Environmental Studies on the application of GIS at the GCRO on 10 October 2014.
- Kerry Bobbins (August 2014) participated in a workshop on Assessing Current Trends in Landscape Fragmentation and Connectivity Assessment using GIS and remote sensing workshops run by the International Geographers Union (IGU) in collaboration with Jagiellonian University.
- David Everatt continues to supervise Masters and Doctoral students from the Wits School of Governance.
- David Everatt acted as external examiner for theses from the University of Stellenbosch and Cape Town.
- David Everatt reviewed manuscripts for Zed Books and for Wits University Press.
- Koech Cheruiyot externally examined two PhD proposals at Wits School of Construction Economics and Management.
- Koech Cheruiyot co-supervised Wits School of Construction Economics and Management master's thesis.
- Chris Wray was invited to review a journal article for the University of Free State (UFS) *Journal of Town and Regional Planning* and *South African Journal of Geomatics*.

PUBLISHED WORKS

Trangoš, G. and Bobbins, K. (forthcoming 2015). 'City of extraction: gold mining exploits and the legacies of Johannesburg's mining landscapes'. *Scenario 5: Extraction* (in press).

Ballard, R. (forthcoming 2015). 'Assimilation'. John Stone, Rutledge Dennis, Polly Rizova, Anthony Smith, and Xiaoshuo Hou (eds.), *Encyclopaedia of Race Ethnicity and Nationalism*. Wiley-Blackwell (in press).

Ballard, R. (forthcoming 2015). 'Black diamonds (South Africa's black middle class)'. John Stone, Rutledge Dennis, Polly Rizova, Anthony Smith, and Xiaoshuo Hou (eds.), *Encyclopaedia of Race Ethnicity and Nationalism*. Wiley-Blackwell (in press).

Bobbins, K. and Culwick, C. (forthcoming 2015). 'Green growth transitions through a green infrastructure approach at the local government level: case study of the Gauteng City-Region'. *Journal of Public Administration* (in press).

Everatt, D. (forthcoming 2015). 'Quality of Life in the Gauteng City-Region, South Africa' in *Social Indicators Research* (in press).

Culwick, C., Gotz, G. Katumba, S., Trangoš, G. and Wray, C. (forthcoming 2015). 'Mobility patterns in the Gauteng City-Region, South Africa'. Regional graphic in *Regional Studies Regional Science*. Vol. 2, 2015.

Gotz, G. and Schäffler, A. (2015). 'Conundrums in implementing a green economy in the Gauteng City-Region'. In journal special issue edited by Simon, D. and Leck, H. Bearing the brunt of environmental change: understanding adaptation and transformation challenges in urban Africa. *Current Opinion in Environmental Sustainability*. Vol 13, April 2015, pp. 79-87.

Wray, C. and Cheruiyot, K. (2015). 'Key challenges and potential urban modelling opportunities in South Africa, with specific reference to the Gauteng City-Region'. *South African Journal of Geomatics*. Vol. 4 No. 1, pp. 14-35.

Ballard R. and Jones, G. (2015). 'The sugarcane frontier: governing the production of gated space in KwaZulu-Natal'. Chrisoph Haferburg and Marie Huchzermeyer (eds.), *Urbanization of the Earth 12: Urban Governance in Post-Apartheid Cities, Modes of Engagement in South Africa's Metropolises*. UKZN Press, Pietermaritzburg 295-311.

Ballard, R. (2015). 'Geographies of development III: militancy, insurgency, encroachment, and development by the poor'. *Progress in Human Geography*. 39(2), 214-224.

Everatt, D. (2015). 'The politics of non-belonging in the developing world'. Wyn, J. and Cahill, H. (eds.), *Springer Handbook on Children and Youth Studies*. Springer-Verlag Singapur, 2015.

Chikozho, C. (2015). Pathways for building capacity and ensuring effective transboundary water resources management in Africa: revisiting the key Issues, opportunities and challenges. *Physics and Chemistry of the Earth*. Online first, doi:10.1016/j.pce.2014.11.004, January 2015.

Bobbins, K. and Culwick, C. (2014). 'Incorporating green infrastructure into Gauteng City-Region planning'. *Sustainable Infrastructure Handbook*. Council for Scientific and Industrial Research (CSIR). Volume 1, pp. 151-159.

Piketh, S.J. Vogel, C. Dunsmore, S. Culwick, C. Engelbrecht, F. and Akoon, I. (2014). 'Climate change and urban development in southern Africa: the case of Ekurhuleni Municipality (EMM) in South Africa'. *Water SA*. Vol. 40, No. 4, October 2014.

Harrison, P. Gotz, G. Todes, A. Wray, C. (eds.) (2014). *Changing Space, Changing City: Johannesburg after apartheid*. Johannesburg, Wits University Press, 2014.

Harrison, P. Gotz, G. Todes, A. Wray, C. (2014). 'Materialities, subjectivities and spatial transformation in Johannesburg'. Harrison, P. et al (eds.), *Changing Space, Changing City: Johannesburg after apartheid*. Johannesburg, Wits University Press, 2014.

Gotz, G. Wray, C. Mubiwa, B. (2014). 'The 'thin oil of urbanisation'? Spatial change in Johannesburg and the Gauteng City-Region'. Harrison, P. et al (eds.), *Changing Space,*

Changing City: Johannesburg after apartheid. Johannesburg, Wits University Press, 2014.

Everatt, D. (2014). 'Poverty and Inequality in the Gauteng City-Region'. Harrison, P. et al (eds.), *Changing Space, Changing City: Johannesburg after apartheid*. Johannesburg, Wits University Press, 2014.

Gotz, G. and Todes, A. (2014). 'Johannesburg's urban space economy'. Harrison, P. et al (eds.), *Changing Space, Changing City: Johannesburg after apartheid*. Johannesburg, Wits University Press, 2014.

Trangoš, G. (2014). 'Buffer zones and golf estates: do we really need more garden cities?'. *The Architectural Review*. Vol. CCXXXVI, October 2014.

Wray, C. Peberdy, S. and Damon, K. (2014). 'Visualising core and peripheral areas in the Gauteng City-Region, South Africa' (poster). RGS-IGB (Royal Geographical Society - Institute of British Geographers) conference. London, UK, 26-29 August 2014.

Wray, C. Kibirige, D. and Trangos, G. (2014). 'Creating policy debates through data visualisations & GIS mapping in the Gauteng City-Region, South Africa' (poster). GI_Forum Conference. Salzburg, Austria, 1-4 July 2014.

Everatt, D. (2014). 'Short-term profits, missed opportunities: how small traders in South Africa benefited from FIFA World Cup 2010' (Kurzfristige Gewinne, verpasste Chancen - Wie Kleinhandler in Sudafrica von der Fussballweltmeisterschaft 2010 profitieren?). *TourismWatch*. 75, June 2014.

Trangoš, G. Adleson, I. Palominos, N. Valdez Young, A. and Alshalfan, S. (2014). 'Reordered publics: reimagining the City of London'. *City: analysis of urban trends, culture, theory, policy, action*. Vol. 18, No 2, pp. 191-213.

Wray, C. (2014). 'Racial integration in the Gauteng City-Region (GCR), South Africa'. Regional graphic in *Regional Studies Regional Science*. Vol. 1, pp. 79-81.

Trangoš, G. (2014). 'Master's projects: architecture and urbanism, Volume 1' (book review). *Architecture South Africa: Journal of the South African Institute of Architects*. 0(66), March/April, p. 51.

Cheruiyot, K. and Harrison, P. (2014). 'Modelling the relationship between economic growth and time-distance accessibility in South Africa'. *Review of Urban and Regional Development Studies*. 26(2), pp. 81-96.

Trangos, G. (2014). 'The fickle 'embrace' of informality doesn't help'. *The Informal Cities Reader.za*. South African Cities Network (SACN). Johannesburg.

WORKS SUBMITTED AND UNDER REVIEW

Abrahams, C. 'South Africa 20 years after democracy: solidarity missing'. Submitted to the European Institute of the Mediterranean, Barcelona, for a special issue publication *Arab Transitions in Comparative Perspective* (under review).

Abrahams, C. 'Making the nation twenty years after democracy'. Submitted to the Institute for Justice and Reconciliation (IJR) for inclusion in an edited book *20 Years of reconciliation, South African Reconciliation Barometer* (under review).

Ballard, R. 'Development and governance'. Submitted to Douglas Richardson, Noel Castree, Michael F. Goodchild, Audrey L. Kobayashi, Weidong Liu Richard Marston (eds.) *The International Encyclopaedia of Geography: People, the Earth, Environment, and Technology*. London: Wiley-Blackwell (under review).

Trangoš, G. 'Scaling urbanism: reading processes of spatial change in Johannesburg'. Submitted to *City: analysis of urban trends, culture, theory, policy, action* (under review).

Mushongera, D. 'Beyond GDP in measuring development progress: the GCRO Barometer'. Submitted to *Development Southern Africa* (under review).

Everatt, D. 'Elections in democratic South Africa, 1994-2014: what next?'. Submitted to *Journal of Southern African Studies* (under review).

Chikozho, C. and Saruchera, D. 'Universities and think-tanks as partners in the African knowledge economy: insights from South Africa'. Submitted to *African Journal of Science, Technology, Innovation and Development* (under review).

Chikozho, C. and Saruchera, D. 'Articulating the history and major departure points evident in post-apartheid South African national water law and policy'. Submitted to *Water South Africa* (under review).

Abrahams, C. Bobbins, K. and Trangoš, G. 'Reconsidering urban inequality in the Gauteng City-Region: a psycho-spatial analysis'. Submitted to *Urbanistica PVS Journal* (under review).

Peberdy, S. et al. 'Transnational entrepreneurship and informal cross border trade with South Africa'. Submitted to Jonathon Crush, Caroline Skinner and Abel Chikanda (eds.) *Informal Sector Cross Border Trade in Southern Africa*. Cape Town & Ottawa: UCT Press and IDRC (under review).

WORKS IN PREPARATION FOR PUBLICATION

The full manuscript of South African Civil Society and Xenophobia, being edited by Sally Peberdy and David Everatt, was brought together and submitted, as requested, to UKZN press for peer review. The reports of peer reviewers have been received and forwarded to the chapter authors. We are awaiting their responses as to whether they are willing to make the changes and when these can be made.

Sally Peberdy submitted a journal article, 'Core and periphery in Gauteng province: negotiating apartheid spaces in post-

apartheid South Africa', to the journal *Regional Studies*. The article was not accepted as the editors said it was not the appropriate forum for the paper, and suggested submission to another journal. The article is being revised before resubmission.

Sally Peberdy contributed an invited piece, "'Ours is a remarkable country..." – a century of movement, displacement and migration', to be part of the narrative of the South African Pavilion at the 2014 Venice Biennale. The piece is in the process of being converted into a journal article.

Guy Trangos and Thomas Coggin are writing a paper, 'Blurred boundaries: Informality and the post-apartheid city'.

Christina Culwick is finalising an article, 'Transitions to non-motorised transport in the Gauteng City-Region'.

Koech Cheruiyot is working with Philip Harrison on a journal article, 'Sub-national economic resilience: differential patterns from South Africa's local municipalities with regard to the 2008 global financial crisis'.

Darlington Mushongera is working on a paper, 'Explaining changes in household access to water in South Africa: 2002 to 2012', with Thobekile Zikhali (HSRC) and Precious Zikhali (World Bank).

Darlington Mushongera is working on a paper, 'De-industrialisation, industrialisation and the space economy in Gauteng', for a journal special issue.

David Everatt is revising a paper, 'The black middle class and the future of politics in South Africa', prepared for the 2012 South Africa/Brazil conference on 'the new middle classes' organised by the CDE, for submission to the *Review of African Political Economy*.

Christina Culwick is working on a paper with Dr Zarina Patel with the provisional title, 'Working with an interdisciplinary approach: the case of flood disaster management in Ekurhuleni'.



Kerry Bobbins prepared an abstract with Stefania Merlo and Ntandoh Khanyile, both from the University of the Witwatersrand's School of Geography, for a presentation to the *Mine Closure Conference* in October 2014. This is now being written into a full paper.

Kerry Bobbins's presentation, 'Building a Green Infrastructure concept and process for the Gauteng City-Region, South Africa', to the *International Geographers Union (IGU) Regional Conference* in August 2014, is being written into a full paper.

Kerry Bobbins presentation, 'Investigating the financial vulnerability of households to mine residue areas in the Gauteng City-Region, South Africa' to the *Society of South African Geographers (SSAG) Conference* in June 2014, is being finalised as a full paper.

Guy Trangoš is working on a paper on the LGBTI results from the 2013 Quality of Life survey (QoL III) with Faraaz Mohammed from the South African Human Rights Commission.

Christina Culwick's paper, 'Navigating the co-production process: reflections from the Gauteng City-Region Observatory's Green Infrastructure Citylab', was presented at the RGS-IBG conference in London in August 2014, and is now being written up into a full paper.

Caryn Abrahams is working on a paper, 'The future of race in South Africa', for an edited book *What now? The next 20 years of South Africa's democracy*.

Claudious Chikozho is finalizing a paper, 'Free-market economics and developmental statism as political paradigms: Implications for water governance theory and practice in developing countries'.

Koech Cheruiyot, Chris Wray and Samy Katumba are finalizing a paper, 'Patterns and determinants of dissatisfaction with local government in Gauteng, South Africa: a spatial statistical approach'.

Koech Cheruiyot is working on a paper, 'An exploratory study to quantify the contribution of housing to Kenya's national economy: testing the housing economic model', with Allan Simiyu.

Christina Culwick submitted a paper abstract, 'Social justice and sustainability transitions in the Gauteng City-Region', to the 2015 RC21 conference and it has been accepted into the session on 'Reframing urban regions through comparative urbanism'.

Claudious Chikozho and M Mapedza have finalised a paper, 'In search of socio-ecological resilience and adaptive capacity: articulating the governance imperatives for improved canal management on the Barotse Floodplain, Zambia', for submission to the *International Journal of the Commons*. They are awaiting clearance from IWMI for submission.

GCRO PUBLICATIONS

- Peberdy, S. et al. (forthcoming 2015). 'Informal cross border trading in Southern Africa: A regional profile' Policy Brief No. 69, SAMP/GCRO.
- Bobbins, K. (forthcoming 2015), 'Acid mine drainage and its governance in the Gauteng City-Region', GCRO Occasional Paper 10 (in process of being designed for publication, April 2015).
- Darlington Mushongera (forthcoming 2015), *GCRO Barometer 2014*, GCRO Occasional Paper 9 (in process of being designed for publication, April 2015).
- As part of the collaboration with the Southern African Migration Programme and African Centre for Cities on the 'Growing Informal Cities Project', GCRO is the co-publisher of three Migration Policy Series publications: 'Xenophobic violence in South Africa: Denialism, minimalism, realism' (No. 66); 'Migrant entrepreneurship, collective violence and xenophobia in South Africa' (No. 67); 'Informal migrant entrepreneurship and inclusive growth in South Africa, Zimbabwe and Mozambique' (No. 68).
- Peberdy, S. 2015. 'Informal sector enterprise and employment in Gauteng', GCRO Data Brief No. 6, January 2015.
- R. Bergmann, (2015), Towards More Effective Higher Education Collaboration for Development in the Gauteng City-Region, *GCRO Occasional Paper 8*, November 2014.
- Harrison, P., Bobbins, K., Culwick, C., Humby, T-L., La Mantia, L., Todes, A., & Weakley, D. (2014), 'Urban Resilience thinking for Municipalities', University of the Witwatersrand and the Gauteng City-Region Observatory, October 2014.
- Darlington Mushongera (2014), *GCRO Barometer 2014* (an interactive online visual tool with a detailed report, published separately as an Occasional Paper), August 2014.
- Chris Wray, Graeme Gotz, Christo Venter, Willem Badenhorst, Guy Trangoš and Christina Culwick (2014), *Mobility in the Gauteng City Region*. GCRO Research Report, July 2014.

- Potsiso Phasha (2014), 'Scavenger economies of the mine dumps', *GCRO online photo essay*, June 2014.

PRESENTATIONS

- Caryn Abrahams presented a paper on equality as relational, at the University of Pretoria, Department of Politics on the 19th of March 2015. The seminar was part of that Department's project on Transitional Justice and Ubuntu.
- Sally Peberdy (March 2015). 'Migrant entrepreneurs in the City of Johannesburg', Department of Sociology, University of Johannesburg, 25 March 2015.
- Caryn Abrahams (March 2015) delivered the keynote address at the Ahmed Kathrada Foundation's colloquium 'Non-racialism at a dead end? What do the Surveys Say?', held at Constitution Hill.
- Caryn Abrahams (March 2015) presented to the Department of Arts, Culture and Recreation at their annual strategic planning session, held in Pretoria.
- Chris Wray (March 2015) 'Changing Space, Changing City: Johannesburg after Apartheid', GISSA meeting, Johannesburg, 12 March 2015.
- Sally Peberdy (March 2015). 'Perceptions: Racism & xenophobia in the GCR' Gauteng African Peer Review Mechanism Provincial Governing Council, Johannesburg.
- David Everatt (March 2015) input to Gauteng provincial legislature 'Thought Leadership Series' on 'Reflecting on 20 years of Public participation', GPL, 3 March 2015.
- David Everatt (February 2015) 'Public attitudes to key issues facing Gauteng', provincial Cabinet Lekgotla, Misty Hills Hotel, February 2015.
- Kerry Bobbins and Christina Culwick (February 2015) presented 'Enhancing urban resilience through GI' at the launch of the DST/NRF Urban resilience thinking for municipalities, 16 February 2015.
- Sally Peberdy (February 2015), 'Migrant entrepreneurs in the City of Johannesburg: negotiating xenophobia?' Institute of Security Studies seminar 'Xenophobia in South Africa: myths and realities,' Pretoria, 13 February 2015.

- Sally Peberdy (February 2015) 'Migrant entrepreneurs in the City of Johannesburg' at GCRO/ACC/SAMP workshop 'Urban informality and Migrant Entrepreneurship in Southern African Cities', Cape Town, 9 February 2015.
- Sally Peberdy (January 2015) participant in conversation 'Wits Responds to the Events in Soweto', Wits Business School, 30 January 2015.
- Chris Wray (November 2014) 'Open data + smart cities + smart province = smart city-region?', Joburg City Power IEC SEG 1 - Work Group 7 workshop, 25 November 2014.
- Chris Wray was invited to speak on smart cities at the 'Common purpose global leadership student workshop on smart cities' at the City of Johannesburg, 27 November 2014.
- Caryn Abrahams (February 2015), 'Strategic planning for social cohesion', Gauteng *Department of Sports, Arts, Culture and Recreation*, 11 February 2015.
- Caryn Abrahams (February 2015), 'Non-racialism at a dead end? What do the surveys say?' *Kathrada Foundation Colloquium*, 7 February 2015.
- Caryn Abrahams (November 2014), 'South Africa 20 years after democracy'. *European Centre of the Mediterranean*. Barcelona, 22-26 November 2014.
- Christina Culwick (November 2014) presented 'Towards a GI Plan for the GCR' to the WRDM section 80 technical committee on infrastructure & transport, 11 November 2014.
- Caryn Abrahams (October 2014), 'Imagining the nation: 20 Years of nation-building in South-Africa', *Reconciliation in South Africa after 20 Years of Democracy* author workshop, Institute for Justice and Reconciliation (IJR), 30 October 2014.
- Darlington Mushongera (October 2014), 'GCRO Barometer' at a conference *Beyond GDP: Innovative ideas on a regional dashboard*, hosted by the Governance Innovation Institute, University of Pretoria, 28-29 October 2014.

- Sally Peberdy (October 2014), 'Social Protection and Cross Border Traders in the SADC', *Southern African Social Protection Experts Network*, 29 October 2014.
- Sally Peberdy (October 2014). 'Keynote address: Migration and Development' High Level Seminar Managing Migration for Development, *African-European Parliamentary Dialogue on Migration and Development*, AU & AWEPA, 3 October 2014.
- Darlington Mushongera (September 2014), 'Crafting and managing water service in a polarised city – the case of Johannesburg', *Nordic Africa Days Conference*, Sweden, 26-27 September 2014.
- Darlington Mushongera (September 2014), 'Crafting and managing water service in a polarised city – the case of Johannesburg', Economic Research Southern Africa (ERSA) workshop on *Political Economy/Public Choice Economics workshop*, Soweto Hotel, Johannesburg, 18-19 September 2014.
- David Everatt (September 2014), 'Youth 20 years into democracy: who cares?' Youth work Symposium – Youth as Agents of Change & Transformation, Department of Practical Theology, University of Stellenbosch, 4 September 2014.
- Kerry Bobbins (September 2014) 'Towards a guideline green infrastructure plan for the Gauteng City-Region'. Section 80 Committee: Environmental Management Meeting, West Rand District Municipality, 3 September 2014.
- Christina Culwick (August 2014) 'Navigating the co-production process: Reflections from the Gauteng City-Region Observatory's Green Infrastructure Citylab'. RGS-IBG annual conference, 29 August 2014.
- Co-authored poster (Kavesha Damon, Sally Peberdy & Chris Wray) 'Visualising core and peripheral areas in the Gauteng City-Region, South Africa' was shown at the RGS-IBG conference, London, 27-29 August 2014.
- Caryn Abrahams (August 2014), 'Envisaging and enacting the national project twenty years after democracy', RGS-IBG Conference, London, 27-29 August.
- Guy Trangoš (August 2014), chaired a panel discussion at the Tshwane Urban Design Seminar, 22 August 2014.
- Graeme Gotz (August 2014), chaired a panel discussion on inner city regeneration at the Tshwane Urban Design Seminar, 22 August 2014
- Kerry Bobbins (August 2014), 'Building a Green Infrastructure concept and process for the Gauteng City-Region, South Africa'. International Geographers Union (IGU) Regional Conference, 19 August 2014.
- Darlington Mushongera (August 2014), 'GCRO Barometer', GCRO's Quality of Life III launch event, 14 August 2014
- Kerry Bobbins (June 2014), 'Investigating the financial vulnerability of households to mine residue areas in the Gauteng City-Region, South Africa'. Society of South African Geographers (SSAG) Conference, 26 June 2014.
- David Everatt (June 2014) 'Initial findings from the 2013 Quality of Life survey', Extended Provincial Cabinet Lekgotla, 19 June 2014.
- David Everatt attended the 1994-2014: *Twenty years of South African Democracy Conference* in Oxford, England (24-26 April 2014), where he gave three presentations:
 1. 'The state of the Gauteng City-region'
 2. 'Non-racialism in South Africa today'
 3. 'Politics, polling and social change in South Africa: The fight for Gauteng in Election 2014'
- GCRO was well represented at the *Southern Africa City Studies Conference*, cohosted by CUBES and the African Centre for Cities in Johannesburg from 27-29 March 2014.
- Kerry Bobbins presented a paper, 'Mapping green infrastructure networks of the Gauteng City-Region, South Africa', and participated in a panel on 'The Post-Mining Studio: Studio as collaboration; Studio as exploration'.
- Christina Culwick chaired a session and presented a paper, 'Transitions to Non-Motorised Transport in the Gauteng City Region'.
- Graeme Gotz and Chris Wray each presented on a panel on 'Spatial Transformations in Johannesburg: Materialities and Subjectivities in Urban Spatial Change'.
- Graeme Gotz was discussant on a panel on 'Co-producing knowledge for tricky transitions: Urban experimentation and innovation in Cape Town'.
- Potsiso Phasha presented his photo essay 'Scavenger Economies of the Mine Dumps'.
- Guy Trangoš and Graeme Gotz (March 2014) presented on a panel, 'Mapping, Justice and Sustainability', at the Columbia University Studio-X Johannesburg Launch, 15 March 2014.

CONFERENCES, SEMINARS AND SYMPOSIA ORGANISED BY GCRO

- GCRO continued to co-organise a seminar series with the NRF Chair of Spatial Planning and Modelling Phil Harrison, and the Centre for Urban and Built Environment Studies (CUBES), at Wits. The seminar series is called *Faces of the City: Urban Form, Fabric and Function*.
- GCRO co-hosted the workshop 'Urban informality and Migrant Entrepreneurship in Southern African Cities' with the ACC and SAMP held in Cape Town, 9 February 2015.

TEACHING AND SUPERVISION AND WIDER ACADEMIC CITIZENSHIP

- Kerry Bobbins has organised a research stay at the German Institute of Urban Affairs (Difu) located in Berlin as part of the Green Talents Award, from 4 – 28 May 2015.
- David Everatt continues to act as external examiner for Masters and Doctoral theses, most recently for the University of Stellenbosch
- David Everatt has completed 7 Masters supervisions at the Wits School of Governance (WSG), and his PhD student is about to submit her thesis. He also presents regularly to the monthly seminar series at WSG.

- David Everatt continues to peer review journal submissions, as well as manuscripts for Zed Press, Wits University press, and others.
- Claudious Chikozho continues to act as External Examiner for Masters and Doctoral theses for the University of South Africa (UNISA).
- Claudious Chikozho continues to collaborate with the University of Limpopo Graduate School of Leadership on food security research projects.
- Claudious Chikozho continues to supervise Masters and PhD level students at the University of Pretoria and University of Limpopo.
- Chris Wray (February 2015), guest lecture on “Analysing key challenges in the Gauteng City-Region (GCR) through a map of the month” at the University of Pretoria Centre for Geoinformation Science on 27 February, 2015.
- Sally Peberdy applied for incentive funding for NRF rated researchers in February 2015. She was awarded a grant of R40,000p.a. for 2015, 2016 and 2017 .
- Caryn Abrahams has guest-lectured on the Wits Geography Sustainability Course.
- Caryn Abrahams is an external examiner at the Nelson Mandela Metropolitan University.
- Caryn Abrahams has begun to supervise a PhD at the University of Johannesburg.
- Sally Peberdy continued to be invited to examine MA and PhD theses from various South African universities.
- Sally Peberdy continued to be invited to peer review journal articles submitted to various international journals.
- Koech Cheruiyot continues to lecture ‘Quantitative Methods for Property Studies’, a year-long course in the MSc (Building) Property Development and Management, School of Construction Economics & Management, at Wits .
- Kerry Bobbins (October 2014) was selected as a winner of the International Green Talents Competition. The winners of the competition are given the opportunity to attend an International Forum for High Potentials in Sustainable

Development in Germany from 27 October – 10 November 2014.

- Kerry Bobbins presented a guest lecture at the Wits School of Geography, Archaeology and Environmental Studies on the application of Geographic Information Systems (GIS) at the GCRO on 10 October 2014.
- Kerry Bobbins has taken on an advisory role on a student project at the University of the Witwatersrand’s School of Geography. The project is focused on the mapping of active and abandoned mines in the Witwatersrand basin and issues related to data availability, quantity and quality.
- Kerry Bobbins participated in a workshop on Assessing Current Trends in Landscape Fragmentation and Connectivity Assessment using geographic information systems (GIS) and remote sensing workshops run by the International Geographers Union (IGU) in collaboration with Jagiellonian University (August 2014).
- Chris Wray and Christina Culwick presented lectures for the Global Change MSc Programme at Wits, entitled ‘Spatial transformation in Johannesburg in relation to the Gauteng City-Region’ and ‘The state of Green Infrastructure in the Gauteng City-Region’ respectively, on 17 June 2014.
- Kerry Bobbins sat on a review panel for a master’s student proposal at the School of Architecture and Planning, 9 June.
- Kerry Bobbins attended the Resilient Cities conference - 5th Global Forum on Urban Resilience and Adaptation, 29-31 May.
- Guy Trangoš was external examiner for the UJ course ‘Masters Architecture Research Methodology’.
- Guy Trangoš was external examiner on the Wits BAS (Hons) course ‘Research Project’.
- Chris Wray was invited to review a journal article for the UFS Journal of Town and Regional Planning and South African Journal of Geomatics.
- Chris Wray is an external examiner for a fourth year engineering project supervised by Prof Rex van Olst.

- Koech Cheruiyot externally examined two PhD proposals at Wits School of Construction Economics and Management.
- Koech Cheruiyot co-supervise Wits School of Construction Economics and Management master’s thesis.

Resource centre

A Resource Centre, holding hard-copy and electronic resources, has been developed. The holdings are being captured on an MS Access database. The resource centre/database continues to be filled with relevant materials. There are currently some 3 000 items in the database.

Media appearances and publications

Working in and with the media is unavoidably part of our work, as we seek to transmit findings to the general public.

- Kerry Bobbins was interviewed by Science Year 2015 on the Green Talents programme (14 April 2015).
- Christina Culwick published a piece on Urban Africa entitled ‘Access Denied’ which discussed how Gauteng’s gated communities keep insiders in, outsiders out, and leave the national project on the back foot (6 April 2015).
- David Everatt wrote an opinion piece in the Business Day entitled ‘Era of coalition in South Africa’s politics looms’ (March 23 2015).
- Bobbins, K. (2015). ‘Green assets as an infrastructure alternative’, UrbanAfrica.net (African Centre for Cities, Cape Town), 25 February 2015.
- Gotz, G., Wray, C. and Katumba, K. (2015) ‘Mapping job seekers’ movements’, PositionIT, January/February, pp. 46-47.
- Sally Peberdy was asked to appear on a number of radio and television programmes to discuss the findings of the GCRO research on foreign migrant and South African entrepreneurs in the informal sector in light of attacks on foreign traders in Soweto and elsewhere in Gauteng in January-April 2015. During this time, she presented these findings on programmes on: CCTV; CNBC Africa;

Cape Talk; eNCA; Power FM (3 shows); Radio/Jozi Today; Radio 702; SAFM and VOW. In February she took part in an eNCA 'Google hang out' – an on-line panel discussion programme and the Voice of Wits Law Programme – both on 3 February 2015 and on 10 February 2015 on the Jozi FM Radio Today show (shared with five other community radio stations), and on the 9th of February 2015 on SAFM. She has also been interviewed by the Saturday Star and Africa Check. In January these included POWER FM (POWER Drive time show with Thabiso Tema on 26 January 2015 and the POWER perspective show with Lawrence Tlhabane on 27 January 2015), CCTV Africa Today on 27 January 2015 and Radio 702 (the Redi Tlhabi show) on 29 January 2015.

- Sally Peberdy published an article 'Foreigners create more jobs in SA' *City Press*, 25 January 2015 based on GCRO research on foreign migrant and South African entrepreneurs in the informal sector of Gauteng undertaken in 2014.
- Trangoš, G. (2014/15), 'Batting for Rwanda' In *Earthworks Magazine*, December/January edition.
- Kerry Bobbins was interviewed by Classic FM on the Green Talents programme (3 December 2014).
- Kerry Bobbins was interviewed by Earthworks for a feature on the Green Talents programme and the GCRO project on Green Assets (2 December 2014).
- Trangoš, G. (2014), 'Gentrifying Jo'Burg' In *The Architectural Review*, December edition.
- Kerry Bobbins was interviewed by North Eastern Tribune on the Green Talents programme (2 December 2014).
- Kerry Bobbins was interviewed by Rhodes Music Radio on the Green Talents programme (30 November 2014).
- Sally Peberdy was interviewed by ECNA on medical tourism and migration statistics (30 October 2014).
- Sally Peberdy was interviewed by *Good Morning Africa (ECNA)* on migration and development (3 October 2014).
- Trangoš, G. (2014). 'Respected. Responsible. Rooted.' In *Earthworks Magazine*. Issue 21 (August-September issue).

- Trangoš, G. (2014). 'ARCHITECTURE: *More natural space.*' In *The Financial Mail*. (14 August 2014).
- Trangoš, G. (2014). 'ARCHITECTURE: Women are building a presence.' In *The Financial Mail*. (14 August 2014).
- Trangoš, G. (2014). 'New perspectives on architecture' in *The Business Day*. (31 July 2014).

Guy Trangos established and manages GCRO's Facebook and Twitter presence online. This has proven to be a successful means of disseminating the GCRO's multiple and varied outputs while generating a broader online discussion about research findings and event presentations.

Visitors and Internships

GCRO hosted Jennifer Williams, a Doctoral Student in Urban Planning at the Taubman College of Architecture and Urban Planning, University of Michigan, Ann Arbor, USA. She presented her preliminary doctoral research proposal titled, *Mixed income housing in Johannesburg: A poverty reduction strategy* to the GCRO staff. She plans to return for a final fieldwork in the future.

GCRO also hosted LaDawn Haglund, an Associate Professor in the Global Institute of Sustainability at Arizona State University at Arizona State University, and her PhD student, Julie Gwiszcz. They were undertaking research for a comparative study across Johannesburg, Delhi and Sao Paulo into the legal, institutional, and political mechanisms by which social rights – specifically, the human right to water and the right to a healthy environment – are being claimed and realised in practice. Prof Haglund presented preliminary insights from her research at a Faces of the City Seminar on 1 April. Future opportunities for collaboration are being explored.

GCRO hosted Prof Jenny Robinson from UCL and Prof Martin Murray from the University of Michigan for a series of discussions in June and July 2014.

In October 2014 the GCRO hosted Professor Maria Paula Meneses from Coimbra University, Portugal and the University

of Eduardo Mondlane, Maputo and Dr Mpho Matsipa from Wits School of Architecture and Planning. The wide-ranging discussion encompassed transformation in post-colonial cities, urban organisation and form, and trade.

Rather than appoint a new GIS intern for 2014/15, GCRO appointed Samy Katumba as a Junior GIS Researcher; we may still appoint an intern, as demand for our GIS services continues to grow.

Stakeholders and partnerships

The RAC acts as a portal between the governmental and academic work of GCRO and comprises senior academics with representation from government, the private sector and civil society. RAC meetings held in 2014/15 began with a presentation of the five-year Review of GCRO, which triggered a fascinating discussion of how GCRO should move forward, balancing its different constituencies and audiences. The RAC – which had been reconstituted a year before – later heard a presentation of GCRO's new five-year strategy, as well as GPG's five-year strategy, and towards the end of the period under review, RAC members were active in commenting on and engaging with GCRO's project-level workplan for 2015/16.

Current membership of the RAC was approved in March 2013 and has subsequently undergone some revision with GCRO Board approval. The following have kindly agreed to be members of the RAC: Prof Fethi Ahmed (Wits); Neeshan Balton (Director, Ahmed Kathrada Foundation); Prof Thea de Wet (UJ); Rudi Dicks (Presidency); Prof William Gumede (public intellectual); Dr Lulu Gwagwa (private sector); Prof Phil Harrison (Wits); Prof Alan Mabin (Wits); Prof Bhiekie Mamba (UJ); Prof Seeraj Mohamed (Wits); Prof Michael Muller (Wits); Dr Noor Niefertogodien (Wits); Prof Edgar Pieterse (UCT); Prof Chris Rogerson (UJ); Michael Sachs (National Treasury); Dr Aurelia Segatti (Wits); Mfanafuthi Tsela (Dept. of Communications); Prof Rex van Olst (Wits); Dr Christo Venter (University of Pretoria); Lisa Vetten (civil society); and Prof Colleen Vogel (University of Pretoria).



FINANCIAL REPORT

PRIVATE & CONFIDENTIAL

The Board
Gauteng City-Region Observatory
The University of Witwatersrand, Johannesburg
Private Bag 3
Wits
2050
6 July 2015

Dear Sirs

REPORT OF FACTUAL FINDINGS IN RESPECT OF THE FINANCIAL INFORMATION OF THE GAUTENG CITY-REGION OBSERVATORY

We have performed the procedures agreed with you and enumerated below with respect to the Financial Information of the Gauteng City-Region Observatory for the period 1 April 2014 to 31 March 2015. Our engagement was undertaken in accordance with the International Standard on Related Services applicable to agreed-upon procedures engagements. The responsibility for determining the adequacy or otherwise of the procedures agreed to be performed is that of the Gauteng City-Region Observatory. The procedures were performed solely to assist you in the reporting of the Financial Information of the Gauteng City-Region Observatory and are summarised as follows:

- 1) Obtain a project schedule of income and expenditure of the Institution for the period 1 April 2014 to 31 March 2015.
- 2) Test the mathematical accuracy of the project schedule.
- 3) Trace the total income recorded to appropriate source documentation.
- 4) Select a sample of 10% of the expenses recorded for the year and agree to supporting documentation.
- 5) Obtain a general ledger analysis of the Institution from the University of the Witwatersrand for the period 1 April 2014 to 31 March 2015 to compare the accounting records of the GCRO to that of the University of the Witwatersrand and prepare Statements of Income and Expenditure, and Assets and Liabilities for the period ended 31 March 2015 for the GCRO.

We report our findings below:

- 1) Obtained a project schedule of income and expenditure of the Institution for the period 1 April 2014 to 31 March 2015.
- 2) Tested the mathematical accuracy of the project schedule.
- 3) Traced the total income recorded to appropriate source documentation.
- 4) Selected a sample of 10% of the expenses recorded for the year and agreed to supporting documentation.
- 5) Obtained a general ledger analysis of the Institution from the University of the Witwatersrand for the period 1 April 2014 to 31 March 2015 and compared the accounting records of the GCRO to that of the University of the Witwatersrand and prepared Statements of Income and Expenditure, and Assets and Liabilities for the period ended 31 March 2015 for the GCRO.

Financial status

GCRO is audited twice each year – once, as a Wits entity, and again as a fully-fledged stand-alone audit of GCRO as required by our Constitution. GCRO has only ever received clean, unqualified audits in our seven-year lifespan.

No exceptions were noted as a result of the procedures performed above.

Because the above procedures do not constitute either an audit, review or other assurance engagement made in accordance with International Standards on Auditing, International Standards on Review Engagements or International Standards on Assurance Engagements, we do not express any assurance on the financial information for Gauteng City-Region Observatory for the period 1 April 2014 to 31 March 2015.

Had we performed additional procedures or had we performed an audit or review of, or other assurance engagement on the financial information in accordance with International Standards on Auditing, International Standards on Review Engagements or International Standards on Assurance Engagements, other matters might have come to our attention that would have been reported to you.

The report is supplied on the basis that it is for the sole use of the parties to whom it is addressed and exclusively for the purposes set out herein. No party other than those to whom it is addressed may rely upon this report for any purpose whatsoever.

Copies of our report may be made available to your professional advisers provided that it is clearly understood by the recipients that they enjoy such receipt for information only and that we accept no duty of care to them in respect of our reports and letters. Furthermore, the reports and letters are to be used by them only for purposes stated herein. The report must not be made available or copied in whole or in part to any other party without our prior written consent, which consent may be given or withheld at our absolute discretion. This limitation will obviously not apply to the provision of this report in compliance with any order or court, subpoena or other judicially enforceable directive.

This report relates only to the accounts and items specified above and does not extend to any financial statements of Gauteng City-Region Observatory, taken as a whole.

D Desai
Director
Johannesburg
6 July 2015

4th Floor University Corner
11 Jorissen St
Braamfontein
Johannesburg
Gauteng
South Africa
Tel +27 11 717 7280
Fax +27 11 717 7281

**GAUTENG
CITY-REGION
OBSERVATORY**

www.gcro.ac.za

