



1 Conceptualising the Gauteng City-Region

GCRO is keen to understand what makes the space known as the Gauteng City-Region, tick.

2 Metabolic flows and infrastructure transitions

Examines the prospects for reducing urban metabolism through the transformation of infrastructure networks in the city-region.

3 Green infrastructure and assets

Examines the current state of green infrastructure in the GCR and whether processes are in place to facilitate the use of green infrastructure as a planning entity.

4 Green Strategic Programme for Gauteng

Informs the objectives and activities of all parts of government working on green issues within the city-region.

5 The intersection between sustainability and vulnerability

Investigates the elements that lie between achieving sustainable living and vulnerability to natural disaster risks.

6 Mobility in the GCR

Analysis of various data sources using GIS software to visualise transportation trends and commuter flows in the city-region.

7 Non-racialism in post-apartheid South Africa

Reflects on one of the most intellectually and emotionally-charged subjects in post-apartheid South Africa: non-racialism.

8 Quality of Life II

With the second Quality of Life survey now in field, the GCRO looks forward to uncovering more detailed information about the city-region.

9 Sports audit

A review of existing data highlights the need for an updated comprehensive geocoded database of sports facilities in the region.

10 Transformation of higher education in the GCR

GCRO is interested in the so-called 'third mission' of higher education: 'community' engagement.



vignettes
GCR

Events:

Launch of the 2011 State of the GCR review,
17 October 2011, 11h00-13h00

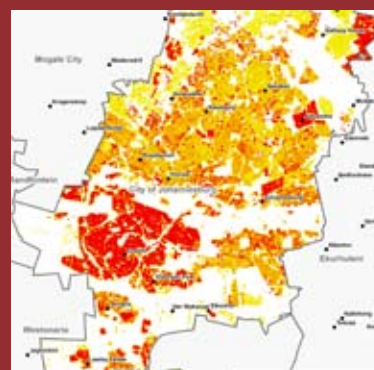
Launch of the OECD Territorial review of
the GCR, to be announced

See the website for an introduction
to our new staff:

- Josephine Kaviti Musango
- Darlington Mushongera
- Alexis Schäffler

www.gcro.ac.za

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1 Conceptualising the Gauteng City-Region – Annsilla Nyar

GCRO is keen to understand what makes the space known as the Gauteng City-Region, tick.

Consider the following excerpt from the influential and agenda-setting book 'Global City Regions: trends, theory and policy' edited by Professor Allen J. Scott:

"City-regions increasingly function as essential spatial nodes of the global economy and as distinctive political actors on the world stage. In fact, rather than being dissolved away as social and geographical objects by processes of globalisation, city-regions are becoming increasingly central to modern life, and all the more so because globalisation (in combination with various technological shifts) has reactivated their significance as bases for all forms of productive activity, no matter whether in manufacturing or services, in high-technology or low-technology sectors. As these changes have begun to run their course, it has become increasingly apparent that the city in the narrow sense is less an appropriate or viable unit of local social organisation than city-regions or regional networks of cities." (Scott, 2001: 11-12)

This raises intriguing questions for the Gauteng City-Region (GCR). Where does the GCR fit into international discourse on global city-regions? How do we make sense of our city-region and its opportunities, challenges and future potential?

In GCRO's bid to gain greater theoretical insight and critical understanding of the space known as the Gauteng City-Region, we are embarking on engaged dialogue with key actors in the city-region and inviting their strategic and intellectual inputs on the concept of the Gauteng City-Region. For one, Professor Alan Mabin from the Centre for Urban and Built Environment Studies (CUBES) is helping us understand the historical evolution of the concept and its use as a planning tool in Gauteng.

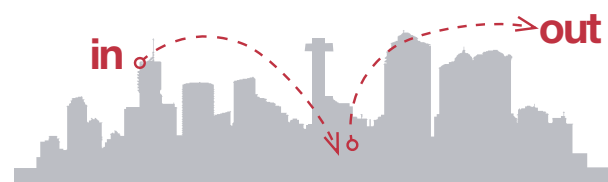
Watch this space!

2 Metabolic flows and infrastructure transitions – Alexis Schäffler

The 3-year *Metabolic Flows and Infrastructure Transitions* project, aims to examine the prospects for reducing urban metabolism through the transformation of infrastructure networks in the GCR.

The concept of urban metabolism is to understand and characterise how the GCR consumes and transforms water, energy, food, land and waste, and how infrastructure transitions can contribute to the sustainability of the region.

The GCRO is involved in a number of exciting initiatives to connect and establish networks with leading research centres and academic institutions investigating sustainable infrastructure configurations and urban metabolism. One of the first of these initiatives is collaboration between the GCRO, African Centre for Cities, the Sustainability Institute, the Indian Institute for Human Settlements (IIHS), Maseno & Bondo Universities in Kisumu, Kenya and the Centre for Sustainable Urban and Regional Futures (SURF) at Salford University in Manchester. As part of this collaboration, the GCRO attended a *Comparative Dialogue on Sustainable Urban Transitions and Governance Workshop* at the Sustainability Institute. Emerging from this workshop is a book, *Sustainable*



Urban Transitions and Governance, edited by Edgar Pieterse & Mark Swilling, which will showcase the diverse perspectives and research of the participating organisations. The GCRO has two contributions to this volume, *Gauteng Experiments in connecting infrastructure and economic development*, and *Calibrating Transitions: Cape Town urbanization strategy & Johannesburg growth management strategy (connecting demographic shifts to planning and regulatory systems)*.

Other outputs will include a set of working papers, journal articles and policy papers investigating the GCR's metabolism and infrastructure challenges that need to be explored for a more nuanced understanding of the dynamics of sustainable transitions. These will be useful in assisting planners and decision-makers to evaluate sustainable alternatives for the city-region.

3 Green infrastructure and assets – Alexis Schäffler

The GCRO's *Green Infrastructure and Assets Project* examines the current state of green infrastructure in the GCR and whether processes are in place to facilitate the use of green infrastructure as a planning entity.

Through a series of institutional, economic and political enquiries, the project considers what is needed to value this infrastructure from an ecosystem services perspective.

The first phase of this project is an extensive data collection and collation exercise, *Digital spatial data collection for green spaces in the Gauteng Province*. This involves identifying, collating and (where possible) collecting all relevant, readily available GIS data. This data will enable GCRO to conduct quantitative ecological assessments and to identify the gaps that have to be filled for robust ecosystem valuations to take place. This is a key starting point towards undertaking comprehensive



green spaces analysis, as the GCRO collection of digital spatial data will provide critical baseline information required for ecosystem valuation.

Forthcoming outputs falling under *Green Infrastructure and Assets* include a set of working papers assessing the state of green infrastructure in the GCR, an enquiry into the political economy and 'soft' infrastructure surrounding green assets and an investigation into the potential transformations needed for ecosystem valuation to be incorporated into municipal budgeting processes.

4 Green Strategic Programme for Gauteng – Alexis Schäffler

The *Green Strategic Programme for Gauteng* has been approved by the Gauteng Executive Council.

The programme is the output of a partnership between the GCRO and the Gauteng Department of Economic Development, with structured inputs from a wide range of Gauteng Provincial Government departments and Gauteng municipalities.

It informs the objectives and activities of departments and municipalities so that all parts of government working on green issues within Gauteng are focused on the same targets. Ultimately, each provincial department and municipality, and ideally also national government departments and agencies, should align to and work co-operatively towards the vision and programme commitments in this Green Strategy Programme.

The programme has been produced through two phases of research and consultation over five months from January to May 2011. The first phase involved input from a wide range of provincial departments and municipalities at a workshop on 17 February 2011, followed by research to acquire and synthesize relevant strategies that have made current commitments towards a green Gauteng. The results of this work have been captured in 9 Sector Reports covering the following areas: Air Quality, Climate Change, Economic Development, Energy, Food Security, Land Use, Transport,



Water and Sanitation, and Waste. In the second phase of this process, the analysis in the Sector Reports was checked with provincial and local government in a workshop on 20 May 2011, and a new set of targets and activities were distilled into 9 Programme Statements.

The critical insights included in the programme have received acclaim in terms of their strategic relevance to development processes more generally. The GCRO has responded to a number of requests to reflect on, and advance, these insights for various government planning events. These include the annual Economic Development Conference, strategy planning processes held by local municipalities within Gauteng and various forums held by government-affiliated organisations.

A number of published outputs are proceeding from the GCRO's involvement in the Green Strategic Programme. The GCRO is developing a set of working papers to profile the detailed investigations undertaken for the 9 sectors that together form the foundations of a more sustainable GCR. These papers, together with a number of journal articles and conference proceedings, are products of the Green Strategic Programme that have provided a platform for upscaling our capacity in the area of sustainability and unpacking what it would mean for the GCR to become a sustainable city-region.

5 The intersection between sustainability and vulnerability – Maryna Storie

This GCRO project investigates the elements that lie between achieving the aim of sustainable living and vulnerability to natural disaster risks. Ever-densifying urban settlements are faced with increased vulnerability which ultimately undermines the quality of life of its residents.

Disaster risk, in this context, is the chance that someone or something may experience a set of different or combined hazards when considering where they live, the management thereof by government and the resilience or capacity that may exist within the community itself. This project analyses the many facets of the vulnerability of human settlements and presents insights into selected hazards, with a specific focus on the plight of low income settlements. The research will be used to benchmark similar situations in other areas around South Africa and, ultimately, the world.

In the GCR, marginalised land is associated with the topography, hydrology and geology of the land that humans settle on. This may include areas that:

- have easily erodible soils;
- are close to, or in, wetlands and flood plains;
- are in areas that are affected by high winds or severe weather systems;
- are shallowly undermined;
- have active uncontrolled underground coal fires;
- are in the vicinity of Mine Residue Areas (also called 'mine dumps'), with associated water and air pollution;
- are in locations where acid mine water decants; and
- are underlain by risky ground such as dolomite.

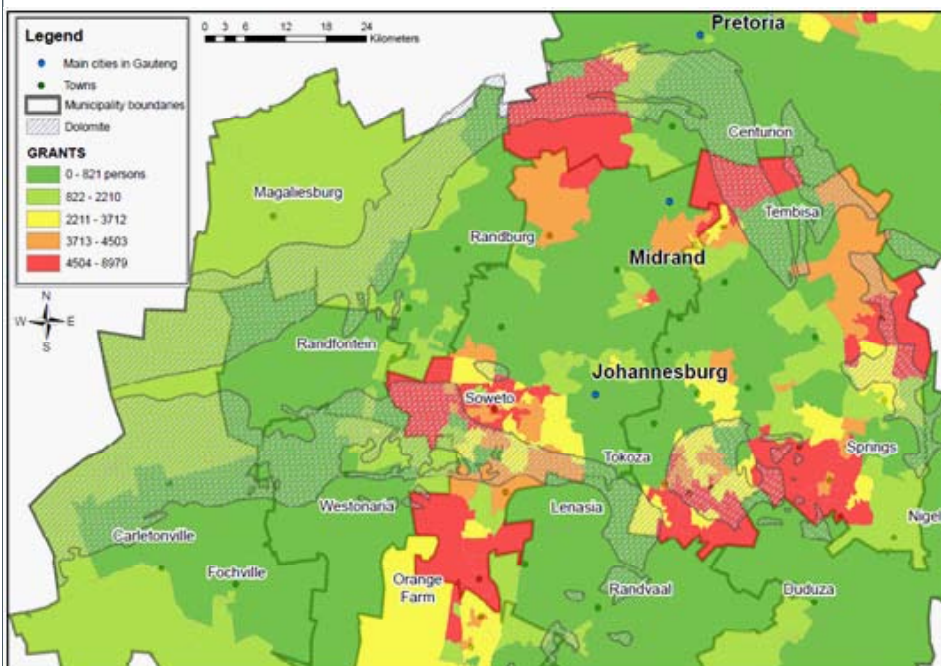
The project investigates some of these elements, starting with dolomite. The research will also investigate the elements that influence the intersection between sustainability and vulnerability, which include infrastructure transitions and governance.



Sink-hole caused by leaking infrastructure in Khutsong near Carletonville (Courtesy: Eric Stoch (Stoch Environmental), 2011)

Maryna has recently presented two papers:

- 'Representations of space: a case of karst, community and change in the urban landscape' at the Cities Conference held at the University of Cape Town, 7-9th September 2011.
- 'Addressing urban disaster risk and resilience through a green lens' at the National Disaster Management Conference held in Somerset West, 13-16th September 2011.



Number of adults receiving social grants per ward, underlain by dolomite areas (Source: GCRO, 2011 (using Lightstone 2010 data and including data from GDARD))

6 Mobility in the GCR – Chris Wray

A key factor in defining a functional city-region is the flow of people between its constituent parts. Traffic flow is also an important development concern. 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 BRT.

The project is progressing well with the UJ students completing a literature review and collecting historical transport data from 1975/1985 Transvaal Provincial Administration Roads Department (PWV) transport studies, Gauteng Transport study (GTS) 2000 and 2003 national household transport



survey. The data will form the basis of analysis for the report: *Apartheid and the City-Region: historical analysis of travel patterns in the GCR*. The other two reports the students are currently working on include: *Transportation trends in the GCR: analysis of the 2009 Quality of Life Survey Results* and *Depicting commuter flows in the GCR: GIS analysis of the 2009 GCRO Quality of Life Survey*, which will utilise open source QGIS GIS software to visualise commuter flow. The first drafts of the reports will be completed by November 2011.

7 Non-racialism in post-apartheid South Africa – David Everatt

GCRO is reflecting on one of the most intellectually and emotionally-charged subjects in post-apartheid South Africa: non-racialism.

In a partnership with the Ahmed Kathrada Foundation, GCRO commissioned 18 focus groups across the country to allow people space to discuss what they understand by non-racialism, assess what progress if any we have made towards realising it in practice, and what still needs to be done.

The project is co-ordinated by Prof David Everatt, with Senior Researcher Annsilla Nyar also contributing to a special edition of *Politikon* deriving from the focus groups. This is because GCRO used an innovative approach of generating the primary data – the focus group transcripts – and assembling a group of experts to analyse the same dataset, taking it in directions reflecting their own expertise and interests.

The work speaks to one of the priority themes of the Gauteng provincial government: building cohesive and sustainable

communities. The outputs will include academic papers published in *Politikon*, a panel at the World Congress of the Political Science Association in Madrid in 2012, and a 2-day conference organised by the Kathrada Foundation to be held at Wits in October this year. The work will inform the work the Foundation undertakes on the issue of building a non-racial South Africa.

Annsilla Nyar's work uses the discourse of 'non-racialism' as a lens through which to examine critically the identity of Indian South Africans and their position in a democratic South Africa. David, as guest editor, puts the whole edition of *Politikon* together (it will appear in January 2012), and is also writing a chapter providing a critical review of the state of non-racialism in South Africa today.

8 Quality of Life II – David Everatt

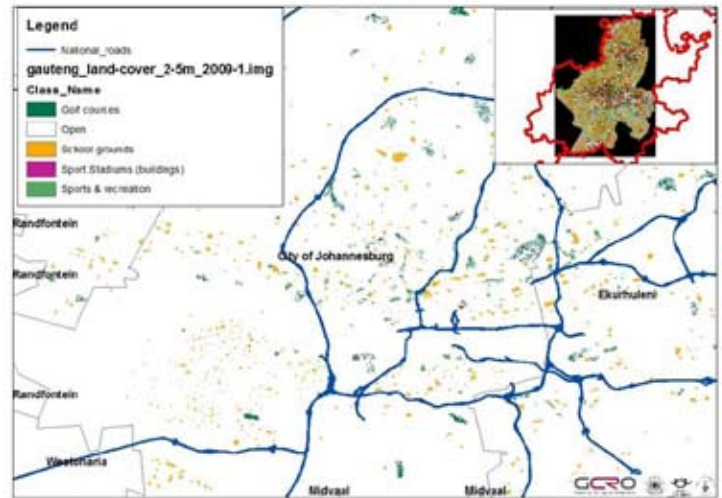
One of the GCRO's flagship projects is our series of 'Quality of life' surveys. These are key in generating accurate data; but also, over time, building up the time-series data we need to reflect on and model future developments in the city-region. This year's survey will provide a richness of data that will allow us to drill down to ward level.

GCRO has contributed chapters to the following publications:



9 Sports audit – *Chris Wray*

GCRO was approached by the Gauteng Department of Sports, Arts, Culture and Recreation, to assist with an audit of all sports facilities within Gauteng. A brief review of the 2002 GPG sports facilities revealed that the existing data was outdated, duplicated, of varying quality and required a significant amount of work to map all the facilities. Gaps in coverage were also identified in the north eastern and south western areas of the province. The results of the review, together with new sources of GIS data that were investigated by GCRO and could be used to ascertain the location of sports facilities, were presented to the provincial sports HoD and MEC, with a recommendation that the department issue a tender to obtain an updated comprehensive geocoded database of sports facilities. The department is currently looking for budget to fund the project.



10 Transformation of higher education in the GCR – *Annsilla Nyar*

GCRO is interested in the so-called 'third mission' of higher education: 'community' engagement.

Community engagement is one of three core mandates of higher education, along with teaching and research. In the spirit of collaboration, we envisage higher education community engagement ideally as a series of interconnecting partnerships between higher education institutions (HEIs), government, business/industry, civil society and broader communities. These kinds of partnerships should ideally allow HEIs to share their knowledge and research with communities and the public, and to listen to multiple voices in helping solve some of the city-region's most pressing problems. However, little is known about community engagement practices of HEIs in the city-region or even what 'community' means to different HEIs. GCRO's objective is to learn more about how academia can help in resolving or assisting communities to manage key local and regional issues. Our research looks to unpack the concept of 'community' in relation to community engagement in a theoretical and practical sense and analyse how it is practiced and understood by HEIs.

From GCRO's unique position between two HEIs (Wits University and University of Johannesburg), our aim is to understand modes of university-community engagement with broader society, so that we may place it in a context from which useful strategic lessons can be learned.



Toward this end, Annsilla Nyar attended the **Wits University Community Engagement Colloquium: Current Community Practices in South Africa**. The colloquium was held on 14 April 2011, at Wits University, Emthonjeni Centre, East Campus. It featured leading academics and role players in the community engagement field, such as Professor Gerder Bender from the Department of Education at the University of Johannesburg and Dr Jerome Slamet, chairperson of the South African Higher Education Community Engagement Forum (SAHECEF).

Annsilla is also a presenter at the NRF/HSRC/SAHECEF/University of Fort Hare conference on **Community Engagement: The Changing Role of Higher Education in Development**. Her paper is entitled 'Inside or Outside the Academy: Examining the Possibilities for a Scholarship of Engagement'. This paper explores the 'fit' of the prevailing discourse of community engagement with traditional academic scholarship and considers what current community engagement activities may indicate in terms of on-going processes of transformation in higher education.

Map of the month – Chris Wray

A point density map depicting 2010 population density, derived from the GeoTerralmage (GTI) growth indicator demographics data. The GTI demographics data is based on the 2001 official StatsSA census, with demographic statistics (gender, age, race and total population) associated with

each residential dwelling point (captured from satellite and aerial photography) to provide a fine scale analysis of the demographic situation. An indication of the 2010 demographic dynamics and population update is modelled by AfricaScope through demographic analysis and forecasting.

