

ADVANCING AFRICA

CLIMATE CHANGE MITIGATION AND ADAPTATION

SOUTHERN URBANISM/CITIES IN AFRICA

POVERTY AND INEQUALITY

CRIME AND VIOLENCE

BUILDING ECONOMIC COMPLEXITY

YOUTH EMPOWERMENT AND HEALTH

INFRASTRUCTURE FOR DEVELOPMENT

UCT is committed to building and applying knowledge to enhance a vibrant and dynamic economy and society that creates jobs, supports sustainable development and enhances human well-being. To address this, UCT's research focuses on the specific urban, rural, environmental and economic contexts of our continent that also have global resonance, promoting the development of new ideas, knowledge and impact that drive economic growth and social progress.



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Climate change mitigation and adaptation

Climate change is evident in increasing frequency and severity of extreme weather events, rising global temperatures and shifting climate patterns. In Africa, it not only threatens the natural environment but also amplifies existing challenges, exacerbating poverty, food insecurity and health disparities across the continent. UCT research in this area seeks to inform evidence-based policies that can drive sustainable development practices.

AFRICAN CLIMATE AND DEVELOPMENT INITIATIVE (ACDI)

The **ACDI** is one of the continent's foremost climate change institutes. This university-wide, inter- and transdisciplinary hub for research aims to catalyse and support the transition towards an equitable, sustainable, low-carbon, climate-resilient Africa by forefronting research, education and action in collaboration with society. Its research is anchored in South Africa, but extended via collaboration to southern Africa and the wider African continent, with an additional eye on South-South and South-North collaboration beyond Africa.

CLIMATE RISK LABORATORY (CRL)

The **CRL** integrates insights from environmental and social sciences to improve understanding of the risks to people and ecosystems from climate change. Responses to climate change risk, when done well, have the potential to create more just and equitable societies that protect biodiversity and enhance human wellbeing. The Laboratory's research assesses how interactions between social, environmental and technological systems either amplify or reduce risks and influence the response options available to policymakers.

Southern urbanism/cities in Africa

Africa has the fastest-growing urbanisation in the world – its population is expected to double by 2050 – and 95% of urban growth between now and then will take place in Africa and Asia. The Global South must take the lead in exploring and theorising emergent forms of urbanisation which is quite different to that experienced in the Global North, on which much of the theorising around urbanisation is based.

AFRICAN CENTRE FOR CITIES (ACC)

The **ACC** is one of the leading knowledge centres in the Global South, conducting meaningful research on how to understand, recast and address pressing urban crises, particularly on the African continent. Since most urban challenges, such as food security, climate change adaptation and economic inclusion, are inherently inter- and transdisciplinary, ACC fosters the co-production of knowledge between academia and other social sectors.

Poverty and inequality

Poverty and inequality have hampered the social and economic progress of the African continent for generations. The impact of these issues is far-reaching. Research at UCT is contributing towards evidence-based policy recommendations and innovative interventions that can help uplift marginalised communities, promote social justice and ultimately drive Africa towards a more equitable and prosperous future.

SOUTHERN AFRICA LABOUR AND DEVELOPMENT RESEARCH UNIT (SALDRU)

Founded in 1975, **SALDRU** is committed to challenging inequalities through policy-relevant academic research. SALDRU research is geared towards understanding what drives intergenerational inequalities in South Africa. Focus areas include all vulnerable groups, such as the susceptibility of children to socio-economic disadvantage and the disparity of opportunities facing youth in South Africa.

AFRICAN CENTRE OF EXCELLENCE FOR INEQUALITY RESEARCH (ACEIR)

Seven of the 10 most unequal countries in the world are in Africa – with most in southern Africa. However, data across the continent is inconsistent, uneven and often absent. **ACEIR** directly addresses the analytical and measurement needs required to turn the tide against inequality.

Crime and violence

Crime and violence represent pervasive challenges that have long beset many African communities, undermining social cohesion, economic development and overall well-being. UCT research in this field seeks to unravel the complex factors driving crime and violence, enabling the formulation of evidence-based policies and strategies to create safer and more secure environments for African communities.



CENTRE OF CRIMINOLOGY

The **Centre of Criminology** has a long tradition of critical, activist scholarship, informed by an awareness of how formal criminal justice can conflict with wider, more substantive notions of justice. The Centre draws on existing partnerships with the private sector, state agencies, communities and non-governmental organisations to undertake its research.

YOUTH VIOLENCE PREVENTION CENTRE

UCT is establishing the country's first youth violence prevention centre. Working with government, law enforcement agencies and civil society, the centre will develop Afrocentric, evidence-based strategies and interventions to combat crime.

Building economic complexity

Sustainable economic growth in Africa depends on a move from resource dependence to highly productive manufacturing that is both export and employment intensive, and a similarly highly intensive, export-oriented agricultural sector. By investigating and promoting economic complexity, UCT researchers can explore ways to diversify economies, enhance industrial capabilities and foster innovation and entrepreneurship.



DEVELOPMENT POLICY RESEARCH UNIT (DPRU)

The **DPRU** has been actively engaged in policy-relevant socio-economic research for nearly 30 years, establishing itself as one of Africa's premier research institutions in the field. Economic complexity is a core focus in the DPRU's work, ranging from analyses of the shift in manufacturing required to expanding opportunities to the youth and women. A major interdisciplinary project has seen the DPRU collaborate with UCT's Mineral Law in Africa, the Minerals to Metals Initiative and the Centre for Bioprocess Engineering Research on how to transform degraded mine land into a restorative agricultural and dynamic manufacturing centre.

THE NELSON MANDELA SCHOOL OF PUBLIC GOVERNANCE

Reforming trade policy is crucial to stimulating economic complexity. The School has contributed theoretical and policy advice on the African Continental Free Trade Area (AfCFTA), which seeks to promote intra-African trade and has the potential to foster specialisation and knowledge exchange across borders.



Youth empowerment and health

UCT is a hub of research on the unique challenges faced by Africa's rapidly growing youth population, from access to quality healthcare and education to employment opportunities and civic engagement. Empowering the next generation can lead to desired outcomes like innovation, entrepreneurship and participation in economic and social development and regeneration.



SOUTH AFRICAN LABOUR AND DEVELOPMENT RESEARCH UNIT (SALDRU)

SALDRU has a special focus on youth, and the need for evidence-based interventions that aim to empower youth and break the intergenerational cycle of poverty. Among their many initiatives, SALDRU generates an annual profile of young people not in education, employment, or training (neets) in South Africa. The Unit also produces the Youth Explorer, an interactive tool that draws on census data to provide a range of information on young people throughout the country.



CHILDREN'S INSTITUTE (CI)

The **CI** harnesses the collective academic capability at UCT to present evidence that guides the development of policies, laws and interventions for children. The Institute provides information to those who are advocating on behalf of children and engages in its own evidence-based advocacy. Its flagship is the annual South African Child Gauge, which reports on and monitors the situation of children in South Africa.



Infrastructure for development

Adequate infrastructure is a prerequisite for sustainable development efforts. In Africa there is a particularly acute requirement for better roads, energy systems and digital connectivity. UCT researchers contribute to the formulation of policies and practices that enhance infrastructure resilience, accessibility and sustainability, facilitating the overall advancement of Africa and fostering a more equitable and prosperous future for the continent.



ENERGY SYSTEMS RESEARCH GROUP (ESRG)

The **ESRG** combines modelling of energy and economic systems with policy analysis and field-based research, to generate and enhance knowledge of energy systems at sectoral, regional, national and sub-continental scales. The Group develops and uses models to analyse energy systems and their interaction with the economy and the environment.



CENTRE FOR TRANSPORT STUDIES (CFTS)

Research at the multidisciplinary **CFTS** is internationally recognised. This work aims to contribute to the equitable, efficient and safe accommodation of the travel needs of poorer households within urban passenger transport systems, and to promote more efficient and sustainable travel behaviour patterns and transport system operations.



CONCRETE MATERIALS AND STRUCTURAL INTEGRITY RESEARCH UNIT (CoMSIRU)

Research at **CoMSIRU** is aimed at creating a better understanding of the use and application of cement-based materials in the South African environment. This includes the development of technologies and procedures for the design and assessment of concrete structures and a focus on research into infrastructure performance, largely in response to industry needs.

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