YEAR IN REVIEW REPORT

SUSTAINABILITY INSTITUTE
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"The worst realities of our age are manufactured realities. It is therefore our task, as creative participants in the universe, to re-dream our world. The fact of possessing imagination means that everything can be re-dreamed."

Ben Okri
**DIRECTOR OVERVIEW**

We find ourselves on the cusp of a new discourse, and a new sense of agency, that is emerging in the African context. Social innovation, driven by social entrepreneurs working within and outside of the current institutional landscape, is presenting a new form of agency – one realized through hybrid collaborations.

The Sustainability Institute is increasingly being recognised as a thought leader in navigating the transition towards social justice and change in complex futures in Africa.

We are the institutional host for the University of Stellenbosch’s School of Public Leadership degrees in Sustainable Development.

Our research and practice maintains a strong focus on sustainable African futures, through student, faculty and growing consulting research portfolios. Our focus on transformative learning from birth and social innovation is embedded through our research, teaching and practice.

Over the past two decades, we have seen a shift in discourse from working to realise sustainable development separate from institutional contexts, to the notion of transition within existing systems. We have explored how transition could happen through various lenses, including cities, food systems, public sector and corporate actors. As we engaged in more transdisciplinary research, as embedded, activist researchers, we learnt first-hand how multi-stakeholder partnerships are coming together to experiment, on the ground, to drive real change.

In contrast to the global North, here we see individuals connecting as part of an ecosystem of actors – working in close connection to context, and leading to new forms of innovation. These experiments in social innovation are drawing on state support and operating within market logics, yet they are drawing on and weaving increasingly strong social fabrics and new visions of purpose and impact, to drive positive change in the system.

Through our research, we are interested in following, understanding and supporting these forms of social innovation. Through our learning programmes, we are interested in capacitating both individuals and institutions as agents of this change in the African context.

We have seen growth in our intake in the learning programmes we host onsite, from the PGDip and MPhil in Sustainable Development, through to the executives attending short courses. Our modules have continued to adapt and evolve to shifting contexts, to intellectually challenge and equip students for the changing world around them.

In this report, we are pleased to share with you an overview of the developments and successes achieved in our academic and research programmes in 2017.

Jess Schulschenk, Director
The academic programme has been delivered over the past 17 years by a unique partnership between the Sustainability Institute, the School of Public Leadership and the Centre for Complex Systems in Transition at Stellenbosch University.

The academic programme comprises a Diploma in Sustainable Development, a Postgraduate Diploma in Sustainable Development, an MPhil in Sustainable Development, a Transdisciplinary PhD in Complex Systems in Transition and post-doctoral research. Connecting complexity theory, sustainability science, transdisciplinary research and social innovation, this combination of degrees with this specific pedagogical orientation is unique in the world. It provides a dedicated academic trajectory from post-matric vocational education (Diploma), all the way up to PhD and even post-doctoral education.

Significantly, over the past 17 years this partnership has managed to facilitate distinctive teaching and learning methodologies that are particularly impactful and transformative. Discussion-learning within a living and learning laboratory of sustainability-oriented practices inspires young people with a vision of more sustainable practical alternatives. This prepares them for a complex world that is transforming at sonic speeds and in ways that only those with a transdisciplinary education can adequately grasp.

Within the classroom, students are challenged to learn in multiple ways, including practical work in the gardens, buildings and kitchens before lectures start at 9.30 am, followed by formal lectures and discussion-based learning until lunch time, group work after lunch, and then group presentations that train students to work collaboratively under pressure. A particularly strong emphasis is placed on in-depth academic reading and excellent writing. Our pedagogical maxim, in the words of Raymond Williams is as follows: ‘To be truly radical is to make hope possible, rather than despair convincing.’

When South Africa became the first country in the world to require listed companies to report on sustainability, this created a new career path for a new breed of transdisciplinary thinkers. Unsurprisingly, over the years over half the class comprises students who come from - and go into - the private sector. Quite a number head up sustainability units in large corporates, while others occupy key positions in renewable energy companies or consulting groups. Others have gone into government at different levels, with a significant number employed by the Western Cape Provincial Government’s environmental planning department. While some have gone into NGOs, there is also a significant number who have become social entrepreneurs or activists in social movements. They all repeatedly confirm that the education they received during their Postgraduate Diploma and MPhil equipped them to comprehend a wide range of narratives and interpretations of sustainability. As a result they could play bridging roles as alliance builders within particular organisations, or between a range of collaborating organisations.

This ability to hear what others are saying and facilitate collaboration within diverse and complex settings has proven to be the most enduring outcome of our education programme.

Mark Swilling, Academic Director
PURPOSE & CONTEXT

We recognise that there is not a lack of technical solutions, but rather a great need for more individuals and organisations with the ability to innovate the social processes and platforms that could enable positive change.

In a world with no shortage of information, our sense is that we do not need smarter systems - but rather wiser approaches.

As such, our challenge becomes one of slowing down in order to truly listen, one of unlearning in order to relearn and one of appreciating the wholeness and complexity of the systems we form a part of.

We therefore strive to provide learning experiences and research enquiries that might foster co-inquiry of questions that really matter, in order to co-design approaches that stand a chance of making meaningful impacts.

Our learning approaches are informed by:

• A sense of place, and our embeddedness in the Lynedoch community
• Transformation through learning that is deeply engaging of mind, heart and soul
• Core to our learning, research and practice is the drive to unlock value-based, entrepreneurial mindsets in individuals, organisations and communities that speaks to both opportunity and responsibility
• Renewing creativity through participation, conversation, art and immersion in nature
• Learning from nature, and all life, to realise a connectedness that is clear and enriching
• Imagining just futures and honouring our African heritages with all their complexities
• Healing and bodywork, from our morning rituals through to connecting body and spirit
• Connecting food, art and culture to nurture experiences in soil, soul and society

Our vision is to be an African thought leadership institute researching, teaching and practicing social innovation for the transition to just and generative futures.

Africa’s renewal will not only be through the decolonizing of knowledge, but through active and passionate investment into indigenous knowledge systems.
Master’s Programme in Sustainable Development

The Institute is home to, and collaborates on, the Master’s Programme in Sustainable Development presented by the School of Public Leadership at Stellenbosch University for the past 17 years.

The aim of this programme is to provide participants with an understanding and practical experience of the wide ranging contextual, conceptual and thematic issues involved in the planning, management and practice of sustainable development throughout the world.

As the various global social and environmental crises deepen, a new generation is rising up into leadership positions in the public, private and non-profit sectors that are required to possess a broad transdisciplinary understanding of the various dimensions of these crises and related solutions. This integrated Master’s Programme aims to equip people with the knowledge, experience and skills they will need if they are to grow and develop within this new field of career development; and the Programme comprises a Postgraduate Diploma in Sustainable Development followed by an MPhil in Sustainable Development.

While most of the 2017 enrolled students were from South Africa, 26% of the students were from neighbouring African countries and beyond. The age range of students were between 24 and 60 years, from a diversity of sectors and experiences. We are exceptionally proud of the diverse mix of students, which makes for a much richer learning experience.

Postgraduate Diploma in Sustainable Development

In order to be accepted into the MPhil in Sustainable Development, it is compulsory for students to first complete the Postgraduate Diploma (PGDip).

This programme is vital to equip students with the knowledge and thinking that will be required for the MPhil programme, and it can be completed over one or two years of study.

During 2017 a total of 87 students were registered in the PGDip (Sustainable Development) programme.

Our educational programmes, focusing on learners of all ages, include the Lynedoch Children’s House, SPARK Lynedoch primary school bursary programme and Lynedoch Youth Programme – which we share updates of in our annual Impact Report.

In this report, we provide updates on our University of Stellenbosch degree programmes and executive short courses hosted at the Institute.

The Institute encourages explorative research, and undertakes various national and international research projects, which we also share in this report.

Our programmes, focusing on learners of all ages, include the Lynedoch Children’s House, SPARK Lynedoch primary school bursary programme and Lynedoch Youth Programme – which we share updates of in our annual Impact Report.

As the host of this programme, the Institute contributes towards the place-based experience of the students. Each learning day starts with a reading and movement exercise, followed by community work. We do this to enhance the learning experience, and prepare the whole body and mind for the day ahead.
This is what our students shared upon reflection of the past year:

“I have really now taken heed of the fact that our views of the world are formulated through our histories and what we have experienced, and so, have to accept that all of our views will be different, and no one view is correct.”

“It made me slow down and consider things, I have become very focused on quick news stories and they all seem to be in little pockets, but reverting back to the natural world, which does not give fake news - one does see how the world is connected and interconnected.”

“It just made me think as to how to now approach development issues, not with the mind of finding a solution but rather of seeing how the system can be improved.”
is about giving back to the community that we all form a part of, and being aware of the influences we have on the spaces we use.

Apart from providing the physical space to study, the Institute provides access to senior researchers with whom many of the students work during their studies. Areas such as sustainable food systems, urban metabolism and cities and renewable energy are areas of research expertise that the Institute is proud of, and are able to expose students to as well.

**MPhil in Sustainable Development**

During 2017, 14 Master’s students graduated with the following thesis topics:

| Title of thesis                                                                 |
|---|---|
| A Case Study of Transdisciplinarity and Biomimicry: The Restoration of Water Systems using Eco-machines within the Informal Berg River Community (Gabriel Wolfaardt) |
| Accessing South African food system value-chains: Constraints faced by smallholder farmers and conservation agriculture (Wolfgang von Loeper) |
| Assessment of the City of Cape Town’s Energy Efficiency programmes within its internal operations (Sumaya Mahomed) |
| Broadening the discourse on small-scale generation: an investigation into public opinion of embedded rooftop photovoltaic systems in Stellenbosch (Geeta Morar) |
| Creating Synergies between Sustainable Transitions and Assemblage Urbanism (Warren Manuel) |
| Energy infrastructure transition in urban informal households in South Africa (Ebenaezer Appies) |
| Exploring the role of the informal food economy in the procurement strategies of women in Cape Town’s low-income areas (Robyn Bowden) |
| Finding ways to increase access to nutritious food in an urban township through the informal economy (Aabida Davis) |
| Innovation for transition to a circular economy: a transdisciplinary case study at Distell (Monique Woolls-King) |
| Investigating the Challenges and Benefits of Traditional Medicine: A Case of Tanzania (Shaun Dunn) |
| The place where poetries meet: Exploring the contribution of the InZync poetry sessions to socio-cultural transformation in Stellenbosch (Pieter Odendaal) |
| Transit-oriented development (TOD) as a facilitator for urban development integration: Case study: Du Toit train station precinct, Stellenbosch (Thendo Mafame) |
| Typology of representative building designs within townships for energy efficiency in the City of Cape Town (Reshmi Muringathuparambil) |

Taking care of the space and all those who inhabit it, is done through daily community work. During modules, students spend an hour each morning either working in the woodlands or the food garden, helping to clean the building and make the spaces beautiful, or preparing food for the over 200 children that receive meals at the Institute every weekday. It
Introducing a new Stellenbosch University diploma programme in 2018

Diploma in Sustainable Development

The new undergrad Diploma in Sustainable Development, coming to life in 2018 and also delivered by the School of Public Leadership in collaboration with the Institute, aims to address one of the great challenges we face in the world today: namely creation of a new generation of responsible entrepreneurs who understand the world we live in, have the skills to set up the kinds of organisations that are appropriate to our new post-2015 Sustainable Development Goals context, and have a set of values that equips them for action in a complex world.

Increasing opportunities will arise from the need to invest substantially in repairing the future – this is clearly evident in the fact that investments in renewable energy have exceeded investments in fossil fuels every year since 2009. There is, therefore, a greater need than ever before to prepare capable young people for futures that are dependent on their own abilities to inspire, network, create and efficiently organise across sectors.

“When the fabric of the universe becomes unknown, it is the duty of the university to produce weavers” Gordon Gee

This place-based education is rooted in a mature, socially integrated and ecologically designed community. To make it possible for capable young people who are starting out in the world of work to not depend solely on others to create opportunities for them, students will be exposed to a wide range of social enterprises in the farm, energy, craft, education, tourism and service provision sectors. The first cohort of students will play an integral role in helping to shape how this programme develops to ensure we meet their expectations, and build their knowledge and skills base sufficiently.

We are proud of the more than 100 applications received for this first-ever undergraduate programme in Sustainable Development offered by the University of Stellenbosch, and look forward to updating you on the selected 26 students that will start this journey with us in 2018.

Last year prospective Diploma students and their parents were invited to come and visit the Institute and find out more about the programme and the space where they will learn. They met some of the faculty members and were taken on a tour of the grounds and village.
Executives and students share the same learning environment, and the combination of people, experience and knowledge during these pairings are quite unique. Executives are able to share real-life experiences with students that will still be exposed to work life, and the discussions that emerge are always interesting while adding to the overall learning experience.

Attendees include postgraduate students and professionals working in government, corporate or civil society sectors. The courses are designed to challenge conventional thinking and open minds to new ways of doing and approaching the known, while incorporating the entire space at the Institute as part of the learning experience.

During 2017 we partnered with USB-ED to provide more executives and private individuals the opportunity to enrol for the short courses presented at the Institute. USB-ED is our administrative partner and is responsible for registering all participants, issuing certificates and managing payments for the short courses.

Leading academics in the sustainability field present during all the courses and, upon request, customised learning programmes can be developed.

Only by challenging our own existing truths shaped by various agendas and perceived realities, can ways of doing and thinking be changed. Providing this platform for executives to come and challenge themselves we regard as a small important role the Institute can play in bettering African futures for everyone.

The following short courses were presented during 2017:

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<tr>
<th>Course Name</th>
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<tbody>
<tr>
<td>Introduction to Development Planning</td>
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<td>Food Security &amp; Globalised Agriculture</td>
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<tr>
<td>Introduction to Sustainable Development</td>
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<tr>
<td>Complexity Theory &amp; Systems Thinking</td>
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<tr>
<td>Systems &amp; Technologies for Sustainable Agriculture</td>
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<tr>
<td>Leadership &amp; Environmental Ethics</td>
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<tr>
<td>Transdisciplinary Design for Transformation</td>
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<tr>
<td>Facilitation for Sustainability Transitions</td>
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<tr>
<td>Biodiversity &amp; Ecosystem Services</td>
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<tr>
<td>Food System Transitions</td>
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<tr>
<td>Corporate Governance &amp; Sustainability</td>
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<tr>
<td>Governance, Globalisation &amp; Civil Society</td>
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<tr>
<td>Sustainable Cities</td>
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<tr>
<td>Sustainable Enterprise</td>
</tr>
<tr>
<td>Comparative Studies in Regenerative Food Systems (INDIA)</td>
</tr>
<tr>
<td>Comparative Studies in Sustainable Living (NEPAL)</td>
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</tbody>
</table>

“Every course has changed a deep rooted assumption I had in some way. The Corporate Governance course reinforced that businesses do not think in the way I would like and expect them to think. The greed that the current economic system encourages is desperately sad and shows very little chance of changing. We will need to become those agents of change to make it happen.”

Executive student feedback
Creating evocative learning environments in which participants are able to engage with academic subject matter on emotional and practical levels is fundamental to developing clear and courageous leadership for sustainability.

With this in mind, immersive learning journeys were set up by the Sustainability Institute with the vision of taking existing academic content into deeply experiential learning environments in emerging economies.

These journeys offer an adventure-based extension of the Institute’s fully accredited programme which uses unique locations and uncensored experiences as the foundations for transformative learning. During 2017 we immersed ourselves in the place-based contexts of India and Nepal.

India

The journey to India explored the links between soil, agricultural practices, poverty, economics and well-being. Lectures and field trips are used to provide gritty, practical insights and experiences at a grassroots level. This journey encourages deeper reflection and discussions on experiences from where you come from, compared to the context provided in a small town of northern Maharashtra State.

India is a rapidly developing global economic powerhouse and the stories playing out on the ground in India will have profound impacts on the rest of the world for centuries to come. An important focus is the lessons Africa can draw from India’s agrarian revolutions and food market structures.

Nepal

Carried out over a journey through the rarely seen valleys and villages of Western Nepal, this region of the Himalayas, which is only accessible by foot, provides a glimpse into ancient ways of being that are rapidly vanishing.

This journey explored everything from renewable energy to organic agriculture and ecological design - ways of being and doing that have been used for centuries. Students engaged in various development theories as they transitioned from urban to remote cultures, and delved into understanding how globalisation and the spread of consumer cultures practically affect both personal and global sustainability outcomes in the global South. The journey also focused on shifts in the way societies perceive their relationship with their supporting ecosystems.

In 2018 we will immerse ourselves in the place-based contexts of India, Ethiopia and Brazil. Anyone interested in exploring these countries are welcome, and can contact Eduardo Shimahara at shima@sustainabilityinstitute.net for more information.
SIIL’s flagship project is the iShack Project, a large-scale energy utility that provides a pay-for-use solar electricity service to residents of an informal settlement called Enkanini in Stellenbosch, South Africa. The iShack Project is using solar electricity to demonstrate how clean technologies can be used appropriately to incrementally upgrade informal settlements and slums and at the same time build local enterprising capacity and resilience within the community. The iShack model is built on a long-term commitment to maintaining the utility (for as long as it is needed), rather than a purely technical, drop-and-go intervention.

In 2017, the iShack Project renewed its three year contract with Stellenbosch Municipality (following an open tender process), to carry on providing its off-grid solar electricity service to the residents of Enkanini. Although the municipality has not paid for the hardware costs of the energy utility (this was grant funded), the municipal subsidy is now sufficient to cover the running costs of providing a ‘free basic’ service, to approximately 1500 households (who are only required to make co-payments if and when they require maintenance on their systems). Reaching this ‘financial sustainability’ goal and scale was exactly what iShack set out to achieve back in 2013 when they first made the ambitious R17 million grant application to the Green Fund.

An exciting new ‘Help to Buy’ project was also launched in Siqalo - a large informal settlement on the edge of the Philippi horticultural area in Cape Town. A portion of the grant funding was used to capitalise a small ‘Community Solar Fund’ which will be used to help households pay off approximately 1500 households (who are only required to make co-payments if and when they require maintenance on their systems). Reaching this ‘financial sustainability’ goal and scale was exactly what iShack set out to achieve back in 2013 when they first made the ambitious R17 million grant application to the Green Fund.

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the cost of their Solar Home Systems over a two year period. This will be run as a pilot project and the model includes a new social process that requires new clients to join up and cooperate in teams. The aim is to improve communication and understanding as well as payment compliance by working with these client teams. Thus far 67 families (and five teams) are part of the pilot so far. Ultimately the goal is for the City of Cape Town to follow in the footsteps of Stellenbosch Municipality and to provide a subsidy to these households so that their costs are significantly lower, making this clean energy option accessible to all households in the community – even the most marginalised.

With this interim service, an informal settlement resident who might otherwise have waited a decade or more before getting grid electricity, can take a significant step away from the use of dangerous, expensive and polluting fuels for lighting, and start enjoying a home-life that is safer, healthier, more dignified, more convenient, and economically and socially more enabling.

The operations team includes a group of iShack Agents who all live in the community that they serve. Weekly training is provided at the Sustainability Institute, during which the Agents are given the skills necessary to deliver a high quality, durable solar energy service. Back row from left to right: David Hees, Cisomo Banda, Daniel Giyose, Tuliswa Somta and Warren Fitzhenry. Front from left to right: Pamella Kolanisi and Mzukisi Malibeni.
Taking our academic work a step further, we provide contract and consulting research to development institutions, multinational organisations, government institutions and companies in various key areas of expertise.

Finding solutions to complex issues within the sphere of sustainability cannot be done by taking a singular view of a problem. Faced with the reality that consensus does not always exist amongst experts, the Institute takes a transdisciplinary approach towards research, acknowledging that the answers needed must consider that the various environmental, organisational and human systems are complex and interconnected. Understanding causes, related impacts and unintended consequences is crucial.

Established expertise

Throughout our research and teaching programmes, we have established expertise and are pushing action-oriented agendas in the following critical thematic areas:

<table>
<thead>
<tr>
<th>Cities &amp; Infrastructure</th>
<th>Renewable Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing urban design, systems and behaviour to advance the ecological and social sustainability of built environments</td>
<td>Bringing about energy democracy through the transition to clean and renewable energy sources</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corporate Governance</th>
<th>Social Entrepreneurship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting organisations in the transition to embedding sustainability and ethical governance across their strategy, practice and culture</td>
<td>Developing systems and models, and collecting case studies for values-based pan-African entrepreneurship</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alternative Economics</th>
<th>Sustainable Food Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influencing structural change and theory of learning in terms of how government and the public sector think about the economy</td>
<td>Creating more resilient and socially equitable food systems that restore ecosystems</td>
</tr>
</tbody>
</table>
The team

Our multi-disciplinary team of researchers collectively have 90 years of experience, and have completed projects for national and international clients in the spheres of sustainable food systems, urban resource flows, green economy, urban metabolism, sustainable cities, resource efficiencies and renewable energy. Depending on the scope of a project, teams are formed to ensure transdisciplinarity that will add the most value to a client’s research questions.

Mark Swilling, Academic Director

Mark is a Distinguished Professor and Programme Coordinator: Sustainable Development in the School of Public Leadership, University of Stellenbosch and Academic Director of the Sustainability Institute.

He is a rated researcher with the National Research Foundation (NRF) and is responsible for the design and implementation of a Master’s Programme in Sustainable Development that gets delivered at the Sustainability Institute. He is co-director of the Centre for Complex Systems in Transition (CST) formerly known as TsamaHub, and on the Management Board of the Centre for Renewable and Sustainable Energy Studies (CRSES).

Most recent Institute research:


Josephine Musango, MPhil Coordinator

Prof Josephine Kaviti Musango holds a Bachelor degree in Agribusiness Management; Master degree in Agricultural Economics; and a Transdisciplinary Doctoral in Sustainable Development. She is currently appointed as an Associate Professor with the School of Public Leadership (SPL).

Since May 2014, she is the Coordinator of the MPhil Programme in Sustainable Development and is also responsible for the Renewable Energy modules of the Postgraduate Diploma in Sustainable Development - in collaboration with the Centre for Renewable and Sustainable Energy Studies (CRSES). She is a NRF-rated researcher and her ongoing research relates to the application of system dynamics modelling in managing change in resource management and policy related challenges - especially in the energy sector. She is also one of the Founding Members of the South Africa System Dynamics Chapter and currently serving as Organising Secretary of the Chapter.

Most recent Institute research:


(2013 ongoing) Promoting urban metabolism for resource efficient cities. UNEP’s Global Initiative for Resource Efficient Cities (GI-REC)
Blake Robinson

Blake is a Cities and Infrastructure research specialist and has worked with the Sustainability Institute since completing his Master’s in Sustainable Development at Stellenbosch University in 2010.

Prior to this, he finished a Business Science Degree with Marketing Honours at the University of Cape Town, and worked in the marketing and advertising industries. He now applies this experience to the challenge of making cities more sustainable, focusing on the use of infrastructure and urban planning interventions to improve resource use, minimise waste and improve quality of life.

Most recent Institute research:


(2017 ongoing) Food for us: developing a mobile phone application to reduce food losses and waste. Environmental Learning Research Centre, Rhodes University

(2017 ongoing) Adoption of solar PV solutions in informal settlements: case studies from South Africa and Ghana. African Development Bank

(2013 ongoing) Promoting urban metabolism for resource efficient cities. UNEP’s Global Initiative for Resource Efficient Cities (Gl-REC)

Candice Kelly

Candice coordinates the Sustainable Food Systems research and heads the sustainable food systems modules within the PGDip and MPhil degrees.

She is appointed as an Extraordinary Lecturer at Stellenbosch University, and is conducting her doctoral research on people leading food system transitions in South Africa. Prior to completing her own MPhil at the Institute, Candice’s Business Science degree allowed her to work in a number of corporate settings.

Most recent Institute research:


(2017 ongoing) Food for us: developing a mobile phone application to reduce food losses and waste. Environmental Learning Research Centre, Rhodes University


(2015 ongoing) ACCAI network: co-producing knowledge for sustainable food systems in Africa. African Climate Change Adaptation Initiative
Damian Conway

Damian works in the areas of small enterprise development and social enterprise with a focus on energy poverty.

After obtaining a Bachelors and then a Masters in Engineering (computational mechanics) at the University of Cape Town, Damian co-founded a medical device consultancy which later evolved into a medical R&D and manufacturing business.

After 11 years he embarked on a new chapter to pursue a growing interest in Sustainable Development. He obtained a Bachelor of Philosophy in Sustainable Development at Stellenbosch University. In 2012 Damian joined the iShack Project which has now matured into a state-subsidised solar electricity utility for off-grid informal settlements. He is the Director of SIIL (Pty) Ltd which is the social enterprise that runs the iShack Project.

Most recent Institute research:

(2017 ongoing) Adoption of solar PV solutions in informal settlements: case studies from South Africa and Ghana. African Development Bank

Etai Even-Zahav

Etai has a BA in history and politics from Rhodes University and an MPhil in Sustainable Development from Stellenbosch University.

He sees the informal food economy as the most vulnerable and vital food-sourcing node in urban informal settlements across much of the global South. His research is driven by a desire to understand this economy through immersion in the everyday lives and practices of its workers; of those often neglected if not antagonised by governments, business, academia and society.

Most recent Institute research:


(2015 ongoing) ACCAI network: co-producing knowledge for sustainable food systems in Africa. African Climate Change Adaptation Initiative

Kweku Koranteng

Kweku’s interest is heavily influenced by the persistent dysfunctional development in Africa, resulting from a fixation on western/top-down/government led development as opposed to self-organization and socially led innovations and interventions. He is exploring how embedded/bottom-up/sustainable research methodologies designed within the framework of complex social systems can provide remedies in bridging these dysfunctional gaps. He is embarking on this radical goal by examining the implications of global energy transitions on urban energy systems in sub-Saharan Africa.

Currently based at CST, Kweku previously worked with a number of research think tanks and development agencies such as UNDP-Ghana, British Council - Ghana, Ghana Cocoa Bod, World Cocoa Foundation, Overseas Development Institute - UK and Research ICT Africa - South Africa in various research capacities. He holds a Bachelors of Arts in Sociology and Political Science, MBA in Management Information Systems and a MSc in Climate Change and Sustainable Development from the University of Ghana. Currently he is working towards his PhD in Public Leadership and Development Management.

Most recent Institute research:

(2017 ongoing) Adoption of solar PV solutions in informal settlements: case studies from South Africa and Ghana. African Development Bank
Luke Metelerkamp

Luke started work at the Sustainability Institute in 2009 where he was the head of the Food Systems team from 2014 until 2016. During 2017, he served as a research fellow within the Food Systems team while working on his PhD.

His research focus within the Food Systems team was in the localisation of food systems, with past research clients including Ernst & Young, WWF, GIZ and DfID. Luke also lectured on Stellenbosch University’s MPhil in Sustainable Development and has been instrumental in the development of a range of the Institute’s learning offerings including SI Explorers, the Agroecology Academy and the recently launched Diploma in Sustainable Development. He holds an MPhil in Sustainable Development, a BA in Applied Design and is currently enrolled for a PhD at the Centre For Complex Systems in Transition in Stellenbosch.

Most recent Institute work:


Paul Currie

Growing up between New York and Johannesburg, Paul has a significant obsession with cities. Paul delved into evolutionary biology at Stony Brook University (NY) before returning to South Africa to do his MPhil in Sustainable Development at Stellenbosch University. He has a fascination with people and places, an interest he has been able to cultivate as a volunteer in Brazil, a student in Ghana, a traveler in India, a researcher in Nairobi, and a trekker in Nepal.

His academic disciplinary pairing alongside his fascination with the dynamism of urban systems has led Paul to delve into resource flows, resource efficiency and resource equity in African cities.

Most recent Institute research:


(2013 ongoing) Promoting urban metabolism for resource efficient cities. UNEP’s Global Initiative for Resource Efficient Cities (GI-REC)

Phumlani Nkontwana

Phumlani has run and managed prominent entrepreneurship funds since 2009 for blue-chip local and international companies such as Allan Gray, Multichoice, Transnet, Total, J.P. Morgan and Philips, impacting hundreds of entrepreneurs and emerging businesses.

His recent work with the African Union and the Germany International Development Agency (GIZ) promotes Pan African entrepreneurship among young Africans from different parts of Africa at the Pan African University Institute of Water and Energy Sciences (PAUWES) and Tlemcen University in Algeria. With years of experience in enterprise and supplier development, Phumlani enjoys healthy relationships with local and international ecosystem stakeholders and organisations invested in growing and sustaining new enterprises.

Most recent Institute research:

Successfully executed and current flagship projects

Adoption of solar PV solutions in informal settlements: Case studies from South Africa and Ghana

- Client: African Development Bank
- Project focus area: Informal settlements in African cities
- Project description: This project compares two case studies of solar energy implementation in informal settlements: the iShack solar PV project in South Africa, and a solar lamp trial in Ghana. Key learnings from the two cases will be extracted and presented in the form of a journal article, a policy brief and a short video to be shared online.
- Project partner: Slum Dwellers International
- Status of project: To be completed 2018

Weight of Cities: Resource requirements of future urbanisation

- Client: International Resource Panel (IRP)
- Project focus area: Cities around the world
- Project description: This project looks at the resource requirements of projected urbanisation to 2050, and consists of the following components: (1) an estimation of the amounts of various resources required to accommodate the urban resource growth anticipated in the next 35 years, (2) Life Cycle Assessments (LCA) of alternative / sustainable technologies and systems to estimate how they could reduce this overall resource impact, (3) an assessment of how urban morphology can reduce resource requirements, (4) case studies of cities pursuing integrated infrastructure planning to optimise resource use, and (5) the governance configurations required to achieve urban transitions toward more sustainable resource use.
- Project partners: CSIRO, PBL, UFS, UCSB, MIT, UMN, Urban Morphology Institute
- Status of project: Completed 2017, to be launched 2018

The "Weight of Cities" report for the International Resource Panel is finally drawing to a close, following a three year collaboration between seven prominent academics and their teams from South Africa, The Netherlands, Australia, France and the United States. Led by Mark Swilling and co-ordinated by Blake Robinson, the report went through four rounds of expert reviews, during which over 550 comments were received from experts from different disciplines and backgrounds. Each needed to be carefully evaluated and attended to in accordance with the United Nations’ requirements for a document of this nature – a process which took almost as long as the initial drafting of the report.

The final round of comments was attended to in November, and the document is currently undergoing a final edit before being released.

Pan African University (PAU) Innovation and Entrepreneurship Hub

- Client: Pan African University
- Project focus area: Social Entrepreneurship
- Project partners: African Union, Germany Government through KFW Bank, GIZ and Tlemcen University in Algeria
- Status of project: Ongoing until May 2018
Food for us: developing a mobile phone application to reduce food losses and waste

- Client: Environmental Learning Research Centre, Rhodes University
- Project focus area: South Africa (greater Cape Town and rural Eastern Cape)
- Project description: The Institute is contributing specialist food systems research expertise to this consortium, funded through the IOYFP Trust Fund established by UNEP. The aim of the project is to develop and trial a mobile phone application in South Africa that contributes towards the alleviation of food insecurity and aids access to nutritious food in a country where significant food loss occurs on-farm. The research will add to the limited but growing body of knowledge on social learning, sustainable food systems and food loss and waste in South Africa. More information can be found on www.foodforus.co.za
- Project partners: PinPoint Sustainability, Feedback (UK), CSV, Carbon Calculated, United Nations Environment IOYFP Trust
- Status of project: 2017 - present

Smart Living Guide

- Client: Nedbank
- Project focus area: South Africa
- Project description: As part of a multi-year project with Nedbank aimed at introducing sustainability principles into their home loans business, we developed a guide for sustainable living aimed at middle to high income South African homeowners. The guides provide a range of interventions from behavioural changes to more expensive investments in new technologies that help homeowners to save resources and money.
- Project partner: Green Building Council of South Africa
- Status of project: Completed 2017

ACCAI network: co-producing knowledge for sustainable food systems in Africa

- Client: African Climate Change Adaptation Initiative
- Project focus area: South Africa, Ghana, Ethiopia, Tanzania
- Project description: The African Climate Change Adaptation Initiative aims to improve capacity to produce excellent and relevant research that can improve the sustainability of African food systems in the face of climate change. More information about the network can be found at www.accai.net. The Institute was asked to represent Stellenbosch University on this network of African universities that includes the universities of Ghana, Mekelle, Dar Es Salaam and Witwatersrand. As part of its role, the Institute has supported five Masters’ and one PhD student in their research, and provided them with opportunities to meet their contemporaries in the network at various training events held in Stellenbosch, Accra and Dar Es Salaam.
- Project partners: Universities of Witwatersrand, Ghana, Mekelle (Ethiopia), Dar Es Salaam
- Status of project: 2015 - present
**Toolkit for Resource Efficient Cities**

- **Client:** UNEP’s Global Initiative for Resource Efficient Cities (GI-REC)
- **Project focus area:** Cities around the world
- **Project description:** This is an ongoing collaboration with UNEP that started with a comprehensive review of the approaches to assessing urban metabolisms and green city indicator sets in 2013. This led to the development of a draft toolkit for urban practitioners in the developing world. In 2013 and 2014, this was further refined in collaboration with city representatives from Southeast Asia, Latin America and Africa, and UNEP’s partner institutions. The most recent phase of work involved the development of a communications strategy, including an animated video for YouTube explaining the concept of urban metabolism.
- **Project partners:** IIED, ICLEI
- **Status of project:** Ongoing

In September 2017 we launched our first animated video to explain the concept of urban metabolism to the public. The video (https://www.youtube.com/watch?v=uu-alhFEV7Q) is designed to be shared via social media and used in presentations and lectures, and is an example of the type of simple and engaging communications that are critical to sharing academic knowledge with society to inspire debate and action. We are developing a second short video as part of our work with the African Development Bank in 2018, and hope to start building a suite of videos to communicate sustainability messages and case studies in a simple and engaging way to multiple audiences.

**African Alternative**

Within the next four decades, the population of Sub-Saharan African cities will almost triple. Currently, more than half of the urban population lives in slums. We have a choice to make between building ‘smart’ cities for the privileged few, or something more innovative that addresses Africa’s urban challenges head on.

Imagine a city designed to keep living costs low, where you do not need a car to get to work, where everyone has an opportunity to earn a living, and where healthy ecosystems support a good quality of life for all.

Prepared by artist Karl Schulschenk in collaboration with urbanist Blake Robinson, these artworks question current development trajectories and aim to inspire positive visions for Africa’s urban future. They reached the top 10 out of over 250 international entries to the Post Fossil Cities competition, and were on public display in the Stadskantoor Gemeente in Utrecht, the Netherlands, from June to August 2017.

OUR PARTNERS

Our longstanding partnership with the School of Public Leadership continues to deliver the excellent PGDip and MPhil programmes. With the founding and success of the Centre for Complex Systems in Transition (CST) at the University of Stellenbosch, our academic partnerships are strengthened through the shared and growing faculty of CST.

This year, we are proud to have partnered with the University of Stellenbosch Business School’s Executive Development (USB-ED) to administer and market our short courses, as well as deliver tailored executive training programmes.

The Early Childhood Development programme, which was taken over by the Indaba Montessori Institute towards the end of 2017, offers accredited full and part-time NQF level 4 and 5 qualifications. The programme aims to build capacity that enables the sustainability of communities through ECD and to equip ECD practitioners with knowledge, experience and skills in a teaching methodology and philosophy based on the work of Dr Maria Montessori. The Indaba Montessori Institute additionally offers Association Montessori International (AMI) accredited training.

OUR PEOPLE

The Institute team is made up of 34 individuals in the areas of support services, hospitality, finance, IT, facilities, Lynedoch operations, our research consultants and the iShack team. Every year we welcome a new intake of students, where we see the role of the Institute is to nourish the learning environment that contributes towards place-based learning.
We are proud to work side by side with the faculty from the University of Stellenbosch situated at the Institute.
Engaging students

The Institute also provides the opportunity for students to get involved on a part-time basis through internships and volunteer programmes. Annually two or three PGDip students join us as interns for a period of nine months, assisting with communication activities, events and student engagement.

Our structured volunteer programme welcomes local and international students for either a few weeks or a few months, allowing them to work at the Institute in areas of interest to them, while contributing to achieving the operational goals set out by the Institute.

Day to day functioning

The work that takes place behind the scenes at the Institute is key to our success. Ensuring the effective running of daily operations is made possible through the hard work and dedication of the various teams, who fulfill their duties with passion and pride.

This past year various improvements to in-house systems, such as payroll and payments, have resulted in smoother processing of transactions and greater accuracy. The finance team work very well together, creating a good natured, highly cooperative atmosphere in the office. The team is responsible for ensuring financial correctness for the various programmes the Institute runs, as well as compiling financial reports and ensuring the Institute complies to all regulatory requirements.

The Institute consists out of a main building where the classrooms and some offices are, the Lynedoch Children’s House, SPARK school, the Drie Gewels Eco-lodge and Farmhouse, a food garden, a waste yard, the woodlands, the amphitheatre with sand sports field and the Green Café.

Ensuring the upkeep of all of these areas keeps our Facilities Officer, June Stone, on her feet! Still she and her team succeed every year to keep our spaces beautiful and functioning.

Life is brought into the main building not just by the students and visitors, but also through interesting pieces of African art, both living and static. Walking through the building photographs and prints created by staff and students from various walks of life can be enjoyed.
During 2017 the Communication function at the Institute was enhanced by creating a full time position, enabling us to share more about what we do strategically.

The Institute runs various programmes and coordinated, focused communication and positioning is important to help us achieve the various goals we have set for ourselves, and to keep our community engaged and informed. Providing additional communication support to the various programmes has helped to improve their quality of feedback as well.

Students that participate in the nine month internship at the Institute work under the guidance of the Communication Officer and assist with project managing various once-off projects aligned with the needs of the Institute, conducting research for programmes as needed, capturing news and stories through articles, videos or pictures and assisting during events and student engagements.

A new joint venture, LOT (Lynedoch Operations Team), has been established between the Institute and the Home Owners Association of Lynedoch Eco-village to manage the shared grounds and infrastructure. Jo Engelbrecht manages the team, with June Stone and Bradley Bergh assisting with administration.

Exciting plans are in store for 2018 to further optimise the use of the various spaces making up the Institute.
The hospitality team looks after the needs of our guests, students and staff. From left to right is Lydia Wesinyane (Eco-lodge Coordinator and Chef), Devy-Leigh Roberts (Green Café Assistant), Megan Mavandal (Eco-lodge Assistant), Gillian Parenzee (Hospitality Coordinator), Makka Johnson (Housekeeper), Aislinn Leibbrandt (Green Café Assistant) and Yolanda Mhlawuli (Cook).

Vanessa von der Heyde joined our team at the end of the year, as Learning & Research Officer. Vanessa has been a part of the team for a few years, coordinating the Changemaker Programme. In her new role she will coordinate experiences around the postgraduate and executive learning programmes, to ensure our students get the most out of their learning journey. She is also coordinating the research consulting work for the Institute.

Looking after the team at the Institute and taking care of statutory and labour requirements that the Institute needs to adhere to falls on the broad shoulders of Litha Magida.

As Operations Officer, Litha oversees all staff matters, including staff development. Being part of the team for nine years, Litha holds valuable institutional knowledge that has guided the Institute through various situations calmly and knowingly over the years.

The people that make up the Institute each bring to it something very special. It is a place that always draws you back, invites you in to explore, observe and engage, and leaves a lasting impression that you take with you wherever your path will lead next.

Various events, workshops and meetings take place at the Institute annually. The available venues, which include the classrooms, meeting spaces, Green Café and Eco-lodge are all looked after by the hospitality team.

Any given day there are a minimum of 600 people on site at the Institute, which includes the school children, students and staff.

Meals for our more than 200 bursary learners are prepared in the Eco-lodge kitchen every weekday, where lunches for students and guests are prepared as well. This is done by a team of three people, and during modules students help with chopping vegetables and preparing sandwiches.

The Institute strives to host visitors in a welcoming environment, offering nutritious and organic, locally or ethically sourced food and beverages. The team at the Green Café nourish visitors with sandwiches and light meals, and keep all of us going with the delicious fair trade coffee, cappuccinos and organic teas available.

We are fortunate to have many long-standing staff members at the Institute, who carry with them the true essence of why we do what we do - out of love and appreciation for one another and this amazing space. Enjoying a laugh together is June Stone, Bryce Anderson and Kerneels Claasen.

Litha Magida
Operations Officer
In August 2015 the first Soil, Soul and Society talk was hosted, and since then many talks have been enjoyed by friends, students, alumni, supporters and members of staff.

During 2017 seven Soil, Soul & Society talks were hosted, with local and international speakers captivating the minds of audiences.

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<thead>
<tr>
<th>Speaker</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Prof Maarten Hajer</td>
<td>Imagining the Post-Fossil City: Why it is so difficult to think of new possible worlds</td>
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<tr>
<td>Dr Peter Westoby</td>
<td>So long and thanks for the fish: How community development theory and practice can guide corporate efforts towards sustainable communities</td>
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<tr>
<td>Garry Jacobs</td>
<td>Beyond neoliberalism: towards a new economic theory for a world in transition</td>
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<tr>
<td>Shannon Royden-Turner</td>
<td>Creating an inspiring future world: unlocking the genius and creativity of people responsible for solving complex challenges</td>
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<tr>
<td>Prof Mark Swilling</td>
<td>Betrayal of the Promise: Understanding South Africa’s political crisis</td>
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<tr>
<td>Dr Duncan Green</td>
<td>How Change Happens</td>
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<tr>
<td>Prof Shalanda Baker</td>
<td>Mexico’s Energy Transition, Indigenous Rights and Energy Justice</td>
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Prof Mark Swilling sharing findings from the Betrayal of the Promise report compiled by a multi-University State Capacity Research Group led by him to assemble the most comprehensive empirical analysis done to date on the dynamics and political crisis of the Zuma-led state.
Our Change Makers programme presented two workshops this year, focusing on Storytelling and Design Thinking respectively. The purpose of Change Makers is to equip managers, self-starters, community leaders, activists, business leaders and influencers with skills, techniques and resources to truly be able to make a difference in their circles of influence. High-quality, yet accessible workshops are organised to this end.

Providing opportunities to learn and grow outside of the classroom are equally important for faculty and the Institute, and a few times a year students have the opportunity to engage in focused discussions, or Fireside chats as we call them, with our academic director, Prof Mark Swilling, to help them answer those questions they may struggle with while completing their PGDip.

As a venue, the Institute offers various spaces for the hosting of conferences, workshops, exhibitions and meetings.

During 2017 various international events took place at the Institute, such as the Flourish Conference bringing almost 150 international delegates to the space. Ensuring that delegates had easy access to the venue, the very first Glamp was pitched at the Institute!
OUR FUTURE

We are excited and daunted at the challenge of introducing the new Diploma in Sustainable Development – a cohort of undergraduates to whom we have made a promise to deliver an outstanding learning experience.

We are renewing our commitment to the PGDip and MPhil programmes, deepening the approaches to learning and keeping our modules at the leading edge of thinking and practice.

We are gearing up for a strong year of contract research and consulting work, building a network of professionals to offer leading solutions for the African context.

We look forward to sharing these progresses, and more, in due course!

To find out more about our short courses, degree programmes, sponsoring a bursary and contract research, please contact Vanessa von der Heyde at vanessa@sustainabilityinstitute.net.

If you or your organisation are interested in providing bursaries to undergraduate or postgraduate students in sustainable development, please get in touch with us!
We have a long-standing commitment to the Lynedoch Valley and as a non-profit trust, we have focused our mission to have a transformative impact on the lives of the children and youth in the Lynedoch Valley through the educational programmes we offer.

The Institute is responsible for the Lynedoch Children’s House (preschool), SPARK Lynedoch Primary School and the Lynedoch Youth Programme, collectively and positively impacting many young lives every day.

Have a look at our Impact Report to read more about these programmes and their impacts in 2017, and how your support can help deepen the impact of this work.

The collective efforts of staff, beneficiaries, supporters and funders have helped us to reach many goals in 2017. In our recently published Impact report for 2017, we reflect on the many wonderful things that unfolded in our children and youth programmes.

We invite interested organisations and individuals to visit us if you would like to find out more about our activities. Alternatively, please visit any of our online platforms for more information.

The Institute is a registered non-profit trust and public benefit organisation. Our board of directors is governed by interim chair Naledi Mabebo, with Heidi Newton-King, Jess Schulschenk and Eve Annecke as fellow directors. The Institute has developed clear reporting structures with programme coordinators taking full responsibility of their programmes and that the staff is able to identify between core and non-core responsibilities.

The Institute complies with all statutory requirements and is subject to a full annual audit conducted by auditors Theron du Plessis in Somerset West, and receives an unqualified audit report each year.