



Transdisciplinary, Sustainability, Analysis, Modelling & Assessment HUB

Stellenbosch University, South Africa • Private Bag X1, Matieland, 7602, South Africa
Tel: +27(0)218082152 • Fax: +27(0)218082085 • Cell: +27(0)768770744
jrvb@sun.ac.za • www.tsama.org.za

Transformative Teaching, Learning and Research

Experiences from a Transdisciplinary Doctoral Programme in Sustainability at Stellenbosch University, South Africa

John van Breda

Programme Manager: TsamaHub

www.tsama.org.za

Stellenbosch University (SU)



Transdisciplinary (TD) Doctoral Programme in Sustainability at Stellenbosch University (SU)

Short Historical Overview:

- ❑ **2005:** first [TD Workshop](#) in SA (on 11 – 14 April) exploring the possibilities of introducing TD programmes at post-graduate / PhD level; attended by a wide range of academics from various universities in South Africa (SA); co-facilitated by [Manfred Max-Neef](#) and [Basarab Nicolescu](#).
- ❑ **2007 / 2009:** received seed-funding from the Sustainability Institute ([SI](#)) and SU's "[The Hope Project](#)" to implement the TD Doctoral Programme in Sustainability (see: www.tsama.org.za).
- ❑ **2008 / 2009:** visited the universities of [BOKU](#) (Vienna) and [ETH](#) (Zurich) to learn more about their respective TD doctoral programmes.
- ❑ **2010:** launched TD Doctoral Programme in Sustainability with first cohort of six PhD students.
- ❑ **2011:** received funding from the National Research Foundation's ([NRF](#)) Community Engagement Programme to launch the "[Enkanini](#)" [TD Case Study](#)
- ❑ **2012:** received funding from the EU/AU [Intra-ACP Mobility Scheme](#) to establish the "[TRECCAfrica](#)" programme; offering scholarships to 16 PhDs from five different universities on the African continent.

The Transformative Challenge:

- ❑ Facing the problem of **increasing poverty** and **inequality** in post-apartheid democratic SA is a complex societal problem because there is no theoretical and practical knowledge of how to **transition** from this **current state** to a ‘more just’ and ‘sustainable’ **future state**.
- ❑ This complex problem is forcing us to fundamentally re-think some of the key TD concepts and principles of **doing science *with* society**, of **mutual learning** and of **knowledge co-production, integration** and **innovation** coming out of the developed world.
- ❑ The reasons for this is not *only* because these concepts have been developed and theorized under fundamentally different contextual / social conditions in the developed world, but *also* because of the dominant **theory of social change** that has been handed down to us from our apartheid past; which suggests that the only way the poor can improve their desperate situation is by employing the same strategies and tactics of violent community protest – known as “toyi-toying” – that worked so effectively in the past by bringing down the apartheid government.
- ❑ Unfortunately this approach has elicited a much ‘**tougher**’ **reaction from the state** (e.g. August, 2012: Marikana) than what was to be expected from a democratically elected government in the ‘new’ SA.
- ❑ However, this vicious cycle of violence/counter violence is what is prohibiting any **new theoretical** and **practical solutions** from emerging – especially in response to the government’s recently adopted “Breaking New Ground” human settlements policy, which explicitly endorses the principle of **incrementalism** – i.e. the incremental *in situ* upgrading of informal settlements – as a way forward.

Our TD response:

- ❑ Against this background, our challenge is *how* to **co-produce integrated socio-technical innovations** which not only addresses the technical aspects of the needs of the poor, but does so in a way that has the potential of developing new ways of understanding **social change** in our society?
- ❑ In other words, how do we **link** and **integrate** our **theoretical** and **practical knowledges** in ways that will not only address the poor's immediate basic needs for housing, electricity, water, sanitation and waste management, but doing so in collaborative / participatory ways that will **empower** the poor **to negotiate** their way 'out of' poverty with the state – rather than reverting back to the 'tried, tested and failed' methods of violent protest?
- ❑ The process of **social innovation and learning** of how to go about doing exactly this is currently underway as our TD team of supervisors, educators, researchers, students and community co-researchers involved in the "Enkanini" case study are **learning together** how to **co-design and develop** technically challenging and detailed solutions that are, at the same time, **empowering** the beneficiaries of these solutions.
- ❑ Starting with the improved re-design of informal shack dwellings – known as the "iShack" – we are learning that it is indeed possible to bring together **various academic disciplines** – such as engineering, architecture, ecological design, economics, finance, sociology, anthropology etc. – and linking these with the **practical knowledge** of *living together* and *through* other people – known as "Ubuntu" – to come up with '**niche innovations**' that are increasingly beginning to attract the attention of policy-makers at all levels of government.

Preliminary evidence that our TD response of empowering people *through* knowledge co-creation and integration may be working:

- ❑ In June this year, the Stellenbosch Municipality most importantly agreed to **include** the allocated Free Basic Electricity subsidies to homes **not connected** to the national grid in their Indigent Policy - a first for a South African municipality.
- ❑ On 31 July, a **National Parliament Portfolio Committee on Energy** visited the iShack project in Enkanini, speaking **directly** with the entrepreneurs and researchers who are driving the project in the newly built Enkanini Research Centre.
- ❑ The Committee Chair, Siza Njikelana, remarked that what impressed him most was a comment by one participant in the project who said: "We are showing the people in town [pointing to the centre of Stellenbosch] that **we can build our own suburb.**" How different this is to the notion that "toyi toying" will force the 'people in town' to come do it *for* the community.



31 July: Mr Yondela (co-researcher on TD team) addressing the National Portfolio Committee in the new Enkanini Research Centre

**Thank you for your
attention!**

Reference List

1. Muhar, A., et al., Experiences from establishing structured inter- and transdisciplinary doctoral programs in sustainability: a comparison of two cases in South Africa and Austria, Journal of Cleaner Production (2013), <http://dx.doi.org/10.1016/j.jclepro.2013.07.031>
2. Mouleart et.al. [The International Handbook](#) on Social Innovation – Collective Action, Social Learning and Transdisciplinary Research (2013), Edward Elgar Publishing, UK.
3. South African Government Information: National Parliament Portfolio Committee (August, 2013) [Report on Enkanini visit](#).

Contact Details

John van Breda

School of Public Leadership

Stellenbosch University, South Africa

E-mail: jrvb@sun.ac.za

Urls: <https://www.tsama.org.za> / www.treccafrika.com