

Reintegrating humankind and nature

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The concept of sustainability grew from a set of diverse but equally valid and often interlinked streams of thought. These streams of thought are the products of larger societal concerns that came to shape the agendas of governments, business and civil society after World War II.



→ Researchers in the Department of Construction Economics are developing frameworks for sustainable construction and the development of human settlements.

Since then, ecological systems have been challenged to keep meeting the increasing demands made by human needs. This challenge has reached critical dimensions. Responses to the crisis have laid the foundations for different sustainability paradigms, also in the built environment.

The work of Prof Chrisna du Plessis of the Department of Construction Economics in the School for the Built Environment focuses on developing the principles and guiding frameworks for the practices of sustainable construction and human settlement development from within the different sustainability paradigms. She has identified three such paradigms.

The first of these evolved in public policy. It was driven by the United Nations and was based on developing a set of common criteria, indicators and strategies through international consensus. The second paradigm has its roots in the private sector, as businesses responded to the risks, pressures and opportunities of an environmental agenda. Both these paradigms can be criticised

for perpetuating the structures of society that created the crisis in the first place.

The third paradigm, however, calls for profound and radical changes to the structures of society, including the dominant world view, in order for the earth to remain fit for human habitation. This paradigm underlies concepts such as transformative resilience and regenerative design and development. It holds that human development needs can only be met sustainably if ecological conditions are such that all of life can flourish and continue to evolve.

The regenerative sustainability paradigm represents a shift to a holistic living systems world view. This paradigm attempts to address the dysfunctional human-nature relationship by entering into a co-creative partnership with nature.

It aims to restore and regenerate the global social-ecological system through a set of localised ecological design and engineering practices, which are rooted in the social-ecological narratives and context.

However, this paradigm still has to be tested at scale and as a fully integrated system of physical, cultural and visionary inventions. Currently the regenerative paradigm seems to offer a way for humans to engage with nature in two significant ways. It will build the adaptive capacity to survive the perturbations of global change and increase the regenerative capacity of the world to create conditions under which humans and others can thrive. Prof Du Plessis, with fellow members of the Think Tank on Resilient Urban Systems in Transition (TRUST), is investigating the theoretical and practical implications of this paradigm for urban systems. Their work can be followed on <http://trustsa.weebly.com/>.

Prof Du Plessis's work has been recognised by the University of Salford, UK, when it presented her with an Alumni Achievement Award (similar to the University of Pretoria's Laureate Awards) in 2012. She also received an Outstanding Reviewer Award from the Emerald Literati Network. 📍