

Project Title

Durban Research Action Partnership (DRAP)

Author

Smiso Bhengu: Climate Protection Scientist

Introduction

The Durban Research Action Partnership (DRAP) is a research partnership which was formed to improve our understanding of the impacts of climate change and the role of ecological infrastructure in delivering ecosystem services. The partnership is between eThekweni Municipality (EM) and the University of KwaZulu Natal (UKZN). The action research partnership aims to bridge the gap between science, policy and practise. This research partnership has yielded positive results in the past ten years not only in improving our understanding of ecological infrastructure and their role in ecosystem service delivery but also in building human capital for both students and municipal officials. DRAP created a platform where academic researchers work closely with municipal officials in addressing issues which are important to the work of the city.

D'RAP was formed as an umbrella or broad-based partnership between UKZN and EM, to be precise with the Environmental Planning and Climate Protection Department (EPCPD). It is a trans-disciplinary research partnership which guides the implementation of Durban Climate Change Strategy through research. Through this partnership, collaborative research is being conducted which cover different issues which are important for the implementation of DCCS, improving the understanding of important topics for EPCPD such as biodiversity, remote sensing applications, social economic issues and governance.

Project Description (history, partners, resources & timelines)

The early 2000s, the then Environmental Department of eThekweni Municipality (now the Environmental Planning & Climate Protection Department) did an informal skills audits during the recruitment process of some posts, and it became clear that there was a shortage of capacity in biodiversity planning and environmental management. This led to the city working closely with Council of Scientific Industrial Research (CSIR) through creating a 2-year internship programme in which graduates were trained to

acquire necessary skills in biodiversity conservation and environmental management. However, this partnership did not meet the expectation or it did not deal with the pressing issues of capacity building or shortage of capacity; most graduates which were part of this programme were still not suitable for employment within eThekweni Municipality (EM). Through ongoing self-assessments and discussion, it was decided that the issue was with capacity development so EM approached University of KwaZulu Natal (UKZN) and this led to the formation of DRAP.

The work that the city is doing needs to promote sustainable development (Figure 1), that means municipal officials need to be aware that the decisions that they make need to address these concepts: economy, social and environmental issues to ensure sustainability or sustainable development. To have the understanding of all these concepts is not easy, that when partnerships, interdisciplinary and institutional collaboration plays a major role. The partnership is managed by the Climate Protection Branch which is mandated to implement the Durban Climate Change Strategy (DCCS), this brings another complexity and that when action research or similar partnerships assist in providing answers or solutions to day to day operation of the city.

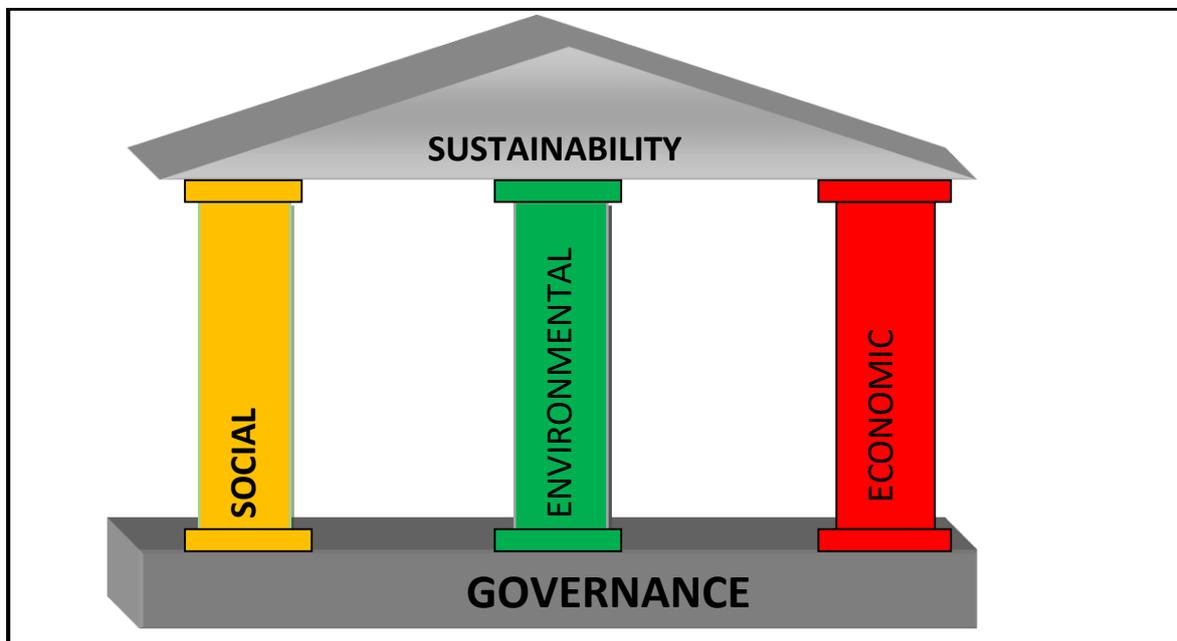


Figure 1: The sustainable development concept

Relevance and Impact to eThekweni Municipality

A significant benefit which has been obtained for the research partnership is the development of local pool of scientific talent which has been the key output of DRAP in the last 10 years. Through working with the academic institution in designing research projects, EM continues to make informed decisions which are backed by intensive research. For example, our understanding of informal settlements dynamics has increased through working together with researchers from the School of Built Environment and Development Studies (BEDS). This highlights the role of science in guiding a local actions in dealing with different issues within the municipality.

The partnership did achieve its objectives of doing collaborative research and building capacity to young South Africans, but the most important factor is that it has provided the new way of thinking in doing research. The success is in fostering and harnessing institutional collaboration and multi-sectorial approach. For the first time in the history of science where scientific research contribute to poverty alleviation through the employment of local communities as they form part of the research. This is different from the normal EPWP job, not only local communities are trained but there is capacity building happening. Furthermore, this partnership has been evaluated by the independent researcher; the results show that indeed it has contributed in changing the lives of the local community especially where projects are implemented (community close to Buffelsdraai, Quarry Road West Informal Settlement, etc.).

Furthermore, through working together with UKZN under DRAP, UKZN has leveraged funding to initiate other projects which are beneficial to municipality such as the Educational Partnership for Innovation in Communities (EPIC). EPIC is an award-winning university-community partnership program that works at a large scale to advance the needs of the communities while training the next generation workforce and leadership. EPIC partnership fosters community innovation and leverages the largely untapped expertise concentrated in a university towards real community issues while giving students the applied learning experiences they crave.

The partnership ensures that the research conducted at the university is relevant and addressing real problems and challenges. Usually, municipal officials do not have time to do research unlike academic institution whose core business is research, the key is to link or develop research which provides answers or improve the work done by the

city. For example, one PhD project is looking at the impacts of habitat fragmentation on forest mammal occupancy and ecological connectivity in eThekweni Municipality. This project aims to determine whether small forest patches can safeguard forest-dependent mammal species within the eThekweni Municipality area. The results of this research can be used on how to manage the forest fragments in the Municipality and it can be used to highlight the role of Durban Metropolitan Open Space System (D'MOSS). Further this project will improve the understanding of urban ecosystems and ecological factors which can determine the presence or absence of species

Conclusion

This innovative research partnership, which cuts across both institutional and disciplinary boundaries, provides valuable learning opportunities for solving complex, environmental problems. Municipal officials and students from both UKZN and EPCPD have benefited through capacity building, but further work still needs to be done to ensure that the Municipality's knowledge and ability to manage ecosystems in the context of global change is improved. This will be done through increasingly focused and policy-relevant research.

D'RAP has pioneered a number of projects which looks into environmental change and what are the implications of climate change to biodiversity. It has focused on using science-oriented solution to help the city of Durban to achieve better sustainability, climate adaptation and resilience to climate change.

The development of mutually-beneficial research programmes between local governments and their academic institutions represents win-win situation for development of both capacity and knowledge that is useful for local government. The EPCPD has, over past years, worked hard to establish a good working relationship with a local tertiary institution which shares the view of urgent capacity building, especially in designated population groups and research excellence. This is in line with the municipality's previously agreed to objective, to "seek ways in which there can be close collaboration in research, innovation and development and active pursuance of joint research processes and outputs", with local research institutions.