

Using Community Based Adaptation Approaches to Climate Change: The case of Palmiet Catchment



EThekwini streams and rivers are deteriorating as a result of waste and industrial pollution as well as alien vegetation infestations. This has a huge impact on our water security in terms of quantity and quality. The Palmiet River is subjected to a number of challenges like sewage discharge, industrial effluent and dumping of solid waste, including waste from the Quarry Road West (QRW) informal settlement near the confluence with the uMngeni River. The loss of natural vegetation along the catchment, and changes to the hydrology of the catchment through storm-water engineering interventions further exacerbate the impact of extreme rainfall events experienced in the catchment, resulting in erosion, flooding and sewage discharge. Flooding from recent extreme weather events has resulted in a number of fatalities in the surrounding informal settlement. These challenges are expected to be exacerbated by climate change impacts.



Climate Change Project



Palmiet Rehabilitation Project (PRP) is an innovative shared-governance approach to catchment-scale ecological infrastructure management with a climate change adaptation focus. The project primarily focuses on conservation, rehabilitation & restoration of natural systems within the Palmiet Catchment to improve community resilience towards climate change. The PRP emerged as a proof of concept pilot project during the establishment of the **uMngeni Ecological Infrastructure Partnership (UEIP)**. The UEIP is a multi-stakeholder partnership coordinating catchment management activities in the uMngeni Catchment and its tributaries. The UEIP advocates for the prioritisation and the application of an ecological infrastructure approach to support water security, in terms of both quantity and quality. EThekweni Municipality, Climate Protection Branch (CPB) is responsible for managing the project with the University of KwaZulu-Natal (UKZN) research team and the Palmiet River Watch (a non-governmental watchdog championing the Palmiet Catchment).

Potential benefits of the project:

- It will promote community-based adaptation: the local communities are part of the decision making and project planning;
- It will improve the resilience of communities, especially the informal settlements, to climate change impacts;
- It will restore the ecological infrastructure for ecosystem services provisioning (clean water, flood attenuation, etc.);
- It will ensure cleaner streams and rivers to improve the quality of water;
- It will enable the clearing of invasive alien species through community-based approaches, thereby creating employment opportunities.

