

Appendix 3: Case study methods and data

Method

An instrumental case study approach was used for this study, as the case is used to provide insight into a particular societal issue and to support theoretical propositions about the particular issue, i.e. bridging the science-action gap through a transdisciplinary approach (Stake, 2005). The advantages of a case study research approach lies in its recognition of lessons from the particular rather than the general (Stake, 2005), and in the use of multiple sources of evidence (Yin, 2009). This is coupled with in-depth understanding of the case studies by researchers who are personally involved with the activities of the case and who are constantly reflecting on the meaning of what is going on in the case based on the theoretical propositions which guide the study (Stake, 2005).

This case study analysis was based on a three-step approach.

1. Gather data from various sources (see below)
2. Develop theoretical propositions (based on literature on the science-action gap, transdisciplinarity and collaboration, see Introduction and literature cited in Boxes 1-3)
3. Assess and describe the case study based on theoretical propositions to extract specific lessons from practice (see Fig. 1, and Table).

An on-going iterative process was used to analyse the data, which allowed for reflection on the meaning generated by the data with respect to the theoretical propositions of the study (Stake, 2005).

Data sources

- Project documentation: minutes of meetings and workshops, quarterly progress reports, annual summary reports, final close-out report
- Evaluation documents and data: online survey questionnaires, reflection cards collected during meetings and workshops, records of outcome evaluations conducted during meetings and workshops.
- Semi-structured interviews with primary leaders who started the partnership about the history and organizational arrangements of the partnership (See Appendix 2).
- Focus group discussions with the core team during reflection sessions focused on the process evaluation of the partnership

Curation of empirical data

- Project documentation described above is all housed at both institutions: University of KwaZulu-Natal: Land Use Planning and Management Research Group (Pietermaritzburg Campus, KwaZulu-Natal, South Africa), eThekweni Municipality: Environmental Planning and Climate Protection Department (City Engineers Building, Durban, KwaZulu-Natal, South Africa).
- Summaries of the most relevant project documentation is provided in Appendices attached to this manuscript (Appendix 1: The local context: An endangered grassland ecosystem in Durban, KwaZulu-Natal, South Africa, Appendix 2: History and organizational arrangements of the partnership, Appendix 4: Conceptual research framework and decision-making products of the KZNSS Research Program)
- The *KwaZulu-Natal Sandstone Sourveld Research Programme Close-out Report* is the most comprehensive source of information on the partnership, and includes records of all meetings and workshops. It is available online:

http://www.durban.gov.za/City_Services/development_planning_management/environmental_planning_climate_protection/Publications/Documents/KZNSS_Close_out_Report2011_2014.pdf

LITERATURE CITED FOR APPENDIX 3:

Stake, R. E., 2005. Qualitative Case Studies, In: Denzin, N.K., Lincoln, Y.S. (Eds.), *The SAGE Handbook of Qualitative Research*. Sage Publications, Inc, Thousand Oaks, California, pp. 443-466.

Yin, R. K., 2009. *Case Study Research: Design and Methods*. Sage Publications, Inc, Thousand Oaks, California.