## Advances in Cartography and GIScience

## Mapping community vulnerability to poaching: A whole-of-society approach

Peter M.U. Schmitz,<sup>1,2,3</sup> Duarte Gonçalves,<sup>4</sup> and Merin Jacob<sup>4</sup>

<sup>1.</sup> CSIR Built Environment, Meiring Naude Rd, Brummeria, Pretoria, South Africa; pschmitz@csir.co.za

<sup>2</sup> Department of Geography, Geoinformatics and Meteorology, University of Pretoria, Lynnwood Rd, Hatfield, Pretoria, South Africa.

<sup>3.</sup> Fakultät für Vermessung, Informatik und Mathematik, Hochschule für Technik, Stuttgart, Schellingstrasse 24, D-70174, Stuttgart, Germany.

<sup>4.</sup> CSIR Defence, Peace, Safety and Security, Meiring Naude Rd, Brummeria, Pretoria, South Africa.

## Abstract

Wildlife crime, especially rhinoceros poaching is very predominant in South Africa. Various approaches ranging from very sophisticated nearmilitary interventions to engaging with communities are currently employed to reduce the levels of wildlife crime in South Africa. A methodology being investigated is the use of a whole-of-society approach. This paper investigates the community analysis part of the whole-ofsociety approach that was used to reduce the levels of wildlife crime. The indicators of vulnerability are discussed based on research conducted by several authors and selected on the basis that these can be obtained from generally available data such as census data. Indicators linked with high lev-els of risk are identified and can then be used to improve the livelihoods of com-munities next to game parks in the hope of reducing their vulnerability towards be coerced into wildlife crime by criminal syndicates.