

## **Astro Tourism as a catalyst for rural route development**

Tourism is one of the significant economic sectors in South Africa, which enables sustainable development in rural areas. The Karoo Rural Node in South Africa's unique landscape coupled with hosting astronomy sites of global importance presents the ideal opportunity to develop an exciting and innovative tourism niche offering. Astro Tourism is therefore gaining momentum due to the two world-class astronomy projects, namely the South African Large Telescope (SALT) in Sutherland and the Square Kilometre Array (SKA) in Carnarvon.

Laetitia Jacobs a [Doctoral](#) student in Tourism Management, [Department of Marketing Management](#), employed mixed method empirical research to explore this exciting topic with the context of the Karoo region in the Northern Cape Province. Quantitative methods presented results describing visitors' travel trends and patterns, as well as an Importance Performance Analysis (IPA) and a SOAR (Strengths, Opportunities, Aspirations and Results) Analysis; depicting the destination's state of readiness. Qualitative methods investigated the sustainability of tourism product development through exploring the experience and perceptions of the various role-players. These included the tourists, local communities, tourism businesses and private stakeholders in the astronomy and tourism disciplines, as well as government representatives. The researcher obtained a holistic view of the different role-players by including a variety of research instruments. Focus group sessions were held with local community members in the towns selected; in-depth interviews were conducted with government representatives; semi-structured questionnaires were distributed to relevant stakeholders and structured questionnaires were distributed to tourism businesses and tourists.

This amalgamation of research instruments ensured a dataset of high quality. The analysis of the consolidated data from the different role-players provided unique information for sustainable destination development from both the demand-side and supply-side perspectives. Unique access allowed the researcher to engage directly with stakeholders through various platforms, all adding invaluable data to the research.

The study achieves the purpose of describing how sustainable development can be achieved through effectively integrating a niche tourism product (such as Astro Tourism) into a destination's complementary tourism attractions and activities at the hand of a tourism route. The study shows the importance of infrastructure along with the quality of the tourism value chain and service standards. It reiterates the importance of stakeholder engagement across various levels within the destination to govern the processes of community empowerment and transformation.

The results confirm that Astro Tourism is a viable tourism product for sustainable rural development. This niche product fits in with the global trend towards the development of distinctive visitor experiences. Due to its unique nature, the case study provided an ideal opportunity to explore the various dimensions of niche tourism in a rural context. The dark skies of the Karoo places South Africa in a competitively advantaged position for astronomy and Astro Tourism. It is also an ideal way for local communities to get involved in the fight against poverty in especially rural areas.

As an outcome, the study presents a framework depicting Astro Tourism development through a tourism route format to develop rural areas in developing countries. This study further contributes to literature on sustainable rural development, niche market-based tourism routes, and Astro-Tourism and Space Tourism as distinctive tourism products.

This research was conducted by Laetitia Jacobs (née van Wyk), as part of the fulfilment of the requirements of a [Doctor of Philosophy \(PhD\) degree](#) with specialisation in Tourism Management in the [Department of Marketing Management](#), under the supervision of [Prof Elizabeth du Preez and Prof Felicité Fairer-Wessels](#).