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SOUTHERN AND INDIGENOUS PERSPECTIVES ON INNOVATIONS AND
TECHNOLOGIES

**TECHNOLOGIES AND QUALITY OF LIFE: AN ANALYSIS OF THE
CONTRIBUTIONS OF SOLAR ELECTRIC FENCES IN FOUR RURAL AREAS
OF ARGENTINA**

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Rural areas have historically experienced greater challenges in terms of access to and quality of infrastructure and services when compared to urban areas. Recent territorial transformations have exacerbated inequalities, reducing quality of life and, concomitantly, community roots. Nevertheless, the enhancement of quality of life is often identified as the overarching objective of intervention and technological innovation initiatives. When these proposals are carried out with deterministic and top-down approaches, the expected results are not generated, and asymmetries may even be increased.

Solar electric fences constitute a technological solution that has been integrated into a broader public policy initiative for rural electrification in Argentina. A review of literature on this policy reveals its challenges in terms of design, and its character as a standalone solution, divorced from the socioeconomic context of families. In this paper, we undertake a comprehensive analysis of the direct and indirect contributions that enhance the quality of life of user families. Adopting a non-deterministic perspective on technology, with insights drawn from the sociology of knowledge and the approach of technologies for inclusive and sustainable development, this study investigates the conditions of use and maintenance of the solar electric fences and their contributions to different dimensions of quality of life. To this end, we conducted interviews with 50 families residing in four distinct geographical regions of the country who had utilized solar fences for more than two years.

The analysis demonstrates the evolution of capacities within both families and the local population. Additionally, it highlights the interpretive flexibility concerning the utilization and maintenance of the technology, thereby underscoring its potential value. The paper shows how certain regional particularities impacted in the implementation. These results allow for the highlighting of contributions by local communities and reflections on the implementation of technologies in rural areas.

Palavras-chave: innovation; renewable energy; technologies for inclusive and sustainable development; interpretive flexibility; local knowledge.