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Weather and climate information services (WCIS) for pastoralists: A review

This paper presents a scoping review of literature to assess what is known on WCIS for pastoralists from Web of Science, Google Scholar and selected organisations working in these fields.

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By { "@context": "https://schema.org", "author": { "@context": "https://schema.org", "@type": "Person", "name": "Katharine Vincent", "url": "https://www.sparc-knowledge.org/about-us/contributors/authors/katharine-vincent" } }
[Katharine Vincent](#) { "@context": "https://schema.org", "author": { "@context": "https://schema.org", "@type": "Person", "name": "Simon Mercer", "url": "https://www.sparc-knowledge.org/about-us/contributors/authors/simon-mercerc" } } [Simon Mercer](#) { "@context": "https://schema.org", "author": { "@context": "https://schema.org", "@type": "Person", "name": "Ellen Reid", "url": "https://www.sparc-knowledge.org/about-us/contributors/authors/ellen-reid" } } [Ellen Reid](#) { "@context": "https://schema.org", "author": { "@context": "https://schema.org", "@type": "Person", "name": "Claire Bedelian", "url": "https://www.sparc-knowledge.org/about-us/contributors/authors/claire-bedelian" } } [Claire Bedelian](#) { "@context": "https://schema.org", "author": { "@context": "https://schema.org", "@type": "Person", "name": "Sarah Opitz-Stapleton", "url": "https://www.sparc-knowledge.org/about-us/contributors/authors/sarah-opitz-stapleton" } }
[Sarah Opitz-Stapleton](#)
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There has been an increase in interest in weather and climate information services (WCIS) in the agriculture sector, but pastoralism (extensive rearing of livestock) has received less attention than crop agriculture. This paper presents a scoping review of literature to assess what is known on WCIS for pastoralists from Web of Science, Google Scholar and selected organisations working in these fields.

The review generated 51 papers published between 2000 and 2024 covering multiple regions, but with 80% focusing on Africa. Papers address various aspects of WCIS, with particular focus on users. Themes for which there are evidence include the role of indigenous and scientific forecasting, identifying user needs, how to generate and communicate information in such a way as to encourage use, risk perceptions and use of WCIS, including the benefits. The evidence base is small but growing, and there is some commonality of themes with other fields.

Challenges persist in how to generate and effectively communicate salient, credible and legitimate information. The particularly strong focus on indigenous and scientific forecasts

highlights the importance of indigenous knowledge to many pastoralist communities and raises questions about how best to integrate knowledge types. Future research directions in pastoralist WCIS, like in other fields, are likely to cover issues such as evaluation and sustainability, and also how WCIS can support other adaptation and risk reduction efforts.

Read the journal article [here](#) and the accompanying blog on '[Why climate information matters for pastoralists](#)'.

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Camels at Maikona shallow wells, Chalbi Desert, Marsabit County, Kenya. The wells are a critical water source for local pastoralist communities – Image by Tumal Orto Galdibe

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