

Status snapshot of GMO and genome editing regulatory frameworks in the SADC region¹

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This report provides a landscape analysis of regulatory frameworks for genetically modified organisms (GMOs) and genome editing (GE) across the Southern African Development Community (SADC) region. Biosafety South Africa engaged with stakeholders from government departments and research institutions across the 16 SADC member states. Twelve countries submitted responses, while information for the remaining countries was compiled from publicly available sources and the references listed in this report.

The findings indicate that the SADC region presents a varied regulatory landscape for GMOs and emerging GE technologies. Several member states have operational GMO biosafety systems, while approaches to GE remain uneven, limited or under development. Table 1 summarises the status of national biosafety systems, reported GMO decisions, relevant sectors, and current approaches to GE.

Recent developments illustrate the evolving nature of this regulatory landscape. Malawi adopted genome-editing guidelines in 2022. These guidelines set out a regulatory process for genome-edited plant products and provide that certain SDN-1 and SDN-2 outcomes may fall outside GMO regulation where the specified criteria are met

¹ Disclaimer: This report has been prepared by Biosafety South Africa for informational purposes. It reflects the regulatory status of SADC member states to the best of the knowledge available at the time of writing, drawing on primary legislation, secondary sources, and stakeholder engagement. The information should not be construed as legal advice. Biosafety South Africa has taken care to represent each jurisdiction fairly; any perceived omissions or inaccuracies may be reported to the authors. The views expressed do not imply any endorsement of, or preference for, the regulatory approaches adopted by any member state.

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Table 1: Landscape analysis responses regarding biosafety frameworks across the SADC region.

Country	GMO Framework Status	GMO Decisions Made	Sectors	GE Framework Status	GE Approach	GE Activity
Angola	Limited publicly accessible evidence of an operational national GMO framework	None	Ag/food	None	n/a	n/a
Botswana	Limited or not operationalised nationally	None identified	Ag/food	None identified	n/a	None reported
DRC	Limited or partially implemented	None identified	Ag/food	None identified	n/a	None reported
Eswatini	Fully implemented (Biosafety Act 2012)	Approvals incl. Bt-cotton commercialization	Ag/food	None	n/a	n/a
Madagascar	Draft or partially implemented national biosafety framework	Contained research and imports reported; no fully operational release system identified	Ag/food	No specific GE framework identified	n/a	Limited or none reported
Malawi	Fully implemented (Biosafety Act 2002, Regs 2007)	Multiple incl. Bt-cotton	Ag/food (medical oversight limited)	Implemented (Guidelines 2022)	Product-based; some SDN-1/2 not GMO	R&D/contained active
Mauritius	GMO Act in force; implementation limited	Contained research and imports reported	Ag/food/medica l	No specific GE framework identified	n/a	No activity identified
Mozambique	Operational under Decree 71/2014	Research, trials and imports; commercial release remains limited	Ag/food	No specific GE framework identified	n/a	Research activity reported

Namibia	Operational (Act 2006; Regulations 2016)	Contained use, imports and market-related provisions in place	Ag/food	No specific GEd framework identified	n/a	Limited activity reported
South Africa	Operational (GMO Act 1997)	Contained use, trials, commodity clearance and commercial production	Ag/food & medical	Implemented through the existing GMO framework	Products derived from NBTs, including GEd, are regulated under the GMO framework	Research activity reported
Tanzania	Biosafety regulations in place; implementation remains limited	Some past research activity; no active field trials identified at the time of writing	Ag/food & medical	No specific GEd framework identified	n/a	Limited activity reported
Zambia	Fully implemented (Biosafety Act 2007)	R&D, trials, imports	Ag/food & medical	Implemented and finalised	The draft indicates some products are not GMO	R&D/contained only
Zimbabwe	Operational GMO framework	Research, trials and imports reported	Ag/food & medical	Draft guidance under development	Draft approach under development	Limited or none reported

Note: No publicly accessible data on the GMO/biosafety and/or GEd regulatory frameworks for Comoros, Lesotho, and Seychelles could be obtained for this assessment, however, this should not be taken as confirmation of their absence.

Figure 1 provides a high-level overview of the status of biosafety regulatory frameworks for GMOs and GEd across the SADC region. Countries are grouped into broad tiers reflecting the status and scope of their biosafety systems, including where operational GMO systems are in place, where GEd approaches have been implemented or remain under development, and where available information indicates partial, limited or not yet clearly operational frameworks.

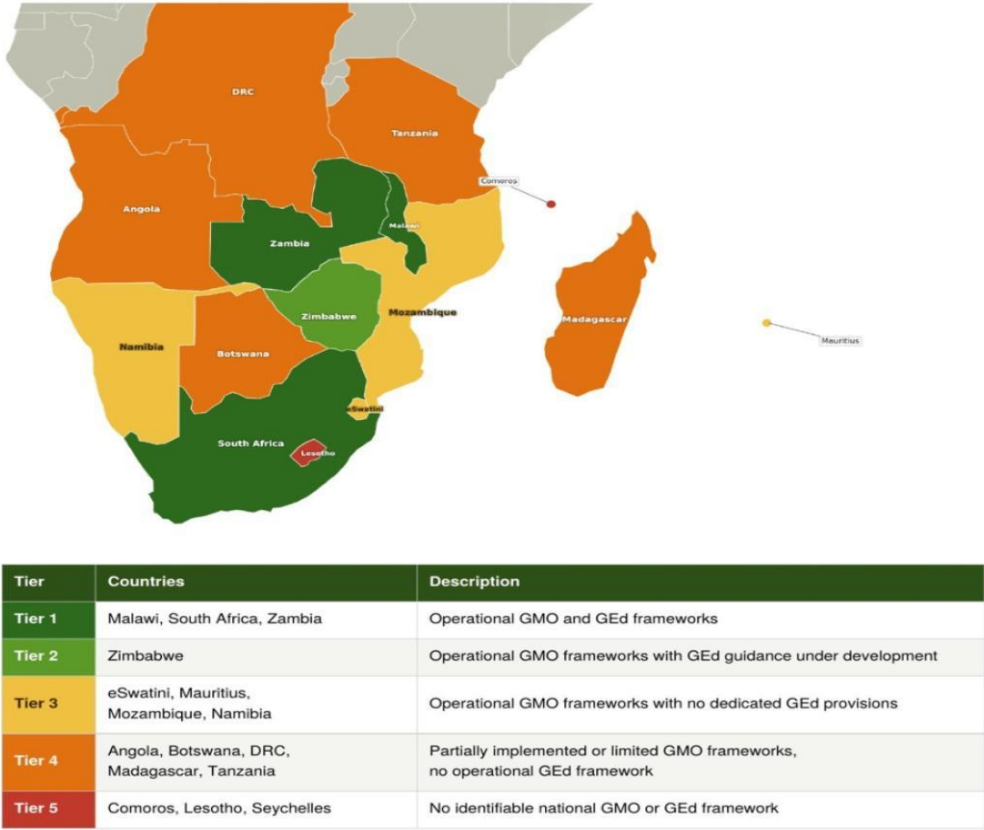


Figure 1: High-level overview of the status of biosafety regulatory frameworks for GMOs and GEd across the SADC region.

Tier 1 — Operational GMO and GEd frameworks

Malawi, South Africa and Zambia have the most established biosafety systems in the region, with operational frameworks governing both GMOs and genome editing. South Africa maintains an established biosafety framework under the GMO Act of 1997. Following the October 2021 Executive Council notice, products derived from new breeding techniques (NBTs), including genome-edited products, are regulated within the existing GMO framework; at the time of writing, this remained the prevailing publicly communicated regulatory position. Malawi has similarly published and applied an approach to GEd. In Zambia, GEd guidance — developed with support from AUDA-NEPAD and the African Union High-Level Panel on

Emerging Technologies (APET) — has been finalised. The governing legislation is formally the *National Biotechnology Authority Act (No. 3 of 2006)*, which establishes the NBA.

Tier 2 — Operational GMO frameworks with GEd guidance under development

Zimbabwe has an operational GMO framework, and work on GEd guidance has continued with support from AUDA-NEPAD and APET; however, at the time of writing this instrument, [it](#) remained under development and had not been formally adopted.

Tier 3 — Operational GMO frameworks with no dedicated GEd provisions

Eswatini, Mozambique, and Namibia have operational GMO systems but do not yet have dedicated GEd provisions in place. Mauritius has a GMO Act in force, while provisions relevant to GEd remain limited or not fully operationalised.

Tier 4 — Partially implemented or limited GMO frameworks, with no operational GEd framework

Angola, Botswana, the Democratic Republic of the Congo (DRC), Madagascar, and Tanzania have biosafety systems that are partial, limited in scope, or not yet clearly operational at the national level. Tanzania has biosafety regulations for GMOs; however, its regulatory environment remains restrictive — at the time of writing, no active GMO field trials were identified, and the country has not operationalised a specific framework for GEd.

Tier 5 — No identifiable national GMO or GEd framework

For Comoros, Lesotho and Seychelles, no publicly accessible national frameworks governing GMOs or GEd were identified for the purposes of this assessment.

Overall, the review indicates that most countries in the region have taken steps to establish GMO biosafety frameworks, although implementation varies in scope, maturity and regulatory practice. Malawi, South Africa and Zambia have published or applied approaches relevant to GEd, while several other countries remain at draft, partial or exploratory stages. This landscape has implications for research, innovation, trade and regulatory cooperation in the region. Continued coordination on proportionate biosafety governance across SADC may help reduce fragmentation while supporting safe and transparent decision-making.

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