# **Executive summary**

The objective of this study is to establish the state of trade liberalisation in environmental services and identify any market access and national treatment limitations in the existing regulatory regimes across the SADC member states. The study also identifies regulatory principles that may be necessary in promoting trade in environmental services at the SADC and the African Continental Free Trade Area (AfCFTA) levels. The purpose of this study, therefore, is two-fold:

1. Provide an overview of the readiness, interest and appetite of SADC member states to liberalise trade in environmental services within the SADC region.
2. Assess how existing challenges and barriers to trade can be addressed and removed as part of facilitating regulatory cooperation across the SADC countries.

Research undertaken encompasses both qualitative and quantitative methods. Qualitative research is undertaken in a two-step approach: conducting desktop research and designing a survey questionnaire / instrument shared with all SADC members. Quantitative research uses existing datasets and existing research to provide an overview, where necessary, on relevant data related to trade in environmental services at a regional and national level.

**This study identifies six notable and overarching trends from the individual market case studies:**

1. There remains **significant scope for the expansion of core environmental services networks** in most SADC markets, and the expansion of such core environmental services remains an ongoing priority area for the SADC member states. This is important as the study finds core service coverage is mixed across SADC countries, with a limited number of households having access to sewage systems or formal garbage collection. There also exists significant regional variation in the quality and coverage of services, particularly between the urban centres and rural area as well as peri-urban area.
2. **The public sector remains the core service provider in utility-scale wastewater and waste management services**, albeit with a growing role for the private sector. While state-owned entities frequently make use of private sector contractors, they form the core of service provision and oversee the processes that enable private sector participation.
3. **The private sector is active in a range of critical environmental services not handled by utilities.** While the formal firms may lead on some of these activities, across many SADC members informal traders play a significant contributory role towards environmental services, particularly in terms of waste management – recycling, waste collection and waste sorting.
4. **Private sector participation in utility-scale services is growing.** This study identifies broad trends in terms of delineation between public and private sector. Companies are increasingly contracted to develop core infrastructure (such as wastewater treatment plants), handle core services (such as waste collection, sorting and recycling), and provide ongoing technical support to maintain and upgrade equipment and facilities. This contracting is governed by a mix of specific licensing regimes, along with more general regulations for PPPs and public procurement.
5. **Consulting and technical support services are a small but valuable sector** with strong regional presence. Although a small sector, it provides high quality, high skilled job opportunities and is expected to be increasingly important as member states undertake the complex transition to environmentally sustainable economic systems in response to climate change.
6. **While regional trade remain small, ad hoc evidence suggests that there is a base of cross-border service delivery from which to grow**. With some political will, efforts can be extended towards projects of regional and mutual benefit and for which private sector has a role to play, especially in still-niche sectors such as air pollution mitigation, noise abatement and pollution management.

This study identifies seven core recommendations (table below) to promote regional trade in environmental services across eight opportunity sectors, with these being a mix of national treatment considerations during formal negotiations under the SADC Protocol on Trade in Services, alongside other opportunities for collaboration and supporting companies. Five high-potential opportunities for cross-border private sector participation should be paid closer attention as part of the negotiation process, and should be considered when establishing a trade regime for the region:

1. **Operation of water pre-treatment systems for industrial usage**: Services including the installation, maintenance, operation and support of systems that filter and clean water released from industrial, mining or agricultural activities, prior to their release into common sewage systems.
2. **Cross-border recycling services**: Services related to the collection, sorting, bundling and processing of waste for recycling or other further use. This includes traditional recycling activities (such as plastic, glass, paper), as well as next generation technologies like the processing of agricultural waste into biofuels or biochemicals, or the creation of industrial symbiosis networks.
3. **Environmental consulting and certification services**: Services associated with technical processes, such as undertaking environmental impact assessments or providing supporting services for interventions with environmental benefits (such as the design of renewable power plants or of waste facilities). There is already a shortage of such services in the region, and affording accreditation and mutual recognition of qualifications in this sector is one way through to promote greater trade in professional services of such a nature throughout the SADC region.
4. **Operation of wastewater treatment plants**:Services related to the installation, maintenance, operation and support of systems that filter and clean water at a grid-sewage system scale. Typically offered via a PPP or as a sub-contract from the state-owned entity leading on wastewater treatment.
5. A potential area for growing interest (although still nascent in the region) is **air pollution control and noise pollution abatement**. As populations in major cities and metropolitan areas continue to grow, there will be an increasing need to manage air and noise pollution – both of which could offer avenues for private sector specialisation and participation in government procurement opportunities.

**Four additional sectors – solid waste management, collection of waste from septic tank systems, waste sorting services and sanitation services – have potential for regional trade but offer greater complexity** (especially as they tend to be localised in their offering, with local service providers) **for regional trade in services**. They could also be considered and pursued as opportunities for regional trade across SADC.

It is critical to highlight that a de facto liberalisation of environmental services in the abstract may not be suitable if it focuses excessively on aspects of the market that are dominated by public service provision. As such, **the study delves deeply into identifying barriers in the opportunity sectors**:

1. **Industrial wastewater:** industrial wastewater treatment services are a key enabler of industrialisation, and the demand for industrial wastewater treatment is likely to grow along with regional industrialisation and the expansion of strategic industries like agriculture and mining. Amongst SADC members there is strong – but under-utilised – specialisation in industrial wastewater treatment, building off state-led capacity developed in core wastewater utilities, to develop private interests. Challenges in growing private sector participation, however, includes the fact that underlying activities are very highly regulated, with all SADC member states maintaining strict standards for water quality, and service providers need to be cognisant of a very diverse range of regional regulations.
2. **Recycling:** Both the quality and nature of these processes vary significantly across SADC. In many SADC countries there are no state-provided services for recycling, and this is a task primarily undertaken by informal waste pickers that sift waste before collection and at the final dumpsites. Most countries do not have legislated requirements for separation at source and even in instances where municipalities might be required to do so, many still fall short of this requirement. The current and potential recycling value chain is a mix of goods and services trade. However, existing restrictions on the movement of cross-border waste (especially hazardous and chemical waste) can have an important impact on the scope for services provision, and restrictions placed on the cross-border movement of waste good can undermine this model of services trade, by cutting off the crucial processing step. As such, the trade in services and trade in goods regimes for recycling need to be carefully aligned.
3. **Consulting and certification:** the most obvious restriction to the growth of trade in specialised environmental services is the two-tier treatment for foreign service providers compared to local service providers, more onerous conditions overseeing foreign private sector participation in specialist environmental services, insufficient skills recognition for qualifications from third countries, and requirements to the movement and delivery of services by foreign service providers into third-party SADC territory (for example, investments, requiring pre-existing commercial presence / subsidiaries, or partnering with local companies in joint ventures for procurement purposes).
4. **Treatment plants:** While most networks remain relatively traditional – with state utilities or municipalities treating water with methods like stabilisation ponds prior to discharge into natural water sources – the region is facing at least two major shifts:
   1. Increasing presence of private sector providers contracted to build, develop and operate new treatment facilities, or renovate and maintain existing facilities.
   2. A shift in technologies used in wastewater treatment, for which they may not be SADC capabilities, and which might favour multinational corporations instead.
5. **Air and nose pollution abatement:** while SADC policies do provide regional guidance on controlling and reducing air pollutants, emissions, and greenhouse gases, the full extent to which SADC countries have successfully domesticated and implemented air and noise pollution mitigation strategies remains mixed in results and outcomes. This is a sector well-suited to private sector services delivery, especially given the broad range of specialisation required to address noise and air pollution for different sectors (transport, industries, agriculture, etc). As populations grow, pollution mitigation strategies will become increasingly important and local governments, in partnership with the specialised private sector actors, can work together over long-term contracts to address different control measures that are suitable for the emissions arising from different sectors and industries.
6. **Waste collection:** Private sector participation in waste collection is very common across SADC, with individual municipalities often procuring collection services from private providers, particularly in larger cities. As with wastewater treatment, these are, of course, regulated by public procurement rules; however, waste collection is also overseen by additional licensing and certification rules. While waste collection and associated services are clearly an opportunity for regional trade, the specific rules governing this opportunity are diverse and variable. This complexity is likely the most significant barrier to regional trade in waste collection services, and efforts could potentially focus on initiatives to better share information and align standards in the sector.
7. **Septic tanks:** Unlike with solid waste collection, the septic tank sector is led by the private sector, with the majority of services are operated by private providers contracting directly with the owner of the system. Most primary wastewater collection services appeared to be run by local, medium-scale operations, with little obvious role for regional services providers. Maintaining the current open regulatory environment for septic tank and wastewater collection services could offer some potential for regional trade, but there is limited evidence to expect significant growth in this area.

Recommendations to overcoming these challenges are identified in the table below:

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| Opportunity | Recommendations |
| Industrial wastewater | Strengthen standardisation and information sharing among SADC member states on wastewater treatment standards and procedures in the manufacturing, agriculture and mining sectors. |
| Recycling | Work to align SADC rules on trade in goods for waste and rules on trade in services for recycling, in order to facilitate in-country service provision with processing in home countries. |
| Recycling | Review SADC waste handling regulations to assess the extent to which they enable recycling activities and, where necessary, build suitably differentiated regimes for recycling processors, including enabling easier regional trade in these specialist regimes. |
| Consulting & certification | Review national rules governing foreign consultants undertaking EIAs and other similar regulatory processes. To the extent possible, move from a two-tier system for foreign consultants to a unified national treatment regime with clear standards for experts. |
| Treatment plants | Deepen cooperation and information sharing among regional wastewater utilities on their water treatment plant technologies, to both help with the upgrading of regional capacity, and develop common standards and norms that regional service providers can specialise around. |
| Waste collection | Develop a model SWM collection contract, for use by municipalities seeking to integrate private service providers into waste collection activities. |
| Waste sorting | Undertake follow-up research on regional integration in the waste sorting sector, with a focus on balancing the promotion of regional trade with the need to protect the informal waste picker sector. |
| Air and noise pollution abatement | Regional standards should be identified and implemented with targets to reduce noise and air pollution across different sectors and industries (industries, agriculture, transport, etc) for the purposes of supporting harmonisation of requirements and facilitating easier cross-border private sector service delivery.  Private sector specialisation should be identified and thresholds for relevant expertise established at a regional level to promote the development of regional skills and expertise in this sector. |