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Special economic zones and transnational zones as tools for Southern Africa's growth

Lessons from international best practice

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Abstract: The paper evaluates strategies for developing successful special economic zones and transnational zones for Southern African countries to spur growth and employment. Most special economic zones implemented in Southern Africa have largely failed to bring adequate growth and employment due to numerous constraints. Globally, selected countries have successfully implemented export-oriented industries through such spatial industrial policy. We review case studies across the world by comparing different regions on selected indicators related to the best-practice framework developed through this study. The framework represents the five key components of successful special enterprise zones, namely: institutional arrangements; running (operational) framework; expansion framework; attaining/achieving framework; and reflection/review mechanisms. We identify best practice and review the implications for implementation and sustainability strategy in Southern Africa. The main findings point to unique lessons from international best practice on the establishment and operational strategy for zones and opportunities for transnational zones.

Key words: special economic zones, spatial industrial policy, growth, best practice, sustainability, Southern Africa

JEL classification: O14, O18, O25, O55

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1 Introduction, background, and rationale

Growing populations bring a myriad of challenges in maintaining or improving welfare standards. New growth strategies are imperative, and they should be able to bring about inclusive growth, particularly given the ex-ante inequalities resulting from a legacy of colonialism which is still evident in Southern Africa (SA). One way to ensure an equitable distribution of wealth is to foster regional economic growth within a country and at the continent (or sub-continent) level. Spatial industrial policy is therefore centre stage. In this way, regions with different endowments can strategically harness resources for the betterment of the broader welfare of society. One such initiative is the establishment of special economic zones (SEZs), whose strategic aims are chiefly to attract investment, create employment, and diversify economies, usually with a focus on expanding the manufacturing sector. This paper assesses the role of SEZs in harnessing economic growth prospects in Southern Africa. This is done through the development of a best-practice typology for SEZs, which stems from the authors' understanding of how successful SEZs (should) operate, and by evaluating international experience to see what lessons can be learnt for Southern Africa. We examine international case studies to obtain examples of best practice and assess their application and suitability to Southern Africa, given the status quo, which is considered disappointing (Farole and Moberg 2014).

This study follows the literature in defining SEZs as encompassing all forms of geographically delineated locations functioning with separate administrative, regulatory, and fiscal regimes in the rest of the country (Balasubramanyam 1988; UNDP 2015). Transnational zones, industrial zones, industrial development zones (IDZs), export processing zones (EPZs), and rural economy development, amongst others, are examples of different types of such delineated areas. This study brackets all such possible types into one broad category—SEZs. Host countries offer SEZ participants a variety of incentive packages, including: duty-free exports and imports; tax holidays; tax exemptions and reductions; exemption from labour laws; simplified administration procedures and fewer regulations; improved infrastructure and facilities; free repatriation of profits; and advantageous geographical location (UNCTAD 1993, 2019). The rationale behind these incentives is to strategically develop certain industries or to achieve specific economic objectives, for example diversifying economic sectors, in a defined manner.

SEZs are therefore a strategic, deliberate, and well-focused initiative to direct growth and create opportunities in specific areas, and the results should therefore mirror the extent of support. By demarcating zones, specific tax and related incentives can be offered to attract local and foreign investment into them, increasing prospects for contributing to economic growth and achieving an increased trade balance, increased investment, job creation, and effective administration (Woolfrey 2013). SEZs are generally created by governments to provide unique and suitable infrastructure, support services and other essential support systems and incentives to attract investment and promote the establishment and growth of firms. As with any government-led initiative, it is imperative to have the right legislative framework for SEZs, including governance and transfer (uptake by private sector), otherwise sustainability of the SEZs will be threatened. In this paper we compare Southern Africa with the rest of the world using a best-practice benchmark. Amongst the world's first SEZs are Ireland's Shannon Free Zone established in 1959, the Taiwan Province of China established in 1966, Singapore's EPZs established in 1969, and the Republic of Korea's EPZs established in 1970 (UNCTAD 2019). The introduction of an SEZ by a country is regarded as a sign of that country's move away from an import-substitution to an export-oriented economy, that is, integrating national economies into the global economy (Jauch and Keet 1996).

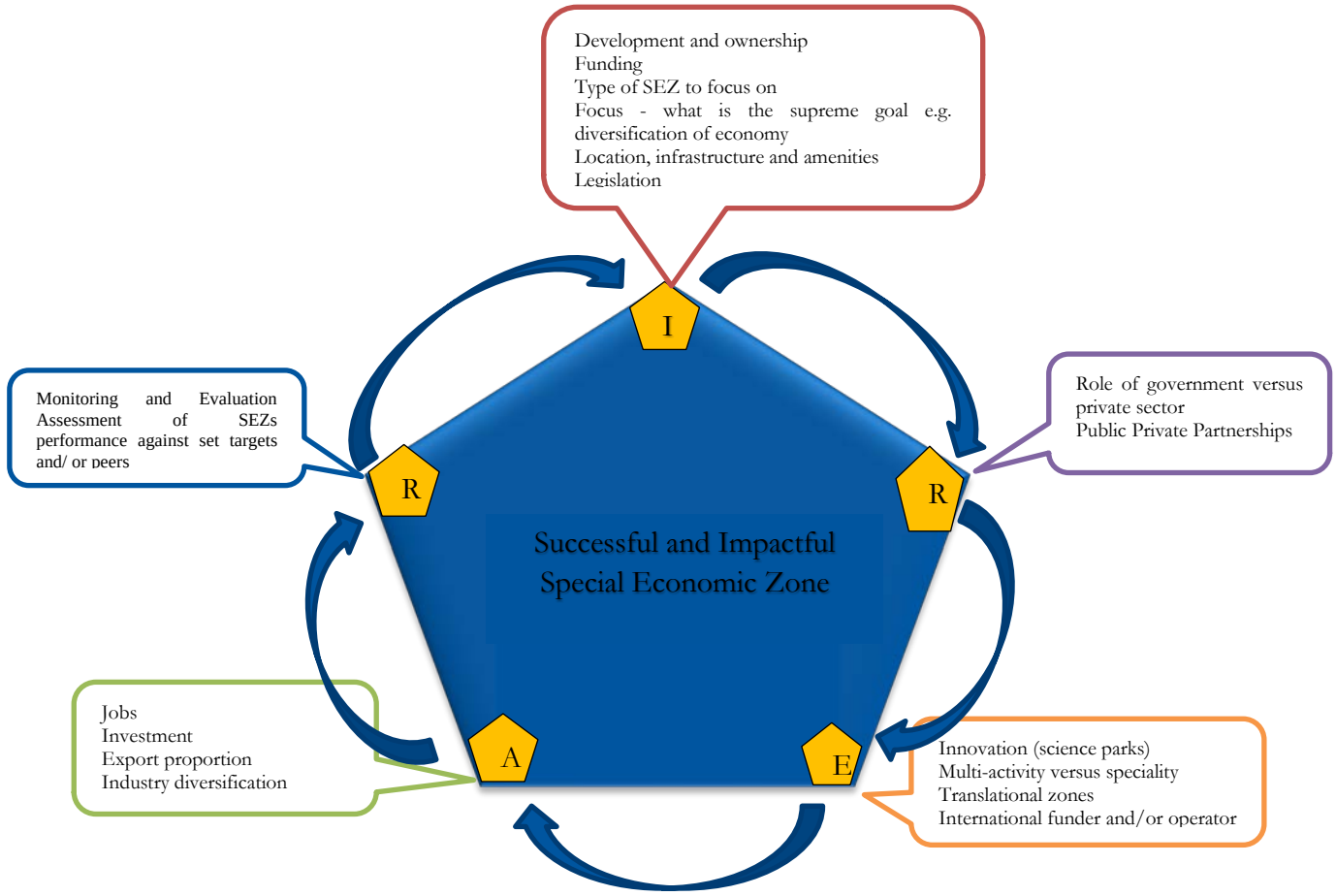
There are approximately 5,400 SEZs in the world, of which Africa has an estimated 237 (4.4 per cent) established SEZs, with the largest proportion in Kenya. South Africa, the largest economy in Africa and the Southern Africa region, is home to ten SEZs, and their creation is often seen as a pragmatic solution to structural shortcomings within the economy (UNCTAD 2019). The zones can be used to interlink countries through transnational zones, also known as border development zones (BDZs), which provide a linkage between individual countries' SEZs and regional integration. Through the Southern African Development Community (SADC), South Africa is advocating for regional integration, and this is being discussed across all sub-regions of the continent. At the continental level, the African Union (AU) is charged with establishing a free-trade continent. BDZs are defined as an extension of SEZs, leading to enabling infrastructure cooperation towards a seamless region. Examples of BDZs in Southern Africa are Mafikeng and Musina, South African towns which border Botswana and Zimbabwe respectively. If BDZs can be utilized, they can bring countries closer to each other, especially regarding trade and knowledge sharing. However, it is argued that the poor or outdated legal, regulatory, and institutional framework for SEZs in Southern Africa is hindering their success and creating confusion for potential investors (Zeng 2012b).

In addition, the cost of doing business is very high in Southern Africa with regard to the cost of registration, licensing, taxation, trade logistics, customs clearance, foreign exchange, and service delivery, among other costs. As a result, the region is still experiencing low levels of intra-regional trade as compared to other regions globally, and this limited regional integration is hindering overall development (Scheeper 2012). Southern African countries are experiencing problems of sluggish economic growth, high rates of unemployment, and income inequality. The global development strategy has shown that properly established and operated zones are key to unlocking growth and development in all spheres of government. The central concern of this paper is to identify international best practice and assess Southern Africa's SEZs, developing a framework for the institutionalization of such best practice for the purposes of accruing the benefits of SEZs such as employment creation, investment attraction, and spurring growth. It is necessary to begin by defining what form best practice for SEZ establishment and implementation could take (see Section 2) before conducting our assessment.

2 Mapping SEZ best practice

Our definition of best practice stems from the authors' understanding of what this should entail, and we assess Southern Africa's SEZs based on this and compare the definition with international best cases. The best-practice cases identified can be summed up to what we call I-REAR (in the context of bringing up and caring for a new (born) firm until it is fully grown). I-REAR is an acronym derived from five key pillars of successful SEZs: institutional set-up (I); operational strategy (run) (R); expansion strategy (E); achieving/attaining goals (A); reviewing/reflecting and starting over again (R). We reviewed Southern African SEZs using these five pillars—which we call 'the best-practice pentagon'. Figure 1 presents a framework for establishing and evaluating the success of SEZs. This best-practice pentagon framework can be applied as a guide for deciding what matters for each of the listed components.

Figure 1: SEZ I-REAR pentagon: best-practice typology



Key:

I = institutional framework—this relates to the conceptualization and establishment of an SEZ, which are the building blocks in institutionalizing the concept.

R = running/operation framework—this relates to how the SEZ establishment is managed on a day-to-day basis.

E = expansion—this relates to the growth that is expected beyond the initial establishment.

A = achievement/attaining—this relates to meeting the targets, realizing the set goals.

R = reflection—this relates to reviewing performance against set targets and/or peers and generating feedback.

Source: authors' illustration based on SEZ definition and best practice.

Institutional set-up (I)

To be successful, SEZs require to be established appropriately in terms of legislation, type of SEZ, and the international partners to be brought together. Each country requires a set-up that is tailored to its needs (such as the need to diversify the economy or grow specific sectors), and its abilities (for example, access to advanced technology like 3D printing). A science park, for example, is suitable for countries that have a well-diversified economy where the majority of products have reached maturity and it is therefore venturing into creating new products. Countries that are heavily reliant on agricultural and extractive industries are generally best suited to having an export processing zone.

Operational strategy (run) (R)

Although zones are usually established by the government, their success depends on how they are operated: what is the role of government versus that of other stakeholders identified at the institutional set-up level? By design, SEZs offer a preferential environment over anywhere else in the country and therefore how they are operated (implementing the legislative frameworks established at the first stage) determines the success of a zone in terms of the added advantage it gives to firms within it. The design and implementation of an SEZ policy ensures multisectoral collaboration beyond the management of the specific zone, and the zone should be more attractive to any firm than operating from anywhere else in the country.

Expansion framework (E)

The expansion plan involves, for example, expanding export processing zones (EPZs) by converting them to SEZs. The physical location should leave space for physical expansion (building more infrastructure, if needed, to expand and enhance connectivity in roads, ports, airports, and railways) and scope (for example, including a science park or offering additional export promotion services). Investing in research and development is important for understanding the global and local economic trends. In this area, the government must promote private investment in SEZs. These investors bring special managerial and technical talent from around the world into the host regions to further grow the SEZs. In promoting growth and expansion, SEZs must promote diversification and further develop new technological innovation and structural transformation.

Attain (A)

This stage includes SEZs' overall performance, realization of set goals, and competitiveness with peers. Clear goals must be set in line with the overall strategy or motivation for establishing the SEZs. Key goals relate to job creation and the proportion of exports and investment attracted.

Reflect (R)

This stage involves assessment of SEZs' performance, a review of past performance, critical evaluation, and instituting changes where necessary. A monitoring and evaluation protocol is mandatory to ensure success and relevance to the changing world.

Identifying these best practices and assessing the possibility of adopting such strategies can help Southern Africa to achieve success with its SEZs and unlock growth potential. It is important to note that what works well in another country and in a particular timeframe may not have the same effect if implemented in another country where the political will and time periods differ. Our case studies of successful SEZ programmes across the world suggest that the programmes in Southern Africa lack several best-practice elements, such as all the requisite amenities, strategies for ensuring and handling growth, clear objectives, and monitoring and evaluation.

3 Analysis of Southern African SEZs

This section presents an assessment of different indicators regarding the establishment, operation, support services, and performance of SEZs in Southern Africa.

SEZs in Southern Africa have historically been developed and operated by governments, as in any other part of the world (with a few exceptions), and they have generally not been successful (Bräutigam and Xiaoyang 2011). Politics have overshadowed the business agenda in the majority of cases (Bräutigam and Xiayong 2011) and, as a result, the region trails its peers in terms of success on all fronts (Zeng 2015). Southern African SEZs generally fail to meet the I-REAR best practice identified in Figure 1. There are some exceptions from the norm in Southern Africa related to the following.

Ownership: Zambia, for example, has three SEZs (also called Multi-facility Economic Zones (MFEZs)), the first of which was introduced in 2007 (Zeng 2016). One is managed and developed by the government share-holding company IDC while the other two SEZs are managed and developed by a Chinese state-owned company (Zeng 2016). Two of the zones are located near Lusaka and Lusaka International Airport, while one is in the city of Chambishi in Copperbelt (Zeng 2016). In Zambia, evidence shows that the most successful ones have been established through public–private partnerships and designed to interlink with local businesses and industries.

Transitioning from one form to the other: In Zimbabwe, SEZs were first established in 1987 by the government through the EPZs Act, and were managed and administered by the government through the Export Processing Zones Authority. In 2016 (29 years later), the government repealed the Export Processing Zones Act and introduced the Special Economic Zones Act, whereby SEZs were introduced in designated areas within the large cities of Bulawayo, Victoria Falls, Beitbridge, Harare, Mutare, and Norton (Zimbabwe Special Economic Zones Act 2016). The same trend is observed in Malawi, where the government introduced SEZs through the Export Processing Zones Act, which came into force in 1995 (Malawi Investment and Trade Centre 2018). As a latecomer, South Africa began to establish industrial development zones (IDZs) in 2000. The South African government established IDZs in several regions, namely Cape Town, Nelspruit, Nelson Mandela Bay Metropolitan Municipality, Richards Bay, East London, Saldanha Bay, Durban, Harrismith, and Mussina. This later transitioned to SEZs through the 2007 SEZ policy after reviewing the concept in relation to target goals (DTI 2019).

Delineated geographic location (delimited area): As there are no specific zones dedicated to export processing in Malawi, for example, companies set up wherever it is convenient. The Ministry of Industry and Trade administers the zones and is assisted by the EPZ Monitoring and Evaluation Committee (Malawi Investment and Trade Centre 2018). This contrasts with the experience of regional peers such as Zimbabwe, Mozambique, and Namibia where EPZs are secluded places or factories are clearly separated physically from the other businesses (Jauch 2002). In Mozambique, the government introduced EPZs in the 1990s, setting up industrial free zones where foreign and national investors are treated equally in terms of investment mechanisms as well as guarantees and incentives (Jauch 2002). A lack of such preferential treatment is also evident in South Africa, where the IDZ regulations, for example on labour and the environment, vary compared to those in force for the rest of country. According to Le Roux and Schoeman (2016), IDZs in South Africa have also been unsuccessful because the requirement that they should be linked to a seaport and international airport excluded areas with potential for growth proximity to inputs (compared to proximity to export gateway).

Infrastructure and amenities: In most Southern African countries, SEZs have been a major failure due to a lack of amenities. Zeng (2015) reiterates that inadequate infrastructure has been a thorn in the side of African and Southern African countries. This factor was considered as an overall constraint for all the zones, but the severity differs per zone. In general, power, gas, roads, ports, and telecoms are the key constraints faced by the SEZs (Zeng 2015). Most African countries need to improve their provision of infrastructure including roads, bridges, dams, power stations, telephone and irrigation systems, airports, railways, and sewage disposal plants. Revitalizing and repairing the existing structures and maintaining them would be beneficial for SEZs in Africa.

Legislation and governance: Farole and Moberg (2014) point out that SEZ investors in Africa often face many hurdles such as poor governance structures and inefficient administration. This is related to the slow institutionalization of fiscal incentives, and the problems are said to stem from inadequate funding or weak capacity. According to Farole and Moberg (2014), African governments have a problem with being both the regulator and developer of SEZs, which cripples the development of the private sector zones. An example is Lesotho, where the public developer of industrial parks also acts as the promoter, regulator, and administrator of the licensing regime, compromising efficiency and transparency.

Specific goal: Other than explicitly designed zones such as export processing zones, South Africa's IDZs have the stated goal of attracting foreign direct investment (FDI) and growing export industries. However, they have not yet managed to contribute to growth or to the transformation of the economy (Nel and Rogerson 2013) owing to slow or limited institutionalization of fiscal incentives, and this may explain their transitioning to SEZs, as mentioned above. South Africa has limited success with innovation and sustainability investments (Nel and Rogerson 2013). Roux and Schoeman (2016) compare the SEZ programme in South Africa with those in Malaysia and Indonesia, which have successfully established SEZs. The results showed that South African SEZ programmes were designed like those of the studied countries, meaning that it is not the design of Africa's SEZs that is the problem but the operation of the SEZs. African SEZs enhance manufacturing and exports in low-skilled, labour-intensive industries, with only a few African countries, such as Morocco, Rwanda and Senegal, targeting diverse sectors and higher value addition (FIAS 2008). Cross-country comparison of African and non-African countries has shown poor performance by the former group of countries, albeit with some pockets of success (Farole 2011).

Despite embracing the SEZ concept early on and for the right reasons, as was the case with international practice, little has been done to address the key socio-economic problems of unemployment and poverty. According to UNDP (2015), in Africa countries such as Zambia, Nigeria and Ethiopia, SEZ developers and governments face similar challenges in coordinating the key actors and infrastructure financing issues and creating linkages with local economies (value chain proposition). However, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mauritius, Nigeria, Seychelles, and Zimbabwe have been able to build a competitive advantage by specializing in the apparel, textile, and agro-processing industries. Mauritius has been successful in bringing structural change in the economy by using SEZs to introduce import-substitution measures and absorbing surplus labour to manage potentially destabilizing social and political tensions within the country. Table 1 shows a summary of Southern Africa's SEZs with respect to development and ownership, funding, other types, focus, legislation and location, infrastructure, and amenities.

4 Case studies of international best practice in establishing and operating SEZs

4.1 Institutional framework

Internationally, SEZ policy and strategy has shifted to creating knowledge-intensive clusters through the establishment of innovation-driven SEZs which focus on research and development and other high value-added activities, for example in the Philippines (UNCTAD 2019). However, most European countries do not have SEZs and those that do may only have customs-free zones (UNCTAD 2019). This section summarizes international best practice by continent, which can serve as a learning point for Southern Africa, as in the typology outlined in Figure 1.

Table 1: Southern Africa's Special Economic Zones

Component	Description	Examples/case studies
Development and ownership	Being developed and owned by government has been less successful, while shared ownership is likely to be successful.	Zambia has example of non-government established and controlled zones. Bräutigam and Xiaoyang (2011) and Zeng (2016) argue for bilateral government ownership.
Funding	Funds to develop/establish SEZs often provided by government, but growth realized through private investment.	In the majority of cases (as in China), except for Zambia, governments in Southern Africa bank role the initiative Jauch (2002) and Bräutigam and Xiaoyang (2011). Inclusion of private funders has enabled Latin American countries to grow successful SEZs (World Bank 2012). Fiscal incentives can cease later on and SEZs must be able to be self-sustaining—case of Shannon in Ireland.
Other types of SEZs	Transnational zones.	Mafikeng and Mussina in South Africa (borders with Botswana and Zimbabwe, respectively). Southern Africa lacks tourism and natural resource-processing zones which are becoming popular in Asian countries. Paraguay's port authority manages free-trade ports and warehouses in neighbouring countries' (Argentina, Brazil, Chile, and Uruguay) seaports
Focus—what is the goal?	The goal may be to grow the manufacturing sector and promote use of advanced technology; boost exports; diversify the economy.	As with South East Asia countries, Malawi, Mozambique, and Zimbabwe focused mainly on exports at start; South Africa focused on industrial development.
Location and infrastructure and amenities	Introduced in designated areas.	Malawi has no delineated geographic area; majority of countries have SEZs near airports, in major cities, and seaport where applicable. Consideration of locations that enable business value chain linkages, as in the case of China, is recommended.
Legislation	SEZ/related act with provision for preferential access to amenities and fiscal incentives.	All SEZs are established by an act; the legislation must be clear about incentive packages. SEZs in Southern Africa have transitioned from one form to another in some countries—there is an ability to be adaptable there.

Source: authors' summary.

Globally, SEZs are a spatial industry strategy used by more than 140 economies, with three-quarters found in Asia, which is the forerunner of this initiative. The highest number of SEZs are in China, the Philippines, and India—all in Asia—and the United States of America. Countries in South East Asia successfully implemented export-oriented industries through SEZ programmes

in the 1960s. These were initially labour-intensive multi-activity zones, and then became specialized and innovation-driven SEZs. Countries in East Asia successfully used SEZs as an instrument for economic development thanks to a competent workforce, good infrastructure, and an effective management strategy (World Bank 2011). China's boom is largely attributable to the contribution of SEZs to the domestic economy. This implies that SEZs' structure and primary focus are not static but are refined as time passes, and Southern African countries have shown that ability.

In the Philippines, SEZs were initially customs-free zones, which, from 1969, only focused on foreign trade, later transformed to multi-activity zones in the 1970s, to specialized SEZs in the 1990s, and which are now manufacturing zones (Bräutigam and Xiaoyang 2011). Asian countries also have tourism zones and natural resource-processing zones (UNCTAD 2019). India enacted the Special Economic Zones Act 2005 which led to the establishment of new SEZs, with more than 60 per cent of SEZs specializing in ICT-related manufacturing and services (UNCTAD 2019).

Amenities are enabling features and facilities established as part of the SEZ initiative which are strategically designed to support SEZ stakeholders. In Asia, SEZs have been performing well due to the amenities available in countries like Bangladesh, India, and Sri Lanka. Aggarwal (2010) found that the favourable fiscal, infrastructure, and regulatory conditions under which firms in these Asian zones operate have made it possible to attract substantial investment into the zones. Table A1 in the Appendix shows examples of fiscal incentives offered by Asian countries. Amenities provided in most Asian countries include, water, standard factories, electricity, telecommunication, warehousing, transport facilities in the zone, hotels/guest houses and residences for administration staff, and fire stations (Aggarwal 2010). The zones in Asia are located nearer to the airport or seaport within a radius of 100km, and the use of industrial parks is common in the SEZs. These amenities are part of the set-up (I) requirements as illustrated in the best-practice typology in Figure 1. A successful SEZ needs to have all these amenities in place but, as noted earlier, in most cases some of these amenities are missing in Southern Africa. The availability of SEZ amenities in Asia has therefore led to an increase in FDI inflows and poverty alleviation in countries such as the Philippines, China, and Bangladesh (Carter and Harding 2010; Curtis et al. 2006).

In India, the government took several initiatives to facilitate investment, foster innovation, protect intellectual property, and build best-in-class manufacturing infrastructure in the country (Mukherjee et al. 2016). In the Philippines, the government embarked on building infrastructure for their zones to attract investment (Aggarwal 2010). In Bangladesh, land is cheap as firms receive a 50 per cent subsidy on land and factory rents, while India has free-trade and warehousing zones, and Sri Lanka has duty exemptions for the importation of equipment, construction materials, and production inputs. In China, land availability has contributed to much of the success of SEZs as, since 1981, the government has allowed SEZs to lease land to investors for an initial term of 20 to 50 years with the possibility of renewal (Zeng 2015). Further, the location and availability of coastal areas and major cities with a history of foreign trading and links to international markets have also contributed to SEZs' success (Zeng 2015). China has good access to major infrastructure, such as ports, airports, and railways. The SEZ sites in China have been selected on the basis of good transportation infrastructure and are connected to other communities that are able to invest in SEZs (Curtis et al. 2006). China has been successful because of its business value chains and social networks, as well as continuous learning and the upgrading of technology (Zeng 2012a).

For Latin America and the Caribbean, natural resources, infrastructure, and consumer goods continue to attract foreign investors to SEZs (UNCTAD 2019). This is important to know, as SEZs need to grow once established. Further, UNCTAD (2019) reports that the Caribbean has almost 500 SEZs in the region, hosting more than 10,000 enterprises and employing about 1 million people. The World Bank (2012) explains the quality systems in place in Latin America: like

SEZs elsewhere, a national quality system consists of the public and private entities being required to establish and implement standardization, metrology, inspection, testing, certification, and accreditation, and the main public institutions involved in quality services are a national metrology laboratory, an accreditation agency, and a standards body.

The World Bank (2012) reports that Paraguay's port authority manages free-trade ports and warehouses in neighbouring countries' (Argentina, Brazil, Chile, and Uruguay) seaports, with the seaports used for the reception, storage, handling, and shipment of merchandise transported to and from Paraguay. About 75 per cent of all goods entering and exiting Paraguay are transported by barge on the large river system that connects ports in Argentina and Uruguay (World Bank 2012). On the other hand, Mexico and the Dominican Republic benefit from their proximity to the USA (Curtis et al. 2006), which implies that Southern Africa, which has some countries that are landlocked and others that are not, has the potential to create such free-trade ports which become anchors of transnational zones. The role of the government for Zambia's SEZs and for Shannon SEZ in Ireland is shown on Table 2.

A debate now emerges about whether SEZs can continue to exist in the absence of fiscal incentives given that, by definition, they are incentivized establishments. A best-practice case of an SEZ without incentives is Shannon in Ireland which, from its establishment in 1959, attracted large multinational businesses through special tax incentives on staff and profits; however, these incentives later ceased. Shannon improved after the cessation of fiscal incentives and is now one of Ireland's leading international business parks and has seen huge growth in internationally traded services ranging from financial and insurance services to software and telecoms services (Shannon Chamber 2019). There are over 170 businesses with over 8,000 employees based in the zone, with no fiscal incentive in existence (UNCTAD 2019). The scarcity of resources in the face of costly incentives, which define SEZs, explains the low uptake of SEZs in some Southern African countries. The SEZs must incentivize and cover the operational costs of the delimited areas to be more attractive than any other perfect market competitive area and, as a result, fiscal incentives are considered to be a significant cost to the establishment and operation of an SEZ (UNCTAD 2019). Although incentives are necessary for SEZ growth, most Southern African countries have severely constrained resources to sustain SEZ incentive systems, hence the slow operationalization of fiscal incentive frameworks.

Although Shannon is best known for successfully operating after the cessation of fiscal incentives, the location of the zone is another lesson to be learnt from that case study. Location was of strategic importance as the zone, adjacent to Shannon Airport, was ideally located for refuelling global flights, and it capitalized on this location opportunity. Policy makers need to choose the location of zones carefully and not base it on an egalitarian approach of equalizing the number of zones per region or province, as is the case in some countries in Southern Africa. As a case study, Shannon can be a starting point for Southern African countries to come up with solutions to the problem of burdensome fiscal incentives and for how to develop ideas to avoid derelict cities and stunted rural towns caused by non-performing zones. Countries such as China have used the Shannon concept to create SEZs and establish new cities around them (Bräutigam and Xiaoyang 2011). However, in the case of South Africa, there are, for example, three industrial parks in Eastern Cape rural province, (in Mthatha, Butterworth, and Dimbaza) which shut down when incentives ceased in the early 1990s. As revitalization of the Dimbaza industrial park ensues, it is imperative to take lessons from the Shannon case study to avoid shutting down when incentives cease in the zones. Kennard (2016) points out that the Shannon free zone idealist O'Regan once said that Shannon would have to 'pull the airplanes out of the sky' to be aggressive in competing

to attract investment. In line with that, considerations of what can be 'pulled' to the zones in Southern Africa is important for the success of SEZs.

4.2 Running/operation framework

From an operational point of view, it is imperative to note that fiscal incentives represent a significant cost and that, without linking the SEZs to other initiatives, performance of firms within an SEZ will not translate into growth. As a result, other countries attempt to establish such linkages at start-up to ensure the smooth running of SEZs. In Bangladesh, for example, SEZs are mostly in the textile industry and high-tech parks, where they are overseen by the Bangladesh Economic Zones Authority (BEZA) and the Bangladesh Hi-Tech Park Authority, which rely mainly on private capital and expertise to develop and operate new zones.

Table 2: Role of government

Component	Examples/case studies
Role of government	Zambia has three zones: one is managed and developed by the government share-holding company IDC, while the other two SEZs are managed and developed by a Chinese state-owned company. Shannon SEZ, Ireland transitioned to quasi-state operation.

Source: authors' summary.

In Europe, for example in Poland, Croatia, and Slovenia, there is typically substantial public involvement in the management of SEZs. In the United States, the SEZs are called foreign-trade zones, established by domestic entities rather than by government, although their number and performance have been increasing over time (UNCTAD 2019)

4.3 Expansion

At establishment, it is important to have an expansion strategy mapped out to enable physical and concept expansion/growth. For example, the Shannon SEZ in Ireland had Smithstown, an industrial estate, next to it, which was developed as a satellite location for Irish businesses which became sub-suppliers to the larger businesses (Kennard and Provost 2016). These physical linkages are important to allow local businesses and economies to benefit from the existence of an SEZ. Southern Africa can only grow its SEZs if there are physical and deliberate linkages with local businesses and the local economies by performing well in terms of production and employment. Expansion can be construed from the transitioning trajectory, for example from EPZs to SEZs, that we have reported in Southern African countries. Table 3 shows a summary of the various components of expansion together with description and case studies.

Table 3: Expansion strategy

Component	Description	Examples/case studies
Innovation (science parks)	Zones that promote innovations become more specialist in driving or establishing science and technology parks, and promote/ support the underprivileged and unemployment.	UNCTAD (2019)
Multi-activity versus speciality	Multi-facility economic zones. Start with multi-activity and move to become more specialist to take advantage of creating knowledge-intensive clusters.	Zeng (2016) UNCTAD (2019)
Transnational zones	Bring countries close to each other to reduce the problem of cumbersome border controls such as tariffs that hinder trade by exporting SEZ companies.	Zhao and Farole (2011)
International funder and/or operator	Foreign direct investments are a key driver in the success of the SEZs.	UNCTAD (2019)

Source: authors' summary.

The use of low-skilled, labour-intensive industries, which is currently pursued by African SEZs, is the strategy that was used successfully by early EPZ adopters in East and South-East Asia. However, the Asian countries eventually became more specialized and more innovation driven, with the establishment of science and technology parks (UNCTAD 2019). These countries include Singapore, which initially had multi-activity zones in the 1960s, then moved to specialized SEZs in the 1970s, and started creating knowledge-intensive clusters in the 2000s (UNCTAD 2019). China has established SEZs in African countries such as Zambia, where the governments provide infrastructure such as electricity, water and gas, roads to the zones, and, where feasible, an expanded port.

Location matters for expansion and international examples attest to this. The Shannon SEZ was located on an international flight route which serves as a refuelling base. Other zones have been strategically established along country borders for proximity to inputs and markets. In Latin America, Mexico's successful SEZ, called the *maquiladoras*, operated along the border with the USA for ease of access to material inputs, which were then manufactured domestically at lower labour costs and exported back to the USA (UNCTAD 2019). The same approach has been followed in Cambodia and the Lao People's Democratic Republic. Cambodia also promotes SEZs which enable economic links between urban and rural areas. Demonstrating the expansion of the concept, in Colombia, individual companies that invest in sizeable projects with high economic and social impact become FTZs (free trade zones), while Costa Rica's SEZs initially hosted low value-added manufacturing before moving to more high-tech manufacturing and advanced services (Gereffi et al. 2019)).

4.4 Attaining/achieving goals

It is important to note that assessing the performance of SEZs is not straightforward as one of the greatest costs is the forgone government tax revenue because of incentives, and this is not directly observable. When SEZs are successful, there is value for money, and when they become self-sustaining, they ease pressure on the fiscus. Appropriate and realistic (challenging enough) goals must be set, and it is important to make these goals align to the institutional framework. The various goals that can be set up by SEZs, their description and examples are reflected in Table 4.

Table 4: Goals for development

Component	Description	Examples/case studies
Jobs	Ensuring increasing creation of employment.	Dominican Republic increased jobs by changing location (Sinenko, and Mayburov 2017; Zeng 2015)
Investment	SEZs attract investments. The new industrial revolution offers innovative ways of doing things and technology advancement.	China established 156 high-tech development zones (HTDZs) by the end of 2017 (UNCTAD 2019).
Export proportion	Enhance manufacturing and exports in low-skill, labour-intensive industries	Only a few African countries, such as Morocco, Rwanda, and Senegal, target diverse sectors and higher value addition (FIAS 2008).
Industry diversification	The overall focus of the government could be to support firms in certain sectors through SEZs to help diversify the economy	East London Industrial Development Zone in South Africa focusing on promoting 3D manufacturing to grow that industry. Chinese SEZs' goal: move from a centrally planned economy to a mixture of a centrally planned and a free-market economy (Wei and Ye 2004).

Source: authors' summary.

Job creation

China's SEZs are the leaders in terms of creating jobs, with over 30 million jobs created, while employment creation by SEZs in the Philippines increased by 10 per cent from 2001 to 2010 (Zeng 2010). Due to changes in macroeconomic reforms, the Dominican Republic shifted the location of its SEZs, and employment in the zones rose from 500 in 1970 to almost 200,000 in 2007, indicating growth in employment in the zones (Sinenko and Mayburov 2017). On the other hand, US zones created 68 million jobs around 2007, but it should be noted that relativity matters as the size of the countries differ. In 2013, the Dominican Republic generated 166,000 direct jobs along with an estimated 250,000 indirect jobs (UNCTAD 2019), with this employment constituting 4.2 per cent of labour force. In addition, Colombia, in the Latin American and Caribbean region, created over 65,000 direct jobs and 155,000 indirect jobs.

In 2012, SEZs in Nicaragua contributed 6.7 per cent of labour force employment, while the contribution in Honduras was 6.5 per cent (Moran 2011). Costa Rica's SEZs perform worst in the region, only contributing 4.2 per cent of the labour force. In 2017, 52 companies were active in Lithuania's FEZs, employing over 5,000 people. Africa has shown a significant increase in the introduction of SEZs and their benefits are varied; in some cases, the outcomes are small in comparison to the problem (especially the unemployment challenge). Pockets of success do exist, with countries like Ghana increasing employment in SEZs by 595 per cent from 1998 to 27,798 in 2010. Ethiopia is reported to have generated almost 50,000 jobs in a short space of time, and, in Kenya, EPZs are credited with the creation of up to 60,000 jobs. South Africa recorded a total of 12,380 jobs through direct employment creation in zones by 2017 (DTI 2017).

Exports

The SEZs in Africa have created little growth in exports, registering no more than 25 per cent on average. Elsewhere, in Russia, SEZs have contributed approximately 82 per cent of exports followed by Honduras, Nicaragua, and the Dominican Republic with 68 per cent, 65 per cent, and 62 per cent, respectively. China's SEZs have contributed 60 per cent of exports, while the Philippines and Asia have contributed 49 per cent and 41 per cent, respectively. Globally, the lowest contributors are South Africa (the Southern African country with the largest economy in

the region) and Kazakhstan, with a 2.1 per cent and 7 per cent share of exports, respectively (Zeng 2010). Harnessing the EPZ concept through multi-facility and services zones could help to unlock export growth potential. The majority of African countries seek to realize economic growth through promoting exports, hence the zones are created. Given its limited success, it may be strategic for South Africa to consider interlinkages with regional infrastructure in other countries and to use its size and international exposure to be the Southern African gateway.

Investment

The SEZs perform differently in terms of attracting investment. Between 2017 and 2018, investment grew by 11 per cent in Africa and by 27 per cent in developed countries, while the Latin American and transition economies' investment decreased by 6 per cent and 28 per cent, respectively (UNCTAD 2019).

Since 1990, China's share of FDI attracted by SEZs has been growing dramatically, reaching 82 per cent. Chinese SEZs were created to grow the Chinese economy from a centrally planned economy to a mixture of a centrally planned and a free-market economy (Wei and Ye 2004). The purpose of the SEZs was to have a 'spill-over effect' which would enable a higher volume of economic growth from the coastal regions to trickle down to the central and western regions (Litwack and Qian 1998). China first relied on SEZs, initially developed in 1980, to attract foreign investment and open up to the rest of the world while making the country a major economic player. Shenzhen was the first SEZ and the first problem encountered was that most foreign investment came from companies in neighbouring Hong Kong (geographic proximity which Southern African countries could leverage in their own region), as distant countries unfamiliar with Chinese business culture were unwilling to risk investing or facing setbacks. A regional SEZ for Southern Africa could provide impetus for significant foreign investors as the risk would be minimized by there being a diversity of economies in the SEZ rather than a zone in one country. This justifies the creation of transnational zones.

In China, the experience led to a lack of diversity of investment sectors with a resulting bias towards the real estate sector. The withdrawal of investment led to new regulations simplifying SEZ red tape, which in turn led to a sharp increase in overseas investment in SEZs and hence the success of the zones in China. For other countries like the Philippines, Russia, India, and Lithuania, SEZs' share of FDI increased from around 39 per cent to 50 per cent between 2000 and 2010. The countries that had slow growth, between 1.4 per cent and 15 per cent, are Costa Rica, Dominican Republic, Honduras, Nicaragua, and Poland. In Poland, SEZs resulted in investment of over EUR 20 billion over 18 years. In South Africa, the value of total private investment increased from R4.8 billion in 2013/14 to R5.2 billion in 2014/15, and zones attracted a total estimated investment of more than R21.1 billion over the period 2005/06 to 2014/15, and R15.5 billion of FDI in 2017 (DTI 2017). There is generally no significant difference in the attraction of investment by zones compared to elsewhere in the country. According to the World Bank (2017), the economic performance of most SEZs has resembled their national average instead of leading and catalysing the development of regions by performing better than non-SEZ areas. This raises questions about the significance of zones, especially given the significant fiscal outlays.

Although SEZs are established with the purpose of helping government to influence investment and spatial development, it is of significance to note that not all government support services are equally useful in promoting exports (Berry et al. 2002; Yannopoulos 2010). Wilkinson and Brouthers (2006) found that export promotion programmes such as SEZs expose managers to international markets with relevant information which is vital for competitiveness. In addition, Kaur (2016) revealed that due to supportive institutions and infrastructure, some countries became

competitive internationally in the export of services, particularly after the formation of the World Trade Organization.

4.5 Reflection/review

Economies such as Argentina, Brazil, Ecuador, El Salvador, Guatemala, Mexico, Paraguay, Peru, and Uruguay initiated reviews to ensure that the SEZs were contributing to growth and not overburdening the fiscal resources (OECD 2018). On the other hand, a review of the design and modus operandi of the Shannon SEZ, in particular a review of the dynamically changing enabling environment, resulted in resuscitation and significant impactful growth of the SEZ. With the fourth industrial revolution (4IR) fast driving how economic agents interact and what they need, SEZ concepts need to embrace this or risk extinction. As shown in Table 5, a review reflects on the operation and success of an SEZ and an example is a monitoring process of performance.

Table 5: Review of performance

Component	Description	Examples/case studies
Monitoring and evaluation built in	Reflect upon the operation and success of the zone given a target level or in comparison with peers elsewhere.	A regular monitoring process can improve performance of SEZs (UNCTAD 2019). Dominican Republic realized the need to change location to improve success—it worked.

Source: author's summary.

In the case of South Africa, assessment of the performance of IDZs in the country led to identification of weaknesses and the formulation of a new SEZ policy from 2007. The policy saw four categories of SEZ being established and defined for South Africa: Industrial Development Zones, Free Ports, Free Trade Zones, and Sector Development Zones. Between 2002 and 2010, only 40 investors had set up in the three operational IDZs (Coega, East London, and Richards Bay), with investments valued at R11.8 billion, while government investment had totalled R5.5 billion (DTI 2012). According to Bernstein et al. (2012), although the Coega, one of South Africa's IDZs, received R3 billion worth of government investment in infrastructure, there were only 21 investors and a total of 2,800 jobs created. Despite this, there were some successes among the first three IDZs, with over 5,000 direct jobs and 43,000 construction jobs created. Notwithstanding these achievements, the government continued on the development path to achieve better success through optimizing benefits to the economy (Nyakabawo 2014), resulting in the new SEZ policy since 2007.

On the other hand, within the Southern Africa region, Zimbabwe's SEZs' share of exports increased to 80 per cent between 2000 and 2006 (Tambudzai and Chikuta 2015). Zambia and Ethiopia introduced SEZs in 2006 and 2007, respectively. The size of the land where these SEZs were set up ranged from hundreds to thousands of hectares, and investments ranged from US$15 million to US$1.4 billion (UNDP 2015).

5 Approach to inquiry (methodology)

We followed a case study approach, through which scouting of SEZ stories across the world was stratified by region. Once we identified case studies that broadly represent international experience, we reviewed and evaluated them in relation to Southern Africa. Tables illustrating the mapping carried out in reviewing the case studies and drawing lessons for Southern Africa are presented in

Section 6. We analysed case studies from different countries, mostly from Asia, that have successfully implemented SEZs to identify key zones that need to be developed or improved in Southern Africa to promote growth and employment creation. The comparative analysis is both descriptive and explanatory to review the key aspects of SEZ programmes in the selected countries. The study focuses on the set-up and governance of the SEZs and analyses their overall performance in terms of exports, growth, and employment generation, guided by the proposed I-REAR best-practice typology.

Design indicators of SEZs include offering specific tax and related incentives, to attract local and foreign investment into the zones, and effective administration (Woolfrey 2013). Figure 1 presents the ideal SEZ establishment and operation typology, outlining the five key pillars of a successful zone. In this study, the key design indicators used for comparative analysis are as follows:

- legal and institutional background;
- fiscal incentives;
- on-site amenities; and
- country-specific characteristics.

The outcome indicators or targeted goals of SEZs include employment creation, diversity of industry, developing certain industries, improved trade balance, and boosting economic growth. For this study, the key outcome indicators that are used for comparative analysis are as follows:

- job creation (direct and indirect);
- export performance;
- investment attraction; and
- spillovers—industry diversification.

We discuss the various strategies in the case studies for encouraging the development of new SEZs and transnational zones and the improvement of existing SEZs in Southern Africa. We then discuss how these strategies can be adopted by Southern African countries to achieve increased growth and employment successfully. Risks associated with the adoption of these policies are discussed and case study analysis of failed SEZs in Southern Africa is carried out to find out what can be learnt and how the SEZs can be improved.

6 Assessment of empirical literature

6.1 Southern Africa and the best practice identified: an evaluation

In the case of South Africa (the largest economy in Southern Africa and a possible gateway to the region and rest of the continent), six IDZs were established between 2000 and 2015 with the intention of attracting FDI and exports of value-added commodities to accelerate growth, employment, and inclusion.

6.2 Southern Africa's challenges and success in SEZ implementation

According to Chinguno (2011), the location of zones has been aligned with a spatial development initiative which is attempting to establish economic activities in remote areas as well as strategic links to points like ports. To produce the required results, SEZs, as a concept, are expected to

offer the following compared to the rest of the country: preferential taxes, a world class infrastructure, streamlined administration, and dedicated custom support services, ensuring less governmental red tape and bureaucracy for investors and assistance with investors' imports and exports (Nel and Rogerson 2013). According to DTI (2012), the IDZ strategy of financing approved site servicing, infrastructure, and business development has shown mixed results nationally. The report from Bernstein et al. (2012) shows South Africa's Coega, East London, and Richards Bay have not yielded the expected results in promoting growth and industrialization or in accelerating exports and creating jobs. When Lesotho introduced a one-stop shop (multi-service centre) for investors in 2007, this did not solve the problem of facilitation because of limited authority, hence the need for institutionalization of the concept (UNDP 2015).

Although firms have different reasons for selecting zones, most firms are driven by returns on their investments, which make them more cautious when selecting zones or deciding whether to set up in a zone. This alludes to China's experience where most investors came from neighbouring Hong Kong, which understood the culture and business opportunities, and hence risk, within China more than any other country. This, in turn, affects the performance of the zones, especially if they cannot attract firms that will invest much, leading to low investment and job creation. According to Narula and Zhan (2019), increased zone investment can also be beneficial because of the transfer of managerial knowhow and production techniques. Other reasons why a firm may decide to enter a specific zone in a country are the SEZ's internal set-up, capacity, and location, or organizational structure (Narula and Zhan 2019.) Sub-Saharan exporters face tariffs of 4 per cent and time costs from customs delays equal to 16 per cent (Hummels and Schaur 2012). Thus, utilization of transnational zones can bring countries closer to each other and reduce the problem of cumbersome border controls, such as tariffs, which hinder trade by the exporting SEZ companies. For example, China's partnership with Singapore helped the countries to eliminate these problems, providing lessons about partnership structure and governance, planning, development and operations, and learning and knowledge sharing (Zhao and Farole 2011).

Cissé (2012) noted a need to consider and review the regulatory and legal framework, including social and environmental issues, which create challenges for the SEZs in Zambia, Nigeria, Ethiopia, Egypt, and Mauritius. These have a great impact on the development of SEZs in Southern Africa. SEZs are meant to develop specific areas across the economy to reduce the distortionary effects of tariffs and the regulatory costs of importing (UNCTAD 2019). Countries in Southern Africa have different resource endowments and comparative advantages, and this brings different results in the performance of their SEZs. According to Nyakabawo (2014), South Africa's infrastructure base puts less emphasis on spatial demarcation and more on attracting investment and technology and the transfer of skills. This means that South Africa's SEZs are in several locations, presenting significant benefits and spill-over effects to other economies. Studies show that success in Southern African zones is rather limited with only a few countries having relatively better performance (Farole 2011). The SEZs in Southern Africa generally have not promoted diversification, technological innovation, and structural transformation (Woolfrey 2013). Having multiple zones does not necessarily promote growth of zones or the economy (Scheepers 2012).

6.3 Southern Africa's implementation of SEZs compared to the rest of the world

Table 6 compares the set-up, governance, and legal and institutional background of SEZs in other world regions to Southern Africa. Table 7 compares overall performance and Table 8 compares the on-site amenities.

Table 6: Set-up and governance, legal, and institutional background

Asia	Latin America and the Caribbean	Developed countries	Africa (excluding Southern Africa)	Southern Africa
In East and South-East Asia, early EPZ adopters were Taiwan in China (1966), Singapore (1969), and the Republic of Korea (1970), which pursued successful export-oriented development strategies. Developed labour-intensive, export-oriented industries, and eventually became more specialized and more innovation driven, with the establishment of science and technology parks.[1] Advanced economies are now adopting high-tech zones and integrated wide-area zones while less developed economies are attracting labour-intensive manufacturing activities.[1] Natural resource processing is also being explored to attract investment in downstream activities.[1] Singapore initially had multi-activity zones in the 1960s, moved to specialized SEZs in the 1970s, and in the 2000s started creating knowledge-intensive clusters focused on research and development and other high value-added activities.[1] In the Phillipines, SEZs were first customs-free zones which only focused on foreign trade from 1969, later transformed to multi-activity zones in the 1970s, to specialized SEZs in the 1990s, and currently manufacturing zones.[2] Tourism zones to promote tourism or tourism-related industries e.g., in Bangladesh, China, Indonesia,	SEZs are very common in South and North America except in a few countries.[1] Some of the countries in the region provide free-zone benefits to local SMEs and the SMEs operate in their existing location.[1] Mexico's successful SEZ was the *Maquiladoras*.[1] Colombia allowed individual companies that invest in sizeable projects with high economic and social impact to become FTZs. In Costa Rica, SEZs initially hosted low value-added manufacturing then moved to more high-tech manufacturing, notably medical devices, and advanced services such as sophisticated shared service centres and R&D operations.[3] Transnational SEZs are promoted in Cambodia, DRC, and Thailand. All these areas are located next to borders to promote international trade and investment. Cambodia promotes the development of rural areas through SEZs which promote economic links between urban and rural areas.	About 70 per cent of developed countries have SEZs and these are mostly customs-free zones. Most developing countries aim at creating a level playing field across the economy to reduce the impacts of tariffs and imports.[1] Common in developed countries are SEZs for establishment of various forms of science and technology parks and tourism activities, regional development, and support for the underprivileged and unemployment.[1] In the USA, SEZs are called foreign-trade zones in oil refining, automotive, electronics, pharmaceutical, and machinery and equipment areas.[1] The foreign-trade zones are created at the instigation of local organizations rather than the federal government. There are SEZs in all European Union countries except for Austria, Belgium, Lithuania, Luxembourg, Slovakia, and Sweden, and, while the number of foreign-trade zones has been on the rise in the USA, the use	EPZs were introduced later in Africa, and Mauritius was the first African country, in 1970, to establish an EPZ, followed by Ghana, Liberia, and Senegal in the 1970s. Currently, the number of EPZs in Africa, found in 38 countries, is estimated to be 237, and there are also 200 single-enterprise zones.[1] Most SEZs aim to improve manufacturing and exports in low-skilled labour-intensive industries. A few African countries, such as Morocco, Rwanda, and Senegal, target diverse sectors and higher value addition. Kenya has the highest number of SEZ programmes and its SEZs together with those of Nigeria, Egypt and South Africa are well developed. Most of the SEZs in Africa are geared towards exports to the European Union and the USA, utilizing existing trade preferences. The Dakar Economic Processing Zone was established in 1974 and has not been successful. The government of China has established SEZs in	Most SEZs in in sub-Saharan Africa aim to enhance manufacturing and exports in low-skilled, labour-intensive industries. These zones have historically been developed and operated by governments, and they have not performed well.[4] These zones are only partially functioning, while in other countries they have even been abandoned altogether.[2] In Zambia, the SEZs are called Multi-facility Economic Zones (MFEZs). There are mainly three MFEZs in Zambia, namely the Lusaka South Multi-Economic Zone, Zambia–China Economic and Trade Cooperation Zone (also called The Lusaka East Multi-facility Economic Zone), and the Chambishi Multi-facility Economic Zone.[5] The Lusaka South Multi-Economic Zone is a commercial project led by the public sector in the same manner as other SEZs to develop infrastructure. It was established in June 2012 by the Ministry of Finance. It is managed and developed by the Lusaka South Multi-facility Economic Zone Ltd, the government share-holding company IDC.[5] The zone is a few kilometres from both the city and the Kenneth Kaunda International Airport. The zone is being developed in five phases and comprises industrial, commercial, and residential developments. The first Multi-Facility Economic Zone (MFEZ) in Zambia was established in 2007. It is called The Zambia–China Economic and Trade Cooperation Zone and is also the first Chinese overseas economic and trade cooperation zone to be established in Africa. The MFEZs in Zambia include agriculture agro-processing, brewing, pharmaceuticals, building materials, logistics, and international commerce.[5] The Chambishi Multi-facility Economic Zone was opened in 2007 in the city of Chambishi in Copperbelt. The multi-functional zone is open to foreign and domestic investors. The MFEZ sectors include mining, engineering equipment assembly, construction materials, fertilizers, agriculture, and service sectors such as banking and hospitals.[5] The Zambia–China Economic and Trade Cooperation and the Chambishi Multi-facility Economic Zone are managed and developed by a Chinese state-owned company.

Malaysia, and the Russian Federation. In Malaysia, the SEZs promote economic links between urban and rural areas. In China, government agencies were responsible for the development of SEZs. Currently, China has over a hundred SEZs, divided into six main types, namely economic and technology development zones, high-tech IDZs, border cooperation zones, boundary zones, or logistics parks, EPZs and industrial parks, and investment zones.[2] India enacted the Special Economic Zones Act of 2005, which led to establishment of new SEZs.[2] Its first SEZ was established in 1965 but later stagnated in the 1970s only to be reintroduced in 2000. Currently, 231 SEZs are operational and more than 60 per cent of the SEZs specialize in ICT-related manufacturing and services.[1] India is in the process of removing direct tax benefits levied on tenants in 2020.[1] The country enacted the Special Economic Zones Act of 2005, which led to establishment of new SEZs. Turkey initially introduced SEZs in 1985 to promote manufacturing for exports, then in the 2000s the country moved to technology development zones to ensure investment in research and development of high-tech industries. Currently it has 18 active free zones.[1] Technology development zones are used by Turkey to attract investment in research and development.		of customs-free zones and SEZs in Europe has been declining.[1] In Europe, there is typically substantial public involvement in SEZ management, for example in Poland, Croatia, and Slovenia. In Poland, a phase-out strategy was implemented where SEZs were initially established for a period of 20 years. Subsequently, in 2008 and again in 2013, their lifetime was extended to the end of 2026.[1]	African countries such as Algeria, Egypt, Ethiopia, Mauritius, Nigeria (two), and Zambia, and the decision to award tenders in these countries is not political but depends on the results of the tender.[2] Individual Chinese enterprises have started industrial parks and free-trade zones in Africa on their own, and these countries include Nigeria, Sierra Leone, Uganda, Botswana, and South Africa.[2] For new Chinese zones in Africa, Chinese firms rather than government bureaucrats design and establish zones after assessment of business feasibility. Developers from China are constructing special economic zones in Africa, where they only construct the infrastructure inside the zone and the host governments provide the infrastructure outside the zones, for example for electricity, water and gas, roads to the zones, and, where feasible, an expanded port.	In Zimbabwe, EPZs were first established in 1987 by the government through the Export Processing Zones Act and were managed and administered by the Export Processing Zones Authority. In 2016, the Government of Zimbabwe repealed the Export Processing Zones Act and introduced the Special Economic Zones Act, whereby SEZs were introduced in designated areas in Bulawayo, Victoria Falls, Beitbridge, Harare, Mutare and Norton.[6] In Malawi, the Export Processing Zones Act, which came into force in 1995, allows all companies engaged in manufacturing for export to apply for EPZ status.[7] The Ministry of Industry and Trade administers the zones, assisted by the EPZ Monitoring and Evaluation Committee.[7] To qualify, an enterprise needs to have an Export Enterprise Certificate which is valid for five years and may be renewed for successive periods of two years, and companies can choose to leave or remain in the scheme. Exporters are supposed to repatriate back to Malawi all export proceeds and register them with the Reserve Bank of Malawi within six months of export.[7] Firms operating under EPZ status in Malawi currently export natural rubber and wood products, macadamia and coffee, and textiles. Traditional industries, such as tobacco, tea, coffee, and cotton, are excluded from the EPZ Regime.[7] In Mozambique, EPZ laws were passed during the 1990s and provide most of the typical EPZ incentives found in other countries except for exemptions from labour legislation. National minimum wages therefore have to be observed, thus creating employment opportunities for Mozambican nationals. The firms can employ a maximum of 10 per cent of foreign workers, who have to be replaced by Mozambicans in the future after guaranteed training by employers. In Zimbabwe, Mozambique, and Namibia, EPZs are located in different geographical areas, where they produce goods and services that are sold locally or internationally. The countries created import tariffs to avoid the influx of imports from other countries.[8] The South African government initially established IDZs and these are now becoming SEZs. The Special Economic Zone (SEZ) Act No. 16 was enacted in 2014. There are currently a number of IDZs operating in South Africa. The Atlantis SEZ located on the West Coast of South Africa, 40km from Cape Town, was introduced in 2011 to establish a greentech

The Gulf Cooperation Council countries use SEZ programmes to support strategic transformation: for example, SEZs in the United Arab Emirates which operate re-export hubs, e-commerce, and media free zones.[1] In Bangladesh, the development of SEZs, which are mostly in the textile industry and high-tech parks, is overseen by the Bangladesh Economic Zones Authority (BEZA) and the Bangladesh Hi-Tech Park Authority. The agencies rely mainly on private capital and expertise to develop and operate new zones serving both domestic and foreign markets. Pakistan and Nepal also have SEZs in the region.				manufacturing hub. The SEZ takes advantage of the province's already booming renewable energy and green technology sector. The Nkomazi SEZ is located approximately 65km from Nelspruit in Mpumalanga Province. The SEZ is linked to Swaziland by two national roads and to Mozambique by a railway line and the national road.[9] The Coega IDZ is located in the Nelson Mandela Bay Metropolitan Municipality in the Eastern Cape Province and is strategically located on a port to enable it to export to the world and African markets. The IDZ, designated in 2001, is the largest IDZ in Southern Africa and was South Africa's first IDZ. The Richards Bay IDZ is located on the north-eastern South African coast and is linked to the Richards Bay international seaport, which has first-world infrastructure.[9] The East London IDZ was established in 2003 and has become a prime industrial park in South Africa with several industries such as automotive, agro-processing, and aqua-culture. The Saldanha Bay IDZ opened on 31 October 2013 in the Western Cape Province and is about two hours from Cape Town. The purpose of this IDZ is to provide the primary oil, gas, and marine repair engineering and logistics services in Africa. [9] The Dube Trade Port located in KwaZulu-Natal is 30km north of Durban, and has access to large seaports, a road, airport, cargo terminals, hotels and rail. The Dube Trade Zone focuses on manufacturing and value addition primarily for the automotive, electronics, and fashion garments industries, while the Dube Agri Zone focuses on a high-tech agricultural development. [9] South Africa is also host to Maluti-A-Phofung SEZ in Harrismith, Free State, and OR Tambo SEZ situated around OR Tambo International airport and the Musina/Makhado SEZ, very close to the border between South Africa and Zimbabwe.[9]

Source: authors' summary based on [1]UNCTAD (2019), [2]Bräutigam and Xiaoyang (2011), [3]Gereffi et al. (2019), [4]FIAS (2008), [5]Zeng (2016), [6]Zimbabwe Special Economic Zones Act (2016), [7]Malawi Investment and Trade Centre (2018), [8]Jauch (2002), and [9]DTI (2019).

Table 7: Overall performance

Overall performance	Asia	Latin America and Caribbean	Developed countries	Transition economies	Africa (excluding Southern Africa)	Southern Africa (SA)
No. of SEZs	SEZs increased from 500 to 4,300 over a period of 20 years.[1,2] In India there are 373 zones, while 142 are under development and 61 are planned. China has 2,543 zones and 13 are under development.[8]	486 SEZs, 28 of which are under development and 24 are still planned.[8]	By 2019 Europe had 105 SEZs and 5 are still under development North America has 262 SEZs.[8]	237 SEZs, 18 of which are still under development and 5 are planned.[8] By 2019, Russia had 37 SEZs, but 11 have been closed and only 26 SEZs continue to operate.[6]	Africa has 237 SEZs, of which 51 are under development and 53 are still planned.[8]	Of the 76 zones established after 2010 in the database, 28 are based in sub-Saharan Africa.
No. of jobs	China's SEZs have created 30 million jobs.[7,9] In the Philippines, employment of SEZ workers increased by 10% yearly from 2001 to 2010 or from 289,548 to 735,672, doubling their share of total employment from 1% to 2%.[10] 1,688,340 people are working in SEZs in India.[15]	From 1970 to 2007, SEZ employment increased from 500 to 200,000 in Dominican Republic.[5] FTZs have more than 65,000 direct jobs and 155,000 indirect jobs in Colombia.[8] In 2013, the zones created 166,000 direct jobs with 250,000 estimated indirect jobs in the Dominican Republic. Dominican Republic's SEZs created 121,000 jobs, which was 4.2% of labour force in 2012. [3] Nicaragua's SEZs created 99,500 jobs which was 6.7% of the labour force in 2012. Honduras's SEZs created 120,000 jobs, which was 6.5% of the labour force. Costa Rica's SEZs created 58,012 jobs, which was 4.2% of labour force. Colombia's SEZs have generated more than 65,000 direct jobs and 155,000 indirect jobs.	As of 2007, it is estimated that EPZs created about 68 million direct jobs in US. By 2012, Poland's SEZs had created over 186,000 new jobs.[11]	In Russia, SEZs created 7,397 jobs in 2011, 13,608 jobs in 2013 and 10,173,196 jobs in 2019.[4,12] In Lithuania, 52 companies were active in 2017, which employed more than 5,000 people.[8]	From 1998 to 2010 zone employment rose from 4,000 to 27,798 in Ghana. SEZs have created approximately 50,000 jobs in Ethiopia[8] and, in Kenya, EPZs account for close to 60,000 jobs.[8]	To date, the total number of jobs created in the zones in SA is 12,380.[13] SA has managed to secure investment of R9.2 billion from a total of 21 investments. Of the 21 investments, 17 are operational and the rest are pipeline investments. A total of 2,837 jobs have been created by the zones. IDZs have created 73,000 jobs so far.

Investment (FDI)	Asia's share of FDI increased from US$493 billion in 2017 to US$512 billion in 2018, an increase of 4%.[8] SEZs have contributed 82% of FDI: -In the Philippines, FDI grew from 46% in 2000–04 to 52% in 2005–10.[10] FDI in SEZs was 433,142 crores in 2017 India.[15]	Latin America and the Caribbean's share of FDI decreased between 2017 and 2018 from US$155 billion to US$147 billion, a decrease of 6%.[8]	Developed countries' share of FDI between 2017 and 2018 was US$55.7 billion to US$759 billion, which increased by 27%.[8] In 2012, Poland had accumulated over EUR 20 billion of investment over a period of 18 years.[11]	Transition economy countries' share of FDI between 2017 and 2018 decreased from US$48 billion to US$34 billion, a decrease of 28%.[8] In Russia, SEZs contributed investment of US$14.3 billion.[4] In Lithuania, FDI increased by 39% to EUR 905 million in 2018 from EUR 654 million in 2017.[8]	The African region's share of FDI increased between 2017 and 2018 from US$41 billion to US$46 billion, an increase of 11%.[8]	From 2013/14 to 2014/15, SA's private investment increased from R4.8 billion to R5.2 billion.
Exports	In Asia, SEZs contributed US$510,666 million of exports, i.e. 41%, and China's SEZs contributed 60% of exports (Zeng 2010).[9] In the Philippines SEZs, manufactured exports increased from US$19.5 billion to US$28.9 billion and their share of exports was 49% in 2003. SEZs' export output was US$467,337 which amounted to 19.88% of India's exports.[15]	Costa Rica's SEZ exports jumped from less than 10% in 1990 to 55% in 2003.[8] Costa Rica's exports are US$4,833,000, which is 52% of exports.[8] Dominican Republic's exports are US$4,080,000, which is 62% of exports Honduras's exports are US$3,932,000 exports, which is 68% of exports.[8] Nicaragua's exports are US$1,200,000, which is 65% of exports.[8]	US$851 billion worth of exports.	In 2017, 52 companies were active in Lithuania which recorded income of EUR 1.24 billion. 75%, or EUR 936 million, came from exports, which accounts for 6% of all Lithuanian export income.[8] Kazakhstan's SEZ exports amounted to US$89,909, which is 2.9% of exports. Similarly, Russia's SEZ exports amounted to US$2,551,547, which is 82% of exports.[8]		In SA, US$4.1 billion has been generated by exports.[13]

Source: authors' summary based on [1]World Bank (2009), [2]ADB (2015), [3]Moran (2011), [4]Maslikhina (2016), [5]Sinenko, and Mayburov (2017), [6]Zeng (2015), [7]China Development Bank (n.d), [8]UNCTAD (2019), [9]Zeng (2010), [10]Tadem (2016), [11]Ernst and Young (2013), [12]Golubkin et al. (2017), and [13]DTI (2017).

Table 8: On-site amenities

On-site amenities	Asia	Latin America and the Caribbean	Developed countries	Transition economies	Africa (excluding Southern Africa)	Southern Africa
Customs offices, procedure and one-stop-shops	Asia has three-quarters of the world's SEZs, while India is doing well in customs proceedings and lowering corruption.[1] In China, the SEZ authorities have established a one-stop shop for each SEZ.[2] China established four SEZs in coastal areas to facilitate the flow of goods and services and later on the east coast to leverage the geographical advantage on foreign investment destinations.[3] The availability of these coastal areas plays an important role for China's SEZs. In West Asia, Turkey's SEZs are located on the coast or within easy access of ports. The zones are designed to promote classic export-oriented manufacturing investment.	In Latin America, exporters are charged an average tariff of 4% and an ad-valorem of 8% customs delays costs.[4] In Latin America and the Caribbean, there are 72 free points for industries, which include agribusiness, ports, hospitals and clinics, and offshore exploration activities. Latin America and the Caribbean use free points as a source of employment creation.[3]	In developed countries, most SEZs operate as customs-free zones. These customs-free zones provide relief from tariffs and the administrative burden of customs procedures. In developing economies, SEZs are generally there to attract FDI.[3]	Problematic access to land is the main issue with these economies. Most transition economies have land owned by private entities. Transition economies have the most successful SEZs.[3] Most of these SEZs use renewable resources.	Lack of institutions and poor infrastructure slow down economic developments in Africa.[3] In Africa, most of the SEZs are operated by the government, which acts as the regulator, and this leads to their failure.[5] Zones in Africa are faced with economic challenges such as a lack of water, poor leadership, corruption, and unstable electricity. In Cote d'Ivoire, there are no customs duties or VAT, salary and dividend payments can be transferred free of charge while workers and their families obtain long-term visas and work permits.[6] In, Eritrea, there are no taxes on income, profits or dividends; no customs duties on imports; no currency convertibility restrictions; and no minimum investment. 100% foreign ownership is allowed, and 100% repatriation of profits and capital.[6] In Gabon, there is no customs duty on imports of plant and machinery and no duties are paid on spare parts for industries. In Ghana, there are no import licensing requirements and there are minima customs formalities. In Mauritius, there is an exemption from customs duties on all goods imported into the freeport zones, and there is free repatriation of profits.[6] In Africa, one-stop-shops fail because they are unable to align the incentives and practices across agencies with highly disparate institutional objectives.[5] In Nigeria, most of the SEZs require infrastructure which includes ports, roads, bridges, potable water, sanitary wastewater, storm water sewers, electrical power generation and transmission, storage tanks, and fire stations.[7]	In Southern Africa, the cost of one day in transit is equivalent to a 0.8% tariff rate and for a 20-day transit route the tariff rate becomes 16%, which is very high.[8] South Africa currently does not have a one-stop-shop model to facilitate its industrial sector.[9] In 2007, Lesotho announced a one-stop-shop for investors, but it failed due to problems of facilitation.[5] In Southern Africa, there is a lack of policy stability, poor infrastructure, and high indirect costs. These costs are related to a poor business environment which weakens industrial growth. In Southern Africa, the major challenges include a lack of proper infrastructure, weakness in administration, poor management, and a lack of strategies for operation and policy-making.[10]

Source: authors' summary based on [1]Aggarwal (2004), [2]Carter and Harding (2010), [3]UNCTAD (2019), [4]Hummels and Schaur (2012), [5]Farole and Moberg (2014), [6]Newman and Page (2017), [7]Zeng (2012), [8]Hummels and Schaur (2012), [9]April (2013), and [10]Mugobo and Mutize (2016).

7 Conclusions and recommendations

This study set out to investigate how SEZs can be used to unlock growth and employment in Southern African countries. A case study approach was utilized to learn lessons from the rest of world to inform SEZ establishment, operation, and support systems in Southern Africa. The study proposes a best-practice typology in the form of a pentagon—the I-REAR framework. The findings include:

- Although SEZs are established by governments, they need to be established with a strategic view of self-sustenance and a clear-cut governance system with a commercial focus:
    - While the amenities within and immediately outside of the SEZs are critical success factors, there is a need to establish linkages between domestic industries and the SEZ investment opportunity. One such strategy is to ensure geographic proximity of SEZs and industrial parks, with the latter housing domestic firms which can be upstream/downstream of the industries catered for in the SEZ.

- Performance is not easy to measure as the indirect costs of fiscal incentives in the form of forgone income are not easy to measure. The focus should therefore be on efficiency. However, job creation indicators in relation to the labour force, export contributions, and investment attracted as a proportion of overall FDI are good indicators. Southern Africa is lagging on these indicators.

- Border Economic Zones are a transnational version of SEZs and have been successfully used in Asia and North America. In Southern Africa, plans for and management of these SEZs can be a stepping stone towards regional integration. However, it should be noted that once arrangements like free-trade areas have been implemented, there will be no room for special tax treatment.

7.1 Application and adoption of strategies to spur growth and employment in Southern Africa

The following sections provide answers to the question of how Southern Africa can apply and adopt strategies used by other nations to spur growth and employment. Because of several challenges, SEZs in Southern Africa have failed to realize the expected wider economic and employment benefits (Stein 2008). In terms of investments, exports, and employment generation, the African zones are generally falling behind their peers in other continents (Zeng 2015). Studies show that success in Southern African zones is rather limited with only a few countries, such as such as Mauritius, Kenya, and Madagascar, showing relatively better performance compared to non-African countries (Farole 2011). The maximum possible growth has not been achieved as the countries lag in terms of the higher value addition which is found in countries such as Morocco, Rwanda, and Senegal (FIAS 2008). As discussed, East Asian, Central American, and Caribbean basin countries have realized growth through SEZs due to a competent workforce, good infrastructure, and an effective management strategy (World Bank 2011). They have also unlocked agglomeration economies by overcoming minimum size thresholds and leveraging scale economies (Collier and Page 2009; Farole and Moberg 2017). In contrast, SEZs in sub-Saharan Africa have enhanced manufacturing and exports in low-skill, labour-intensive industries. According to Le Roux and Schoeman (2016), IDZs in South Africa were unsuccessful because some regions were excluded, despite having the potential for industrial growth.

Southern African SEZs have shown little evidence of promoting diversification, technological innovation, and structural transformation, and have followed an EPZ model which has proved to be inflexible in the face of recent trends, such as growth in the trade of services, deeper regional trade integration, and increased importance of industrial clustering (Woolfrey 2013). Elsewhere in the world, for example in the Philippines, SEZ policies have shifted to creating knowledge-intensive clusters through the establishment of innovation-driven SEZs which focus on research and development and other high value-added activities. Countries in South East Asia successfully implemented export-oriented industries through SEZ programmes in the 1960s which were initially labour-intensive, multi-activity zones before becoming specialized and innovation-driven SEZs. In Costa Rica, SEZs initially hosted low value-added manufacturing and then moved to more high-tech manufacturing, notably of medical devices, and advanced services such as sophisticated shared service centres and R&D operations (Gereffi et al. 2019). Technology development zones can be used to attract investment in research and development and high-tech industries by offering tax incentives focused on research, software development, and other innovative activities, as, for example, is the case in Turkey.

As a result, Southern Africa should consider the following:

- improving infrastructure and interlinkages of infrastructure within the country and across the borders of the region;
- re-skilling and upskilling management;
- agglomeration;
- considering transnational zones; and
- creating knowledge-intensive clusters, starting with a regional cluster with shared costs and the ability to draw on the appropriate skilled labour.

7.2 Effectiveness of SEZs in promoting private sector development

Southern African SEZs have historically not promoted private sector participation. They have been developed and operated by governments and, as a result, they have not performed well. For example, in Namibia, the EPZ programme fell short of the government's expectations by creating very few jobs, although a great deal of resources were spent on promoting the policy and on developing infrastructure through public funds (LaRRI 2001). As noted, the factors that have contributed to the underperformance of Southern African SEZs include poor infrastructure, poor planning and management, and a lack of or a weak institutional and legal framework. Promoting private sector development could eliminate this problem and ensure that SEZs continue to grow in the absence of fiscal incentives. Although most of the EPZ laws in Southern Africa are friendly to the private sector, much still needs to be done to promote their participation in developing SEZs. Developers from China are already constructing SEZs in Africa, such as the Multi-Facility Economic Zones in Zambia (Zeng 2019).

Elsewhere, countries are moving towards successfully promoting private investment in SEZs. The loss of free zone status does not mean that these zones cease to operate; for example, Shannon in Ireland is still operational (UNCTAD 2019). India eliminated incentives for developers in 2016 and is currently phasing out direct tax benefits for tenants by 2020 (UNCTAD 2019). In Bangladesh, the SEZ development agencies rely mainly on private capital and expertise to develop

and operate new zones. Colombia has allowed individual companies which invest in sizeable projects with high economic and social impact to become FTZs and has created significant employment in the country (UNCTAD 2019). Further, Colombia is successfully using public–private partnership ventures to innovate, fill financing and knowledge gaps, and develop selected industries, including public services (UNCTAD 2019). In Turkey, some SEZs are developed by foreign developers through joint-venture arrangements with both public and private local partners and through government-to-government partnerships.

Therefore, Southern African countries could increase private sector development of SEZs by encouraging private capital injection into high economic and social impact projects and by using public–private partnerships. This would eventually enable governments to reduce the burdensome and unsustainable fiscal incentives. The Coega SEZ in the Eastern Cape of South Africa is the largest in Southern Africa. It has attracted investment in new sectors and has since positioned Southern Africa in several global value chain linkages (Nel and Rogerson 2013). Local producers of goods and services are linked to the global value chain, giving them a competitive advantage in the international market. However, poor infrastructure and poor on-site amenities in Southern African SEZs have led to low value chain activities.

7.3 Risks faced by Southern Africa by adopting strategies used by other successful countries

There are several risks associated with adopting strategies used by SEZs in successful countries. Most Southern African countries receive no special incentives, and they face the risk of failure in their SEZs. Southern African governments promise that SEZs will be treated expeditiously in tax obligations that relate to imports and exports but, there is not much difference between how businesses and SEZs are treated in respect VAT. The regulations in place for SEZs do not deviate much from regulations for other businesses outside SEZs, thus giving little advantage to businesses operating in the zones within the Southern African countries. With rigid governance, there is an unwillingness (political will) to introduce regulations that may be viewed in the political environment as distortions of the economy (Anyang 'Nyong'o 1992). Most of these African countries lack a comprehensive policy framework to govern their SEZs, and they face the risk of failure if they imitate China and other successful SEZs, as economic structures and geographic locations differ. A favourable regulatory environment and framework that governs all SEZs in Southern Africa needs to be developed to reduce the risk of governments' failure in SEZ developments. Successful SEZs have policies that offer secured places for customs clearance and one-stop shops for customs duties, business registrations, and VAT regulatory requirements, but Southern African countries have none of these (Farole 2011). High levels of political commitment are vital for SEZs to succeed, as interdepartmental coordination and cooperation is required (Bernstein et al. 2012). Southern African countries face the risk of poor governance, poor coordination, and increased looting of government goods and services.

Almost all Southern African SEZs are entirely owned by the government, unlike countries with successful SEZs. Nigeria, Rwanda, Seychelles, Sudan, Uganda, Zimbabwe, Gabon, Gambia, Mali, South Africa, and Botswana have all or most of their SEZs under government ownership (Zeng 2015). There is a high risk of failure due to the public good component of the SEZs when exclusively owned by the provincial and local governments. Encouraging engagement by the private sector in ownership and management would lower the risk of SEZs failing in Southern Africa. As SEZs are government owned, the return on the investments is always low due to the nature of the use of government public funds, which are specifically for employment creation and giving public services to communities (no profit motive). Public–private partnerships (PPP) are very important to reduce the risk of SEZ failure. This type of PPP arrangement is common in

Zambia (Evdorides and Shoji 2013). Southern African countries must formulate policy to provide key public goods through PPP to reduce the risk of failure.

African countries use tax revenues to fund their economies. Globally, successful SEZs offer investors tax breaks and subsidies which can be a risk for governments' revenues, especially for Southern African countries which depend entirely on tax revenues to fund their projects. So fiscal incentives must be supported by other ways of raising funds in Africa for SEZs to be successful. In the global environment where SEZs have been successful, fiscal incentives are not the core investment decisions to be offered to SEZs but are essential in attracting first-mover investors who may be uncertain of the SEZs competitiveness in the host country (Bernstein et al. 2012; Cass 2007). In Africa, most of the SEZs burden local investors and foreign investors outside of the SEZs. There is a high risk of losing more foreign investors due to high taxes outside the SEZs.

Unlike countries that have successful SEZs, Africa has a lack of agencies promoting effective investment which seek to attract FDI. An introduction of one-stop-shops in any of the African countries could risk conflicting ideas with governmental departments so that they would cease to be one-stop shops. One-stop shops are essential, as they provide authoritative duties for the licensing and regulatory frameworks of SEZs. As mentioned earlier, most African SEZs are owned by the government, which makes it difficult to develop poor regions if finances are channelled into SEZs. A big chunk of the budget allocated to SEZs will cause other regions to be deprived of developments, leading to a risk of government failure in the provision of goods and services in their respective countries. Autonomous governance overseeing the laws, regulations, and practices within SEZs is of paramount importance (Zeng 2015) and will ensure efficiency in all areas of the SEZs operations which include the regulation of the economy, land-use control, and good communication between the developers and private investors.

In China and other developing economies, labour costs are lower than those in Southern African countries, especially in the manufacturing sector. Low labour costs are effective and efficient for SEZs to garner more profits and succeed, but it is not easy to lower wages without reducing economic growth. What is practical is to supress the growth of wages. Apart from other policies for SEZs used in successful economies, countries like South Africa have other regulations that need to be complied with and this risks failure in attracting good investors in SEZs. For example, Black Economic Empowerment requires a certain group of people to invest while excluding others.

Overall, Southern African countries should apply the developed I-REAR framework to evaluate current SEZs and in planning for any new SEZs. The best-practice pentagon outlines the five critical components for ensuring successful and impactful SEZs in any country. As an area of further research, a toolkit should be designed to aid the application of the framework.

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Appendix

Table A1: Fiscal incentives offered

	Asia	Developed countries	Transition economies	Southern Africa
Fiscal incentives`	China (high-tech development zones (HTDZs)): China has good fiscal incentives which include: - good infrastructure; - SEZs are exempt from corporate tax in their first two years of operation; - preferential corporate tax of 15%; - SEZs are exempt from tariffs on high-tech equipment. Turkey: TDZs: - exemption from income tax; - exemption from VAT; - employees exempt from income tax when they engage in research and development; - exemption from import duties.	In developed countries like the UK, the government provides tax exemptions in the form of property taxes which are different from traditional corporate income taxes. Opportunity zones in the USA give the SEZs some exemption from capital gains tax when the SEZs are located in more remote areas. In developed countries like the UK and USA, most of the zones are customs-free zones. Countries like Bulgaria, Lithuania, and Poland have both customs-free zones and zones in which other fiscal incentives are offered to promote production and economic activities in these SEZs.	Small island developing states do not stipulate a special incentives regime for zone occupants.	Preferential 15% building allowance, employment incentive, customs controlled area, tax allowance.

Source: authors' summary.