



**Trinity College Dublin**

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

# Industrial Clusters

## *The case for Special Economic Zones in Africa*

Carol Newman, Trinity College Dublin, Ireland

John Page, Brookings Institution, Washington DC



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# Introduction

Manufacturing production tends to be highly geographically concentrated

Firms are drawn together for a variety of reasons, motivated by the desire to reduce the cost of transporting goods, people and ideas

This is the case in both developed and developing countries

- In France, the UK and the US 75-95% of industry is spatially concentrated
- In Ghana, thousands of small metalworking firms are clustered together in the *Suame Magazine* near Kumasi

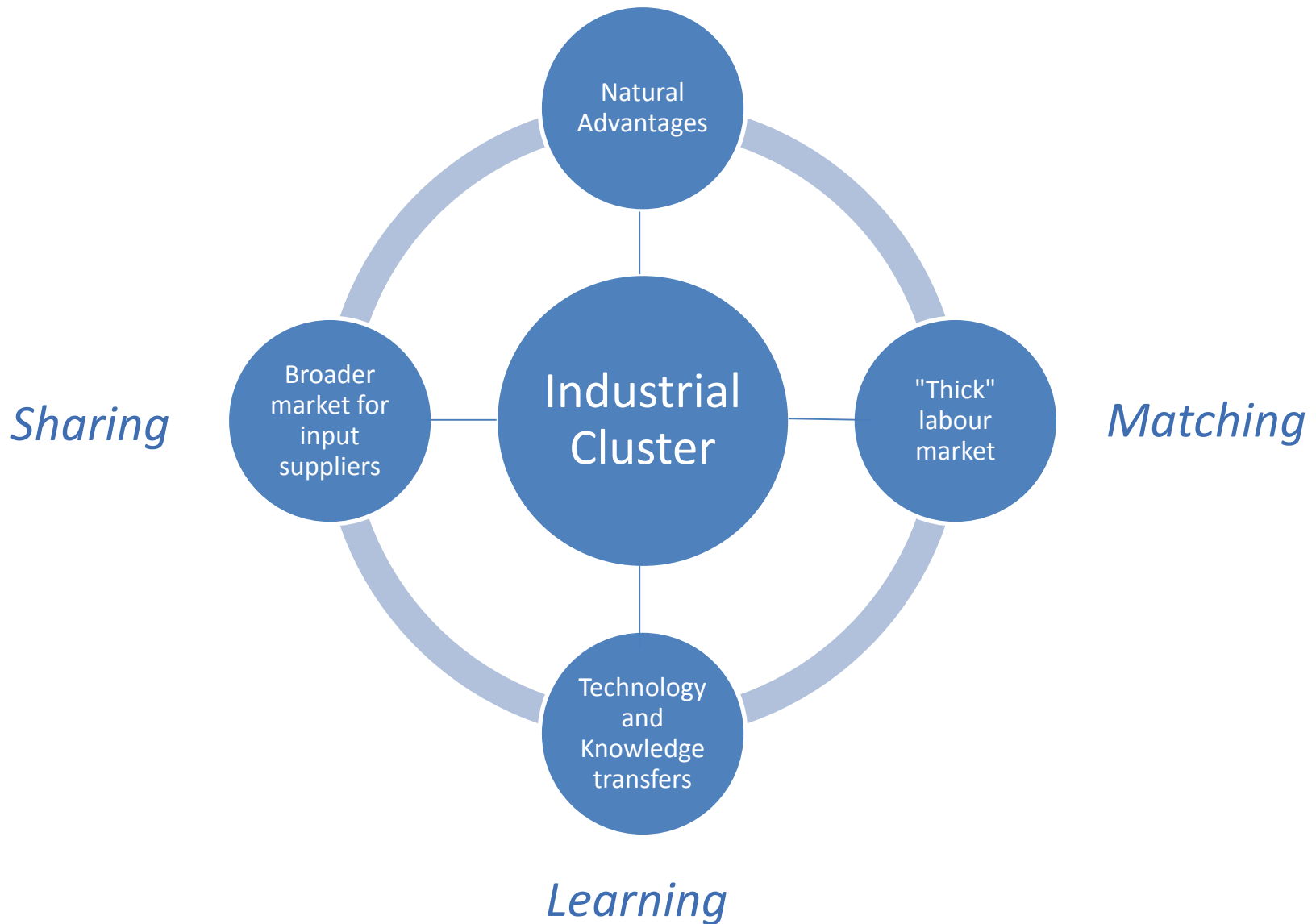
Areas of dense economic activity tend to prosper while others are left behind

This is in part due to agglomeration economies: productivity benefits associated with firms locating near one another

Spatial industrial policies that influence the location choice of firms could be an effective tool in accelerating the pace of industrialization in low-income countries

One way of achieving this is through the establishment Special Economic Zones

# Clustering and productivity: the theory



# Clustering and productivity: the evidence

**Learning to Compete:** *UNU-WIDER, African Development Bank and Brookings Institution*

Detailed econometric studies in four low income countries: Cambodia, Ethiopia, Tunisia, and Viet Nam

Strong evidence for productivity spillovers associated with agglomeration.

- The largest effects were in Viet Nam: firms in small clusters experienced more spillovers than those in large clusters; foreign-owned firms experienced the largest productivity spillovers (Howard et al. 2014; Howard et al. 2016)
- In Tunisia, there is evidence of agglomeration economies arising from the transmission of innovative ideas between firms (Ayadi and Mattoussi 2014)
- In Cambodia, evidence of productivity spillovers from clustering, particularly for informal firms (Chhair and Newman 2014)
- In Ethiopia, agglomerating firms have higher productivity, but only if they produce products similar to other firms in the cluster (Siba et al., 2012)

Results consistent with the view that clustering is associated with capability building for firms in low income countries (Sutton 2012 ).

# Special Economic Zones: the theory

Agglomeration as a collective action problem: little incentive for an individual firm to move to a new industrial location unless a critical mass of similar firms also move

Special Economic Zones can be used to foster industrial clusters

- Concentrating state or private investments in high-quality institutions, social services, and infrastructure in a limited geographical area
- Offering incentives to encourage firms to locate in the SEZs (tax breaks, subsidies, free trade arrangements)

A particular case has been made for using SEZs to promote trade through Export Processing Zones where distortions exist in an economy

Schrank (2001) defines the life-cycle of a successful EPZ in three phases:

- i) luring foreign investors;
- ii) demonstrating the feasibility of international competition;
- iii) drawing local manufacturers into world markets

# Special Economic Zones: the importance of linkages

The success of SEZs in achieving longer-term industrial development objectives will depend on the links between zones and the domestic economy (Schrank, 2001)

- South Korea: ‘process of constant integration’ to transform EPZs into major markets for ***locally manufactured capital and intermediate goods***
- Dominican Republic: vertical integration and linkages with the rest of the economy very weak. Later programs to promote linkages upstream sectors did not exist or failed to meet global standards
- Mexico: Border Industrialization Program (BIP) created a series of free trade areas along the US frontier in 1965. Ten years later and firms located in BIP zones purchased a greater proportion of their inputs at home than those located outside of the zones

All three cases demonstrate the necessity of setting SEZ programmes within the context of a larger industrial policy framework.

# Special Economic Zones: the African experience

Most African countries are latecomers to the promotion of SEZs with most established in the late 1990s or early 2000s

Many experienced rapid growth between 2000-2004 but since the mid-2000s growth rates have been much slower. Anecdotal evidence suggests that, in many countries—zones are struggling (Malawi, Mali, Nigeria, Senegal, Tanzania)

Farole (2011) measures success of SEZ programmes on four metrics:

- Attracting FDI
- Increasing exports
- Creating jobs
- Productivity spillovers

# Special Economic Zones: the African experience

## 1. Attracting FDI

FDI into African SEZs is low, relative to non-African zones, although FDI into SEZs is a relatively high proportion of the total national figure

This suggests either:

- (i) that the failure of African SEZs to attract investment may be due to a poor overall investment climate or
- (ii) that the zones themselves fail to offset the worst aspects of the national investment climate.

## 2. Increasing Exports

Manufactured exports from African EPZs are small in absolute terms and relative to more dynamic SEZs elsewhere

Some exceptions include the zones in Ghana which performed well in terms of exports, partly as a result of cocoa processing

In contrast, firms in Kenya's and Tanzania's EPZs exported little



# Special Economic Zones: African experience

## 3. Job creation

Absolute and relative contribution of African SEZs to employment is limited (with the exception of Lesotho)

## 4. Productivity spillovers

Little evidence of linkages between firms in African SEZs and local firms; many have become enclaves that are not connected to domestic value chains

A second channel for transmitting spillovers is the movement of workers and managers across firms, but Farole finds that African zones rely more heavily on foreign management than non-African SEZs.

***Lack of linkages with the domestic economy which is reflective of underlying domestic capabilities could go far in explaining the failure of many SEZs***

# The changing landscape of SEZs in Africa

To understand better the current situation in Africa in relation to SEZs we attempted to provide a full inventory of SEZs in operation in SSA

- All 46 countries in SSA considered
- Rely exclusively on internet sources and gather information on 79 zones
- Heterogeneity across countries in information available online, our overview does not capture all SEZ programmes in operation in SSA

A significant number of SEZs have been established across SSA in last 30 years:

- Earliest established EPZs were in Togo in 1989 (light manufacturing); Cameroon, Kenya, Malawi, Mauritius, Namibia, Nigeria and Zimbabwe, established a number of zones in the early 1990s
- Majority of zones established during the 2000s
  - 2000-2009: 38 zones were established in 14 countries. 16 in Nigeria; 6 in Tanzania
  - 2010-2016 an additional 16 zones were established
- Latecomers to SEZ development are Rwanda, Sierra Leone and Uganda

# The changing landscape of SEZs in Africa

Considerable variation across zones in range of activities

Most zones welcome investment from multiple, often integrated, sectors:

- Chambishi zone in the Zambia hosts activities in copper smelting, household appliances, electric cables and motor parts

Many zones offer supporting services for industry (call centres, business services, logistic services, conference facilities):

- Baluluane zone in Mozambique includes both light and heavy manufacturing and supporting downstream industries, packaging, labeling and other related services

Some zones exclusively focus on a single activity:

- Kenya is home to 6 EPZs exclusively in garments
- Many zones exclusively dedicated to oil and gas, minerals and other mining sectors (Angola, Gabon, Ghana, Nigeria, South Africa and Zimbabwe)

Most countries have zones that include agriculture related sectors covering agri-business, agro-processing, livestock and dairy products.

Zones focused on high-end service sectors are less common.

- Some examples include the East London IDZ in South Africa and ITC and Biotechnology focused zones in Benin and Cote d'Ivoire.

# The changing landscape of SEZs in Africa

All zones offer some form of tax relief, deductions or exemptions

Most common type of tax incentive offered is a zero or reduced rate of corporation or income tax for a number of years, increasing gradually thereafter:

- Kenya: tax amnesty for 10 years, and 25% corporate tax rate for the next ten years
- Zambia: 0% corporation tax for first 5 years, 50% of profits taxed in years 6–8, and 75% in years 9–10.
- Zimbabwe: 5-year tax holiday with 25% rate applied thereafter
- Cote d'Ivoire: exemption from income tax for the first 5 years, 1% income tax rate from year six onwards with the possibility of a tax rebate
- Sudan and Uganda: tax exemptions on construction of buildings

Other services offered include employment services, e.g. long-term visas, work permits and flexible recruitment laws.

- Senegal: one single authority for all licenses and permits is provided along with more relaxed laws in relation to the recruitment of foreign labour
- Nigeria: a guarantee that there will be no strikes or lockouts is provided in all 17 zones

# The changing landscape of SEZs in Africa

Information on the effectiveness of zones only available for 36 zones

Of the 36 zones 29 report that they are functioning well:

- Gabon: 80 investors located within zones from 18 different countries
- Djibouti Free Zone (2004): home to 160 companies from 39 different nationalities
- South Africa: 2,931 jobs are attributed to the 28 operational investors in the East London IDZ
- Togo: 65 companies operate in SEZs directly employing 13,000 people accounting for approximately USD\$500 million of commercial activity
- Chambishi zone in Zambia: employs more than 5,600 people with a total investment outlay of more than USD\$800 million
- Zimbabwe: 183 designated companies located in EPZs
- Kenya: Athi River EPZ has 42 firms operating and by the end of 2016 was expected to attract 100 textile investments. Five other zones in Kenya indicate that they are fully occupied.

There are some examples of less successful stories due to, for example, delays in land allocation, local resistance, under-resourcing and other institutional problems.

Underperformance is of course unlikely to be reported on official websites

# The changing landscape of SEZs in Africa

There are many more SEZs under construction or planned across Africa

- Zones under construction in Nigeria (25), South Africa (10), Democratic Republic of the Congo (5) and Djibouti (5)
- In Angola, there are plans to extend the incentives offered to firms in SEZs to a range of tax exemptions.
- In Mozambique, a special tax and custom regime is being planned for the Zambezi Valley that will run until 2025.
- In Zambia, the Lumwana SEZ is currently under development. Over the next 4 years it is expected to accommodate 50–60 enterprises with an output exceeding USD\$1.5 billion, of which USD\$600 million will be exported. It is also expected to lead to the creation of 6,000 jobs for the local population
- SEZs are also planned in Congo (Brazzaville), DRC, Djibouti, Gabon, Senegal, South Africa, Sudan, and Tanzania.

# China's engagement in Africa

China's engagement in Africa has intensified over the last decade.

- By the end of 2009, China's outward foreign direct investment (FDI) in Africa had reached a stock of US\$9.33 billion
- A large share — 22 per cent, second only to mining—went to manufacturing (Lin 2011 ).
- From 2009 to 2012 Chinese investment in African manufacturing was estimated to be US\$1.33 billion
- The Chinese government currently offers tariff-free entry to more than 400 products from Africa's low-income countries
- The composition of exports from Africa to China is also much more diverse than with other trading partners such as the US where most exports are raw materials (Brautigam and Tang 2014)
- China has also become a major aid donor to Africa and a source of development policy advice.

Building on its own highly successful experience with spatial industrial policy, China has played a leading role in reviving interest in SEZs as a tool for industrial development.

# China's engagement in Africa

Since 2000, China's Ministry of Commerce has supported the development of 6 Economic Cooperation Zones in Africa in Zambia, Egypt, Nigeria, Mauritius and Ethiopia

By 2015 only 3 zones were in operation (Zambia, Egypt and Ethiopia), the other 4 zones were still under construction

All zones are designed to support manufacturing, most concentrated on traditional mass manufacturing sectors.

Process for creating ECZs:

- Chinese government issued tenders for Chinese firms to develop the zones
- Chinese private developers construct the infrastructure inside the zones and are responsible for day to day operation
- Chinese government provided grants to the developers of between US\$29 and US\$44 million in addition to long term loans of up to US\$294 million
- Access to subsidies was performance-based
- Chinese government promotes the zones among Chinese firms looking to offshore low-end manufacturing
- African governments are responsible for regulating the zones and providing fiscal incentives to potential clients and for providing infrastructure outside the zones.



# Ethiopia: Implementing the Chinese Model

- In 2015, the Government of Ethiopia launched its second Growth and Transformation Plan (GTP II) with a focus on fostering industrialization
- Plan includes an ambitious set of spatial economic policies, modeled on the Chinese experience
- The Ethiopian Industrial Parks Development Corporation (IPDC) was established in 2014 to build and maintain federal industrial parks
- The IPDC provides a ‘one-stop-shop’ service for investors in zones. This includes serviced industrial land and pre-built sheds that are *‘equipped with all-encompassing utilities and infrastructure facilities that conform to international standards.’*
- The Ethiopian Investment Board (EIB), chaired by the Prime Minister, provides overall direction and policy coordination.
- There are 16 publicly owned industrial parks operating or planned by the IPDC and a growing number of privately owned industrial parks.

# Ethiopia: Implementing the Chinese Model

- The SEZs are focused on specific manufacturing sectors, such as textiles and apparel, leather and integrated agro-processing
- Significant infrastructure is already in place or under construction, particularly on-site facilities including electrical sub-stations, electrical installations, domestic water supply and sanitation
- The zones will also include some support services, for example training rooms for workers, customs offices, health clinics and offices for banks, greenery and other public amenities.
- A key challenge will be integrating the SEZs into the surrounding cities
- Job creation through the SEZs presents significant challenges to transport infrastructure, accommodation and other services for workers such as health and education
- Key lesson is the complementarity between spatial industrial and urban development policies

# What is needed for successful SEZ development in Africa?

## 1. Infrastructure and Institutions

- While African SEZs have physical environments that are more attractive than the overall economy, they are not competitive compared with SEZs globally.
  - *Customized infrastructure (IT centres, broadband, power supply, security services, financial services, transportation and logistics) are essential*
- Customs clearance times in African zones are double that of their non-African competitors (Farole 2011)
  - *Institutions supporting SEZs (customs clearance, legal requirements for exporting and the regulatory regime) must function well.*
- Most African SEZs are disconnected from domestic value chains
  - Promoting domestic linkages crucial for spillovers to be realized

# What is needed for successful SEZ development in Africa?

## 1. Infrastructure and Institutions

- African SEZs have suffered from many institutional problems:
  - insufficient strategic planning
  - poor location choices
  - weak implementation capacity
  - a lack of internal coordination
  - poor management
- Lack of policy coordination is also evident. SEZs are often not linked with other institutions responsible for industrial policy, such as the FDI promotion agency

# What is needed for successful SEZ development in Africa?

## 2. Leadership and coordination

**Leadership** is crucial for the successful implementation of industrial policy (Page and Tarp, 2017)

- In China and Viet Nam the senior government and party leadership were publicly committed to the success of SEZs. This signalled to officials that the economic zone programme was a central instrument in the government's industrial development strategy.

**Accountability and visibility:** Having a high-level champion identifies a person who has the job of explaining why the policy agenda looks as it does and who can be held politically responsible for things going right or wrong

**Coordination failures** across various government agencies contributes to the mismanagement of SEZs

# Summing up

To date, Africa's experience with spatial industrial policy has been largely disappointing

- African zones have low levels of investment and exports, and their job creation impact is limited
- They have few links with the domestic economy, and from the perspective of agglomeration it is notable that African SEZs have a much lower density of enterprises within the geographical boundaries of the SEZ than zones in Asia or Latin America.

To meet the region's ambitious industrial development goals, it is essential for African governments to upgrade SEZ performance to international standards

One of the key challenges has been coordination across the local and national organizations that control public services and institutions outside the zones.

***Stronger leadership and better institutional coordination are essential to the future success of spatial industrial policy in Africa.***



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