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THE TRANSFER OF SPECIAL ECONOMIC ZONE (SEZ) DEVELOPMENT MODELS FROM CHINA TO AFRICA: The case of Liao Shen Industrial Park in Uganda

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ABSTRACT

To date, one of the most controversial topics in Africa concerns Chinese investments. China's role in the development of Africa is of major interest and important especially because Africa is faced with continued political and economic instability. Uganda is an especially interesting setting in which to examine this new wave of Chinese development in Africa considering the fact that China is the leading foreign direct investor in Uganda. With the intense investment plans in Uganda by China, it is inevitable that some form of policies, ideologies and practice from China have been transferred and embedded into the culture and economy of Uganda.

This research is set in the backdrop of the success of Special Economic Zones (SEZ) implementation in China and its 'Going Global' or 'Going out' policy to implement and invest in SEZ formation overseas, and more importantly in Africa. With the SEZ becoming a popular policy instrument, African policymakers and others in the developing world are embracing their implementation as a way to easily promote industrial development, attract foreign direct investment and stimulate job creation. China-Africa relations have attempted at transferring models that can best be understood as vehicles of policy implementation in terms of cooperation strategies. For the purposes of this research, the elements of analysis include institutional and governance set-ups, spatial characters of project, economic features, building typologies and the development of the hinterland. Whether, these SEZ policies transferred are successful or not is dependent on the country-specific approach and how they are implemented. A study on the transfer of the SEZ model from Liaoning Province in China to Uganda is carried out in this research to trace the extent to which the model has been transferred through a comparative analysis on the China-German Industrial Park in Shenyang, Liaoning; the Dalian Free trade Zone in Dalian, Liaoning; and the Liao Shen Industrial Park in Kapeeka, Uganda.

The research, through the analysis carried out on the case studies in Liaoning Province and in Uganda, revealed that the transfer of various elements; institutional set-ups, spatial characteristics, building typologies, hinterland development, and economic features happens to a certain extent as it is detailed in this research. While a number of elements are transferred, a number of changes and adaptations take place to better suit the policies of the host country. Even though China does not transfer the exact SEZ model in its entirety, there are great similarities in the case of Uganda. The

most vastly transferred is the institutional set-up of the SEZ model from China to Uganda - this is attributed to the administrative nature of the Chinese model in Uganda where the main actors involved at the different stages are from China and thus have higher stakes in the administrative systems of the SEZ.

The Chinese SEZ model continues to be implemented in various countries in Sub-Saharan Africa and due to the nature of development of each country and economy, similar transfer complexities are bound to rise. The sustainable future urban development of Africa will depend on the acknowledgement of the various African contexts, whilst, also embracing the notion that investments from China or other investors, public or private, will propel this development forward. Furthermore, African countries may not be able to imitate China's institutions and plans exactly, nor should they. Rather, they should create the conditions to define their own growth path, based on their own history, culture and institutions. Of course, there is not any single approach that can be suitable for the entire continent.

Key Words: special economic zones, industrial park, development model, urbanisation, policy transfer, China, Uganda

SINTESI (ITALIAN)

Ad oggi, uno degli argomenti più controversi in Africa riguarda gli investimenti cinesi. Il ruolo della Cina nello sviluppo dell'Africa è di grande interesse e importante soprattutto perché l'Africa si trova di fronte a una continua instabilità politica ed economica. L'Uganda è un ambiente particolarmente interessante in cui esaminare questa nuova ondata di sviluppo cinese in Africa considerando il fatto che la Cina è il principale investitore diretto straniero in Uganda. Con gli intensi piani di investimento in Uganda da parte della Cina, è inevitabile che alcune forme di politiche, ideologie e pratiche dalla Cina siano state trasferite e integrate nella cultura e nell'economia dell'Uganda.

Questa ricerca è ambientata sullo sfondo del successo dell'implementazione delle Zone Economiche Speciali (SEZ) in Cina e della sua politica "Going Global" per implementare e investire nella formazione di SEZ all'estero e, soprattutto, in Africa. Con la ZES che diventa uno strumento politico popolare, i politici africani e altri nei paesi in via di sviluppo stanno adottando la loro attuazione come un modo per promuovere facilmente lo sviluppo industriale, attrarre investimenti diretti esteri e stimolare la creazione di posti di lavoro. Le relazioni Cina-Africa hanno tentato di trasferire modelli che possono essere meglio compresi come veicoli di attuazione delle politiche in termini di strategie di cooperazione. Ai fini di questa ricerca, gli elementi di analisi comprendono assetti istituzionali e di governance, caratteri spaziali del progetto, caratteristiche economiche, tipologie di edifici e sviluppo dell'entroterra. Il fatto che queste politiche della SEZ trasferite abbiano successo o meno dipende dall'approccio specifico per paese e dal modo in cui sono attuate. In questa ricerca viene condotto uno studio sul trasferimento del modello SEZ dalla provincia cinese di Liaoning all'Uganda per tracciare la misura in cui il modello è stato trasferito attraverso un'analisi comparativa sul parco industriale cinese-tedesco di Shenyang, Liaoning; la zona di libero scambio di Dalian a Dalian, Liaoning; e il Liao Shen Industrial Park a Kapeeka, Uganda.

La ricerca, attraverso l'analisi effettuata sui casi studio nella provincia di Liaoning e in Uganda, ha rivelato che il trasferimento di vari elementi; assetti istituzionali, caratteristiche spaziali, tipologie di edifici, sviluppo dell'entroterra e caratteristiche economiche avvengono in una certa misura come è analizzato in questa ricerca. Mentre numerosi elementi vengono trasferiti, avvengono molti cambiamenti e adattamenti per adattarsi meglio alle politiche del paese ospitante. Anche se la Cina

non trasferisce l'esatto modello SEZ nella sua interezza, ci sono grandi somiglianze nel caso dell'Uganda. Il più ampiamente trasferito è l'insediamento istituzionale del modello SEZ dalla Cina all'Uganda - questo è attribuito alla natura amministrativa del modello cinese in Uganda, dove i principali attori coinvolti nelle diverse fasi provengono dalla Cina e quindi hanno posizionamenti più alti in i sistemi amministrativi della SEZ.

Il modello cinese SEZ continua ad essere implementato in vari paesi dell'Africa sub-sahariana e, a causa della natura dello sviluppo di ciascun paese ed economia, simili complessità di trasferimento sono destinate a salire. Il futuro sviluppo urbano sostenibile dell'Africa dipenderà dal riconoscimento dei vari contesti africani, mentre, abbracciando anche l'idea che gli investimenti dalla Cina o da altri investitori, pubblici o privati, spingeranno avanti questo sviluppo. Inoltre, i paesi africani potrebbero non essere in grado di imitare esattamente le istituzioni e i piani della Cina, né dovrebbero farlo. Piuttosto, dovrebbero creare le condizioni per definire il proprio percorso di crescita, basato sulla propria storia, cultura e istituzioni. Certo, non esiste un singolo approccio che possa essere adatto a tutto il continente.

Parole chiave: zone economiche speciali, parco industriale, modello di sviluppo, urbanizzazione, trasferimento di politiche, Cina, Uganda

CHAPTER 1: INTRODUCTION

1.1. Special Economic Zones, China and Africa

As urban population growth in Africa continues to surge, so does unemployment, informality, and the growing bulge of disgruntled youth. A staggering two-thirds of the investments in urban infrastructure required to support these populations by 2050, are yet to be made. Special Economic Zones (SEZs) have become a popular instrument to try and alleviate some of this backlog and achieve certain developmental ends. Within otherwise fragile economic areas in particular, they can provide a spatially concentrated productive area, with the adequate infrastructure, human capital, suppliers and low regulation that investors seek (International Growth Centre, 2019). Not only do they improve the surrounding areas in terms of development but also provide employment opportunities to an increasing number of people and offers a platform for the training and facilitation of new skillsets to the population at large.

To this extent, the popularity of SEZs as a national government policy instrument has taken off since the 1990s. The International Labour Organization's database of special economic zones reported 176 zones in 47 countries in 1986; by 2006 this had risen to 3,500 zones in 130 countries (Boyenge 2007; cited in Black et al, 2013). The growth of SEZs, which had reached 5,383 across 147 countries in 2019 worldwide (UNCTAD 2019), particularly in developing countries, it is one of the major features of contemporary globalization (Bost, 2019). Given their potential to attract investment, SEZ's are used as a tool to uplift area's that are lagging economically and are thus often focussed away from major urban centres. However, evidence suggests that this approach may be limiting large spill over benefits that occur when a city's existing momentum is harnessed to create deep linkages between SEZ's and the rest of the economy (International Growth Centre, 2019). Cities at their core are about the density and connectivity of people, who can share ideas and resources. They can provide what SEZ's need: skilled and specialised labour, a wide variety of suppliers, and connectivity to national and global markets. Furthermore, rapid urbanisation means cities are our future, and we need them to be able to provide for our growing populations. It is thus essential for SEZ implementation to occur with consideration of the impacts on the city and surrounding regions.

This research is set in the backdrop of the success of SEZ implementation in China and its 'Going Global' or 'Going out' policy to implement and invest in SEZ formation overseas, and more importantly in Africa. "Going Out" as a Chinese industrial policy strategy is part of China's proactive

diplomacy. It is designed to encourage and support firms with comparative advantage to invest overseas. The relationship between China and Africa dates as far back as the 1960s right after the Independence of several African countries, Uganda inclusive. The most notable step in strengthening these relations is the founding of the China Development Bank (CDB) in 1994, arguably to mainly meet the needs of China. The CDB then aided the setup of the China-Africa Development Fund, which China used to fund its active companies overseas, and to venture in more investments in African countries. In 2000, China then initiated the famous Forum on China-Africa Cooperation, primarily to strengthen China's regional ties with African countries positioning itself as a partner to African countries in their road to development; after all, China considers itself a developing country.

Due to the growing ties between African and China, to date, one of the most controversial topics in Africa concerns the Chinese investments in Africa and what this implies for the economies of African countries. This is because Chinese relations and investments are famous to be conducted through the exchange of resources - projects often accompanied by a soft loan, are proposed to African countries rich in natural resources in which China commonly funds the construction of these projects. Sometimes, Chinese state-owned firms build these projects in exchange for access to land and minerals or hydrocarbons, such as oil. In these resource-for-infrastructure contracts, countries in Africa use whatever resources they are rich in, minerals and hydrocarbons directly as a way to pay for the infrastructure built by Chinese firms. This has brought into question the motives of the Chinese interest in Africa and whether the dependence on this foreign aid is a crippling factor for African countries. However, even though there are still a mix of concerns and speculations, there is no doubt that there is a significant transfer of development models that enhance the overall development of Africa. These development models from China are in the form of various elements and are implemented at different levels. The research seeks to understand to what extent these development models, under the pretext of special economic zones, are transferred from China to Africa, especially considering the various factors affecting the development patterns in Africa.

Africa's development trajectory is strongly rooted in its history and in how people perceive change. For example, urbanisation in Uganda has developed around the seats of reigning kings, their kingdoms, and governments. This history is important in understanding the evolution and management of urban development in Uganda because the development pathway was influenced by cultural traditions present and later by the colonial legacy. Western urbanisation only surfaced in the nineteenth century as administrative centres and agricultural markets were established (Lwasa,

2011). This has pushed Uganda as a country to go beyond its boundaries and develop faster than earlier anticipated but to the level of these Western countries. As evidenced in the growing population in the city, urbanization has accelerated recently due to the increase of migration into towns driven by employment opportunities, civil crisis, environmental problems, and natural growth. Urban centres are legislatively categorized as city, municipality, town council, town board, and trading centre. The development required to aid this urbanisation does not come cheap. As a developing country therefore, Uganda receives substantial amounts of aid and Foreign Direct Investment (FDI) in order to execute its development programmes.

Uganda is an especially interesting setting in which to examine this new wave of Chinese development in Africa. To foster trade relations with China and with other foreign investors, the Ugandan Government in 1991 created the Uganda Investment Authority (UIA). The UIA is designed to promote and facilitate investments and provide advice to the government regarding investment issues (Lee, 2002). With this body in place, the government has continued to encourage and invite investments into the country to develop the economic and industrial sectors. China has been a particularly strong investor and partner on various projects. Over the last decade, China has provided more than a billion dollars in aid to Uganda, funding hydroelectric projects, roads, rail lines, and even a new office tower for the office of the president (Wyrod, 2019). In turn, the Ugandan government has guaranteed China a major role in the development of huge new oil reserves in western Uganda. According to Lee (2015), there is fundamentally no sector in Uganda in which the Chinese have not invested or have future plans to invest, which makes one wonder why any government would want to be so dominated by another in the 21st century. Does this imply that the Uganda government heavily relies on Chinese assistance?

Even though Uganda may heavily rely on China for foreign aid, the country has recently sought to filter this aid and be more vigilant in the kind of projects it takes on. Furthermore, over a three-year period, a situation analysis was developed by a team led by Ugandan think tank Advocates Coalition for Development and Environment (ACODE), with support from IIED. The analysis focused on the scale and type of Chinese investment in Ugandan land use and issues arising for local livelihoods and sustainability. This was prepared as an initial review to prompt dialogue, then as a report. During the dialogues, the government clarified policies to encourage more socially and environmentally responsible investments, and policies to prevent investments on environmentally inappropriate lands. As a result, commitments to social responsibility were also made by Chinese companies with

land use investments (Mayers & Barungi, 2019). The consistency of accountability and transparency without undermining the benefits both investor and host government would receive is important to ensure a healthy relationship between China and Africa – a busines partner relationship and not a takeover. As a result, there is an appreciation for China's pragmatism and the idea that it comes to Africa as a '*business partner'*, not to proselytize or offer charity. The win-win notion implies that Africans are free to negotiate the terms of the arrangements, and that China will be responsive to African demands (Cooke, 2009). This does not sugar coat the situation but seeks to find common ground for both parties which is a sustainable way forward for urban development in Africa.

With the intense investment plans in Uganda by China, it is inevitable that some form of policies, ideologies and practice from China have been transferred and embedded into the culture and economy of Uganda. Direct impacts of these investment include but not limited to the injection of capital into the economy through the acquisition of properties, the creation of employment opportunities, skills, and knowledge transfer and more (Warmerdam & Dijk, 2013). Furthermore, the larger the workforce, the more local job opportunities with greater compositions of local management entail. This coupled with employee training policies to promote skills transfer is of potential benefit to local companies. However, even though a great number of jobs are offered to the local population, reports show that China imports a large number of its own labour from China into Uganda, both for its resource-for-infrastructure projects, as well as other sectors. According to a research carried out by Warmerdam & Dijk (2013), Ugandans in the workforce created by Chinese is relevant, however, there is a low percentage of local labour in management positions which could create further cultural problems leading to mutual dissatisfaction. There are various inconsistencies and uncertainties pertaining to the transfer of the development model from China

To transfer policies, ideologies, or skills from one country to another requires various conditions in place to occur. The transfers may change or adapt along the way based on the changing surroundings, economic and political climate of the separate countries and according to the reception of the host country. In particular, the process of development in Uganda is associated with poverty, environmental degradation and population demands that outstrip service capacity. The research seeks to study the Chinese planning and implementation of Special Economic Zones in Uganda and thus understand what elements of the Chinese SEZ development model are transferred from China to Uganda, how they are implemented, to what extent, and if they are successful or not. Through the various, analyses carried out, the non-transferable elements will also be discovered if any.

1.2. Research Question and Objectives

Chinese investments in the urban development in various African countries have played and continue to play a vital and pivotal role towards economic and social development for Africa. Encouraged by China's high-profile outward investment policies and programmes, including the "One Belt One Road" Initiative, Uganda's politicians and technocrats have warmly welcomed and encouraged Chinese investment in their economy. Uganda is particularly attractive to investors due to its richness in natural resources, political stability, and social welfare. But what is the impact of this investment in terms of sustainable development and on the welfare of Ugandan citizens? Certainly, there is an exchange of culture and policies, but is it a one-way exchange: from China to Africa or the other way around too? Is it possible for the investment policies to gear towards African countries deciding which projects China will build in Africa, and whose interests these projects will serve? Can special economic zones deliver sustainable structural change?

China-Africa relations have attempted at transferring models that can best be understood as vehicles of policy implementation in terms of cooperation strategies, institutional and governance set-ups, spatial characters of project, economic features, building typologies and the development of the hinterland. With the SEZ becoming a popular policy instrument, African policymakers and others in the developing world are embracing their implementation as a way to easily promote industrial development, attract foreign direct investment and stimulate job creation. Whether these SEZ policies transferred are successful or not is dependent on the country-specific approach and how they are implemented.

To further understand the country specific approach that China has, there is a need to understand the kind of foreign aid actor China is and how it carries out its projects in Africa. China is not a unitary actor in its relations with African countries: on the contrary, China is a collection of Provinces, autonomous regions and municipalities with myriad strategic ties to African countries with decentralisation shaping the current form of Chinese government and its level of efficiency (Shen & Fan, 2014). The Chinese government encourages its provinces with incentives to engage internationally in foreign cooperation and as a result Chinese Provinces are often paired up with African countries. More so, the size of these provinces is in aggregate greater than or equal to that of several African countries. For the purposes of this research, a study on the transfer of the SEZ model from the Liaoning Province of China in specific to Uganda is carried out to trace in what ways or form the model has been transferred.

The research, therefore, has the following main objectives:

- To analyse to what extent China, through the Liaoning Province, transfers its SEZ models and planning practices to Uganda, given the fact that Uganda has a different historical, cultural, political background or is in another phase of economic development.
- To analyse the impact the SEZ development on the urban growth of the city or village in which it is implemented and its surrounding areas.
- To understand what role China can play in the future urban development of Uganda, and Africa as a whole.

1.3. Research Methodology

1.3.1. Research Structure

The research is structured in such a way as to aid a systematic analysis of the transfer of the different elements in the chapters below:

INTRODUCTION: This sets the general tone of the research stating the research interest and the background on which it is based. The main topic of the research is highlighted, and this aids the development of the research questions. Further details on the methodology are clarified stating the tools that will be used to carry out the analysis and what sources are sought to collect the necessary data.

LITERATURE REVIEW: Here I begin to understand the topic in more detail while focussing on various sources of literature. SEZs are defined and broken down into the different types and models as well as an understanding of the history. The rise of SEZs in China and the successful transfer and implementation of SEZs from China to Africa is further studied in this chapter. Importantly, studies carried out by other researchers on the issues of the transfer of policies from one country to another are highlighted.

CASE STUDY ANALYSIS: in this chapter, two cases studies from Liaoning Province in China and one from Uganda are studied using spatial analysis tools through maps and drawings to understand the set-up and spatial character of the SEZs. Further data are collected from online sources and websites to determine what forms of building typologies, economic features and developments are transferred from Liaoning to Uganda.

RESULTS AND INTERPRETATION: this chapter wraps up and summarises the data collected to give an interpretation of the results. Based on the Elements of analysis detailed in the Introduction chapter, we begin to see how each is transferred and what other sub-elements are found under these. A small set of interviews were conducted to understand the complexities of the transfer process from the implementors of the park as well.

CONCLUSIONS: this highlights the significance of the analysis and interpretations gathered in the research and offers a way forward for further research. The chapter also draws on the analysis to understand what the role of China is for the future development of SEZs in Africa as a whole.

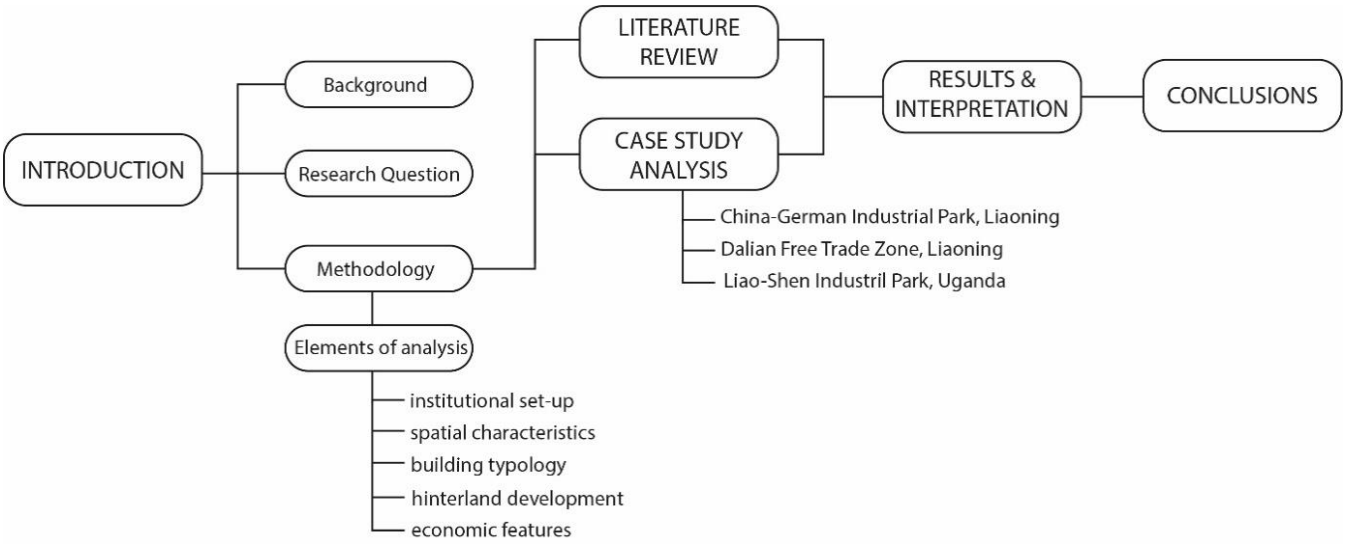


Figure 1: Diagram showing the research structure of the thesis (Source: Author's illustration)

1.3.2. Elements of Analysis

Policy models such as creative city plans, business improvement districts, and sustainability frameworks have gained political currency across the globe and thus resonate with us in their familiarity. "*Yet, these policy models do not exist everywhere in the same form. While they are familiar, they are strangely familiar: they are estranged from – partly foreign to – the context in which we encounter them, even as they are being actively embedded and made familiar, normal, or desirable by local politicians and policy actors*." (Temenos & McCann, 2013, p.346). It is important to note that different policies move around but more so that they move around for different purposes. Temenos & McCann (2013) go on to theorise how to characterize, conceptualise and research these

movements and strange familiarities, through the representations that affect the reproduction, adoption and travel of policies and best practice models across space and time. Besides the representations, the involvement of a network of actors: the identities, rationalities, and subjectivities of those doing the transfer are an important aspect to conceptualise these movements.

According to Sone (1999), "*transfer"* is often asserted to be a process that has become more apparent due to globalisation, propelled by factors such as industrialisation, the integration of financial markets and advances in communication. In each project, there are different elements that are transferred from the implementing country to the imitator. These could include policies, institutions, ideologies or justifications, attitudes and ideas, financial systems, investments, intellectual property and knowledge, and lessons learnt whether negative or positive.

The elements to be studied in this research include:

1. **Institutional set-up**: SEZs, including their establishment, operation, and eventual dissolution, are regulated by legal frameworks enacted at different levels of governance. They are under the management of either government bodies or the private sector. It is imperative that governments identify the SEZ institutional model that is most appropriate to their country's specific situation and administrative system.

→ *Is the same institutional model transferred in practice from Liaoning to the industrial park in Uganda? And if so, is it possible that the transfer of these set-up models includes the transfer of other elements in the process including and not limited to expatriates, technical knowledge, and partnerships?* The case study analysis will help identify the similarities or differences in the institutional set-up.

2. **Spatial characteristics**: SEZs are defined as geographically delimited areas, frequently physically secured, that are usually, but not always, outside the customs territory of the host country. They range in size from single factories to large cities. Besides the fact that SEZs operate as separate entities within the country, the spatial character of SEZs often varies depending on the context and culture of the country.

→ *Are there spatial design ideologies or concepts transferred to Uganda?* The spatial characteristics could be similar and yet applied differently.

3. **Building typologies**: The style and typology of buildings within SEZs is usually designed to suit the needs of the industry occupying the plot within the zone. With the different zone users, there is bound to be a mixture of building typologies, however, this is dependent on the construction technologies and materials available in the country.

→ *Does China transfer its style of building types to Uganda when implementing the SEZ?* The transfer of building types could include the transfer of construction techniques as well as materials. Through the comparative analysis between SEZs in Liaoning Province and Uganda, this can be identified.

4. **Hinterland development**: the outer parts of the town in which the SEZ is implemented benefits from this development especially if the SEZ implementation spreads. The SEZ and its surrounding areas are important in enhancing the local economy of the city or district and generally improve its ability to absorb modern technology and foreign investment.

→ *Does China transfer its hinterland development model to Uganda?* It is likely that the development of the hinterland in Uganda is not as straightforward as in China.

5. **Economic features**: these include the financial aspects of the development of the project and the flow of investments/money from one country to another.

→ *Is there an economic or financial transfer from China to Uganda during the implementation of the SEZ?* Investments in SEZ projects require a large amount of cash flow injections into the host country. Research done on the project background and set up will help clarify this transfer.

Some of the elements are seen as ‘soft’ forms of transfer that may not be physical or ‘hard’ but can be evidenced in the different systems employed. There is also the matter of what is non-transferable. Some practices or ideas cannot be translated into another context. This research will also aim to highlight the aspects of the elements that are not easily transferred or not transferred at all.

1.3.3. Data Collection

The research is conducted through qualitative evidence and exploratory analysis, using the collection of statistical information on the planning and implementation of the SEZs gathered from electronic databases and multiple sources of evidence. Information gathered is reported and translated into various spatial analytical maps and diagrams. The main electronic databases sought include and are not limited to:

Official SEZ websites:

- Uganda Liao Shen Industrial Park website (USLIP)
- China-German Shenyang Equipment Manufacturing Industrial Park website
- The Dalian Free Trade Zone website (DFTZ)

Official government websites:

- China International Import Expo
- China Council for the Promotion of International Trade
- China Federation of Industry and Commerce
- China Ministry of Commerce
- Uganda Investment Authority
- Uganda Bureau of Statistics
- News articles and media, for example, China Daily, China Briefing News, The New Vision UG, Daily Monitor UG, Press reader, Topos Magazine, Watchdog UG, Global times CN

Other important data sources:

- Online books and journals, for example, the IGC, IOSR Journal of Humanities and Social Science, Euro-Asia Journal of Management, Regional Studies, Construction Review Online UG
- Uganda Districts Information Handbook
- Africa-China Reporting Project
- International Growth Centre

- World Bank
- UN Habitat
- Oxfam
- Impakter
- Encyclopedia Britannica
- Quartz Africa
- The European Financial Review
- Xinhua
- Sohu

Google earth satellite images will also be an important tool in this research used to track the development process of the industrial parks over time.

A small set of interviews are also conducted over WeChat to better understand the complexities of these transfer process from the point of view of the implementors of the park.

1.4. Research Limitations

The research conducted herein faces some limitations:

- The first limitation is that the research is conducted during a world pandemic and this means that all resources and data are mainly electronic – online, through emails or phone calls. The ability to use other means of acquiring data and conducting the research like surveys is limited.
- The second limitation concerns the lack of freely accessible data – the Chinese government does not publicly publish information for the public to access. And that which is available must be accessed using a Chinese citizenship national ID number.
- Even more so, the information retrieved from the available sources online are in the Chinese language and must be translated to be interpreted. This could have led to a loss in meaning due to the direct translation and it is possible that some information is lost.

- The poor collection of data by Ugandan authorities required a lot of deep dive internet searches that would have otherwise been easily accessible if projects are documented more securely.
- Finally, the research is conducted in a limited amount of time. It is essential to understand that this is a starting point for further research into more elements and systems that are transferred from China to Uganda.

Nonetheless, the sources presented in the research are credible and provided a basis from which to develop the research. The help of friends of the Chinese nationality also aided in the retrieving of data and translation of some of the documents received.

CHAPTER 2: REGARDING SPECIAL ECONOMIC ZONES

2.1. Special Economic Zones Defined

SEZs are "*geographically demarcated areas within a country that function with different usually more liberal administrative, regulatory and fiscal regimes than the rest of the country"* (Dobrogonov & Farole, 2012, p.5: cited in Woolfrey, 2013); developed with enabling infrastructure such as roads, electricity and water access, available for would-be manufacturers that can manufacture and trade within an area at great incentives. UNCTAD's World Investment Report 2019 (WIR 2019) defines SEZs as "*geographically delimited areas within which governments facilitate industrial activity through fiscal and regulatory incentives and infrastructure support*" (UNCTAD 2019, p. 128). Before the WIR 2019 was published, it was more common to use the term "free zones" and "export processing zones" in most academic work and publications, although several publications had already begun to popularize the term SEZ (Farolle and Akinci, 2011; OECD, 2014).

On the other hand, the World Bank FIAS 2008 report suggests that special economic zones are "*demarcated geographic areas contained within a country's national boundaries where the rules of business are different from those that prevail in the national territory. These differential rules principally deal with investment conditions, international trade and customs, and taxation; whereby the zone is given a business environment more liberal and effective than that of the national territory"* (FIAS, 2008: cited in Farole, 2011, p.23). Firms which set up operation within an SEZ are generally provided with specific incentives such as tax holidays, duty-free imports, and simplified customs. However, not all countries provide different tax regimes within their SEZs and some have even done away with the idea of a geographical demarcation, instead of applying the SEZ concept as a 'purely legal space' that can be applied across the entire country or at least parts of it (Baissac, 2011; cited in Woolfrey, 2013). In his paper, Woolfrey (2013), goes on to argue that the most important feature of an SEZ remains that is benefits from a specific regulatory regime which defers from the rest of the economy and the provision of dedicated physical infrastructure such as industrial or mixed-use parks and of transport infrastructure connecting zones to markets, sources of inputs and major transport hubs such as ports and airports.

Bost (2019) argues that the change in terminology is not simply a substitution of synonymous terms. However, it does reflect the need for clarification in the face of considerable multiplication of

different terms to describe what is a complex phenomenon. In his database, based on data from 160 countries, Bost lists no less than 82 different terms to designate zones, the majority of which are used in a single country. To further complicate matters, the same country may also use several different terms to describe similar types of zones in its legislation and publicity.

Since early 2010, the term has also been used by China to designate the vast free zones it builds and manages in several developing countries, particularly in sub-Saharan Africa. Only 35 countries commonly used the term SEZs in 2019, although in most cases the size of these zones is quite comparable to that of traditional free zones (Bost, 2019).

The multiplicity of names and forms of economic zones is the result of several factors, including (1) the need to differentiate among types of zones that display very real differences in form and function; (2) differences in economic terminology among countries; (3) zone promoters' desire to differentiate their product from those of the competition; and(4) the consequences of multiple translations (Baissac, 2011). Definitions vary across countries and institutions and evolve continuously as new types of zones are developed and older types disappear or are adapted.

In terms of geographical distribution, Asia (understood in the broadest sense: West Asia, East Asia and the Middle East) has the highest number of SEZs (75%) and free zones (52%) of the global total. However, SEZs are mainly located in East Asia (49%), and to a lesser extent in West Asia and the Middle East. China accounts for 47.2% of the world's SEZs. The vast majority of Chinese SEZs are intended to produce goods for the Chinese domestic market. Given their size and the number of local and foreign companies they host, the special customs zones make a very large contribution to Chinese exports. The country has undoubtedly made the proliferation of SEZs a major focus of its development strategy since 1978 (Chen, 2019; Meng and Zeng, 2019).

Considerably lagging Asia is the Latin America-Caribbean region with 486 SEZs, 9% of the world total. Africa has 237 SEZs (4.4%), many of which were developed from 1990 onwards. The transition economies are on par with Africa in terms of the number of SEZs, driven in particular by Russia, with its 130 SEZs. Developed economies account for only 7% of global SEZs. However, the US is characterized by the existence of an effective free zone system created in 1934 (Bost, 2019).

	Number of SEZs	Percentage of total
Global	**5,383**	**100**
Developed economies	**374**	**7**
United States	262	4.7
Europe	105	2
Developing economies	**4,772**	**88.6**
Asia	4,046	75
Philippines	528	9.8
China	2,543	47.2
Malaysia	45	0.83
India	373	7
United Arab Emirates	47	0.9
Africa	237	4.4
Oceania	3	0.05
Latin America and the Caribbean	486	9
Colombia	101	
Dominican Republic	73	1.3
Transition economies	**237**	**4.4**
Russia	130	2.4

Table 1: Distribution of SEZs by major geographical area in 2019 (Source: UNCTAD, World Investment Report, 2019)

2.2. Types of Special Economic Zones

SEZs take on various forms and types including but not limited to; Free Trade Zones (FTZs), Export Processing Zones, Free enterprises, Freeports, and specialised zones such as Science and Technology Parks, Petrochemical zones, Industrial and Business Parks and Logistics zones. For the purposes of this research, the breakdown of the different types of zones as described by FIAS and Zeng (2010) is taken into consideration in the table below that is not an entirely exhaustive list.

NAME	DEFINITION
Free Trade Zones	FTZs (also known as commercial-free zones) are fenced-in, duty-free areas, offering warehousing, storage, and distribution facilities for trade, transhipment, and re-export operations.
Export Processing Zones	EPZs are industrial estates aimed primarily at foreign markets. They offer firms free-trade conditions and a liberal regulatory environment. There are in general two types of EPZs: one is a comprehensive type, open to all industries; another is a specialized type, only open for certain specialized sectors/products.
Comprehensive Special Economic Zones	Comprehensive SEZs (also called "Multi-functional Economic Zones") are zones of a large size that have with a mix of different, industrial, service and urban-amenity operations. In some cases, these zones can encompass a whole city or jurisdiction, such as Shenzhen (city) and Hainan (province) in China.
Industrial Parks	Industrial Parks (also called "Industrial Zones") are largely manufacturing-based sites. Some multi-functional ones similar to "Comprehensive Special Economic Zones" (listed above) exit, but usually operate at a smaller scale. The parks normally offer a broad set of incentives and benefits.
Bonded Area	Bonded Areas (also known as "Bonded Warehouses") are specific buildings or other secured areas in which goods may be stored, be manipulated, or may undergo manufacturing operations without payment of duties that would ordinarily be imposed. To some extent, a "bonded area" is similar to a "free trade zone" or "free port." However, the major difference is that a "bonded area" is subject to customs laws and regulations, while a "free trade zone" is exempt from these provisions.
Specialized Zones	Specialized Zones include science/technology parks, petrochemical zones, logistics parks and airport-based zones.
Eco-Industrial Zones or Parks	Eco-industrial zones or parks focus on ecological improvements in terms of reducing waste and improving the environmental performance of firms. They often use an "Industrial symbiosis" concept and green technologies to achieve energy and resource efficiency. Given the severe environmental challenges, an increasing number of countries is embracing this new type of zone.

Table 2: An Overview of Common Types of Special Economic Zones (Source: FIAS, 2008, Zeng 2010)

Though these zones differ from one another, they all share certain hallmarks. Broadly, four characteristics define the SEZ concept: (1) it is a geographically delineated area, usually physically secured; (2) it has a single management or administration; (3) it offers benefits for investors physically within the zone; and (4) it has a separate customs area (duty-free benefits) and streamlined procedures (FIAS, 2008).

2.3. History of SEZ Development

Special economic zones are not a new invention. For as long as organized societies have engaged in external trade, there has been a need for secured areas at ports or in strategic locations along trade routes where commodities can be stored or exchanged. These areas became free zones when the commodities circulated free of local prohibitions, taxation, duties, and excises. Many consider the Island of Delos in the Cyclades as the first approximation of a free zone, in the sense that it provided free-trade-like conditions (Bassaic, 2011). Similarly, across Europe, cities were granted royal privileges and charters giving them monopolies in certain trades or freedom from certain prohibitions, taxes, duties, or excises. The European colonial expansion also rested in large part, at least until the mid-1800s, on the granting of charters and privileges. Most of the early colonial empires were created and administered under that system.

The vast majority of early zones were closely associated and generally co-located with ports. By 1900, 11 FTZs existed globally; of these, 7 were in Europe and 4 in Asia. Manufacturing entered the realm of free trade zone activities only in the 20th century. While Shannon in Ireland was the first explicit export processing zone, the inclusion of production processes in free zones started well before 1958, initially on a very limited and localized basis. According to Bassaic, (2011), the Shannon approach was original because it combined the attributes of the free trade zone with those of the industrial park into a single integrated investment industry and trade development instrument. Shannon came to represent the quintessential export processing zone, providing the template for many similar developments around the world in the ensuing decades.

Although special economic zones first appeared in places like Puerto Rico (1948), Ireland's Shannon Airport (1958) and Taichung, Taiwan (1965), mainland China is the world's foremost success story in using SEZs to build up industrial capacity (Knoth, 2000; cited in Antonio & Ma, 2015). China's reform program began in 1978 with the creation of special economic zones. This program allowed the experience of capitalism and attracted new technologies and capital. Furthermore, the development of the modern special economic zone was fully implemented in China.

As a rule, the SEZs of the 1950s, 1960s, and 1970s were public affairs. Governments planned them, financed them, promulgated the regulations, administered the regime, conducted the investment promotion, interfaced with investors, and managed the real estate side of the operation including building, renting, and maintaining. The late 1980s and1990s saw a fundamental change in this model,

in response to both push and pull factors. The main push factors were (1) the drive for macroeconomic stability and the resulting need for budgetary and fiscal discipline—it became too expensive for many countries to do it all—and (2)the need to regenerate lacklustre free zone programs in some countries. The principal pull factor was the opportunity for private operators to turn zones into profitable real estate ventures and generate income from innovative services to firms (Bassaic, 2011). Since the 1990s, innovative PPP mechanisms have blurred the line between the strictly public and the strictly private. PPPs seek to capitalize on the mutual strengths of each sector. Cooperation and division of labour, rather than competition, has become the preferred model.

2.3.1. The Rise of SEZs in China

As mentioned in the previous sub-chapters, SEZ development in China started as a result of its reform and 'opening up' policy in 1978 in order to experiment with the introduction of controlled capitalism to a centrally planned economy and in particular to introduce a liberal trade and investment regime into an economy that had been largely closed to the outside world since 1949.. The first four special economic zones were created in 1980 in south-eastern coastal China and consisted of what were then the small cities of Shenzhen, Zhuhai, and Shantou in Guangdong province and Xiamen (Amoy) in Fujian province (World Investment Report, 2019). In these areas, local governments have been allowed to offer tax incentives to foreign investors and to develop their own infrastructure without the approval of the central government. Business enterprises have made most of their own investment, production, and marketing decisions, and foreign ownership of such ventures has been legalized. Though some of them began as little more than small towns, the new SEZs soon attracted foreign investment and became boomtowns, with rapidly expanding light and consumer-goods industries and growing populations—notably, Shenzhen's population grew from some 30,000 in 1979 to more than 1,000,000 by the beginning of the 21st century. (Encyclopaedia Britannica, 2019).

Furthermore, within the first four SEZs, private firms and foreign firms were granted attractive tax incentives and exemptions along with flexibility of employment as well. These zones were so successful that China became the largest recipient of foreign direct investment (FDI) among developing countries (Zhang & Zou, 2012; cited in Albrecht et al, 2018). This influx of resources contributed to the disproportionate development of infrastructure, technology and human capital in the coastal provinces (Albrecht et al, 2018). The increase of management skills and opportunities for

economies of scale created more attractive social and economic environments for FDI than inland provinces.

After being successful, the zone program and relevant reforms were gradually rolled out throughout the nation in more diversified forms, and some of the zones were designed with more sophisticated agenda, such as the high-tech industrial parks (Zeng, 2015). Encouraged by the zones' success, the Chinese government in 1984 opened 14 larger and older cities along the coast to foreign trade and investment, Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang, and Beihai. These "open" cities offered foreign investors much the same incentives as in the special economic zones, but their corporate income taxes were higher (Encyclopaedia Britannica, 2019). The zones in the coastal area cities were further expanded in 1985 to include the Liaodong Peninsula (in Liaoning Province), Hebei Province (which surrounds Beijing and Tianjin), the Shandong Peninsula, Yangtze River Delta, Xiamen-Zhangzhou-Quanzhou Triangle in southern Fujian Province, the Pearl River Delta, and Guangxi autonomous region.

Following a decade of success, China, in 1988, added Hainan Island to the list of Special Economic Zones, and in 1990 the Pudong area within the Shanghai municipality became a special economic zone with policies even more flexible than those already in force in the original four SEZs. In 1992 the Chinese government decided to adopt some of the same policies in some two dozen major cities in inland China, including many provincial capitals, as a means of encouraging foreign investment in them (Eng, 2005). The combination of favourable policies and the right mixture of production factors resulted in unprecedented rates of growth in the SEZs. Encouraged by initial success, the Chinese government opened more SEZs mostly in the form of economic and technological development zones (ETDZs), informally known as China's national industrial parks, which were smaller than the earlier zones (Zeng, 2015).

As earlier mentioned, Wei & Ye (1994); cited in Albrecht et al (2018) further complement the argument that SEZs were created as a 'catalyst' for the Chinese economy to transition from a centrally planned economy to one that incorporated aspects from both a centrally planned and a free-market economy. The SEZs were intended to have a 'spillover effect' where the higher volume of economic growth from the coastal regions would trickle down to the central and western regions (Albrecht et al, 2018). In addition to spurring the Chinese economy by attracting foreign investment, the SEZs also helped reform the Chinese economy through the processing of imported materials, compensatory trade, cooperative enterprises, joint ventures and enterprises based on foreign capital (Nishitateno,

1983; cited in Albrecht et al, 2018). This in turn enabled China to expand its economy and use foreign investments to develop and construct the SEZs further.

The economic impact of the SEZs has been far reaching. Regions within China that contain multiple SEZs have experienced a greater economic impact compared with regions with only one SEZ. Furthermore, the regions where an SEZ was established previously have resulted in greater positive economic benefits compared with regions where SEZs were created later. One of the most prominent economic impacts of SEZs on the local economy has been the income level and earning capacity of workers within the region (Albrecht et al, 2018). As more foreign businesses invested in the competitive resources and human labour within the region, greater resources tended to flow to the entire country.

Interestingly, Foreign Direct Investment (FDI) in SEZ development is on the rise. Large conglomerates and industrial estate developers are increasingly involved in economic zone development abroad. There are various zone development models that host economies tend to label as “zones constructed with the cooperation of a foreign partner”. Despite the attention that government-to-government partnership zones have attracted, most of such zones are developed by foreign private companies with no bilateral government agreements. Some foreign (manufacturing) enterprises have developed their own economic zones to house their suppliers and improve logistical efficiency (World Investment Report, 2019). For instance, since 1998 Toyota has established an agglomeration of supply chain networks in its industrial parks in India. Samsung developed its own large industrial complex within a major industrial park in Viet Nam in 2016 (AIR17). Many zones are developed as PPP projects in host economies, and foreign developers have undertaken these projects through joint-venture arrangements with both public and private local partners. In most cases, the foreign developer becomes the manager of the zone or a partner in the management company. Government-to-government partnership SEZs have also become popular in recent years. They are underpinned by a bilateral agreement to jointly develop SEZs, setting up the cooperation framework, the division of responsibilities, and the development and management mechanism of the zones. Government partnership zones can be built and managed by host-economy developers, home-country developers, joint ventures or third country developers, to benefit from their capital or expertise in zones development.

According to the World Investment Report issued in 2019, government partnership zones are being established at the initiative of both the host country and the partners. A mixture of development

assistance, economic cooperation and strategic considerations is encouraging the development of partnership zones initiated by investor home-country governments. Major donors and multilateral development institutions have included development of SEZs as part of development assistance.

2.4. Chinese SEZs in Africa

2.4.1. The Birth of Chinese SEZs in Africa

Besides the growing interest in the development of infrastructure, African countries have seen the need to expand the trade sectors, intra-regional and transnational trade agreements through the industrialisation of their economies. The Special Economic Zones (SEZs) is China's industrialisation model that Beijing hopes to spread to other countries. China has been one of the most successful users of SEZs, today the country has over 200 zones of various types, sizes and industrial focus and has started expanding its model to other parts of the globe with investments in countries in Africa and other parts of the developing world (Baissac, 2011; cited in Woolfrey, 21013).

In the mid-1990s, the Chinese Government began to emphasize a policy of "Going Global" (zou chuqu), which encouraged Chinese companies to target new markets, build global brands, and invest abroad. One component of this policy was the establishment of overseas industrial and trade zones. Overseas economic zones were believed to serve several strategic objectives (Zeng, 2015). First, they would help increase demand for Chinese-made machinery and equipment, while making it easier to provide post-sales product support. Second, by producing overseas and exporting to Europe or North America, Chinese companies would be able to avoid trade frictions and barriers imposed on exports from China. Third, they would assist China's efforts to boost its own domestic restructuring and move up the value chain at home. Fourth, they were intended to create economies of scale for overseas investment, and in particular, to assist less experienced SMEs to venture overseas "in groups". Finally, they were viewed as a way to transfer one element of China's own success to other developing countries; a strategy that the government believed would be helpful for recipient countries (World Bank 2010; cited in Zeng, 2015). Furthermore, China would be able to access much needed natural resources for its fast-growing economy.

Host countries welcome foreign partners in SEZ development for a number of reasons. The first advantage is to share the development cost. Modern zone development can require large amounts of capital and entail long payback periods (World Investment Report, 2019). Limited budgets and the

need for more economic zones have led some countries to actively attract FDI for this purpose. Cooperation with foreign governments or enterprises can provide access to various sources of finance or lower costs of borrowing. Second, host countries benefit from the expertise and experience of foreign zone developers. Most of those involved in the development of overseas zones have many years of experience in delivering successful economic zone projects domestically and abroad.

The first instance of Chinese involvement in the establishment of SEZs in Africa was in 1999, when China signed an agreement with Egypt to develop an industrial zone in the Suez Canal area. In 2006, as part of the implementation of its 11th five-year plan, China announced the development of 50 SEZs overseas, seven of which were to be in Africa. Subsequently, as Chinese investment and interest in Africa deepened, plans were announced for several additional zones to be built with Chinese support. For instance, China signed an agreement with Djibouti in 2016 to build an FTZ as part of the "One Belt One Road" Initiative; the first phase of the zone was launched in 2018. This 10-year project, costing USD 3.5 billion, is to create Africa's largest FTZ, spanning 4,800 ha. The zone would be managed by a joint venture comprising the Government of Djibouti as the majority shareholder and three Chinese companies: The China Merchants Group, Dalian Port Authority and IZP. Involvement by Chinese development companies has also been reported in Algeria, Angola, Ethiopia, Kenya, Uganda, Mauritius, Nigeria, Rwanda, and Zambia, among others (World Investment Report, 2019).

2.4.2. Initial Implementation

China's overall involvement with Africa over the past few years has been quite intense with Chinese businesses investing heavily in creating several free trade and special economic zones in partnership with relevant Africa governments throughout the African continent (Devonshire-Ellis, 2019). Industrial parks built in Africa, initially, came about because of various factors:

- Some were formed based on trade promotion centres. In the 1980s and 90s, China's Ministry of Commerce (MOFCOM) established trade promotion centres in 11 African countries, relying on the provincial commerce departments, which gradually became the bridge for enterprises in these provinces to invest in Africa. Firms from the same province tended to go out together and build factories near each other, making an industrial park the ideal choice. This kind of

parks or processing zones has strong "characteristics of the province of origin," and can be seen in Nigeria, Uganda, Cameroon, Tanzania, and Ethiopia.

- Furthermore, according to Hongyi (2019), while many Chinese manufacturers faced difficulties back home due to Western quota restrictions, particularly in electronic products, textile and light industry, Africa enjoyed quota-free access and preferential tariff treatment in EU and US markets. This attracted more Chinese companies to operate in Africa. For example, after trading with West African countries for several years, Henan Guoji Construction Group decided to build an industrial park in Sierra Leone in 2002, transforming an abandoned railway station into a productive assembly plant. Plenty of Chinese firms were introduced, producing construction materials, electrical components, plastic products, coatings, etc. This represented a new trend of Chinese investment in Africa in that period, although the park didn't survive the Sierra Leone civil war.
- Other parks were dominated by large Chinese enterprises. These enterprises came to Africa in search of resources during the early years. To support the fast-growing economy and industrial production in China, enterprises sought natural resources to support this growth. The was evident in 1998 when the China Nonferrous Metal Mining Group (CNMC), one of the largest mining enterprises in China, obtained land development rights on the surface of the Chambishi copper mine in Zambia and in 2003, it started to establish a Chinese overseas non-ferrous metal industrial park there (Hongyi, 2019). Later, upstream, and downstream firms came to Afica too, as resource exploitation required much support from other enterprises that were not available in Africa.
- Some other parks have been started by Chinese enterprises that were invited to Africa by African governments. Since the late 1990s, many African leaders have proposed to build their own "Shenzhen" or "Suzhou," which was welcomed by the Chinese government. In 1994, then Egyptian President Hosni Mubarak visited the Tianjin Economic-technological Development Area (TEDA) and proposed to build industrial parks jointly with TEDA. In 2003, Taida Group from TEDA purchased 1 square kilometer of land in Egypt to independently build the Suez Industrial Park.

2.4.3. Towards an Industrial Regime

In his paper, Hongyi (2019), highlights the main outcome of the 2006 Beijing summit of FOCAC which led China-Africa cooperation into a new stage, with the goal of 'promoting Africa's industrial development and enhancing Africa's production and export capacity.' The Beijing Action Plan adopted at the summit declared that "*China is ready to encourage, in the next three years, well-established Chinese companies to set up three to five overseas economic and trade cooperation zones in African countries where conditions permit*" (Hongyi, 2019, para. 11) to expand Chinese investment in Africa in the future. In addition, the China-Africa Development Fund was founded to encourage and support Chinese firms to invest in Africa, helping Africa achieve sustainable economic and social development. This further birthed a coordinated reaction to the African Continental Free Trade Agreement (AfCFTA), which was signed off early in 2019, and over a five year period will reduce intra-African trade tariffs on 90 percent of all products and goods traded across African nations, to zero.

China and Africa have jointly planned, built, and operated several industrial parks, aiming to effectively utilize both sides' comparative advantages. This is also in line with the spirit of China's "One Belt One Road" Initiative (BRI), the strategic goals of the African Union's Agenda 2063, and the common interests of China and Africa (Hongyi, 2019). China also collaborated with African host governments to establish SEZs in Africa as part of Beijing's 'Going Global' trade policies as many Chinese firms flooded into Africa. By 2009, the Forum on China African Cooperation (FOCAC) announced China had invested about USD 1 billion (Okere, 2019). In trying to export her development model and attempt to avoid problems faced by earlier SEZs, Beijing decided that her own companies would take the lead in developing these zones.

As seen in the map below, these zones all involve a partnership between the Chinese government, African governments, and Chinese business developers from state-owned, province-owned, and privately owned enterprises (Bräutigam and Tang, 201; cited in Wyrod, 2019). These official partnerships have been followed by many other similar partnerships, including those between Chinese provincial governments and African nations. Uganda is one of the African countries standing to benefit - the Liaoshen Industrial Park is an example of this much larger trend in Chinese-led SEZ development across the African continent.

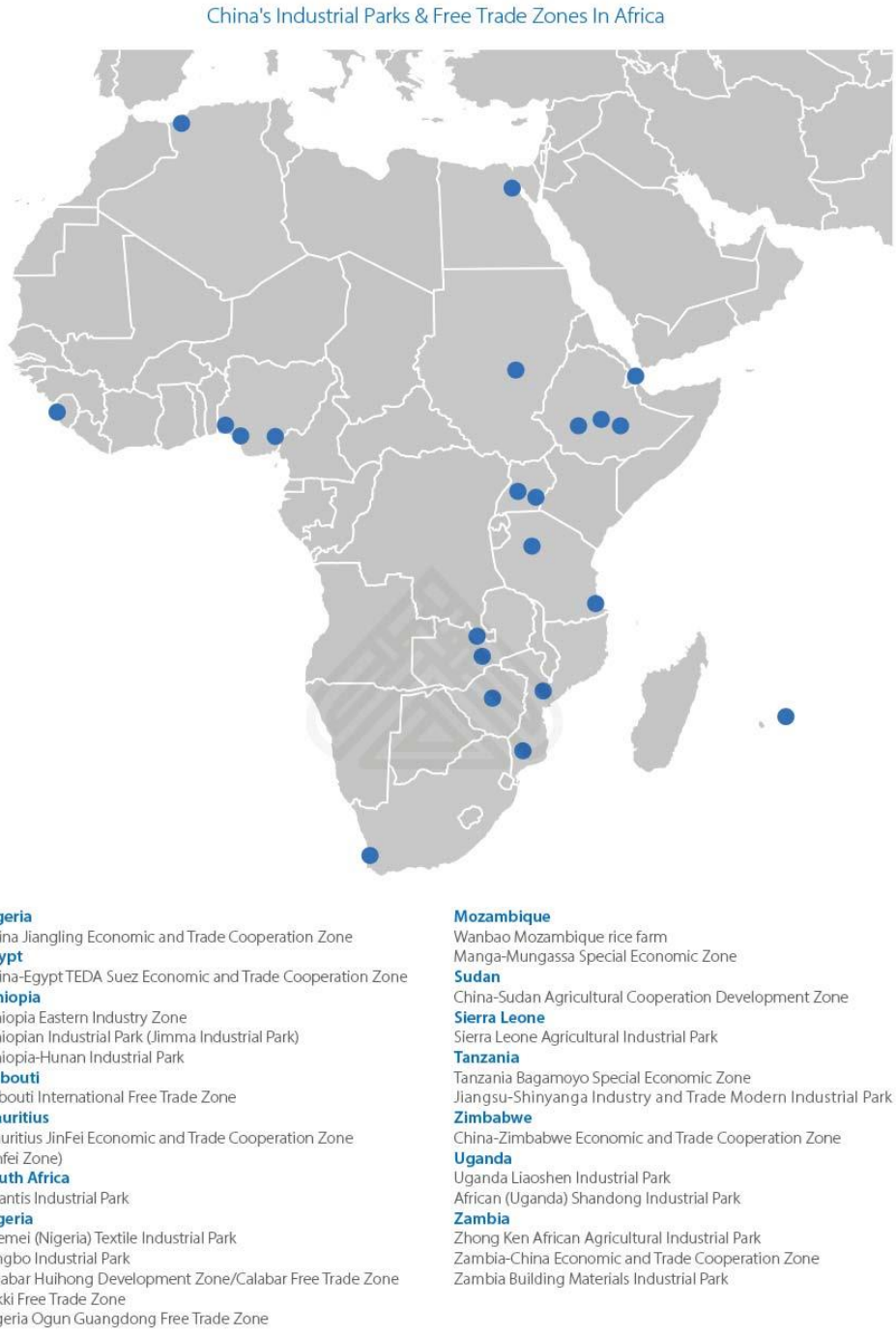


Figure 2: Map of Africa showing Chinese implemented SEZ and Industrial Park locations (Source: Asia Briefing Ltd, 2018)

With the increased number of Chinese investors coming to Uganda to invest in these industrial parks, the government sought to make more Public-Private Partnerships to ensure the efficient running of these parks (New Vision, 2019). To date, we can see the eve of a boom of Chinese investment in Uganda: the Luwero Agricultural Industrial Park run by Sichuan Kehong Group, the Tororo Industrial

Complex by Guangzhou Dongsong Energy Group, the Lukaya Rice Farm by Zhong's Industries, as well as the Sino-Uganda mbale Indsutrial Park run by Tian Tina group.

The factories within these parks will use the fiscal and taxation preferential policies provided by the industrial park to manufacture products. As well as make full use of Uganda's location and the policy advantages of the East African Community and the Southern African Development Community to drive the development of relevant industrial chains in Uganda, provide a large number of direct and indirect jobs for Uganda, and train a large number of professionals in related fields for Uganda.

With different industrial parks emerging based on different reasons as well as the different industrial plans of each country, the functions and positioning of the parks and the incentives they receive vary widely, (Hongyi, 2019), with the different types of industrial parks that emerged. Currently, there are more than 30 operational China-Africa joint industrial parks, and nearly 70 under construction. These can classify them in five dimensions:

Investors - The industrial parks can be divided into three types in terms of investors. The first type is those mainly invested by Chinese local governments, central stated-owned enterprises (SOES) and local SOES, such as the Suez ETCZ in Egypt and the Chambishi ETCZ in Zambia. The second type is led by private enterprises, like the Djibouti SEZ and the Huajian International Light Industry City. The third type of parks, mainly invested by commercial associations, as can be seen in Cameroon and Uganda.

Ownership - Ownership structure varies in different parks, including some wholly owned by either the Chinese or the African side, but most of them are owned by a China-Africa joint venture. For those jointly owned, African governments usually share in the project by providing land and capital. A few joint parks are financed through a public–private partnership (PPP) model with local governments, while the Chinese partner does the planning, construction, investment promotion, and sometimes operation and management.

Industrial policies - Judging from policy applicability, the parks fall into five types: the export free zone, the free port or the free trade zone, the free transit zone, the economic and trade cooperation zone, and the high-tech industrial zone.

Scale - China-Africa joint industrial parks can be found in most African countries that have diplomatic relations with China. In some countries, we can even find more than one, such as in South Africa,

Egypt, Ethiopia, Nigeria, Algeria, Tanzania, Kenya, and Uganda. Park sizes range from large to small based on the Chinese enterprise or company implementing it. For example, the small industrial parks are mainly built by private firms and local Chinese business associations, which promote economic diversity and development. The Tiantang Industrial Park in Uganda is an example.

Woolfrey (2013) in his paper argues that these zones are more and more being viewed in the region as important mechanisms for attracting foreign investment, creating jobs, boosting manufacturing production and manufactured exports and contributing to much-needed industrial and economic development. However, reports, such as Brautigam & Xiaoyang, (2011: p. 30), insist that the zones "*were intended to help China's own restructuring, allowing the labour intensive, less competitive, 'mature' industries, such as textiles, leather goods, and building materials to move offshore*."

2.5. Chinese Development and Policy Transfer to Africa

According to Tim Bunnell, in his 2013 article, it is easy to make reference to other cities whilst studying completely different cities based on the various urban experiences and fundamental policies that have been transferred whether they are successfully implemented or not. Bunnell (2013) points out three main instances in which we can categorise cities as urban precedents – prototype to what cities are becoming or will become in which case the prototype cities have achieved some milestone of development; cities at the top of urban hierarchy to which other cities can follow in its development path; and lastly model cities of what other cities should aspire to given the adoption of certain policies or priorities. China in this case can be seen as a prototype city as well as a model city, given the fact that we find some of the most successful implementations of SEZs in China and thus the desire to implement such success elsewhere. By placing China as the hierarchical city in relation to Africa puts Africa in the position of an imitator. In this case, the imitation is largely implemented by the hierarchical China. Based on the successful development of urban China, many African policy makers and local governments seek to implement the Chinese model, also due to the willing aid offered by the Chinese State Council.

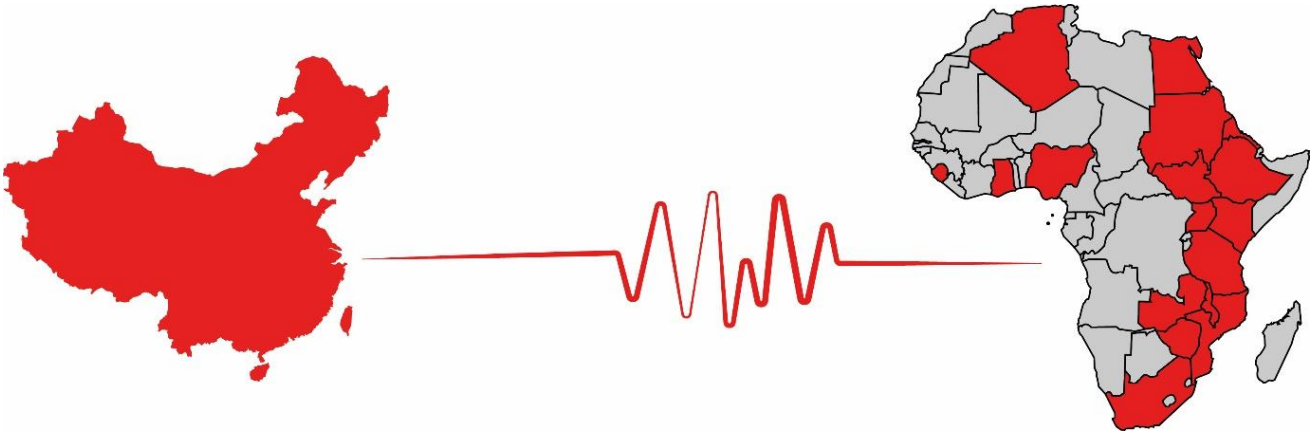


Figure 3: Diagram showing the growing influence China has in African countries hosting SEZs (Source: Author's illustration)

Policy mobility refers to the migration, combination, and evolution of policies, valuations, and ideas from one region to another. In this process, countries, regions, and enterprises learn, integrate, choose, and implement specific policies to facilitate regional business development, environmental protection, and education (Fraser, 2003; cited in Song,T et al, 2018). In the era of neoliberalism, policy borrowing has played an important role in driving development. Implementation of policies in different projects does not involve only imitation and repetition but rather includes the morphing of

ideas into a complex process of adaptation and re-production. As a result, these policies circulate and change quickly based on their movements, adaptations, and embeddedness in other institutional, economic, and social frameworks (Peck, 2002; cited in Crivello, 2014). In this sense, 'quick' refers to the speed with which this process, much faster than the process of traditional policy, is carried out. It is therefore much safer to implement a successful policy created elsewhere rather than create a new one.

However, to simply "copy" the Chinese model and implement it within the African context is impossible. China's rapid development is attributed to the Chinese government's strong enforcement ability of long-term planning. A key hurdle in Africa is that most African countries hold regular multi-party elections, making long-term policy planning difficult (Wenting, 2017). Furthermore, the Chinese government's strong control of land use is inspirational to African countries. There are over 40 countries in the African continent; different countries have different systems, according to Wenting (2017), this means that Chinese lessons should be applied differently depending on the country. For example, in Ethiopia, a certain class in the country has more control over the land. But in most African countries, land is privately owned.

Journalist Michiel Hulsof, based in Amsterdam, and architect Daan Roggeven in Shanghai, began visiting the continent in 2013 to document and investigate whether China's model of urbanism can work in Africa. In their essay "Facing East: Chinese Urbanism in Africa", they conclude that simply put, political and economic realities in Africa and China differ too much for a straightforward 'copy and paste' approach" (Kuo, 2015). Similarly, Bunnell quotes McCann in his article stating; "*Policies, models, and ideas are not moved around like gifts at a birthday party or like jars on shelves, where the mobilisation does not change the character and content of the mobilised objects*" (McCann, 2011a, p. 111; cited in Bunnell, 2013). Policies take on different shapes and outcomes as they shift from one dynamic city to a totally different one.

It should be highlighted that urban policies are only one subset of spatial policies, which can also be implemented at the regional or national levels. At each of these levels, the effective integration of spatial and economic planning plays a key role in shaping patterns of urbanisation and industrialisation. In many African countries, however, these policy areas usually fall under the remit of different authorities and are therefore not tackled concurrently. Addressing this problem requires the input and coordination of activities across a variety of national government bodies, such as ministries of transport, trade, planning and others. Given the comprehensive nature of the Chinese

planning process, exploring China's experience could also be instructive for aligning the incentives of these different actors (Dercon, Kriticos, Haas and Lippolis, 2019). More generally, it can shed light on the most appropriate institutional formulas for harnessing the potential contribution of local government to efficient urbanisation and industrialisation.

Furthermore, as earlier stated, China is not a unitary actor in these relation with Africa. Most of the direct investments are backed by the Chinese State to Provinces within China. Theoretically, Chinese provinces can either self-select into ties with certain African countries or can follow a central government-issued mandate to do so. This is sometimes done to avoid competition or duplication with other provinces in the same African country. "*Policymakers of the central Chinese government and African Union (AU) have at their disposal various means to bridge these disparities from the top-down, such as redesigning cooperative configurations, modifying incentive systems, and boosting technical assistance capabilities. Pairings between Chinese provinces with African countries may facilitate cross-jurisdiction learning of best practices and may reinforce concordant status of province–country pairs (both elite and both non-elite)*" (Shen & Fan, 2014: p.9). It is therefore important to understand that each province is unique from the other even if all are within China. The transfer of policies from China to Africa is already broken down as the adaptation begins from province to country level.

2.6. Institutional Set-up of SEZs

2.6.1. Key Stakeholders

The institutional set-up of SEZs is a complex and intricate system. "*It involves a multitude of actors both public and private, with different responsibilities. Furthermore, it is highly dependent on country specific political, economic, regulatory, and administrative systems. Thus, there is no uniform institutional model for SEZs. Nonetheless, existing SEZ regimes share some key commonalities concerning the main stakeholders involved"* (WIR, 2019: p.167).

The first important stakeholder is the **government,** this is the pivotal player in the domestic SEZ regime. The government is responsible for setting the overall economic development goals, adopting underlying industrial policies, and implementing them through the establishment of SEZs. It coordinates its SEZ policies with other relevant policy areas and its international obligations and allocates necessary resources – budgetary, personnel and the likes to SEZs. Through individual

decrees, it establishes particular zones on its territory on its own volition or in response to demand from specialized agencies, local governments or private companies (WIR, 2019). The government is also responsible for the overall administration of the SEZ regime.

The second stakeholder to look at is the **SEZ authority** that is usually established to support the government's policymaking functions. It is either a specialized agency or a State-owned company, supervised by the highest governmental officials, such as the president, the prime minister, another minister, or a separate unit – predominantly within the ministry of economics, trade, or finance. SEZ authorities coordinate zone policies and initiate related programmes. They are responsible for strategic and operational planning, conducting feasibility studies in relation to planned zones as well as for evaluating applications for zone development. They monitor the SEZ regime, promote and enforce underlying policies and standards, and collect relevant data on the effectiveness of individual zones and the entire system. They may also suggest SEZ policy changes to the government and prepare relevant decisions (WIR, 2019). This may include, for example, the selection of zone developers and contract negotiations with successful candidates. The SEZ authorities may also plan and execute the integration of SEZs into the local economy, for example, through the construction of off-site infrastructure.

Furthermore, according to the World Investment Report (WIR, 2019), SEZ authorities are often, directly, or indirectly, responsible for issuing relevant permits and approvals within zones, including construction permits, environmental impact assessments, work permits, and visas for foreigners and approvals of foreign land ownership. In addition, SEZ authorities may assist and facilitate the operations of zone developers and zone users by offering training, liaising with local authorities, utilities companies, customs and tax officials and other entities. SEZ authorities are physically present within the zones through branches or representatives.

The third stakeholder involved in the SEZ implementation are the **Zone developers** are responsible for the establishment of a particular zone. Their main functions include land arrangements and provision of essential infrastructure. Zone developers may buy land, or public authorities may assign plots to them. In addition, they initiate and participate in zoning and land use processes leading to the adoption of a master plan for the zones (WIR, 2019). In relation to infrastructure, zone developers construct on-site networks and utilities, and connect them to existing systems.

The technical and financial capacities and expertise of zone developers are critical to the success or failure of SEZs. Because of a lack of domestic public resources, many developing countries have turned to the private sector to fill the gap. In 2008, an estimated 62 per cent of SEZs in developing and transition countries were privately developed (and operated), compared with only 25 per cent in the 1980s (FIAS, 2008). To attract private partners, governments have introduced promotion programmes. They mainly include financial incentives but may extend to preferential land access, investment facilitation or simplified capital access. At least 40 per cent of SEZ laws include some kind of support scheme for private zone developers. In countries that prefer public zone developers, there is room for public-private partnerships.

Under most SEZ regimes, zone developers are also responsible for the day-to-day operations of SEZs. Yet zone operators may also be separate entities. Operators also attract individual investors to the zone, often in cooperation with domestic investment promotion agencies (WIR, 2019). In addition, they are responsible for the smooth operation of a zone by providing basic infrastructure services, such as electricity, telecommunication and water supply, security and maintenance. Potential additional services include consultancy desks, one-stop shops, training centres, focal points for recruitment, as well as the provision of office space and conference facilities. In cooperation with local authorities, they may offer health care, education, transport, housing, and recreation facilities as well.

Finally, SEZs are created with **zone users** in mind. Investors are the direct beneficiaries of the special regulatory regimes instituted in each zone. Their productive, technological, and trading capacities make them essential for zone performance.

Other stakeholders may also have a role in the SEZ regime. Tax and customs authorities administer special fiscal regimes applicable in zones and undertake on-site inspections in relation to goods entering and leaving the zones. Investment promotion agencies may assist in attracting new investors to the zones, preparing ready-made investment packages, sharing information on new developments in SEZ policies and building an investor-friendly image of the country abroad. In addition to the central government, regional and local governments may also have important roles (WIR, 2019).

Other stakeholders may include industry associations, staff unions and zone employees' representatives, as well as civil society.

2.6.2. Institutional Models

Although the broad institutional set-up is similar among countries with regard to its general structure and the principal actors involved (governments, SEZ authorities, zone developers, operators and users), differences exist, in particular concerning the legal status and responsibilities of zone developers (WIR, 2019). According to the World Investment Report (2019), most institutional set-ups fall within three basic models:

In the **public model**, all institutions at the national and the zone level, including zone developers, are public or publicly controlled. Zone developers are often called "zone administrations". Although these administrations may be organizationally and financially autonomous, SEZ authorities exercise strong control and oversight over their operations. In this model, the selection of zone users is an administrative decision. Often, central, and local governments delegate regulatory powers to zone administrations. A strong zone administration with the government's backing may also help to coordinate the responsibilities of different public authorities having a stake in SEZs. "*This model is widespread in economies where zone land and utilities are mainly in public hands. It can be found with some variations in countries such as the Russian Federation, Tajikistan, and Viet Nam*" (WIR, 2019: p.170).

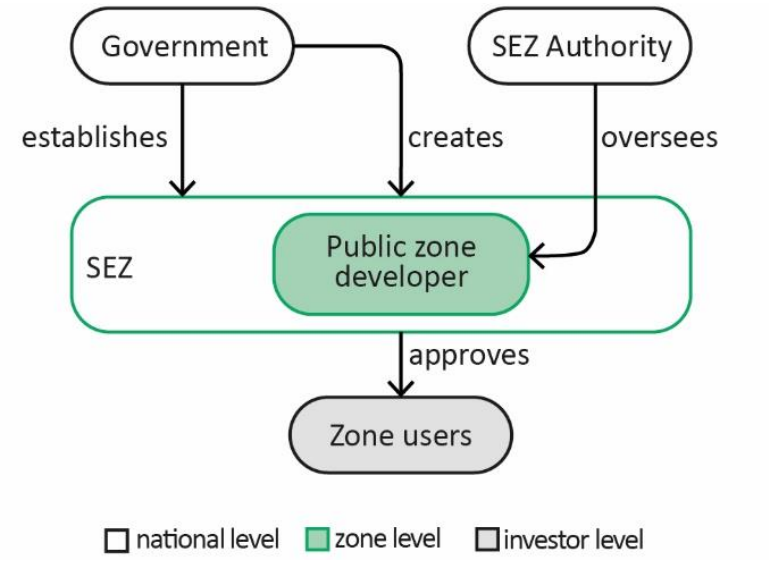


Figure 4: Diagram of the public institutional model.
(Source: adapted by author from WIR, 2019)

The second is the **private model** with private zone developers being selected in a competitive process based on statutory criteria. They have broad operational autonomy and report to the SEZ authorities, which have limited and strictly defined regulatory powers. Most importantly, zone developers are responsible for the admittance of zone users, with which they conclude investment contracts that regulate land leases, relevant fees and charges, or other operational issues. In addition, this model creates an opportunity for zone users to link to the private developer's existing business networks and to receive direct training and other knowledge transfer from that developer (WIR, 2019). This institutional set-up can found in Georgia, Serbia, and Uruguay, for example.

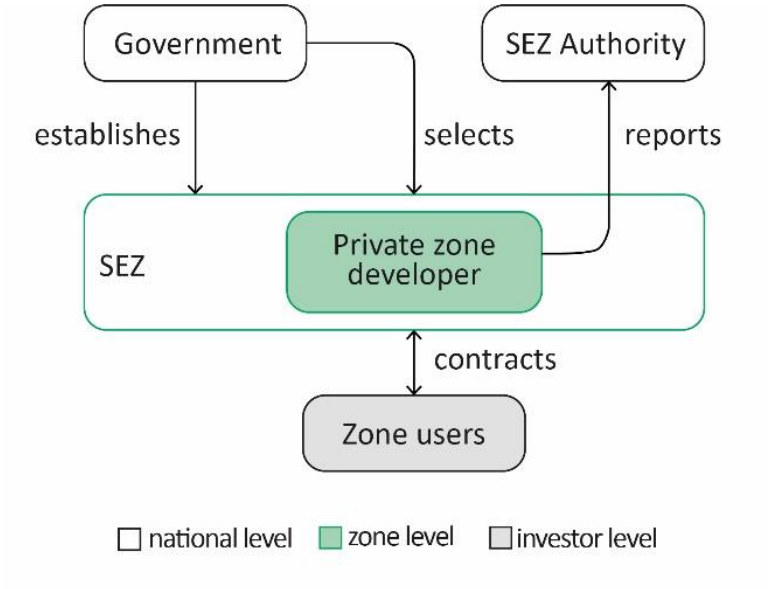


Figure 5: Diagram of the private institutional model.
(Source: adapted by author from WIR, 2019)

The **hybrid model** is a combination of the two models. It provides for the possibility of public or private zone developers that retain relatively broad autonomy in their operations. As regulators, SEZ authorities licence all private stakeholders and thus retain some control over the admission process. Nevertheless, the admission of zone users at the zone level falls again into the purview of zone developers, as user status in the zone is governed predominantly by a contract. This model gives broad flexibility to policymakers to shape SEZ regimes according to zone activities and specific investment projects (WIR, 2019). It also allows for greater involvement of local governments (e.g. they can be the sole zone developer). This hybrid approach is most common in China, Ethiopia, and Poland, among others.

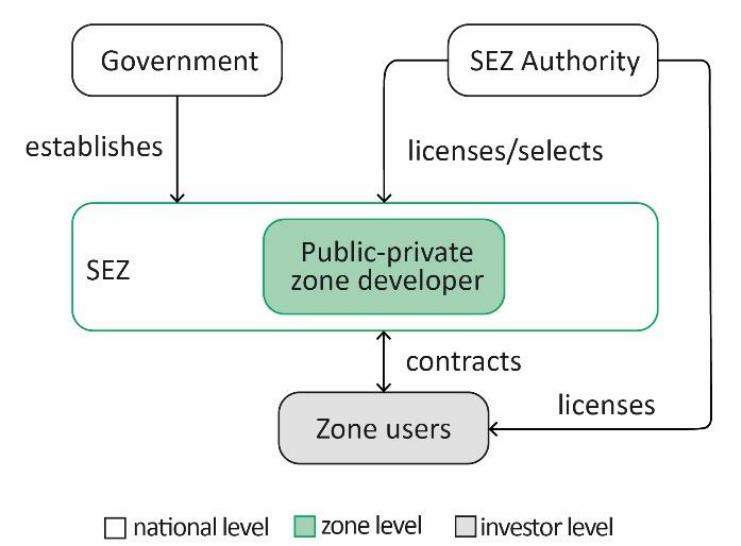


Figure 6: Diagram of the hybrid institutional model.
(Source: adapted by author from WIR, 2019)

Properly designing and implementing the regulatory and institutional framework for SEZs is a challenging task, and one that determines the success or failure of a zone. Key decisions to be taken relate to the type of zone to be created, the specific development objectives pursued through SEZs, the kind of promotion tools to be offered to SEZ investors, the content of investor obligations and the integration of the zone into the broader economy to avoid an enclave effect (WIR, 2019). Within this research, we shall study the different stakeholders and models used in the SEZ development in Uganda as well as that in the provincial state in China.

2.7. Role of SEZs in Urban Planning and Development

Urban planning and urban growth have shown misplaced in the context of rapid urbanisation, where urban growth does not strictly evolve in accordance with the establishment the laws and policies and potential evolution. Due to the development needs of the country, cities can adjust the direction of urban development (Deng et al, 2018). In many African cities, urbanisation has been on the rise alongside the need to promote an industrialisation regime in the economy. The urbanisation of Africa is currently taking place at the same breakneck pace as that of China in recent decades. According to Architect Daan Roggeven (2014), this is happening with the help of China and according to Chinese urbanisation principles.

China has generated some of the most impressive urbanisation stories the world has ever seen. Since the early 1980s, more than 300 million rural migrants have moved to Chinese cities, as opportunities in urban areas have driven economic modernisation that has lifted more than 680 million people out of poverty (International Growth Centre, 2019). Some of the urbanisation challenges China faced nearly 40 years ago are the same challenges that African countries face today.

The IGC speculates that Africa's population of 1.1 billion will likely double by 2050, and more than 80% of that increase will occur in cities, especially in slums. The social and environmental problems and risks associated with large-scale urbanisation in Africa are widely recognised. However, the potential for urbanisation to strengthen economic growth and development across the continent has only recently been grasped.

SEZs can be seen as a crucial tool in aiding the development of cities and townships as well as the country at large; not just for the economy but also as regards the sectors that are undoubtedly influenced by the development of infrastructure, creation of employment opportunities for the population and the increase in trade options. SEZs can thus not be grasped in the fullness of their implications unless they are placed in the wider context of policies of rapid urbanisation and upgradation of cities. Urban development in various cities is geared towards the various dimensions of urban life; environmental, economic, social, and cultural. Because SEZs vary in size and can take up entire townships, villages, or cities, they encompass all these dimensions in their modes of set up and operation.

Special Economic Zones are created with four specific (although not exclusive) policy goals: (1) to attract foreign direct investment; (2) to serve as pressure valves to alleviate large-scale

unemployment; (3) to support a wider economic reform strategy; and (4) to apply new policies and approaches as experimental laboratories. According to Baissac & Farole (2011), no other SEZ program has had as much impact, nationally and internationally, as the Chinese program, whose initiation was a key moment in the development of the modern SEZ. Today, China has more than 200 zones of various types, sizes, focuses, and sectoral concentrations and provides a reference for the use of wide area SEZs as a tool for economic growth.

Given the growing interest SEZs have generated in recent decades, several multilateral and bilateral organizations have encouraged SEZ-friendly policies in developing economies. The WTO has also taken them into account because they represent one of the few means available to many poor countries to industrialize and participate in international trade (Bost, 2019). According to Zeng (2010), SEZs have contributed significantly to national GDP, employment, exports, and attraction of foreign investment and new technologies, as well as adoption of modern management practices, among others. SEZs contribute to regional and national economy and result in generation of employment, demand for large industrial machinery, creation and utilization of transport systems and logistical infrastructure. These are very long-term benefits that the region will receive. As a result of the demand for these activities, additional indirect benefits spill over to other nearby regions as well as far off regions. It is these indirect benefits to the regional economy which might be large and can spill over to several other sectors through multiplier effect on them.

Zeng (2010) further argues that if implemented successfully, SEZs confer two main types of benefits, which in part explain their growth in popularity: “static” or “direct” economic benefits such as employment generation, export growth, government revenues, and foreign exchange earnings; and the more “dynamic” or “indirect” economic benefits such as skills upgrading, technology transfer and innovation, economic diversification, and productivity enhancement of local firms. In the table below we can see a list of possible benefits from successful SEZ programs. In general, the “indirect” benefits are harder to achieve unless the zones are very successful.

	Direct	Indirect
Employment generation	•	
Foreign exchange earnings	•	
Foreign direct investment	•	
Government revenue	•	
Export growth	•	
Skills upgrading		•
Testing field for wider economic reform		•
Technology transfer and adoption of modern management practice		•
Export diversification		•
Enhancing the trade efficiency of domestic firms		•
Cluster facilitation		•
Urban and regional development		•

Table 3: Direct and indirect benefits of SEZ implementation (Source: White, 2011 and Zeng, 2010)

According to Farole & Akinici (2011), it is not the existence of an SEZ regime, of a master plan, or even of a fully built-out infrastructure that will make the difference in attracting investment, creating jobs, and generating spill over to the local economy. Rather, it is the relevance of the SEZ programs in the specific context in which they are introduced, and the effectiveness with which they are designed, implemented, and managed on an ongoing basis, that will determine success or failure. It is imperative for zones to be adapted to the host country's specific situations and build on its comparative advantages for it to be successful. SEZs should thus be an integral part of the long-term development strategy of the country considering infrastructure availability, commercial sustainability, technological innovation capability and environmental sustainability. The Lekki Zone in Nigeria, for example, was planned as part of the urban development of Lagos the capital city of Nigeria. It has since been gradually transformed from the village that was some years ago into a town with modern infrastructure and in the few years will become a Mega Industrial City. The zone and its associated planned port and airport boosted the economic growth of the city and now forms a coastal city in the Gulf of Guinea and the logistics centre of West Africa (Xinhua, 2011; cited in Zeng, 2015).

SEZs can also be seen as catalysts of urban development within the city and to the surrounding areas; those located next to an urban centre and population dense area may have the advantage of a competitive labour market and easier access to local firms but those located in the outskirts of the city or suburban areas will bring this competitiveness to these areas. According to the OECD Report (2017), the location of zones varies depending on the purpose for which they were created. Zones intended to attract investment and foster industrial activity in a particular geographical region tend to be located near major transport corridors (including ports and airports), large cities, near universities or relevant vocational schools, or in locations of former or existing industrial activity. However, if the primary role of the zones is to foster economic activity in developing regions of the economy, then they might be sited in more remote and less well-connected areas. In those cases, the zones will be part of a broader regional development agenda that is generally accompanied by investments in additional infrastructure, the establishment of relevant educational and training programmes and so on (OECD Report, 2017). While the benefits and limitations of zones will no doubt continue to be debated, what is clear is that policymakers are increasingly attracted to them as an instrument of sustainable urban growth, trade, investment, industrial, and spatial policy (Farole & Akinci, 2011).

CHAPTER 3: CASE STUDY ANALYSIS

3.1. Approaching SEZ Case Studies

A case study approach was used to analyse various aspects of two SEZs from Liaoning Province and one from Uganda to understand what the similarities and comparisons there are, whilst understanding the impact of the SEZ on the neighbourhood in which it is implemented.

In recent years, trade between Chinese provinces and Africa has been growing at a rapid pace. As the African economy rebounds, Africa is regarded as a continent of new economic opportunities for Chinese companies, both state-owned and private. At the same time, with the overall encouragement of the central government, provincial governments have also adopted numerous measures to promote trade with African countries (Zhimin & Junbo, 2009). The Liaoning Province has expanded its investments to African countries, Uganda inclusive, and is among the highest valued investor provinces in China as seen in the table below.

Rank	Province	Value of new contracts signed
1	Shanghai	6,699.31
2	Guangdong	5,977.33
3	Sichuan	4,827.57
4	Shandong	4,282.48
5	Jiangsu	4,005.69
6	Hubei	3,920.81
7	Beijing	2,114.93
8	Zhejiang	1,856.03
9	Hebei	1,729.54
10	Tianjin	1,191.22
11	Heilongjiang	1,170.84
12	Anhui	1,131.63
13	Hunan	1,062.16
14	Henan	966.60
15	Liaoning	737.93
16	Yun'an	682.60

Table 4: Value of newly signed project construction contracts of Chinese provinces by 2007 (Source: Ministry of Commerce, 2008)

First, the research shall explore the planning and implementation of SEZs in the Liaoning province.

3.2. SEZ in Liaoning Province, China

3.2.1. Liaoning: A Background Study

Liaoning is a coastal province in Northeast China located on the northern shore of the Yellow Sea. It is the northernmost coastal province in China. Liaoning is also known in Chinese as "the Golden Triangle" based on its shape and strategic location. The province also has historic ties with North Korea. Liaoning was one of the first provinces in China to industrialise, first under Japanese occupation, and then even more in the 1950s and 60s. The city of Anshan for example is home to one of the largest irons and steel industrial districts in China. It is also an important production base of equipment and machinery manufacturing, with Shenyang and Dalian being the industrial centres. Enterprises such as Shenyang Jinbei Co. Ltd., Dalian Group Co. Ltd., and Shenyang Machine Tool Co. Ltd., are leaders in their sectors.

Figure 7: Map of China showing location of Liaoning province (Source: author's illustration)

The Province has a 2,178 km coastline and serves as an important sea shipping centre due to its strategic location; it has three major ports in Dalian, Yingkou and Dandong. Dalian Port is the northernmost ice-free port in China, easily connecting China with Japan and Korea, and has a specialized terminal for the imports and exports of vehicles. Shenyang, which is the capital of Liaoning Province, is one of China's primary industrial centres and is home to some of the country's leading firms in the aerospace, heavy machinery, defence, automotive, electronics and software sectors. The city boasts one of the fastest growing software and automotive sectors in China.

Liaoning has 14 administratvie divisions; Fuxin, Tieling, Fushun, Benxi, Dandong, Dalian, Yingkou, Anshan, Liaoyang, Shenyang, Panjin, Jinzhou, Chaoyang, and Huludao. According to Xiaoning (2008), after more than two years of implementing its "Five Points Along One Line" development strategy, the Liaoning provincial government sought more policy support from the State in its efforts to revive the province's aged industrial base. Mapped out in the province's 11th five-year (2006-10) plan, the strategy was to build a coastal economic belt covering five key development areas in the cities of Dandong, Dalian, Yingkou, Panjin, Jinzhou and Huludao - all linked by a 1,430-km arterial highway

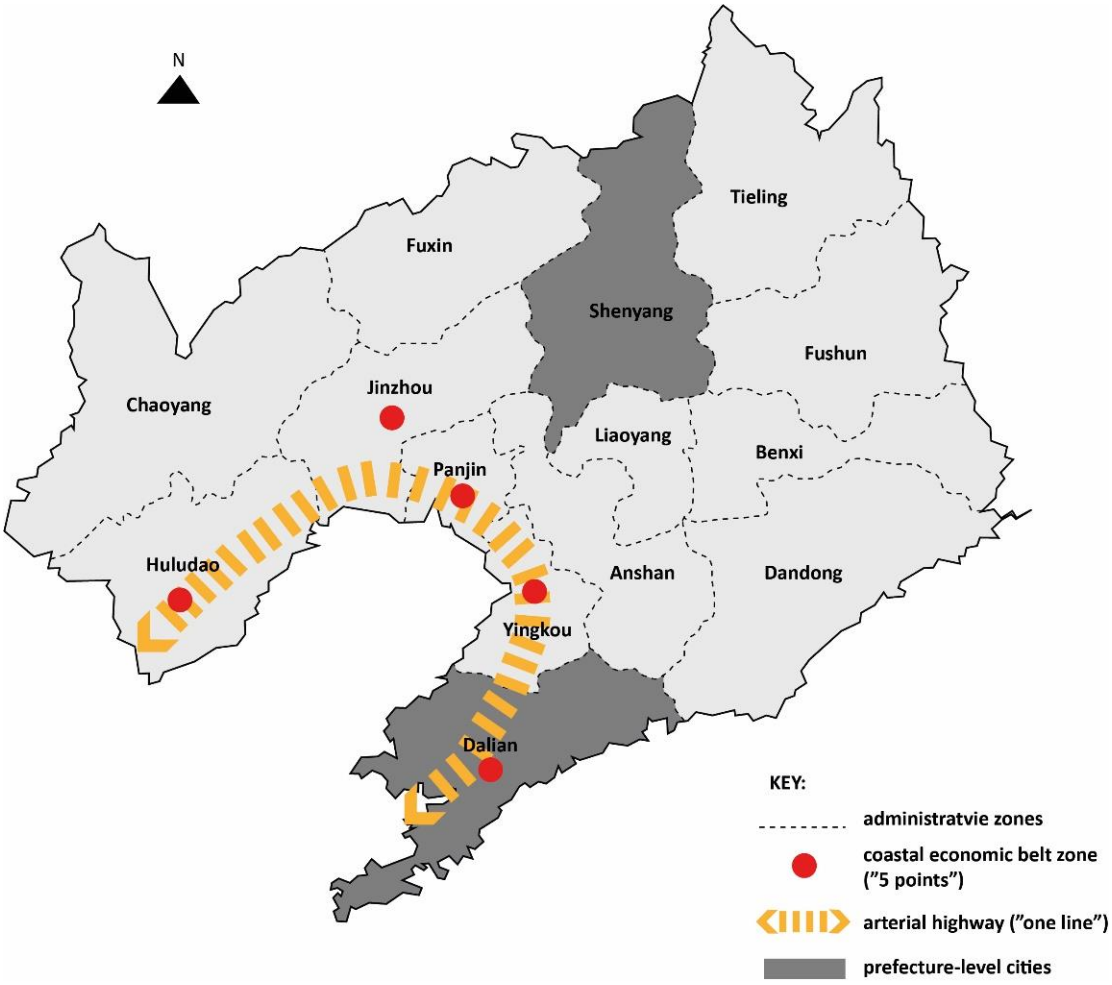


Figure 8: Liaoning province divisions and coastal economic belt (Source: author's illustration)

along the coast which is the “one line” that is expected to bolster growth in the province’s coastal economic belt (Xiaoning, 2018).

The coastal economic belt zone strategy became of major importance to the province was approved by the State Council to be upgraded to a national strategy by 2009 (Wang, 2014). Shenyang being the administrative capital of the Liaoning Province has experienced a downward turn in economic development in the past years and stands to benefit tremendously from the success of the coastal economic zone with different projects connecting from the centre of the province to the coast. Shenyang and Dalian are the top two prefecture-level cities in Liaoning Province, and they account for half of the four sub-provincial prefecture-level cities in Northeast China (Baijahao, 2019). Judging from the development of the two prefecture-level cities in Liaoning Province, Dalian ’s economy will be stronger than Shenyang for a long time, but Shenyang ’s status as a regional central city will be stronger. Shenyang is also the only way to the north of Northeast China and the Beijing-Tianjin-Hebei region of Guannei. From this perspective, Shenyang is a natural regional central city

The planned economic belt will have an area of 583 sq. km, and the first-stage development area is 220 sq km. According to Xiaoning (2008), during the past years, 437 projects have landed in the five zones, with a total investment of over 120 billion yuan. These include 117 foreign-funded projects, with a combined investment of USD 3.56 billion and another 220 projects with a total contractual investment value of 174.8 billion yuan are under negotiation.

The provincial government, at the annual NPC and CPPCC sessions, proposed that the central government grant a Shenzhen-equivalent Special Economic Zone status to its coastal economic belt. According to the 2005 plan, industrial clusters will be formed in different areas of the Liaoning region. For example, Changxing Island in Dalian will focus on industries such as shipbuilding, petrochemicals, precision instruments production and port logistics (Xiaoning, 2008). The priority industries in Yingkou will be metallurgical and mining equipment manufacturing, steel making and shipbuilding. Jinzhou will focus on petrochemicals and non-ferrous metal processing and Dandong will be a major destination for such industries as automobile parts production, papermaking and paper making equipment manufacturing.

Liaoning, with a population of 44 million people, has the largest provincial economy of Northeast China with GDP exceeding USD 348 billion in 2011. Of the development zones formally recognized by the PRC State Council, 56 are located in Liaoning, including 14 on the national level and 42 on the

provincial level. These zones are further grouped into Economic Development Zones, High-Tech Zones, Free Trade and Export Processing Zones, and Special Economic Zones (China Liaoning Business Guide, 2010).

Industrial parks in China are of varying sizes and are at different levels and stages of development. Some industrial parks are located within other industrial parks. For instance, Export Processing Zones (EPZs) are subsumed under ETDZs or HIDZs, in order that they may leverage the established facilities and resources of the enterprises in the ETDZ and HIDZ. Hence, some EPZs are not graded individually, but as a part of the larger ETDZ or HIDZ within which they are located. For the purposes of this research, two projects from these prefecture-level cities in Liaoning Province will be explored; the China-Germany Equipment manufacturing Industrial Park in Shenyang central city and the Dalian Free trade Zone located within the coastal economic belt zone in Dalian city.

In his paper, Herlevi (2016) suggests that it is not clear what internal model (or models) best correspond to the Chinese overseas development of zones. Thus, understanding China's internal zone programs helps us better understand how Chinese-run overseas zones may evolve. Two of the major Special Economic Zones in Liaoning Province are chosen as a study to understand what spatial references or practices, as well as the form of operation the Liaoning government employed in the transfer of the Special Economic Zone model to Uganda.

3.3. Case Study 1: China-German Equipment Manufacturing Industrial Park

3.3.1. Project Background

The park was approved by the State Council on Dec 23, 2015, with an area of 48 square kilometres planned for construction at Tiexi district in Shenyang, a district featuring an equipment manufacturing industry. According to the China Daily (2020), the park was to be built into a demonstration area integrating development strategies of the “Made in China 2025” and the German “Industry 4.0” vision strategies - prioritising the development of intelligent manufacturing, high-end equipment, automotive manufacturing, industrial services and strategic emerging industries. The park aims to uphold the principle of "small government, big society" while implementing market-based and enterprise-style management and constructing a China-Germany innovation centre among other service platforms. At present, 254 projects, including BMW Brilliance's Tiexi factory, have settled in the park, investing a combined 105.81 billion yuan (USD 15.96 billion). The park has also attracted 35 companies from Germany and other European countries (China Daily, 2020).

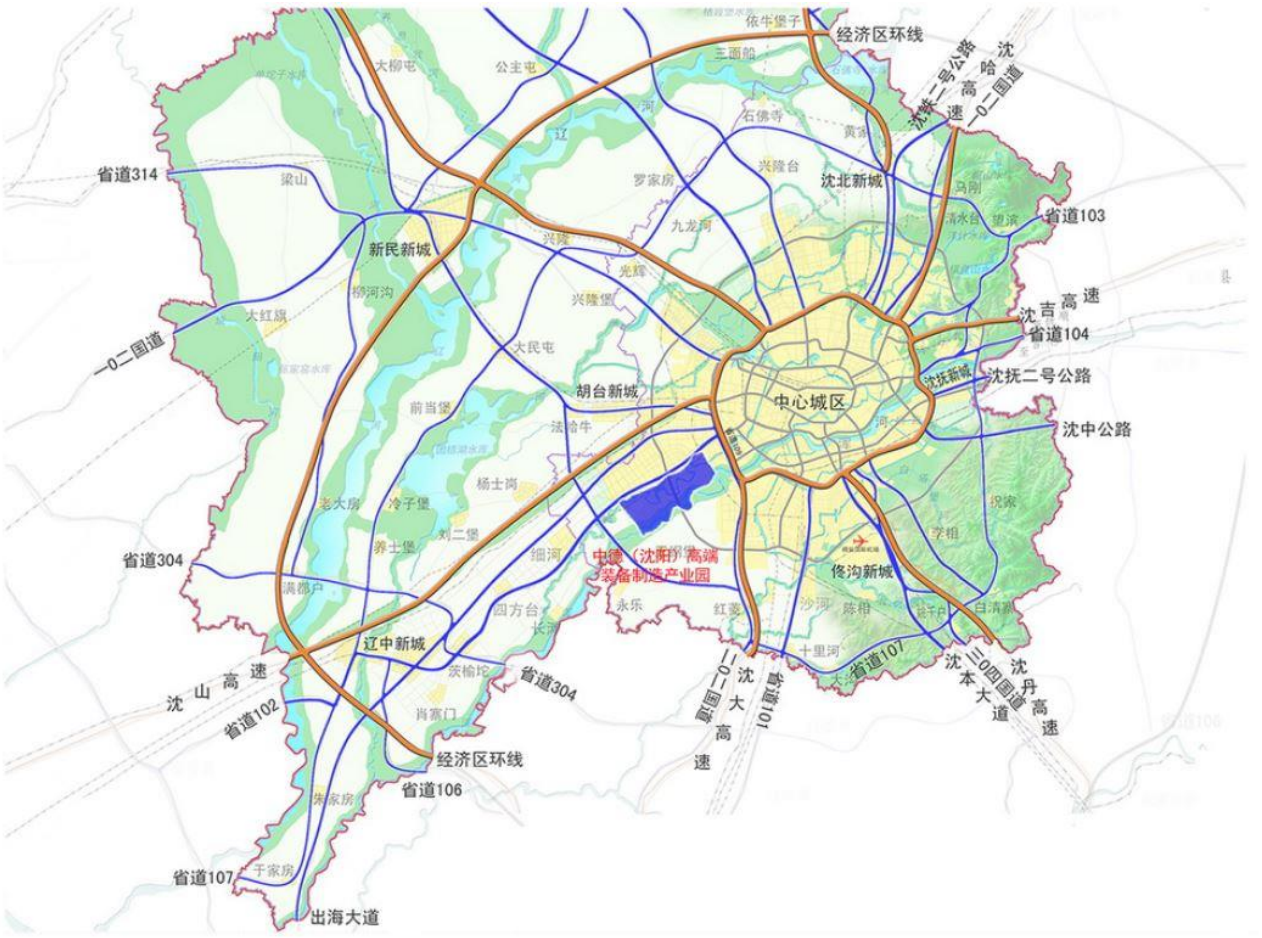


Figure 9: China-German Industrial park location within the Shenyang administrative borders (Source: Daxiang Wang, 2016)

The China-Germany Equipment Manufacturing Industrial Park is 35 kilometres from Shenyang Taoxian International Airport, 180 kilometres from Yingkou Port, the largest cargo port in north-eastern China, and is therefore an ideal starting point for international growth.

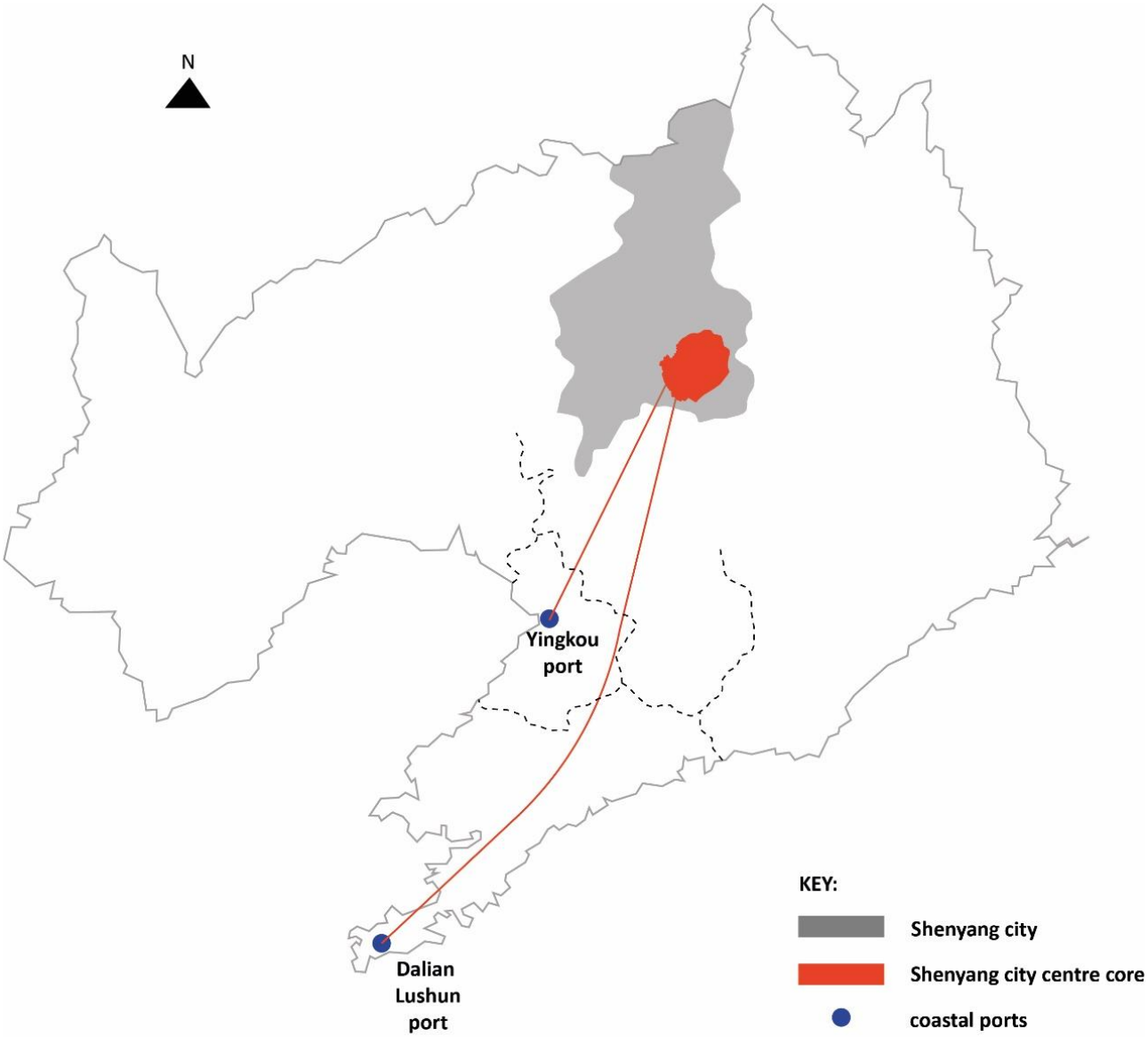


Figure 10: Inner Shenyang spatial relation to Yingkou and Dalian coastal ports
(Source: author's illustration)

The strategic location of the park within the Tiexi district in Shenyang is interesting because Shenyang is not only the economic and political centre of Northeast China but is also the third largest German community in China. With numerous Chinese companies, 140 German companies and 48 of the 500 most successful companies worldwide, Shenyang is an attractive investment location - especially for German companies (CGEP-Deutsch, 2018). There is also one of the five German consulates general,

the German Chamber of Commerce as well as optimal connection to the regional and national transport network with three weekly direct flights Frankfurt – Shenyang, container freight by train (23 days - Germany to Shenyang), 1 hour to Yingkou and 2 hours to Dalian (CGEP-Deutsch, 2018). Sino-German trade amounted to around 187 billion euros in 2017, which makes China Germany's most important trading partner.

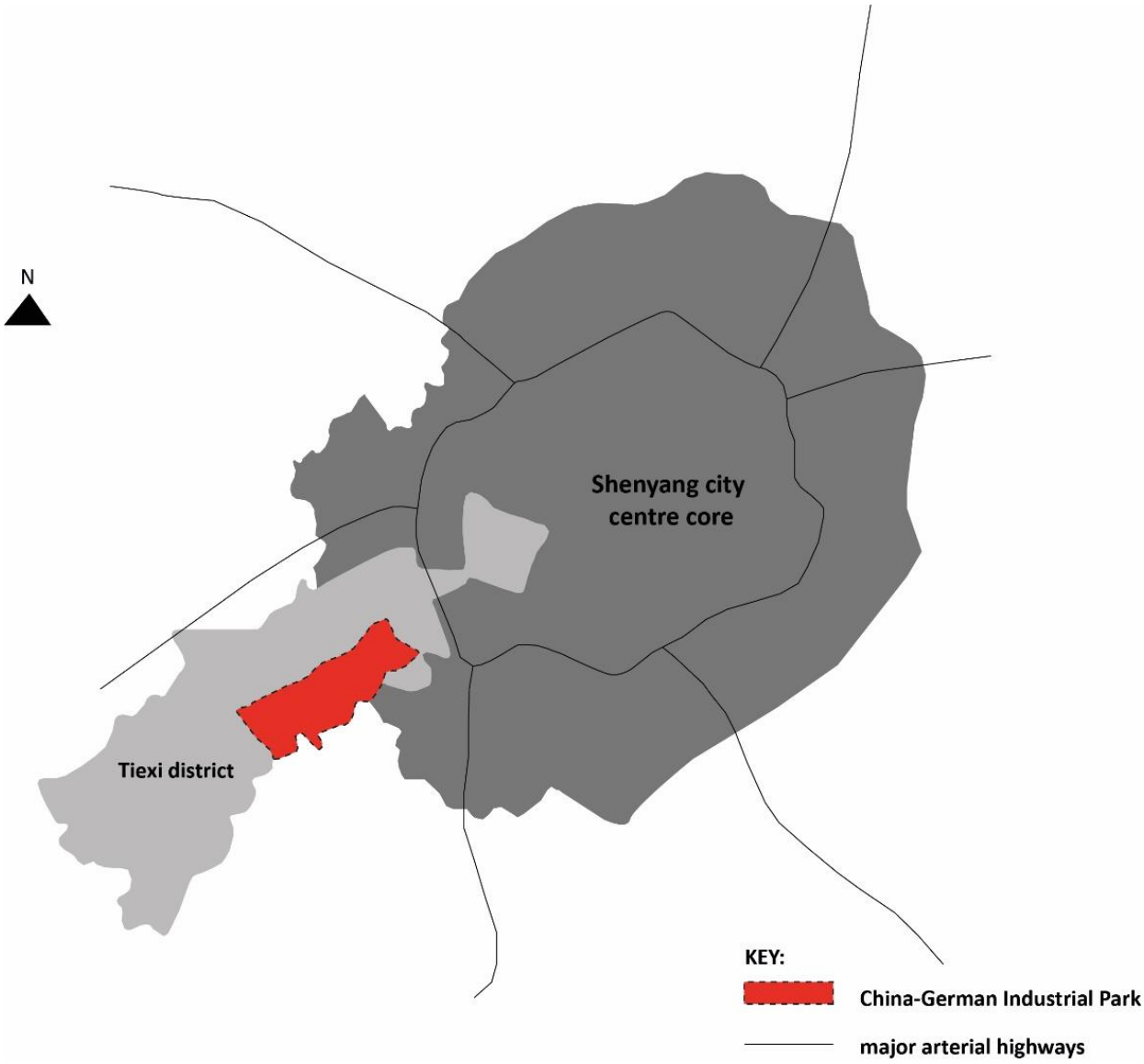


Figure 11: Spatial relationship among the Urban Tiexi district, Shenyang City centre core and the China-German Industrial Park (Source: author's illustration based on Robbins Eugenia, 2019)

The goal of the industrial park is to position itself as the new engine of the region to promote the transformation and development of Shenyang. By 2025, the park will become a world-class research & development, design, production and service centre in one of China's major industrial

agglomeration. The park's focus here is on the development of intelligent manufacturing, high-end equipment, automotive engineering and industrial services, and brings together several well-known device manufacturers from German and European medium-sized companies and industry leaders (CGEP-Deutsch, 2018).

According to China.org (2017), the China-Germany Equipment Manufacturing Industrial Park in Tiexi District, Shenyang, became China's first platform for high-end equipment manufacturing cooperation between the two countries in late 2015. On May 19, the BMW assembly plant, which currently accommodates two whole-vehicle assembly plants, an engine plant and an R&D centre, began full operations. It is one of the largest smart production bases of BMW Group. Founded in 2003, BMW Brilliance Automotive Ltd is a joint venture of BMW Group and Brilliance China Automotive Holdings Ltd (China.org, 2017).

3.3.2. Institutional Set-up

When ‘Made in China 2025’ met ‘German Industry 4.0’, the two major manufacturing countries chose the way of complementing each other's advantages and achieving win-win cooperation on the "national weight". The main aim was to introduce German quality and German technology into Chinese manufacturing to promote China's economic transformation and upgrading; in China's huge market, show its advantages and take the lead (Wang Ye Ruoruo, 2015). In terms of the park institutional set up, the Sino-German Industrial Park actively innovates and explores the PPP model. At present, more than 20 state-owned enterprises, listed companies, and international industrial real estate companies such as China Metallurgical, China Construction, China Fortune Foundation, ProLogis, Beijing Liandong, etc. have all extended olive branches to the park.

In December 2012, the Ministry of Commerce of the PRC and German Federal Ministry of Economics and Technology awarded the title of “Cooperation Base of Sino-German Enterprises” to Tiexi District jointly. And on December 17, 2015, the State Council of the PRC issued Approval of the Development Plan of China-Germany Equipment Manufacturing Industrial Park in Shenyang (Robbins, 2019). Both the Chinese and German State governments are considered equal players in this arrangement.

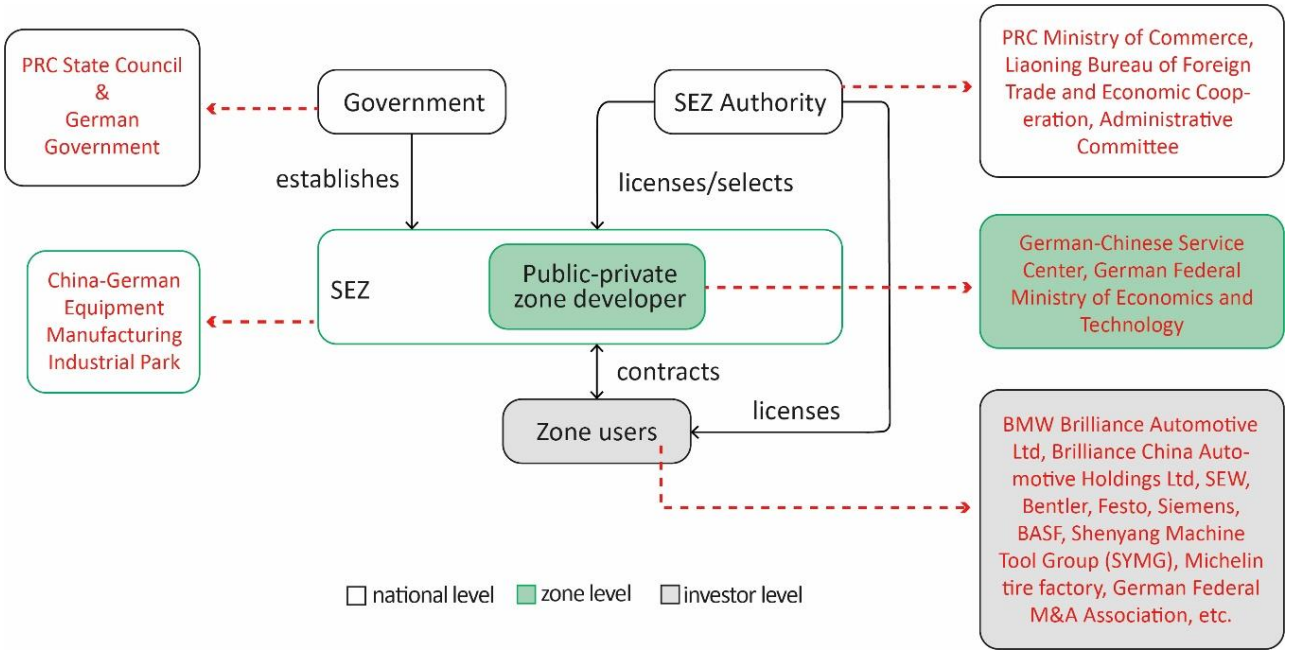


Figure 12: Distribution of the Sino-German Industrial Park actors in the Hybrid Institutional set-up model (Source: author's illustration)

3.3.3. Spatial Characteristics

The China-German Equipment Manufacturing Industrial Park is 12 kilometres long from east to west, 4 kilometres long from north to south, and has a planned area of 48 square kilometres. The core area covers an area of 20 square kilometres, with the Sino-German Street as the axis and golden corridor of the park, together with Zhongou Road, Zhongfa Road, Zhongrui Road, and Zhongao Road, forming a "**one vertical and four horizontal**" pattern, creating an industrial corridor rich in German elements and gathering German companies (Wang Ye Ruoruo, 2015).

According to Wang Ye Ruoruo (2015), the park takes a "ribbon formation, axial guidance, ecological isolation, and cluster development" as its planning concept, thus forming a "one axis, two slices, and multiple clusters" planning structure:

- **"One axis"** takes the comprehensive improvement of the Xihe River as an opportunity to plan a strip park along the line, construct a continuous public open space, and connect public service facilities such as commerce, education, and scientific research to form a public service axis that runs through east and west;

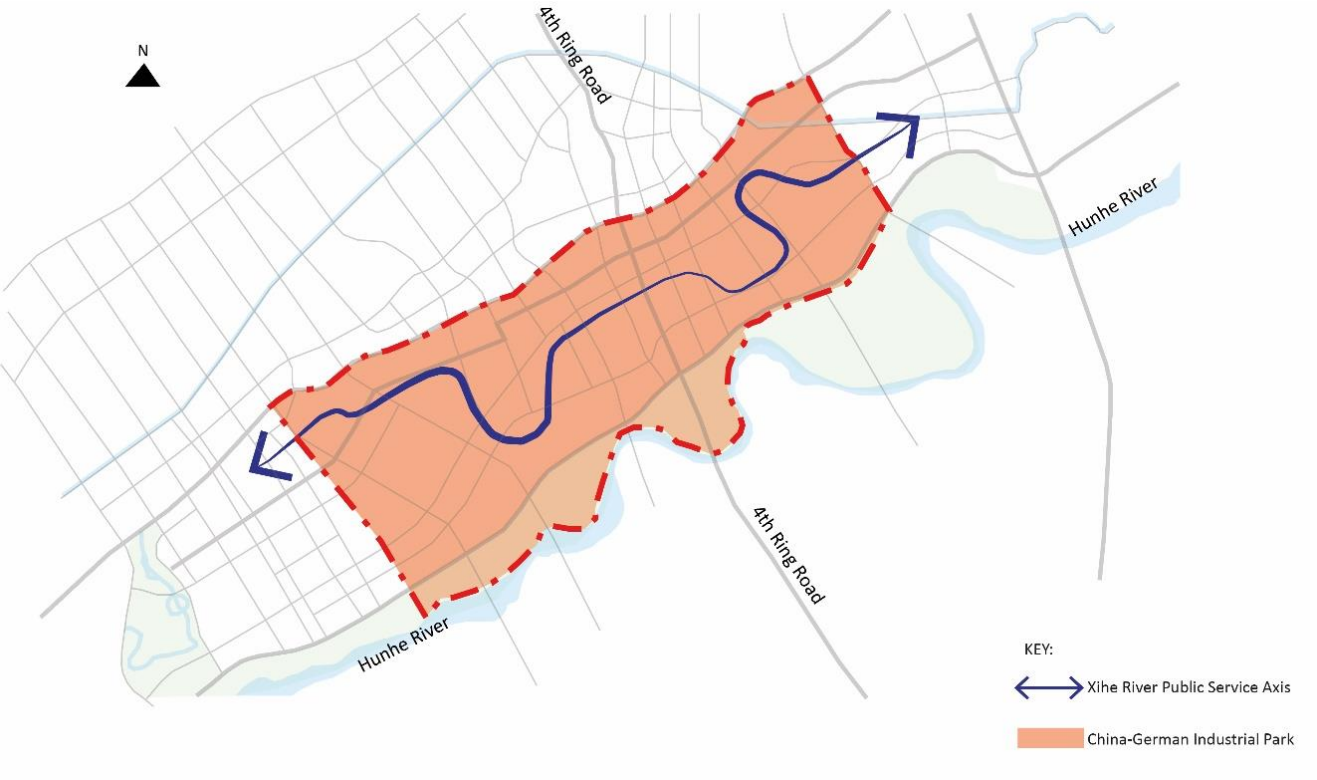


Figure 13: Diagram of the China-German industrial park _ "One Axis"
(Source: author's illustration based on Daxiang Wang, 2016)

- **"Two slices"** refers to the west of the Fourth Ring Road forming a production function area focusing on intelligent manufacturing, advanced machinery manufacturing, automobile manufacturing, industrial services, and strategic emerging industries, and to the east of the Fourth Ring Road to form a service function area with a headquarters base, education and training, residential facilities, Business-oriented area;

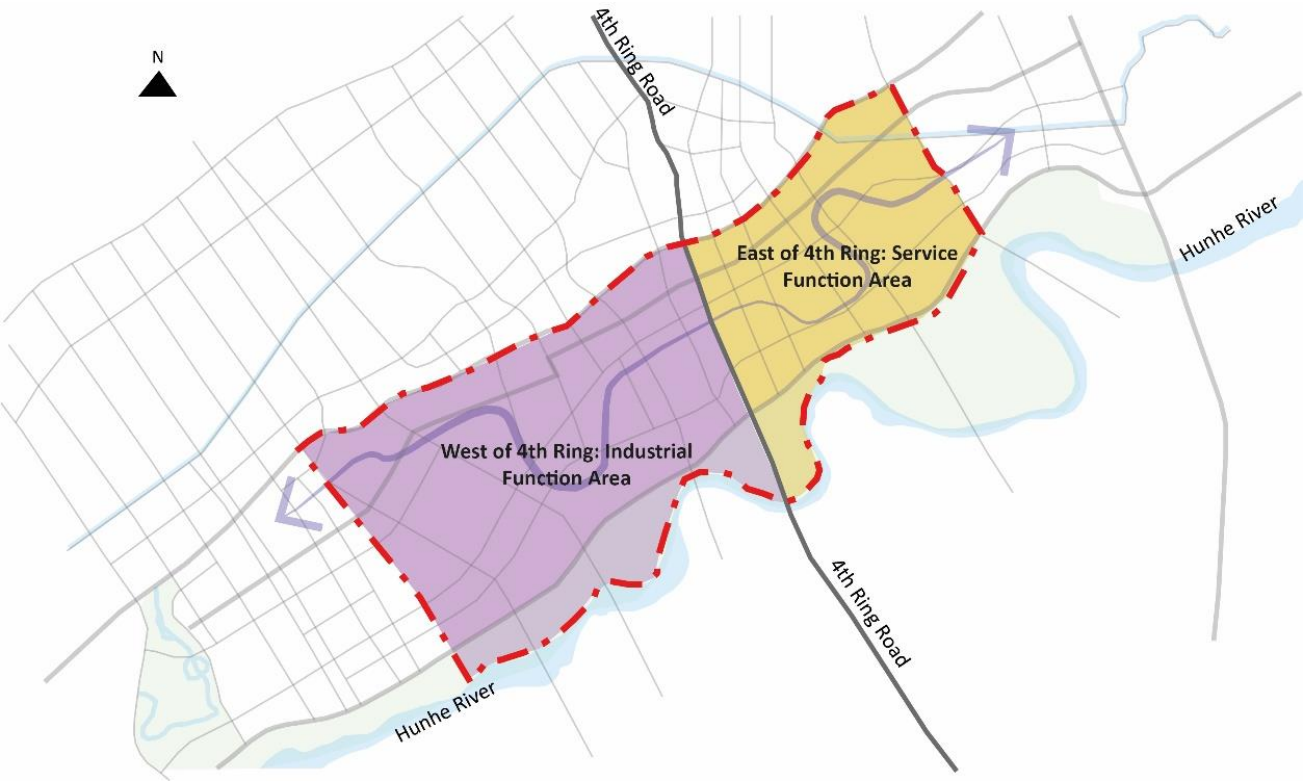


Figure 14: Diagram of the China-German industrial park _"Two Slices"
(Source: author's illustration based on Daxiang Wang, 2016)

- **"Multi-cluster group"** is the core area – this area focuses on the planning of four industrial clusters. (Guosuo, 2019). Even though the entire site has separate clusters for different functions the core area focuses on the main industrial purposes found withing the first slice which is the Industrial Function Area.

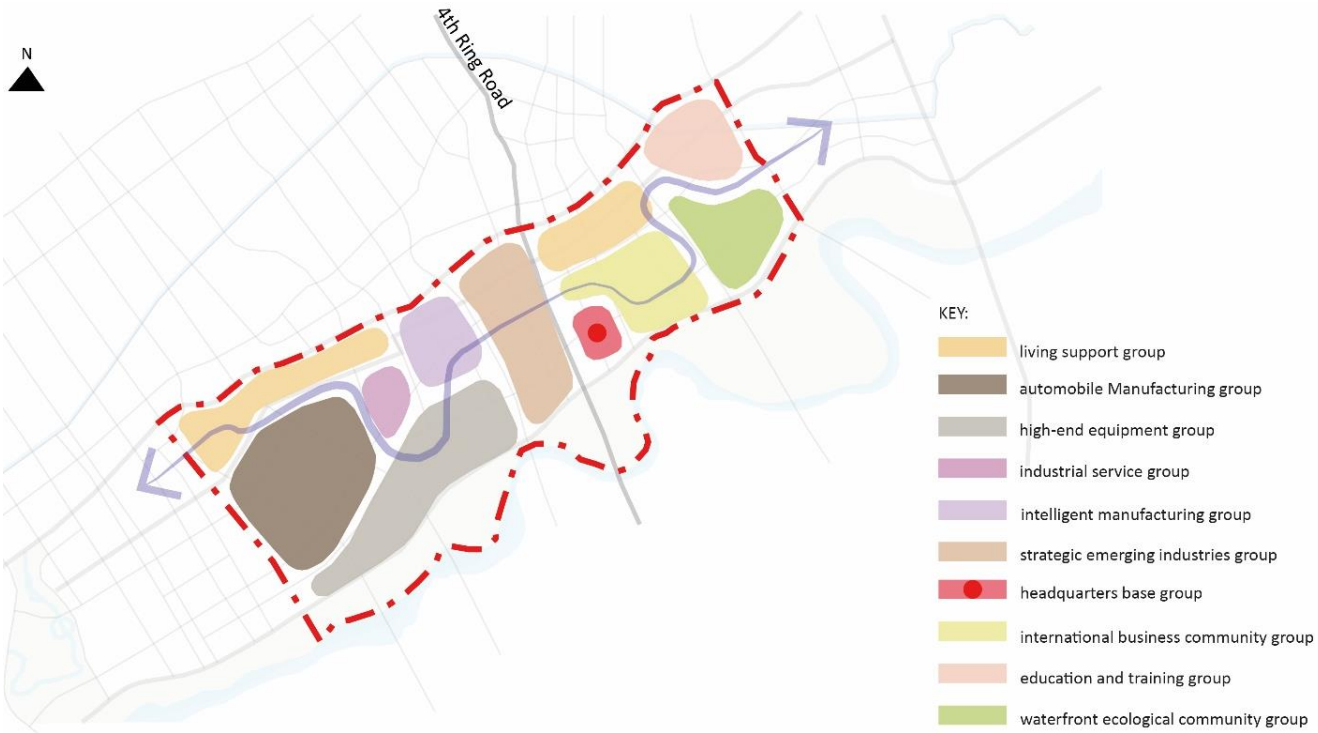


Figure 15: Diagram showing the various clusters within the Industrial Park
(Source: author's illustration based on Daxiang Wang, 2016)

The four industrial clusters within the core area include:

1. An intelligent manufacturing cluster - develops robots and intelligent equipment, additive manufacturing, intelligent information technology, intelligent hardware industry and intelligent factory technology.

2. An advanced machinery manufacturing cluster - develops CNC machine tools and core components, rail transit equipment, new energy and energy-saving environmental protection equipment, key basic parts, basic electronic components, and equipment manufacturing (sensor parts).

3. An automobile manufacturing cluster - develops complete vehicles and new energy vehicles, powertrains, body, and interior and exterior trims, steering systems, walking systems, transmission systems, braking systems and automotive electronics.

4. An industrial service cluster - develops technology research and development, engineering general contracting, industrial design, industrial trade, modern logistics, e-commerce, information services and modern service outsourcing.

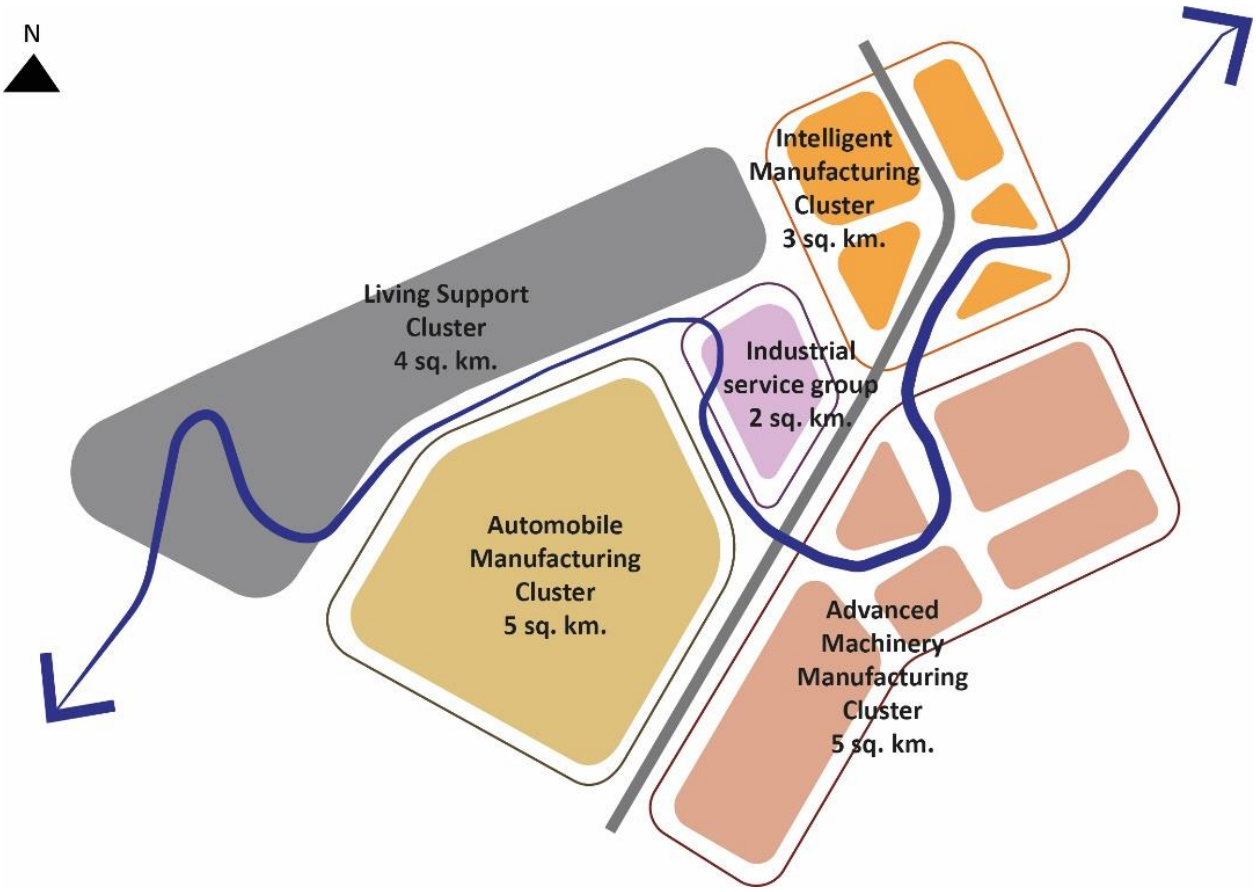


Figure 16: Core area layout of the China-German Industrial Park _ "Multiple-cluster group"
(Source: author's illustration based on Robbins Eugenia, 2019)

The core area takes Sino-German Street as the axis and golden corridor of the park, forming a rich German element, with German characteristics, an industrial corridor that gathers German companies, focusing on smart manufacturing, high-end equipment, and automobile manufacturing. The surrounding areas gather various German elements such as German manufacturing, German quality, and German standards. At present, a special railway line has been built in the Sino-German Equipment Park, which will become the logistics channel of the park. In addition, three rapid rail lines, such as Metro Line 1, are also be directly connected to the park (Wanyg Ye Ruoruo, 2015).

3.3.4. Building Typologies

The China-German Industrial park buildings are spread out on each plot flexibly according to the intentions of the company occupying the plot.

Figure 17: Pictures showing the building layout of the BMW Brilliance plant in the China-German Industrial Park, Shenyang (Source: BMW Group, 2014)

The BMW Brilliance plant is one of the biggest companies occupying space in the industrial park and therefore the buildings are mainly factory type buildings and large open space plans high building heights and spacious.

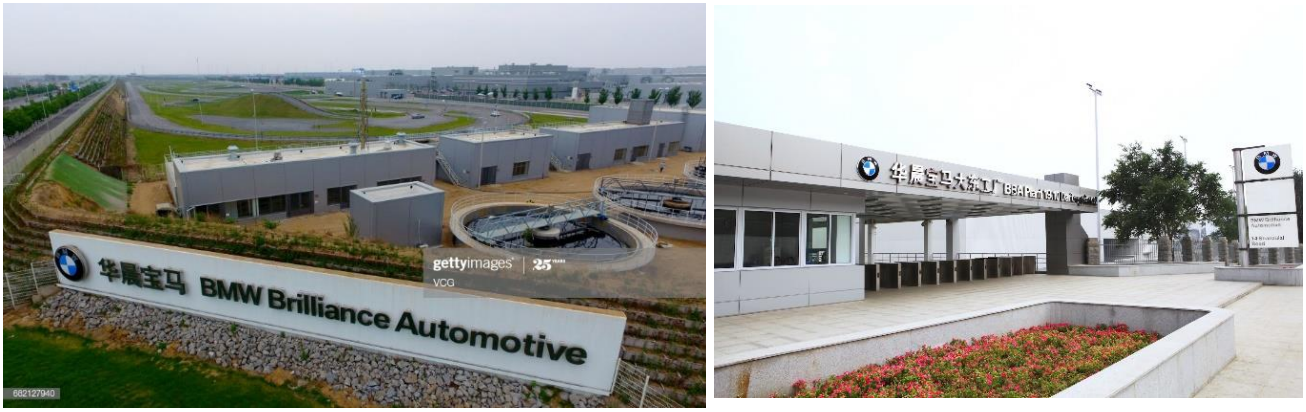


Figure 18: Pictures showing the factory building typology (Source: BMW Group, 2014)

Figure 19: Pictures showing R&D Centre and office building typologies (Source: Robbins Eugenia, 2019)

The other buildings in the industrial park like the R&D centre are office type buildings with spacious plans and large fenestrations to light up the building and allow for a creative workspace. In general, the typologies are of a modern style with no extravagant boldness in the building.

3.3.5. Project Impacts

BMW's annual capacity in Shenyang has increased to 450,000 units. Over the past eight years, investment has reached about 4.8 billion euros, as stated by Nicolas Peter, BMW AG Board of Management Member for Finance (Qiang, 2017). BMW continues to be optimistic about China's potential and will do more to make use of Germany's Industry 4.0 and "Made-in-China 2025". The China-Germany equipment manufacturing park is a key step toward rejuvenating the old industrial bases in northeast China, which has gone through a lot of troubles in the past few years.

Standing in the wind of rebuilding the global manufacturing competition, Made in China 2025 has locked the industry direction and development height for the Sino-Germany Park. According to Zenglein & Holzmann, 2019), the main leaders of Tiexi District said that Sino-Germany Park will focus on quality first in project introduction. All projects should reflect high-end, reflect the leadership of the manufacturing industry, and fill the gaps in the industrial chain.

Further developments that rose from this project include the promotion of the connection between China and Germany through the development of an international airline, the Shenyang-Manchuria-Europe rail line, the international port, and the high-speed rail.

Figure 20: Transport advantages brought by the China-German Industrial Park (Source: Robbins Eugenia, 2019)

Transformation over time:

Figure 21: China-German Industrial Park and surroundings_2004 (Source: Google Earth)

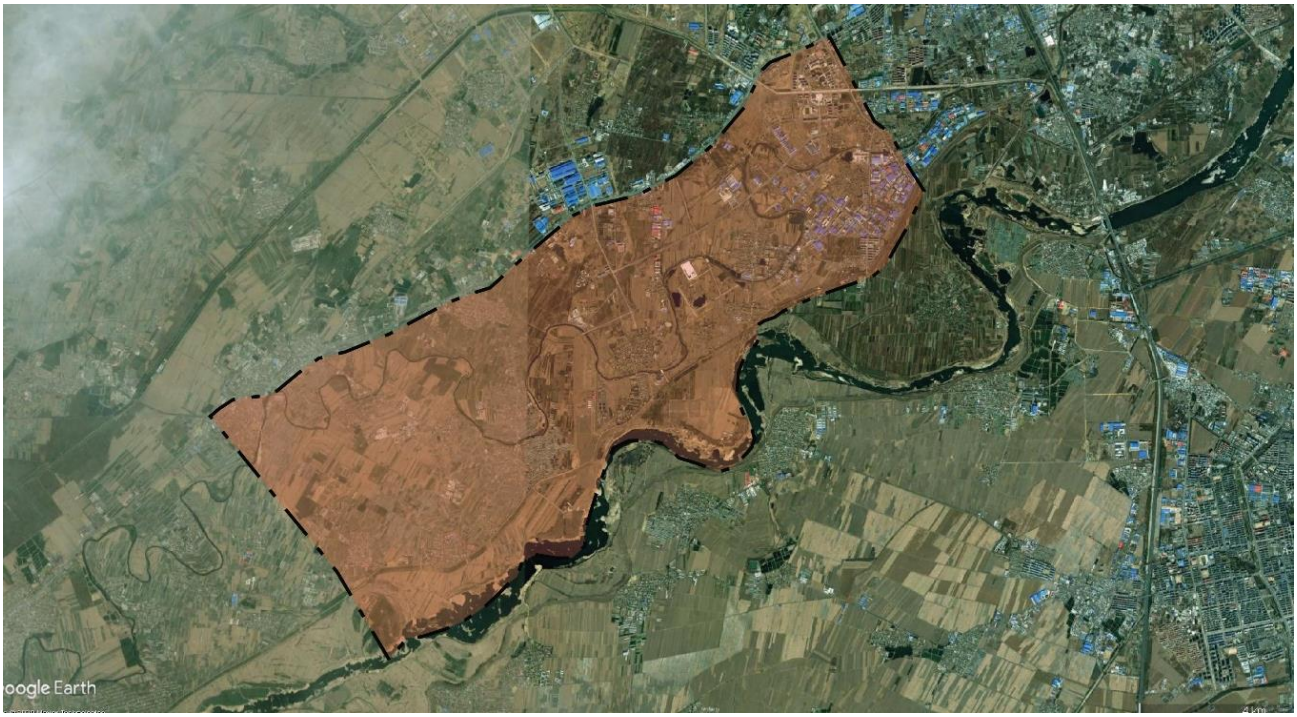


Figure 22: China-German Industrial Park and surroundings_2008 (Source: Google Earth)

Figure 23: China-German Industrial Park and surroundings_2014 (Source: Google Earth)

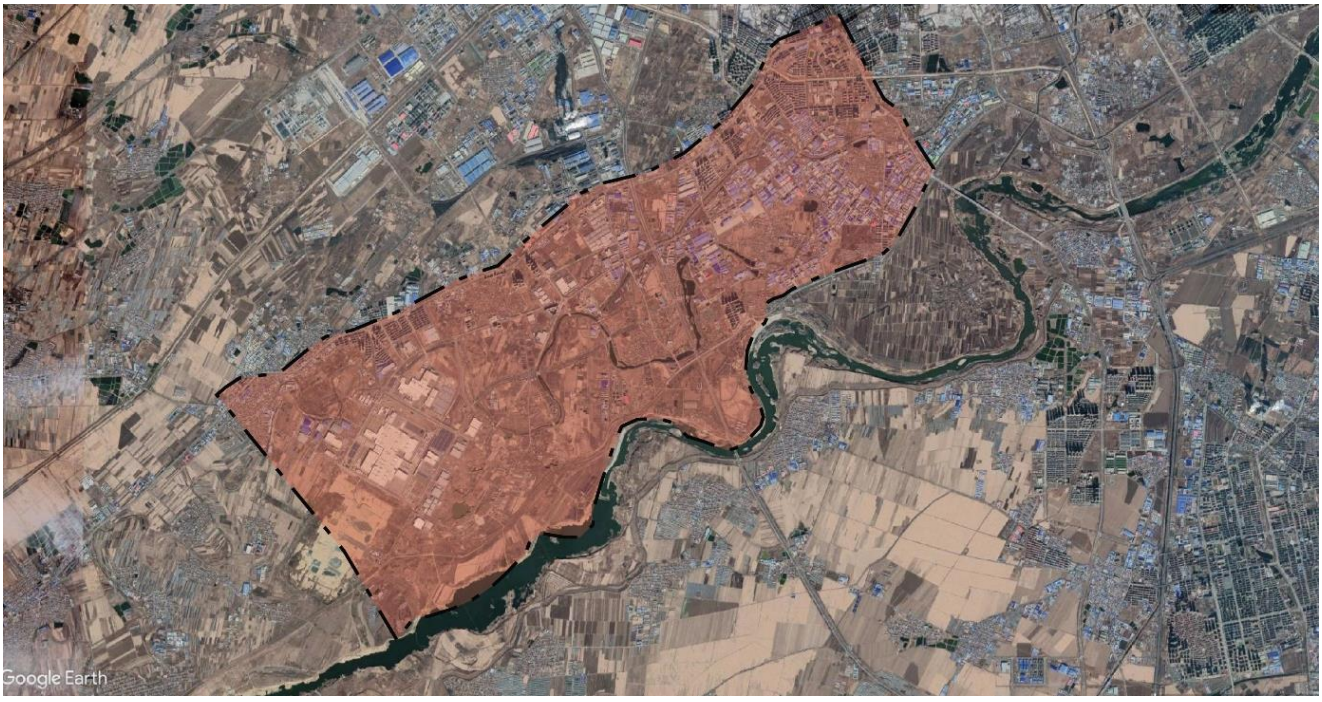


Figure 24: China-German Industrial Park and surroundings_2020 (Source: Google Earth)

3.4. Case Study 2: The Dalian Free Trade Zone

3.4.1. Project Background

The largest combined free trade zone in China, the Dalian Free Trade Zone (DFTZ), with an area of 251 square kilometres, was established in 1992. The zone governs three neighbourhoods; namely Dayao Bay, Ershilipu and Liangjiadian, and has a population of nearly 100,000. The DFTZ is located alongside the Yellow Sea Coast and consists of Dayao Bay Bonded Port Area, Bonded Zone, Dalian Export Processing Zone A, Shipping Centre, and Dalian Automotive Logistics Park. It is not uncommon for such SEZs to develop into a cluster of smaller and different types of SEZs in China as they keep developing. For instance, the Dalian Export Processing Zone (EPZ), covering 2.95 square kilometres, part of the DFTZ was approved in 2000. Major industries in the Dalian EPZ include home appliances, light industry, and machinery. The Dalian EPZ is divided into two areas, namely Export Processing A Zone and B Zone, one of which is in the DFTZ (Yao, 2014). Major industrial clusters in the DFTZ include processing, trade, related logistics and warehousing.

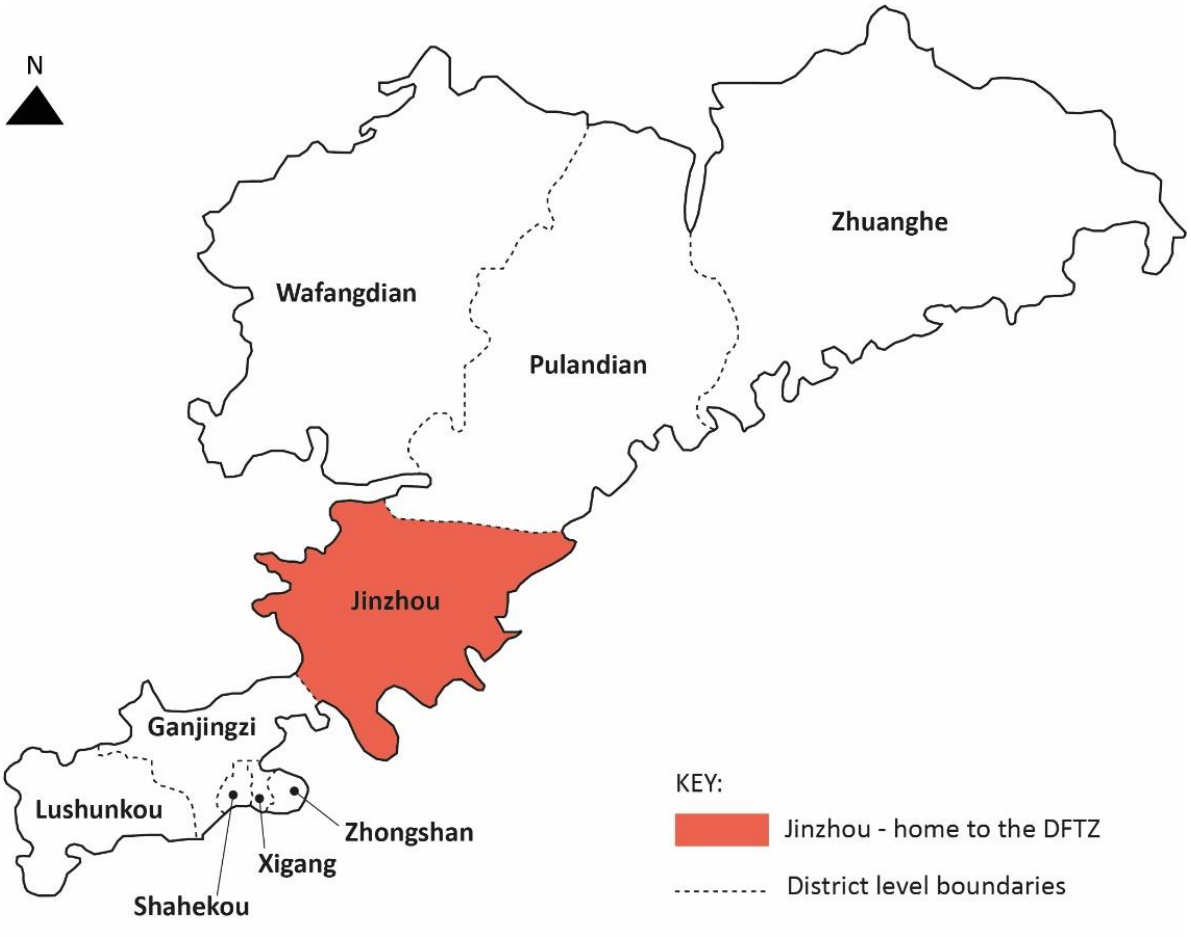


Figure 25: Dalian port City boundaries location of Jinzhou district
(Source: author's illustration)

The DFTZ is located within Jinzhou district of Dalian City and is one of the most open and economically comprehensive economic regions in mainland China. After 8 years of development and construction, the infrastructure of Dalian Free Trade Zone is fully equipped, and the investment environment is becoming more and more perfect. By the end of 2000, nearly 1,000 companies from more than 30 countries and regions including Hong Kong, the United States, Japan, South Korea, Singapore, Taiwan, and Canada had invested in and established enterprises in the Dalian Free Trade Zone (DFTZ, 2012).

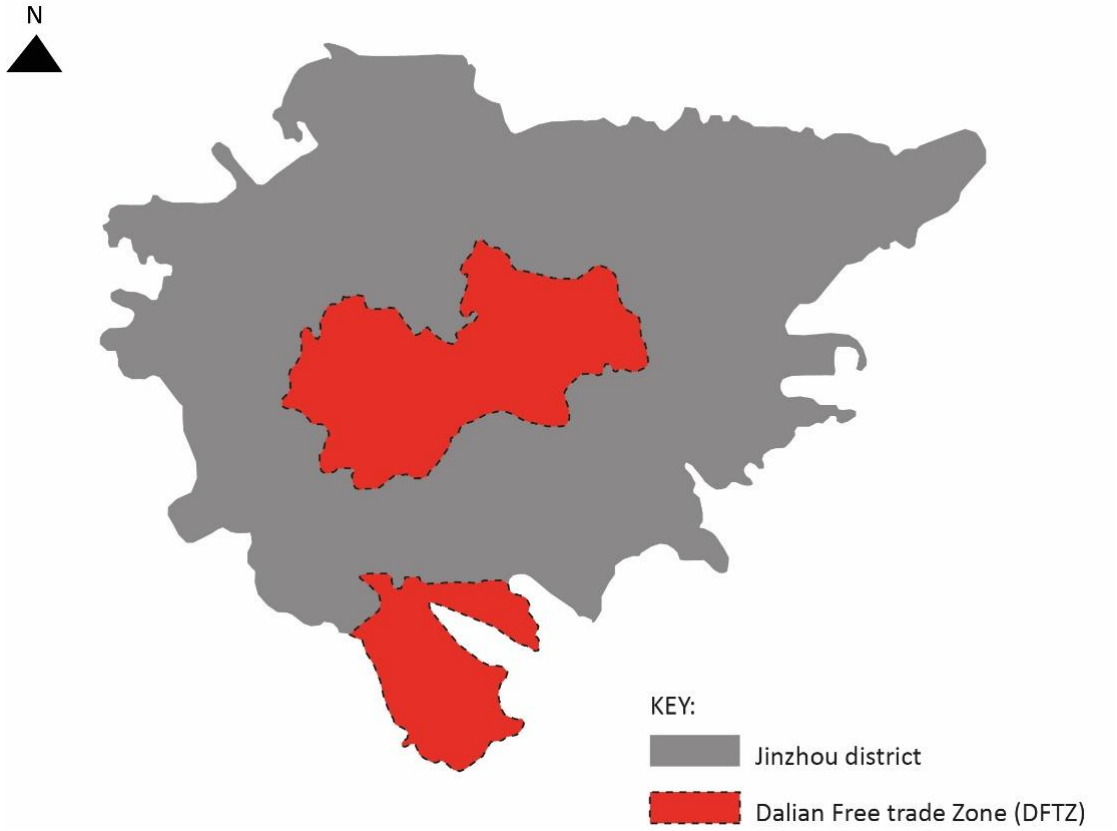


Figure 26: Location of the Dalian Free Trade Zone in Jinzhou district
(Source: author's illustration)

The main functions of Dalian Free Trade Zone are export processing, re-export trade, bonded warehousing, international trade, merchandise display and related transportation, finance, insurance, information consulting and business services (DFTZ, 2012). The goal of regional development is to give full play to the advantages of location, establish a connection with the world market, act in accordance with international practices, and realize the freedom of investment, trade, currency circulation, storage of goods, freedom of entry and exit, and a highly open comprehensive free trade zone in order to become a commodity distribution centre and material distribution centre in Northeast Asia.

The DFTZ has grown from May 1992 with the establishment of an area of 1.25 sq.m, to the approval of the Dalian EPZ with an area of 2.95 sq.km in 2000, followed by a bonded area covering an area of 5 sq.km in 2003, and a huge leap in 2004 saw the scope of management of the DFTZ extended to 64 sq.km. The Dalian Dayao bay bonded port area was established in 2006 with a planned area of 6.99 sq.km. Finally, in 2010, Shililibao and Liangjiadian were included in the bonded zone group to host Dalian Automobile Logistics City and the total area reached 251.3 sq.km (DFTZ, 2012).

3.4.2. Institutional Set-up

Established with the approval of the State Council of the People's Republic of China, it is one of the most open and economically comprehensive economic regions in mainland China. The park operates largely as a state-owned public entity open to cooperation from private companies and bodies as second tier actors. The Dalian Free Trade Zone Management Committee is the dispatched agency of the Dalian Municipal People's Government and exercises all administrative, economic, and social management functions in the area (DFTZ, 2012).

The Dalian Free Trade Zone Management Committee, furthermore, oversees the planning and construction management of the Free Trade Zone. In accordance with the measures set out by the local authority and the administrative committees, the management committee handles the preparation of the city plan of the Free Trade Zone and the examination, approval, supervision and management of construction land and construction projects.

Administrative Committees for the Dayao Bay Bonded Port Area, Bonded Zone, Dalian Export Processing Zone A, Shipping Centre, and Dalian Automotive Logistics Park are set up to aid in the licensing of the various zone users.

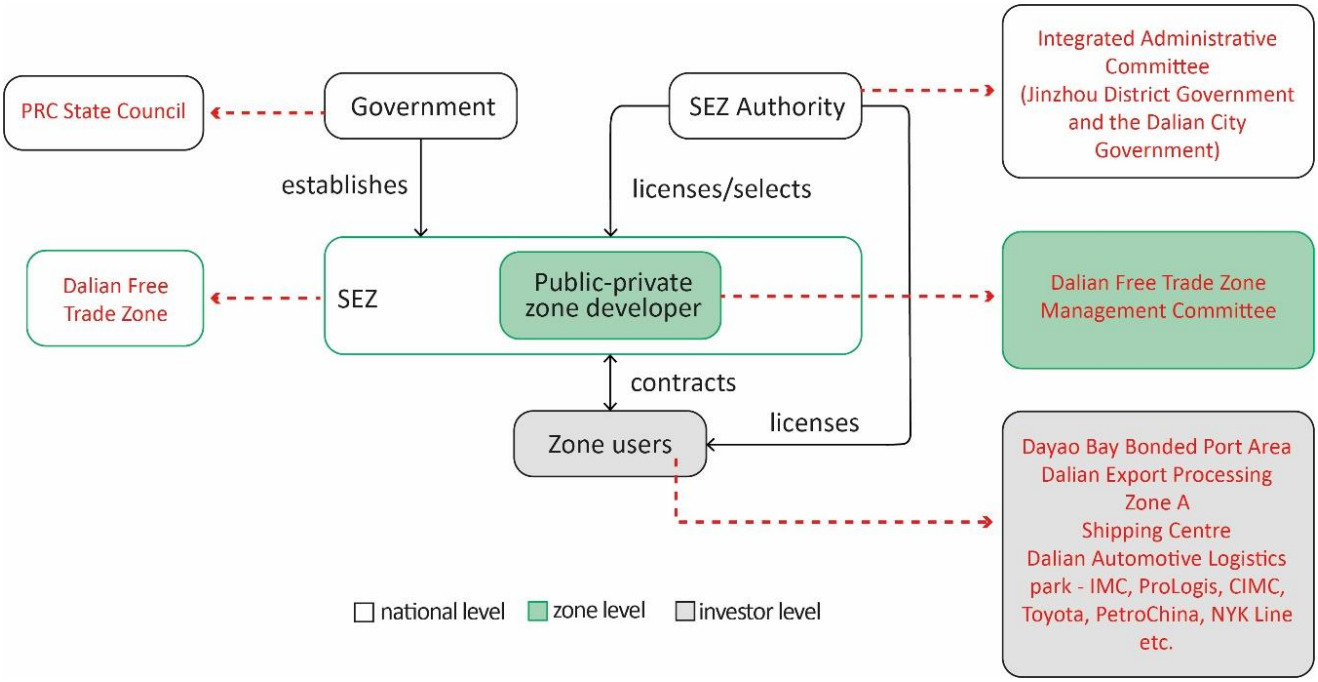


Figure 27: Distribution of the Dalian Free Trade Zone actors in the Hybrid Institutional set-up model (Source: author's illustration)

3.4.3. Spatial Characteristics

The planning and design of the DFTZ, due to its scale is done on a regional scale with three main goals that must be achieved in the plan, i.e. connectivity, adaptability, vividness (Xiuzhu, 2019).

— *Connectivity* – this is the primary concept of the design, it includes both physical and virtual connectivity reflected in the convenient sea, land and air transportation. In addition, to promote security, virtual connectivity must make the DFTZ and its seaport an integral part of the world trade circle.

— *Adaptability* – in today's highly competitive and changing business scape, a flexible and changeable planning design is key. This requires flexible planning from the division of land plots to the mixing of land use properties, all are based in response to market demand information at home and abroad. Block partitioning, module layouts and reserved development are important in the spatial design. The block division should maintain flexibility and scalability as much as possible so that the plot can eb divided into two or can also be combined into one.

— *Vividness* – the image and brand the zone gives is the last element of the design concept. The Chinese believe that a beautiful city image is for investors to be persuaded to invest in the area. The DFTZ is located in Dalian, a beautiful coastal city that combined with an international level development zone can make for a great living environment.

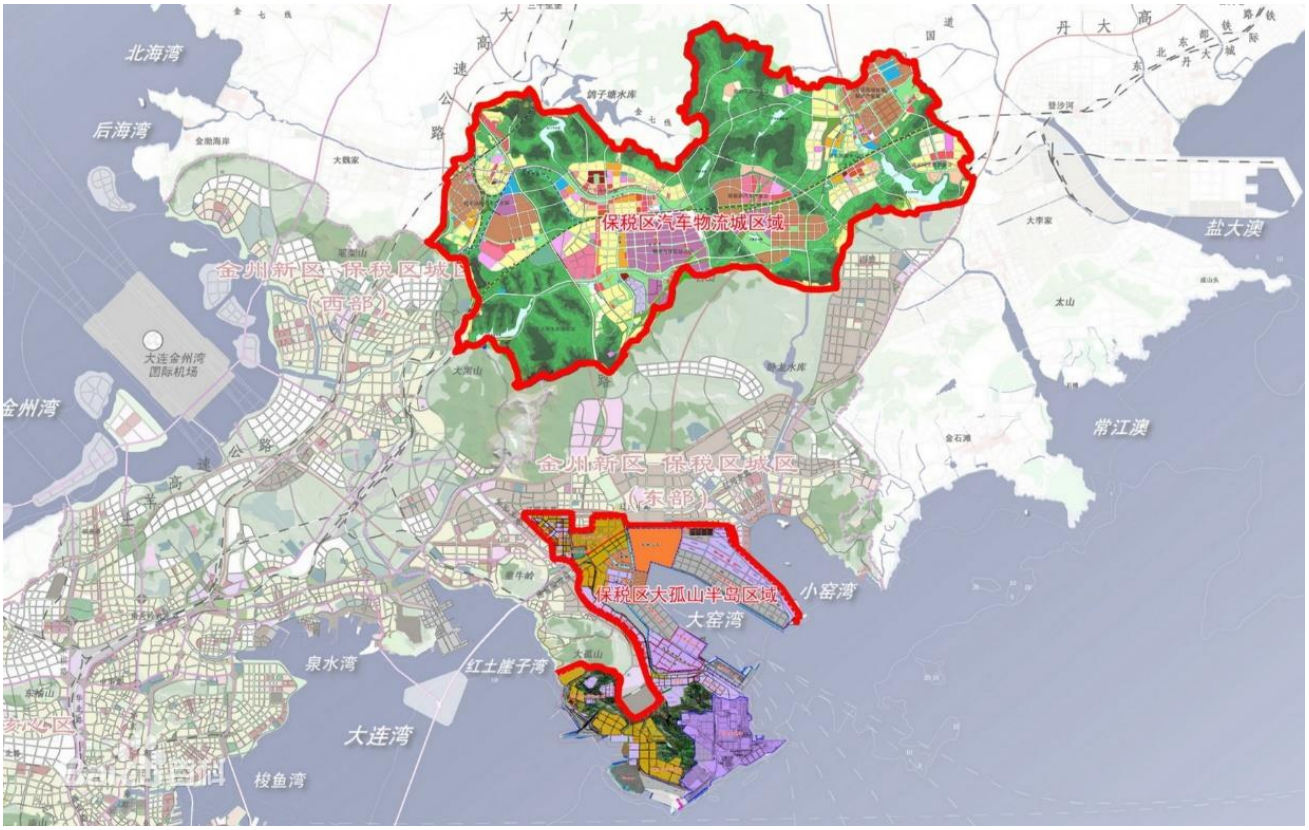


Figure 28: DFTZ Spatial layout (Source: Sohu, 2017)

After more than 10 years of development and construction, the DFTZ has always adhered to the development concept of emancipating the mind and advancing with the times (Baidu, 2011). The development orientation is to build a city, a port, and a core functional zone i.e.:

- "One city" – the Dalian Automobile Logistics City total area of is 46.38 sq. km, which is divided into the north and south areas. The main industries are automobile and Xinnengtong automobile manufacturing. Auto parts, auto R & D, auto culture industry, etc.

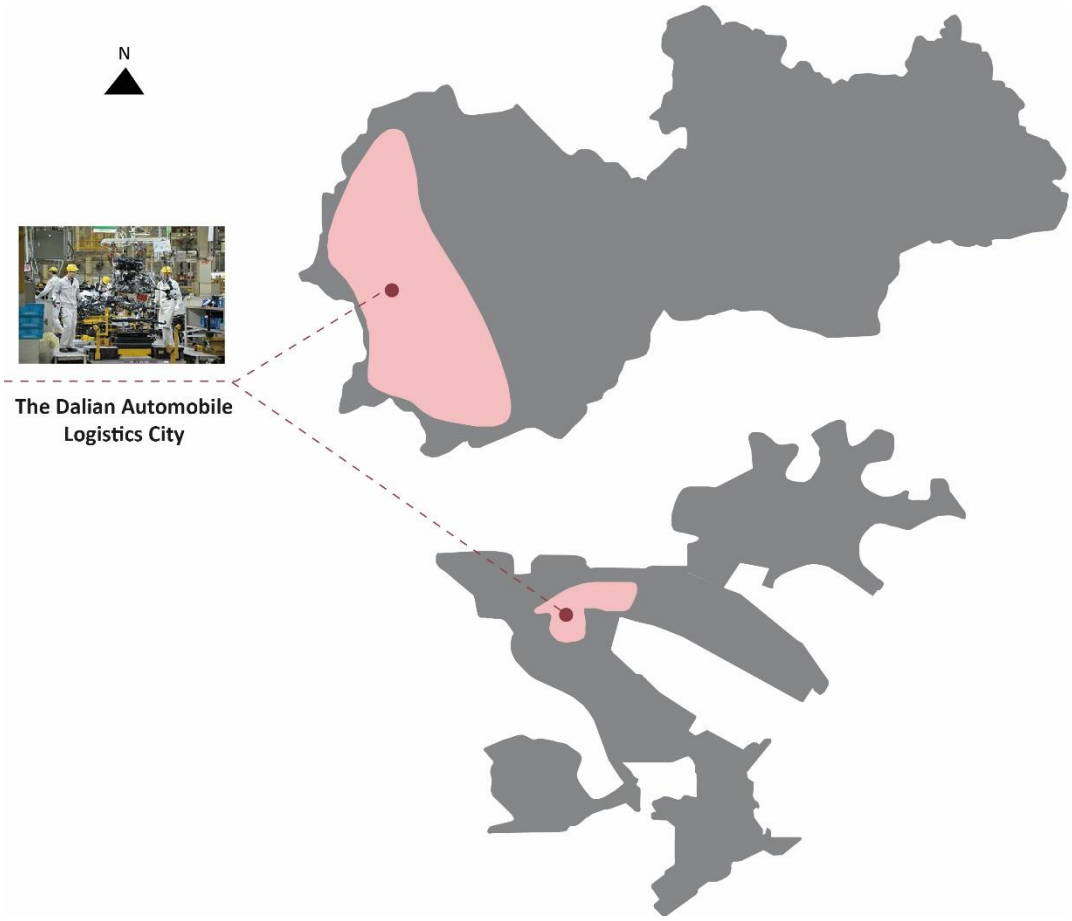


Figure 29: Location of the Dalian Automobile Logistics City
(Source: author's illustration based on Sohu, 2017)

- "One Port" - an important international energy port in north-eastern Asia featuring oil products. The energy port area covers an area of 16.68 sq. km. Main development industries consist of domestic products, including exhibitions, transfer of resource commodities such as ore and coal, food processing, and distribution.

Figure 30: Location of the Energy Port Area
(Source: author's illustration based on Sohu, 2017)

- "One functional area" – this is the core of functional area of Dalian's important shipping centre and international logistics centre. It includes:

    1. The Free trade Zone

    2. The bonded logistics park covers an area of 9.63 sq. km and mainly includes three special customs supervision areas and non-bonded areas near the port. It focuses on the cultivation and construction of four industrial systems: logistics, transaction, processing, and business support.

3. The Bonded Ecological City which covers an area of 28.67 sq. km is a green ecological concept with mountains and waters, low self-education, and environmental management. It is complete with business and trade, education and culture, medical health, sports rest, and industry. A new type of city with complete functions.

4. The Liangjiadian Industrial Zone has an area of 11.79 sq. km and contains development industries that are advanced equipment manufacturing, automobile parts, low-grade components, and environmentally friendly materials.

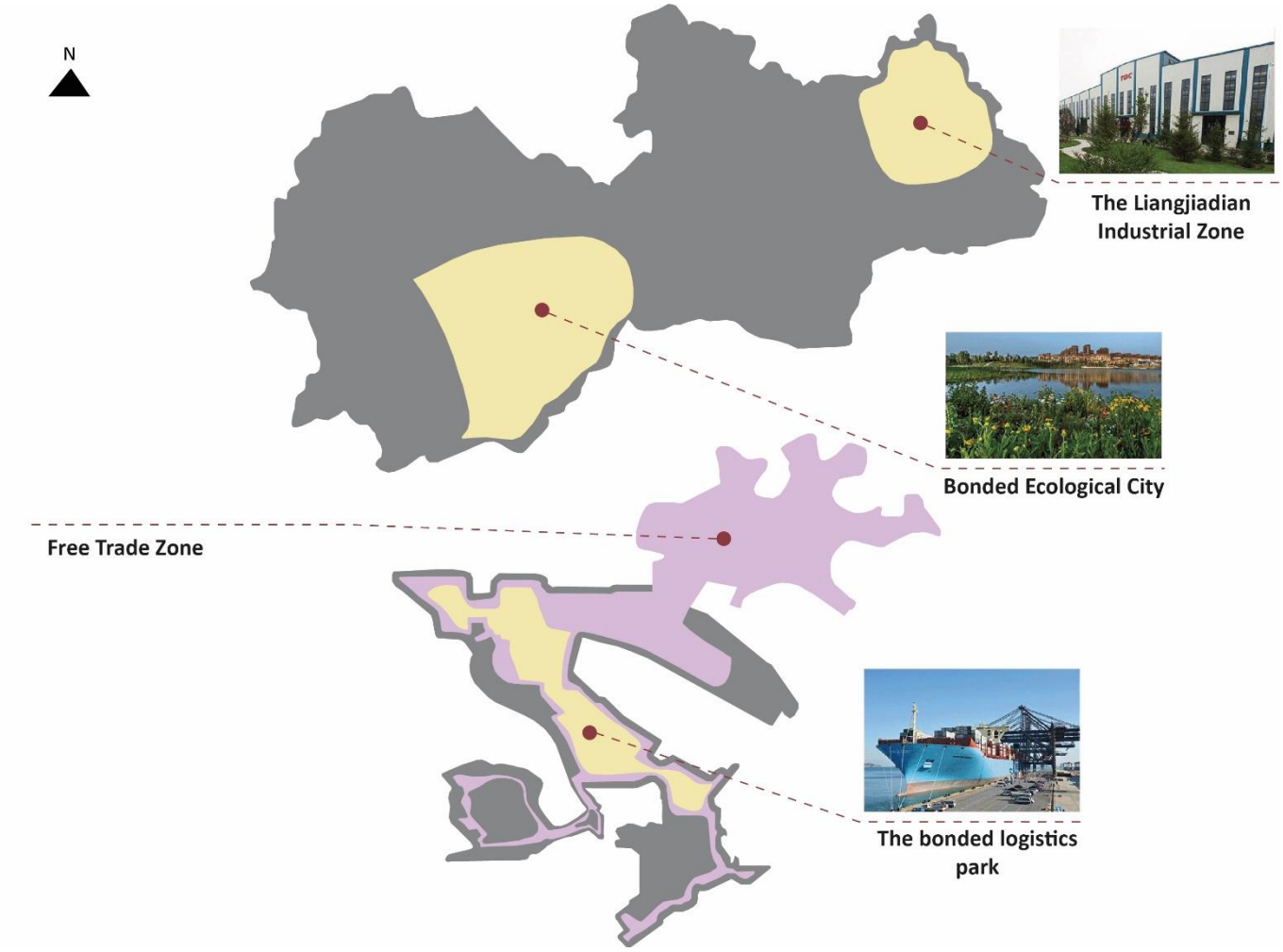


Figure 31: DFTZ Function Area
(Source: author's illustration based on Sohu, 2017)

3.4.4. Building Typologies

The buildings in the Dalian Free Trade Zone are characterised with the typology commonly found on the Dalian coast. From the ocean, the coastal line can be seen in the front line of the mountain ranges of Dalian.


Figure 32: Pictures showing the buildings next to the railway handing yard - left; and the view of the Beiliang Port - right (Source: DFTZ, 2012)

The administrative and logistics buildings take on a simple typology like that in China-German industrial park.


Figure 33: Pictures showing the building typologies in the Bonded Logistics Zone area (Source: DFTZ, 2012)

Figure 34: Pictures showing the buildings in the Liangjiadian Industrial Zone (Source: Sohu, 2017)

3.4.5. Project Impacts

The Liaoning Provincial People's Government packaged all administrative areas of Jinzhou District in Dalian and parts of Pulandian City to apply to the State Council to establish Dalian Jinpu New District as a result of the development of the free trade zone in 2012.

Furthermore in 2014, the State Council decreed on the application to establish Dalian Jinpu New Area decided to agree to establish Dalian Jinpu New Area (Guo Han, 2014). Including all administrative areas of Jinzhou District in Dalian and parts of Pulandian District in Dalian, the total area is about 2299 sq.km and the resident population is 1.58 million.

<u>Transformation over time:</u>

Figure 35: Dalian Free trade Zone and surroundings 1990 (Source: Google Earth)

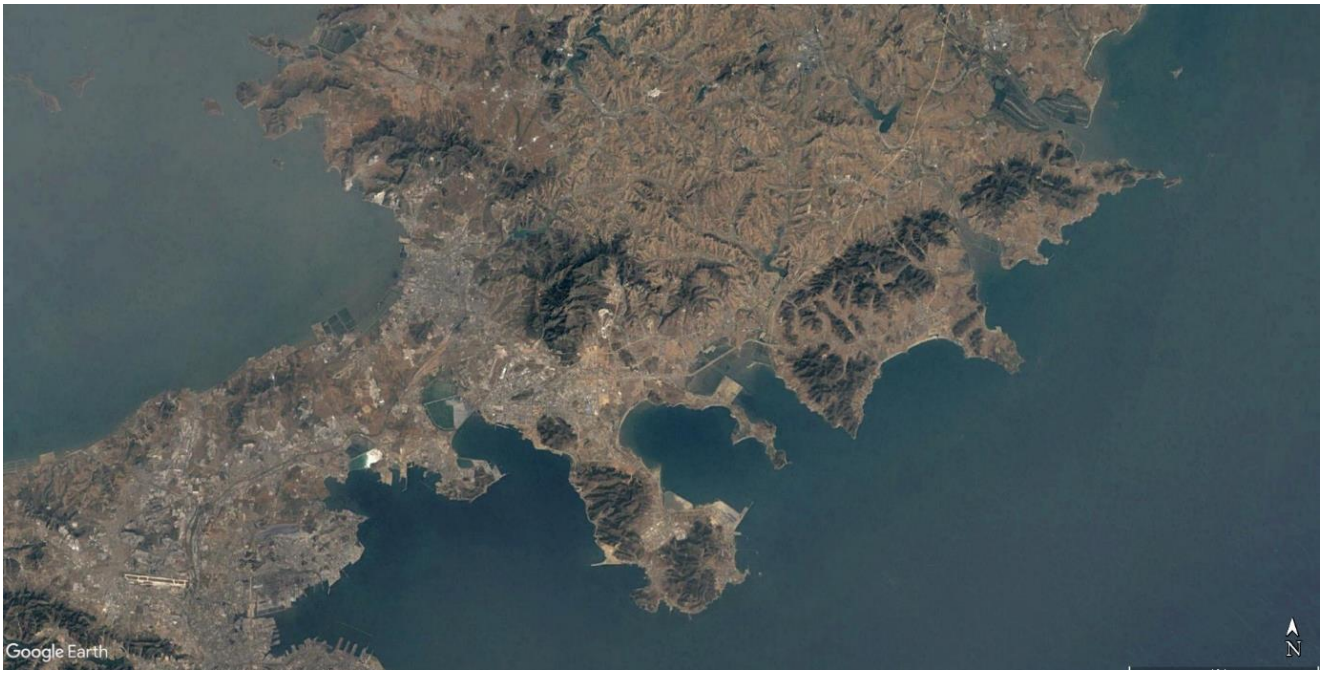


Figure 36: Dalian Free trade Zone and surroundings_1997 (Source: Google Earth)

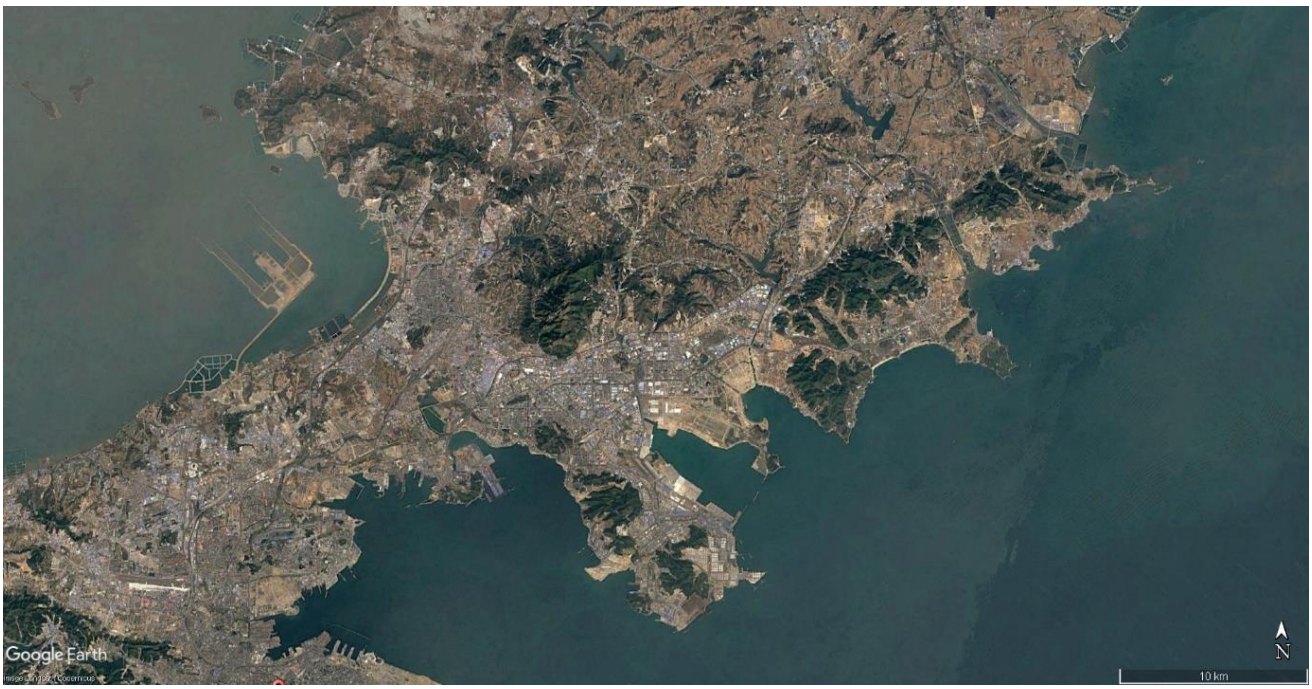


Figure 37: Dalian Free trade Zone and surroundings_2014 (Source: Google Earth)

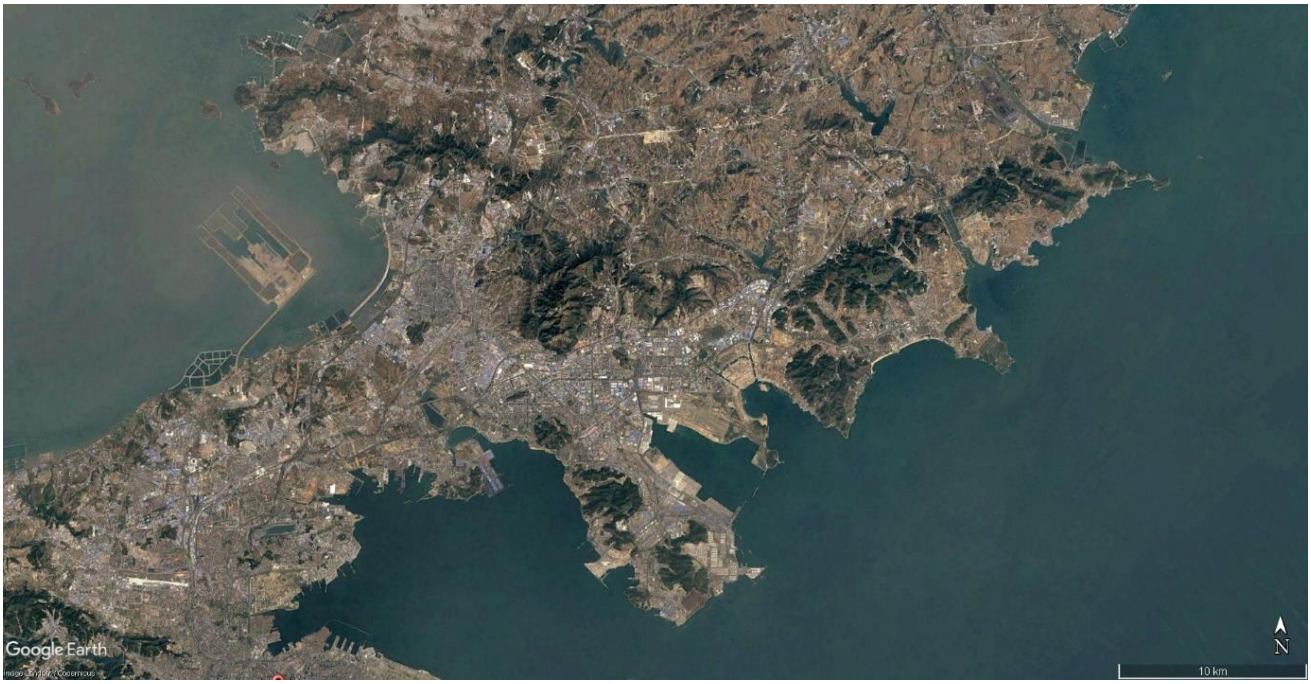


Figure 38: Dalian Free trade Zone and surroundings_2020 (Source: Google Earth)

3.5. Case Study 3: The Liao Shen Industrial Park in Uganda

Figure 39: SEZ implementation from Liaoning Province to Uganda (Source: China Federation of Industry and Commerce, 2019)

3.5.1. The Case of Uganda

Uganda is a landlocked country in the Eastern African region surrounded by the Democratic Republic of Congo, Kenya, Tanzania, Rwanda, and South Sudan. With a population of 34.8 million people, Uganda is the world's second most populous landlocked country after Ethiopia. Uganda like most African countries is experiencing exponential urban growth and expansion at a very alarming rate. The rate of urbanization in Uganda, 4.8 percent, is among the highest in the world. While Uganda's urbanization level is still low, at 12 percent, by 2030 it is projected to reach 30 percent, with an urban population exceeding 20 million people (Cities Alliance, 2010). In slum areas, the informality of housing overlaps with informal employment, service provision and legal status. According to Brown (2013), in the CIGI-Africa Initiative Policy Brief, understanding planning for accelerating urbanization in Uganda requires attention to rural urban linkages, population growth, legislation around land tenure, urban agriculture, employment opportunities, international migration patterns, and appropriate mechanisms to provide services and opportunities to the growing numbers of urban poor.

The country is crossed by the Equator giving it an Equatorial and tropical climate favourable for agriculture which it is famous for. Uganda is also rich in various natural resources such as arable land, oil reserves, and small deposits of minerals such as copper, cobalt, limestone, and gold. These natural resources are abundant but poorly developed. Wyrod (2019) argues that Uganda is an especially interesting setting in which to examine this new wave of Chinese development in Africa due to the fact that over the last decade, China has provided more than a billion dollars in aid to Uganda, funding industrial parks, hydroelectric projects, roads, rail lines, and even a new office tower for the office of the president. In turn, the Ugandan government has guaranteed China a major role in the development of huge new oil reserves in western Uganda, copper mines and other resources.

The first decades of China-Uganda relations focused more on trade, agriculture, and diplomatic relations and from 2010, China effectively ventured into Uganda's construction and infrastructure sector where billions of USD has been spent. This investment-for-construction type of contract saw many of the construction bids for various projects going to Chinese owned companies that profited from making money to build. China funded the construction of Uganda's national stadium, giving Uganda a USD 7 million grant and in turn Uganda contracted Chinese companies to construct buildings; housing the ministry of foreign affairs, office of Prime minister and office of the president

(Namutebi and Musoke, 2008; cited in Allwai and Changfeng, 2018) as well as the new Parliamentary chambers and New State house.

3.5.2. Project Background

The Liao Shen Industrial Park is located in Kapeeka, Nakaseke District (formerly part of Luweero district), central Uganda. It is about 55 kilometres from Uganda's Capital, Kampala and 75 kilometres from the Uganda- Kenya Arterial Traffic. From the 1950s through the 1970s, much of Kapeeka was part of the East Mengo Grower's Cooperative Union, by all accounts a successful small-scale farmers' cooperative that supported thousands of families. All of this came to an end in the 1980s during Uganda's protracted civil war. This area of central Uganda, known as the Luweero Triangle, saw the most intense fighting, and by the war's conclusion in 1986 nearly all the residents of the region had been displaced (Wyrod, 2019). The end of the war ushered in rebel leader Yoweri Kaguta Museveni's rise to power, and with his re-election in February 2016, he is now one of Africa's longest-ruling presidents, whose partnership and cooperation with Chinese investors has been unwavering.

Figure 40: Map of Uganda showing the location of Luwero district
(Source: author's illustration)

Luwero district was comprised of Wabusaana which was renamed Bamunanika, Katikamu and Nakaseke. Farming is the main economic activity in the district. Activities include the cultivation of coffee, maize, beans, bananas, cassava, sweet potatoes, vegetables such as tomatoes, cabbage and fruits including pineapples and mangoes. Fishing in the area swamps, raising of cattle (for meat and milk), goats and chicken are some of the activities carried out in the area. About 90 percent of the farmers use traditional farming methods and techniques. The produce finds ready market in Kampala. Industries include processing of coffee and milk, manufacturing of jaggery, furniture, waragi and cotton ginning.

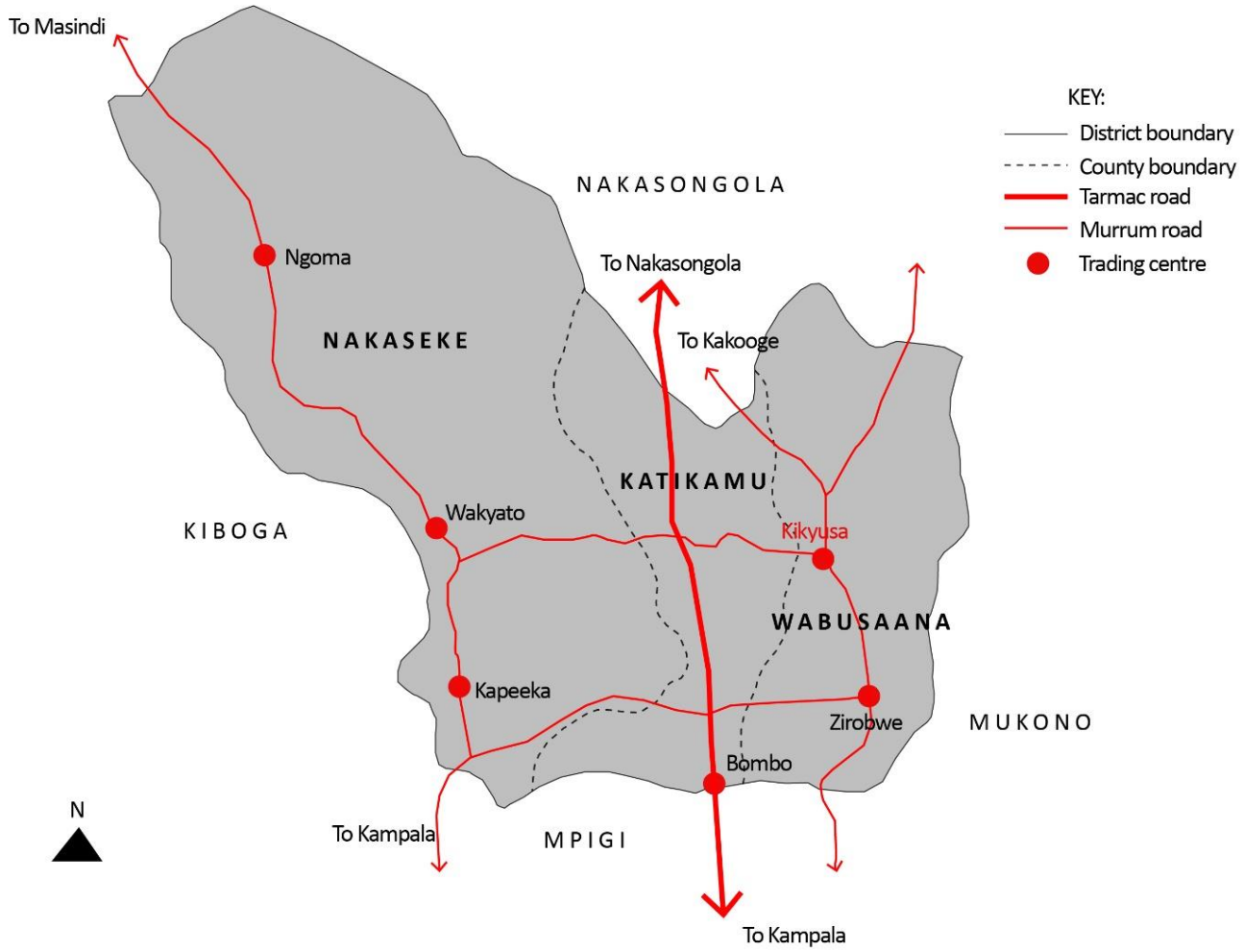


Figure 41: Map of Old Luwero district (Source: author's illustration)

The district has an inadequate distribution of feeder roads. Some parts of the district have no road link. The district has a main tarmac road linking it to Kampala in the south and Nakasongola in the north. Most of the feeder roads connect to this main road and this enables farmers to transport their produce to the market.

In November 2013, Mr. Bing Zhigang the Vice Governor of Liaoning Province paid a visit to Uganda during which he proposed the concept to establish an industrial park in Uganda. President Museveni has provided much support for these ventures, and, crucially, in December 2015, the president, along with the ambassador of China, announced that Kapeeka in Nakaseke had been chosen as the site for the country's first Chinese-funded industrial park, the Uganda Liao Shen Industrial Park. A 640-acre parcel of the Namunkekera Rural Industrial Centre was allocated to the park, with the ultimate goal of developing 50 different industrial enterprises on 1100 acres by 2020 (ULSIP, 2018).

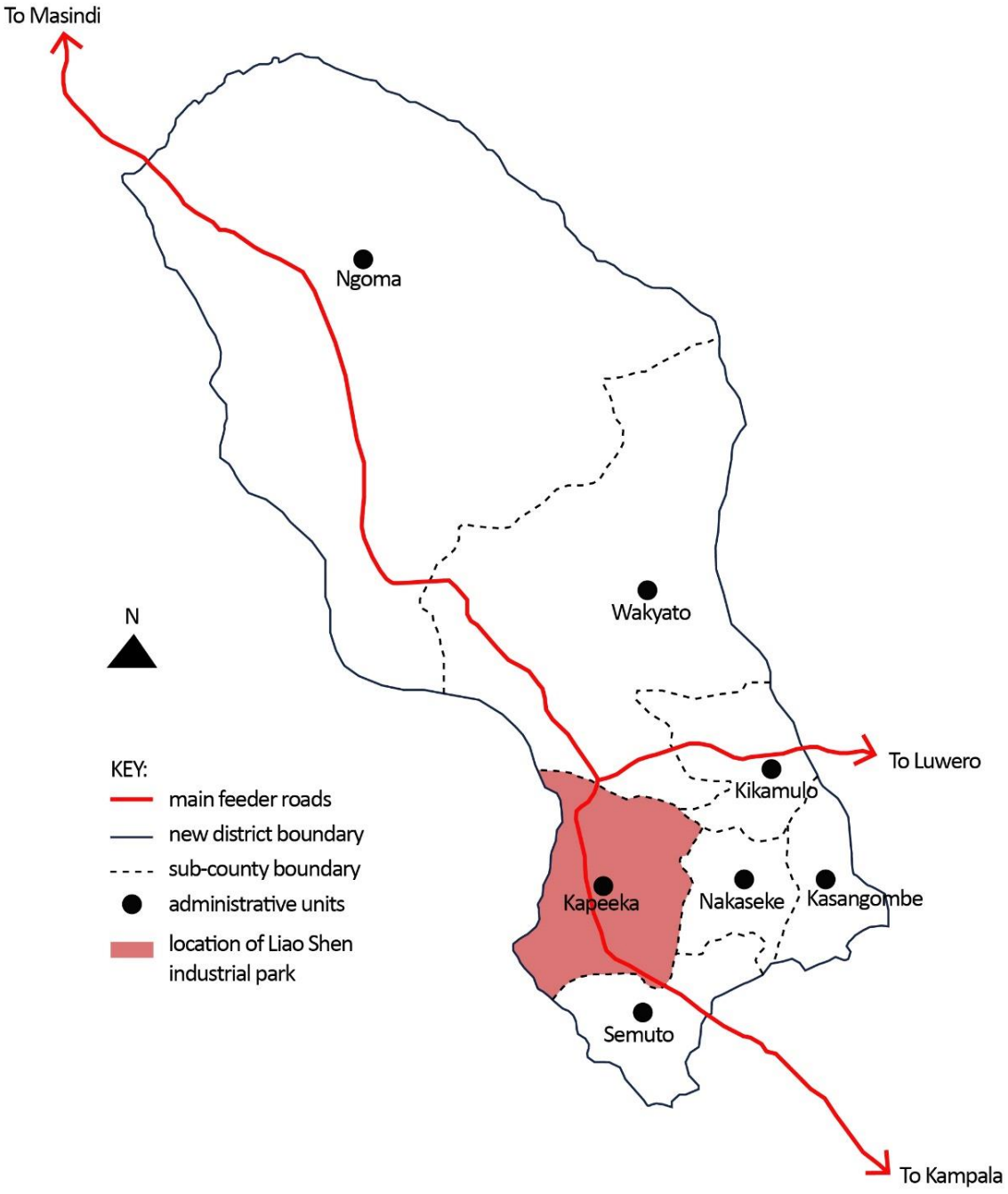


Figure 42: Map showing location of Kapeeka in the New Nakaseke district (Source: author's illustration)

Nakaseke was recently awarded district status due to the growth of the urban centre, growing population and the burst of economic activity brought about by the industrial park. Kapeeka is a typical village for this area, with the largest number of residents living within the village centre and the rest in the in the greater Kapeeka sub-county. Geared to the needs of the East African market, Liao Shen Industrial Park takes advantage of the rich resources and preferential policies in Uganda, along with advanced production technology and management experience from Liaoning province to build itself into an international industrial park. The industrial park mainly houses businesses involved in the manufacturing of automobiles, auto parts, household appliances, building materials, and food processing, textiles, and light industry. Some of the zone users include Goodwill Uganda Ceramics Company, Ho & Mu Food Technology, Yahe Maize Mill, Jindi agro-processing, Jiaxing Jufeng Electric Wire, Haohua Textile, Jiajia Uganda Food Factory, and Tidefish International Trade Company.

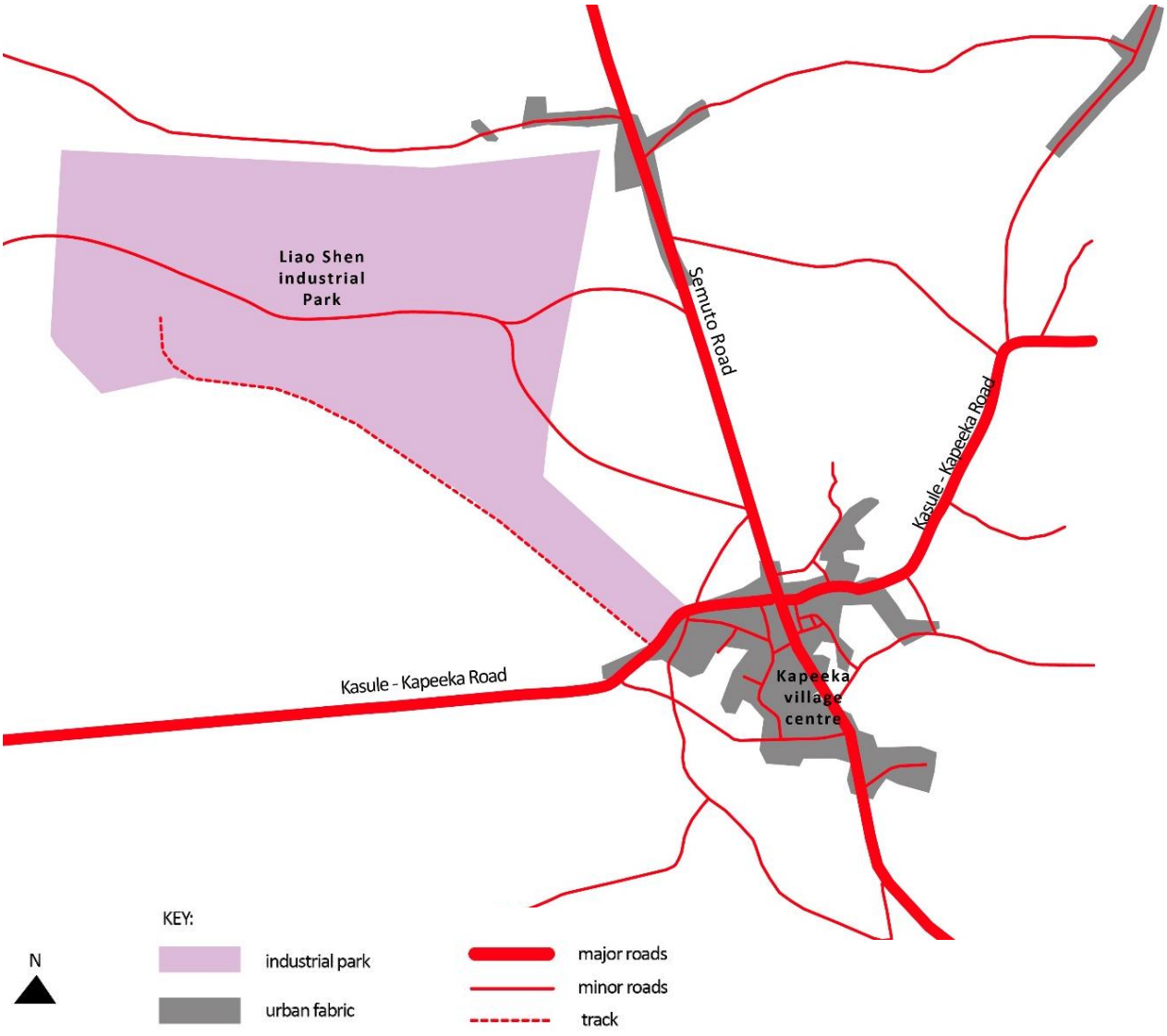


Figure 43: Map showing the location of the Liao Shen Industrial park within Kapeeka (Source: author's illustration)

Kemboi (2019) further points out that Holley Group, a Chinese-owned company, will expand the park from 4.6 square kilometres to 5 square kilometres to ensure that there is enough power in the park according to the Energy Ministry. All the businesses settling in the park are exempt from duties when importing equipment and raw materials, and they do not need to pay corporate income tax during their first 10 years of operations (Min, 2017). The park also accommodates administration offices for Liao Shen as well as a few residential facilities.

3.5.3. Institutional Set-up

In both Ugandan and Chinese official statements and media reports, the park is described as a twenty-first-century form of win-win development that promotes both Chinese and Ugandan industrial growth (Mutegeki, 2018; cited in Wyrod, 2019)). The foundation of the project is a partnership between the *government of Uganda* and the government of Liaoning Province, an industrial powerhouse in Northeast China. This provincial-level involvement, as mentioned in the previous chapter, is a common but under-studied form of Chinese development in Africa (Xuefei, 2016; cited in Wyrod, 2019). It is a facet of China's Going Out or Going Global policy, initiated in 2001 and accelerated in recent years, which encourages provincial governments and businesses to be proactive in seeking out new markets and business alliances, including in sub-Saharan Africa.

Liao Shen Industrial Park Co Ltd is a special purpose vehicle platform of the Liaoning to promote Uganda as an investment destination for Liaoning and Chinese enterprises as well as other private sector investors including local enterprises to invest in an organized industrial park. The Park is also one of the first links of Economic Cooperation between Uganda and The People's Republic of China promoting the "One Belt One Road" Initiative a platform for the international community to seek common development (ULSIP, 2018). The "One Belt One Road" Initiative means more infrastructure, bigger markets, more jobs and increased technological transfer. Liao Shen Industrial Park is the first industrial park cooperation platform in Uganda providing a golden opportunity for China to become the focal point for international development, and continuously make greater contributions to promote connectivity between Asian, African, and European countries. The park is a platform for Liaoning Enterprises to enter African Market.

Through the Commerce Department of Liaoning Province, the Chinese government provided financial support for 50% of all up-front investment costs for investing enterprises, based on loans with 3% annual interest. The Ugandan government provided lease of the land, generous export and import tax exemptions, and 10 years of corporate income tax exemption. The project also involves two large private investors: China-based Zhongda Group and the Ugandan business conglomerate Zhang Group, owned and operated by Chinese national Zhang Hao (Wyrod, 2019). Given his years of business experience in Uganda, Zhang Hao is a key intermediary between the Ugandan and Chinese governments. He holds the official lease on the park land, is chairman of the Liao Shen Industrial Park Co. Ltd., and is also director of overseas activities for the Liaoning Provincial People's Association for Friendship with Foreign Countries.

Figure 44: Graphic representation of design of the Liao Shen Industrial Park (Source: ULSIP, 2018)

The Liao Shen Industrial Park is best described as a public–public– private (PPP) development project. The Liaoning government, along with Zhongda Group and Zhang Group, further pledged an investment of USD 600 million over five years to develop the park. Further investments and support

towards the development of the Liao Shen Industrial Park were encouraged in several meetings in Shenyang city, the capital of Liaoning Province where Dr. Chrispus Kiyonga, Ambassador of Uganda in China urged enterprises from Liaoning to invest in Uganda (Watchdog Uganda, 2018). Liao Shen industrial park being the first provincial-level industrial park project in Uganda with the backing of a Provincial government in China, in particular the Commerce Department of Liaoning province and Liaoning People's Association for Friendship with Foreign Countries, would significantly contribute to creating employment opportunities, technology transfer, and expand the revenue base among others. Both governments therefore committed to strengthening the relations between Uganda and the Province as well as further expansion of cooperation in other fields such as agriculture, tourism, education, and mining.

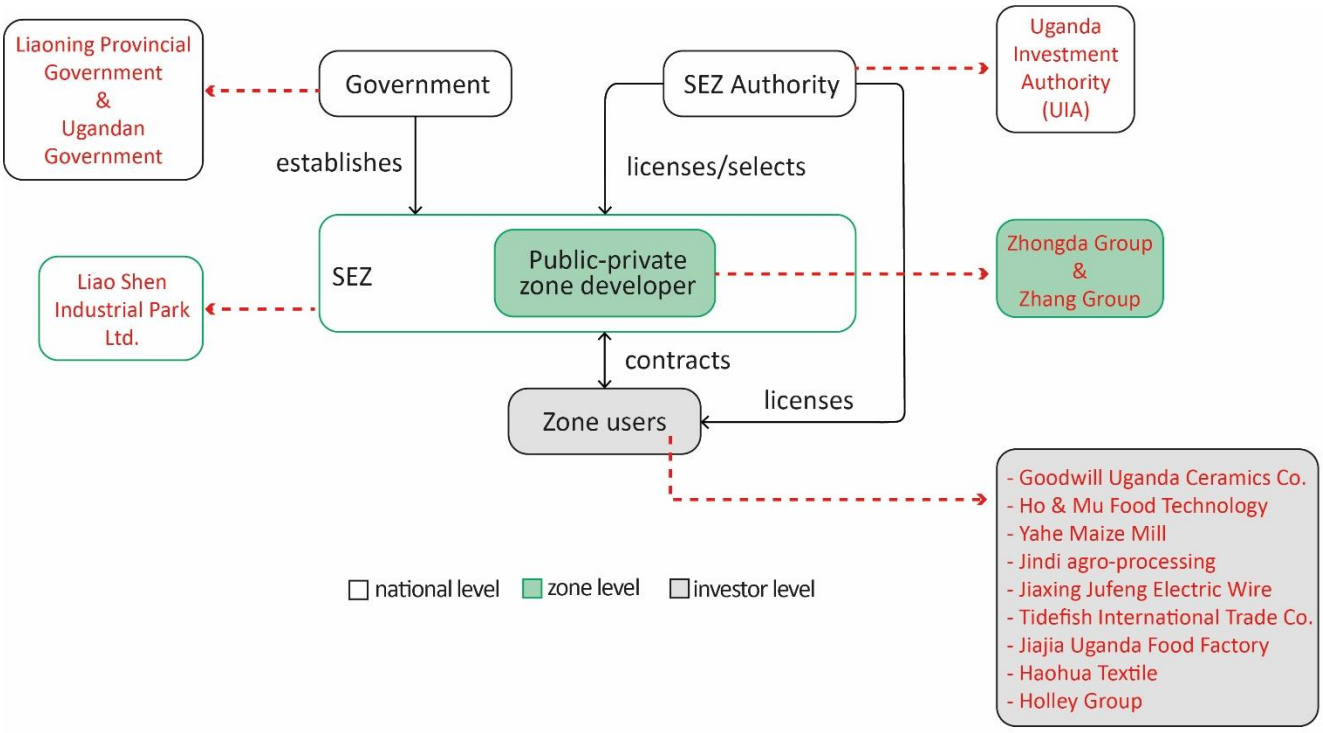


Figure 45: Distribution of the Liao Shen Industrial Park actors in the Hybrid Institutional set-up model (Source: author's illustration)

With both the Liaoning and Ugandan governments having the largest shareholding in the implementation of the park, the model framework set up is a hybrid one similar to those used in China with most zone users being companies established in Uganda by Liaoning business or fully fledged Liaoning companies.

3.5.4. Spatial Characteristics

Operation and management of the Liao Shen Industrial Park is divided into 2 phases; the first phase of the park covers an area of 2.6 square kilometres, and the second phase of the park covers an area of 2 square kilometres (All-China, 2019). The total planned area of the park is therefore 4.6 sq.km. The park is strategically located adjacent to two main highways thus enhancing the convenient transport facilities of the area. The layout of the park fully embodies the construction concept of Chinese modern industrial parks; flexibility, people first and respect for nature as seen below:

- The plan of the park is based on the concept of "modularisation of plans" and "flexibility of lots"; providing the enterprises with the most appropriate modular combination for their own development based on 6 models as seen below.

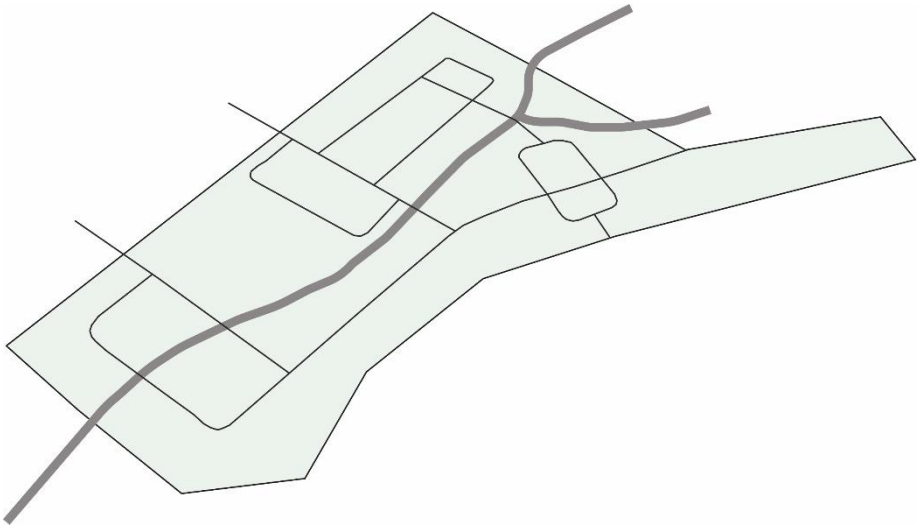


Figure 46: Diagram of the park area showing the division of the lots
(Source: author's illustration based on USLIP, 2018)

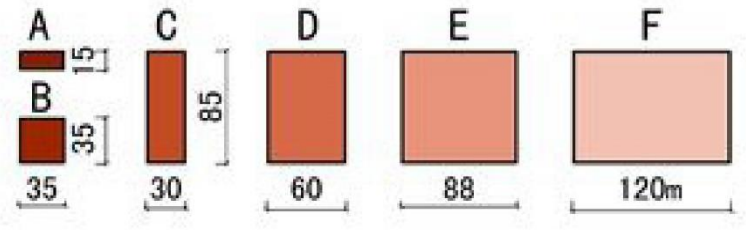


Figure 47: Diagram of the 6 different modules of different sizes
(Source: USLIP, 2018)

According to the characteristics of enterprises, the park is given different ways of settlement, and small and medium-sized enterprises without the ability to independently build factories are given standardized workshops that meet production needs; for large enterprises, the factories can be customized.

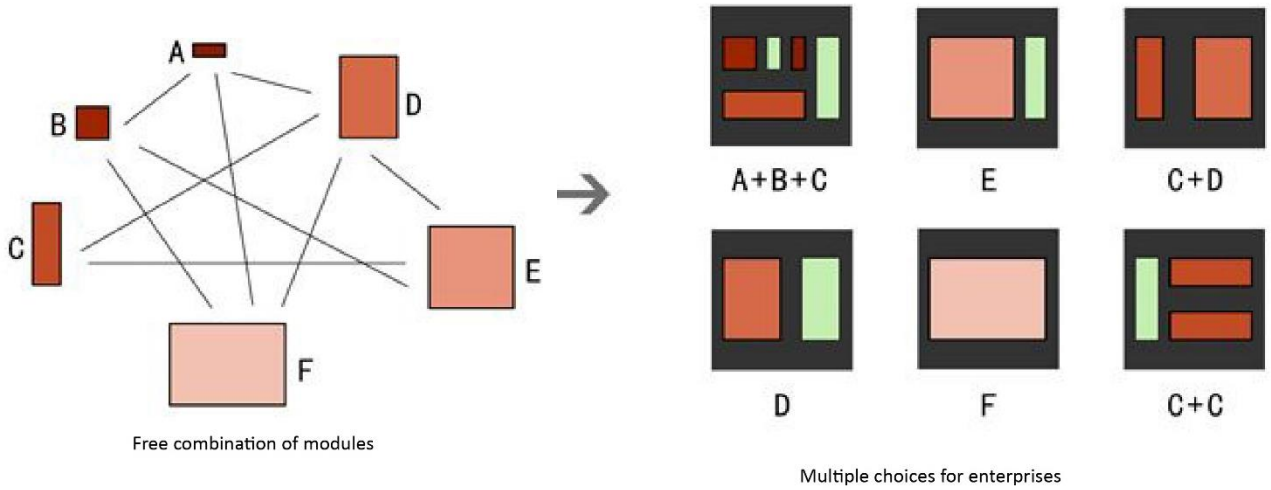


Figure 48: Diagram showing the translation of different module combinations on the plots (Source: USLIP, 2018)

The lots of the park can be either separated or merged through reasonable meshing methods and rational divisions in grids or otherwise. This creates flexible lot sizes satisfying the needs of different enterprises.

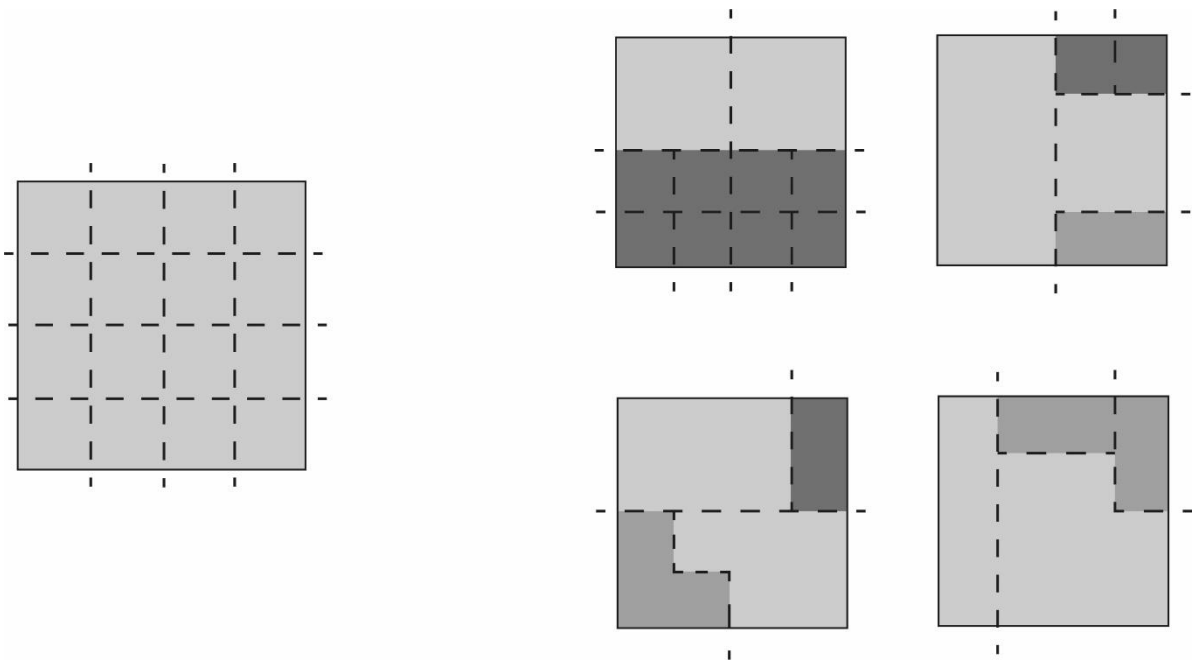


Figure 49: Diagram showing possible grid layouts (Source: author's illustration based on USLIP, 2018)

Figure 50: Plan layout of the park showing flexible blocks in grid pattern (Source: USLIP, 2018)

A reasonable grid system is broadcast in the park and the plots can be divided and combined to form a flexible land use scale for different enterprises choose from.

- The park has complete supporting infrastructure, including commercial, residential, office, park, main court, tennis court, leisure, and entertainment area, etc. The 33,000-volt high-voltage power line is in place, with abundant water resources and full coverage of telecommunications and networks. By the end of 2018, the construction of 1 square kilometre park power, water plant, administrative office building and other infrastructure was completed, achieving seven connections and one levelling, and meeting the infrastructure requirements of 20 production enterprises; to form an industrial park with diversified industries and modern services (CCPIT, 2018).

- The park is constructed with “multiple functions” including work, life, and service. There are 5 entrances and exits to and from the park in total with a reasonable density of road network, suitable for the future development needs of the park.

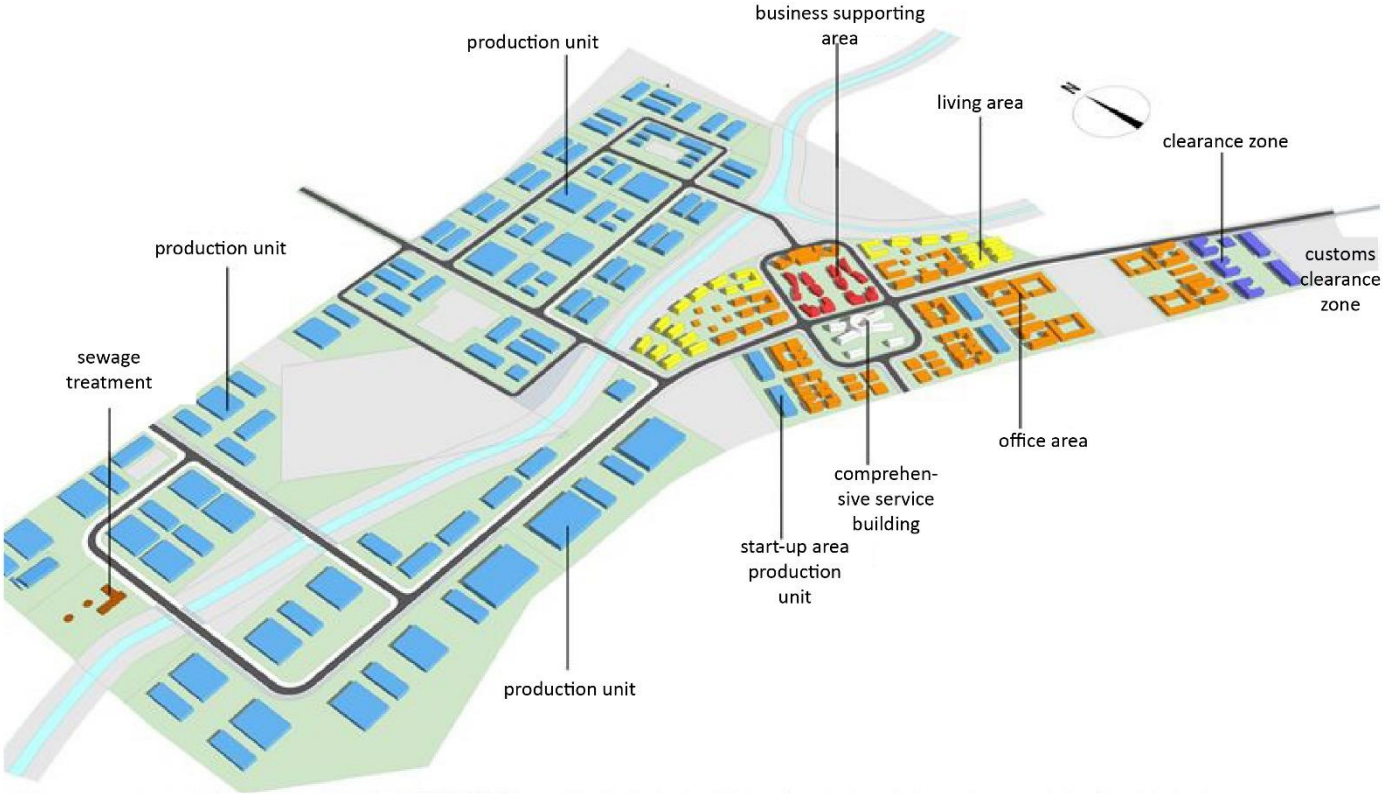


Figure 51: Layout of the park area showing distributions of functions
(Source: author’s illustration based on USLIP, 2018)

- The park uses the planning structure of **“one belt”**, **“two centres”, “multiple axles”** and **“multiple nodes”**. With the abundant green nature, the park will promote comprehensive utilisation of rainwater and wastewater whilst maintaining the original ecological wetland landscape.

Figure 52: Site plan of the park area showing access routes and structure
(Source: author’s illustration based on USLIP, 2018)

The park is committed to the best service packages, focusing on the "six packages" of human resources, science and technology education, warehousing and logistics, infrastructure, living services and public services. In addition, the park has set up a one-stop service centre unified by Ugandan local government functional departments such as customs and taxation to provide exclusive and convenient services for enterprises entering the park.

3.5.5. Building Typologies

As stated in the previous sub-chapter, the design, planning and implementation of the park is handled by personnel from China. The design strategies enforced follow the Chinese model of planning and as seen in the figure of the proposed administrative area, the buildings follow the same modern industrial look of the Chinese SEZ.

Figure 53: Picture showing the proposed administration area design render (Source: USLIP, 2018)

However, the eventual construction of the administration area as seen in the pictures below turned out different from the original design. This is because due to the context of the area and the availability of materials, not everything is followed to detail. Some adjustments are made, and a more contextualised building outcome is achieved.

Figure 54: Pictures showing the new administration building after construction on site (Source: USLIP, 2018)

The factories on site are owned by separate Liaoning companies and are thus built separately following the principles of plot optimisation of the site but are eventually built to suit the needs required for the product being produced or manufactured. For example, the Maize Mill company has a different layout from the Ceramics company, and the Food processing company.

Figure 55: Pictures showing the buildings within the HO & MU Food Technology Co.Ltd (Source: USLIP, 2018)

Figure 56: Pictures showing the factory building typology and layout in the Goodwill Uganda Ceramics Industry (Source; USLIP, 2018)

3.5.6. Project Impacts

Sustainable Urban Growth:

When Nakaseke District Council endorsed a proposal to have some portion of their land in Kapeeka Sub-county allocated for the establishment of an industrial park in 2010, the only known features in the location were perhaps the mass graves and maize gardens. Gen Salim Saleh, the coordinator of Operation Wealth Creation, was then actively engaging farmers in commercial maize growing. Today, the area is quickly turning into an industrial park with many activities (Wandera, 2019).

Figure 57: Kapeeka village center_2000 (Source: Google Earth)

Kapeeka village centre located at the crossroads of Kasule-Kapeeka Road and Semuto Road had very few urban development before the implementation of the park. As sen in the Google Earth image above, there were a few houses growing outwards from the crossroads.

In 2015, we begin to see an increase in the number of households around the centre due to the beginning works on the Liao Shen industrial park (highlighted in purple). Implementation of new roads and services to aid the smooth running of the park also ensued.

Figure 58: Kapeeka village center_2015 (Source: Google Earth)

By 2018, the village centre had expanded along the new roads implemented and further services like electricity and water stations around the park were implemented.

Figure 59: Kapeeka village center_2018 (Source: Google Earth)

Figure 60: Kapeeka village center 2020 (Source: Google Earth)

To date, the park has not only propelled the developemnt of the village centre but the entire district as well with the rise in market for produce from the area, higher employment opportunities, housing, and infrastructure.

Increase in population and employment:

The park has provided over 10,000 new jobs for Ugandans and life in Kapeeka has gradually and progressively improved. The 2014 National Housing and Population Census puts the population of Kapeeka Sub-county at 40,117 (that of Nakaseke district at 197,373) and authorities estimate the population to have shot to 43,000 by 2017 as a result of continued influx of workers at the factories within the Industrial Park (Wandera, 2019).

The rise in population in the entire district rises by an average of 30,000 people by last year 2019 and this is attributed to the large number of people coming into the district for employment purposes. This has also further led to the need to provide for more housing and public infrastructure like hospitals, public services and more.

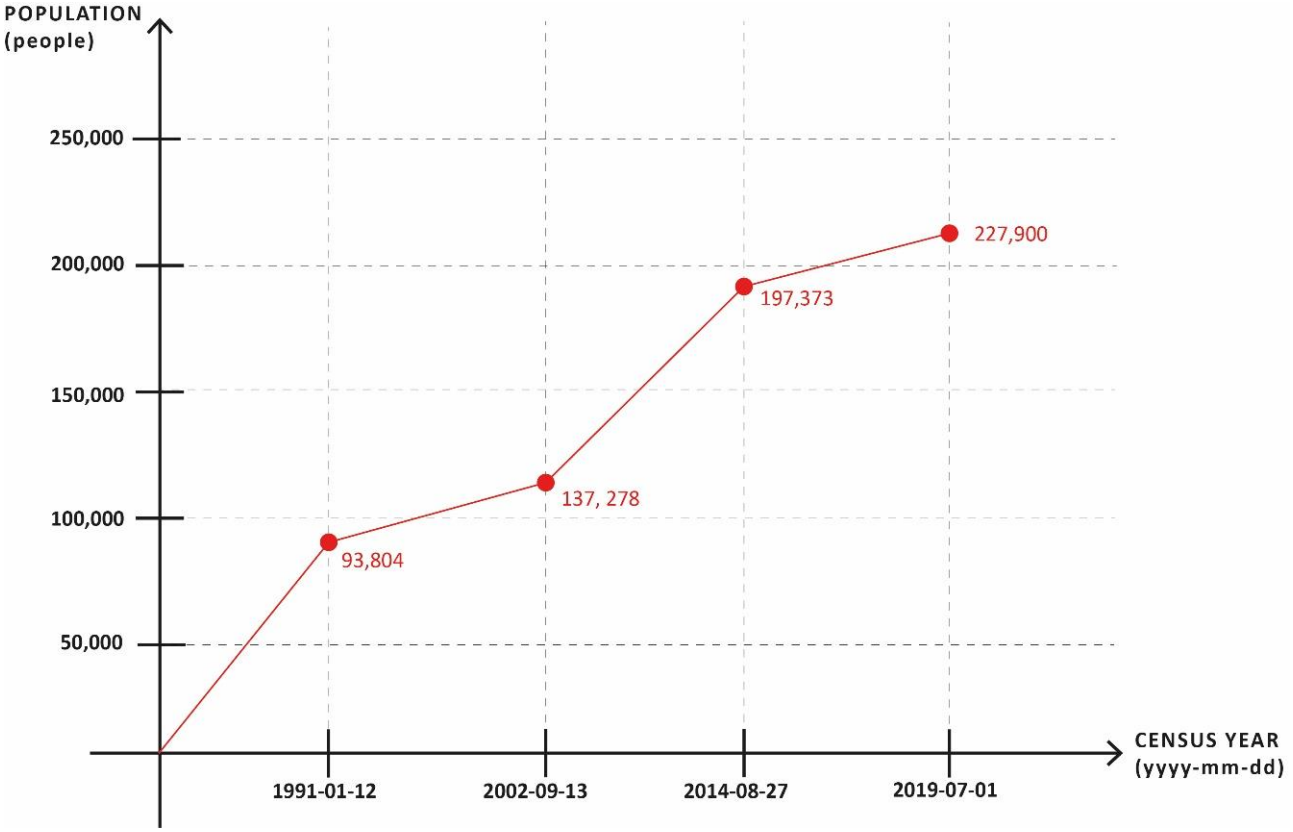


Figure 61: Population increase within Nakaseke district
(Source: author's illustration based on data from Uganda Bureau of Statistics, 2019)

The mushrooming residential area is an indicator of a fast-growing town. The Industrial Park Zone, according to Nakaseke District leaders, stretches to four out of the five parishes of Kapeeka Sub-county and covers more than two square miles. Kapeeka is not only a dreamland for the people of Nakaseke, but a fast-growing business hub after the successful commissioning of more than 15 industries producing different commodities and employing many youths.

Most of the park's enterprises use Uganda's local production raw materials, introduce modern technology and high-tech equipment, and the products are exported to foreign markets while meeting local needs. For example, the ceramic tile factory changed the history of Uganda 's ceramic

tiles being completely dependent on imports. About 40% of its products are exported to neighboring countries, increasing Uganda ’s foreign exchange income.

While driving industrial development, it is also promoting the development of related industries such as agricultural technology, exploration, construction engineering, warehousing and logistics, and increasing the income of local residents. For example, the dried mango plant that has landed in the park has signed a directional contract for mango planting with local farmers, providing excellent seedling varieties and necessary planting skills training, optimizing fruit yield and quality, and greatly increasing and stabilizing the income of fruit farmers (Xin, 2019).

Implementation of more SEZs:

The continued success of the Liao Shen Industrial Park proved a worthy investment on the Chinese part and has seen a rise of more industrial parks being implemented in Uganda. With the increased number of Chinese investors coming to Uganda to invest in these industrial parks, the government sought to make more Public-Private Partnerships to ensure the efficient running of these parks (New Vision, 2019). To date, we can see the eve of a boom of Chinese investment in Uganda: the Luwero Agricultural Industrial Park run by Sichuan Kehong Group, the Tororo Industrial Complex by Guangzhou Dongsong Energy Group, the Lukaya Rice Farm by Zhong’s Industries, as well as the Sino-Uganda Mbale Indsutrial Park run by Tian Tian group. All of which are from different Provinces in China.

Every year, the park holds investment promotion conferences in cities with good industrialization in China to promote Uganda's advantages in environment, geography, and mineral resources, and to combine the advantages of the park's investment policies to attract outstanding companies with foreign investment experience to visit the park. At the same time, increase local investment in Uganda to attract investors who come to Uganda to investigate and understand the situation of the park.

Therefore, as part of the national blueprint of Uganda, it plans to build 22 national industrial parks in the next five years to accelerate the process of industrialization and make effective use of local resources. The country's goal is to rank among middle-income peers by 2020 (Zhongming, 2017). The plan makes it clear that the government will give priority to the development of agriculture, industry,

tourism, energy infrastructure and information and communication industries. Uganda's national Industrial Parks Development Strategy as articulated in the UIA Strategic Plan 2016-2021are will support Uganda's drive for accelerated industrialization in 2016-2021.

The Uganda Investment Authority (UIA) is the primary Government Agency mandated to coordinate, encourage, promote, and facilitate investments in Uganda. UIA also advocates for investment enabling policy to Government on behalf of the private sector in order to create a competitive business environment in Uganda. With its budget constrained resources UIA is mandated to promote investment across the whole country (Uganda Update, 2019). Under the national Industrial Parks Development Strategy, the UIA will establish 23 Industrial & Business Parks, 22 of which are the gazetted Industrial Parks; plus, four (4) Science, Technology and Industrial Parks across the country. Eight of these parks are under development at different stages, namely: (i) Namanve Industrial & Business Park (KIBP) with Bweyogerere and Luzira Industrial Parks are in Kampala; followed by (ii) Jinja, (iii) Kasese, (iv) Soroti, (v) Karamoja/Moroto, (vi) Mbale, (vii) Mbarara SME, and Masaka Industrial & Business Parks. The fourteen (14) gazetted but not yet developed and therefore non-operational Industrial & Business Parks are in (i) Luwero, (ii) Nakaseke, (iii) Nakasongola, (iv) Rakai, and (v) Mubende Districts in Central Uganda; in (vi) Iganga and (vii) Tororo Districts in Eastern Uganda; in (viii) Gulu, (ix) Arua and (x) Lira Districts in Northern Uganda; and in (xi) Bushenyi, (xii) Kabale, (xiii) Hoima and (xiv) Fort Portal/Kabarole Districts in Western Uganda.

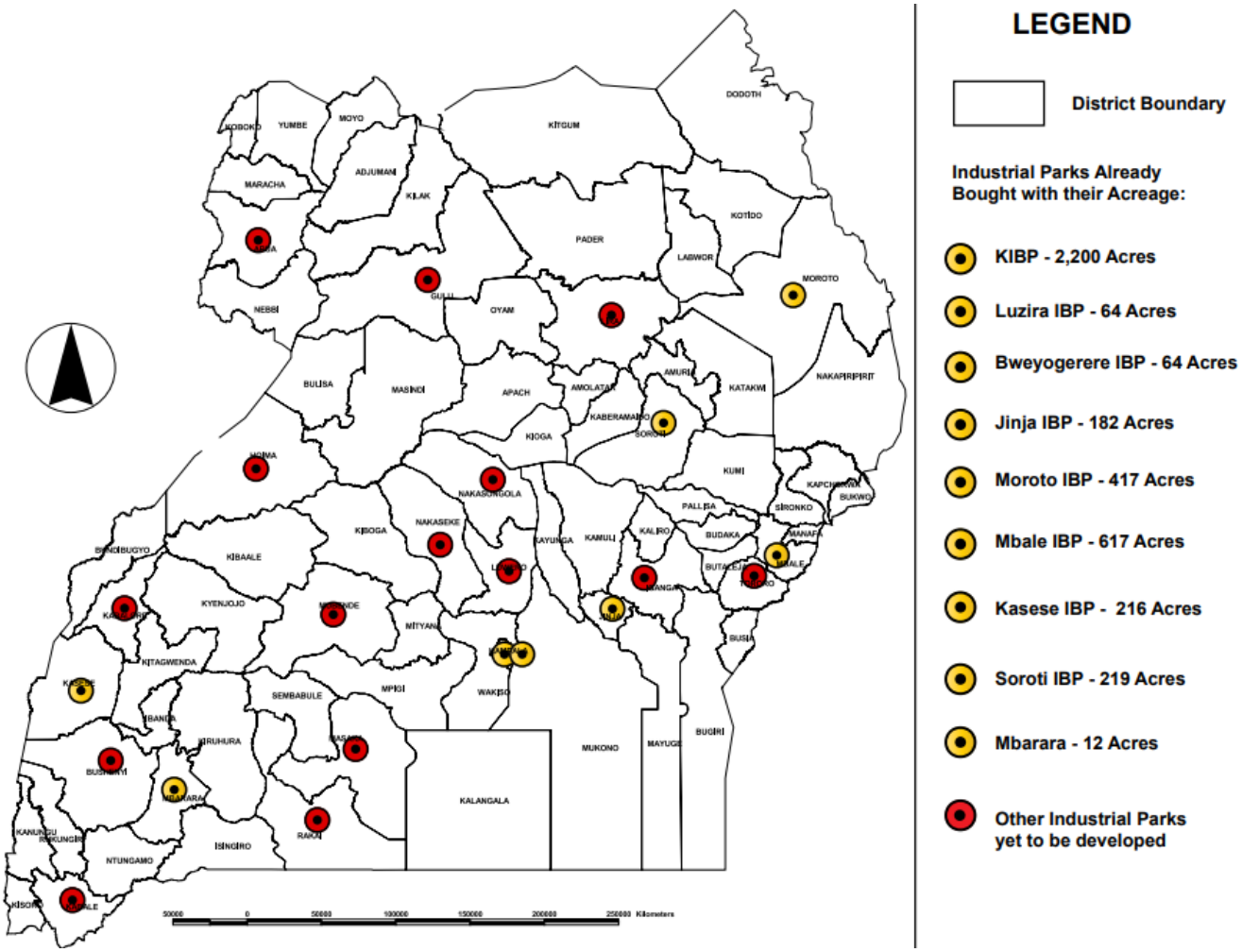


Figure 62: Proposed Industrial Parks in Uganda (Source: Uganda Investment Authority, 2019)

According to UIA, the establishment of new industrial parks requires conducting feasibility studies and acquiring and developing industrial park land aimed at creating more jobs and easing accessibility to land for investment, introduce new research, technologies and skills development in order to boost Uganda's exports and increase the revenue base. Uganda is considered a net-import country, meaning it imports more than it exports. President Museveni has on several occasions voiced concern about the country being able to export goods of only worth USD 5 billion (Shs18 trillion) and spend on USD 7 billion (Shs26 trillion) on imports (Musisi, 2018). The Chinese manufacturing locally for exportation or 'made in Uganda by China' is therefore a strategy, one of the avenues of "bridging the trade imbalance" between Uganda and China.

CHAPTER 4: RESULTS AND INTERPRETATION

4.1. Transfer Indications: From China to Uganda.

SEZs in Asia, and particularly in China, through their impressive outcomes, have become an inspiring model for industrial policy world-wide. This success has promoted a wave of SEZ projects in developing countries, especially in sub-Saharan Africa, where even more zones are expected to be built over the next decade (Farole and Moberg, 2014; cited in Alexianu, Saab, Teachout & Khandelwal, 2019). Uganda has fast tracked the industrial development within the country with the implementation of various SEZs of different types and sizes based on the Chinese model of successful SEZ. As seen in the case studies presented in the previous chapter, the objectives behind the SEZ policy implementation may vary and so might the outcomes, but the main hope is that they will attract Foreign Direct Investment (FDI), create jobs, boost and diversify exports, initiate the industrialisation process of the economy, and generate inclusive growth.

Uganda is primarily an agricultural country, exporting raw materials and goods and importing processed goods. Liaoning, on the other hand, is a major hub of manufacturing and processing industries and can thus bring benefits in its cooperation with Uganda. To speed up the industrialisation process in Uganda, Liaoning takes full advantages of Uganda's natural endowments, land, and location advantage as well as the policies of the East African Community (EAC) and the Southern African Development Community (SADC).

In this chapter, I shall analyse what aspects of the Chinese SEZ model from the Liaoning Province are transferred to the implementation of the Liao Shen Industrial Park in Uganda and to what extent.

4.1.1. Institutional Set-up

The three case study areas (namely the China-German Equipment Manufacturing Industrial Park, Dalian Free Trade Zone in Liaoning Province and the Liao Shen Industrial Park in Uganda) are all managed under the hybrid institutional model. The zone developers in a hybrid institutional model are usually under a Public-Private Partnership (PPP) - "*a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance*" (World

Bank Group, 2018: para. 01). In this case, the private party could be an outside investor in the SEZ or an investor within the country that is not necessarily under the government. In both cases in the Liaoning Province, the State is the main public developer and the private entities differ in where they originate, whereas, in the case in Uganda, the Private entity is the main developer with the approval and support of the government.

In China, as in many Asian countries, industrial parks are usually used as instruments of industrial development policies. Therefore, the objectives of the Chinese park management follow those set by economic policies and development plans. As stated above, the actor responsible for the park management is in most of the cases an Administrative Committee that functions as an agency of the local government. Therefore, it overtakes some typical responsibilities of the local government and functions as the main regulatory authority of the park (Salonen 2010; cited in Xueyi &Meyer, 2011).

The Administrative Committee in the industrial park consists of 14-20 Bureaus with different tasks. Examples are the Development and Planning Bureau, the Economic Development Bureau, the Construction Bureau, the Finance Bureau, the Environmental Protection Bureau, the Social Development Bureau, and the Public Utility Bureau. They are the subordinate to the government and play a role in connecting the industrial park to the local government. The directors of the bureaus are regularly rotated to prevent corruption. In this model the administrative committee is responsible both for governmental administration and the management of investments, infrastructure, and utilities. In this regard, we see a transfer of 'organisational hierarchy' from China to Uganda in terms of park management.

In the summary table below, we can see an overview of the different institutional set ups of the different case studies. As seen in the table, the Chinese government is an important actor in all the zones even with the collaboration between China and Germany the management is split two ways. Unlike in Uganda where the Chinese government is the main instituting body and the Ugandan government is a support that gives the go ahead. In this case we see a transfer of 'power', China remains in control regardless of where it is implementing the SEZ. This helps it be able to have control in the major decisions concerning the zones. This can also be seen in the name 'Liao Shen' which represents the Liaoning province.

However, interestingly, even though the Ugandan government does not have as much control, the Administrative Committees that are set up in Uganda can only be headed by a governmental body.

In this case it is the Uganda Investment Authority which in turn heads a group of local government authorities depending on the zone location. These local government officials in Uganda include the local council authorities and representatives in the district and parish of the project location. They have direct access and control over the people living within the area and for a smooth project implementation it is important to be on their good side.

Furthermore, the 'land' in Chinese industrial parks is always owned by the state and the administrative committees are authorized to lease it to tenant companies. A tenant company can sign two types of agreements for the land use with the administrative committee. It can either buy the land use rights for production purposes for 25-50 years or rent the land on yearly basis (Xueyi &Meyer, 2011). This is something the Chinese have struggled to transfer because in Uganda, the State no longer controls ownership of land. The Ugandan constitution, however, recognises customary, freehold, mailo and leasehold tenure systems of land ownership (UN_HABITAT & Benschop, 2002). Often Chinese companies in Africa find some troubles dealing with land ownership systems in locations where proposed projects are to be built. Local governments can easily refuse to offer help when some natives disrupt the project by claiming the land is owned by them (Wenting, 2017). To proceed, the company must pay out a large sum of cash. A problem that would rarely occur in China. For the case of the Liao Shen Industrial Park, most of the land on which the park sits and the surrounding areas is owned by General Salim Saleh, under private ownership in the freehold tenure system, his name is registered on the title of the land and he has a right over the property. This land was later transferred under a leasehold tenure for a period of 49 years to the management of the park by General Salim Saleh.

In terms of zone users, major companies within the Liao Shen Industrial Park are owned by businessmen from Liaoning Province. It is no secret that the transfer of Liaoning 'enterprises, businesses and products' is a major attribute of the industrial park built in Uganda. According to the official website, the park is "*a platform for Liaoning enterprises to enter the African market. It will surely open the door for Liaoning products to walk into Africa and thus enhance Liaoning's degree of internationalization and improve the adjustment of industrial structure and economic development of Liaoning*" (USLIP, 2018: para. 03). Many of Liaoning province's industrial projects, such as Kangwang ceramics project, Hemuyuan food project and Tianyuxin prefab house project have settled comfortably within the park (Min, 2017).

SEZ	GOVERNMENT	SEZ AUTHORITY	PUBLIC-PRIVATE DEVELOPER	ZONE USERS
LIOANING				
China-German Equipment Manufacturing Industrial Park	PRC State Council & German Government	Administrative Committee (under the PRC Ministry of Commerce and Liaoning Bureau of Foreign Trade and Economic Cooperation,)	German Chinese Service Centre, German Federal Ministry of Economics and Technology	BMW Brilliance Automotive Ltd, Brilliance China Automotive Holdings Ltd, SEW, Bentler, Festo, Siemens, BASF, Shenyang Machine Tool Group (SYMG), Michelin tire factory, German Federal M&A Association, etc.
Dalian Free Trade Zone	PRC State Council	Integrated Administrative Committee (Jinzhou District Government and the Dalian City Government)	Dalian Free Trade Zone Management Committee	Dayao Bay Bonded Port Area, Dalian Export Processing Zone A, Shipping Centre, Dalian Automotive Logistics park - IMC, ProLogis, CIMC, Toyota, PetroChina, NYK Line etc.
UGANDA				
Liao Shen Industrial Park Ltd.	Liaoning Provincial Government & Ugandan Government	Uganda Investment Authority (UIA)	Zhongda Group & Zhang Group	Goodwill Uganda Ceramics Co., Ho & Mu Food Technology, Yahe Maize Mill, Jindi agro-processing, Jiaxing Jufeng Electric Wire, Tidefish International Trade Co., Jiajia Uganda Food Factory, Haohua Textile, Holley Group

Table 5: Summary compilation of the Hybrid model for the case studies. (Source: Author)

Geared to the needs of the East African market, Liao Shen Industry Park takes advantage of rich resources and preferential policies in Uganda, along with the transfer of ‘advanced production

technology' and 'management experience' from Liaoning province to build itself into an international industrial park. According to Min (2017), the industrial park will mainly house businesses involved in the manufacturing of automobiles, auto parts, household appliances, building materials, and food processing, textiles, and light industry. All of which are characteristic of Liaoning industry expertise and technology. To support the development of Liao Shen Industry Park and the attract more Liaoning enterprises, Uganda has enacted several preferential policies for the facility (Min, 2017). All the businesses settling in the park are exempt from duties when importing equipment and raw materials, and they do not need to pay corporate income tax during their first 10 years of operations.

Furthermore, to enhance the transfer of technology and skills, the Chinese government has continued to train technical personnel in Uganda. The Uganda Industrial Research Institute (UIRI) located at Nakawa, Kampala was set up in 2001 under a cooperation program between Uganda and China. The institute has been producing technical personnel for Uganda's light industry. According to institute statistics, 690 technical personnel have been trained since then. It also helped to push forward Uganda's industrial technologies (Guloba, Kilimani, & Nabiddo, 2010). The program was also extended to community groups and small-scale enterprises, and students from universities and colleges. Beginning from the latter half of the year 2001, UIRI started to test and determine raw materials and products for the local manufacturers like meat processing plants, soft drinks plant, dairy corporations, and pharmaceutical factory, helping them to control quality of products. According to Guloba, Kilimani, & Nabiddo (2010), the African Human Resources Development Fund (AHRDF) set up by the Chinese government projected that the institute would train specialized talents from African countries between 2004 and 2006. Thus, the institute has become one of the strongest equipped industrial research institutes on the African continent. The UIRI aims at pioneering in industrialization, adaptation and popularization of advanced technologies, training of personnel for research institutes and enterprises, driving progress of the national industry.

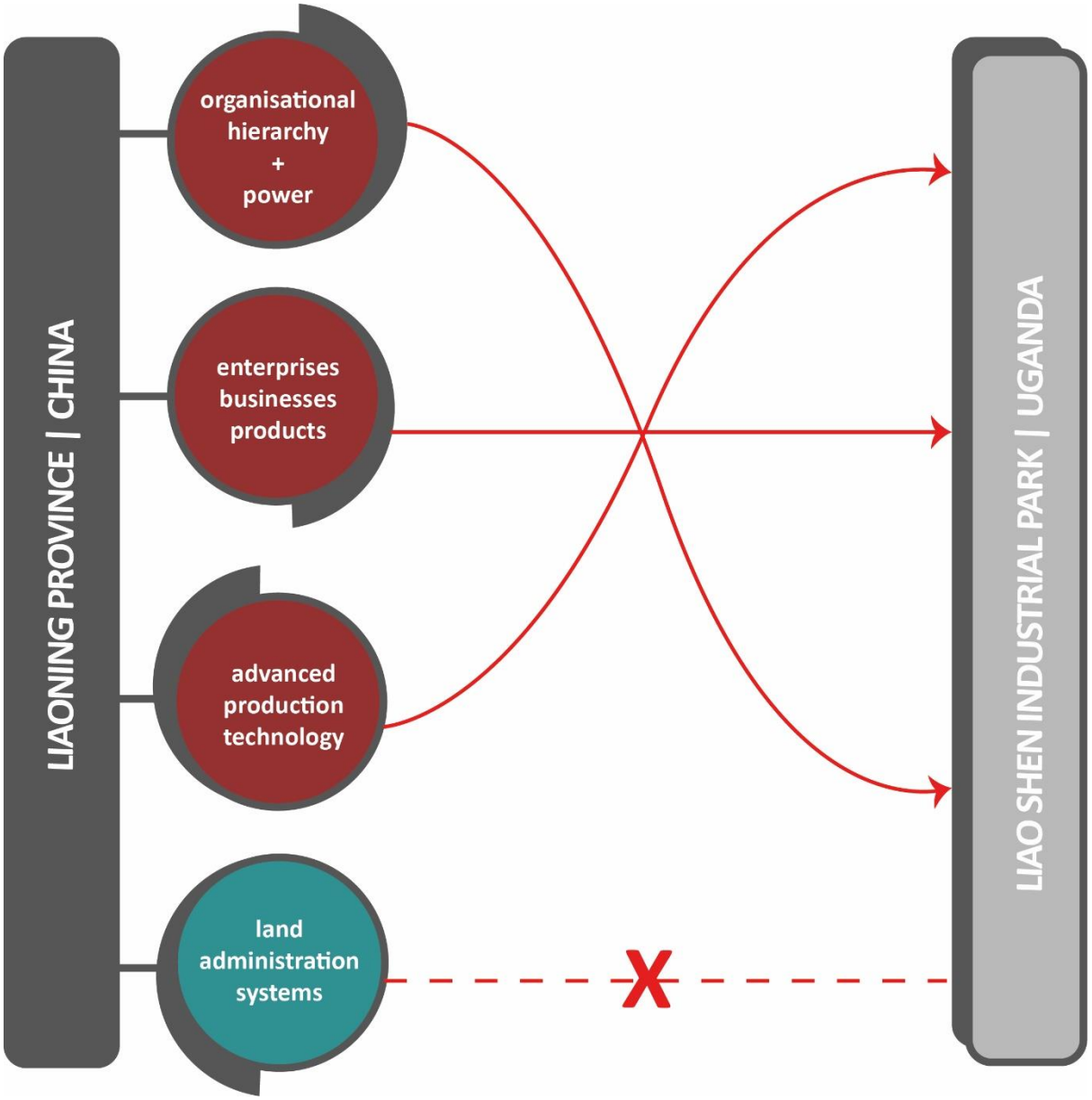


Figure 63: Summary of institutional elements transferred from Liaoning to Uganda. (Source: Author's illustration)

Therefore, in summary, we see a transfer of organisational hierarchy, power, enterprises, businesses and products, advanced production technology and management experience from Liaoning to Uganda. However, the land administration systems cannot be transferred as these are already a complex entity to deal with in Uganda.

To answer the question as to whether the same institutional model is transferred in practice from Liaoning to the industrial park in Uganda, it is evident through the organisational structures that indeed there is a transfer. The transfer of these set-up models includes the transfer of other elements in the process including and not limited to expatriates, technical knowledge, and partnerships.

4.1.2. Spatial Characteristics

Industrial parks are usually located on the edges of cities and normally provided with transportation access including road and rail. Experts argue that zoning is based on several concepts such as concentrating dedicated infrastructure in a limited area to reduce the business expenses. Such infrastructure includes roadways, railway sidings, high power electricity supplies, high-end communication cables, large volume water supplies and waste management. Providing an integrated infrastructure in one location helps attract new businesses (Ojiambo, 2019). Planning for the development of an SEZ requires the need to provide the right location for the zone as well as its integration into the surrounding context and infrastructure whilst putting environmental protection into consideration. The mix of land uses, and urban patterns of these zones thus requires a coherent spatial structure and planning.

The Liao Shen Industrial Park in Uganda embodies the construction concept of Chinese modern industrial parks with the planning concept and structure guiding the design of the park. The Chinese transfer the 'naming system' in the structure and integrate it systematically into the design. The Chinese are fond of stating strategies, policies, and concepts with careful consideration of the complexity and harmony of the words to aid communication. Each word to be used should carry meaning or a connotation that is simple to understand. The use of numbers to divide the different elements of the design is also common as seen in famous strategies like the "One Belt One Road".

The transfer of the 'planning structure' from China to Uganda is a concept that is integrated into the design seamlessly seeing as the industrial park is design by firms from China and further implemented by contractors from China. As seen in the table below, the case studies show similarities in the planning structure. This structure is achieved through dividing the elements of the environment into subsets and functions of each other. For example 'one belt', 'two centres' and 'multiple clusters' - these group a road or river or area as the tying element into the structure which is the belt; the centres are two usually one on each side of the belt; and the clusters are more in number as they denote the reminder of the structure.

Furthermore, as part of the planning structure, we can see a transfer of a tying element in the design, the 'backbone' of the park. Represented (in red) in the maps in the table, each of the case studies is characterised with a backbone. For the China-German Industrial Park, it is the Xihe River which acts as a continuous public open space and forms a public service axis that runs through east and west of the site; for the Dalian Free Trade Zone, it is the free trade zone area in itself which lies between the

north and south of the zone tying in the various functions; and the 'one belt' for the Liao Shen Industrial Park that is a new park alongside the wetland going through the centre of the site connecting it to the main existing road and is where the rest of the functions stem from.

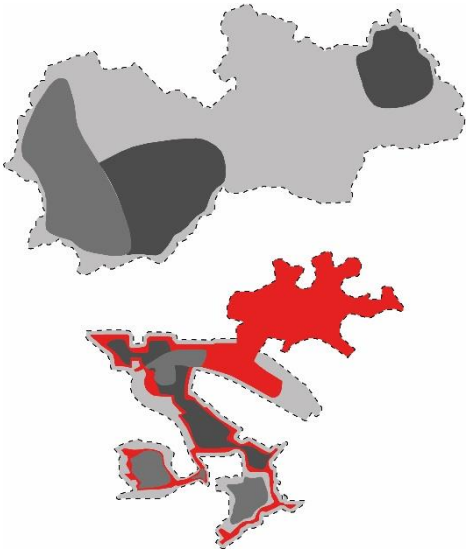
SEZ	SPATIAL CHARACTER
 China-German Equipment Manufacturing Industrial Park, Liaoning, China	The planning concept of the design is a "*ribbon formation, axial guidance, ecological isolation, and cluster development*" Planning structure: - **"One axis"** - **"Two slices"** - **"Multi-cluster group"**
 Dalian Free Trade Zone, Liaoning, China	The planning concept of the design is "*Connectivity*, *Adaptability*, and *Vividness*" Planning structure: - **"One city"** - **"One port"** - **"One functional area"**
 Liao Shen Industrial Park, Kapeeka, Uganda	The planning concept of the park is based on the "*modularisation of plans, flexibility of lots, multiple functions, and landscape structure*" Planning structure: - **"One belt"** - **"Two centres"** - **"Multiple axles"** - **"Multiple nodes"**

Table 6: Summary compilation of the spatial characters of the case studies. (Source: Author)

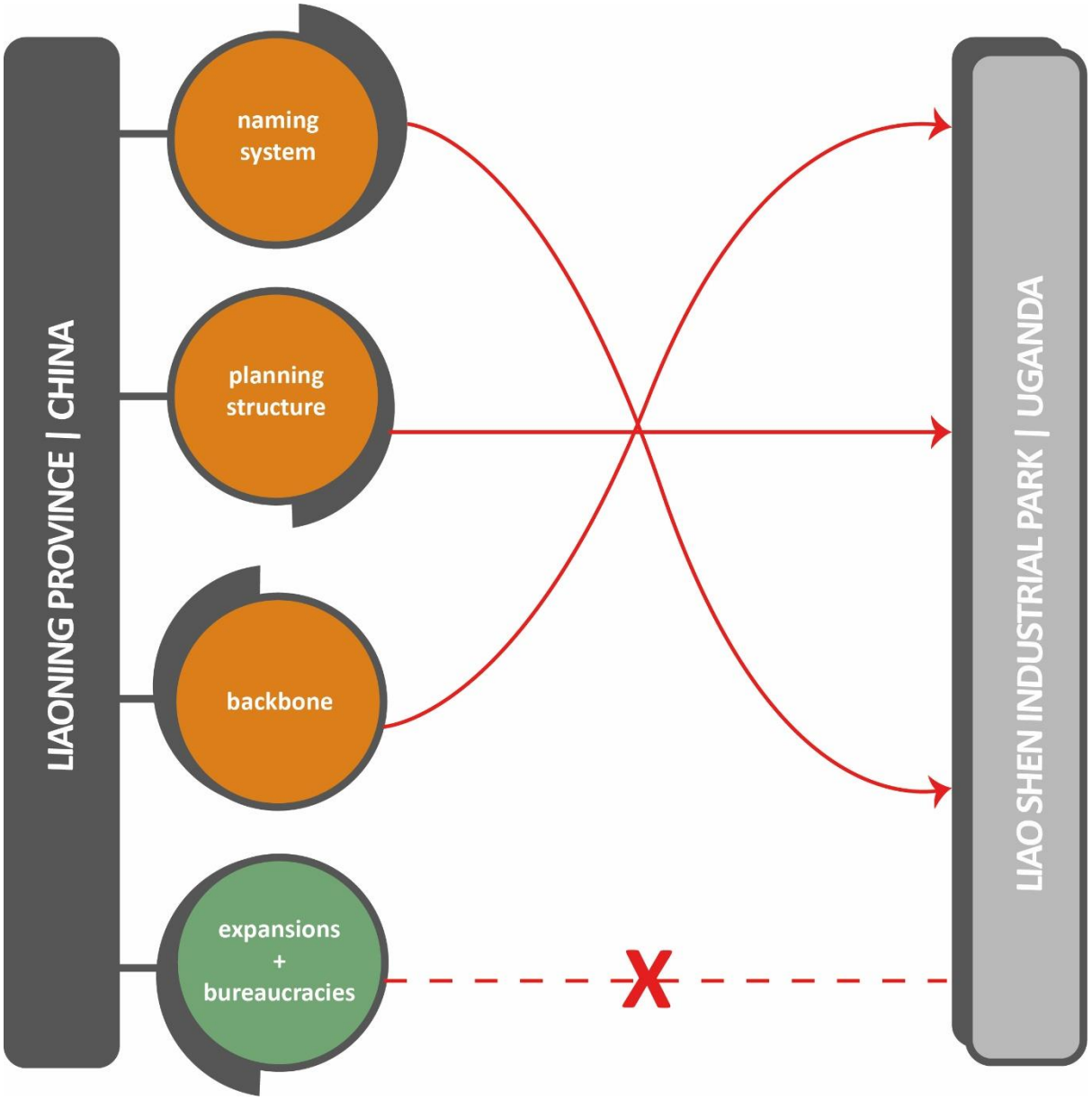


Figure 64: Summary of spatial characteristics transferred from Liaoning to Uganda.
(Source: Author's illustration)

There is therefore a transfer of spatial design ideologies or concepts from China to Uganda as seen in the naming system, planning structure, and backbone strategies of design from China to Uganda. However, how the park or zone expands and morphs from the structure is entirely dependent on the context of the country within which the zone is implemented. Also the speed with which this happens is furthermore dependent on the bureaucracies of the system; as seen in China, the State owns public land and thus it is much easier to expand than in Uganda where this may take much longer than anticipated to deal with carious land owners.

4.1.3. Building Typologies

From the previous chapter, we can see a range of elements transferred from China to Uganda. Since the industrial park is designed and built by Chinese companies and contractors, there is a decontextualization that happens. Whilst there is a desire to transfer typologies and techniques, there is a gap in the transfer through the adaptation of the design to the context of the area.

SEZ	BUILDING TYPLOGY
  China-German Equipment Manufacturing Industrial Park, Liaoning, China	Factory type buildings and large open space plans high building heights and spacious.
  Dalian Free Trade Zone, Liaoning, China	Factory type buildings and large open space plans high building heights and spacious.
    Liao Shen Industrial Park, Kapeeka, Uganda	The eventual construction of the administration area turned out different from the original design.

Table 7: Summary of building typologies of the three case studies (Source: Various)

The transfer of building typologies from China to Uganda is somewhat two-fold. This is because of the context of the area and the availability of materials, not everything is followed to detail. Some

adjustments are made, and a more contextualised building outcome is achieved. However, the construction techniques and contractors are brought in from China. So even though it does not look as designed, it is done by contractors from China.

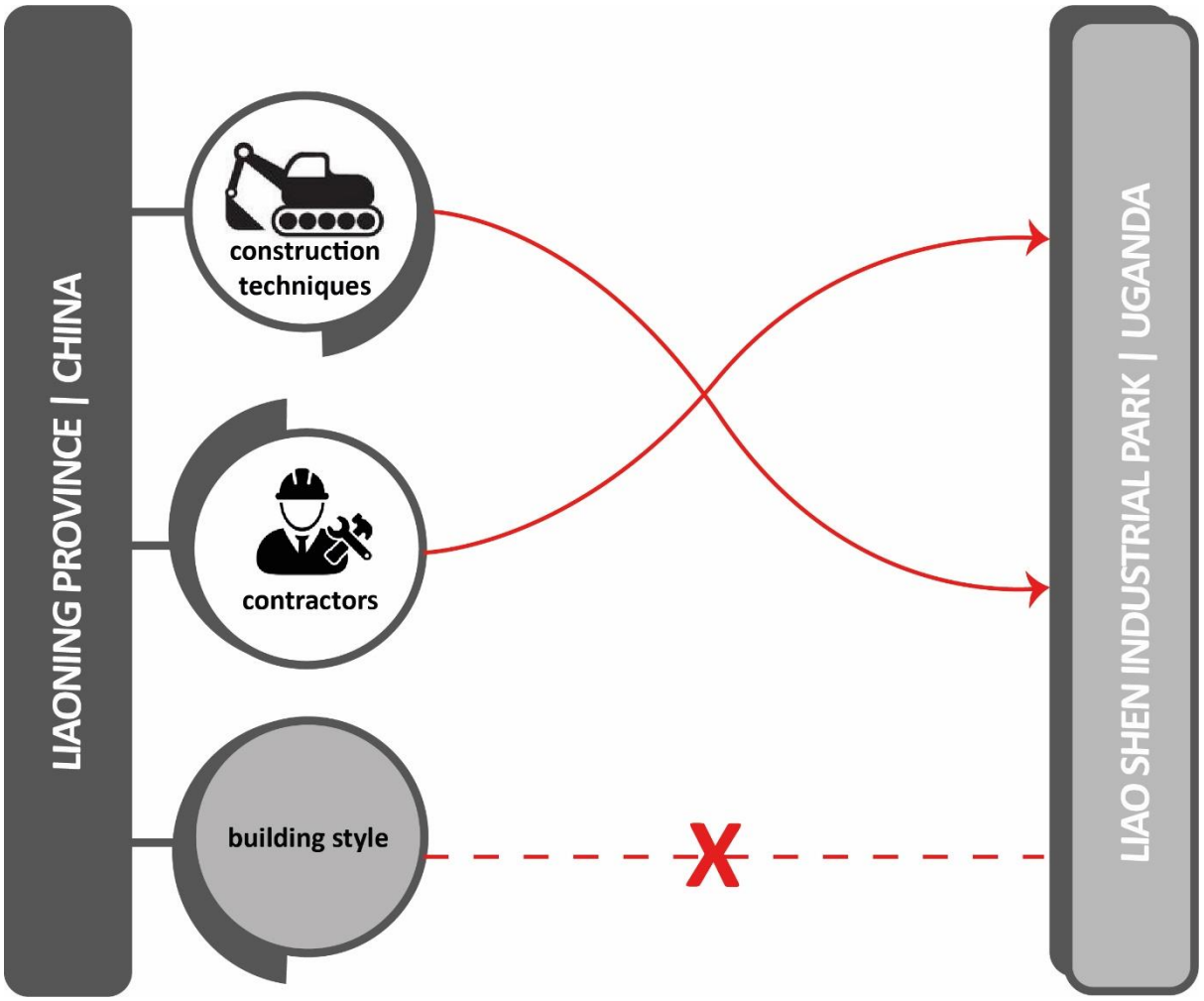


Figure 65: Summary of building systems transferred from Liaoning to Uganda. (Source: Author's illustration)

Furthermore, whilst there is a transfer in construction technique and contractors from china to Uganda, there is a preconceived notion that building materials are also transferred from China. However, for the case of the Liao Shen Industrial Park, most of the building materials are accessed locally to cut down on the building costs faced by the contractors.

4.1.4. Hinterland Development

Special economic zones (SEZs) have been used as an important national development instrument around the world for the past several decades. While SEZs have continued to grow, they vary considerably across developing countries in form, function, and effectiveness. However, it is important to note that the SEZ implementation should aim at ultimately having a lasting impact on the development of the host economy that reaches far beyond the perimeter of the SEZ. While SEZs contribute to the growth of surrounding areas, this effect suffers from strong distance decay. Indeed, the success of an SEZ should not only be measured by the intra-SEZ effects or its influence on its immediate surroundings, but also its contribution as a catalyst to the upgrading and economic health of the larger economy, either at a regional (subnational) or national level (Narula & Zhan, 2019).

The region in which the SEZ is located is therefore a very strategic choice for the implementors. The location advantages as well as the ability to impact change in the region is necessary for the successful implementation of the SEZ. An interesting case in point is the Shenzhen Economic Zone, from its original 372 square kilometres in bounded area to about 2,000 square kilometres in municipal territory today, Shenzhen is the only known case of a very large and sparsely populated SEZ turned into a dense megacity. It set an earlier and delayed precedent for a new breed of SEZs that have been built up as sizeable and multi-functional cities today, involving China as the primary driver and actor (Chen, 2019). This can be attributed to China's overall comparative advantages in very low land and labour costs.

This brings to question whether China pushes for development outside its development boundary? Is the goal to develop the region and not just the project? The case for Shenzhen is a particularly interesting one since its SEZ development went beyond the region itself. Shenzhen, a traditional fishing village that has rich land resources and the geographical advantage of bordering the well-developed economy of Hong Kong, China, was chosen as China's window to the outside world and as the field of experimentation for the nation's reform of its economic system. One of the main reasons for the selection was that this formerly remote fishing village had the least resistance to any new institutional change (Zeng, 2010). The plan was never just for the small village but the entire region. According to Zeng (2010), in 1978, Shenzhen had only 174 factories, with a total industrial output value of less than USD 10.25 million. The city's industrialization began in 1980 with the implementation of the SEZ. Shenzhen's industrialization process experienced several stages, with the

scale of its industry increasing from small to large, its products from relatively lower value to higher-tech products, and its factor use from labour and land-intensive to technology intensive.

This quick expansion of the Shenzhen area can be attributed to the fact that transferring land rights worked well for China. As seen also in the development of the SEZs in Liaoning Province, the Dalian Free Trade Zone started out in 1992 as an area of 1.92 km^2 (DFTZ, 2012). The China State Council further approved its expansion after 8 years of development to include the Dalian Export Processing Zone (DEPZ) with an area of 2.95 km^2. By the end of 2000, nearly 1,000 companies from more than 30 countries and regions including Hong Kong, the United States, Japan, South Korea, Singapore, Taiwan, and Canada had invested in and established enterprises in the Dalian Free Trade Zone. According to Baidu (2011), further developments ensued in the following years to include the bonded area and the Dayao bay expanding the management of the DFTZ to 64 km^2. By 2010, Shililibao and Liangjiadian were included in the bonded zone group to host Dalian Automobile Logistics City, area reach 251.3 km^2. The DFTZ now governs three neighbourhoods: namely Dayao Bay, Shililibao and Liangjiadian. It has fast tracked to become the core function area of Northeast Asia International Shipping Centre and Logistics Centre that integrates the core elements of port, international logistics, free trade policy, collection & distribution system, city function, etc. The DFTZ is developing into an influential international energy port, and it is building up an export-oriented automotive industry base targeting at new energies and focusing on R&D and production of self-owned domestic brands in North China. Furthermore, Jinzhou district of Dalian, where the DFTZ is located, became one of the most open and economically comprehensive economic regions in mainland China. The implementation of the Liao Shen Industrial Park in Uganda by the Liaoning Province, therefore, brings to question if the plan for China includes the development of the entire region and not just the park area.

Kapeeka village, in which the Liao Shen Industrial park is located, was once a war tone area affected by the National Resistance Army (NRA) liberation war. Kapeeka and Nakaseke district in general attained low development rates due to the effects of the war, characterised with bad roads, poverty-stricken people and generally broken-down infrastructure. Youths in this village only got up to go to the village trading centre to play cards and thus due to a lack of jobs, gambling became a way of life (Buufu, 2020). However, to date, Kapeeka is now a town that many are moving to due to the ongoing developments. Farmers have steady markets, thanks to Liao Shen Industrial Park, managed by China's Zhong da Group and Zhang's Group. The park was started in June 2015, and it is the first private

industrial park in Uganda for big enterprises developed on a 640-acre piece of land. According to the President of Uganda, Yoweri Kaguta Museveni, the industrial park is proof that when you sort out certain issues, development happens.

Developments in Kapeeka, however, although encouraged by the Liao Shen Industrial Park, did not start with the park. It is important to understand the land ownership status of the land surrounding this village. In the 1990s, President Yoweri Kaguta Museveni's brother, whose nom de guerre is General Salim Saleh, began confiscating land titles in the Kapeeka area, eventually transforming a 4,000-acre portion of the former East Mengo cooperative into his own personal fiefdom (Wyrod, 2019). In the early 2000s, the general moved permanently to this valley, building a heavily fortified compound that serves as his headquarters. At this time, he began developing the Namunkekera Rural Industrial Centre, a 1,500-acre portion of his land envisioned to combine large-scale agricultural processing facilities with an industrial park. It was not until 2006, that we begin to see collaborations between General Salim Saleh and several Chinese businessmen, most notably, Shen Zhong Yuan, who also spearheads the Zhong da Group responsible for the management of the Liao Shen Industrial Park. The Park was built off a 640-acre parcel of the Namunkekera Rural Industrial Centre with the ultimate of developing the village and region eventually.

Even though China does not have direct ownership of the land surrounding the Industrial Park, there is no doubt of the direction of development of this area based on the collaborations between the government and the Liaoning investors, including the initial collaborations between General Salim Saleh and the Zhong da Group. It is probably too soon to determine what direction the development of the region will take as the SEZ is relatively new. However, we do see the spread of new SEZs across Uganda as a country with different Chinese Provinces. These include the Luwero Agricultural Industrial Park run by Sichuan Kehong Group from the Sichuan Province, the Tororo Industrial Complex by Guangzhou Dongsong Energy Group from the Province of Guangzhou, and the Sino-Uganda Mbale Industrial Park run by Tian Tian Group from Hebei Province.

The outer parts of Kapeeka town in which the SEZ is implemented thus benefit from this development especially seeing as there was an immediate rise in job opportunities for the youth in the area as well as an increase in the productivity of other sectors like the agriculture and housing sector with the rise in population. The SEZ and its surrounding areas are important in enhancing the local economy of the city or district and generally improve its ability to absorb modern technology and foreign investment.

4.1.5. Economic Features

China-Uganda relations have soared on the economic front over the years. The investment from China helps Uganda transform its abundant natural and human resources into concrete economic development fruits. As stated previously, China is backing Uganda's industrialisation aspiration by supporting the creation of industrial parks across the country. It is assumed that both China and Uganda can leverage their comparative advantages to achieve and maintain fast growth.

The "Going Out" strategy includes a range of practical measures to promote overseas investment such as financial support and information dissemination. The Chinese government provides a range of state-sponsored promotion factors for Chinese private investment under its "going global" strategy, including special and general tax incentives, credit and loans, and a favourable import and export regime (Gu, Zhang, Vaz and Mukwereza, 2016). To date, Uganda ranks third in Africa as a destination of Chinese Foreign Direct Investment (FDI) and even more so, China unilaterally cancelled all the debts of interest-free loans before 2005 for Uganda.

Inevitably, Liaoning Province and the State Council of the PRC have transferred a large sum of money towards the implementation of the industrial park inform of 'investments' from the Ministry of Commerce, banks and Liaoning enterprises. Through the Commerce Department of Liaoning Province, the Chinese government provided financial support for 50% of all up-front investment costs for investing enterprises The Liaoning government, along with Zhongda Group and Zhang Group pledged an investment of USD 600 million over five years to develop the park and in 2018 alone, the FDI from China to Uganda was USD 250 million (Xinhua, 2019).

Most of the zone users being business and companies from Liaoning Province, each is investing in Uganda by setting up shop within the industrial park. Furthermore, we see a transfer in the 'financial systems' and management of the different companies within the park. As the local labour increases, Ugandans begin to learn the financial systems and the way in which the companies are run.

As a result of the continued support from the Chinese government and Chinese business, Uganda is bound to repay back these loans and investments through their 'natural resources'**.** This is also the case in other African countries. Over a third of China's oil comes from Africa, as does 20% of the country's cotton Furthermore, Africa has roughly half of the world's stock of manganese, an essential ingredient for steel production and the Democratic Republic of Congo on its own possesses half of

the planet's cobalt (Shepard, 2019). With the various investment opportunities China offer, it gets the advantage of tapping into these natural resources.

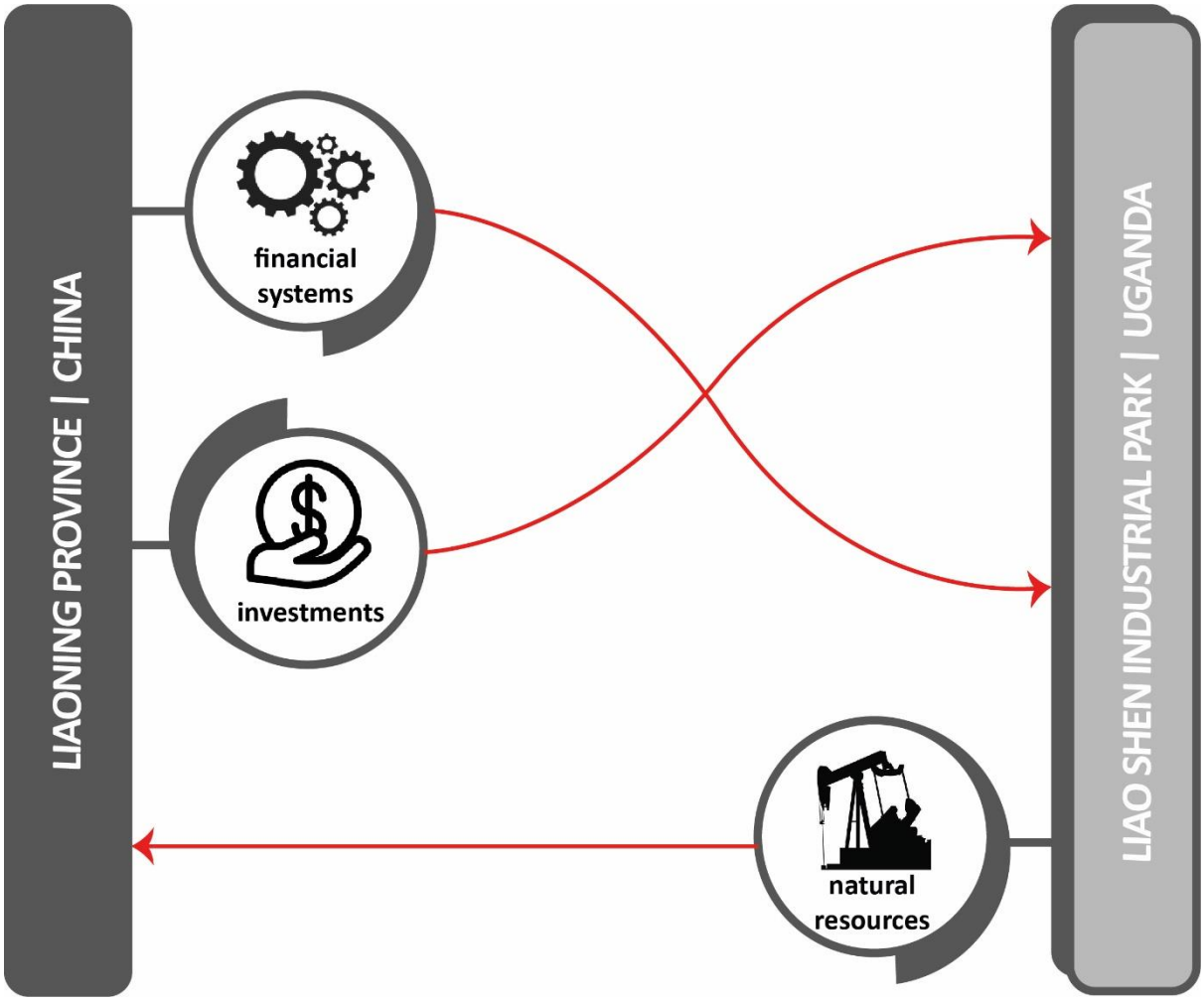


Figure 66: Summary of economic features transferred from Liaoning to Uganda. (Source: Author's illustration)

Investments in SEZ projects require a large amount of cash flow injections into the host country that the economy might not be able to take but with the help of the investments coming in from Liaoning under the direct supervision of the China State Council, the burden is less bearable. Even though this might require for a large sum of natural resources to be given in exchange for the investments.

Therefore, we see a transfer of financial systems and investments from Liaoning to Uganda to implement the industrial park, as well as a transfer of natural resources from Uganda to China as a result.

4.2. Complexities of the Transfer Process

The transfer process of the Chinese SEZ model from China to Uganda is multi-faceted with a lot of interactions at all levels. Even if all factors are known in the complex systems, their predictability is limited as it is difficult to assume the outcomes generated until they interact. It is therefore the assumption in this research paper that the transfer of the Chinese model adapts in view of these complexities. To better understand the complexities of the transfer of the different elements from China to Uganda, key interviews were conducted within the Liaoning businesses in charge of implementing the Liao Shen Industrial Park in Uganda as well as the Managing Director, Mr.Zhang Hao, the Managing Director of the Zhang Group, which is one of the key investors in the industrial park.

Interviews were carried out on "WeChat", a Chinese multi-purpose messaging, social media and mobile payment app that is a necessary tool for businesses, investors and anyone really seeking to work with China. Three main questions guided the interviews:

1. To what extent does China transfer its industrial park model in implementing the Liao Shen industrial park?
2. How complex is the process of transferring and adapting the industrial park model from China to Uganda?
3. What challenges have you faced while implementing the Liao Shen Industrial Park in Kapeeka, Uganda?

Based on the perspective of the Liao Shen Industrial Park Management, the full transcriptions are detailed in *Appendix 1* and the responses are summarised below:

1. The transfer of the Chinese SEZ model to Uganda is reflected in the industrial park management – with a mix of both Chinese management team as well as local employees who take on important responsibilities and help in communication with local authorities, focus on local market demand – following the trends and characteristics of what is needed on the current market, and a focus on the utility of local resources that are otherwise left unexploited.

2. In China, the process of Industrial park development model includes three phases of implementation which the development plan of Liao Shen industrial park generally follows. Each phase leads to the next and the successful completion of a phase entails various factors like sufficient investments, attracting industrial enterprises, and enhancing the performance of the park. It is

important to be careful because the transfer process is complex and involves many parties; each has an important role to play and the process becomes complicated if one party does not play its role.

3. For Uganda, the industrial park model is still a new business model, and there is no relevant guidance policy at the national level to guide and support the development of the industrial park. Another major challenge encountered during the park's implementation is the relatively weak national infrastructure system within Kapeeka and in the surrounding regions.

From the responses received it is evident that the transfer of the Chinese industrial park model to Uganda is a complex process that comes with many challenges. Policies are not easily moved directly from one place to another; instead, policies are embedded due to the role of local actors and governments in policy mobility. According to the managing Director of the Liao Shen Industrial Park, Mr.Zhang Hao, the China model is transferred but also adapted to the context of Uganda through the management, market demand and availability of local resources. Whatever resources are available have guided which enterprises eventually settle in the park. And the reverse is also true, whatever resource was lacking, the enterprises brought in. However, this does not leave room for local industries to develop and bridge the gap between what is lacking and what is available on the Ugandan market. These further paralyse the economy to depend on the Liaoning enterprises coming in for the supply of these goods.

Mr.Zhang Hao comments on the fact that local enterprises benefit from the industrial park policy in the tax law of Uganda which is very different from how industrial parks operate in China. It is thus a journey that will take a lot of patience and changes if the Chinese want to see the same mode of operation of practice in Uganda. However, one could argue that a copy and paste situation is highly unlikely, transferring elements is not just a mattesr of repetition, it involves the acknowledgement that the two countries are fundamentally different and thus different elements take on different forms and modes of implementation.

Furthermore, for a developing country like Uganda the complexities of transferring the industrial park model increases due to the uneven conditions of different parts of the country. The location of most of these parks are in rural areas that do not have sufficient infrastructure in terms of good roads, electricity lines and supply of water. In general, it is evident that the socio-economic environment, infrastructure, institutions, and credit systems are immature to different extents compared to those

in China, thus creating difficulties in constructing overseas industrial parks and necessitating policy mobility or transfer of various elements of the SEZ model.

Moving forward to anticipate what the future will hold, Uganda seeks to develop 22 industrial parks as earlier mentioned in this research. The Uganda Investment Authority has been tasked with developing these Industrial and Business Parks around the country to further create jobs and ease accessibility of land for investments, introduce new research, technologies, and skill development as well as boost Uganda's exports and thus increase Uganda's revenue base (Kayiwa, 2019). The UIA plans to do ensure the implementation of these parks with the help and investments from various Chinese Provinces. There is room for change with this new strategy and hopefully this is done with the Ugandan culture and context in mind.

On a continental level, as regards the implementation of the Chinese SEZ model in various African countries, it is important to consider that most African countries are relatively latecomers in implementing modern zone programs and many of these zones are still in the early stages (Farole 2011; cited in Zeng, 2015). The change and rebalancing of the global value chain and industrial structural can possibly provide a great opportunity for these zones. In general, the common challenges and complexities include and are not limited to:

- **Land policy and Resettlement issues** – As earlier mentioned, land policies in Africa are a major setback for the fast implementation and success of SEZs. Furthermore, in several zones, state governments promised to provide the compensation in the case of land acquisition and resettlement, however, these promises were not or only partially fulfilled, which hinders the further development of the zones.
- **Legal, regulatory, and institutional framework** - In many African countries, the current legal, regulatory and institutional framework for SEZs is either outdated or does not exist, even though the SEZ initiative has been launched or, even in some cases, the parks have been built and operational.
- **Poor business environment** - In most Sub-Saharan African countries, the costs of doing business are high due to overall constraining environment in terms of registration, licensing, taxation, trade logistics, customs clearance, foreign exchange, and service delivery. Many one-stop-shops for investors do not live up to their names.

- **Lack of strategic planning and demand-driven approach** - International experience shows that effective zone programs are an integral part of the overall national, regional or municipal development strategy and build on strong demand from business sectors, such as those in Malaysia, China, the Republic of Korea, and Mauritius, etc. However, many zone initiatives in Africa are driven by political agenda and lack a strong business case.
- **Inadequate infrastructure** - This is an overall constraint for all the zones but at different degrees. In general, power, gas, roads, ports, and telecom are the key constraints and many governments and developers try to resort to the "*PPP"* approach to solve the constraints. Given the large investments required for the zones, a strong commitment from government and active participation of the private sector are crucial.
- **Zone management and operational know-how** - Most of the zone developers, including the relevant government agencies, do not have experience in zone management and operations, and many zone developers are only construction companies; therefore, it's a challenge for them to identify the right partners to provide the critical knowledge and expertise on zone management and operations. This seriously undermines the implementation capacity. Zone users on the other hand are more experienced in the field of industry but they only come in after the implementation of the SEZ.
- **Host government ownership & policy consistency** - This is especially a challenge for those zones that face a new government that does not fully recognize the potentials of the economic zones or fully acknowledge the commitments made by the previous governments. Strong and long-term government commitment is crucial for the success of the zones.

According to Zeng (2015), the SEZ is a very expensive undertaking and involves very careful and skilled planning, design, and management, it should not be taken lightly. China leveraged the SEZ as a breakthrough towards a market-oriented growth model in an overall very constraining environment and achieved transformative impact. However, today's macro-environment is different, and many African countries are the destinations of industrial transfer from East Asia. Instead of focusing on tax incentives, more efforts should be put on improving the business environment including infrastructures and consider "smart incentives" that encourage skills training, technology transfer/upgrading and local economic linkages. Perhaps it is crucial to make one or two zones work before the immediate up-scaling of various zones as seen with the implementation of 22 industrial and business parks all at once in Uganda.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

Based on the analyses carried out in this research, interpretations and results have been detailed and compared in the previous chapters. This chapter, therefore, gives a summary of the most relevant elements transferred from the Chinese to the African case. Furthermore, the role of China as a foreign aid / development partner and the implications for Uganda and Africa are explored to discuss the future of SEZ implementation in developing countries more generally.

5.1. Transfer of Elements

China and Africa are both experiencing fast development and each needs to update the understanding of the other. Both countries and continents seem to foster cooperation as there will always be more and more opportunities. According to the Chinese Ambassador to Uganda, Zheng Zhuqiang, *"the benefits of China-Africa cooperation are abundantly clear. After decades of diligent nurturing, the sapling of China-Africa cooperation has grown into a towering tree that no force can topple"* (Zhuqiang, 2019: para. 10). There is therefore no doubt that China will continue to seize these opportunities and build an even stronger China-Africa partnership with a shared future.

With this in mind, the transfer of development models and patterns may not necessarily be tied to Special Economic Zones solely but also in other sectors like infrastructure, agriculture and others. As seen in this research, based on the studies carried out, Chinese operators tend to transfer several elements wherever they implement SEZs. In particular, the research sought to understand to what extent China (Liaoning Province players) transfers its SEZ model and planning practices to Uganda. The hypothesis that was tested in this research is that in each project of this sort, there are different elements that are transferred from the implementing/investor country to the host country. The Elements of Analysis studied within this research included: the institutional set-up, spatial characteristics, building typologies, hinterland development models, and the economic features of the project.

The case studies – China-German Equipment Manufacturing Industrial Park in Liaoning, The Dalian Free Trade Zone in Liaoning, and the Liao Shen Industrial Park in Kapeeka, Uganda – revealed various elements transferred based on the specificities of the host countries. The research through the analysis carried out on the case studies in Liaoning Province and in Uganda revealed that while a number of elements are transferred, several changes and adaptions take place to better suit the

policies of the host country. While China may not have transferred the exact SEZ model in its entirety, the process of adaptation and implementation implied great steps in development for Uganda, with an increased match between the original model and the culture and identity of the country.

The systematic analysis revealed that China indeed does transfer these elements and other sub elements to developing host countries. I now turn to a brief comment regarding each element.

5.1.1. Institutional Set-up

The administration and management of an industrial park is key to its success. The methods of administration as well as partnership are transferred from China to Uganda to a greater extent. This includes a transfer of organisational hierarchy, power, enterprises, businesses and products, advanced production technology and management experience from Liaoning to Uganda. This transfer takes the form of technical assistance, trainings as seen in the research institutes China has continued to implement in Uganda, as well as educating a large number of Ugandans through the scholarship grants given from the Chinese Ministry of Finance and Commerce. This transfer is also seen in the mimicking of administration systems from China to Uganda through the establishment of administrative committees and bureaus to run the park, as well professional Liaoning businessmen and companies overseeing the management of the park. Furthermore, we see a large number of Liaoning businesses and enterprises transferred as the zone users within the Liao Shen Industrial Park. These constitute a higher percentage of the zone users than local businesses and enterprises. This is due to the enhanced encouragement from the Ugandan government inviting these enterprises.

However, the particular aspect of land administration systems cannot be transferred as these are already complex legal arrangements in place in Uganda, and in most African countries for that matter. While in China, land ownership by the State guarantees fast track development, in Uganda, since the Ugandan constitution recognises customary, freehold, mailo and leasehold tenure systems of land ownership, the private ownership of land both by individuals and by the cultural dominions in the different municipalities plays against the process of development due to various issues like land wrangles and distribution.

5.1.2. Spatial Characteristics

The transfer of spatial design concepts and models from China to Uganda is to a great extent seen in the naming system, planning structure, and backbone strategies of design from China to Uganda. Some of these transfers are not physically visible and are narrative or suggestive. The naming system for example is an important transfer because the Chinese way of naming a project or strategy is unique and key to project implementation and communication of the presence of Chinese players. We therefore see the use of numbers to divide the different elements of the design (one can mention the example of the Chinese "One Belt One Road" initiative at the global scale). In the case of the Liao Shen Industrial Park, the transfer implies the spatial design as planned and structured by Chinese firms and constructed by Chinese contractors. The main design strategy structure following that seen in the Liaoning zones – functions of the zone are divided into subsets of each other – 'one belt', 'two centres', 'multiple axes', and 'multiple nodes'. The modularisation of plans and flexibility of plot sizes is a planning concept that is transferred into the design of the Liao Shen industrial park.

Furthermore, the spatial layout of the Liao Shen industrial park follows the implementation of a tying element in the design that is often regarded as the backbone. For the China-German Industrial Park, it is the Xihe River which acts as a continuous public open space and forms a public service axis that runs through east and west of the site; for the Dalian Free Trade Zone, it is the free trade zone area in itself which lies between the north and south of the zone tying in the various functions; and the 'one belt' for the Liao Shen Industrial Park that is a new road going through the centre of the site connecting it to the main existing road and is where the rest of the functions stem from. However, how the park or zone expands and morphs from the structure is entirely dependent on the context of the country within which the zone is implemented. Also, the speed with which this happens is dependent on the bureaucracies of the system in the country. These aspects are determinant in understanding the process of transfer and adaptation.

5.1.3. Building Typologies

The transfer of building typologies from China to Uganda thus happens to a much lesser extent than the other elements. This is because of the context of and the availability of construction materials and techniques. Some adjustments are made, and a more contextualised building outcome is achieved. For the case of the Liao Sen Industrial park in Uganda, the original design of the main administrative buildings is designed based on the Chinese architectural style with strong use of

cement and block buildings. However, the final building is representative of the building style in Uganda with the use of readily available clay bricks and corrugate steel sheets.

However, the construction techniques and contractors are brought in from China. So even though it does not eventually look Chinese-designed, it is built by contractors from China – case in point is the Liao Shen Industrial Park administration block.

5.1.4. Hinterland Development

The SEZ and its surrounding areas are important in enhancing the local economy of the city or district and generally improve its ability to absorb modern technology and foreign investment. As evidenced in the research, the SEZs in Liaoning and China expand well past their development boundaries and spread further into the city and region they are implemented in. This can be seen in the fast track development of the Shenzhen SEZ area into an industrial city, as well as the Dalian Free Trade Zone area that is now the core function area of Northeast Asia and an influential international energy port. Both regions eventually became economically comprehensive regions in China. However, this model of development is not easily transferred to Uganda due to issues like land administration systems that hinder the quick development of some of the areas around the park. Whereas in China, the government can easily transfer land into zone development management, the same cannot be done in Uganda.

This does not imply that the city in which the Liao Shen Industrial park is located, and its surrounding areas have not been positively affected. The continued development of the regions is as a result of the ripple effects brought about by bringing business into a previously stunted town. The outer areas of Kapeeka town benefit from this development especially seeing as there was an immediate rise in job opportunities for the youth in the area as well as an increase in the productivity of other sectors like the agriculture and housing sector with the rise in population. This further resulted into a rise in population in the town and thus a boom in the housing sector to house the newcomers. The economy of Kapeeka town has been boosted substantially due to the developments brought about by the park and the park itself. Furthermore, we do see the spread of implementation of new SEZs across Uganda as a country with different Chinese Provinces.

5.1.5. Economic Features

The transfer of economic features is seen to a greater extent through a transfer of financial systems and investments from Liaoning to Uganda to implement the industrial park in the form of budget support, emergency relief assistance and grants from partner banks like the Export–Import Bank of China which is chartered to solely implement state policies in industry, foreign trade, economy, and foreign aid to other developing countries, and provide policy financial support so as to promote the export of Chinese products and services. The transfer of money from China is done with the consent of the Ministry of Commerce in the Liaoning province as well as the Chinese government. Furthermore, the Chinese Government encourages and supports Chinese enterprises' investment and business in Uganda and provides preferential loans and buyer credits to the Chinese entrepreneurs interested in investing in Uganda. The Zhongda and Zhang Group are the main management investors from Liaoning and oversee the running of the park, their total investments accounted to USD 600 million over a five-year period.

There is also a transfer of natural resources from Uganda to China to compensate or begin to pay back the loans received. These resources include oil reserves that were recently discovered in Western Uganda. The issue with some of these barter deals is that they do not include any guarantee of the actual value countries would get in exchange for China accessing valuable minerals (Dahir, 2019). Uganda’s recent oil discoveries in the Western part of the country have been taken on by Chinese oil companies aiding the extraction of oil.

Whereas the elements of analysis studied in this research offer some answers on how these transfers are done from China to Uganda and to what extent these transfers happen, it does not go without saying that there are other aspects that are transferred. These include and are not limited to social and cultural exchanges, political preferences and support, ideologies, and others. Further studies can be carried out to understand how these spheres are transferred and influence the culture in Uganda.

5.2. Is there a way forward for the sustainable implementation of SEZs in African countries?

5.2.1. Importance of Sustainability

Special Economic Zones over the years have been known to affect the growth of regions and municipalities through the growth of production, employment and exports, an increase in foreign direct investments and a transfer of knowledge and new technologies, all resulting in the acceleration of economic growth of the region. However, according to Ślusarczyk & Grondys (2018), in order to make the activity of SEZs and their further development possible and acceptable, activities undertaken in these areas should be consistent with the concept of sustainable development. Therefore, in addition to the leading economic benefits in the development of municipalities social and environmental benefits should also be expected. The activity of the entities investing in SEZs certainly arouses some doubts as to their involvement in the search for balance between the three pillars of sustainable development – economic, social, and environmental.

With many developing countries within Africa aiming to implement more and more SEZs to boost the industrialisation era, it is of essence to do so in a sustainable manner. The estimation of sustainable development of a region consists of two levels: coordination and development, which are determined by the indicators of the economic, social, and environmental sub-system. All decisions concerning the development of the region should, therefore, be economically efficient, socially accepted and environmentally friendly (Ślusarczyk & Grondys 2018). These three spheres of sustainability are fundamental in the successful development of the region or country as a whole. On the one hand, the economy should efficiently utilize raw materials drawn from the environment, to ensure sufficient resources for current and future generations. On the other hand, social well-being relies on a social and spatial distribution of economic and environmental resources that is fair and just, as well as systems of governance that are inclusive of all residents. Individual freedom and opportunity are also important components and precursors of social well-being. The environment is critical in providing natural resources, the capacity for waste assimilation, and links between people and the natural world. If adequate functioning ceases within any of these three spheres, developments within regions can quickly deteriorate, resulting in population loss, poverty, social conflict, and elevated levels of not only economic deterioration but also environmental health problems. How can developing countries therefore sustainably implement Special Economic Zones within these three spheres of sustainability?

5.2.2. Economic Sustainability and the connection to the local

In this context, particular attention should be drawn to the economic growth of regions, stimulated by support in the form of public aid or investments within the framework of the functioning of SEZs, which plays an important role already at the level of local communities living in municipalities. As this research has detailed, the influence that foreign investors have on the implementation of these SEZs is key. For the case of Africa, the largest percentage of these investments are coming from the Chinese State Council through the various Provinces within China. China's SEZ development featuring a "going global" strategy is a logical extension of China's cumulative strength and experience in building and running SEZs at home. China's global SEZ development provides new development opportunities for countries that are relatively new to SEZs. These countries can learn useful lessons from China's uneven success with SEZs that may or may not transfer to other contexts (Chen, 2019).

For an SEZ to become economically sustainable, it should succeed in boosting the foreign direct investment into the country, high percentages in GDP growth, increased employment opportunities thus higher disposable incomes, this all leads to the fuelling of a growing and resilient economy. As evidenced in the research and also from China's success story, economically sustainable SEZs can also generate positive externalities on firms, inside and outside zones, through several channels. This has the potential to increase aggregate productivity. Soft policies, such as linking zone investors with local suppliers or promoting trainings on the job, can help maximise the local benefits of SEZs for the host economy. It is therefore important for host countries benefiting from these investments to ensure that the economies are not entirely dependent on foreign aid but can be resilient enough to stand on their own. This has been the case for the vast majority of SEZs in China as seen in the fast track development of the country. Several underperforming zones around the world have unsuccessfully pursued this strategy, especially in sub-Saharan Africa. The Chinese planning and implementation of SEZs across Africa has strived to achieve that which China had once before.

However, Davies (2015) argues that the rapidity and scale of these exchanges between Africa and China over the past decade and a half – through multi-billion dollar transactions and political summits – has resulted in an African drive towards China's commercial sphere of influence. This trend has been accelerated by the (Western) financial and economic crisis, with African economies reorienting towards the emerging rather than the mature capitalist world. And even more so, the success of SEZ programmes in China is unlikely to deliver the same impact everywhere. One of the main underlying reasons for this, as uncovered in this research, is the fact that in China, the public ownership of

urban land and the aggressive conversion of rural land from communal to public ownership, in conjunction with a powerful developmentally-oriented state, has allowed the government to quickly build massive industrial (factory zones) and transport (roads and railways) infrastructure on huge swathes of land within, around, and between municipal boundaries and thus quicken the economic development of the region (Chen and Huang, 2016). In Africa where land ownership is mostly privatised, government is generally weak and economic development is primarily based on an extensive informal sector, it is an entirely different proposition and process to secure large and connected lands on which to build infrastructure. Even more so, some land systems are still based on cultural systems; owned by kingdoms and chiefdoms that may not necessarily adhere to the government rules and regulations.

What can thus be done to ensure economic viability of an SEZ development project? A good start can be with shifting policy tools and focus to what is inherently unique to the region or country in question. This can be done, as suggested by Alexianu, Saab, Teachout & Khandelwal, (2019), through the adoption of a country-specific approach to SEZ policy and assessment to determine whether a SEZ initiative is appropriate or not. Governments should ensure that zones do not become isolated islands that do not contribute to the economy or are not linked to the surrounding regions. Instead, they should produce benefits for the economy at large. SEZs can serve as a means for policy experimentation to test reforms and measure their impact before being scaled to the rest of the economy. This research adds to the international debate as an insight into the process of transferring transnationally and adapting locally certain elements, including economic ones.

Furthermore, it falls on the onus of host countries to assess the effect of such policies, and more broadly whether SEZs have achieved their objectives through Monitoring and Evaluation (M&E) programmes. Effective Monitoring and Evaluation (M&E) should be a crucial component of SEZ policy, particularly if zones are used as policy laboratories. To effectively manage zones and learn about and improve SEZ regulations, policymakers should set up rigorous M&E systems. These systems should be run by the host governments that way the investor operations can be analysed and studied. This can allow policymakers to use SEZs as a testing ground for economic policies and identify those that work before rolling them out more widely.

Zones need to build on local comparative advantages and have local suppliers as part of their value chains. In many countries, especially in Africa, zones are often criticized for being an “enclave” without much linkage with the local economy (Zeng, 2015). To eventually fully benefit from the zone

programs, governments and zone management needs to consider the local comparative advantages in identifying the priority sectors and try to help the local firms to link with investors in the zones through supply chains or sub-contracting. As evidenced in China, most zones are well plugged in the existing local clusters, so the zones and local clusters reinforce each other through business linkages. Zeng (2015) goes on to argue that Chinese zones also encourage foreign investors to establish joint ventures with local counterparts. In Taiwan, China, and the Republic of Korea, governments also encourage the backward linkages through technical assistance and other policy interventions. The Mashan Free Zone in the Republic of Korea is a good example in this regard.

While the future of SEZ development in developing countries is somewhat uncertain, there is no doubt that a conscious and keen effort to steer the economies of these countries sustainably is necessary. However, the economy does not function on its own, the SEZ development further influences the social and environment spheres. These should not be viewed as separate from the economic sphere.

5.2.3. Social Sustainability, Skill Development and Local Communities

Social sustainability entails the promotion of the well-being of individuals in society whilst also supporting the ability of future generations maintain this well-being. There should be a good balance between the SEZ development and the social development of residents living within the region. Governments and zone management should be able to identify and manage the impacts of the SEZ development, whether positive or negative, on people. This engagement and building of relationships are critical to the success of the zone because the people are the system that input into the zone as well as the customers and supporters. These SEZ programmes should seek to recognise the value of the skilled and non-skilled workers and provide the necessary social infrastructure for such workers to thrive. For this reason, SEZ development projects should be part of the broader urban development agenda and furthermore should be included in urban master planning from early on to ensure good integration between the zone and the city in terms of social services.

Good social infrastructure systems could include the continued training of both skilled and unskilled labour to enhance the technical and management capabilities of the community. The training of local employees can also help improve cross-cultural understanding, safeguard labour rights, establish harmonious labour relations, and improve the welfare, safety, and compensation systems of local

employees. At the same time, such training opportunities help local employees understand the corporate culture of Chinese and other foreign companies (UNDP, 2019). This is something China has been keen on whilst implementing SEZs across Africa. For example, the training facilities started in Uganda have trained a large number of youth and thus boosted the employment curve for the population. For this to be a continually efficient system, it is crucial that monitoring and evaluation tools as mentioned earlier are put in place to ensure this. Even more so, governments should ensure that all gender have the right access to technical education and vocational training from the very start of the implementation process.

Due to the expansion of the SEZ model to incorporate a variety of activities including process information, financial services and logistics, the gender dimension of employment in the zones is likely to be affected. This is crucial to the social sustainability of the zone and to ensure this it is necessary to allow for balanced gender employment opportunities – in the form of hiring and benefits, career development, working hours, and flexibility of employment, good wages and good working conditions. "*Given that zones cover a limited geographic area and generally are governed by a centralized zone authority, they can be used to spearhead innovative labour reforms that can serve as models for the rest of the country"* (Farole & Akinci, 2011; p. 270). In general, the rights of all workers should be protected, including the freedom for workers to bargain, or encouraged to organise labour unions that fight for these rights.

On the other end of the spectrum, as uncovered in the research, SEZs ought to have strong channels of communication with the local communities and the village or district level authorities as these hold the most influence over the people in the region. While Chinese developers have always relied on the ability of the African host governments to arrange the delivery of unencumbered land, this has not always been the case or gone as smoothly as anticipated. These local authorities are important in easing the acquisition of this land and ensuring the adequate compensation of the community for the loss of their land or facilitate the resettlement of displaced families and people in equivalent circumstances where necessary. The relations with the local authorities also aid in promoting the image of the SEZ to the community and boosting the awareness of the advantages the SEZ brings to the region so that the people in the community are supportive of the management team implementing the SEZ development. It is therefore important for SEZs projects to be actively involved in community development projects as well as continuously involve the community in the construction process updates. This was the case in the implementation of the Nigeria Lekki Free trade

Zone, where villagers were reluctant to agree to the building of the zone and thus protested vehemently to the development by the Chinese company. The zone developers, as a retaliation strategy, hired local residents as security guards and according to various reports, the local communities were given a share (5%) of the equity on the Nigerian side (Brautigam & Xiaoyang, 2011). This could not have been possible without the help of the local authorities working together with the zone developers.

The “One Belt and One Road” Initiative has strategized to build people-to-people ties to create ‘win-win’ situations for the host economy as well as for themselves especially through elevating the social standards. The aim to create good social interactions within and outside the zone helps to attract hardworking employees and avoid conflicts with the local communities (UNDP, 2019). SEZ projects should therefore strive to foster cross-cultural understanding between the international management teams and the local employees through mediation and transparency. The transfer of cultures should be two-sided to allow for the mutual respect and understanding of both countries, this will also bridge the language barrier gap that many of these developments face.

Furthermore, SEZ projects are not dependant on just the development boundary and the activities within the development area as seen. It is imperative for these projects from the on-set to plan for the inclusion of adequate social and spatial setting such as recreational places and parks, medical facilities, housing for workers, restaurants and cafeterias, banks and postal services, and so on. The proper functioning of the zone and the social infrastructure surrounding it attracts high profile companies and foreign direct investment into the region (UNDP, 2019). Even though the upfront costs are high for the developer, good social infrastructure presents long-term advantages for the developer through a diversified income stream, boosting economic growth and a good social culture in the community.

Whilst the social and economic spheres of sustainability are intricately intertwined, each sphere influences the other. This is the same for the environment. Perhaps without the social and environmental setting, SEZs could not function efficiently at all.

5.2.4. Environmental Sustainability and Efficient Park Management

Environmental sustainability focuses on the protection of the environment whilst interacting with it to meet the current demands as well as the needs of the future. SEZ projects should aim to protect the environment in all its activities especially since a lot of industrial activities take place within these zones that may be harmful to the environment. Each zone should have the basic requirement of an environmental impact assessment and certification from the host authorities well before the onset of the project implementation. *"Some zones have been criticized as promoting "dirty" industries and failing to meet environmental standards. SEZs, however, offer an ideal environment for environmental policy experimentation, not only because of their enclave nature but also because they have built-in compliance mechanisms that normally do not exist outside the zones, such as the ability to issue licenses, to monitor firms in a short time frame, and ultimately to revoke a license, terminate a lease, or impound containers. This context could offer interesting opportunities particular to innovations in both social and environmental policy"* (Farole & Akinci, 2011; p.18).

However, the development of SEZs in countries like China has come at a risk of environmental degradation due to the rapid industrialisation process. Whereas in the early implementation of SEZs, less attention was paid to environmental protection to pursue high GDP growth, today the Chinese government spends a large sum of money to clean up the environment and pay up for the mistakes of the past. Most African countries are late comers in SEZ development and can thus adopt strict measures to protect the environment learning from the mishaps performed elsewhere. Even more so, substantial efforts and resources towards environmental sustainability by putting in place environmental management systems and ensuring compliance with local environmental laws and standards is crucial to the successful implementation of the SEZ.

Moving forward, surveys have shown that the vast majority of SEZ management teams involve full-time professional teams in charge of environmental aspects. In other cases, host countries acquire third-party agencies to ensure the efficient management of environmental systems. An environmental management system is a tool used to manage the impact of a company's activities on the environment. Environmental system policies should be an integral part of the SEZ masterplan as environmental aspects are most effectively and efficiently addressed from the outset (UNDP, 2019). These policies and systems should undergo careful monitoring and evaluation as well as updating over the years to ensure that the activities are as per international environment protection standards.

On the other hand, whilst protecting the environment is crucial, it is also important not to underestimate the high energy consumption of SEZ development in the form of lighting, heating and cooling of zone facilities, transportation of workers and goods, and more so the high amount of electricity required to power the industrial process. Energy efficiency should therefore also be high on the agenda of zone management, this can be done through the identification of profitable and alternative energy efficiency measures. Most of these measures already come with support from international organisations like the United Nations Industrial Development Organisation through providing assessments and recommendations to companies free of charge with options of improvements for process and technological upgrading (UNDP; 2019). These organisations are surely beneficial to developing countries as they can help to halt the mistakes done in the past.

The choice of energy consumption is important so as to reduce the impact on the environmental footprint of the SEZ development. The emission of greenhouse gases is common in such developments due to the type of energy used and cause air pollution which leads to the degradation of the environment. Energy efficiency therefore should entail the use of clean and ideally renewable energy sources for example, from solar photovoltaic panels or waste heat recovery (many industrial processes produce a significant amount of heat that goes unused, this heat can be recovered and used to reduce the external energy demand).

Another important aspect of ensuring the sustainability of the environment is the water and waste management. Many developing countries are experiencing increasing water stress, which is likely to intensify as a result of climate change and population growth in the coming years (UNDP, 2019). Secure access to water is a key requirement for the successful operation of SEZs, in particular for zones focusing on the agricultural, leather, paper and garment and textile industries, for example the Liao Shen Industrial Park in Uganda. Water security can be greatly improved by ensuring the efficient use of water, reusing water, recycling wastewater and harvesting rainwater. Waste management, on the other hand, should be guided by waste prevention, waste reduction, reuse and recycling of materials, and the proper disposal of remaining waste. As most of the zone waste will be generated by companies within the zone area, the zone management operator should ensure that waste management responsibilities are part of any tenant agreement. The Liao Shen Industrial Park incorporates the ecological wetland landscape going through the site as a rainwater management tool with a drainage system running through east and west of the park (USLIP, 2018). The park also

promotes the comprehensive utilisation of rainwater and wastewater on site, with a sewage treatment plant on the eastern part of the site.

The effective management of the environment is key for SEZ developers, putting them ahead of the curve as environmental regulations are tightening across the globe. For the case of developing countries in Africa, SEZ development can be sustainably sound with the cooperation of foreign investors as well as the host governments. China being the leading SEZ implementor across Africa has a major role to play in ensuring each zone development is economically efficient, socially efficient, and environmentally efficient.

5.3. Perspectives on China's Changing Role in Urban Development in Africa

5.3.1. China's Development Strategy in Africa

In 1978, China was among the poorest countries in the world. Since then, China's real per capita income has grown, on average, by more than 8 percent each year – which is a striking level of growth. In contrast, per capita income in Africa fell consistently between 1976 and the mid-1990s. Since then, Africa has experienced consistent growth, but that growth has been very heterogeneous across countries, with countries rich in natural resources growing much faster than those without (Diop, 2015). It is evident that China's development story continues to inspire the same level of development in Africa, but it is crucial to understand that it is of no guarantee that this is possible without the aid of China. Prospects for Africa's growth level are increasing substantially, lifted majorly first by infrastructure investment, increased agricultural output, and an expanding services sector. This growth is closely linked to the commodities boom – growth in China and the emergence of China as one of Africa's main trade and investment partners – as well as the surge in cross-border financial flows.

The boom of infrastructure investment in Africa has steered the growth curve for urban development and this has been spearheaded by a large majority of Chinese companies. In his paper "Is China actually helping improve debt sustainability in Africa?" Reisen (2007) notes that, "*there rarely has been such rapid and intense investment in African infrastructure as is going on today"* (Reisen, 2007: p.8; cited in Allawi & Changfeng, 2018), thanks to Chinese investments in Africa's infrastructure sector. And as a result, we have seen the development of many infrastructure projects like the famous Tan-Zam Railway in Zambia, East Africa's Standard Gauge Railway, Roads, highways, Stadiums, parliamentary buildings, state houses, electricity dams and powerplants, bridges, and so on. Indeed, China's investments in Africa's infrastructure sector cannot be matched with any other development partners. These investments in infrastructure projects are more of a mix of government initiatives on a provincial level and the endeavours of private enterprises and individuals. China is a heterogenous grouping of various collective actors, i.e. the government, provinces, state enterprises, private enterprises, and the public in general. To this extent, the interests among the various actors within each sector might well differ. For example, the foreign ministry may be keen to develop better political alliances with African states, while the ministry of commerce is trying its best to secure raw materials and develop markets in Africa (Guerrero, Manji & Manji, 2008).

That said, it is evident the China's footprint in Africa will continue to soar and flourish, and this now goes beyond the infrastructure sector into other sectors of influence in host governments across Africa. The agricultural and industrial sectors have been an important target in recent years for Chinese investors seeking to transfer China's success story. The implementation of Chinese SEZs across Africa under the "One Belt One Road" initiative is one of the major strategies for China to spread its influence and transfer SEZ development models and, over the years, African policymakers and governments that have sought to mimic the path China took have encouraged and indulged the foreign direct investment into SEZ development. The direct translation of this model to Africa is a complex process as evidenced in this research, that must be tackled carefully by both parties. However, as China's strategy towards Africa matures, so too must Africa's strategy towards China. Beijing is no longer just an actor in Africa's resources sector but is broadening the scope of its commercial foray into the continent. African governments need to respond accordingly and be more agile in their policymaking against China's engagement (Davies, 2015).

5.3.2. Africa's Reception of Chinese Aid

"*A fact unpalatable to traditional donors and lenders in Africa is that it is their own unbending insistence on destructive neoliberal policy reforms and dismal track records in alleviating poverty that have rendered China a welcome alternative source of development capital among many developing African countries*" (Guerrero, Manji & Manji, 2008, p.26). African governments and leaders are more inclined to Chinese aid and investment packages because, unlike other international donors and investors, China is committed to providing public goods and social services such as hospitals, schools, public buildings; as well as offer technical assistance in building human resources through training civil servants, doctors, etc. This is inherent in its aid policies. Through this, there is a high number of African students receiving education in Chinese institutions and learning the Chinese language. This culminates into a transfer of not just aid, but also knowledge and culture. China's willingness to invest in, build and upgrade physical infrastructure such as roads, ports, and highways serves their economic interests as well since they provide contracts for Chinese firms, employment for Chinese labour and procurement of Chinese equipment and materials. Either way, China's win-win strategy is attractive for many African governments that are simply fed up with jumping through endless hoops for aid and credits from traditional donors that are slow to arrive and conditioned on the adoption of a failed government model (Guerrero, Manji & Manji, 2008). While China continues to play an important role

in the development of many African countries like Uganda, it goes without saying that it is important how the host governments receive this aid. For example, the Uganda government with the implementation of the Liao Shen Industrial Park has sought to support the transfer of the advanced technology and the training of local employees so as to be able to improve the skillset and knowledge of the local labour force.

Encouraged by China's high-profile outward investment policies and programmes, including the 'One Belt One Road' Initiative, Uganda's politicians and technocrats have warmly welcomed and encouraged Chinese investment in their economy (Mayers & Barungi, 2019). However, to hold Chinese companies accountable, Ugandan government agencies, with support from NGOs, are required to share information about these investments and introduce stronger regulation — to uphold community rights. In turn, Chinese companies must be more transparent, responsible, and legally compliant. With a proactive and accountable strategy for Chinese investment management, Uganda could make major gains for sustainable development. This is an important first step towards ensuring a true 'win-win' situation.

While the success of China's development offers an alluring promise that African countries want to mimic, to copy or transfer development models is a complex process and does not always pan out in the exact way. African countries should not depend on copying the success stories of other developed countries. Rather, there should be a need to create the conditions to define their own growth path, based on their own history, culture and institutions. According to Diop (2015), various models for structural transformation, as offered by different groups of academics, will need to be adapted to Africa's unique circumstances and the conditions in subsets of African countries. Of course, there is not any single approach that can be suitable for the entire continent. Often the question is asked as to which model Africa should adopt. One might answer: "the African Model", or more precisely, "the African Models". The importance of such self-reliance is well-expressed by a wisely quoted leader: "*We hope for foreign aid but cannot be dependent on it. We depend on our own efforts, and on the creative powers of our entire people*" (Diop, 2015, para. 42). Against this backdrop, one can assume that the sustainable future urban development of Africa will depend on the acknowledgement of the various African contexts, whilst, also embracing the notion that investments from China or other investors, public or private, will propel this development forward.

5.4. Transferring and adapting SEZ elements between China and Africa

The research, through the analysis carried out on the case studies in Liaoning Province and in Uganda, revealed that the transfer of various elements; institutional set-ups, spatial characteristics, building typologies, hinterland development, and economic features happens to a certain extent as detailed in the research. While a number of elements are transferred, a lot of changes and adaptations take place to better suit the policies of the host country. Even though China does not transfer the exact SEZ model in its entirety, there are great steps in development for Uganda. The most vastly transferred is the institutional set-up of the SEZ model from China to Uganda - this is attributed to the administrative nature of the Chinese model in Uganda where the main actors involved at the different stages are from China and thus have higher stakes in the administrative systems of the SEZ.

The complex nature of the transfers is understood from opinions of the implementors of the SEZ and various underlying factors are recognised. These underlying factors include the vast difference in the policies and laws of the host countries, complicated laws and environment of host countries, developing nature of host economies, intense pressure from investments made by enterprises entering the park and also a lack of a platform between the host and implementor to service the demands of both sides.

However, the success of the SEZ model in the implementation of the Liao Shen Industrial Park in Uganda is evident in the growing development of the region in which it is located. The increase in population and housing in the region is as a direct result of an increase in employment opportunities offered by the park. To date, there are still various Liaoning industries seeking entry into the park as zone users and thus transfer more investments into the region. The Ugandan government, on the other hand, while continuing to search and vie for foreign investments, has a responsibility to ensure the effective integration of the local economy and the ability to fully incorporate the skills, technology and resources transferred.

In general, the same goes for other African countries partnering with China. Africa as a continent stand to acquire more development as the Chinese investments in SEZ, infrastructure and other sectors continue to increase. These investors must be keen on not just transferring the China model but also seek to incorporate the already existing models and factors unique to each country and place without defying the natural resources, disrupting social ties, and undervaluing local cultures.

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APPENDIX

Appendix 1: Interview Transcription

Question 1: To what extent does China transfer its industrial park model in implementing the Liao Shen industrial park?

Answer:

From a historical view, the industrial park and industrial park business model are the main achievement of China's 'reform and opening up' experience. China has established various models of industrial parks and activated the energy of Chinese and foreign companies by simulating a more realistic international market environment, thereby providing China economic development and impetus. The overseas industrial parks are evangelists of China's economic growth experience in the world. Many developing countries have seen that they are trying to boost the economy by imitating China's Industrial park model.

For Uganda, Liao Shen Industrial park is not only simply transferring the successful experience of China but combined some of China's successful experience of industrial parks suitable for Uganda. This is mainly reflected in the following aspects according to the actual situation of Uganda's infrastructure, economic environment, national geographic location, product resources and so on.

This is mainly reflected by following aspects:

- *Industrial park management - Liao Shen Industrial Park have not only a Chinese management team, but also local employees' team who have taken on very important responsibilities. The local team played an important role in park management and communication with local ministries.*
- *Focus on local market demand - In terms of local market demand, Liao Shen Industrial Park attracted investment according to the demand of Uganda and African market. For example, most countries in Africa are booming, and the demand for building materials such as floor tiles and sanitary wares is increasing. However, there is no building materials industry in Uganda to match the huge demand. According to the characteristics of the market, Liao Shen Industrial Park introduced enterprises of building material industry, such as, Goodwill ceramics, Huahui International and other enterprises. And the rapid development of Goodwill ceramics after*

entering the park has enriched the categories of floor tiles in the local market, reduced the price and made the national people benefit.

- *Focus on utility of local resources - Uganda is an important producer of fruits and food crops, therefore the Liao Shen industrial park have introduced businesses such as HO&MU and GAGA food. HO&MU processes and sells Uganda's high-quality mangoes to China and other countries. It makes Uganda's products value-added and improves Uganda's popularity in the world.*

Question 2: How complex is the process of transferring and adapting the industrial park model from China to Uganda?

Answer:

In China, the process of Industrial park development model includes three phases:

- *In the first phase, the infrastructure of the park will be built, and investment will be attracted at the same time,*
- *In the second phase, after the completion of the park's infrastructure, various industrial enterprises begin to settle in,*
- *In the third phase, there are enough enterprises settled in the park. Commercial houses, shopping malls, hotels, schools, and theatrical performance venues begin to gather.*

In these three phases of the development of the Industrial park, the funds invested by the enterprises have promoted the economic growth of the area where the park is located and promoted the local employment. A new modern city with people living and working in peace stands on this land.

The strategic development plan of Liao Shen industrial park generally follows this development model of China's industrial park. It is important to be careful because the transfer process involves many parties, and each has an important role to play. In the process of industrial park development, the Uganda government has given strong support. For example, through the land policy, tax policy, etc. In order to promote the rapid development of the Industrial park, roads, electricity and other infrastructure in Uganda need to be improved. In this regard, the management team of Liao Shen Industrial Park communicated with relevant Ugandan ministries and received relevant support. For example, the state provides132 KVA special line circuit, park water and other support.

Question 3: What challenges have you faced while implementing the Liao Shen Industrial Park in Kapeeka, Uganda?

Answer:

For Uganda, the industrial park model is still a new business model, and there is no relevant guidance policy at the national level to guide and support the development of the industrial park. Liao Shen Industrial Park, as the first industrial park to introduce China's industrial park model, has been greatly supported by the state and government departments of Uganda in the development process, however, during the development of Liao Shen Industrial park, it has encountered some challenges.

There are two outstanding challenges:

- *Lack of efficient state's support policies for industrial parks, which need to be improved in practice. For example, there are some supporting policies in the tax law of Uganda for the establishment and development of industrial parks. But these policies are also given to enterprises outside the industrial park. This makes these enterprises who do not have the same overall planning and operation ability as the Industrial Park "take the free ride of the Industrial Park policy". Although such "free rider" behaviour will benefit individual enterprises, it will damage the interests of national consolidation and seriously damage the interests of industrial park enterprises.*
- *Relatively weak national infrastructure: To develop parks and enterprises, infrastructure such as road power is an essential hardware support. At present, the roads from the industrial park to the capital and other areas are in poor condition, the power is unstable, and the cost is still high, which restricts the overall development of the industrial park.*

In view of these challenges, the management team of Liao Shen Industrial park has been communicating with relevant government departments and expects to gradually improve.

Appendix 2: List of tables

Appendix 3: List of figures