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Special Economic Zones (SEZs): A Comparative Analysis for CPEC SEZs in Pakistan

Muhammad Muzammil Zia[1] and Shujaa Waqar[2]

Abstract

Special economic zones (SEZs) around the world are normally established with the aim of achieving various policy objectives: to attract foreign direct investment (FDI), to generate employment, and to be experimental with economic reforms via zone-exclusive trade policies. Pakistan has already signed Memorandums of Understanding (MOUs) for an upward of nine SEZs throughout the country in collaboration with China under the China-Pakistan Economic Corridor (CPEC) program. The purpose of this study is the assessment of socio-economic impacts of various SEZs in diverse regions via comparative analysis. We especially focused on those SEZs that are similar to Pakistan in regard to the economic profiles of the respective states. Moreover, we particularly observed the literature on FDI phenomenon in this perspective to assess the extent to which the SEZs have helped improve the socio-economic outcomes in the vicinity of the local communities surrounding such zones and hence, brought about broad-based economic development there. In the present study, SEZs that have proved to be poor in regard to export volume, ameliorating of the domestic labour force's technical skills and overall inefficiency (such as those in Africa) are stacked up against those that have performed with high levels of productivity and viable economic gains such as those found within China, Bangladesh, and the ASEAN member states in order to decipher the common features of SEZs that enable them to be more effective in the long-term. Our analysis indicate that overall, African SEZs have not led to significant job creation or poverty reduction because of failures in implementing proper regulations. However, Asian SEZs on the other hand, have shown many socio-economic benefits. We thus concluded that we can co-opt African experiences with SEZs in order to improve the Asian framework for the same zone-type setup as Pakistan. This will certainly help us out to attain maximum socioeconomic benefits from its own CPEC-oriented SEZs and hence, allow for the development of a basic framework that Pakistani SEZs should adhere in order to avoid the meagre gains seen in failed zones such as those in Africa.

JEL Classification: F16, G18, H54
Key Words - Asian SEZ, Employment, Exports, FDI, Special Economic Zones (SEZ)

Introduction and Background

A mutually acceptable mechanism among the researchers to accumulate and sustain the growth of GDP and to revolutionize the status of "developing" towards developed, is to expand exports by encouraging industrialization to facilitate FDI for export oriented production. To keep this into account, numerous government policies have adequately concentrated in encouraging exports as a tool to improve the productivity and advancement of the overall economy. Among these policies the most considerable strategy which has been widely practiced by a number of countries, is to agglomerate industries and to remove the concept of space-economy by

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transforming industrial process. These agglomerations were first established in Gibraltar and Singapore as early as 1704 and 1819, however, the zone constructed in Ireland during 1959 was acknowledged globally as the first developed zone. These zones were first named as "modern zones". Since then, a variety of economic zone setups holding different policies have been evolved overtime that are subsumed under special economic zones (SEZs)[3]. These zones include free trade zones (FTZs) also known as commercial free zones, export processing zones (EPZs), enterprise zones (EZs), free ports (FPs), single factory EPZ and specialized zones etc.[4] After observing the fruits and benefits of well-developed economic zones, the expansion of these zones exploded in Asia and the Pacific, the Middle East, Africa Latin America and the Caribbean. Among these the zones located in Asia are accounted to be the most dynamic, active and abundant. Despite a widespread development and diversifications in terms of manufacturing process and production (such as electrical and electronic goods, textiles and apparel etc.), the worldwide practice of the zones have been exclusively concentrated on assembly-oriented and labor-intensive activities.

By some estimates, over 3,000 zones are operating in 135 countries, employing almost 68 million workers and steering $500 billion of worth direct trade-related activities[5]. This occurs because the rendering of Special Economic Zones (SEZs) in many developing states is meant to encourage intensive foreign direct investment (FDI) into particular pockets and clusters of state's industry. This in return stimulates the local government to subsidize various facilities like assuring the provision of uninterrupted electricity, favourable trade and tariff legislation which are only applicable to those goods tendered and produced within SEZs. Similarly, indigenously-provided labour and viable transportation networks for the exports of the production are some of the most appealing tasks and benefits of SEZs, Pakdeenurit et al. (2014). Such zones are meant to complement existing commercial activity within a particular region to increase diversification, render the possibility of value-added commodities, boost employment, and encourage improvements in labour standards by keeping it in line with internationally-set standards as per the origin of the FDI meant for SEZ.

Pakistan has already signed Memorandums of Understanding (MOUs) for an upward of nine SEZs throughout the country in collaboration with China under the China-Pakistan Economic Corridor (CPEC) program, which further falls under One Belt One Road initiative (OBOR), Ali et al. (2017). The flagship component of CPEC funding is the Gwadar port project, which aims to cut shipping times for Chinese commodities drastically via bypassing the Strait of Malacca, which in turn saves almost 10,000 miles worth of ocean routes for Chinese shipment tankers (Appendix-Figure 1). Therefore, the Gwadar port project proves to be one of the most crucial vicinity for the future of Pakistan as compared to any other port regarding energy, transport, and security.

On the other hand, the claimed objectives of the SEZs are subject to a number of reforms in policy framework and its implications. Therefore, the actual performance of most of the SEZs

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[3]As per the Ministry of Commerce SEZ is defined as "A specifically duty free enclave which shall be deemed to be foreign territory for the purpose of trade operations and duties and tariffs"

*[4]**Free Trade Zones** facilitates the investors by providing them fenced-in duty free location with warehouses, storage transshipments and operations regarding re-export. **Export Processing Zones** offers a separate area for those industries which primarily focuses on the foreign markets. It is a reserved area for export-oriented production. **Enterprise Zones** intents to benefit the domestic urban and rural industries by giving them incentives in terms of financial grants and tax holidays. **Single Factory EPZ** provide incentives to the domestic industries by facilitating them regardless of their location and are treated as an industry located in SEZ., **Specialized Zones** mostly encompasses technology and IT parks, airport-based zones and petrochemical areas etc.*

[5]According to the database constructed by FIAS with collaboration of World Economic Processing Zones Association (WEPZA), and International Labor Organization (ILO)

in Asia as measured did not meet the required outcomes. There exists profound examples which highlights the core issues potentially prevailing within the time period of installation and functioning of SEZs, especially, in developing countries. The factors include poor location choice, bureaucratic administrative procedures, insufficient infrastructure investment, labour productivity and the size of domestic market etc., Amirahmadi and Wu (1995)

On these foundations, this particular study aims to assess the exact potential of Pakistani SEZs via a detailed insight especially encompassing the challenges faced by the SEZs operating in many parts of the developing world, namely Africa and Southeast Asia, so that such incidence could be avoided in establishing SEZs in Pakistan.

Literature Review and Theoretical Justification

Two core attractions which signifies the development of SEZs in any country are the exports and FDI. This diverse instrument (SEZ) is simply defined as an industrial enclave which is meant to produce export-oriented products with the assistance and support of FDI. In this process the industries within the vicinity enjoy certain facilities that are not available elsewhere. The literature review on SEZs is quite extensive which includes a bulk of studies analysing the effects of SEZs on different segments of the economy from various dimensions. This study discusses the primary functions of SEZs, its effectiveness and finally its consequences on the economy.

Effectiveness: SEZs, Foreign Direct Investment and Exports

The basic policy framework for any SEZ in the world includes the fiscal and non-fiscal incentives from the host countries. Fiscal incentives include the formulation of legislations and rules aimed to reduce corporate and investment taxes for the industries located in SEZs. Non-fiscal incentives are very limited in practice. These includes provision of trainings to the unskilled labours, compensation on the disadvantages faced by the foreign investors in terms of locality, infrastructure etc. Although fiscal incentives adversely affect the governments as argued by Zee et al. (2002), however these losses are firmly accepted when it assists in attracting foreign investors to develop the domestic economy at an aggregate. Klemm and Parys (2012) documented that longer tax holidays and lower corporate income tax have been observed to attract FDI in case of Latin America and the Caribbean. They argued that tax incentives has little effect on the foreign investors as far as the infrastructure development of the country or region is concerned. In this association, Klemm and Parys (2012) did not report positive effect of tax holidays on the FDI in case of Africa. After treating all the exogenous (infrastructure, location, market size and labour skills) shocks as constant, a large strand of the literature presents viable role of SEZs in attracting FDI. Wang (2103) after analysing 321 Chinese municipalities shows strong positive effects of SEZs on FDI. ADB Bank in its report (ADB 2015) validates the aforementioned study and accounts 50 percent of the national FDI of China through the channel of SEZs in FY-2012. In comparison of other industrial clusters with the SEZs of China, Cheng and Kwan (2000) uses different proxies to evaluate the impact of both types of zones in attracting FDI. The study shows that on average SEZs tend to attract 7 to 8 times more FDI than any other domestic industrial cluster.

Keeping in view the above discussion and concluding that the SEZs tend to attract FDI, a question against the other side of the story arises that does the exports of the host countries increase or remains unaffected? To answer this question, ADB Bank in its report (ADB 2015) signifies noteworthy progressions in the exports of the host countries after the development of SEZs or specifically the inflow of FDI. In this context, the report claims 17 percent share of SEZs in the exports of Bangladesh in FY-2013, 44 percent in China (2012), 11 percent in Korea

(2007), 49 percent in Philippines (2011) and 67 percent in Sri lanka (2007). Similar to the methodology employed by Cheng and Kwan (2000), another study Schminke and Van Biesebroeck (2013) adopted the same analysis and investigated the exports of various science and technological parks located inside these zones versus those located outside. The findings indicated that the firms operating in the SEZs manufacture on quality standards and therefore, tend to export to high-income countries more. Likewise is the findings of Amirahmadi and Wu (1995) regarding the SEZs operating in Asia. It is pertinent to note that nation's foreign policies are considered a crucial driver for accumulating exports. Therefore, same results may not necessarily translate in the economies which lack outward-looking such as the study conducted by Johansson and Nilsson (1997) deriving mixed results for Malaysia and Bangladesh. The study shows Bangladesh to benefit more in terms of exports than Malaysia because of its export oriented policies.

Outcome of SEZs: An Orthodox and Heterodox Analysis

To critically analyse the real benefits of SEZs for any country, two types of analysis are conducted. First the orthodox analysis, second the heterodox analysis. The orthodox approach examines the static economic outcomes. In our case it will be the static outcomes of SEZs. These static economic outcome comprises the generation of direct employment, FDI inflows, economic value-addition and foreign exchange earnings. Hamada (1947) is considered as one of the most pioneer study conducted on SEZs in this regard. The study analysed direct short-term effects of SEZs in the respected localities. This approach is also considered as the second best option after full trade liberalization and full-fledged market reforms. In other words we can simply regard this type of analysis as the direct short-run effects of any development project on a country. The studies encompassing this phenomenon includes, Aggarwal (2010), Baissac (2011), Farole and Akinici (2011) etc.

Whereas the heterodox approach focuses on the dynamic impacts on the economy. This became a prominent approach in late 1980s. In particular, it is based on the endogenous growth theory which intensifies sustainable growth of the overall economy, by reporting the development in human resources, technology, and institutional reforms as the end goal of interacting with foreign countries. According to this concept not only the direct effects should be considered sufficient rather the accumulation of the economy as an aggregate should be concentrated upon. Therefore, creation of job in case of Pakistan is a favourable outcome, however, developing the domestic workers in terms of increasing their absorption capacity is a marvellous and viable initiative for Pakistan. The studies which mainly focuses on this phenomenon include Milberg and Amengual (2008), Agarwal (2010) and Baissac (2011).

Almost every aspect of the debate on SEZs have shared the impression of 'successes'. As the present study strives to analyse the potential benefits and fruits which are attainable for Pakistan. However it is only possible after considering certain restrictions and cautions. There exists a number of cases where such projects/constructions have assisted not more than wasting lands and bringing a common man towards hardships and starvation. On the other hand, by taking into account the reasons of breakdowns and adopting the sense of responsibility after taking certain bold steps can bloom and yield innumerable gains.

Consequences: Pros and Cons of SEZs

Analysing the SEZs functioning in India, Gopalakrishnan (2007), indicated certain complications and negative impacts of SEZs in India by analysing the history of SEZs in China. The study highlighted the negative effect of SEZs by emphasizing the insulation of rest of the areas from this zones and indulging the SEZs in particular, resulting in threatening and shutdown of local industries, hence, hampering the exports and foreign reserves from another

perspective. Second most criticised problem is the speculation and land loss phenomenon. This was argued by Cartier (2002), who provided evidences on the grants and acquisition of hectares of lands, however, developing only half of it, while wasting the other half. O'Brien and Leichenko (2000) argued a prominent adverse effect of such economic zones, particularly referred to as 'climate change', which indicates advantages of opportunities for certain regions or social groups, while leaving the others to absorb the adverse effects or the negative externalities produced by SEZs. Similarly, Farole and Akinici (2011), added a very crucial point that, in the past, SEZs operating and established by the public sectors failed to meet the objectives of SEZs, consequently, several countries revised the regulations in allowing the government to involve in such projects. Currently, 62 percent of the SEZs are either solely managed by the private sectors or are jointly managed by the governments and the private sector.

On the other hand, a list of the benefits and incentives of SEZs can be provided which have been analysed, predicted and practically implemented in a bulk of studies. As SEZs are established to attract FDI, therefore the very first benefit is in terms of the investment from the foreign countries which enhances the GDP growth of the country, hence, generates employment, expands infrastructure and transforms traditional economy towards technological development as documented by Monga (2011), Pakdeenurit et al. (2014) and Amirahmadi and Wu (1995).

Keeping in view the above discussion, the establishment and operation of SEZs should be subject to certain restricted policies in order to attain maximum potentials for the prosperity and development of Pakistan. In line with changing economic structure in developing countries, Pakistan has taken a step ahead in facilitating the foreign and domestic investors through the announcement of the SEZ act first in 2012 and amending it lately in 2016 to make it practical and fruitful.

Insights of Special Economic Zones (SEZs) in Pakistan

An upward of nine total SEZs have been approved far under the auspices of the CPEC infrastructural and energy corridor. These SEZs will utilize specifically designed favourable tariff and tax legislations which will allow an expansion to Pakistan's manufacturing output alongside the CPEC motorways aiding in delivering the final products from this platform. These various zones as proposed in conjunction between the Pakistani and Chinese federal governments are located in Nowshera (KPK), Dhabeji (Sindh), Bostan (Balochistan), Faisalabad (Punjab) Islamabad (Federal), Port Qasim near Karachi (Federal), Mirpur (AJK), Mohmand (FATA) and Monqbondass (Gilgit/Baltistan). The exact locations and industrial cluster niches can be seen in figure 1

Figure 1 SEZs in Pakistan

Source: Prime Minister's Office, Board of Investment (BOI)

Pakistan has experienced the implementation of SEZs in the past, but none at the scale and metrics that CPEC-oriented ones are set to deliver. The Special Economic Zones act was passed by Pakistan's Majlis-e-Shoora (Parliament) in September of 2012, allowing for various incentives in regard to machinery import taxation, in order to establish a framework for combined public-private ownership of ventures within the private sector itself, Federal Government of Pakistan (2012). Such ventures can be conducted on either a state-to-state basis (i.e Pakistan to China) or under the mechanism of the provinces of Pakistan negotiating with China themselves. Various clusters are to be addressed by Pakistani SEZs including, but not limited to information technology, mining processing, and value-added manufacturing. The comparative analysis performed in this paper not only aims to decipher the potential implications of SEZs in Pakistan rather it provides recommendations in safeguarding against the inefficiencies and low output in such ventures. It is pertinent to note here that the following information has been acquired directly from the Prime Minister's Office, Board of Investment (BOI).

The SEZ Act 2012

The SEZ Act 2012 was passed by the Parliament in 2012 and subsequent amendments were made therein in 2016 to make it more business friendly. It was designed attentively to keep the mechanism of SEZ transparent as possible for the genuine investors, from its very registration till the facilities the firms will attain. Therefore it clearly defines the role of the Board of Investment in authorizing any firm to operate in SEZ, explaining the provision of fiscal and non-fiscal incentives by the government of Pakistan and describing the roles and responsibilities of different governing bodies.

1. Role of Board of Investment (BOI) in CPEC SEZs

In the following we have discussed the roles of BOI in regulating CPEC SEZs:

- Secretariat of Board of Approval (BOA) and Approvals Committee
- Co-ordination of all activities pertaining to SEZs, developers and zone enterprises
- Processing zone application(s) submitted by SEZ authorities for consideration of BOA
- Processing applications for additional benefits
- Reviewing development agreements
- Responsible for domestic and international promotion of SEZ
- Facilitating developers and enterprises during the whole business cycle
- BOI will also work as the SEZ Authority for Islamabad Capital Territory

2. Mechanism for SEZ Development

The amendments in the SEZ act 2012 declares that the SEZs can be developed either by the public sector, or the private sector exclusively or it can be on public-private partnership basis (PPP), irrespective of foreign or domestic investors. SEZ Act 2012 provides the authority of establishing SEZ anywhere in the country with minimum 50 acres of land. However, 70 percent of the area should be used for processing while remaining 30 percent should be kept as non-processing area, such as hospitals, residence, vocational training institutes, etc. Moreover, the investors will attain the following fiscal and non-fiscal incentives.

a. Fiscal Incentives

The direct beneficiaries of this incentive has been segregated into two different phases. The first phase comprises the development of SEZs, which in other words is to provide reasonable infrastructure for the investors to invest. While the next phase is relevant with the enterprises initiating their production plants in SEZ. In the following we have collected the information regarding both phases.

For Developers

- One time exemption from all custom duties and taxes on plant and machinery imported into Pakistan for the development, operation and maintenance of the SEZ
- Exemption from all taxes on income accruable in relation to the development and operation of the SEZ for a period of five years, starting from the date of signing of the Development Agreement

For Zone Enterprises

- One time exemption from all custom duties and taxes on imports of plant and machinery into the SEZ for installation therein;
- Exemption from all taxes on income for a period of ten years to units starting production by 30 June 2020 and five years for those doing so after 30th June 2020.

b. Non-fiscal Incentives

As discussed under the literature review that the non-fiscal incentives mostly focuses upon the infrastructure of SEZs or compensation if any damage faced by the firms operating in SEZs therefore the BOI declares that the SEZs will be entertained with the facilities such as gas, electricity and other utilities which will be provided at the zero-point of the zones. In addition captive power generation will be permissible to the developers of the zones. To make all this possible, BOI will provide facilitation services and will act as One-Stop-Shop for liaison and facilitation between the relevant federal agencies and SEZ authorities, developers and enterprises.

3. Guidelines, Packages of Incentives and Priority Industries under CPEC

BOI is a close partner in CPEC for beefing up the industrial plan for establishing Industrial Parks along-side the corridor. Forty six (46) potential sites for SEZs have been identified so far from which nine (9) sites have been declared prioritized in the meeting of 6th Pak-China JCC. After considering various dimensions the BOI notified seven (7) SEZs in the country; three (3) each in Sindh and Punjab and one in KP. Under this section we shall discuss the guidelines which should be followed by the foreign investors and the packages of incentives which they will attain and under different circumstances the industries which will be given priority in investing in SEZs under CPEC.

a. Guidelines for Investment in SEZs

Pakistan may prefer the industries that:

- Have least dependence on Imports
- Utilize local factor endowment instead of imported inputs/ raw material
- Generate local employment
- Enter into JV – technology transfer, entrepreneurship

May prescribe:

- Level of Value Addition – (to say 20%) or
- Export Orientation – (to say 80%)

And finally must avoid the industries that:

- Do not comply with environmental protection standards
- In end of life (EoL) / end of support stage (EoS)

b. Packages of Incentives

BOI in consultation with all the provinces, GB, AJK and FATA has devised an incentive package for establishment / relocation of industry from abroad.

Salient features of the package are

- Provision of plots on installments (50% down payment and remaining 50% in four biannual installments basis).
- Markup support @ 50% of the markup (to a maximum of 5%) to be provided by respective Governments on the loans taken in Pakistani currency for financing the project.
- Freight subsidy @50% on the inland transportation of plant and machinery for installation in / development of any of the priority SEZ.
- One Window operation
- The developer shall also be allowed to purchase Gas, Electricity and other utilities from utility providers in bulk and supply the same to the enterprises at rates that are duly notified by SEZA in consultation with stake holders.
- To reduce cost of setting up, the developer would also be allowed to rent out sheds for industrial use.

c. ***Priority Industries under CPEC***

Pakistan & China have agreed to cooperate on following five priority sectors under Industrial Cooperation:

- Iron & Steel
- Mines & Minerals
- Textile
- Petrochemicals
- Agriculture

In order to explore Mines & Minerals potential of Balochistan and to fast track the development work of SEZ Bostan, BOI also arranged a visit of NDRC Experts on Industrial Parks to Quetta, Balochistan in March 2018. In the next section, we shall critically analyse the benefits and incentives as well as the issues keeping into account the static and dynamic economic outcomes experienced by the SEZs operating in particularly those countries which are categorized into same development level as Pakistan.

Methodology and Discussion

In assessing the performance of SEZs, we define two types of outcomes under a broad concept, socioeconomics:

a. Static economic outcomes of SEZs. Encompassing the direct effect of these projects which includes the volume of investment, exports and the employment generated.
b. Dynamic economic outcomes of SEZs. This includes a relatively long-term impact of the investment in terms of technological improvements, human resource development and overall surge in the living standards of that particular vicinity.

In our methodology we will be focusing on analysing the above stated outcomes through the assessment of SEZs by comparison. We have picked the case of SEZs that is similar to the development level of Pakistan. Then we will observe the analysis carried out to assess the extent to which the SEZs has helped to improve the socio economic outcomes in the relevant localities and thus brought about broad-based economic development there. In this regard, we have used secondary data acquired from already set up SEZs in different regions to analyse the socio economic situations. With the help of this data we will draw out important implications for Pakistan. Because, low to middle-income countries seeking to implement a development model are more often turned towards the experiences faced by the Asian countries in executing similar models. The countries representing Asia's SEZs include Bangladesh, Cambodia, Philippines, and India. On the other hand, African SEZs have also been analysed for the socio economic situations prevailing there. This paper aims to identify and examine that how the SEZs can contribute with maximum potential in terms of job creation, sustainable GDP growth by improving the volume of exports and foreign direct investment in case of Pakistan.

To clearly analyse the prevailing conditions in the selected countries we shall analyse the static and dynamic effects based on the presented factors by Zeng (2011a) and later extended by Aggarwal (2010). In the following table 1 we have summarized the static and dynamic effects of the SEZs which will be under consideration during the analysis.

Table 1 Static versus Dynamic Effects of Special Economic Zones

Static Benefits	Dynamic Benefits
Foreign exchange earnings	Skills upgrading
Foreign direct investment	Technology transfer
Employment generation	Demonstration effect
Government revenue	Export diversification
Export growth	Enhancing trade efficiency of domestic firms
	Formation of industry clusters
	Integration into global value chain
	Testing field for wider economic reforms

Source: Adapted from Zeng (2011a), extended to include Aggarwal (2010).

Comparative Analysis of SEZs in Asia and Africa

A Case Study of SEZs in Cambodia

SEZs have attracted significant levels of foreign investment into Cambodia that would not have been present otherwise. Currently, 9 SEZs are operating while 20 more are authorized to begin operation. These projects have created around 68,000 total jobs raising the economic welfare of domestic labour, Warr and Menon (2016). However, due to small size of SEZs, it employs only 1 percent of total and 3.7 percent of the manufacturing sector employment of Cambodia. One thing which is pertinent to note here is that the garment industry dominates the manufacturing sector of Cambodia employing 600,000 labours. Table 2 reveals the massive uptick in general employment generated by Cambodian SEZs.

Table 2 Special Economic Zones in Cambodia 2014

Location	Name of SEZ	Year of Establishment	Number of Firms	Total Employment	Employees per Firm
Phnom Penh	Phnom Penh SEZ	2008	50	17,000	340
Bavet	Manhattan SEZ	2006	26	28,051	1,079
	Tai Seng Bavet SEZ	2007	17	7,968	469
	Dragon King SEZ	2013	2	280	140
Sihanoukville	Sihanoukville SEZ 1	2009	2	424	212
	Sihanoukville SEZ 2	2008	40	8,967	224
	Sihanoukville Port SEZ	2012	2	416	208
Poi Pet	Poi Pet O'Neang SEZ	2011	2	830	415
Koh Kong	Neang Kok Koh Kong SEZ	2005	4	3,953	988
Total			145	67,889	4075

SEZ = special economic zone.
Source: Council for the Development of Cambodia, Government of Cambodia. http://www.cambodiainvestment.gov.kh/list-of-sez.html

The main objective of SEZs was to diversify in terms of manufacturing products. Therefore, the SEZs are more diversified, producing electronic products and home appliances. Such kind of production certainly employs technical labours which help to improve and to develop human resource. But unfortunately, the top brass is hired from abroad to operate the industry, while low skilled labours are employed from within Cambodia as non-technical operators. It has also been examined that the firms operating in SEZs invest less in trainings of non-technical labour, as 30% of new labour are those who never attended schools, hence, require long-term adjustment programs.

Secondly, in terms of the expansion of exports, the net effect in case of Cambodia has been neutral. These industries tend to purchase intermediate goods from abroad and do not produce for domestic markets, which somehow balances the equation. The only benefit of SEZs in Cambodia is in terms of local taxes if applied, employment but with low-skilled operators, purchase of land, electricity, water, etc. A salient feature of the Cambodian SEZs is that the government has left the establishment and management of the zones to private sector developers, avoiding large and sometimes wasteful public sector set up costs associated with SEZ establishment in many other countries, Warr and Menon (2015)

The overall circumstances prevailing in Cambodian SEZs are somehow satisfactory but the ambition to achieve maximum potential from these firms is to improve the literacy rate of new employees to motivate the SEZs firm to invest in further trainings of the labours. Secondly, the domestic industries should focus on the production of intermediate goods to attract SEZs towards them. In this manner, the exports of the country can increase hence both static and

dynamic economic outcomes can be attained. On the basis of above discussion we can formulate and infer the static and dynamic effects. Both of these effects are classified in the following table 3

Table 3 Static and Dynamic Effects of the SEZs of Cambodia

Expected Benefits	Realisation
Static Effects:	
Foreign direct investment	Realised
Employment generation	Realised
Government revenue	Unrealised
Export growth	Unrealized
Dynamic Effects:	
Skills upgrading	Unrealised
Technology transfer	Realised
Demonstration effect	Realised
Enhancing trade efficiency of domestic firms	Realised
Export diversification	Realised
Formation of industry clusters	Realised
Integration into global value chain	Realised
Testing field for wider economic reforms	Realised

Note: Positive gains on respective expected benefits are reported as 'realised'
Source: Author's own findings

A Case Study of SEZs in Bangladesh

The case of Bangladesh highlights the importance of locating the zone program appropriately in producing those products in which it has comparative advantage. Although the SEZ program in Bangladesh primarily focused to attract high-technology investment, but it only took off when concerted efforts were made to focus on the garments sector, in which it had relatively comparative advantage. (Appendix B -Table 1) displays the advantages, the apparel and garment industry enjoy in Bangladesh in regard to financing against other industries.

The percentage share of FDI flow in the EPZs of Bangladesh has highly recorded at 81 percent. The incubation period for SEZs operating in Bangladesh before they initiated to build momentum spanned 5 to 10 years. Same was the case for even the most successful SEZ like

Table 4 Foreign investment in EPZs in Bangladesh relative to total inward foreign investment

Year	Total net inflow of foreign investment ($ million)	Total net inflow of foreign *direct* investment ($ million)	Foreign investment in EPZs ($ million)	(3) as % of (1)	(3) as % of (2)
	(1)	(2)	(3)	(4)	(5)
1991-92	41.46	35.46	21.71	52.36	61.22
1992-93	113.00	103.00	20.34	18.00	19.75
1993-94	407.46	354.46	18.81	4.62	5.30
1994-95	124.07	60.07	17.86	14.75	29.73
1995-96	16.47	39.47	26.86	163.09	68.05
Average (1991/92-1995/96)	140	118.49	21.11	15.09	17.82

Source: BEPZA and Bhattacharya (1996).

those operating in China and Malaysia which started slowly and took at least 5 to 10 years to operate on maximum. Therefore, in Bangladesh, the SEZ program started in early 1980s, but it managed to attract investment on a large scale in early 1990s, Moberg (2015).

From a policy perspective, this analysis provides the governments the information to be patient and to provide consistent support to zone programs over long time periods. This seems to be an immense challenge in countries with shorter political cycle. Another noteworthy revolutionary transition of Bangladesh economy has been observed. As whole nation economy is seeking to transform itself into EPZ, consequently the relevance of EPZ in Bangladesh will gradually diminish, as far as the trade policy prospective of the country is concerned.

Millions of work force is entering in the economy annually. On the other hand, the

Table 5 Employment in EPZs in Bangladesh

Year (July-June)	Cumulative employment			Total manufacturing employment (000)[a]	Employment in formal manufacturing sector[b]	Total EPZ employment as % of total manufacturing employment (%)	Total EPZ employment as % of formal manufacturing employment (%)
	CEPZ	DEPZ	Total				
1991-92	14 614	-	14 614	6 630	1 150 634	0.22	1.27
1992-93	17 728	-	17 728	7 419	1 185 153	0.24	1.49
1993-94	20 814	5 522	26 336	8 302	1 220 707	0.32	2.16
1994-95	25 111	7 366	32 477	9 290	1 257 328	0.35	2.58
1995-96	28 705	8 828	37 533	10 395	1 295 047	0.36	2.90

[a] Estimated figures. 1990-91 benchmark of 5.925 million has been projected using the historical sectoral employment growth rate (1971-90) of 11.9% per annum provided in the Labour Force Survey (LFS), 1990-91.

[b] Estimated figures. 1989-90 benchmark of 1.85 million has been projected using the employment growth rate (3%) of the concerned segment of the manufacturing sector provided in the Census of Manufacturing Industries (CMI).

Source: BEPZA; Labour Force Survey (1990-91); Census of Manufacturing Industries (1989-90).

contribution of the EPZs to employment generation is crucial. As of 2009, about 220,000 jobs had been created in the EPZs, Bhattacharya (1998). More than 99 percent of the total labours are of local community providing direct jobs to the workers of Bangladesh. The employment growth rate is impressively increasing annually by almost 32 percent.

There are three types of EPZs prevailing in Bangladesh, first, the industries fully owned by foreign, second, those owned solely by domestic individuals and third comprises joint ventures between local and foreign individuals. 86 percent of the workers are employed in fully foreign owned industries while 9 percent in domestic industries and only 8 percent in joint ventures which clearly presents the contribution of foreign based industries in the labour market of Bangladesh.

Table 6 Value of exports from the EPZs in Bangladesh

Year	CEPZ (Tk. million)	DEPZ (Tk. million)	Total (Tk. million)	Total national exports (Tk. million)	EPZ exports as % of national exports	EPZ exports as % of GDP
1991-92	2 990	-	2 990	78 045	3.83	0.34
1992-93	5 057	-	5 057	93 247	5.42	0.53
1993-94	5 649	211	5 860	101 360	5.78	0.57
1994-95	7 526	1 662	9 188	139 788	6.57	0.78
1995-96	15 010	4 086	19 096	172 200	11.09	1.47

Source: Computed from BEPZA and BBS data.

Moreover, the contribution of EPZs in the expansion of exports has been significant. The exports of the country have been double on average against the imports, conclusively strengthening the overall performance of the economy, Bhattacharya (1998). In South Asia, zones in Bangladesh have been contributing 75 percent of the national exports. In Table 7 we analyse the static and dynamic effects of SEZs in Bangladesh.

Table 7 Static and Dynamic Effects of the SEZs of Bangladesh

Expected Benefits	Realisation
Static Effects:	
Foreign direct investment	Realised
Employment generation	Realised
Government revenue	Realised
Export growth	Realized
Dynamic Effects:	
Skills upgrading	Unrealised
Technology transfer	Realised
Demonstration effect	Realised
Enhancing trade efficiency of domestic firms	Realised
Export diversification	Unrealised
Formation of industry clusters	Realised
Integration into global value chain	Realised
Testing field for wider economic reforms	Realised

Note: Positive gains on respective expected benefits are reported as 'realised'
Source: Author's observation

A Case Study of SEZs in Philippines

The Philippine Economic Zone Authority (PEZA) was created by the Filipino government under the Special Economic Zone Act 1995, which provided a great opportunity for the foreign investors to concentrate on investing in garments, shoes and toys, Remedio (1996). As of April 2007, 336 SEZs have been documented across Philippines. As the main task of the SEZs is to attract as much foreign investments as possible, therefore, more than half of the total FDI inflows of Philippines are constituted by the PEZA. The highest peak of the

Table 8 Exports of EPZs in Philippines

			trade	manufacturing	EPZs	manufacturing exports
1980	5 787.79	7 728.91	-1 941.12	-	162.696	
1981	5 720.40	7 945.68	-2 225.28	-	236.760	
1982	5 020.59	7 666.92	-2 646.33	2 449	250.946	10.2
1983	5 005.29	7 486.63	-2 481.34	2 586	238.755	9.2
1984	5 390.65	6 069.61	-678.96	2 934	245.820	8.4
1985	4 628.95	5 110.67	-481.72	2 807	205.572	7.3
1986	4 841.78	5 043.60	-201.82	2 874	277.678	9.7
1987	5 720.24	6 736.97	-1 016.73	3 558	396.247	11.1
1988	7 074.20	8 159.38	-1 085.18	4 647	430.725	9.3
1989	7 821.08	10 418.82	-2 597.74	5 689	444.139	7.8
1990	8 186.03	12 206.16	-4 020.13	6 158	819.089	13.3
1991	8 839.51	12 051.36	-3 211.85	6 726	1 030.957	15.3

Source: NCSO and EPZA.

FDI inflows have been recorded in 2012 and documented 6.9 US$ Billion out of which 5 US$ Billion were specified for the SEZs. Massive inflows of FDI towards the labour-intensive activities have pushed up the employment rate of Philippines. Over 3 million jobs have been created under these projects which certainly enhanced the living standards of a million more. The most successful region which lead to such extensive investments along with job creation is the Region 4, located in the south of Metro Manila. It comprised 69 of 200 SEZs across the country, employing 2 million of jobs from 3 million of all the SEZs combined. But, on the other hand, the unemployment rate at the same region up surged drastically from 8 percent to 13 percent within a time span of only 10 years. An increase in the migrants has been accused as the main factor for this incidence. Therefore, a better planning with deep insights should be under consideration in planning and specifying the areas for SEZs.

The government of Philippines committed to diversify the manufacturing products from the traditional minerals and agricultural commodities. In this association, TI ensured to build electronic plants which attracted other prominent firms to focus on the true potential of Philippine Carter and Harding (2010). These firms set up co-operative training programmes to upgrade the semi-skilled labour from the above-average educational resources in the area. Altogether, the companies in these two SEZs have generated sufficient jobs, and exported almost $4 billion worth of goods in 2010, Makabenta (2002). It is pertinent to note that both these zones lie within heavily populated urban areas, with much of Filipino SEZ exports being rendered in dense urban areas as evidenced by (Appendix B- Table 2). On the basis of aforementioned discussion in the following table 9, we shall assess the static as well as dynamic effects of SEZs in Philippines.

Table 9 Static and Dynamic Effects of SEZs in Philippines

Expected Benefits	Realisation
Static Effects:	
Foreign direct investment	Realised
Employment generation	Realised
Government revenue	Realised
Export growth	Realized
Dynamic Effects:	
Skills upgrading	Unrealised
Technology transfer	Realised
Demonstration effect	Unrealised
Enhancing trade efficiency of domestic firms	Realised
Export diversification	Unrealised
Formation of industry clusters	Realised
Integration into global value chain	Unrealised
Testing field for wider economic reforms	Realised

Note: Positive gains on respective expected benefits are reported as 'realised'
Source: Author's observation

A Case Study of SEZs in India

Under the SEZ act of 2005, India officially granted permits to the foreign investors to establish its SEZs. The first ever Asian SEZ was deployed at Kandla in India in 1965, recording third such zone in the world. As the project was regulated from the government itself, consequently, the project failed to fulfil the proposed benefits. In 1998 the SEZs increased to 8 which employed around 95000 workers. This figure declined acutely unless the government officially approved the SEZ bill. Currently, 70 percent of the India's inflow of FDI is attributed towards

the SEZs especially located in Maharashtra, Delhi, Karnataka, Tamil Nadu, Andhra Pradesh and Tamil Nadu. On the other hand, the number of employees have surged to 178,000 against 95000. Although stacking up these numbers against the unemployed individuals is inconsequential, as an immense sum of people are entering the labour force, however, keeping intact the situation of inaccessibility of alternate opportunities, these jobs are nothing more than a bliss. Only 20 percent of the worker have been identified migrating from rural to urban areas, indicating slow pace of industrialization.

Table 10 Employment (Direct) generated by SEZs

Prior to SEZ Act 2005		2007-08			2008-09		
Central Govt SEZs	State/Pvt. SEZs	Central Govt SEZs	State/Pvt. SEZs	Notified SEZs	Central Govt SEZs	State/Pvt. SEZs	Notified SEZs
122,236	12,738	193,474	44,768	100,885	196,922	55,890	134,62712

Source: http://sezindia.nic.in

The performance of India's exports have subsequently improved, becoming more export oriented. Nevertheless, the exports from these specified zones constitutes only 6 percent of the total exports of India. More precisely, exports worth US$ 5,097 million are contributed by those SEZs operating under the direct control of the Central Government of India. Whereas, exports from the SEZs under the control of state government and private sector constitutes worth US$ 1861 million, resulting almost US$ 7,000 million of exports.

Table 11 Exports from SEZs and percentage share in India's total export (in USD million)

Year	India's Export	% share of SEZs in India's total export
1997-98	2644.3	7.9
1998-99	2840.5	8.63
1999-2000	3243.1	8.59
2000-01	4137.6	7.82
2001-02	4248.3	8.97
2002-03	5185.7	9.25
2003-04	5962.7	9.83
2004-05	7628.9	10.45
2005-06	9276.8	10.84
2006-07	11621.5	12.24
2007-08	13330.5	25.74
2008-09(P)	17072.7	20.42

Source: http://www.eouindia.gov.in/fact_figure.htm

To improve the pace of economic growth and development of India, necessary steps should be taken. First, the policy makers should make enabling administrative procedures to get the job done which includes single window mechanism as practiced in Cambodia and other countries. Secondly, strengthening the infrastructure which certainly includes roads, railways, electricity, easily accessible water etc., this usually attracts the foreign investors. On the basis of the above discussion we shall provide the static and dynamic effects of SEZs in India in table 12

Table 12 Static and Dynamic Effects of SEZs in India

Expected Benefits	Realisation
Static Effects:	
Foreign direct investment	Realised
Employment generation	Realised
Government revenue	Realised
Export growth	Realized
Dynamic Effects:	
Skills upgrading	Realised
Technology transfer	Realised
Demonstration effect	Realised
Enhancing trade efficiency of domestic firms	Realised
Export diversification	Realised
Formation of industry clusters	Realised
Integration into global value chain	Realised
Testing field for wider economic reforms	Realised

Note: Positive gains on respective expected benefits are reported as 'realised'
Source: Author's observation

A Case Study of SEZs in Africa

Several SEZs have been employed in Africa, however, at this stage the scale of SEZs does not matter rather there exists evidences representing sluggish growth of GDP, Farole (2011). In the Sub-Sahara region several countries launched SEZs for economical progressions. The trend in Africa increased acutely. However the effect of SEZs was not observed in the growth of the economy. The available evidence suggests that the performance of SEZs in Africa were relatively poor in terms of generating employment and accumulating the volume of exports. A relative comparison of Africa can be visualized in the following table

Table 13 Estimates of direct employment and exports in zones in selected regions around 2004-07

Region	Direct Employment (million)	Exports (US$ million)
Sub-Saharan Africa	1.0	8,605
Asia and the Pacific	61.1	510,666
America	3.1	72,636
Central and East Europe and Central Asia	1.6	89,666
Middle East and North Asia	1.5	169,459
Global	68.4	851,032

Source: FIAS (2008)

Farole (2011) after extensively analysing 6 African zones concluded that the one important reason because of which the African zones are in general failing behind the rest of world is weak business environment. In addition, it is important to keep into account the time period of Africa to enter in the era of economic zone. On the other hand, its global counterparts like Vietnam and Bangladesh have somehow managed to create jobs on exponential rate over the past decade. Nevertheless, in case of African zone programs, the trend in the job structure and the exports have been examined identical. Both of these rapidly amplified in the first half of the decade but soon declined radically. (Appendix A – Figure 2) reveals the relatively poor growth trajectory of African SEZs in comparison to their global counterparts.

African zones which merely depend upon its garment sector, especially, in Kenya and Lesotho, the unemployment rate instead of declining increased drastically in these specific regions. The current situation declares a 15 percent decline in the employment rate of Lesotho's garment sector. Whereas, in Kenya's EPZs, the employment rate has deteriorated 20 percent.

In Ghana, the volume of exports rapidly raised but still the job growth only documented 4.5 percent since 2004. Same was the case in 2005 and 2008, where the exports were growing by 2.5 times Farole (2011). (Appendix B – Table 3) also exemplifies the poor conditions in which such labour is often kept. Hence, with the exemption of some of the African regions including Mauritius, Kenya, Madagascar and Lesotho, the overall African experience with SEZs have been less than spectacular.

The main reason accused for the failure of African SEZs as investigated by Zeng (2012a) are collected in the following:

- *Legislations, rules and legal framework:* The prevailing legal framework and the rules regulation for the SEZs either do not exist at all or are outdated
- *Poor business environment:* The fiscal as well as non-fiscal incentives are restrictive to documentations. Therefore the cost of doing business is high. Mainly the non-fiscal incentives because of no legal framework tend to adversely affect more than the fiscal incentives like tax holiday. These issues include customs clearance, foreign exchange, registration, licencing etc.
- *Lack of desire towards prosperity:* In this case, the SEZs built in different African countries are based on political interests rather than the desire for prosperity which hampers the real intention of SEZs
- *Inadequate infrastructure:* The basic needs for the manufacturers are not fulfilled which is an alarming situation and therefore is considered as an obstacle for the existing firms to produce at full capacity
- *Know-how of the zone management:* The developers of the SEZs are mostly the construction companies which are not familiar with the operational phase of any firm. Moreover, the government agencies intact with the developers are not experienced enough to manage such foreign industries
- *Host country's government ownership and policy inconsistency:* The governments initially facilitating the foreign investors usually have a short time period to govern. New governments are more likely to change the policies adopted by the previous governments which directly or indirectly effects the foreign industries

There exist many issues and problems on top brass level of the continent which hampers or discourages the genuine investors, therefore, the firms tend to migrate or shutdown where it find any comparative advantage. The assessment or the static and dynamic effects of SEZs in Africa are summarized in the following.

Table 14 Static and Dynamic Effects of African SEZs

Expected Benefits	Realisation
Static Effects:	
Foreign direct investment	Realised
Employment generation	Unrealised
Government revenue	Unrealised
Export growth	Unrealized
Dynamic Effects:	
Skills upgrading	Unrealised
Technology transfer	Realised
Demonstration effect	Realised
Enhancing trade efficiency of domestic firms	Unrealised
Export diversification	Unrealised
Formation of industry clusters	Realised
Integration into global value chain	Unrealised
Testing field for wider economic reforms	Realised

Note: Positive gains on respective expected benefits are reported as 'realised'
Source: Author's observation

Conclusion

Following a comprehensive comparative analysis, it becomes apparent that African-based Chinese FDI ventures in the realm of SEZs have not yielded the same results as compared to the Asian SEZs which adopted almost similar funding models and frameworks for increasing the host country's manufacturing output. In the context of CPEC-oriented SEZs, nine zones have established which should take into account the overall problems faced by the SEZs. In the context of job growth in particular, certain measures should be adopted to ensure protection in labour standards and proper skill amelioration of the labour force. The results of comparative analysis clearly exhibits that African SEZs have not rendered appropriate generation of employment and failed to decrease the level of poverty, due to the ineffective frameworks employed. A lack of coherent trade policy with an additional lack of incentive given to investors in many regards, hampered the African SEZs further. On the other hand, Asian SEZs have publicised complementary additions particularly to SEZ firms which stimulated the prominent socio-economic indicators exemplifying viable job growth and increased skill levels and productivity amongst local labour forces. Thus, it is pertinent for the federal government of Pakistan (Board of Investment), to take into account the issues experienced, the fruits enjoyed and the overall policy framework adopted by both African and Asian countries in order to better refine a system through which Pakistan's own SEZs can properly flourish as soon as CPEC begins to reach into its fully-operational phase. This additionally follows the set pattern established in the literature review of developing states utilizing and tweaking the Asian economic frameworks to their own context so as to boost their economic growth in a similar fashion.

Policy Implications and Recommendations

In the following we discuss some the decipherable trends experienced by the foreign SEZs and should be followed by Pakistan in order to gain the potential benefits of SEZs.

- SEZs tend to take almost 5 to 10 years in order to benefit the hosting country in terms of large-scale stable employment and production. This examination has been commonly experienced even by the most successful SEZs in PRC and Malaysia. Therefore, some patience is necessary.
- The SEZs tend to succeed only in those countries which offer to bear significant amount of costs for international manufacturers. Foreign investors usually have alternatives which they can easily avail by withdrawing their investments from the hosting country, if they do not find the advantages of interest. Therefore, such industries should not be considered as captives, rather the projected benefits should be under consideration.
- The main incentive for any foreign firm does not merely depend upon tax holidays. A foremost requirement to encourage foreign investors rests on the political and macroeconomic stability of the hosting country. Tax holiday, on the other hand, is costly in fiscal terms but they only matter at the margin.
- A vital cause identified for not achieving maximum benefit from SEZs is that SEZ firms often prefer to import its input or intermediate good from abroad unless there exists a clear cost advantage in purchasing these goods otherwise. This indicates weak backward linkages with domestic firms because of which the net effect of export becomes negligible, as the input imported and final product exported somehow balances the equation. In this case, domestic firms should strive to provide input with same features/quality, quantity and prices to SEZ firms in order to enjoy the real fruit.

Same is being practiced in the regions of Thailand and PRC where well developed local industries are sourcing cost effective inputs to the SEZ firms as per their requirement.

- Early SEZs were used primarily for reducing poverty and creating jobs in the poorest regions of a host country, often with very poor infrastructure. This hindered the establishment and operations of SEZs which enforced the governments to invest heavily in building the infrastructure necessary to make the zones viable, which definitely raised the costs of the hosting country significantly.

References

Aggarwal, A. (2010). Economic impacts of SEZs: Theoretical approaches and analysis of newly notified SEZs in India.

Ali, M. M., NUML, I., & Faisal, F. (2017). CPEC, SEZ (Special Economic Zones) and Entrepreneurial Development Prospects in Pakistan. *Pakistan Development Review*, *56*(4), 143-155.

Amirahmadi, H., & Wu, W. (1995). Export processing zones in Asia. *Asian Survey*, *35*(9), 828-849.

Baissac, C. (2011). Brief history of SEZs and overview of policy debates.

Bhattacharya, D. (1998). *Export processing zones in Bangladesh: Economic impact and social issues* (No. 80). International Labour Organization.

Carter, C., & Harding, A. (Eds.). (2010). *Special economic zones in Asian market economies*. Routledge.

Cartier, C. (2002). Transnational urbanism in the reform-era Chinese city: landscapes from Shenzhen. *Urban studies*, *39*(9), 1513-1532.

Chen, X., & Nordhaus, W. D. (2011). Using luminosity data as a proxy for economic statistics. *Proceedings of the National Academy of Sciences*, *108*(21), 8589-8594.

Economic Zones, H. C. S. ASIAN ECONOMIC INTEGRATION REPORT 2015.

Farole, T. (2011). *Special economic zones in Africa: comparing performance and learning from global experiences*. World Bank Publications.

Farole, T., & Akinci, G. (Eds.). (2011). *Special economic zones: progress, emerging challenges, and future directions*. World Bank Publications.

Federal Government of Pakistan. (2012). Special Economic Zones Act. *International Labour Organization* -, PAK-2012-L-92177.

Gopalakrishnan, S. (2007). Negative aspects of special economic zones in China. *Economic and Political Weekly*, 1492-1494.

Hamada, K. (1974). An economic analysis of the duty-free zone. *Journal of International Economics*, *4*(3), 225-241.

Johansson, H., & Nilsson, L. (1997). Export processing zones as catalysts. *World Development*, *25*(12), 2115-2128.

Klemm, A., & Van Parys, S. (2012). Empirical evidence on the effects of tax incentives. *International Tax and Public Finance*, *19*(3), 393-423.

Makabenta, M. P. (2002). FDI location and special economic zones in the Philippines. *Review of Urban & Regional Development Studies*, *14*(1), 59-77.

Milberg, W., & Amengual, M. (2008). Economic development and working conditions in export processing zones: A survey of trends. *ILO, Geneva*.

Moberg, L. (2015). The political economy of special economic zones. *Journal of institutional economics*, *11*(1), 167-190.

Monga, C. (2011). Cluster-based industrial parks: A practical framework for action.

O'Brien, K. L., & Leichenko, R. M. (2000). Double exposure: assessing the impacts of climate change within the context of economic globalization. *Global environmental change*, *10*(3), 221-232.

Pakdeenurit, P., Suthikarnnarunai, N., & Rattanawong, W. (2014). Special Economic Zone: Facts, Roles, and Opportunities of Investment. *International MultiConference of Engineers and Computer Scientists*, *2*, 1047-1051.

Remedio, E. M. (1996). *Export processing zones in the Philippines: A review of employment, working conditions and labour relations* (No. 77). Geneva: International Labour Office.

Schminke, A., & Van Biesebroeck, J. (2013). Using export market performance to evaluate regional preferential policies in China. *Review of World Economics*, *149*(2), 343-367.

Wang, J. (2013). The economic impact of special economic zones: Evidence from Chinese municipalities. *Journal of development economics*, *101*, 133-147.

Warr, P., & Menon, J. (2016). Cambodia's Special Economic Zones. *Journal of Southeast Asian Economies (JSEAE)*, *33*(3), 273-290.

Warr, P. G., & Menon, J. (2015). Cambodia's Special Economic Zones. *SSRN Electronic Journal - Asian Development Bank*.

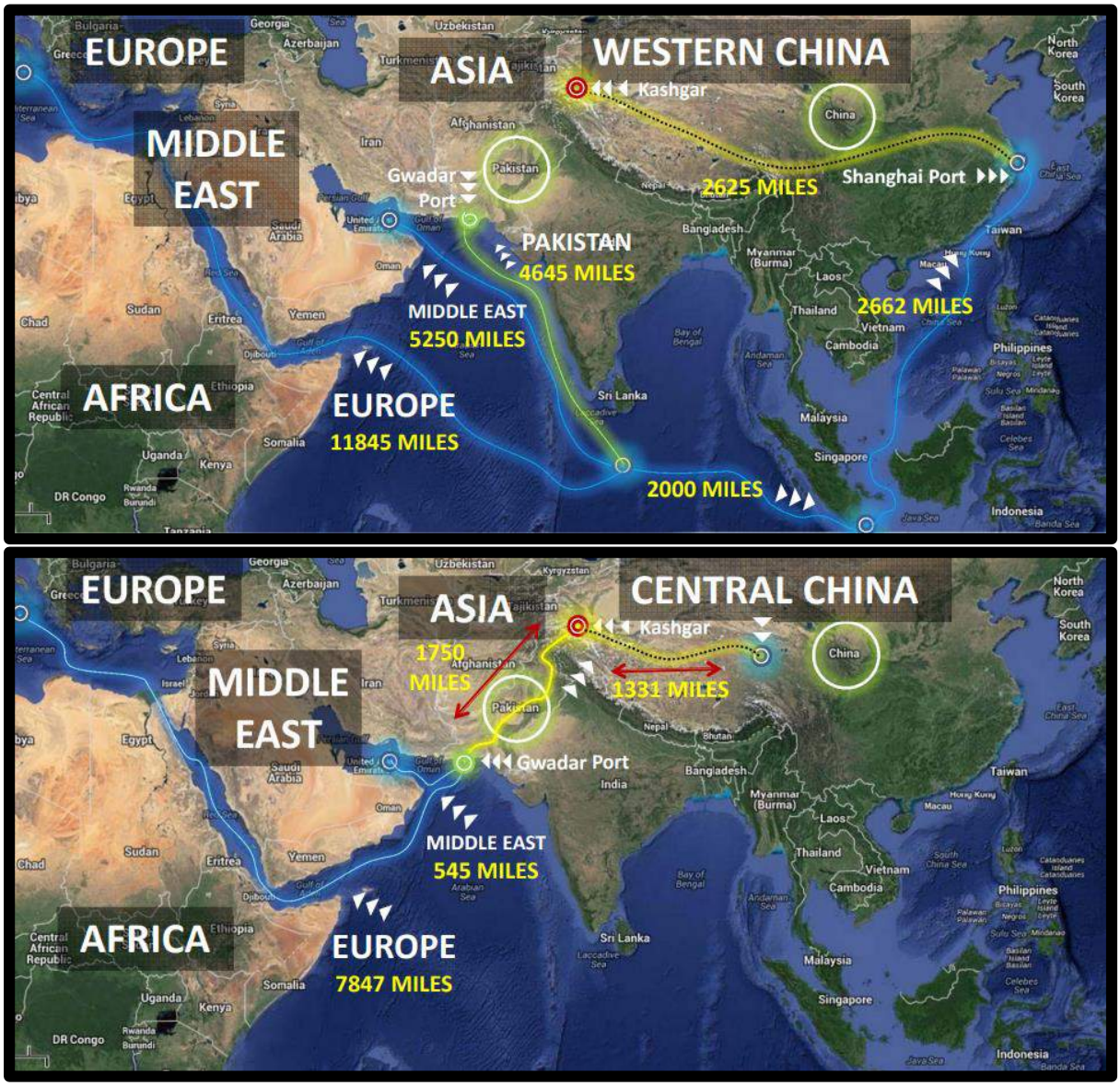
Zee, H. H., Stotsky, J. G., & Ley, E. (2002). Tax incentives for business investment: a primer for policy makers in developing countries. *World development*, *30*(9), 1497-1516.

Zeng, D. Z., & Zeng, D. Z. (2011). *How do special economic zones and industrial clusters drive China's rapid development?*. Washington, DC: World Bank.

Zeng, D. Z. (2012). SEZs in Africa: Putting the Cart in front of Horse?. *blog). Washington, DC: World Bank*.

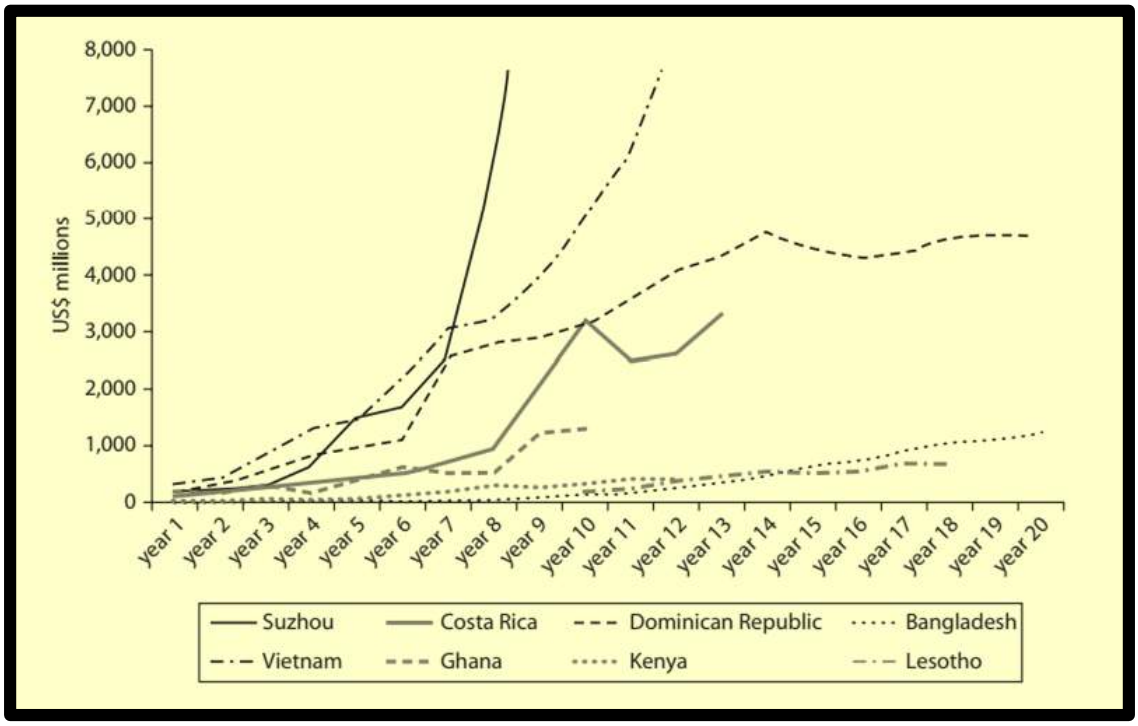
Appendix A

FIGURE 1 – COMPARISON OF SHIPPING ROUTE LENGTH FOR CHINESE COMMODITIES WITH AND WITHOUT GWADAR DEEP-SEA PORT



Siddiqui, A. (2017). Understanding Economic Benefits of Trade-Corridor between Gwadar-Kashgar INTERMODAL Networks. *All Pakistan Shipping Association*, 1-22.

FIGURE 2 – SEZ EXPORT GROWTH BY YEARS OF OPERATION



Farole, T. (2011). *Special economic zones in Africa: comparing performance and learning from global experiences*. World Bank Publications.

Appendix-B

TABLE 1 - ENTERPRISES BY INDUSTRY AND TYPES OF GOODS PRODUCED, RANKED IN TERMS OF INVESTMENT, EMPLOYMENT, EXPORTS, IMPORTS, AND BALANCE OF TRADE - CHITTAGONG EPZ, JANUARY 1997

Criteria	Rank				
	First	Second	Third	Fourth	Fifth
Investment	Vehicular components	Textile manufacturing: towels, grey fabrics	Wearing apparel	Sports bags and sportswear	Textiles: knitwear, knitted fabric
Employment	Wearing apparel	Sports bags and sportswear	Textiles: knitwear, knitted fabric	Textile manufacturing: towels, grey fabrics	Vehicular components
Export	Wearing apparel	Sports bags and sportswear	Textiles: knitwear, knitted fabric	Vehicular components	Textile manufacturing: towels, grey fabrics
Import	Wearing apparel	Textiles: knitwear, knitted fabric	Vehicular components	Sport bags and sportswear	Textile manufacturing: towels, grey fabrics
Trade Balance	Sports bags and sportswear	Textiles: knitwear, knitted fabric	Wearing apparel	Vechicular components	Textiles

Bhatiddhaĭyd, D. (1998). Export processing zones in Bungladesh: Economic impact and social issues. *International Labour Office - Geneva*. Retrieved from http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---multi/documents/publication/wcms_126103.pdf

TABLE 2 - PHILIPPINE EXPORT SHARES BY SEZ REGION: 1990-1998* (%)

Region/Port	1990	1991	1992	1993	1994	1995	1996	1997	1998
Metro Manila	61.12	65.11	68.13	66.04	68.07	85.76	81.09	48.66	71.16
NE Luzon	2.59	1.84	3.36	4.56	5.15	0.27	0.29	6.07	2.24
NW Luzon	0.01	0	0	0	0	0.01	0.01	0.01	0
C. Luzon	3.73	3.98	2.91	2.37	2.57	4.58	5.78	6.14	3.01
S. Luzon	2.23	1.95	2.35	4.13	2.5	1.15	1.61	23.66	12.32
Bicol	0.28	0.78	0.53	0.39	0.29	0.17	0.12	0.2	0.29
W. Visayas	2.12	1.57	0.87	0.95	0.68	0.01	0.01	0.33	0.35
C. Visayas	8.69	8.73	7.83	8.9	8.62	7.29	7.56	7.38	5.14
E. Visayas	5.27	4.78	3.42	3.34	2.98	0.01	0	1.87	1.21
W. Mindanao	1.61	1.37	1.03	1.09	1.15	0.03	0.03	0.74	0.29
N. Mindanao	4.43	3.3	3.26	2.79	2.7	0.62	0.48	1.56	1.09
S. Mindanao	6.07	5.35	3.12	2.7	2.62	0.11	0.08	2.8	2.27
C. Mindanao	1.87	1.24	3.19	2.74	2.64	0	2.94	0.59	0.64

Makabenta, M. P. (2002). FDI Location and Special Economic Zones in the Philippines. *Review of Urban & Regional Development Studies*, *14*(1), 59-77. doi:10.1111/1467-940x.00048

TABLE 3 – A COMPARISON OF CHINESE EMPLOYMENT POLICY IN AFRICAN FDI VENTURES

	ANGOLA		*KENYA*		*MALAWI*		*SOUTH AFRICA*			*ZAMBIA*		
							Formosa	CITIC-ACRE	FIDA			
	Local Staff	Chinese Staff	Local Staff	Chinese Staff	Local Staff	Chinese Staff	Local Staff	Local Staff	Local Staff	Local Staff (Temporary)	Local Staff (Permanent)	Chinese Staff
SOCIAL SECURITY	X	✓	✓	✓	X	N.D	X	X	X	X	✓	X
MEDICAL CARE	X	✓	✓	✓	X	N.D	X	✓	X	X	X	✓
SUBSIDIZED TRANSPORT	X	X	X	✓	X	N.D	X	X	X	✓	✓	✓
PAID LEAVE	✓	✓	X	✓	X	N.D	X	X	X	X	X	✓
PAID SICK LEAVE	X		✓	✓	X	N.D	X	X	X	X		X
HOUSING ALLOWANCE	X	✓	X	✓	X	N.D	X	X	X	✓	✓	✓
CHILDCARE SERVICES	X	X	X	X	X	N.D	X	X	X	X	X	✓
INCENTIVE-BASED BONUSES	X	X	X	✓	X	N.D	✓	X	X	X	X	X
SEVERANCE PAY	X	✓	✓	✓	X	N.D	X	X	X	X	X	X
PAID MATERNITY LEAVE	X	X	X	✓	X	N.D	X	X	X	X	✓	X
SUBSIDIZED MEALS	✓	✓	X	✓	✓	N.D	X	X	X	✓	✓	✓
EMPLOYEE STOCK OPTION AND OWNERSHIP PLANS	X	X	X	✓	X	N.D	X	X	X	X	X	X
INTEREST-FREE LOANS	X	X	X	✓	X	N.D	✓	X	X	X	X	✓
IN-HOUSE PENSION SCHEME	X	X	X	✓	X	N.D	X	X	X	X	X	X
EDUCATION/TRAINING BURSARY	X	X	X	✓	X	N.D	X	X	X	X	X	✓

Baah, A., & Jauch, H. (2009). Chinese Investments in Africa: A Labour Perspective. *African Labour Research Network*. Retrieved from https://www.fnv.nl/site/over-de-fnv/internationaal/mondiaal-fnv/documenten/english/publications/Chinese_investments_in_Africa_final_report1.pdf