

SPECIAL ECONOMIC ZONES IN SOUTH ASIA

A Comparative Analysis of Bangladesh, Sri Lanka, and India

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SEZ in Navi Mumbai

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SEZs in the Rest of South Asia | SEZs in the rest of South Asia, specifically in Pakistan, Nepal, Bhutan, and Afghanistan, are left from this analysis due to constraints of the research scope. Briefly, SEZs and EPZs in Pakistan appear to be growing from a small number, the most notable development being that China is helping its southern neighbor build zones that may be designed specifically for Chinese multinationals.¹ In Nepal, despite government support for the creation of zones, only a few exist and do not see any significant levels of activity.² In Bhutan and in Afghanistan, EPZs are of interest, but none have been created to date.

GoI	Government of India
FDI	foreign direct investment
SEZ	special economic zone
EPZ	export processing zone
FTZ	free trade zone
NetX	net exports (exports minus imports)
OBU	offshore banking unit
ATM	automated teller machine
WTO	World Trade Organization
WHO	World Health Organization
CII	Confederation of Indian Industry
MoCI	Ministry of Commerce and Industry
RBI	Reserve Bank of India
GDP	gross domestic product
ICD	inland container depot

¹ EPZs Take Pakistan to New Heights, **Foreign Direct Investment**, October 20, 2004, http://www.fdimagazine.com/news/fullstory.php/aid/839/EPZs_take_Pakistan_to_new_heights.html

² Key recommendations, The Ministry of Finance, The Government of Nepal, http://www.mof.gov.np/economic_policy/keys.php

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1.0 EXECUTIVE SUMMARY

1.1 Statement of the Problem and the Diagnosis

The success of special economic zones (SEZs) in China motivated other developing countries to incorporate SEZs into their growth plans. From Indonesia to the Middle East, nations at different stages of development have turned to SEZs to attract foreign capital, boost exports, create jobs, stimulate industry, improve upon existing infrastructure, and many other benefits. These benefits, however, carry costs, and perhaps no country will struggle with that tradeoff more than India. The Government of India (GoI) commissioned the creation of over 400 new SEZs for the Indian economy—according to the plan, India will have more SEZs than the rest of world, combined. While the Chinese experiment with SEZs undoubtedly contributed to its economic growth, copying the Chinese model does not guarantee India similar success. Instead, critics argue, India’s SEZ strategy carries significant risk, most notably the public policy challenge to balance macroeconomic benefits against microeconomic disruptions. Therefore, it is of critical importance that the GoI not only position new SEZs to be as successful, but that they anticipate less obvious challenges to zone development in their scenario planning. The problem facing India is not that SEZs are bad; however, managing 500 of them, seizing key property, and explaining the rationale to a democratic electorate whose median voter is rural, poor, and barely educated is a daunting task.

1.2 Methodology and Key Analytical Findings

In this study we constructed a “model” SEZ and used that model to compare six zones in India and three zones each in Bangladesh and Sri Lanka (as regional comparators) against the model. We scored each zone based on a weighted scale, as well as creating matrices (attached in Appendix) to demonstrate how the zones compared to each other.

Stepping back, the main takeaway points for the GoI are that SEZs:

- Are not located in close enough proximity to key transportation links, such as railheads, seaports, airports, and highways;
- Do not necessarily export products in related, clustered industries;
- Require the appropriation of land from citizens who are not properly compensated;
- Do not always provide the strong, backward linkages to the domestic economy; and
- Should be measured for performance by using a metric based on net exports.

These key analytical findings, while generated specifically in the Indian context, are also meant to stimulate other countries with SEZs (or those considering them) to develop a specific framework within which to think ways to introduce SEZs specifically into their countries’ economic strategies.

1.3 Recommendations Moving Forward

Based on the analysis, the recommendations we make to the GoI moving forward are as follows:

1. SEZ notices should be made in conjunction with earmarked funds for improved infrastructure in surrounding areas, such as transportation links, ports, and highways;
2. SEZs should create incentives for firms in vertically-integrated businesses to form industry clusters in services and manufacturing sectors;
3. SEZs should be measured for performance by analyzing a zone’s profitability and contributions to GDP, as well as linkages back to the domestic economy; and
4. Citizens who lose land for SEZ development must be compensated fairly and validated by an independent, regulatory body.

Our list of recommendations is detailed at the end of this paper. ■

2.0 INTRODUCTION

2.1 Definition of a Special Economic Zone

Special Economic Zones (SEZ), sometimes referred to as “export processing zones” or “EPZs” are contained geographic regions within countries—a demarcated area of land used to encourage industry, manufacturing, and services for export—typically characterized by liberal tax laws and economic policies—hence it is a “special” economic zone. Many nations have relied heavily on their SEZs, and are considered to be a vital ingredient in a developing country’s economic strategy.

2.2 Component of Industrial Strategy and Economic Development

SEZs are considered the “sensitive outer skin”³ of its host country; a barometer to anticipate impending macroeconomic trends. SEZs have generated interest in developing countries; for instance, countries pursuing an export-led growth strategy hope zone stimulate international trade and encourage economic activity in the country’s domestic market. Successful SEZs create new jobs for citizens, provide laboratories for governments to run controlled trade policy experiments, attract foreign direct investment (FDI), strengthen industries, and help countries avoid potentially defective domestic laws and institutions that act as a barrier to growth. In India specifically, the hope is that SEZ success will translate into improvements in social and physical infrastructure. As the Confederation of Indian Industry asserts, “SEZs are created as open markets within an economy [and] are believed to create a conducive environment [within which] to promote investment and exports. [Therefore], many developing countries [are using] SEZs with the expectation that they will provide...engines of growth for...economies to achieve industrialization.”⁴

2.3 The Advantages and Drawbacks of SEZs

The benefits and drawbacks of SEZ are susceptible to amplification given the ambitious and intrusive nature of zone development. Ideally, successful SEZs generate a myriad of benefits that not only flow out of the country (as exports) but also flow into the domestic economy, such as the creation of new jobs, infrastructure, and demonstration effects. Successful zones manufacture goods and/or develop services for export; those exports, along with foreign investment and favorable tax policies, provide zone-based businesses with revenues that can be paid to the shareholders and/or reinvested. The introduction of SEZs dramatically alter not only a country’s macroeconomic vitality but also its microeconomic foundations, in some cases resulting in severe employment dislocation, domestic price increases, and forced displacement. Today in India, an SEZ notice triggers the use of eminent domain, domestic inflation as a result of import subsidies, and structural shifts in the labor market that could result in job losses for nearby residents. The economic benefits generated by SEZs should be greater than the drawbacks created, especially in democratic societies.⁵

2.4 The SEZ Challenge Facing India

The Planning Commission, the central policy planning body for the GoI, has signaled its approval for the creation of over 400 SEZs in over 19 states, occupying approximately 150,000 hectares,⁶ with a roughly equal split between zones in the information technology sector (IT) and operational zones. The land, predominantly fertile, needed to meet this target accounts for approximately one million metric tons of agricultural output; furthermore, the size of the plan may require the GoI to acquire significant parcels of land from landowners. Therefore, it is critical that The Planning Commission’s policy toward the future of SEZ development, within the spirit of “Inclusive Growth,” balance the macroeconomic benefits against the microeconomic disruptions these zones will create. ■

³ Survival in the Big City, *The Economist*, November 5, 1998.

⁴ Confederation of Indian Industry, *Special Economic Zones – Engines for Growth*, May 2006 (p. 1)

⁵ Please see Appendix Insert 1 for a more detailed description of SEZ advantages and drawbacks.

⁶ 1 hectare = 2.47 acres

3.0 MOTIVATING QUESTIONS AND METHODOLOGY

This study examines the SEZ experience in three South Asian countries, Bangladesh, India, and Sri Lanka, with the analytic focus on India and a framework that seeks to measure performance based on regional comparators. This study will address the motivating questions below and contribute to fill the underlying knowledge gaps by determining the institutional and governance characteristics of SEZs. This study also aims to collect structured information on pertinent infrastructure, regulatory, and fiscal policies that make it possible to compare practices across national boundaries in an effort to establish what instruments and policy measures are critical to success.

3.1 Motivating Questions

This study is motivated by the following questions:

1. What common/differing characteristics are found within SEZs in these three countries?
2. What make an effective SEZ?
3. How would countries best consider designing new SEZs?

Despite descriptive literature on SEZs, little is known about the particular determinants, such as institutional setup, governance, labor costs, infrastructure, regulatory environment, fiscal incentives, and non-fiscal incentives, to name a few, that have contributed to the success and failures of certain zones. In this context, the central development questions in this study concern:

1. Institutional factors instrumental in determining relative SEZ performance; and
2. Ways to enhance the contribution SEZs make to creating jobs and economic growth.

3.2 Methodology

We will introduce the topic, provide contextual background, and summarize the historical progress of SEZs in South Asia in order to construct the “Model Zone.” This Model will serve as the ideal construct with which to analyze the structure and performance of SEZs within Bangladesh, India, and Sri Lanka. We will compare zones across all three countries against the Model Zone in an effort to prescribe policy options specifically for India’s Planning Commission that fit within the theme of “Inclusive Growth” that will mark India’s next Five-Year Plan, its twelfth. The goal is to devise a set of policies that create conditions applicable to any country that considers SEZs or their equivalent.

First, we will prepare a structured policy inventory that compares the characteristics of different SEZs and contrasts them with the situation in their respective domestic economies along these dimensions – fiscal incentives, infrastructure, location, business facilitation, governance, labor costs and regulations, management structure, and so forth. Specifically, this study will offer policy inventory charts for each zone element identified above across the three countries, as well as charts that compare and contrast between zones and domestic economies, with the analytic focus on India.

Second, we will provide a brief description of linkages between SEZs and the domestic economy (production factors and outputs), covering the character and extent of linkages with case illustrations. This portion will define indicators that will illustrate linkages between zones and domestic economies; examine surrounding areas of zones that have performed economically well (and not); investigate how each country’s trade status⁷ affects zone rules and linkages back to the domestic economy; and define critical linkages for each country, as well as investigate how economic development indicators have changed as a result of a country’s zone activities. This study will explain the descriptive characteristics and evaluate the performance of SEZs in South Asia. ■

⁷ The term “export-processing” is not mentioned in many trade agreements, and \$1,000 US is cutoff for WTO exemption for GDP per capita.

4.0 FRAMEWORK FOR ANALYSIS

4.1 The Model SEZ

According to the Confederation of Indian Industry,⁸ SEZs' ability to attract investment and promote export competitiveness "seems to be directly related" with zone location, surrounding infrastructure, quality of governance toward and within the zone, and the blend of incentive packages offered by the central and lower level governments; zones located closer to urban centers provide companies with labor inputs, better utilities, and allows for more spillovers into the domestic economy, otherwise known as "linkages." Furthermore, zones located near airports and seaports have a better likelihood of export success. The quality of infrastructure around the zone, both hard (e.g. roads, water) and soft (e.g. schools, health services), also matter, as does the quality of governance. Finally, the success of SEZs hinges on the scope of government policy concessions operators receive, where incentives help to reduce direct and indirect costs, as well as easing labor market rigidities.⁹

Feature/Component	Description of Ideal Conditions	Points
Physical Location	Coastal; close to urban center; if inland, should be in services and/or manufacturing, close to waterways, railheads, highways, or airports.	3
Infrastructure (hard)	Zone must have basic infrastructure essentials (power, water, etc.) inside and be reasonably close to highways, railheads, airports, and seaports	3
Infrastructure (soft)	Either zone or outside zone must have basic social, health, and educational services, as well as basic stores for essentials.	3
Management and Governance	Managed by private, independent firm or consortium; regulatory oversight by federal government commission, especially for those whose land is appropriated for zone development.	3
Export Composition	Manufactured goods should be in vertically-integrated clusters and coastal; it's permissible for inland zones to export services or tradable goods if it is close to waterways, railheads, airports, or highways.	3
Labor and Linkages	Each zone must demonstrate that new jobs are created for local citizens and that positive economic effects trickle back to surrounding areas.	3
Total Possible Points		18

4.2 Policy Framework

For each country in this policy analysis, we will use the framework below to investigate the zones. With this structure, we will analyze the case studies to suggest policies that seek to (1) balance the benefits and drawbacks caused by the introduction of SEZs and (2) create deeper, sustainable linkages to the domestic economies. In modern, democratic states, SEZs are politically acceptable when they are developed and operated in a manner that seeks to not only maximize exports, but also create strong linkages back to the domestic economy. The creation and development of SEZs involve the transfer of land, industrial restructuring, and a shift in exports promotion and, therefore, impact domestic prices; for these reasons, SEZs are inherently intrusive. The Model SEZ mentioned above, therefore, must serve as a barometer against which to measure the characteristics and relative performance of the zones in question, and the GoI and The Planning Commission should aim to structure policies that will maximize positive linkages and minimize negative externalities. ■

Fiscal Incentives	Non-Fiscal Attributes	Economic Climate	Linkages, Externalities
e.g. taxes, subsidies, tariffs, quotas, custom rates, carryover losses, property taxes	e.g. infrastructure, geography, regulatory, land appropriation, administrative	e.g. governance, doing business in, regulatory environment, operations, restrictions	e.g. macroeconomic, upstream, downstream, demonstration effects, negative externalities

⁸ Confederation of Indian Industry, page 6.

⁹ Aggarwal states that four key SEZ ingredients are: tax incentives, governance, infrastructure, and location.

5.0 BACKGROUND

5.1 The Chinese Experience with SEZs

Today's interest in SEZs is largely attributable to China's success with them. China created, managed, and expanded a network of zones, beginning on its southeastern coast, most notably in Shenzhen, as a means by which to jumpstart its economic development despite its lack of natural resources. The success of the Shenzhen SEZ provided the Chinese government, industrialists, and surrounding inhabitants with an economic machine. Since 1980, many have tried to replicate China's success, mixing desirable land with attractive tax holidays to jumpstart industrialization in key sectors, export-led growth, and job creation. China was able to create the infrastructure required to support its zones, which served as an example of industrial cluster-led growth.

5.2 The Indian Experience with SEZs

India is one such country that wants to replicate the Chinese SEZ model. According to Kamal Nath, India's Minister of Commerce, exports are expected to grow fivefold, GDP by two percent, and three million new jobs will be created as a result of new SEZ development across India.¹⁰ The GoI is also relying on SEZs to help attract global manufacturing technology and human capital, along with FDI, to help boost industry and, in the process, improve its existing infrastructure.¹¹

SEZs CURRENTLY IN INDIA (2007)	Coastal	Inland	Total
Manufacturing.....	48	37	85
Services.....	31	75	106
Total.....	79	112	191 ¹²

Comparison	China	India
Number	Less than 10	Ultimately 400-500
Size	large; ex: Shenzhen: 32,700 hectares	Typically small; (3,000-14,000 hectares)
Ownership	State	Private corporations
Type of land	Typically coastal wasteland	Typically fertile cultivated land
Exports	Very good; Shenzhen: NetX 2006, \$35bn	Poor so far, perhaps even negative
Employment	Substantial number of low-paid jobs	Very limited so far
Tax revenues	Only selective tax incentives provided	Across-the-board tax holidays for companies

Source: Citizens' Research Collective, FAQs about SEZs, March 2007.

5.3 The Rest of the World and SEZs

While few countries boast the topography and resources to mimic the Chinese success with SEZs, India provides an interesting comparison. Policy alone will not ensure that Indian zones succeed; their vitality depends on myriad factors. The Shenzhen SEZ not only benefited from liberal economic policies, but also from existing surrounding infrastructure and proximity to Hong Kong as a source of offshore capital.¹³ The political economy in most nations will not be as favorable. Elsewhere, experimentation with SEZs has led to mixed results. The establishment of zones has contributed to some developing nations' economic growth, serving as a region where goods can be manufactured and exported.¹⁴ Elsewhere, zones have generated policy challenges, such as expensive foreign capital, land expropriation, forgone revenue, weak investment, and poor socioeconomic linkages.¹⁵ ■

¹⁰ Department of Commerce, Ministry of Commerce and Industry, Government of India, Press Release, January 10, 2008; http://commerce.nic.in/pressrelease/pressrelease_detail.asp?id=2186

¹¹ G Raghuram, IIM-A January 2008

¹² 191 SEZs are currently operational; GoI plans call for that number to at least double over the next five years.

¹³ Cash Cows: India's Special Economic Zones, *The Economist*, October 12, 2006.

¹⁴ Kardoosh, Marwan A. The Aqaba Special Economic Zone, Jordan: A Case Study of Governance, 2005.

¹⁵ U.S. Dept. of State, Russia Investment Climate, 2007; <http://www.state.gov/e/eeb/ifd/2007/88898.htm>

6.0 FINDINGS AND ANALYSIS

6.1 Overview and Approach

In this study, we picked a sample of SEZs in each country; specifically, three from Bangladesh (Comilla; Dhaka; and Chittagong), three from Sri Lanka (Katunayake, Biyagama, and Koggala), and six from India (Santa Cruz¹⁶; Vizag; Falta; Cochin; Madras; Kandla; Noida). The zones were selected if we could find reliable data and physical information, as well as the most profitable zones in each country. For each zone, we gathered data from public sources and prior studies to construct tables (located in the appendix) of zone characteristics. While we briefly analyze SEZs in Bangladesh and Sri Lanka against the model, the analytical focus will be on India's policy toward SEZs, the GoI's plan for future zone development, and the six zones featured below.

INDIA	SRI LANKA	BANGLADESH
Santa Cruz (SEEPZ)	Katunayake (KAT)	Chittagong (CTG)
Vizag (VSEZ)	Biyagama (BIY)	Dhaka (DHK)
Falta (FSEZ)	Koggala (KOG)	Comilla (COM)
Cochin (CSEZ)		
Madras (MSEZ)		
Kandla (KSEZ)		
Noida (NSEZ)		

6.2.1 SEZs in Bangladesh¹⁷

After gaining independence in 1971, the Bangladeshi government entrusted the public sector to set the development agenda, a period that began with nationalization of major industries, incentives for export promotion, and solicitation of FDI. Gradually, Bangladesh revised industrial policies, liberalized trade, expanded zone acreage and loosened legal and administrative restrictions, and permitted private activity in SEZs. Despite the government's flexibility toward SEZ reform as part of its economic strategy, Bangladeshi zones continue to suffer from inadequate infrastructure, slow window service¹⁸ "weak governance, bureaucratic bottlenecks, [and] labor unrest [that] continue[s] to discourage domestic and foreign investors."¹⁹

Looking back, Bangladesh's SEZs policy did not enable its zones to achieve the intended results. Today, conducting business in Bangladesh remains a difficult task, as many of its existing business conditions are on par with South Asian averages but lag significantly behind that of OECD norms; according to The World Bank's assessment, Bangladesh ranks a troublesome 107 out of 178 economies in the "ease of doing business" category. In this study, we picked the following three zones to investigate:

BANGLADESH	Size (acres)	Established	NetX ²⁰ (\$US m)	NetX/acre	Employment
Comilla	267	2001	1.8	0.007	2,564
Chittagong	435	1983	651.1	1.50	85,698
Dhaka	355	1993	500.3	1.41	58,656

Source: Aggarwal data, Government of Bangladesh

¹⁶ We visited this particular zone, SEEPZ, in Mumbai, though the small size and high rate of net exports of high-priced electronic goods makes it difficult to compare against others in any of the three countries.

¹⁷ Bangladesh synopsis drawn from: Aggarwal, Aradhna. **Performance of Export Processing Zones: A Comparative Analysis of India, Sri Lanka, and Bangladesh**. ICRIER Working Paper No. 155, March 2005

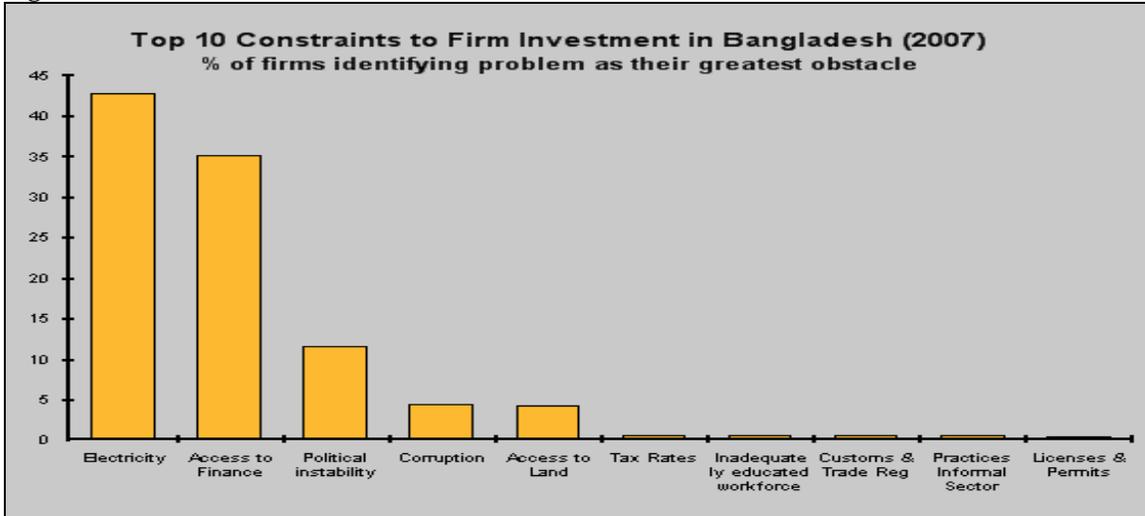
¹⁸ "Single-window" service refers to the ease with which SEZ participants can obtain approval for certain procedures, where bureaucratic bottlenecks are reduced by enabling a firm to only attend one window.

¹⁹ Aggarwal, p. 4 (Bangladesh)

²⁰ Averages from 1998-2003

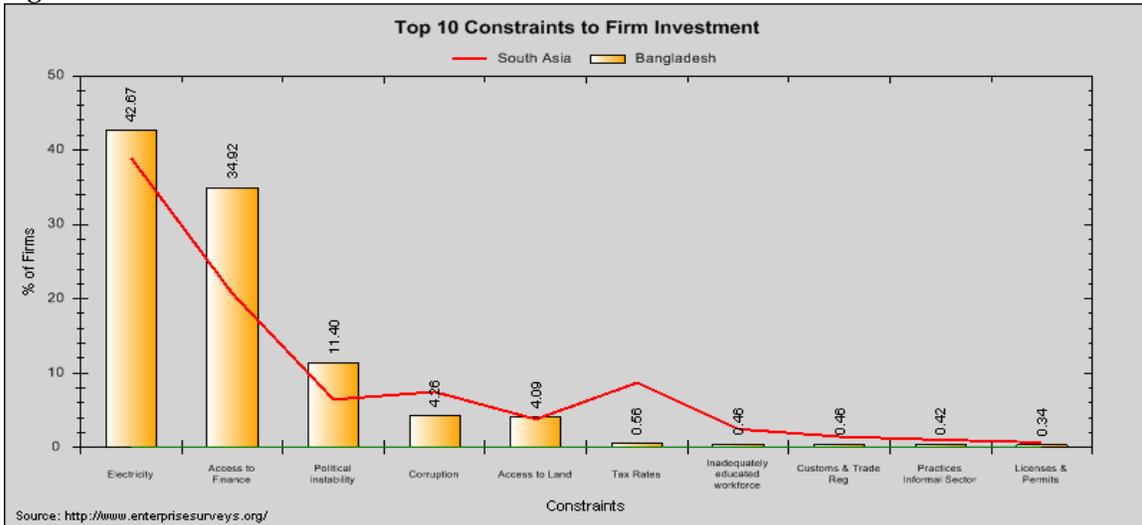
Furthermore, as Figure 1.1 and Figure 1.2 demonstrate, investment in Bangladeshi enterprises are constrained by a number of essential factors, such as electricity, access to finance and capital, political instability, corruption, and access to land, among others; these constraints also place Bangladesh below the South Asian averages.

Figure 1.1



Source: The World Bank Group, International Finance Corporation, “Doing Business” at doingbusiness.org

Figure 1.2



Source: <http://www.enterprisesurveys.org/>

Source: Bangladesh, Enterprise Surveys for DoingBusiness.org

According to our analysis, we scored Bangladesh’s three zones against the model and within the policy framework set forth earlier. Of the zones we profiled, Dhaka and Chittagong scored reasonably well, both benefiting from a diverse product mix, high employment trends, and sufficient hard and soft infrastructure. The zone at Comilla, on the other hand, did not score as well, suffering from a poor location, poor social infrastructure, and a weak export mixture. Keeping in mind that other zones exist in Bangladesh, such as those at Mongla, Ishwardi, Uttara, we cannot jump to any conclusions about the country as a whole, but our analysis does highlight the importance of a zone’s location to its economic success and ability to generate linkages in the forms of job creation to the domestic economy.

We scored the three zones in Bangladesh accordingly:

Feature/Component	Possible	Dhaka	Chittagong	Comilla
Physical Location	3	2	3	1
Infrastructure (hard)	3	3	3	2
Infrastructure (soft)	3	2	2	1
Management and Governance	3	2	2	2
Export Composition	3	3	3	1
Labor and Linkages	3	2	3	2
Total Points	18/18	14/18	16/18	9/18

Despite the fact that Bangladeshi zones are given generous fiscal incentives (Exhibit 1), the non-fiscal attributes of its zones, such as the proximity to airports, seaports, and commercial centers, plays a significant role in the economic vitality of each zone's contribution to the country's economy as well as its ability to provide strong linkages to the surrounding areas and economies. While the fiscal policies and tax breaks are similar to those given to Indian SEZs, zones in Bangladesh are obviously constrained further by the financial risk associated with its political instability, its factor endowments and small coastal area, and its limited manufacturing and services resources. If there is anything for India to learn from the Bangladeshi experiment (Exhibit 4), it is that the establishment of a strong social infrastructure in and around the zones can be achieved as a means to attract foreign capital and talent, even in a developing country with a poorly ranked business climate.

6.2.2 SEZs in Sri Lanka²¹

Sri Lanka began looking at SEZs after Bangladesh, after withstanding a drastic change in power. Motivated in part by its own economic stagnation, Sri Lanka liberalized trade and investment, which involved significant changes to its exchange rate, tariffs, and quotas. Sri Lanka opened its first SEZ (in Katunayake) in 1978, which benefited from a liberalized trade policy to become a relative success and motivated government to build more. As an island nation, Sri Lanka's topography affords it certain inherent advantages in SEZ development, though its small size and location also limits the extent to which domestic industries could leverage SEZs. Sri Lanka's economic strategy hoped to attract FDI by offering tax holidays, fiscal incentives, and an accommodating central policy.

In retrospect, Sri Lanka's zones have outperformed Bangladesh's, but considerable challenges lay ahead. Today, conducting business in Sri Lanka remains a difficult task, as many of its existing business conditions are on par with South Asian averages but lag significantly behind that of OECD norms; according to The World Bank's assessment, Sri Lanka does not fare much better than its South Asian neighbors, ranking 101 of 178 economies in the "ease of doing business" category. In this study, we picked the following three zones to investigate:

SRI LANKA	Size (acres)	Established	NetX (\$US m)	NetX/acre	Employment
Katunayake	469	1978	769.4	1.64	51,948
Biyagama	445	1985	278.3	0.63	19,904
Kogalla	91	1991	39.5	0.43	10,230

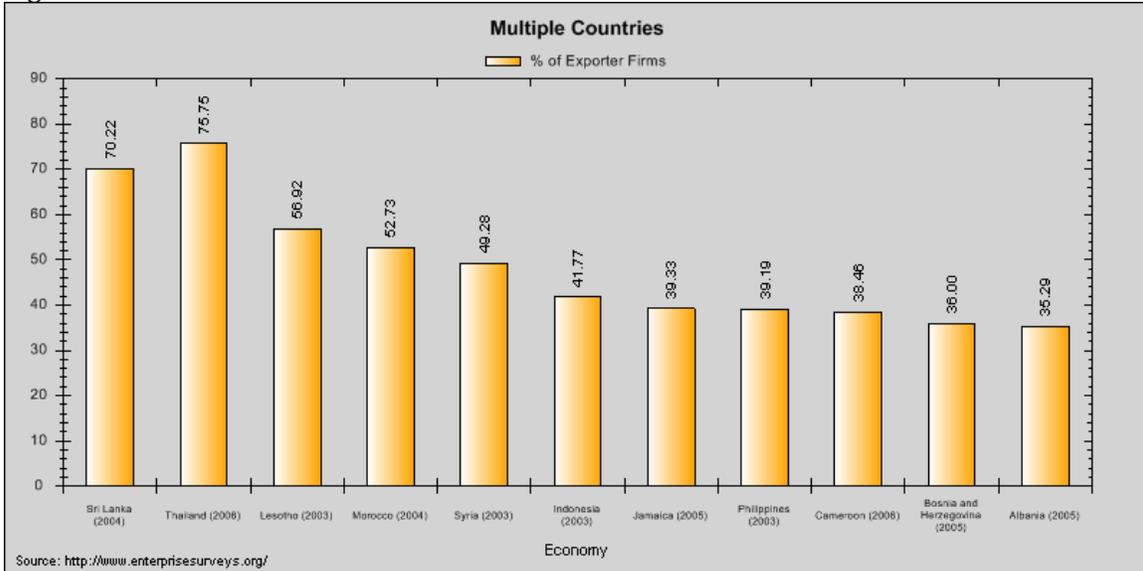
Source: Aggarwal data, Government of Sri Lanka

As an island nation surrounded by attractive sea lanes, trade routes, and large markets in India, East Asia, East Africa, and the Middle East, Sri Lanka is well-positioned to exports goods created in its zones to a diverse range of middle or end markets. As Figure 1.3 demonstrates, compared to other countries' similar or even high per capita incomes, Sri Lanka ranks highest with the number of firms exclusively focused on the export sector. At the same time, however, because Sri Lanka is a small

²¹ Sri Lanka synopsis drawn from: Aggarwal, Aradhna. **Performance of Export Processing Zones: A Comparative Analysis of India, Sri Lanka, and Bangladesh**. ICRIER Working Paper No. 155, March 2005

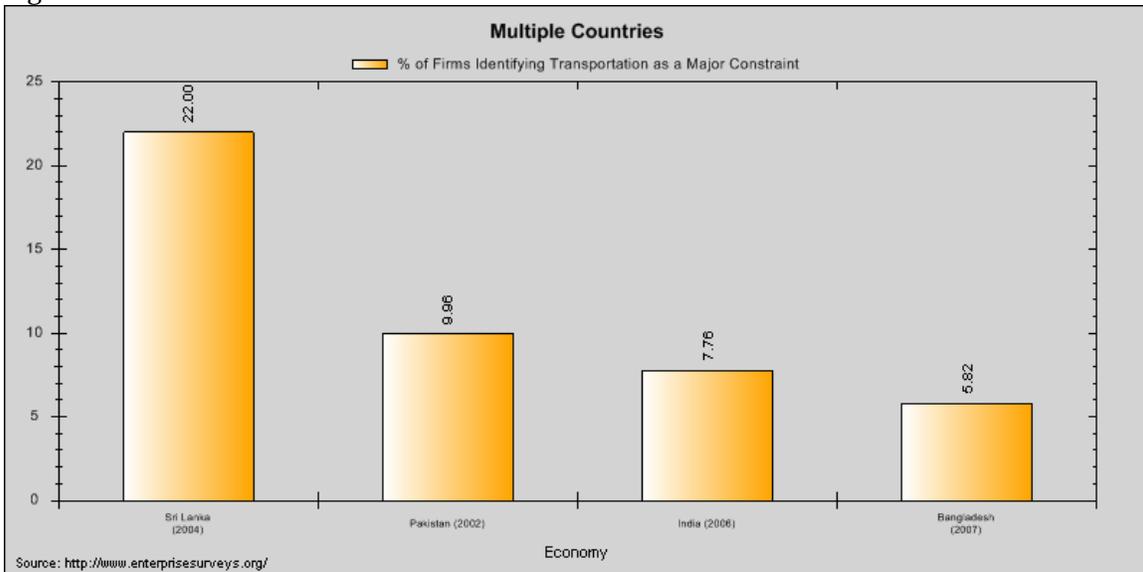
nation, it cannot, like India, rely on its own domestic market or neighboring markets to provide a market for products manufactured in its zones. Transportation, therefore, is critical to the economic success of Sri Lanka and, thereby, its zones. As Figure 1.4 show, more firms in Sri Lanka cite transportation as a major constraint to conducting business relative to other South Asian economies.

Figure 1.3



Source: The World Bank Group, International Finance Corporation, “Doing Business” at doingbusiness.org

Figure 1.4



Source: The World Bank Group, International Finance Corporation, “Doing Business” at doingbusiness.org

According to our analysis, we scored Sri Lanka’s three zones against the model and within the policy framework set forth earlier. Of the zones we profiled, Katunayake and Biyagama scored very well, both benefiting from a diverse export mix, high levels of local employment, and excellent hard and soft infrastructure. The zone at Koggala, conversely, did not score well, suffering from its distance to a close commercial center, poor hard and soft infrastructure, and an undiversified product mixture. Keeping in mind that zones exist in Sri Lanka, such as those at Malwatta, Mirigama, Wathpitiwala,

Horana, Mawatagama, and Polgahawela, it is difficult to make assertions about the entire nation's zone network, but our analysis does highlight the importance of a zone's export mix and location for employment creation to its economic success and ability to create linkages.

We scored the three zones in Sri Lanka accordingly:

Feature/Component	Possible	Katunayake	Biyagama	Koggala
Physical Location	3	2	3	1
Infrastructure (hard)	3	3	3	1
Infrastructure (soft)	3	3	3	1
Management and Governance	3	2	2	2
Export Composition	3	2	3	1
Labor and Linkages	3	3	2	1
Total Points	18/18	15/18	16/18	7/18

Like zones in Bangladesh, zones in Sri Lanka are also blessed with a host of generous fiscal incentives (Exhibit 1). Being a small island nation, the non-fiscal characteristics of Sri Lankan zones, most notably their proximity to seaports, are of greater importance. While the fiscal policies and tax breaks are similar to those given to Indian SEZs, zones in Sri Lanka are extremely dependent on the robustness of transportation links, given their large percentage of exporter firms. Looking at Sri Lanka's experience with zones, India can draw lessons for itself, specifically related to the development of zones across its massive coastline; these zones will have to not only compete against Sri Lankan zones for access to international trade routes, but also have to serve domestic markets.

6.2.3 SEZs in India²²

India's experience with SEZs dates back to the 1960s, the first country in South Asia to experiment with zones; its first EPZ (not SEZ) was in Kandla, Gujarat, in 1965. At that time, EPZ policy was restrictive; over the next 40 years, the GoI gradually liberalized zone policy, converting many EPZs to SEZs, allowing private administrators, simplifying procedures, and adding fiscal and non-fiscal incentives for zone development.²³ According to Aggarwal, the Indian SEZ experience covers four phases: initial phase (1964-1982); expansionary phase (1982-1990); consolidating phase (1991-2000); and emergence phase (2000-present).²⁴ Through these lenses, we can trace India's shift from conservative growth policies (marked by import substitution regimes, domestic market protection, and biases against export promotion) to 1991 and financial reforms, when SEZs became a key ingredient in the country's economic growth strategy (marked by heavy intra-zone infrastructure investments and liberalization of growing domestic markets, despite serious general infrastructure gaps between zones and domestic markets, and the resultant drag it places on investment). During its "emergence" phase, India will soon face challenges posed by its next phase, when its SEZs either converge (to reduce inequities between them) or restructure (where weak zones are disbanded).

The question raised by the advent of SEZs in India is whether it is better for New Delhi to enact its own reforms from within or to use zones to help stimulate reform by trial and experimentation across zones. In a country as large and geographically diverse as India, a network of SEZs provides the central government with an opportunity to test various fiscal policies on zones with the effect of policy experiments. Despite India's the glowing reviews donned on the Indian economy by the international business media, it is no secret that conducting business in the country is extremely difficult; according to The World Bank's assessment, India ranks below both Bangladesh and Sri Lanka in this overall category, ranking 120 of 178 economies in the "ease of doing business"

²² India synopsis drawn from: Aggarwal, Aradhna. **Performance of Export Processing Zones: A Comparative Analysis of India, Sri Lanka, and Bangladesh**. Working Paper No. 155, March 2005

²³ Confederation of Indian Industry, page 2.

²⁴ Aggarwal, p. 1 (India)

category. Firms operating in India cite numerous obstacles in their pursuit of business success (Figure 1.6), such as electricity shortages, complex tax systems, and corruption, among others. In this study, we picked the following six zones to investigate:

INDIA	Size (acres)	Created	NetX (\$US m)	NetX/acre	employment
Santa Cruz (SEEPZ)	93	1973	1098.9	11.78	(corresponding graph below, Figure 1.5)
Vizag (VSEZ)	360	1994	41.1	0.11	
Falta (FSEZ)	280	1984	29	0.10	
Cochin (CSEZ)	103	1986	60.3	0.59	
Madras (MSEZ)	261	1984	157.2	0.60	
Kandla (KSEZ)	700	1966	127.2	0.18	

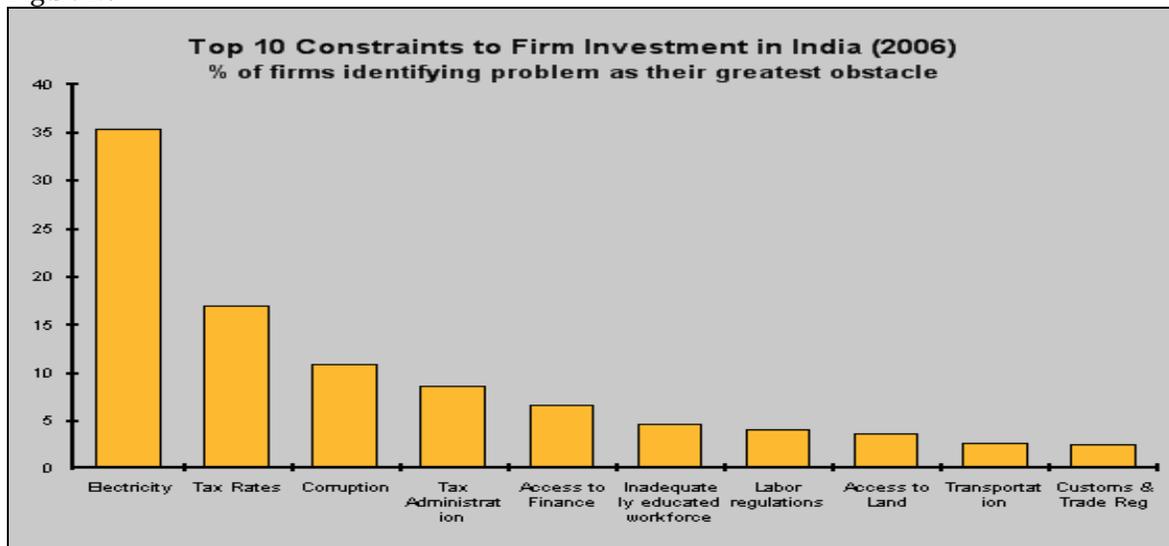
Source: Agarwal data, Government of India

Figure 1.5



Source: Ministry of Commerce and Industry, Government of India

Figure 1.6



Source: The World Bank Group, International Finance Corporation, "Doing Business" at doingbusiness.org

We scored the six zones in India accordingly:

Feature/Component	Possible	SEEPZ	VSEZ	FSEZ	CSEZ	MSEZ	KSEZ
Physical Location	3	3	2	1	2	3	2
Infrastructure (hard)	3	3	1	1	3	3	2
Infrastructure (soft)	3	3	1	1	1	2	1
Management/Governance	3	3	2	2	2	2	2
Export Composition	3	2	1	1	2	2	2
Labor and Linkages	3	2	1	1	3	2	1
Total Points	18/18	16/18	8/18	7/18	13/18	14/18	10/18

The Government of India has given its SEZ generous fiscal incentives (Exhibit 1). As a nation on orders of magnitude larger and blessed with more diverse factor endowments, human capital, domestic markets, and coastal property, India is not easy to compare with either Bangladesh or Sri Lanka. Unlike its counterparts in this study, India's SEZs are as diverse as the country itself; for example, consider the sheer size afforded to some of its forthcoming zones in Figure 1.7:

Figure 1.7. Minimum Size Requirements for Indian SEZs built after 2006

Nature of Special Economic Zone Activity	Minimum Size (hectares)
Multi-product	1000
Service-sector	100
Electronics, Hardware, and Software (IT)	10
Biotechnology, Alternative Energy, or Gems & Jewelry	10
Warehousing zones (multi-product)	40
Warehousing zones (specific sector)	no minimum

Source: The SEZ Act 2005, Government of India

Furthermore, the management of such a geographically diverse and dispersed network of SEZs poses many challenges to the GoI. In central governments overseeing small countries, such as Sri Lanka and Bangladesh, the functions represented below in Figure 1.8 could be administered from the government capital; in the case of India, so many large departments, some with major branches not located close to New Delhi, are entrusted with the difficult task of crafting a balanced policy with respect to SEZ setup, management, and development. The following chart depicts the various institutional branches within the GoI that hold major decision-making power with respect to crafting and managing policies toward SEZs (this chart only covers the major policy considerations associated with the development of SEZs and is not comprehensive):

Figure 1.8. Institutional Policy Map for Management of Indian SEZs, Center Level

SEZ Policy Area	Authority in Government of India
SEZ framework, rules, procedures	Ministry of Commerce; Planning Commission; Directorate Trade
Income Tax Concessions	Department of Revenue
Customs and Excise Taxes	Department of Revenue
Sales Tax	Ministry of Finance; Department of Revenue
Corporate Relations and Affairs	Ministry of Finance, department of revenue
Foreign Direct Investment	Department of Industrial Policy and Promotion
Foreign Exchange/Remittances	Reserve Bank of India
Infrastructure	Department of Urban Development
Power	Ministry of Energy and Environment

Source: Aggarwal data, Government of India, SEZ Web site

In 2008, India almost has 200 SEZs; moving forward, it hopes to nearly triple that amount. While it is outside the scope of this study to extrapolate to India's entire SEZ network, we can focus on the six zones profiled above.

High Performers | By far the best performer is the SEZ at **Santa Cruz**, in Mumbai, a zone created to help accelerate in electronics manufacturing. The Santa Cruz zone also needed to diversify to maintain its edge in a competitive landscape, adding the production of gems and jewelry to its product mix. Unlike other zones, the SEEPZ neighbors India’s most robust financial center, giving it access to capital and the ability to use the surrounding region’s existing infrastructure, logistics networks, raw materials, and labor markets. Given all of these conditions, the performance of the SEEPZ is excellent; however, it is not easily replicable considering its location. In **Madras**, the second ranked zone in our sample, the SEZ became a large employer, providing the region with strong linkages. The Madras SEZ, located close to a major seaport positioned well to reach Singapore’s transshipment container hub, is highly diversified in garments, software, and engineering products, as well as growing sectors in automobile parts manufacturing. Madras’ SEZ serves as an excellent example of an Indian SEZ strategically located to ports, diversified in its exports, and a zone that can connect back to India’s domestic market.

Medium Performers | Zones in **Cochin** and **Kandla** scored moderately; Cochin’s zone, though it is well-situated close to ports and other developed infrastructure, has a highly diversified in software, engineering products, electronics, and plastics, and benefits from large investments, it has been growing but is currently unable to get around state roadblocks. In Kandla, in the rapidly developing state of Gujarat, the zone is highly diversified in garments, engineering products, chemicals, and plastics. Traditionally, this area lacked the advanced hard and soft infrastructure that a premier zone needs to flourish; however, building on the industrial culture of Gujarat and investments by conglomerates such as Hindustan Lever, the Kandla diversified further into scrap metal, recycled goods, among other small industries. The result is that the Kandla SEZ is growing and creating jobs, despite the hurdles its location initially presented. (The SEZ in Noida, outside New Delhi, though not profiled in this study, is also performing well. The Noida zone is of note because it is an inland zone; though it is close to airports and an inland container depot (ICD), this zone was placed in an area originally considered backward but is now doing well, specializing in electronics, gems, and jewelry. Today, Noida is considered a growing industrial city and a great success, though development challenges still lay ahead.)

Poor Performers | The SEZs at **Vizag** and **Falta** scored poorly. Vizag, despite being an industrial town, boasts strong unions and a low work ethic, as it is traditionally considered a backward area with extremely poor connections to airports, seaports, rail networks and highways. These conditions, combined with a shortage of skilled labor from the surrounding areas (and a difficult area to recruit foreign talent to), makes Vizag incapable of competing with the likes of a zone like in Madras. In Falta, the zone with the lowest score, the potential for improvement and contribution to development in the surrounding areas seems promising. Given its location to the major port city of Kolkata, the Falta zone’s export diversification in plastics, rubber, food processing, electronics, chemicals, gems, and jewelry could help offset what is traditionally considered a backward area, lacking in industrial culture and boasting strong labor organizations resistant to change.

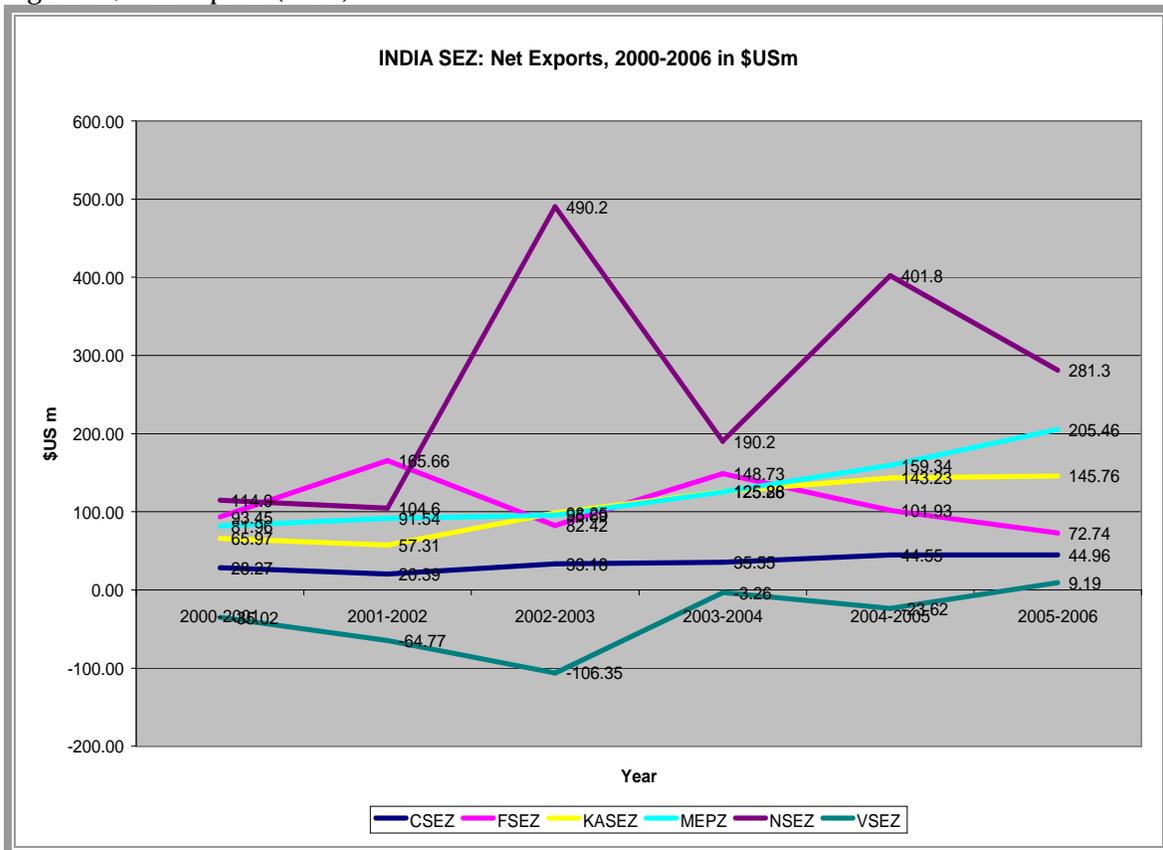
Measuring Profitability | One metric we use to analyze the six Indian SEZs is “Net Exports, in millions of U.S. dollars, per acre,” or NetX/acre, a metric that tries to estimate the positive impact to India’s GDP—recalling that a country’s domestic production is made up of consumption plus investment plus government spending plus net exports. Like a corporation would, India’s macroeconomic strategy is to use SEZs to boost GDP. The logic, then, for this metric is that in creating zones and luring investment and industry with generous tax incentives, the GoI is losing some tax revenue that it could redistribute as part of government spending, adding to GDP.

Therefore, SEZs that do not turn a “profit” – that is, the difference between its exports less its imports, divided by the plot of land in acres, is greater than zero – should be given a timeframe within which to move into the black, change its product mix or policy, or end operations. If a zone is

turning profit and it continues to grow, and if that growth is high enough to offset the lost revenue, then it would meet the first test and should remain; from here, the profits, which are pumped back into the GDP as net exports, should be distributed to compensate losers of the policy, namely those who lose land that is appropriate for SEZs or lose jobs that go under the direction of firms operating with the zone. (Figure 1.9 and Figure 1.10 below show net exports and net exports per acre below, but do not include net exports from the Santa Cruz SEZ because they are so high and therefore not comparable with the rest of the sample group.)

Note: While this metric is not comprehensive (as some zones are built to contribute to local development, not to boost GDP), it is biased toward zones focused on high-value exports (gems versus lumber), and is agnostic toward the inherent value of the land the SEZ inhabits, it does serve to measure a zone's efficiency; for instance, a zone that cuts down on imports either by securing cheap contracts with suppliers or by sourcing materials from the surrounding areas (or even within the SEZ), will have higher net exports. By measuring net exports against the size of the zone, we can crudely compare zones against each other, recognizing that a more formal comparison would have to take into consideration the value of the land absent an SEZ, the export mix in each zone, and a host of other factors.

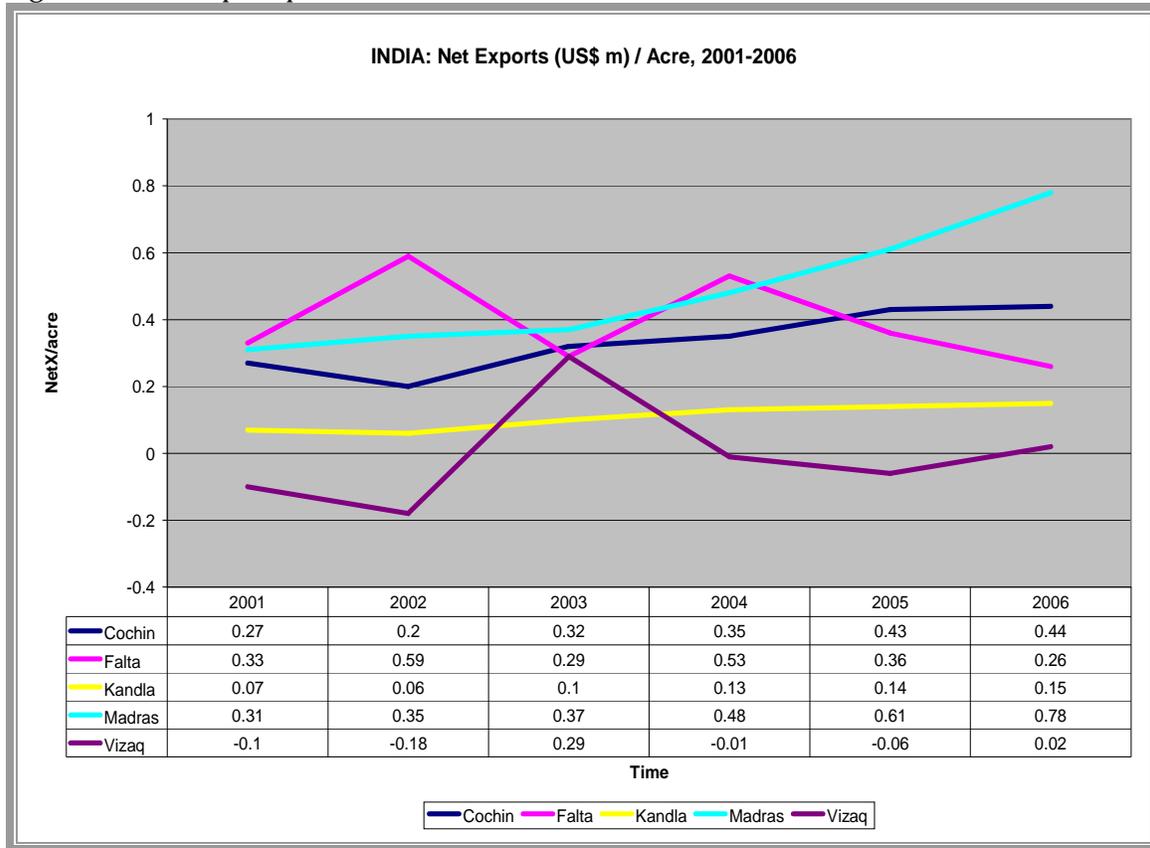
Figure 1.9, Net Exports (India)



Source: Aggarwal data; Government of India; SEZ Web site

According to Figure 1.9, all SEZs have increased their net exports since 2000, with the exception of Falta, whose zone is located in one of the poorest, industrially backward sections of India, and Noida, not profiled here, but also of interest given its location (inland) and backward leanings.

Figure 1.10, Net Exports per Acre (India)



According to Figure 1.10, despite the efficiency demonstrated earlier in Figure 1.9, only one zone, the Madras SEZ, is behind an accelerating trend in efficiency based on the amount of land it uses. Compared to other zones with reasonably similar products for export and irrespective of zone size, the Madras SEZ provides an intriguing example not only for India as a model for future zone development, but also for other countries considering coastal SEZs near large port cities.

6.3 Regional Comparison

SEZs in Bangladesh, Sri Lanka, and India are created for numerous reasons, one of which is to give companies a means for getting around business conditions that are not conducive. For example, as Figure 1.11, Figure 1.12, and Figure 1.13 demonstrate, a good number of firms in each of the three countries cite the lack of electricity and power, the inability to secure affordable finance and capital, and complex trade and customs regulations as significant constraints to business. One step further, as Figure 1.14, Figure 1.15, and Figure 1.16 show, the differences in firms' responses relative to their sector (export or non-export) highlight the potential benefits that more liberal rules in SEZs could confer upon companies. In theory, the special economic zone is a way to address these and other concerns by lifting cumbersome regulations, offering targeted subsidies, and encouraging private capital investment, mostly from overseas, to help domestic companies and attract foreign businesses to the country. As Exhibit 1 demonstrates, the fiscal incentives provided to SEZs by each of the three governments are virtually comparable, less a few differences here and there. In reviewing the scoring of zones in our sample against the model, it is not surprising to see that zones located in industrially forward areas that are close to seaports (and other modes) have the best chance to make positive contributions, both in an economic sense and in the form of socioeconomic linkages. ■

Note: Figures 1.11, 1.12, 1.13, 1.14 (India), 1.15 (Bangladesh), and 1.16 (Sri Lanka) are on the next two pages.

Figure 1.11, Percent Firms Identifying Customs and Trade are a Major Constraint (South Asia)

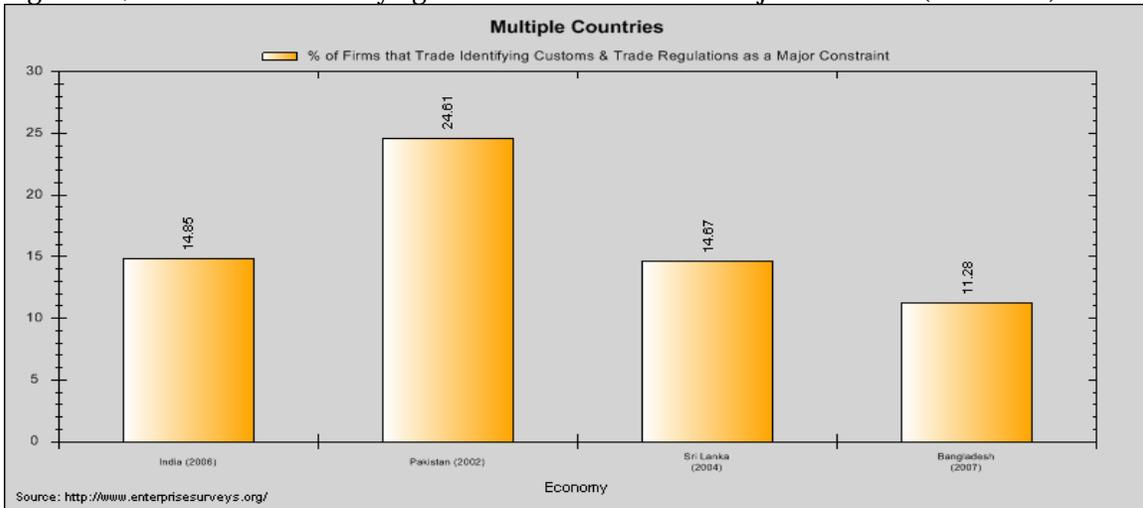


Figure 1.12, Percent of Firms Identifying Electricity as a Major Constraint (South Asia)

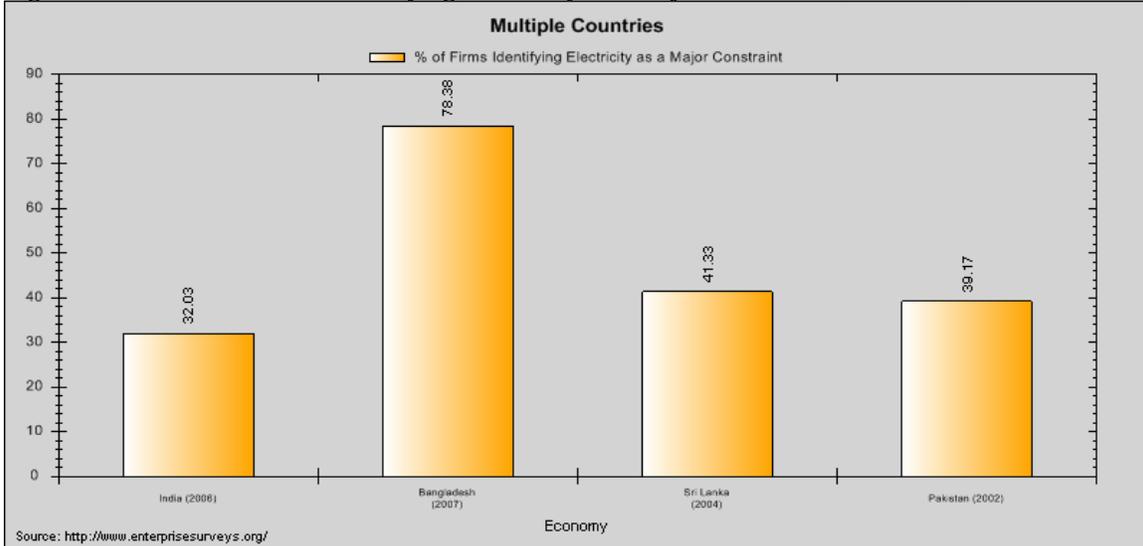


Figure 1.13, Percent of Firms Identifying Cost of Capital as a Major Constraint (South Asia)

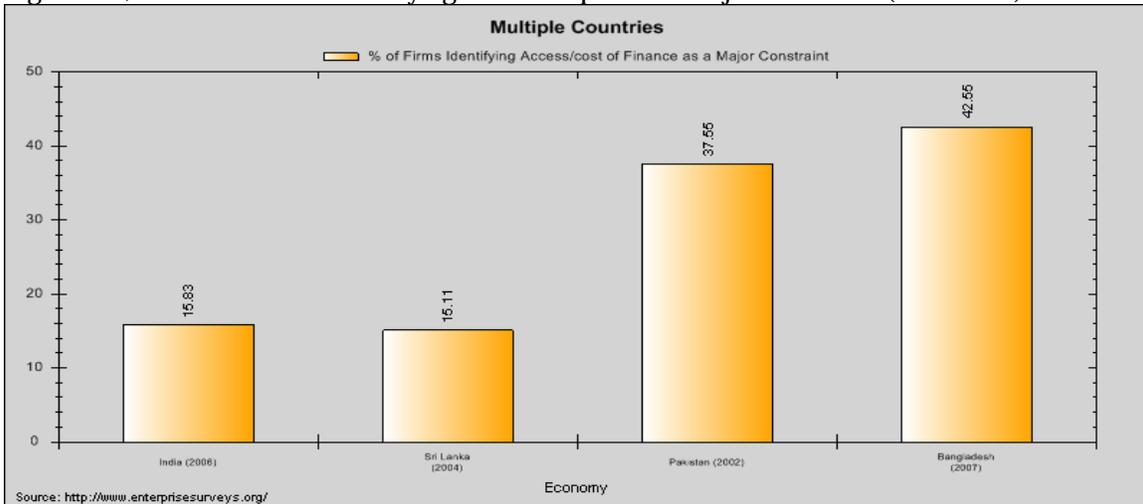


Figure 1.14, Percent of Firms Identifying Taxes as Major Constraint (Export vs. Non-Export)

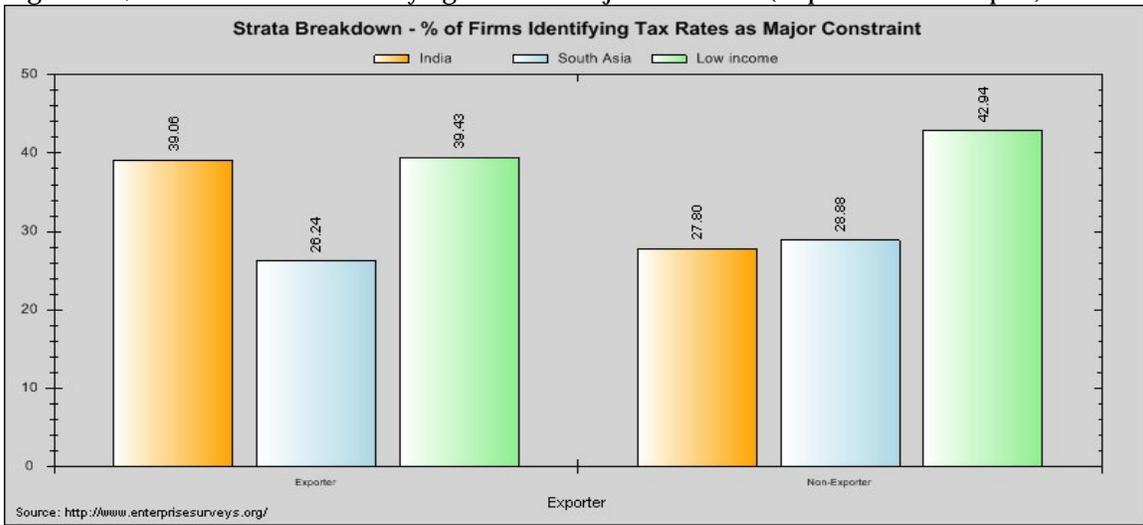


Figure 1.15, Percent of Firms Identifying Taxes as Major Constraint (Export vs. Non-Export)

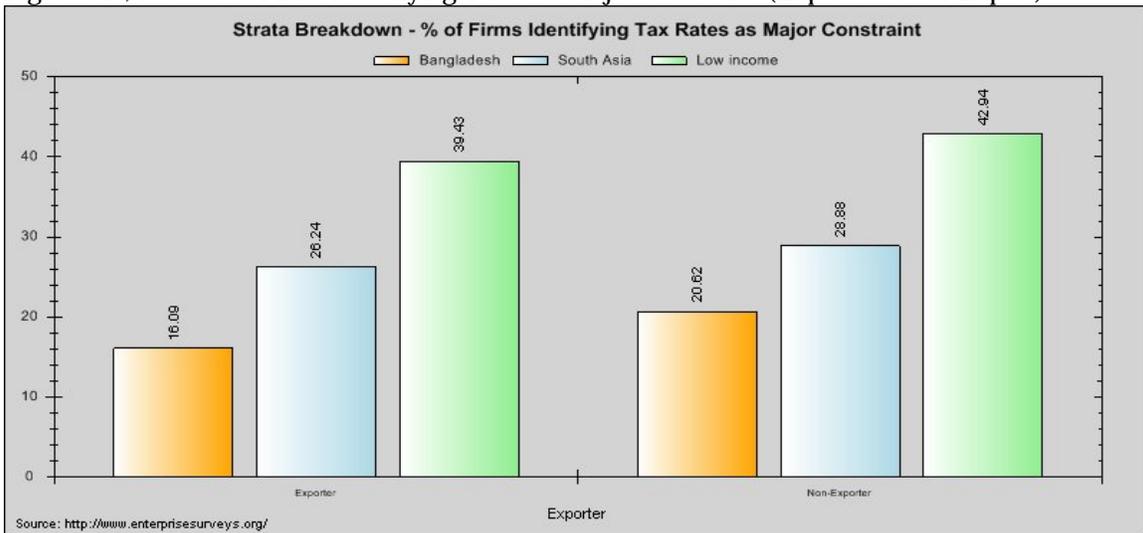
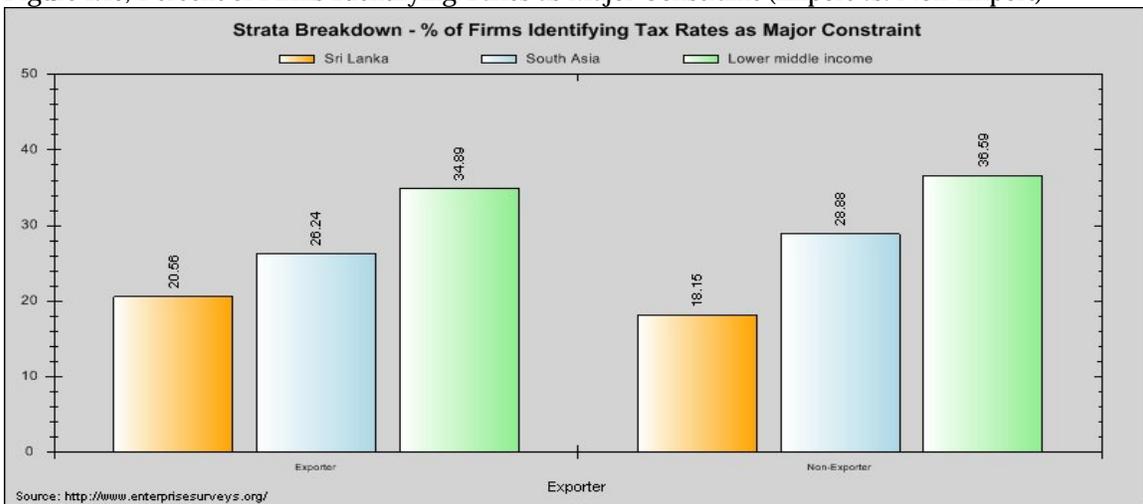


Figure 1.16, Percent of Firms Identifying Taxes as Major Constraint (Export vs. Non-Export)



7.0 POLICY RECOMMENDATIONS

7.1 Economic Policy Context

The stated, explicit objectives of India's SEZ Act of 2006 are to (1) generate economic activity, (2) develop infrastructure facilities, (3) create employment opportunities, (4) promote investment from domestic and foreign sources, and, of course, (5) promote the export of goods and services from India. Implicitly, the SEZ Act seeks to aggregate economic activity by creating world-class facilities, bolstering a dynamic market environment, and addressing major infrastructure constraints. In exchange for assuming the inherent risk of an SEZ project, developers and private firms receive generous tax concessions from the GoI; for example, firms receive tax rebates for processing activities, integrated legislation, simplified compliance procedures, as well as the ability to scale-up SEZ projects (that are over 2,470 acres) for multi-product zones.

7.2 Public Outburst and Backlash

The unbalanced provisions within the SEZ Act of 2006 sparked an extremely loud outburst, mainly driven by concerns over compulsory land acquisitions for SEZs, which triggered a dramatic shift in land use, a development paradigm concentrated in favor of vested interests, disproportionate tax concessions awarded in favor of developers and private enterprise, and the eventual deindustrialization in the surrounding, non-SEZ areas. The outburst seared and eventually subsided after public fallout; now, states are forbidden from seizing lands for SEZ development, a maximum land area is mandated for SEZ parcels (along with a minimum threshold area for processing areas), states are able to reconsider fiscal incentives offered to private enterprise, infrastructure requests are only approved sparingly, and the Reserve Bank of India now views loans for SEZ development to be classified as real estate loans, carrying very high premiums and interest rates.

7.3 Summary of Findings

Stepping back, the main takeaway points for the GoI are that SEZs:

- Are not located in close enough proximity to key transportation links, such as railheads, seaports, airports, and highways;
- Do not necessarily export products in related, clustered industries;
- Require the appropriation of land from citizens who are not properly compensated;
- Do not always provide the strong, backward linkages to the domestic economy; and
- Should be measured for performance by using a metric based on net exports.

7.4 Summary of Recommendations

Based on the analysis, the recommendations we make to the GoI moving forward are as follows:

1. SEZ notices should be made in conjunction with earmarked funds for improved infrastructure in surrounding areas, such as transportation links, ports, and highways;
2. SEZs should create incentives for firms in vertically-integrated businesses to form industry clusters in services and manufacturing sectors;
3. SEZs should be measured for performance by analyzing a zone's profitability and contributions to GDP, as well as linkages back to the domestic economy; and
4. Citizens who lose land for SEZ development must be compensated fairly and validated by an independent, regulatory body.

7.5 Balancing Lenses of Perception

Successful public policy toward SEZs in India will seek to balance the macroeconomic benefits generated by zones against their costs. Good policy will seek to ensure reconciliation between differing economic and political interests without adversely affecting the overall business climate in India, especially in the eyes of foreign investors. Today, SEZs are perceived by Indians and foreign

investors through two separate, competing lenses. Some see SEZs as critical engines for export promotion, industrial development, global integration, and raising gross domestic product; the fruits from these benefits will trickle down from New Delhi in the form of government programs to help those who need it, such as with the National Rural Employment Guarantee Act. Others, however, see SEZs simply as highly leveraged real estate deals (like the RBI) or as unfair land grabs from uneducated landowners.

The challenge for public policy in India, in addition to creating frameworks for more balanced public-private partnerships in SEZ development, is to balance the benefits against the costs (briefly illustrated below) and maintain the spirit of the next five year plan's theme of "Inclusive Growth."

Potential gains from SEZs	Potential drawbacks related these gains
Foreign exchange injection	Pressures on currency; overstatement
Net exports increase	High import costs for inputs, raw materials
Job creation/wealth generation	Lack of job security; exposure to demand shocks
Higher wages	Wages not guaranteed by salaried contracts
Self-discovery	Skills not guaranteed to be in high-value fields
Upstream linkages	Products produced require expensive/rare inputs
Management training	Skills may not be transferable
Provides cohesive industrial structure and strategy	Forgone taxes (revenues and fees); opportunity costs in public investments; environmental breaches; safety and labor law issues arising from lack of government regulation

To that end, here are our recommendations for SEZ policy reform:

7.5.1 Recommendation 1

The GoI should couple SEZ announcements with government earmarks and financing targets to improve necessary infrastructure in surrounding areas. Our research demonstrates that simply introducing SEZs to areas, especially those where the surrounding infrastructure and transportation links are less than developed, does not ensure that the infrastructure will magically appear on its own as the SEZ matures. Furthermore, SEZs commissioned exclusively for exportable, tangible, manufactured goods should be built on coastal property, especially close to seaports, airports, highways, and railheads. For inland SEZs, the focus should be restricted to services, specifically those that can be exported and delivered over broadband and telephone networks, such as business process outsourcing, offshore banking services, software design, and a host of customer services related to these and other industries. At the same time, it is problematic to place SEZs in areas that already suffer from high-density and congestion, as the new surge of activity places unbearable pressures on existing infrastructure. Therefore, zones should be dispersed geographically in such a way that their location help address infrastructure gaps but do not stress areas already under duress. To address this, the GoI should scale incentives per SEZ to induce development in areas that need the most attention; once a zone is set up and successful, it should set aside a predetermined percentage of the zone's proceeds (measured by average annual net exports per acre) exclusively to be included in infrastructure financing deals for the surrounding areas, such as for transportation links to key ports, highways, railheads, and to the hinterland.

7.5.2 Recommendation 2

The GoI should create incentives for firms in vertically-integrated businesses to form industry clusters in services and manufacturing sectors. While our analysis did not dive deeply into the specific product mix of each SEZ in India (all except one zone were multiproduct), there are reasonable arguments in favor of supporting protocols for SEZ development by the GoI to create incentives for specific zones to manufacture and export specific products that, working in tandem with other ventures within the zone, would come together to form industry clusters—this strategy would apply to industries that were both vertically and horizontally integrated. The government can

also encourage firms to locate in India that focus on high-value exports with low gestation periods that can also be competitive in the domestic market. While the government should not mandate what is produced in various zones, the pairing of industries in complimentary industries won't happen naturally unless the GoI encourages it by creating incentives; for instance, firms hoping to join an SEZ that could source to an incumbent resident may be given deeper incentives to locate. Broadly speaking, SEZs can be used to aggregate sector-specific industrial economic activity and the application of product controls can help offset potentially inflated prices of SEZ-produced goods that make their way back into the domestic market.

7.5.3 Recommendation 3

The GoI should measure each SEZ's performance by each zone's profitability, contributions to GDP, and linkages to the domestic economy. Our research demonstrates that, in India, with the exception of the SEZ in Santa Cruz, near Mumbai (SEEPZ), that the five zones we profiled were all of different sizes (acres) and displayed varying degrees of profitability (net exports equal exports less imports). This profit, or net exports per acre (NetX/acre), can help the GoI and corresponding regulatory and planning agencies to set a benchmark for performance. This metric also enables authorities to more selectively allocate development funds and fiscal incentives for zones that are performing well while pinpointing problem SEZs to target specific remedies or possibly shutting them down after consecutive periods of unprofitability.

7.5.4 Recommendation 4

The GoI should create robust measures to properly compensate citizens who lose land for SEZ development and these deals should be overseen by an independent, regulatory body. Despite the fact that existing landowners can now enter into their own private agreements, contracts, and asset transfers with SEZ developers and firms, the GoI needs to still take an active role to ensure that landowners receive the best deal the market will bear. To ensure this, the GoI needs to create an independent oversight body to counsel on behalf of existing landowners who are dissatisfied with their offer; at the same time, any arbitration system must not be administratively complex such that it would retard setup time and dissuade firms from locating to Indian SEZ. Currently, with the public backlash against new SEZ developments—and the fact that the RBI classifies loans for SEZs as “real estate loans” and carry higher interest rates—the government needs to aggressively address the shortcomings and restore the credibility of its SEZ strategy or risk the amplification of dissatisfaction. There are many financial and transactional innovations possible to help bridge the divide between normal landowners and SEZ developers. For example, assuming that unprofitable SEZs are eventually phased out based on agreed upon metrics (such as NetX/acre), profitable SEZs should, in exchange for the generous fiscal incentives it receives, put a portion of their profits aside (such as in an interest bearing account) to further compensate landowners. One can imagine a host of compensation models—as another example, SEZ developers could offer, as part of an overall compensation package, shares in SEZ-destined firms to existing landowners.

7.6 Concluding Thoughts

While we have attempted to answer some questions raised by the advent of SEZs, we should also take time to step back and remember that SEZs are around to serve straight-forward ends, such as creating jobs, boosting exports, and (hopefully) creating linkages back to the domestic economy. Countries also want to encourage foreign investment by reducing the cost of entry through cheaper land rates and efficient customs procedures (“single window” facilities). Additionally, countries also need social infrastructures suitable to convince foreigners to move to a developing country.

Moving from SEZ theory to implementation, however, raises numerous questions:

- Should SEZ be operated by the government, by private interests, or by a consortium?
- Should states have more control over SEZs than the central government?

- Should SEZs be considered vital to economic development or simply real estate transactions?
- Should government use eminent domain, or redistribute land through market-based means?
- Should governments conduct their own institutional reforms (to make doing business easier), or should they use SEZs to change business conditions?

The list of questions is endless, and any answers are, at best, debatable, no matter how robust the data is. In this study, we have attempted to start a conversation about what works in SEZs and what does not, only looking at one growing region of the world. We have tried to deduce what makes an effective zone (The Model Zone), and looking in South Asia, we noticed that a zone's location and surrounding infrastructure is critical to its success, as are the services each zone provides to firms, employees, and neighboring citizens. We have created a structured inventory (Policy Analysis Framework) whereby other countries in any corner of the world can begin to conceptualize a plan for a network of SEZs that tries to fit the model but is also flexible to meet its own strategic needs.

We have suggested methods by which governments can continue to exercise eminent domain but use market-based mechanisms to create equity amidst controversial land transfers; we have suggested that zones be measured for their economic and social impact, and that underperforming zones be reformed or dispatched; we have advocated for more cluster-oriented growth among firms in zones; and we have recommended that the central government concede some operational control to state authorities or to private developers to focus their energy on regulation.

With the specter of over 500 new SEZs in India, the GoI faces significant challenges ahead. But, where there are challenges, there are also opportunities, and the GoI can use SEZs to their advantage and move slightly toward income convergence in a rapidly growing economy that is at risk of leaving the overwhelming majority of its citizens out of the party. If the Government of India is seeking “Inclusive Growth” rather than just “Growth,” reforming its SEZ policies is one place to start. ■

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9.0 ABOUT THIS STUDY

The **John F. Kennedy School of Government at Harvard University** is a public policy and public administration school, and one of Harvard's graduate and professional schools. It offers master's degrees in public policy, urban planning, public administration, and international development, grants several doctoral degrees, and conducts research in subjects relating to politics, government, and economics. The Kennedy School features extensive course offerings in a variety of concentrations and policy areas. These areas are: Analysis of Policies and Institutions; Strategic Management of Public Organizations; Political Advocacy and Leadership; Business and Government Policy; Crime and Criminal Justice; Environment and Natural Resources; Health Care Policy; Human Resources, Labor and Education; Housing, Urban Development, and Transportation; International Security and Political Economy; International Trade and Finance; Nonprofit Sector; Political Economy and Development; Press, Politics, and Public Policy; Science, Technology, and Public Policy. For more information on the Harvard Kennedy School, please visit: <http://www.hks.harvard.edu>

The World Bank, part of the World Bank Group (WBG), is an internationally supported bank that provides loans to developing countries for development programs with the stated goal of reducing poverty. The World Bank was formally established on December 27, 1945, following the ratification of the Bretton Woods agreement. The concept was originally conceived in July 1944 at the United Nations Monetary and Financial Conference. Two years later, the Bank issued its first, and largest, loan: \$250 million to France for post-war reconstruction; an issue which has remained a primary focus, alongside reconstruction after natural disasters, humanitarian emergencies and post-conflict rehabilitation needs affecting developing and transition economies. For more information on The World Bank, please visit: <http://www.worldbank.org>

The **Policy Analysis Exercise (PAE)** is the capstone of the Master in Public Policy (MPP) curriculum at the John F. Kennedy School of Government at Harvard University. The PAE is a major enterprise and an opportunity for second-year public policy students to apply and integrate the skills they have gained at the Kennedy School. The PAE is a professional product, usually around 40 pages in length, meant to clarify and address a practical policy or management problem for a real-world client. Criteria for a successful PAE include not only intellectual rigor but creativity in working with the client to define the problem, designing a strategy for addressing the problem, gathering data, formulating and evaluating options, and making recommendations. For more information on the PAE, please visit: <http://www.ksg.harvard.edu/PAE/>

Semil Shah will graduate in 2008 with a master's degree in public policy from Harvard University. In his graduate work, Semil focused on two drivers of economic development: macroeconomics and infrastructure. Regionally, Semil focused his study on South Asia, specifically in India, where he co-lead the South Asia Caucus, consulted to the South Asia Initiative, helped organize the macroeconomics panel for the HBS India Conference, and formed a pan-Harvard student-organization called the India Study Group. Semil has also been a consultant to Massport (where he authored an analysis of the effects of increased containerization from India on the Port of Boston) , to MassInsight on an upcoming conference showcasing India and China in Boston, and has worked for the University, since 2006, on a long-term economic development and governance consulting project for the Government of India at the Indian Institute of Management, Ahmedabad; in this capacity, Semil provided consulting services in program design and researched the National Rural Employment Guarantee Act for a case study. Semil can be reached at semil.shah@gmail.com ■

10.0 APPENDIX INSERT 1

SEZ ADVANTAGES	SEZ DRAWBACKS
<p>Upstream Linkages Efficiencies from domestic economy flow to SEZ; based on zones' need for manufacturing inputs; SEZs absorb from the domestic labor market; zones also depend on local inputs, such as electricity, water, and other infrastructure; success of a SEZ will also depend on the developer's ability to effectively subcontract labor (or outsource), rewarding zones that are able to remove excess capacity from domestic labor markets and increasing system flexibility.</p>	<p>Investment Diversion Economists contend taking land from farmers for private firms could be perceived as property deals; RBI classified loans to companies moving into SEZ areas as real estate loans with high interest rates; GoI has permitted FDI in real estate, which could trigger large international speculative investment in Indian property; the government has also lifted acreage restrictions, permitting SEZ operators to reach economies of scale in order to reach acceptable levels of net exports.</p>
<p>Demonstration Effects Knowledge and innovation generated in SEZs provide basis for demonstration effects on domestic economy, where entrepreneurs, capitalists, and workers are exposed to new practices and skills; they are demonstrated to them in a more experienced way than formal education. IT is one example where innovation in software trickle to domestic economy, as well as management born from randomized experiments taking place in the zones themselves, where learning, education, and what Ricardo Hausmann and Dani Rodrik refer to as self-discovery²⁵ can take root.</p>	<p>Forgone Tax Revenue Tax breaks for SEZ firms will lead to a loss of revenue for GoI, especially because acreage limits on new zones may constrict private firms from achieving the necessary scale. Key members of GoI conflicted on issue of lost tax revenue. While Commerce Secretary Nath promotes SEZs, Finance Minister P Chidambaram wrote to Cabinet colleagues saying: "SEZs...will distort land, capital and labor costs, which will encourage relocation or shifting of industries in clever ways that can't be stopped. This will be further aggravated by the proliferation of a large number of SEZs in and around metros."²⁶</p>
<p>Downstream Linkages Where efficiencies flow from SEZ back to host country's domestic economy; are of interest because weight given to export promotion. More exports drive GDP higher, linkages are absorbed into domestic economy through channels, such as adoption of new business practices, technology transfer, increases in labor market flexibility, and a training ground for production and management trends. Incentives to create infrastructure in surrounding zone areas, and, serving as an example of cluster growth strategies to exploit both vertically and horizontally integrated synergies.</p>	<p>Displacement SEZ-triggered displacement estimates show that over 100,000 farming households will be affected.²⁷ Recent SEZ legislation calls for humane displacement, supported by rehabilitation programs, but GoI's record on following through on displacement is not good. Despite the government's pledges to compensate affected landowners, many families depend on land to provide subsistence and income opportunities, even to those who do not own land. At present, however, compensation is only offered to those who can prove a legal title to land; no compensation has been planned for those who don't.</p>
<p>National Economic Strategy SEZs enable government to experiment with fiscal, monetary, and other public policies that can be generalized and applied to domestic economy; SEZs allow country to circumvent labor markets and restrictive labor laws to start new employment schemes, create a robust domestic market for India, and generate debate and eventually change rather than institutional reform. Strictly on GDP, on export promotion increases net exports and boosts quality of domestic supply, generate best practices and innovations in business, and improve the overall quality chain in production; by 2009, India's number of SEZs could bring in \$13.5bn in FDI and 890,000 new jobs.²⁸</p>	<p>Sovereign Zones Size of new SEZs (ex. Reliance in Mumbai), will cover large parcels near big cities, where land is scarce and expensive. Zone governance with no elected officials, an appointed commissioner (selected by the Planning Commission) governs SEZ. Legally, SEZs considered utilities which eliminates right to collective bargaining or strikes; infrastructure in zone would be promised to developers. In some cases, SEZs may have the mandate to tax those living and/or working within to offset costs related to essential services, such as health, education, and social services. These conditions could put SEZs in position of acting as sovereign states without the interference of the GoI.</p>

²⁵ Hausmann, Ricardo, and Dani Rodrik. "Economic Development as Self-Discovery." *Journal of Development Economics* 72(2): 603-633, 2003.

²⁶ Citizens' Research Collective, FAQs about SEZs, March 2007.

²⁷ Citizens' Research Collective, FAQs about SEZs, March 2007.

²⁸ A Peasant Surprise: India's Special Economic Zones, *The Economist*, January 25, 2007.

11.0 EXHIBITS

List of SEZs examined in this study and corresponding zone codes are below.

INDIA*	SRI LANKA	BANGLADESH
Santa Cruz (SEEPZ)	Katunayake (KAT)	Chittagong (CTG)
Vizag (VSEZ)	Biyagama (BIY)	Dhaka (DHK)
Falta (FSEZ)	Koggala (KOG)	Comilla (COM)
Cochin (CSEZ)		
Madras (MSEZ)		
Kandla (KSEZ)		

A few notes about the exhibits...

* All Indian SEZs profiled in this report were created and developed by the GoI and are multiproduct except SEEPZ, which specializes in electronics, gems and jewelry.

* **Color Code:** In the following policy inventories, there is a color scheme imposed. As a key, “**blue**” signifies that the zone characteristic is good; “**orange**” marks something neutral, a characteristic that is not bad but also not great; and “**red**” signals that the characteristic is below acceptable standards.

*

Exhibit 1: Cross-Country SEZ Fiscal Policy

Fiscal Policy Inventory	INDIA	BANGLADESH	SRI LANKA
Income tax exemption	Up to 10 years Including for offshore banks (5 yrs)	10 years; after, 50% exemption; 3 years personal exemption	10% for 2 years, 15% thereafter; thrust ²⁹ industries still exempt up to 20 years; total exemption for gems and jewelry exporters, 20% tax on offshore transactions
Profit tax rate	100% deduction first 5 years; 50% deduction for next 5 years	100% deduction first 10 years; 50% deduction for next 5 years	
Excise duty	Exempt	Exempt	Exempt
Customs duties	Exemption (imports/exports)	Exempt (for capital assets)	Exemption (imports/exports)
Excise duties	Exemption on goods from Domestic Tariff Area (DTA)	10% of exports; Allowed to sell 20% to domestic market	Exemption on goods from Domestic Tariff Area (DTA)
Securities Transaction Tax	exempt	exempt	exempt
Service Tax (12.24%)	exempt	exempt	exempt
Remittances	Full repatriation of invested capital, profits, and dividends	Full repatriation of invested capital, profits, and dividends	Full repatriation of invested capital, profits, and dividends
Dividend Distribution Tax (DDT)	exempt	3 year exemption; 10% tax rebate w/ 20% dividend declaration	Exempt for nonresident shareholders for lifetime; 15% tax during holiday for resident shareholders
Local Sales Tax/VAT	exempt	Exempt (for capital assets)	Exempt
Central Sales Tax	exempt	exempt	exempt
Duty rebate schemes	Yes	No	Yes, on raw materials imports
Royalties exemptions	10% withholding tax	15% withholding tax	15% withholding tax
Interest Tax	Exemption on offshore deposits	Exempt (for borrowed capital costs)	Exempt (for borrowed capital costs)
Customs duty exemption	Up to 10 years	Up to 10 years	Up to 10 years
Tax holidays for SEZ developers	10 consecutive years from first 15 years	10 years	10 years
Minimum Alternate Tax (MAT)	Exemption for developers, for units	Exemption for developers	Exemption for developers,
Capital Gains Tax	Exemption on asset transfers	Exemption on asset transfers	Exemption on transfer of shares to nonresidents
Property Tax	30 year land lease	30 year land lease	30 year land lease
Import Duties	Exempt	Exempt	Exemption on goods used to build and operate SEZs; finished goods; 0.25% levy on all imports/exports
Payroll Tax	Up to 5 years	Up to 3 years	Up to 3 years
Stamp Duty	Exempt	Exempt (on land transfer)	Exempt
Depreciation Rates (e.g. machinery)	100% exemption during tax holiday	100% exemption during tax holiday	100% exemption during tax holiday
Backward Zone development	5-10 years exemption for undesirable location development	50% subsidy on land, factory rent (30% cash incentives for agro-base industry development)	5-8 years exemption for undesirable location development

Sources | India: Nasscom, SEZ Act 2006, Bangladesh: Aggrawal data, Government of Bangladesh, Sri Lanka: Aggrawal data, Government of Sri Lanka

²⁹ “Thrust” industries in Sri Lanka: electronics, ceramics, glassware, mineral based, rubber based and engineering based manufactured exports

Exhibit 2: SEZ India Physical Zone Characteristics

(Please refer to color code on Exhibit cover sheet.)

Zone	Location	Distance to airport (km)	Distance to port (km)	Distance to railhead (km)	Distance to highway (km)	Distance to Commercial Center (km)	Hard Infrastructure, outside zone	Social Infrastructure, outside zone
SEEPZ	Commercial center; well developed	6	30	10k	2	Mumbai, financial center of India	Well developed	Well developed
VSEZ	Backward area in industrial town	50 (only domestic)	20	n/a	20	27	Industrial town in state of Andhra Pradesh	No hotels, residence complexes, etc. outside zone
FSEZ	Backward, industrially and socially	65	50	15	5	55	Virtually none	No residential complexes, hospitals, schools, shopping centers
CSEZ	Commercial capital, but industrially backward	26	18	9	5	Commercial capital of Kerala	Developed, new highway to port and airport	Well developed
MEPZ	Well developed industrial area	6	24	5	5	22	Very well developed, located on national highway	Very well developed in city
KASEZ	Industrially backward area with barren land, poor population	65 (only domestic)	10 to Kandla, 60 to Mundra	5	0.5	5	Good, new transport facilities	No good schools, colleges, hospitals or entertainment facilities.
NSEZ (not in formal study)	Established in backward area to develop it industrially. Now well developed area	40	(Inland SEZ w/ ICD)	7	1.5	20	Traffic jams, no public transport.	Developed within 10 km of the zone.

Source: Aggarwal data, Government of India.

Exhibit 3: SEZ India, Infrastructure (specific)

(Please refer to color code on Exhibit cover sheet.)

Zones	Area (acres)	Electricity	Water	Bank/ATM/OBU	Infrastructure within/around zone
SEEPZ	93	Power station outside the zone	Water supply is assured, but no treatment	4/3/1	Zone has four cafeterias, three guest house complexes for residents and executives, and one of India's public sector trading companies, MMTC; separate optical fibers for telecommunications exchange.
VSEZ	360	Dedicated substation in zone	Water provided from a reservoir; no treatment	1/0/0	Zone has cafeteria, guest house complex (no residences), and 100 telephone lines reserved for telecommunications.
FSEZ	280	Dedicated substation in zone	Water from various sources; no treatment	1/0/0	Zone has seven industrial workshops, housing complexes located just outside the zone; there are efforts underway to convert a currently private jetty into a minor port, and the government is in the process of commissioning an inland container depot near the zone.
CSEZ	103	Dedicated substation in zone and power distribution system	Integrated water management system ensuring supply daily; all water is treated	2/2/1	Zone has a cafeteria, medical apothecary, an electronics complex, garment complex, and IT complex; plans are underway to build residential and guest house; zone has a system for disposing of biodegradable waste and bacteria; 1000 lines for telecommunications exchange.
MEPZ	261	Dedicated substation in zone	Water is harvested from Palan river and stored, rain harvesting in all the facilities; no treatment	1/3/0	Zone has a pharmacy, a guest house, a water purifier, an exclusive telecom exchange and cell phone tower.
KASEZ	700	Dedicated power station	Local supply is supplemented with supply from Narmada dam; no treatment	4/0/0	Zone has a guest house for investors and executives; also has industrial sheds and a private warehouse; close to township for government officials; no dedicated telecom exchange.
NSEZ	310	Substation within the zone with independent feeder	Own tube wells supplying water within the zone with individual treatment	4/2/1	Zone has cafeterias and a pharmacy but no telecom exchange; plans underway for a guest house, residence complex, rainwater harvesting, trade facilitation center.

Source: Aggarwal data, Government of India, SEZ visits in 2007 and 2008 by author.

Exhibit 4: Bangladesh, SEZ Infrastructure

(Please refer to color code on Exhibit cover sheet.)

Zones	Area (acres)	Electricity	Water	Bank/ ATM/ OBU	Distance to airport (km)	Distance to port (km)	Distance to commercial center (km)	Infrastructure within and around zone
Chittagong	435	Zone has specified load sanctioned from local power; supply distribution system	Zone has own water supply, plus from city water authority; no treatment system.	4/0/0	7.21	3.1	5.5	Zone is close to underdeveloped ports, which increase delays in shipments; reserved lines of privatized telecommunication; includes the following either on or around zone: various schools, health clinic, fire station, police station, places of worship, and guest houses.
Dhaka	355	Zone has specified load sanctioned from local power; supply distribution system	Zone has own water supply; no treatment system.	2/1/1	25	304	35	Zone is near roads, but those roads are in poor condition and congested; railways are not used for cargo, despite a rail line between Dhaka and Chittagong; reserved lines of privatized telecommunication; includes the following either on or around the zone: golf course, various schools (including college), fire station, police station, medical clinic, places of worship, and various guests houses for officers.
Comilla	267	Zone has specified load sanctioned from local power; supply distribution system	Own water supply; no treatment system	n/a	163	167	97	n/a

Source: Aggarwal data, Government of Bangladesh

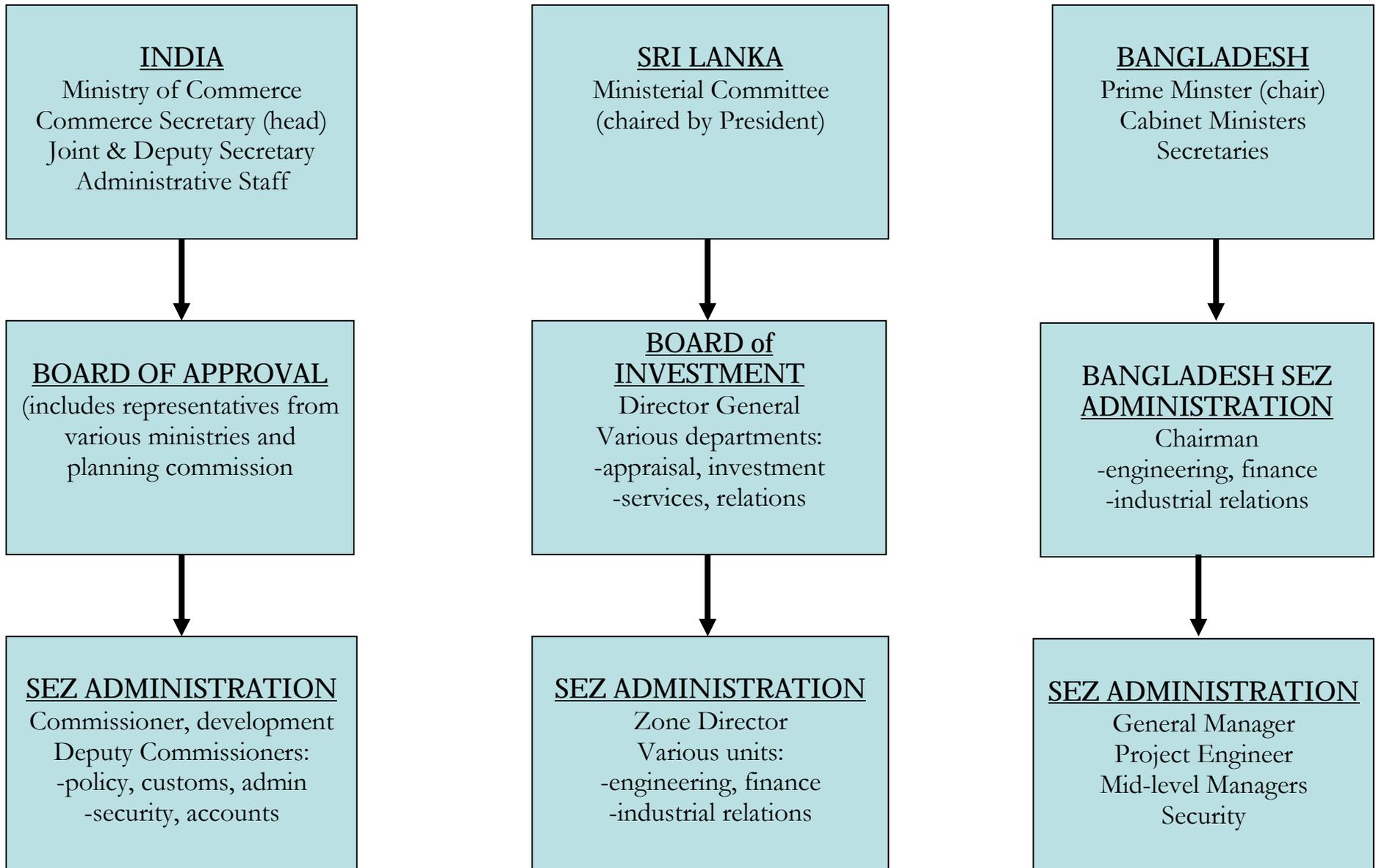
Exhibit 5: Sri Lanka, Infrastructure

(Please refer to color code on Exhibit cover sheet.)

Zones	Area (acres)	Electricity	Water	Bank/ATM/OBU	Distance to airport (km)	Distance to port (km)	Distance to commercial center (km)	Infrastructure within and around zone
Katunayake	469	National supply; power cuts are frequent; Subsidy on the use of generators.	Zone has two local water sources, but companies have their own filtration systems; water is treated at WHO standards.	3/1/1	30	20	15	Zone has generally good infrastructure, with a dry port in the zone, good roads, zone shuttle service, dedicated telecom exchange, proximity to railhead; zone has postal, medical, and bank facilities, staff quarters, and 84 commercial enterprises clustered primarily in garments.
Biyagama	445	Delivered from Ceylon Electric Board; very expensive	Zone buys water from national water company and resells to tenants; water treated at WHO standards.	2/1/0	1	21	2	Zone has good infrastructure, a road to Colombo, dry port in zone, undeveloped rail access, dedicated telecom exchange, pollution control, onsite banking, postal services, cargo facilities, and medical facilities; also has a residence hostel, library, playground, and 62 commercial enterprises clustered in plastics and rubber.
Koggala	91	Zone has specified load sanctioned from local power; supply distribution system	Zone has own access to national water line, but no waste system	4/1/0	160	20	150	Zone generally has poor infrastructure, unpaved roads, no rail access, no telecom exchange, no dry port, difficult climate, unsafe water, and postal, medical, bank, and cargo facilities; and 21 commercial enterprises clustered in garments.

Source: Aggarwal data, Government of Sri Lanka.

Exhibit 6: SEZ Organization Chart (Source: Aggarwal data)



END