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# **Special Economic Zones in South Asia: Structural Change, Competitiveness, and Growth- A Book Summary**

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# Special Economic Zones in South Asia: Structural Change, Competitiveness, and Growth- A Book Summary

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**Abstract** This article provides a summary of the recently published book, *Special Economic Zones in South Asia: Structural Change, Competitiveness, and Growth* (Routledge: London). This book represents the first comprehensive effort to systematically examine the rationale, objectives, design, and outcomes of SEZ policies with a focus on their role in structural change, growth and competitiveness in South Asia. The analysis is based on a mixed-methods approach. One of the highlights of this study is its use of a counterfactual approach at the firm level to evaluate SEZ outcomes, offering an evidence-based assessment of the policy. Through its insights, the book provides valuable lessons and actionable guidance for policymakers and practitioners working with SEZ frameworks.

**Key words:** Special economic zones; growth; structural change; competitiveness; South Asia; policy evaluation; investment climate; technology and innovation; knowledge linkages; global value chains; sustainable development

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## I. Introduction

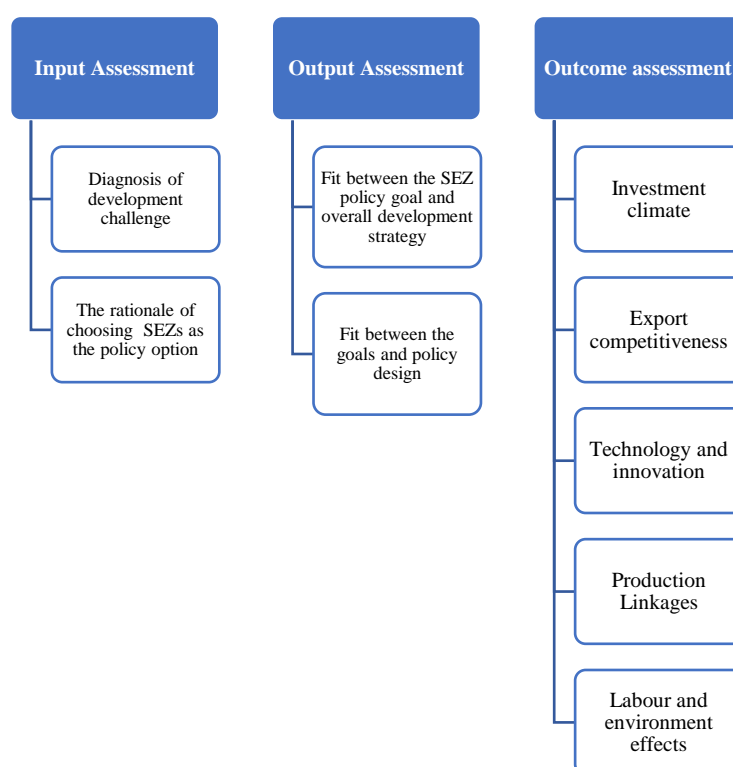
The pursuit of growth-enhancing structural change—shifting labor from low- to high-productivity sectors—is increasingly seen as essential to advancing sustainable development. Policymakers in developing countries are focusing on targeted policy tools like special economic zones (SEZs) to drive this transformation. These geographically designated areas, designed to attract investment through various incentives, have become de rigueur; however, systematic SEZ policy evaluation remains limited due to conceptual and practical challenges. The recently published research monograph *Special Economic Zones in South Asia: Structural Change, Competitiveness, and Growth* (Routledge, London) addresses this gap. It demonstrates that SEZs are not a 'shortcut' to economic development; their success hinges on a complex interplay of socio-economic, political, and strategic factors. This work offers the first systematic evaluation of SEZ policy, structured across three hierarchical layers: input evaluation (agenda-setting), output evaluation (policy design), and outcome evaluation (the immediate impact of SEZs on firm behavior and performance), with a focus on South Asian countries (Figure 1).

By integrating microeconomic evaluations, the monograph draws macro-level inferences about the role of SEZs in driving structural transformation and enhancing competitiveness, providing a nuanced understanding of their contribution to broader development objectives.

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**Figure 1: Objectives of the study**



### **Input evaluation.**

Chapters 2–6 of the monograph explore the development challenges facing South Asian economies and provide theoretical justifications for SEZs as a policy intervention in the region. The analysis draws on time series data for selected macroeconomic indicators across all eight South Asian countries, sourced from a broad range of databases and examined using various statistical techniques, including decomposition analyses. The findings reveal that despite being one of the fastest-growing regions in terms of average annual growth, South Asia has struggled to catch up with global and regional peers due to a low base effect. Economic growth has been accompanied by a slow pace of structural change, characterized by persistent productivity disparities between sectors, which have stifled economic dynamism. A substantial portion of the workforce remains entrenched in the low-productivity agricultural sector, underscoring the need for more effective policies to drive structural transformation.

At independence, South Asian economies were predominantly agrarian, and their main challenge was promoting growth and industrialization. After gaining independence from Britain, they pursued industrial transformation behind high tariff walls. However, recurring foreign exchange shortages prompted the four largest economies in the region to adopt Export Processing Zones (EPZs)—the early form of SEZs. India pioneered this policy in the mid-1960s, followed by Sri Lanka in the late 1970s, and Pakistan and Bangladesh in the 1980s. EPZs were introduced to promote exports, generate foreign exchange, and create employment within import-substituting economies. Like other developing nations, the South Asian countries in particular Bangladesh and Sri Lanka were initially benefitted from EPZs under the Multi Fibre Agreement (1974-2005). EPZs helped them integrate into global textile value chains. India’s EPZs contributed to the electronics, machine-made jewelry, and IT sectors, which have become key foreign exchange earners over time. Pakistan, though less active in EPZs, launched large industrial estates in the 1960s that spurred consumer-based industrialization and

helped the country gain import substituting raw material based industrialisation including in textile and apparel sector.

However, the industrialization drive did not lead to sustained structural transformation. Bangladesh and Sri Lanka became overly reliant on the textile sector and failed to diversify significantly. India specialized in IT, while manufacturing remains in low gears. Pakistan experienced episodic growth tied to external aid with an overall declining trend. Among the remaining economies—Nepal, Bhutan, and Maldives—growth is highly skewed with remittances in Nepal, hydropower exports in Bhutan, and tourism in Maldives driving growth. A long drawn war in Afghanistan shifted the economic resources from agriculture to war related services which drove growth during the period of stability over 2001 to 2014. However, post 2014, the growth rate started declining once again.

The slow pace of structural transformation has hampered export growth, diversification and sophistication, limiting growth and poverty reduction. The central challenge for these economies remains accelerating growth and export diversification, and achieving structural diversification.

Recognizing the imperative for economic diversification and inspired by China's experience, South Asian countries have embarked on a substantial drive to establish next-generation SEZs since the 2000s. Even nations that missed earlier SEZ waves are now embracing this strategy to accelerate industrialization. The rise of structural economics, new growth theories, economic geography, and developmental regionalism has introduced fresh frameworks for understanding SEZ potential. China's success with strategically upgraded EPZs has illustrated how SEZs can drive industrialization and structural transformation through integration into global value chains. Emerging SEZ models are expansive, city-like zones with substantial economic potential and improved integration with the broader economy. No longer solely a trade policy tool, these SEZs are now a pivotal component of policies aimed at industrial diversification and economic transformation.

In South Asia, the enduring impacts of colonial rule, partition, and a complex history of regional pluralism and identity politics continue to challenge economic development by affecting political, economic, and social institutions. Policy formulation and implementation are often hampered by political instability, ideological divides, social polarization, internal conflicts, and a rise in fundamentalism and radicalism, leading to suboptimal institutional quality and development outcomes. Confronted with slow-to-change, growth-constraining institutions in an increasingly competitive global economic landscape, policymakers in these countries are turning to Special Economic Zones (SEZs) as a catalyst for smart institutional reforms. These new-generation SEZs, characterized by more favorable and business-friendly laws and regulations than the wider national context, represent a promising approach as a development policy instrument. However, a systematic evaluation of their effectiveness and long-term outcomes in relation to key development goals remains absent.

### **Output Evaluation**

Part II of the book evaluates SEZ policy at two distinct levels: the systemic level, which assesses whether and how SEZ policy aligns with broader development goals, and the design level, which examines the coherence between policy objectives and their execution. This Part is organized into five chapters (Chapters 7-11). To assess the SEZ policy at systemic level, it analyzes the evolution of SEZs in each of the four SEZ countries of the region: India, Sri Lanka, Bangladesh, and Pakistan.

The initial wave of Export Processing Zones (EPZs) was primarily introduced to enhance foreign exchange earnings and address balance of payments issues. These zones were designed to attract labor-intensive industries by providing a low-cost operational platform supported by liberal trade policies. Notably, Bangladesh and Sri Lanka have effectively tailored their policy designs to incorporate the critical factors necessary for EPZ success. By strategically positioning their EPZs in a way that favored them against neighboring competitors, these countries successfully leveraged opportunities presented by the Multi-Fibre Agreement (MFA), facilitating growth in their export-oriented sectors.

India adopted a cautious approach to EPZs, with the broader institutional structures limiting the extent of neoliberal reforms within the zones. Nevertheless, India's EPZs functioned as incubators for new industries and entrepreneurs, benefiting from certain regulatory relaxations within an otherwise restrictive environment. The plug-and-play model in these zones helped reduce costs, while export-oriented units (EOUs), or single-unit SEZs, also saw significant growth. Notably, the establishment of Software Technology Parks (STPs) for computer software development and export marked India's first service-based SEZ initiative, playing a pivotal role in the rise of its export-oriented IT sector.

In its early development phase, Pakistan emphasized industrial estates (IEs) as a cornerstone of its private sector-led industrialization strategy, achieving rapid industrial growth and nearly complete import substitution in many consumer industries by the late 1960s, primarily in East Pakistan, using locally available raw materials. However, this approach led to a concentration of assets among a few emerging business houses supported by the state and in specific industrial hubs, particularly in West Pakistan. Pakistan's EPZ policy, introduced in the 1980s, was comparable to those of Bangladesh and Sri Lanka, offering fiscal incentives, affordable land and utilities, and labor laws conducive to production. Yet, political instability, state capture by the ruling elite working with powerful business and military interests, and a heavy reliance on foreign aid impeded both overall development and the effectiveness of its EPZs.

As globalization accelerated in the 1990s, many developing economies pivoted toward an export-led economic model that prioritized extensive infrastructure investment, often with strong private sector involvement. Reflecting this shift, SEZ policies expanded from an initial focus on trade promotion, foreign exchange earnings, and job creation to a broader emphasis on infrastructure-led economic transformation. In South Asia, countries that had previously developed EPZs saw the emergence of a new generation of SEZs designed to support this infrastructure-driven strategy. While zone policies were adapted to align with these broader economic objectives, closer examination reveals fragmented policy dynamics, creating uncertainty around policy outcomes.

Discussions with officials from four countries highlight a lack of strategic direction in leveraging SEZs for economic transformation. SEZ policies often remain disconnected from broader sectoral planning or strategic frameworks, limiting their potential impact. Regulatory agencies tend to focus narrowly on establishing SEZs without a robust emphasis on policy implementation, operating primarily as isolated government bodies handling the mandate in silos.

An assessment of the alignment between policy design and objectives reveals that although there have been changes in the structural designs of SEZs, including updated masterplans, facilities, sectoral compositions, and ownership structures, the governance and operational mechanisms have not evolved significantly. In this context, investors' decisions are still driven

primarily by fiscal incentives and cost-related advantages, much like under the earlier EPZ regime. In India, for instance, SEZs lost their appeal as soon as incentives were withdrawn, highlighting the policy's dependence on such advantages to attract investment. The author argues that the experience with Export Processing Zones (EPZs) constrains the ability of the governments to align SEZ policies to a different set of goals in the second stage of development, indicating the persistence of institutional "stickiness."

### **Outcome Evaluation**

This study is one of the few that conducts a series of counterfactual analyses at the firm level to explore the differential performance of SEZs, using enterprise-level data. The outcome assessment presented in Chapters 12–16 of the book aims to address the following key questions:

- How effectively do SEZs address investment climate constraints?
- How successful have SEZs been in enhancing the export competitiveness of firms?
- What contributions have SEZs made to the innovative and technological capabilities of firms?
- Are firms located within SEZs more likely to establish technological linkages with domestic economies compared to their domestic counterparts?
- How has being located in SEZs affected firms' contributions to human and environmental capital?

For outcome evaluation, the study employs quasi-experimental designs, utilizing both matching and weighting methods to ensure robust causal inference from observational data. Given the wide array of quasi-experimental methods available and the lack of clear guidance on selecting among them, the study adopts two methods:

- **Matching Methods:** Among the most well-known matching methods are propensity score matching (PSM) and Mahalanobis distance matching (MDM). This study, in line with recent literature, opts for the nearest neighbor matching (NNM) method based on the Mahalanobis distance model, rather than PSM. This choice allows for more precise matching based on the observed covariates.
- **Weighting Methods:** To enhance robustness, the matching method is supplemented with the inverse propensity of treatment weighting (IPW) method. This approach uses the propensity score as a weight, similar to how survey-based sampling weights are applied in regression models to estimate the causal effects of treatments. IPW helps to balance covariates across treated and control groups, adding rigor to the analysis.

These methods provide a strong foundation for evaluating the outcomes of SEZs, offering key insights into their broader economic impacts, such as investment climate improvement, export competitiveness, and technological innovation. The data come from the 2013–2014 World Bank Enterprise Surveys, which included a question regarding firm location within EPZs or SEZs.

The World Bank Enterprise Surveys assess a wide range of investment climate factors, as well as the conduct and performance of firms. These surveys cover 177,000 firms across 153 countries, with data freely accessible on the World Bank Enterprise Surveys data portal. For South Asia, the most recent surveys providing information on firms' locations within SEZs for India, Bangladesh, and Pakistan pertain to the 2013–2014 period. These surveys cover 9,281 firms in India, 1,442 in Bangladesh, and 1,247 in Pakistan (World Bank, 2013–2014). Among them, 438 firms in India, 63 in Bangladesh, and 102 in Pakistan are located in Export Processing Zones (EPZs)/ Special Economic Zones (SEZs).

## *How special are SEZs?*

The rise of Special Economic Zones (SEZs) has led to a significant body of literature evaluating their effectiveness in promoting Foreign Direct Investment (FDI), trade, and economic diversification. However, one critical question remains insufficiently addressed: Do SEZs offer a distinct investment climate compared to the wider economy? Although several studies analyze the investment climate within SEZs across different regions and countries, the lack of firm-level data in a comparative framework has made it challenging to conduct a counterfactual analysis of SEZ investment climates relative to their broader economies. This study aims to fill that gap.

Using data from the World Bank's **Enterprise Surveys of 2013–2014** for South Asian countries—specifically Bangladesh, India, and Pakistan—this study evaluates whether the investment climate within SEZs is superior to that outside SEZs, employing quasi-experimental designs, both nearest neighbour matching method (NNM) and the inverse propensity of treatment weighting (IPW) method for robust analysis. These results are further corroborated by the author's recent interactions with officials and investors operating within SEZs in these countries.

The analysis is grounded in the notion that growth-constraining economic institutions in developing countries significantly impede private investment and hinder long-term economic growth. These institutions, despite being under the State's control, are intertwined with informal institutions, creating an equilibrium that is resistant to change. SEZs aim to circumvent these restrictive institutions and create a more favorable investment climate. What sets economic zones apart is their capacity to offer simplified administrative and regulatory frameworks. While infrastructure and resource availability are also provided by general economic zones, SEZs emphasize streamlined regulatory conditions.

The study uses 72–75 questions from Enterprise Surveys, grouped into two categories: economic institutions and proximate investment climate factors. Four broad factors encompass the former: governance, tax administration, customs facilitation, and labor regulation. The proximate factors include general infrastructure, transport infrastructure, and factor availability.

The study reveals that while SEZs provide benefits such as enhanced infrastructure, fiscal incentives, and improved customs facilitation, they often fall short of addressing critical growth-impeding institutions, notably administrative and regulatory complexities and corruption—challenges that SEZs are meant to overcome. Additionally, SEZs' tax administration and labor regimes are often not substantially different from those outside the zones, limiting their capacity to create a truly unique investment climate.

Many countries have attempted to emulate China's SEZ success by prioritizing large zones with advantageous infrastructure and strategic locations, yet this approach frequently neglects the deeper institutional reforms that make SEZs "special" in China. For SEZs to significantly contribute to long-term economic growth and consistently attract private investment, they must tackle governance-related barriers and move beyond infrastructure-based incentives. Without such reforms, SEZs risk becoming indistinguishable from general economic zones, losing their intended impact.

## *SEZs, Investment Climate and Competitiveness*

Chapter 13 of the book addresses three key research questions:

1. Are SEZ firms more export competitive than those outside them?
2. Does investment climate play a significant role in determining the export competitiveness of firms?
3. Does investment climate mediate the impact of SEZs on the export competitiveness of firms? If yes, how?

While addressing the first research question, this chapter highlights the importance of understanding both, firm-level export performance data and managerial perceptions regarding export competitiveness in assessing export competitiveness of SEZs. The results, derived from nearest neighbor matching and inverse propensity of treatment weighting (IPW) methods, suggest that SEZ firms in the three countries demonstrate stronger export performance quantitatively, but challenges in export markets and competitiveness perceptions regarding SEZs vary across the region.

To analyze the relationship between investment climate and export competitiveness, the study employs two distinct methods: Bootstrap regression models (for experience-based indicators), and Partial Least Square Path Modelling (PLS-SEM) (for perception-based indicators).

The bootstrap regression was used to evaluate how different factors of the investment climate influenced firm-level export performance. The analysis revealed that inter-firm variations in export performance were significantly explained investment climate, emphasizing that a conducive local business environment is key for successful export performance.

A PLS-SEM model was applied to assess how the three layers of the investment climate—micro (firm-specific factors like trade facilitation, regulatory quality, and tax administration), meso (sectoral and local infrastructure), and macro (broad economic policies and governance)—influence managerial perceptions of export competitiveness. The results show that each layer significantly shapes managers' perceptions of their firms' export competitiveness, with these investment climate factors collectively explaining two-thirds of the total variation in perceived competitiveness. Meso-level bottlenecks emerged as the primary constraints on competitiveness across all three countries studied, followed by macro-level bottlenecks. This suggests that while firm-specific and sectoral factors are essential, broader economic policies and governance challenges also critically impact export performance.

The Partial Least Squares Structural Equation Modeling (PLS-SEM) multigroup analysis (PLS-MGA) illustrates the mediating role of Special Economic Zones (SEZs) in the relationship between export competitiveness and the investment climate. The analysis reveals that SEZ can play a significant role in addressing the micro and meso obstacles; addressing the macro ones is not their mandate. The findings are robust for India. However, the results for Bangladesh and Pakistan are less clear, indicating potential variability in the effectiveness of SEZs across different contexts.

### *Building Technological Capabilities Through SEZs*

Technological advances are largely concentrated in developed nations, and the literature indicates that building technological capabilities in developing countries hinges on their ability to acquire, assimilate, and adapt foreign technologies. This chapter examines how SEZs support these three stages of technological capability development and establishes several



testable hypotheses. The analysis draws on innovation survey data from 2013–2014 for India, Bangladesh, and Pakistan, which is merged with general Enterprise Survey data. The dataset comprises both factual information and dichotomous responses on various innovation aspects, which are structured according to the hypotheses. A total of 80 indicators are developed for analysis. The results, using inverse probability weighting regression and nearest neighbor matching (Mahalanobis distance method), compare SEZ firms with non-SEZ firms and with non-SEZ exporting firms to assess the distinct contributions of SEZs to technological capability building.

Special Economic Zones (SEZs) play a limited role in the continuous introduction of new products and processes. While they facilitate technology acquisition and demonstrate a greater propensity to collaborate with local knowledge institutions, they do not significantly enhance or upgrade local innovation capabilities. Despite lacking a distinct advantage in innovation activities, firms within SEZs are more likely to protect their intellectual property through patents, trademarks, and industrial designs compared to their domestic counterparts. But, this protective behaviour becomes less pronounced when SEZ firms are compared to domestic exporters.

Additionally, the impact of SEZs on soft technologies, such as organizational and marketing innovations, is significant but largely attributable to the outward orientation of these firms. Thus, by attracting outward-oriented companies, SEZs can enhance technological dynamism. Nonetheless, there is a pressing need to build comprehensive innovation ecosystems and improve the foundational elements of the economy through investments in research and development infrastructure, human capital, education, and skill development.

### *Linkages for Knowledge Spillovers*

Policymakers worldwide have high expectations for Special Economic Zones (SEZs) to drive industrial diversification within broader economies. For SEZs to fulfill this potential, the knowledge gained within their boundaries must positively influence firms outside the zones and contribute to the national economy as a whole. These dynamic effects arise from interactions between SEZ firms and other local economic actors. Against this backdrop, this chapter focuses on the knowledge linkages formed by SEZ firms with local entities, investigating whether these firms can generate spillover effects in the local economy. It represents the first systematic empirical analysis aimed at exploring the productive and knowledge linkages that SEZ firms can establish with local firms, utilizing data from the World Bank Enterprise and Innovation Surveys for three countries: India, Pakistan, and Bangladesh, as discussed in previous chapters.

The conceptual framework draws from existing literature and centers around three primary types of knowledge linkages: backward linkages, knowledge network linkages, and labor mobility linkages. Backward linkages occur when SEZ firms create arrangements with local firms in upstream industries to procure intermediate inputs and components. Knowledge network linkages facilitate knowledge spillovers through efficient local networks of external players. Finally, labor mobility linkages arise when domestic firms hire workers previously employed or trained in SEZs, or when these workers establish their own firms, bringing with them the technological, marketing, and managerial expertise acquired in the SEZs. This transfer of knowledge benefits local firms significantly.

To test these dynamics, hypotheses are formulated based on theoretical arguments and empirical observations. The analysis incorporates relevant questions drawn from the World Enterprise Surveys and Innovation Surveys. A counterfactual analysis is conducted using two quasi-experimental approaches previously employed: (i) nearest neighbor matching based on the Mahalanobis distance model, and (ii) the inverse probability weighting approach. Two distinct control groups are utilized: (i) all domestic firms outside the SEZs, and (ii) only exporting firms outside the SEZs. The key research findings are as follows:

Backward linkages. The Enterprise Survey identifies three key questions with direct relevance to backward linkages: (i) What percentage of material inputs and supplies are of domestic origin? (ii) Did the establishment import inputs and supplies in the previous year? (iii) What percentage of inputs were imported directly in the previous year? The findings clearly indicate that SEZ firms are significantly more reliant on imported inputs as compared to both their domestic counterparts and exporters outside the SEZs.

Knowledge network. To assess these linkages, the Innovation Surveys identify three sets of questions focusing on research collaborations related to sources of ideas for product innovations, process innovations, and organizational innovations. The evidence suggests that SEZ firms do not have a significant advantage in forming R&D collaborations with external actors for developing their main innovative products or processes. However, networks with universities, research institutes, suppliers, consultants, and trade associations emerge as relatively more important sources of research ideas for SEZ firms compared to firms outside the SEZs. This indicates that while SEZ firms primarily develop their innovative products independently of R&D collaborations, they still leverage local networks to generate research ideas, thereby broadening their learning base.

Labour mobility linkages are reflected in three institutional effects: (i) hiring, (ii) training, and (iii) learning from employees. The findings show that SEZ firms are significantly less likely than domestic firms to recruit new employees specifically for developing innovative products or processes. However, they are more inclined to provide on-the-job training for product and process innovations across both full and truncated samples. While SEZ firms tend to spend more on training programs compared to domestic firms and exporters, the difference is not statistically significant. A critical question is whether labor mobility from SEZs leads to learning spillovers. Only a small percentage of respondents (2%–2.5%) identified new employees as the primary source of innovation ideas, both within and outside SEZs. However, approximately 45% of firms in SEZs reported learning about management practices from new employees, compared to around 40% of firms outside SEZs, though this difference was not statistically significant.

Overall, knowledge network effects may generate some positive outcomes and should be encouraged by linking fiscal incentives for SEZ firms to their expenditures on higher education and training programs. Increased investment in human capital development, higher education, and research institutions can further enhance these effects.

### *Sustainability Standards in SEZs: Is It Race to the Bottom?*

SEZs are normally associated with ‘race to the bottom’ in labour and environment standards. This long-lasting debate has motivated a large stream of literature. However, a causal counterfactual analysis of SEZ intervention on labour or environment standards is scarce which assesses whether and to what degree different outcomes can be attributed to an SEZ rather than

to other factors. Chapter 16 contributes to this bulging literature by using the counterfactual approach of analysis. The key areas of firms' business strategies and practices are identified which correspond to the sustainable development goals of: (i) employment generation (SDG#8), (ii) decent and productive employment (SDG#8), (iii) gender equality (SDG#5) and (iv) sustainable production (SDG#11).

The purpose here is to draw on extant literature to derive a set of research questions. These questions are then addressed in the context of South Asian countries using two different perspectives: legal and empirical.

From the *legal perspective*, the study finds that in line with the global trends, legal regimes for labour and environment governance in SEZs have been strengthened in all South Asian countries that have SEZs/EPZs, at least partly addressing the concerns about the compression of labour rights and environment destruction. But how effectively these are implemented can be gauged from empirical studies on labour and environment management in the SEZs.

For the empirical analysis, the chapter uses nearest neighbour matching and inverse probability methods to address six questions:

- Do the SEZ firms have greater employment effects than their counterpart domestic firms?
- Do SEZ firms have the advantage of weak collective bargaining power and flout the national labour standards?
- Are SEZ firms more likely to offer training programmes than their counterparts?
- Are SEZs feminized?
- Is the quality of female employment in SEZ companies lower compared to those outside them? and,
- Do SEZs have better systems of environment management than the firms outside them?

Employment effects. After matching the firms on a number of covariates including the sectors, the difference in the labour intensity between the SEZ and non-SEZ exporters turns out to be negative but insignificant. The sectoral distribution of firms in SEZs is however in favour of labour intensive industries. It is therefore argued that by attracting investment in labour-intensive sectors alone, SEZs can contribute significantly to job creation in South Asia.

Working conditions. World Enterprise Surveys capture two critical concerns: remuneration to labour and collective bargaining. The latter is captured through three measures, the share of temporary workers in total employment, the length of contract offered to them and the flexibility in firing labour in and outside the SEZs. The counterfactual analysis shows that the average compensation to employees in the matched firms is lower in the SEZ firms than the non-SEZ ones in all three countries but the difference remains insignificant. The difference in the share of temporary workers in total employment between the SEZ and non-SEZ firms also turns out to be insignificant. It could be due to a growing trend of casualisation of employment even in the wider economy. Regarding hiring and firing of labour, it is seen that labour redundancy is not significantly less in the SEZs. Further, SEZ firms are less likely to attribute the presence of redundant labour to labor laws and regulations (with the likelihood being 30% less). Overall, evidence of labour laws being a major advantage in South Asian zones does not seem to be strong.

Skill intensity. The results are based on three measures of skill intensity: % of production to non-production labour, % of skill to unskilled workers and average education of workers.

Overall, the results indicate that the zones are typically less skill-intensive as compared with the rest of the economy but the results related to training are not robust across countries. In Bangladesh and Pakistan, more firms in SEZs perceive the need for workers' training than outside them. In both these countries, training turns out to be an important element of SEZ employment. The chances of firms conducting these training programmes have been higher by almost 20%. In India, all indicators of training intensity in SEZs turn out to be negative. The results could be due to the vast availability of skilled labour force in the country.

Feminisation of SEZs SEZs employ a larger proportion of permanent female workers in all three countries. The results vary for temporary female workers. Females are more likely to be in production. There is little information on the working conditions of female workers. However, the results of educational attainment indicate that their educational attainment is higher in SEZs than in control firms. This could be an indication of more skilled work in the SEZs for them as compared with outside.

Environment. To assess the effects of SEZ firms on the environment, three questions are examined: (i) Is environmental certification an obstacle in export markets? (ii) Has the company acquired the certification? (iii) Are environmental regulations driving innovation in products and/ or processes? The findings indicate that SEZ firms are more likely to obtain environmental certifications as a demonstration of responsible business practices across all surveyed countries, with the most pronounced effects observed in India. In this context, SEZ firms in India face relatively fewer obstacles concerning environmental standards, whereas firms in Bangladesh and Pakistan report encountering more significant challenges.

Furthermore, the motivation for research into green process innovations is notably higher in the SEZs of both India and Bangladesh. This suggests that the regulatory environment and market dynamics within these SEZs are fostering a culture of innovation aimed at sustainability. However, the results for Pakistan remain inconclusive due to insufficient data.

### **Concluding Remarks**

Policy design is a complex, dynamic process shaped by negotiation and bargaining among diverse groups with conflicting interests, agendas, ideologies, mandates, and concerns. The intensity of these conflicts increases with the number of actors, the incompatibility of their concerns, and the perceived stakes involved. From this perspective, the SEZ policy stands out as one of the most contentious policies in development literature, requiring a delicate balance between social, political, economic, and ecological considerations. This complexity requires policymakers and the broader policy system to possess strong analytical, managerial, and political capacities for the effective design and implementation of SEZ policies. The analysis presented here indicates that, in the South Asian context, SEZ policy designs are often misaligned with their intended objectives, leading to suboptimal outcomes. However, there are notable cross-country variations that reflect different local contexts.

The study highlights several important lessons, foremost among them being the need to approach SEZs as a development tool rather than as mere 'industrial infrastructure.' For SEZs to yield effective and equitable outcomes, they must be integrated into both national and regional development planning, with policies carefully designed to reflect local contexts and development priorities. The study also offers a cautionary note, advising policymakers to remain mindful of the inherent risks and challenges embedded in SEZ policy frameworks.

The study concludes that the SEZ model has demonstrated remarkable resilience over the past several centuries. Each time global conditions shifted and the model faced potential obsolescence, innovative variants emerged and thrived. Today, the global economy is poised to navigate a complex landscape marked by significant mega-trends that are reshaping the world in profound ways. These trends include shrinking fiscal space, cautious monetary policy, the slowdown and realignment of global value chains, rising protectionism, aging populations, climate change, widening inequalities, technological disruptions, and a decline in both investment and productivity.

These challenges are expected to significantly impact the development processes. To effectively address these issues, there is a pressing need for innovative models and practices within SEZs. Achieving this will require political will characterized by a strong development focus and leadership, as well as fostering collaborations and partnerships. Above all, continuous evaluation and a commitment to learning will be essential to adapt and succeed in this evolving environment.

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