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Citation for published version:

Anwar, MA 2014, 'New modes of industrial manufacturing: India's experience with special economic zones', *Bulletin of Geography*, vol. 24, no. 24, pp. 7-25. <https://doi.org/10.2478/bog-2014-0011>

Digital Object Identifier (DOI):

[10.2478/bog-2014-0011](https://doi.org/10.2478/bog-2014-0011)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

Published In:

Bulletin of Geography

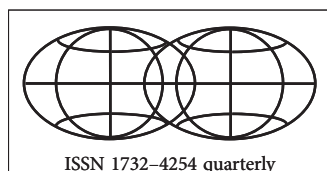
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New modes of industrial manufacturing: India's experience with special economic zones

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How to cite:

Anwar, M.A., 2014: New modes of industrial manufacturing: India's experience with special economic zones. In: Szymańska, D. and Biegańska, J. editors, *Bulletin of Geography. Socio-economic Series*, No. 24, Toruń: Nicolaus Copernicus University Press, pp. 7–25. DOI: <http://dx.doi.org/10.2478/bog-2014-0011>

Abstract. Special economic zones in India have gained prominence among the policy making circles in recent years. The argument by the policy makers was that these zones will allow industrialisation in India. This article reviews the emerging geography of SEZs (special economic zones) in India and the Indian government recent experiment with the SEZs as models of economic development. The article argues that current SEZ policy in India is designed along the lines of mainstream economic strategy for industrialisation of Washington Consensus, i.e. open economy with greater market freedom coupled with minimal government intervention leads to rapid economic growth and rising incomes. The evidence suggests that these zones are giving rise to uneven geographical development in India with certain regions, sectors and classes are deriving the benefits from this policy.

Article details:

Received: 22 January 2014

Revised: 6 February 2014

Accepted: 30 March 2014

Key words:

Special economic zones,
industrialisation,
uneven geographical development,
India.

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1. Introduction

The appearance of export oriented manufacturing enclaves in the late 1960s marked a significant development in the world capitalist economy. First of all, the industrial manufacturing for the first time in capitalism's history shifted its base from the advanced West to the developing countries of East Asia and Latin America. Secondly, these enclaves were developed and controlled by the firms from the advanced capitalist countries for the sole purpose of further capital accumulation by pushing the cost of manufacturing down through access to cheaper labour and other inputs.

These enclaves came to be known by various monikers such free export zones, free industrial zones, free trade zones, export processing zones and export industrial zones meant primarily for export and other industrial manufacturing (UNIDO, 1972: 6–7). However, the main function of these zones remain the same i.e. labour intensive industrial manufacturing primarily for exports to advanced capitalist countries of the West (Frobel et al., 1981). A study by the ILO (1988: 4) defines an a typical export processing zone (EPZ) as 'a clearly delimited industrial estate which constitutes a free trade enclave in the customs and trade regime of a country, and where foreign manufacturing firms producing mainly for export benefit from a certain number of fiscal and financial incentives'.

The first such 'modern' zone is generally considered to be established in the Republic of Ireland in 1959, namely the Shannon Free Zone. By the end of 1960 there were more than a dozen such zones, mostly in Asia (Hong Kong, Taiwan, Singapore and India) and in Latin America (Mexico, Colombia and Dominican Republic) (Cling, Letilly, 2001). According to the ILO database, there were around 3,500 zones estimated around the world in 2006, spanning over 130 countries (Boyenge, 2007). The total number of workers employed in these zones is estimated to be 66 million, with 40 million in China alone. Today Asia (excluding China) has nearly 15 million workers and Latin America has 5 million workers employed in these zones (Boyenge, 2007).

These type of zones have evolved from simple labour-intensive industries such as textiles, clothing and footwear to include high-tech software, internet tool design, creation of electronic platforms

for secure on-line transactions, call-centres, on-line data entry electronics, science parks, finance zones, logistics centres and even tourist resorts in China. Their physical form now includes not only enclave-type zones but also single-industry zones (such as the jewellery zone in Thailand or the leather zone in Turkey); single-commodity zones (like tea in Zimbabwe) and single-factory (such as the Export Oriented Units in India) or single-company zones (such as in the Dominican Republic). Madagascar, Mauritius and Hainan (China) allow factories anywhere on the respective island to apply for zone status. Port cities like Hong Kong and Singapore have enhanced their strategic trading role by providing special customs regimes for export processing and transshipment (Cling, Letilly, 2001).

As these zones developed and evolved around the world, they became an important policy choice for countries embarking on the industrial development path through outward looking trade policies. These zones were hailed by international institutions such as World Bank and Asian Development Bank and the advocates of free trade policies for their impact on rapid industrial development of certain countries. For example, the success for rapid economic growth based on industrialisation programme in the East Asian Tigers economies (Hong Kong, Singapore, South Korea and Taiwan) and the newly industrialising economies of South East Asia (Indonesia, Malaysia and Thailand) is regularly attributed to their open markets and free trade policies through export processing enclaves development (Radelet et al., 1997). Many countries caught up in this 'zone fever' of emulating the success of East Asian Tigers (Wong, Tang, 2005). However, the success and failure of these zones as a vehicle of industrialisation around the world gives a mixed picture (World Bank, 1992, 2008; Farole, 2011; Papadopoulos, Malhotra, 2011; Cisse, 2012; Zarenda, 2012).

One of the most important figures of the successes from these zones is China whose open door policy is integrated through SEZs (Brun et al., 2002). However, countries such as Bangladesh, Sri Lanka and South Africa have failed to reap similar benefits (Shah, 2008; Brautigam, 2011; Nel, Rogerson, 2013). Even though outward looking policies for industrialisation remain at the centre of policy debates, SEZs as means to design and implement such policies have lost some of their appeal among

many nations, like India, after the world economic crisis of 2008. Yet, many developing nations still use it to pursue their export oriented industrialisation policies with little or no success, for example, African countries such as Mauritius, South Africa, Kenya, Zambia and Egypt (Nel, Rogerson, 2013). Scholars have argued that there are no real standard policy preferences or strategies for the success of these zones (Jain, 2008). However, it is important that these zones do not exist as enclaves without backward and forward linkages with the host economy (Nel, Rogerson, 2013). Nonetheless, they should not be seen as ideal development vehicles for pursuing countrywide reforms (Farole, 2010) but part of broader plan for industrial development. Therefore, they should be designed by recognising and responding to the changing conditions of the global economy (Wong, Chu, 1984; Papadopoulos, Malhotra, 2011) and the political economic situation of the respective country.

India's early experiment with industrialisation through these zones was met with less relative success in comparison to other countries who had established these zones for industrial production. Much of the blame for their abysmal performance was laid on too much regulation and unattractive incentive packages for the private investors. However, in 1990s when the Government of India launched nation-wide economic reforms based on neoliberal economic framework, these zones were also re-designed by the policy makers to be used as launch pad for attracting foreign direct investments into industrial manufacturing. Private investors were given better incentives than before in terms of taxes, duty free exports and imports and less government regulation. Yet, these zones faced nation-wide resistance movements against these zones after a renewed policy was launched in 2005 by the government of India. These movements also highlighted the contradictory nature of neoliberal globalisation model pursued in India that puts capital against people.

This article reflects on the Indian experience with these zones as models for export-oriented manufacturing. In the second section of this article, India's experiment with export processing enclaves and their transition towards present day SEZs is discussed. A proper assessment of SEZs requires their historical evolution without which it will difficult to situate their development within a partic-

ular national context. In the third section of this article, a general geography of SEZs in India will be discussed. Their geographical and sectoral distribution over the Indian landscape will highlight their new and emerging geographies of production in India. This section challenges this strategy of industrialisation adopted by the government of India by providing evidence on the performance of these zones. The evidence suggests that these zones are giving rise to uneven geographical development in India with certain regions, sectors and classes deriving the benefits from this policy. The article concludes with the argument that current SEZ policy in India is designed along the lines of mainstream economic strategy for industrialisation of Washington Consensus, that is, an open economy with greater market freedom coupled with minimal government intervention leads to rapid economic growth and rising incomes. The continued insistence on rapid economic growth models largely based on an ethos of liberalisation and globalisation will lead to continued proliferation of primitive accumulation in India. The data for this article is generated from the doctoral dissertation of the author and the interviews with the government officials during the fieldwork conducted in India during 2009 to 2010.

2. Flirting with industrial development in India: From EPZs to SEZs

According to the World Bank (1992: 1), industrialisation is considered an important element of the structural transformation process that signifies economic development. The Bank's support and strategy for industrialisation over the years shifted from import-substitution to export-oriented policies which it termed as 'moderate neoclassical', characterised by selective government interventions making markets more efficient (World Bank, 1992: 5). While analysing the case of Indian industrialisation since the country's independence in 1947, the World Bank (1992: 4) noted that India's import-substituted policies of the 1950s and 1960s were driven by political objectives, poorly designed and prone to widespread rent-seeking behaviour. Therefore, the World Bank (1992) insisted that Indian industry needed reforms in the area of incentives and

deregulation for outward looking policies that can feed into the countrywide development programme. It is against this backdrop that India's export-oriented industrialisation strategy was formulated which culminated with the adoption of SEZ policy in 1999, and eventually the passing of the SEZ Act of 2005.

The SEZ policy in India did not emerge suddenly, in fact it evolved slowly over a period of several decades commencing in the 1960s. SEZs in India can trace their origins back to Export Processing Zones (EPZs) (discussed later). EPZs were earlier forms of designated areas meant for export-oriented manufacturing set up in developing countries during the 1960s. India became the first country in Asia to develop EPZs in 1965. However, the growth of EPZs was slow until the late 1990s and these zones in India largely failed to mobilise investments and manufacturing activity.

The economic crisis of 1991 allowed the Indian government to launch nation-wide economic reforms to remodel the macro-economic environment in India. To attract foreign capital and provide a sound macro-economic framework to investors, the Indian government adopted a renewed export-led industrialisation strategy through the Export Import Policy (EXIM) 1999 (Government of India. Press Release, 1999). However, the major impetus to draft a renewed export policy came when, in 1999 during the rule of the Bhartiya Janta Party, one of the Ministers went on a trip to China and on his return proposed a SEZ plan for India (Rediff News, 2000). Further recommendations from the Report of the Steering Group in Foreign Direct Investment (FDI), Planning Commission (Government of India, 2002) allowed SEZ Act drafters to try to address some of the problems faced by private investors in India. This policy was meant to provide an easy manufacturing and trading activity environment for the purpose of exports. The SEZ Bill was later tabled in the parliament in 2005 and was finally passed in February 2006 and hence known as the SEZ Act of 2005. All the existing zones before the Act were renamed as SEZ.

Before proceeding any further, it is important to assert that some differences exist between EPZs and SEZs but the conditions under which they operate are generally quite similar. Hence, it is very difficult to present a clear-cut view on the differ-

ences between SEZs and EPZs, at least in the Indian case where the major differences between these entities mainly exist in terms of their tariffs provisions. Frobel et al. (1981: 303) pointed out that despite the fact that export oriented manufacturing zones are referred to by various names, the identity of these zones reflect their function as production sites in developing countries for optimal utilisation of labour forces for world market-oriented production. As such, the identity of the zones on the basis of freedom from tariffs would not grasp the fact that it is the utilisation of labour and not the exploitation of the customs privileges which is the main function of these zones, although this is now an important requirement for profitable global-oriented manufacturing.

Accordingly, Ranjan (2006) pointed out that no minimum export performance is required for SEZs in India while EPZs had some requirements. Furthermore, SEZs are allowed to have 100 percent retention of export earnings by SEZ units in an Exchange Earner Foreign Currency Account (EEFC), while for EPZs it was only 70 percent. SEZs are also given single window clearance, duty free imports and exemption from several taxes among a long list of incentives given under the SEZ Act of 2005. Furthermore, some observers found during their research that there is a provision for self-certification by firms that included health and safety rules (Kennedy, 2009). While EPZs were designed to attract investments in tune with other policies, SEZs were created to bypass these policies (Ananthanarayanan, 2008: 36–7). A former official of the International Monetary Fund, Raghuram Rajan, considers the tax incentives a 'give away' (Mukherjee, 2006), as the additional economic activities generated through SEZs would have taken place anyway, so would have generated tax receipts that now had to be foregone (Jenkins, 2011: 55).

In the field of SEZs studies, researchers generally employ an interpretation of SEZs that is broader than the common use of the term EPZs. According to Aggarwal (2006), the main difference between SEZs and EPZs is that the former are an integrated township with fully developed infrastructure, whereas EPZs are just industrial enclaves. EPZs are solely meant for labour-intensive manufacturing for exports, while the scope of activities that can be undertaken in the SEZs is much wider, in-

cluding export production. The role of SEZs is not transient like the EPZs, as they are intended to be instruments of regional development as well as export promotion (Ranjan, 2006). According to the World Bank (2008: 16), SEZs are designed as liberalised platforms for diversified economic growth that should spill over into the national economy. For some scholars this new SEZ policy represents a 'third generation' of economic reforms facilitating Indian domestic private-sector firms to participate and compete in the world economy (Jenkins, 2011). Therefore, SEZs are considered as an important vector of globalisation in India.

3. Geography of SEZs in India

3.1. Historical development

The development of SEZs in India can be classified into three phases. The first phase was of slow growth until 1990 and the second phase until 2004. A highly regulated economy, bureaucratic red-tape, lack of an attractive and efficient framework for the investments to be generated into these zones mainly from private developers, both domestic and international, held back their growth until the 1990s. However, major economic reforms carried out by the central government after the 1989-91 crisis, attracted private investors to invest in a host of other economic activities. Moreover, significant new developments took place during the second phase. Initially the central government was solely responsible for establishing these zones but this policy was amended to enable state governments and private investors to participate in the development of SEZs (Press Information Bureau, 2000). There were 19 established zones prior to the SEZ Act 2005. Most of the data on SEZs in India used in this article can be found on the Ministry of Commerce and Industry, Government of India, website given in the reference list.

The third phase began with the SEZ Bill being tabled in the parliament in 2005 for discussions and recommendations when the new coalition government, under the leadership of Prime Minister Dr. Manmohan Singh of the Indian National Congress, came into power. The bill was passed within two months in February 2006, and came to be known as SEZ Act of 2005 (Gopalkrishnan, 2007). Since then,

SEZs have grown tremendously and at present there are nearly 576 formally approved SEZs in India out of which 392 zones have been notified (Ministry of Commerce and Industry, Government of India, 2014a).

The distinction between formally-approved SEZs and notified SEZs is very complicated as per the various clauses in the SEZ Act of 2005. Once the proposal from the developers to set up a SEZ anywhere in India is received by the respective states, they forward the proposal to the Board of Approval (BOA). The BOA constitutes 18 members from different government offices and ministries. The BOA then either approves it formally or gives in-principle approval. Formal approval is given when all the terms and conditions according to the SEZ Act are met in the proposal. In-principle approval means the proposal has to be reviewed again by the developer on the terms and conditions set up in the SEZ Act and the proposal is then submitted again to the BOA so that it can be given formal approval. Once a proposal has received a formal approval, the developer then has to furnish the details of complete land acquisition over the required area for the SEZ or leasehold rights over the identified area. This has to be done within the next three year period, whereby the developer has to show land ownership rights to BOA. Once this is completed the SEZ is notified.

The third phase of the development of SEZs also witnessed a complete change of their ownership. Before the SEZ Act was passed, 17 of the total 19 SEZs in India were under government control. However, since the Act was passed, private developers have shown a keen interest and currently nearly 80 percent of SEZs are held in the private sector (Fig. 1). While both central and state governments are showing some interest in developing SEZs, many of the zones developed by them are joint ventures with private investors. Several state industrial corporations have entered into joint ventures with private investors to develop SEZs (Indiabulls Real Estate Ltd, 2012). Since the details of the ownership controls of every proposal are unavailable on the website of the Department of Commerce and Industry, Government of India, it was difficult to identify joint ventures. Therefore, I have counted SEZs by their developers' names available online.

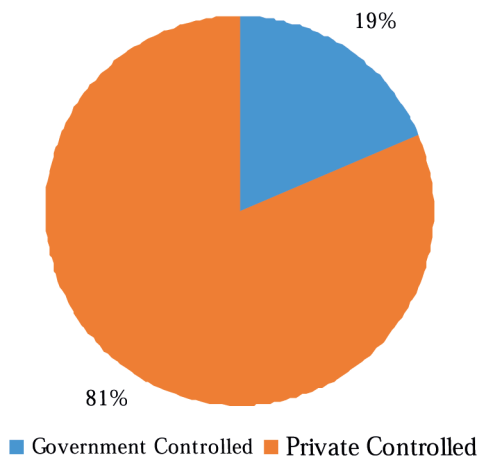


Fig. 1. Ownership of formally approved SEZs in India (figures in parentheses represent numbers)

Source: Ministry of Commerce and Industry, Government of India

3.2. Sectoral distribution of SEZs in India

An additional interesting thing about the development of SEZs is their sectoral composition. Frobel et al. (1981) acknowledged that the export oriented industrial zones developed in the 1970s and 1980s in developing countries were meant primarily for labour-intensive manufacturing that requires large supplies of cheap and abundant labour. Accordingly, the development of these zones in India until the 1980s was mainly targeted towards textiles, footwear,

plastic processing, building materials, gems and jewellery and assembly plants for industries such as for car engines and other industrial products which require either unskilled or semi-skilled workers. Seventeen of the nineteen SEZs developed before the SEZ Act of 2005 were for various labour-intensive manufacturing industries. However, since the SEZ Act of 2005 was passed, most of the formally approved SEZs were developed either in Information Technology and Information Technology enabled services (ITES) or software development (Fig. 2).

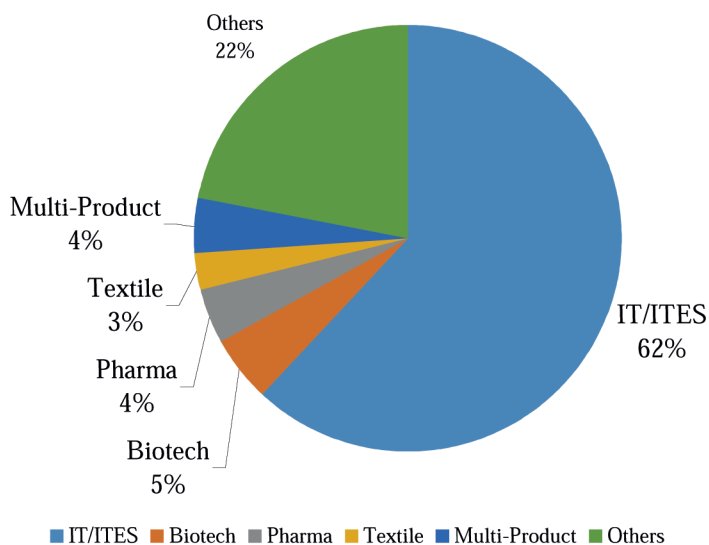


Fig. 2. Sectoral distribution of formally approved SEZs in India

Source: Export Promotion Council for Export Oriented Units (EOUs) and SEZs in India (EPCES)], Ministry of Commerce and Industry, Government of India

The huge response of developers to set up IT/ITES SEZs in India was due to several reasons. One was to do with the fact that much of India's growth since 1990 was based on the services sector, especially in IT and software development. This has remained consistent with the changing geography of production at the global scale. Since the 1970s, there has been a tremendous growth in the services sector of the world economy, mainly in financial markets, stock markets, currency transactions and business outsourcing industries (Amin, 1994; Harvey, 2005), all of which are highly dependent upon IT, software and other communication technologies and largely concentrated in the advanced countries of the world. India's services sector contributes 57 percent of the country's GDP and has grown at an average of 10.1 percent in the last ten years. It also contributes almost a 35 percent share of the total exports of the country (Economic Survey of India, 2010–11, Ch. 1: 15). Much of this sector is largely dependent upon the outsourcing industry in India which caters to the needs of the advanced markets of the US and European Union. According to the National Association of Software and Services Companies (NASSCOM) India, the exports from the IT-BPO (Business Processes Outsourcing) sector have increased its share from four percent in 1998 to 26 percent in 2011 of India's total exports. Furthermore, within exports, the IT services segment was the fastest growing at 22.7 percent, aggregating export revenues to US \$ 33.5 billion, which is more than 50 percent of the total export revenues from the IT-BPO sector (NASSCOM, 2012).

A recent but rather interesting development is that the majority of these zones are mainly operating, or are planning to set up BPO units within them (SEZ News March, 2009). During the author's field visit to West Bengal, an employee in one of the operational Wipro IT SEZs in West Bengal, said that all of the units operating within the SEZ are providing back-office services for software, financial, data entry and other official works for firms based in US and EU (Wipro employee, Interview, Kolkata, September 2009). Secondly, IT tax holiday scheme (10 year exemption from corporate tax) under the Software Technology Park scheme (STPI) designed to support IT companies was about to expire in 2009 which was later extended till 2011 (SEZ News March, 2009). This allowed the IT compa-

nies to move into SEZs, which enabled them to get tax benefits even if they developed the SEZs after the holiday scheme expired (Interview Dr. Aseem Srivastava, New Delhi, August, 2009). This IT tax holiday scheme under STPI ended in March 2011 (Live Mint, 2013) while units set up in SEZs till March 31, 2014 will continue to get tax holiday for 15 years (Tax India Online, 2010).

The figures on the developers who received approvals from BOA to set up SEZs suggest that most of the formally approved SEZs in India are being developed by private entrepreneurs from real-estate backgrounds. The real estate sector in India has grown tremendously with the growth in the IT-BPO sector. The development of the IT-BPO sector requires subsequent development of real estate to house their office complexes and other commercial and residential spaces. According to Corporate Catalyst India (CCI), a specialist firm providing business solutions, the realty sector is largely driven by growth in the Indian economy which has spurred the demand for residential, commercial and retail real estate. Additionally, the granting of permission for foreign direct investment, up to 100 percent, in the realty sector has further created huge demand potential for projects. Subsequently, the development of SEZs has facilitated significantly large investments into real estate (CCI, 2013). Also, some observers have claimed that the rapid development of SEZs might turn into a huge real-estate scam (Ranjan, 2006; Citizen Research Collective Report, 2009).

Data from the Export Promotion Council for Export Oriented Units (EOUs) and SEZs in India (EPCES) suggest that close to 60 percent of SEZs approvals given to developers to date are from the real-estate industry (Ministry of Commerce and Industry, Government of India, 2014a). The traditional activities that characterised the production processes in these zones were labour-intensive export-oriented manufacturing as a means of gaining foreign exchange. However, the real estate development in SEZs is a clear divergence from the earlier objectives of these kinds of zones with which they were introduced. There is a danger of activities getting away from manufacturing for exports towards creating enclosed spaces for capital regeneration for further accumulation.

The two different kinds of developments (majority IT/ITES SEZs and large number of real-es-

tate developers) have further difficulty in keeping pace with the world economy which has been contracting since 2008. Consequently, the speed with which approvals were given for SEZs in India did not match with the pace with which they became operational. There are only 143 SEZs functioning (Ministry of Commerce and Industry, Government of India, 2014). Some of the developers have even filed applications to de-notify the zones for which they got approval. DLF Ltd, India's largest real-estate company, has got the highest number of SEZs, and has lately applied to de-notify five of its 11 zones owing to the financial crisis resulting in sluggish demand for real estate projects. Sanjay Roy, spokesman for DLF in an interview said, 'what is the point of constructing a property or for that matter a SEZ when there is little demand for it. It is as simple as that' (The Telegraph, June 28, 2009). Greater integration with the world economy has huge repercussions on domestic economic activities. Any fear of market collapse in the world economy will force many of the investors to react accordingly. Interestingly, there is no clause in the SEZ Act for de-notification of the approved zones. However, when officials in the EPCES were asked if there is any provision for de-notification, one of the officials explained that although there is no provision as such, the BOA can cancel the zone only if it is of the opinion that the developer is unable to discharge his duties according to the Act and rules specified. The developer can then resubmit the proposal for the same land to the BOA and can once again get fresh approval (Interview, EPCES, New Delhi December 2009). However, the SEZ Act of 2005 does not specify whether the developer can re-submit the proposal for fresh approval. The BOA can only transfer the letter of approval for a particular zone in consideration to another developer (Ministry of Commerce and Industry, Government of India, 2014b, SEZ Act 2005, Chapter III-Clause 10).

3.3. Spatial distribution of SEZs in India

One of the objectives with which the SEZs in India were established was to develop good infrastructure. That is one of the reasons why SEZs are often equated with 'planned cities' or 'integrated townships' (Business Today August, 2007). The possi-

ble corollary of their development was that SEZs would instil infrastructural development in 'under-developed' areas and hence advance the overall development of the area. However, the development of SEZs has not gone towards the backward areas of the country but in fact they have concentrated around some of the already developed regions and metropolitan areas and their hinterlands where the pressure on land and resources is already very high.

Their spatial distribution all over the country highlighted a few interesting yet disturbing characteristics. One is their development in the inland areas far away from the coastal regions. This observation is a disturbing element in India's SEZ policy and in complete opposite to the pattern of the development of SEZs in China where almost all the SEZs are situated along the coast. The SEZs that the Government of India established prior to the reform period were largely located at port cities, with the exception of Noida in Uttar Pradesh. This zone was largely set up for gems and jewellery exports such as diamonds, the majority of which are polished and cut in India for further export to other countries (Asia Pulse News, 2008; cf. Carmody, 2010). The locations of the zones were concomitant with the long-established notion that production activities should be along main transportation lines; be it port, railways, or road transport. Proximity to the transportation routes would reduce the cost of inputs and hence the cost of output of produced materials which subsequently generates greater profits. Labour-intensive manufacturing required raw materials which would be brought in and then manufactured materials transported to other parts of the world. Since the SEZs are meant to produce for export to foreign countries, the bulk of which is carried out via sea routes, the previous SEZs developed by central government were all but one, situated at port cities. However, in the period since the reforms began in India, the situation changed dramatically. Many of the SEZs have developed in locations that are far away from port cities. Although some of them are still being developed at port towns, the majority of the zones are located in the interior of the country.

The second important characteristic was their unequal distribution among different states of India. A composite map of the distribution of SEZs in India is shown in Figure 3 which confirms the

unequal distribution of SEZs both at inter-state and intra-state level. We can see from this that the majority of the zones are being developed in the southern states, mainly in Andhra Pradesh, Maharashtra and Tamil Nadu. Western and Southern States together account for 73 percent of the formally ap-

proved SEZs in India (Fig. 4). The southern states are relatively more developed in comparison to northern states both in economic terms (net state GDP and per capita GDP) and in social indicators such as literacy rates (Reserve Bank of India, Handbook of Statistics of Indian Economy, 2009: 10).

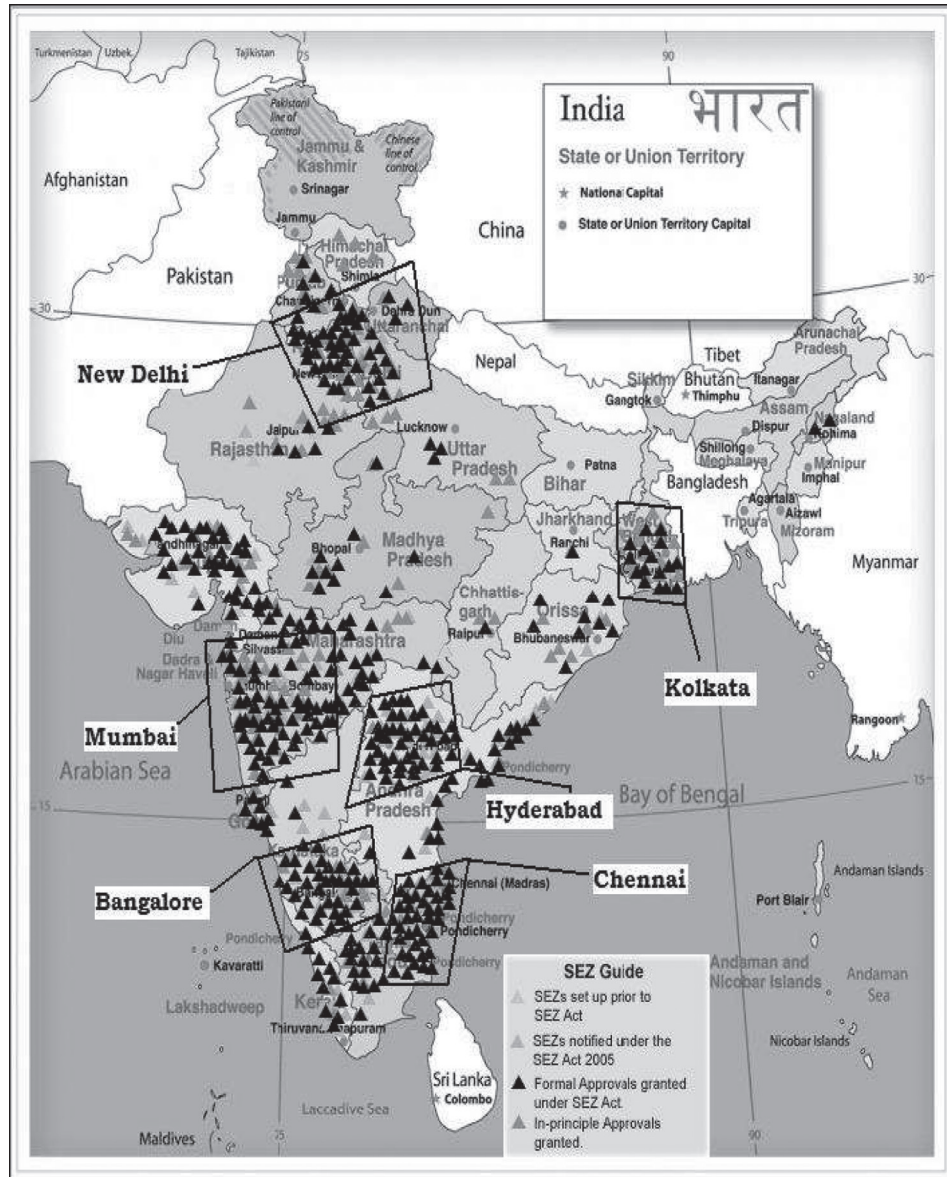


Fig. 3. Consolidated view of SEZs in India in 2008 (black polygons in the map indicate clusters of SEZs around six major Cities of India)

Source: Reproduced and modified from ‘Seminar’, February, 2008, retrieved from: http://www.india-seminar.com/2008/582/582_factfile.htm, September 2009

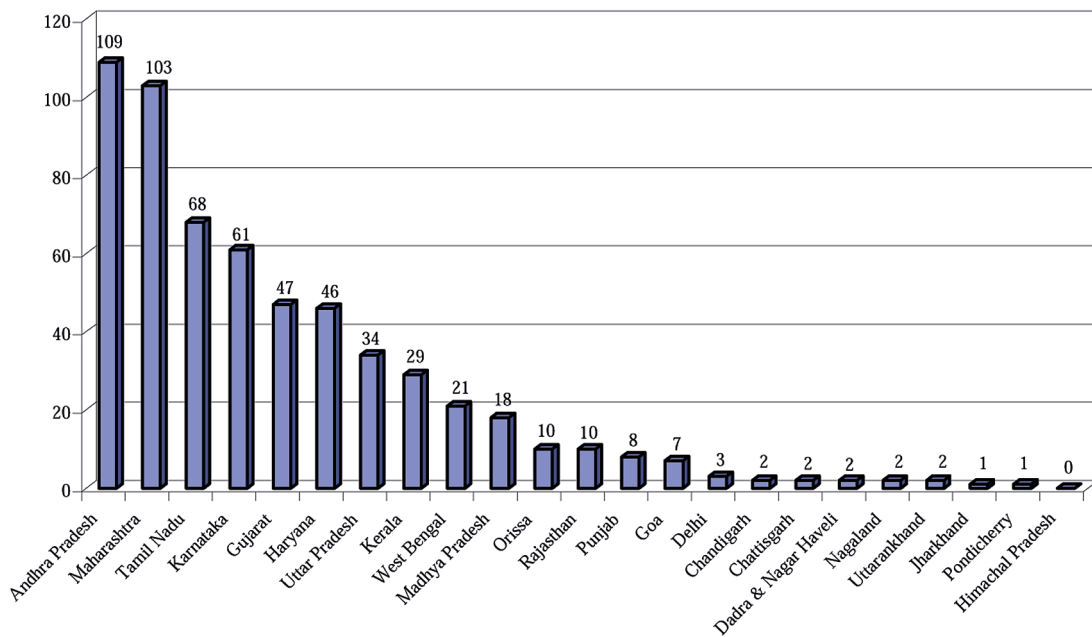


Fig. 4. Formal approvals to SEZs granted by states in India

Source: Ministry of Commerce and Industry, Government of India website, retrieved February, 2011

Even with the Government of India's intervention through SEZ policy to provide a better investment climate and preferential policy treatment, which allows investors to set up SEZs in any part of the country, investors have overlooked the under-developed states of the country. The reasons for such bias among the investors stems from both socio-economic and political factors. States which have the least concentration of SEZs (M.P., Chhattisgarh, Jharkhand, Orissa and Rajasthan) occupy most of central India with desert on the west in Rajasthan and barren ravines and plateau region in central India extending towards East into Chhota Nagpur Plateau. One official in the EPCES, which is a subordinate body of the Ministry of Commerce and Industry, specially set up to coordinate the development of SEZs, said that developers do not want to go to these places which lack basic infrastructural facilities such as transport links, adequate power supply and lastly suitable physical terrain (Interview, New Delhi, December, 2009). Moreover the central and some parts of eastern India are home to rebel movements such as Naxalites and Maoists, which have also affected the economic development of the states in this region. The political instability in these states sometimes forces investors to look for safer areas.

The establishment of SEZs in the advanced states of India will further undermine the development of the already backward areas. These states will then find it increasingly difficult to provide impetus to their industrial development plans, because in the period of intense competition among states since the reforms, investment opportunities will be lost to advanced states. Investors are unwilling to invest in the under-developed regions and neither do these states have the capacity to offer attractive incentives to private investors. In fact, some of the less developed states like Madhya Pradesh (M.P.), Chhattisgarh, Jharkhand and Rajasthan have the lowest concentration of SEZs among all states. However, some of the more developed states such as Gujarat have already tried to invite foreign investors to set up industrial and manufacturing units. A delegation of 20 members of the Gujarat government went on a visit to the US on January 2009 to attract investment in the state (The South Asian Times, 2010). Also, the state of Gujarat requested TATA Group to relocate their small car (Nano) factory, (although not for SEZs) after TATA's project met with heavy and violent resistance in Singur, West Bengal (Ground Report October, 2008). Eventually TATA relocated their plant to Gujarat

The majority of the zones developed are in the IT/ITES sector which involve internet and other communication technologies responsible for the majority of the exports generated. These zones, therefore, require an adequate supply of skilled labour. This explains why the majority of the zones have developed in states with higher literacy rates and skilled labour force. This also attracts the investors to form industrial clusters and thereby benefit from agglomeration economies (Storper, Christopherson, 1987; Yeung, 2000; Dicken, Malmberg, 2001; Scott, Storper, 2003; Mudambi, 2008). This can further accentuate intra-regional disparities not only in the backward regions but also in many of the developed states as well. Figure 3 shows that the majority of these zones have now developed around the big metropolitan cities which are the centres of globalisation in India. Large numbers of firms both domestic and international, operate their office complexes from these cities. Starting from North India, the concentration of SEZs can be found around the national capital New Delhi; in the South their concentration is around Hyderabad, Mumbai, Bangalore and Chennai while in the east it is only Kolkata. Therefore, the states will see only a few possible clusters emerging as pockets of investment while the rest of the regions may still remain under-developed.

This kind of development has huge repercussions both at the state level and at regional or city level (Kennedy, 2009). The increasing demand for land to accommodate the growth of cities in India has expanded urban development towards the hinterland, which often encroaches on rural areas (Hart, 1976; Briggs, 1991; Nanda, 2005; Rahman et al., 2008). The National Institute of Urban Affairs estimated that close to 50-70 satellite towns will emerge around SEZs (most often around the already existing and strained metropolitan cities) each having a population of 500,000 to one million (Kennedy, 2009). This will initiate a rapid process of urban encroachment on agricultural lands, where many of the big cities in India have already encroached upon the neighbouring areas, affecting the natural and social life of the locality (Breese, 1963; Mangla, 1988; Kundu, 2003). The development of SEZs will create spaces of globalisation and urbanisation superimposed on the rural geographical locations of India. It should be made clear here that even though many

SEZs are developed around metropolitan cities, they can still be situated on agricultural land. For example, one of the SEZs by Oval Developers in West Bengal was given approval by BOA in 2008. This SEZ was identified on the irrigated agricultural land which falls within the administrative territory of the Kolkata city (Field trip observation July, 2009). Cities do have definite administrative boundaries on paper but these boundaries do shift and expand with time to accommodate the growth of cities often encroaching on nearby agricultural lands.

The implication of this kind of urban growth also brings up the issues of redefinition and restructuring of the territorial governance (Kennedy, 2009) of these distinct spaces of capital accumulation. The SEZs are governed by a single authority, the Development Commissioner, who is solely in charge of a particular SEZ and holds several executive and judicial powers to govern the lives of hundreds of the human beings inside the zones. Since the SEZs are enclosed spaces within the already existing spaces of governance whether at state, city, urban or rural level, it provides enormous latitude to the concerned governments to regulate, or not to regulate the firms operating within the SEZs (Burman, 2007; cf. Jenkins, 2011: 55–56).

In order to understand the overall implications of the SEZs, it will be useful to evaluate the performance of SEZs in India in terms of their aims and objectives. Their main objectives are to generate foreign exchange, export earnings and generate employment to promote overall development of the areas where they are being developed. In the next section, I will examine their performance on these variables based on some of the data available primarily through the Ministry of Commerce and Industries, Government of India.

4. Performance of SEZs in India

I have so far discussed a general geography of the SEZs in India which included their sectoral and spatial distribution in the country. To summarise, the following important points need to be kept in mind: (a) there is an increasing trend towards private ownership of the SEZs in India; (b) most of the SEZs are established for IT/ITES/software develop-

ment; (c) only a few SEZs have become operational as of now and (d) the current trend is that SEZs are now increasingly developing and encroaching on rural areas.

These features of SEZs in India have profound effects on their performance in one way or the other. To begin the discussion I first analyse their export earnings. Data from the Ministry of Commerce and Industry suggest that the total exports from the functioning SEZs during 2010-11, as of March 2011, stands at US \$ 49 billion, registering a growth of 43 percent over 2009-10. The import figures for SEZs are unavailable. However, much of what is shown as 'export' from the SEZs can actually be misleading. One of the objectives behind production activities in SEZs is exporting the finished products to a foreign country. Since the SEZs are deemed to be 'foreign territory' within India, sales and purchases within the territorial boundaries of India are considered as exports and imports. In 2007, the Comptroller and Auditor General of India's (CAG) Union Audit Report (2007) in its study on 550 SEZ units found that much of what is shown as exports by these units is actually sales within the 'Domestic Tariff Area' (DTA), that is, products sold within India (cf. SEZ News Letter, 2009). Therefore, the figures on exports shown by the Government of India have a large component of domestic sales, that is, sales within the DTA. This has two important implications; one is that the sales from SEZs are not real 'export earnings' for these zones. Second is the far graver issue of revenue loss for the government due to tax and duties being waived for SEZs, which I discuss in a later part of this section. Moreover, the real total export earnings from the SEZs in India to other countries are unknown and, besides, no effort has been made by the Government of India to publish any data or reports on this situation.

Similarly, the figures for the total FDIs in SEZs are unavailable. However, the only data available from the estimates of the Ministry of Commerce and Industry is on the total investment (both domestic and foreign) made in SEZs as on September 30, 2011 which was US \$ 43 billion. It is also worth noting that the majority of the SEZs are being established by domestic private capitalists, close to 90 percent of the operational SEZs are developed by domestic investors (Ministry of Commerce and Industries, Government of India, 2014a). This means

that what is shown as investment (often confused as FDI) has a major domestic component, rather than a foreign component, which was one of the objectives of developing SEZs in India. It is possible that domestic investors might be getting these zones financed by foreign capital. However, the source of financing of these SEZs by domestic investors is not declared.

Even these investments have come at the cost of various import and export duties forgone and other tax concessions provided by the Government of India to the developers of the SEZs. The Ministry of Finance, Government of India, however, conducted a study on the cumulative figures of the revenue loss from tax holidays to all the SEZs over the period of the first four years of the SEZ until 2009-10 which was around US \$ 39.1 billion (SEZ News Letter, 2009). Annually, this amount is equivalent to 6-7 percent of the central government's receipts during 2005-06. Moreover, this is nearly four times the total annual allocation of the National Rural Employment Guarantee Scheme (NREGS) (SEZ News, 2009).

Apart from the investments and export performances from the SEZs, one of the main objectives of these zones is to generate employment. During the debates on the SEZ Act 2005 in the Lower House (Lok Sabha) of the Parliament, the then Commerce Minister stated that the main focus of these zones would be to create employment-driven investment (Gopalkrishnan, 2007). Several estimates put total employment generated in the first five years from 2005 to be around 1.5 million, while one multi-product zone alone in Mumbai that was supposed to be developed by Reliance Industries Ltd was expected to generate 2.5 million jobs (Interview Commerce Minister, Indian Express, 2006; cf. Gopalkrishnan, 2007). Neither of these claims are true to the extent that this wild claim of 2.5 million jobs from one zone is more than the total organised-sector jobs created during the reforms period beginning in 1991 until 2005 (Citizens Research Collective, 2007; cf. Gopalkrishnan, 2007).

Another way of analysing the scale of employment generated in SEZs is to look at the growth pattern of India since 1991 which has been mainly capital intensive (Ananthanarayanan, 2008) resulting in eight percent annual economic growth in In-

dia since 2000, while employment in the organised sector grew by only one percent (Bhaduri, 2009). Investments in SEZs from 1998 to 2003 increased by 73 percent, but employment increased by only 13.7 percent (Gopalkrishnan, 2007). Moreover, the total employment figures as of December 2011, provided by the Ministry of Commerce and Industry in India is 644,073 jobs out of which nearly 211,837 were generated by Central Government SEZ and 63,655 jobs were created by State Government/Private SEZs; all of them set up before the SEZ Act was passed. Hence, the total new employment generated by these zones is around 368,581 persons. Moreover, this figure can be further complicated because there is evidence of enterprises trying to submit proposals to BOA to convert their already existing production units into SEZs. Jindal Steel Group Ltd. has applied to the BOA to convert their steel plant in Salboni West Bengal to an SEZ in order for them to extract the benefit of cheap raw material imports. Similarly, Essar Groups power plant in Gujarat (The Economic Times August 9, 2006) and POSCO's Steel plant in Orissa (The Economic Times, August 26, 2006) have submitted their proposals for SEZs. This means not many new jobs will be created but, rather the employment figures will only shift their places.

Aggarwal (2007), in her study on SEZs in India, concluded that fresh investments in SEZs might help in generating huge employment potential in the national economy. However, the investment-driven employment policy has failed in the past in India. One such spurious claim of employment generation was made by one of the world's leading beverage companies, PepsiCo, when it entered India in the 1980s promising 50,000 jobs; in 1991 the Food Production Ministry acknowledged that it had created only 482 (Sharma, Goswami, 2007; cf. Ananthanarayanan, 2008). Therefore, the argument that investment in SEZs in India, which is mainly capital intensive, will generate new jobs for the rural poor and that too in the millions, was grossly overstated.

A different way of looking at the employment potential of the SEZs in India is to look at where this employment is being generated in the zones. To recall the basic points from the discussion in the previous section: (a) SEZs are mainly in the IT/ITES sector and (b) are being developed in rural areas. Both these characteristics point to why the employ-

ment generation potential of SEZs will be unsustainable in the longer run. This will have a huge impact on the employment and livelihood potential of the poor and unskilled population who are being affected with the establishment of these zones mainly in rural areas. One of the reasons is that the majority of the investment is for IT/ITES/software development which requires a highly-skilled workforce. However, the population affected by SEZs in rural areas earns its livelihood from the agricultural land and most of them are illiterate and unskilled. There can be some temporary unskilled and semi-skilled employment available for the people in the rural areas in construction works, security services and other auxiliary works during the initial set up of the SEZs (Levien, 2011; author's own doctoral research on Reliance SEZ in Gurgaon, 2009-10). However, in the longer run this section of the population will find itself unemployed because the jobs being created by these SEZs will be mostly unsuited to their skills. This creates conditions of increasing poverty due to declining incomes and hence inequality among different social groups across the country.

In one of the earliest studies done on these zones, Frobel et al. (1981) acknowledged that these zones will not solve the problems of unemployment in the respective countries. The development of SEZs begins with the acquisition of the land and the provision of other resources (labour, water, power and other natural resources). This sometimes involves forceful displacement from the land (Frobel et al., 1981: 376–78). One of the biggest problems with many existing studies on SEZs in India, and for that matter anywhere in the world, is that these studies have not taken into consideration that these zones require land for their development. Rather, they simply either take it for granted that SEZs will develop without any land acquisition or simply ignore it to concentrate on the issues of economic benefits generated due to their development (Wei Ge, 1999; Jayanthakumaran, 2002; Schweinberger, 2003; Aggarwal, 2007).

Recent trends in the development of SEZs in India indicate a disturbing picture when the total employment figures generated by the SEZs were matched against an estimate of the number of livelihoods destroyed immediately due to their development. However, due to the unavailability of data

on the displacement induced by the SEZs in India it becomes difficult to analyse the exact scale of this. Nevertheless, we can roughly estimate the number of people displaced due to SEZs using a simple mathematical calculation. The average population density in India is 358 persons per sq km and the total land requirement for all the approved SEZs is approximately 2,100 sq km. This data was first accessed on the Ministry's website on April 10, 2010 where it showed the total area of all SEZs (whether they are in-principle approvals, formally approved or notified). However, there have been subsequent changes made to the website. The total current area of approved and notified SEZs is stated at 715.02 sq km (Ministry of Commerce and Industry, Government of India, 2014c). If we take the total area of SEZ at 2,100 sq km, that gives a rough estimate of 750,000 persons being displaced because of land being acquired for SEZs. This is far greater than the current total employment figures given by the government. Besides, this area is only of the notified land and not the land acquired by the government for the SEZ, which may be greater than presented by the government and hence greater chances of displacement and dispossession.

Additionally, to consider that some of the states where the land is being acquired for SEZs the population density is very high, especially in West Bengal which has the highest population density in India at a state level (908 persons per sq km), the possibility for greater than estimated displacement exists. A counter argument may be that some of the SEZs might have been developed on marginal lands. However, as discussed earlier, SEZs have rarely been developed over areas of Central and Eastern India where land is either barren, with ravines (states of M.P and Chhattisgarh), deserts (Rajasthan), in plateau region (Jharkhand) or even North Eastern states. All these states have low densities of population in comparison to other states. On-the-other-contrary, SEZs are concentrated around the high population density areas mainly around cities. New Delhi, Mumbai, Chennai, Bangalore and Kolkata have densities as high as 11,000 persons per square kilometre. Moreover, the government rarely estimates or reports the total tally of displaced persons in its reports or gives consideration to enumerate by project. It becomes far too ambiguous to see how these zones will solve the problems of unemploy-

ment when they require vast tracts of land at the very outset. In effect, employment figures given by the Government of India do not take into account the number of people who will actually lose their livelihoods permanently because the land acquisition and its associated displacement will take the local population away from their existing source of livelihood while the opportunities for the new jobs created in the SEZs will be predominantly unsuitable to the needs of the local people.

5. Conclusions

SEZs in India have become an important policy designed to promote globalisation and liberalisation of the Indian economy designed along the lines of Washington Consensus – open market economy with less government regulation. These zones were promptly advocated by the World Bank (1992) for India's industrialisation strategy. The main objectives of the SEZ policy were to initiate industrial manufacturing for exports, generate foreign exchange, employment and most importantly act as the driver for rural industrialisation to help reduce poverty and inequality. As one member of the Planning Commission, Government of India, states, 'fragmentation of land holdings has made farming unviable, so government should rather consolidate the land holdings and use it for industrialisation' (Santosh Mehrotra, Senior Adviser Planning Commission, interview NDTV 2007). These zones, therefore, also came to be associated with an alternative development paradigm based on rapid industrialisation. However, the fact that some developing economies have benefitted from export oriented industrialisation policies, does not mean that outward looking trade strategies are inevitably the most effective policies for all developing countries at all times (Weiss, 2002). In fact, Market-based industrialisation policies have not worked in many other countries (Wade, 2004; 2010; Borras Jr, 2007). Yet the insistence on reforms based on free markets and free trade reflect a governmental policy shift in favour of large capital and big businesses (Ananthanarayanan, 2008: 36). It also shows the commitment of the Indian state to integrate with the world capitalist economy.

The discussions in this article have focussed on the experience in India with the SEZ policy. The growth of SEZs in India gained momentum only after the large-scale liberalisation programme carried out by the Indian state after 1991. These zones also underwent several changes in their designs and implementation. The Indian government policy has given almost free reign to private investors in terms of the nature of investment and performance indicators. Consequently, the majority of SEZs have developed for the IT sector thus further defying the industrialisation objective of the policy. There are no mechanisms by which the state can hold firms responsible for failing to commence production activities. These zones have also given rise to real-estate development with firms keen to buy up land for rent seeking activities rather than actual production for export. Above all, the enclave nature of these zones makes them unsustainable due to the fact they are only acting as small pockets of prosperity of varying sizes which are super imposed on the wider pools of deprivation and poverty.

At the same time, this policy has generated uneven geographical developments in India. Recent developments of SEZs suggest that advanced state and city regions have attracted much of the investment in SEZs while under-developed areas have been ignored by the SEZ developers. Furthermore, these zones have favoured mainly IT sector zones many of which function as BPO firms catering to the US and EU markets. This suggests that without active government intervention to generate spillovers from the zones to other sectors and sub-sectors, the developing countries pursuing open economy strategy for industrialisation may get caught in a 'middle-technology-trap' specialising in low value-added industrial activities (Wade, 2010: 152). This will be also less sustainable in the longer run because of the integrated nature of the Indian economy with greater reliance on the markets in the advanced West. Similarly, greater reliance on private investors with less government intervention towards investments decisions and conditions leads to lopsided development and generate large costs on part of the government.

The analysis also suggests that the SEZ policy in India will be mostly beneficial to private capitalists who will have the opportunity to extract huge profits by evading taxes and duties on exports and im-

ports. India's budget deficit is already straining the condition of the Indian economy (Economic Survey of India, 2011). Huge taxes and duties forgone for SEZs will only impede economic growth risking a financial and economic crisis in the future.

Furthermore, these zones have implications on the developmental impacts of the local population mainly on the employment opportunities. The development of these zones in advanced technology industries (IT/ITES and software) indicate that the employment generated will be for the skilled labour, while much of the population affected is unskilled. Another important issue, which has been largely ignored by the advocates of SEZs policy, is that these zones require land for their development. However, the recent controversies over land acquisition for SEZs in India have exposed the irresponsible planning and ineffective policy design which affects a significantly large population (Gopalkrishnan, 2007; Sampat, 2008; Levien, 2011; 2012). Since their development begins with land acquisition, it often involves displacement and dispossession of the population depending upon the land concerned thereby destroying existing livelihoods. The development of SEZs in India threatens the existence of rural populations and places immense pressure on agriculture and other primary activities which continue to support more than two thirds of the Indian population. The current trends of their development suggest that they are encroaching into rural agricultural land. Hence, this policy has increased the potential for deep conflicts and dissent between different classes of the Indian society.

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