

Evaluation of evolving strategies for new zones of creative opportunity in a metropolis

Case studies: (1) Falta Export Processing Zone (FEPZ) and (2) Advanced Electronics Zone (AEZ), Kolkata (Calcutta) Metropolitan Region (KMR)

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- Case study (1) – the author had worked as assistant project-architect and planner on behalf of Consultant team to the clients namely West Bengal Industrial Infrastructure Development Corporation (WBIIDC) (1984-87)
- Case study (2) – the author had served as consulting project architect-planner (1991-97) to a few design projects within AEZ, Salt Lake City, KMR.

Changing Preconditions

'Calcutta has become a metropolis without benefit of the industrial revolution that gave rise to cities in advanced nations'

- Nirmal Kumar Bose in *Calcutta: a Premature Metropolis* (1973, pg 250)

Small wonder that Arthur D. Little, international consultants presenting a strategic vision of the future of the State in January 1995, found West Bengal to be "India's most favorable State for domestic and foreign industrial investment". If Government, business and labor come together for an "Industrial Development Compact", says Arthur D. Little, West Bengal will surely be:

- *India's most rapidly growing industrial region*
- *The home to some of India's most competitive and rapidly transforming industries*
- *India's principal gateway to the economies of the Asia-Pacific and*
- *KMR will emerge as the leading industrial, trade and services center of India.*

Introduction

In the context of Calcutta or Kolkata metropolitan region (KMR)ⁱ, the evolution of metropolitan strategies for new zones of creative opportunities can be best understood, if the pre-conditions to her development are reviewed historically. The pre-conditions form the very basis to her creative transformations and they are reviewed in three periods namely 1) an era of past glory, followed by 2) a phase of degeneration and finally 3) a phase of resurgence. They are discussed hereafter.

The past glory: The year 1947 was both the year of India's independence and contrastingly the year of her political separation from West and East Pakistan (later known as Bangladesh). The separation was at the cost of physiographic, political-economic and human resources divided between the three countries. In the eastern region of India, undivided Bengal was partitioned into the state of West Bengal, a part of India and Bangladesh (then East Pakistan). The partition affected the growth of the eastern region and KMR, the largest metropolis in the region.

At 1947 KMR was the leading node of economic opportunities and cultural attainments. Its primacy was also due to the highest concentration of administrative and commercial-industrial functionaries left behind by a long period (over 200 years) of British Dominion

in India. KMR had ceased to be the political capital of India by 1916 but her predominance as an economic and cultural capital had remained unquestioned till that time.

But there were darker sides. Unlike advanced industrialized cities of the west, KMR had not emerged with a required level of well-distributed urban infrastructure. Till 1947, a colonial form of development was mainly concentrated within the urban core, which neglected her periphery.

Intermediate degeneration: The next decades (1951-91) constituted the phase of decay and the reasons were many. First, there were shifting national priorities to other regions (north, west and south) and in other emerging, urbanizing cities in them. They were the cities of New Delhi in the north, Mumbai and Pune in the west and Chennai, Hyderabad, Bangalore, in the south (Berry *et al.* 1966).

Second, the economic base of the eastern region centered at KMR was then a predominant manufacturing one. The base soon succumbed to imminent problems of technological obsolescence, stagnation and infrastructure decay. To this, lack of investments emphasizing modernization and marketing were further deterrents.

Third, severe in-migration followed partition at 1947 and Bangladesh war (1971), which escalated the refugee situation and its pressure on urban resources within KMRⁱⁱ.

The period began to witness a series of political unrests degrading the creative atmosphere of the metropolis. The most damaging effect was on the City port facilities – reducing trade opportunities and linkages.

By late 1980s, KMR appeared to be a dying metropolis of industrial closures, job losses, slum inbreeding and urban insecurities. The period also witnessed a deteriorating 'value' system amongst the average youth, whose potentials were untapped by the perils of economic stagnation. Both 'collective initiatives' and 'good administrative strategy' were missing in overall mainstream policy-making.

Creative regeneration: Then came a turning point. Since 1991, new national and local levelⁱⁱⁱ trade liberalization policies had come in. The principal aim was to augment fresh opportunities of urban revitalization through strategies for rejuvenating a stagnant economy.

Strategies for urban re-structuring, backings of a new industrial policy and a new focus on the metropolitan environmental management were taken by the state and metropolitan governances.

The reform program attempted to liberalize market situations and prices by:

- Opening of the economy to competitive pressures – removing barriers to entry and exit
- Developing markets in place of administered control to regulate resource use and consumption
- Re-defining the role of public-sector institutions to transform them to enterprises along with small to large private firms and
- Liberalizing trade policy and fostering private sector investment, accessing foreign investments and creative-green technologies in priority industries with a special focus on small and medium scale sectors.

At the center of the local governance's strategy was the identification of 'thrust areas and centers' for future industrial development. The strategy was further augmented by State industrial incentive scheme of 1993. Both 'multi-sectoral' and 'spatial' distributions of the new thrust areas were accepted as the prime key to this strategy (Bhatt, 1986; *CEMSAP report, 2001*). Large zones and urban growth centers have since been identified as a part of the balanced regional and urban development strategy.

Two creative zones have evolved as most significant ones under the auspices of the larger strategy (Perspective plan: 2011). They are:

1. FEPZ – a regional special economic zone for creative export processing opportunities. The Export Processing Zone (EPZ) at Falta was identified just south off the metropolitan boundary (see figure 1, middle below) and planned to be a strategic trade zone. The plan was activated by the joint collaboration of state level organizations like WBIIDC (West Bengal Industrial Infrastructure Development Corporation) and an apex national body – the Ministry of Commerce, Government of India.
FEPZ had been conceived as a nodal point of ‘circulative economy’ within the region planned in four sectors (I & II – for primary industries, III – for ancillary-labor industries and port activities, IV – for housing and social infrastructure) each having diversified production opportunities utilizing KMR’s existing intellectual and natural capitals. With FEPZ trade opportunities are now linked to an emerging South Asian economy.
2. AEZ, Sector V, Salt Lake City – a metropolitan node of creative advanced technological opportunities. The growth node within the metropolitan region at Salt Lake, east KMR (see figure 1, middle above) has been planned as an agglomeration of advanced IT and related industries with high-end support infrastructure and highest advantages of commercial and communication contiguity to the metropolitan core and the City airport. It is earmarked as ‘Advanced Electronics Zone’ (AEZ) with small to large industrial plots, Cyber parks and interflowing ‘green belts’ to augment the required creative atmosphere.

Objectives of this paper

Given the historic review of the economic and cultural preconditions, the paper proposes to evaluate the long-term impacts of the two ‘creative spaces’:

- One, a free trade zone in the larger metropolitan context of regional trade linkages to the global economy and
- The other, an area of ‘advanced service sector opportunities’ within the metropolis serving the changing aspiration of her people and her economic base^{iv}.

Though the spatial concerns of the two case studies are hierarchically different, the crosscutting concern is the impact of the ‘new technological development and correlated cultural change’ implied by the two successful experiences. The paper raises two basic questions and attempt answering them. They are:

1. Do these new spaces of ‘creative economy’ strategically reduce the disparity between the developed core and relatively underdeveloped economy of the periphery in the greater metropolitan region?
2. Given they are generating positive economic changes and urban transformations, do they also assure and simultaneously sustain positive cultural changes to revive the glory of India’s cultural capital?

The answers and the appraisals to the various strategic aspects that have led to the two successful experiences are discussed hereafter under two separate sections.

Figure 1 gives a pictorial overview of the locations and activities of the two spaces of creative economy in terms of their locations with respect to KMR.

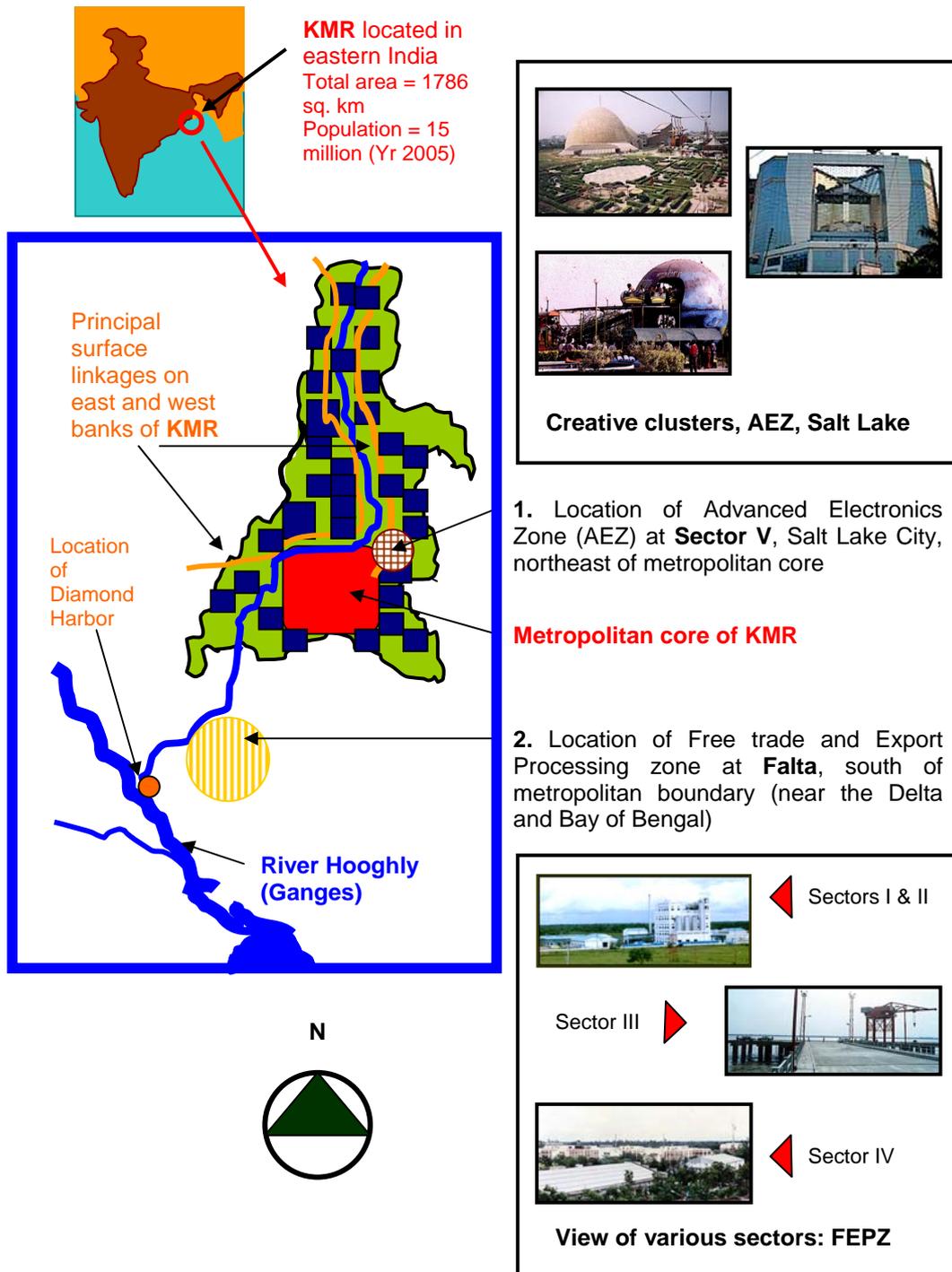


Figure 1 Location plan of KMR (see top left); location plan of 1) AEZ, Sector V at Salt Lake (within metropolitan limits – see middle right above) - and 2) EPZ at Falta (outside metropolitan limits of KMR – see middle right below)

Source for pictures: <http://www,fepz.com/> and www.calcuttaweb.com/

Case study one: evaluation of strategies for the export-processing zone at Falta

FEPZ - A globalization 'proto-type' – to what extent?

FEPZ is one of the eight Special Economic Zones (SEZ) of the Government of India under the SEZ scheme. A SEZ is a specially delineated duty free enclave and is deemed to be a foreign territory for the purpose of trade operations, duties and tariffs.

The units in the Zone have to export their entire production and are granted certain entitlements such as duty deferment on import and domestic procurement, simplified operational regime and wider access to the global market.

Other prominent special economic zones in India are at Santacruz and Surat (west), Kochi (south), Vishakapatnam and Pondicherry (East) and Noida (near Delhi).

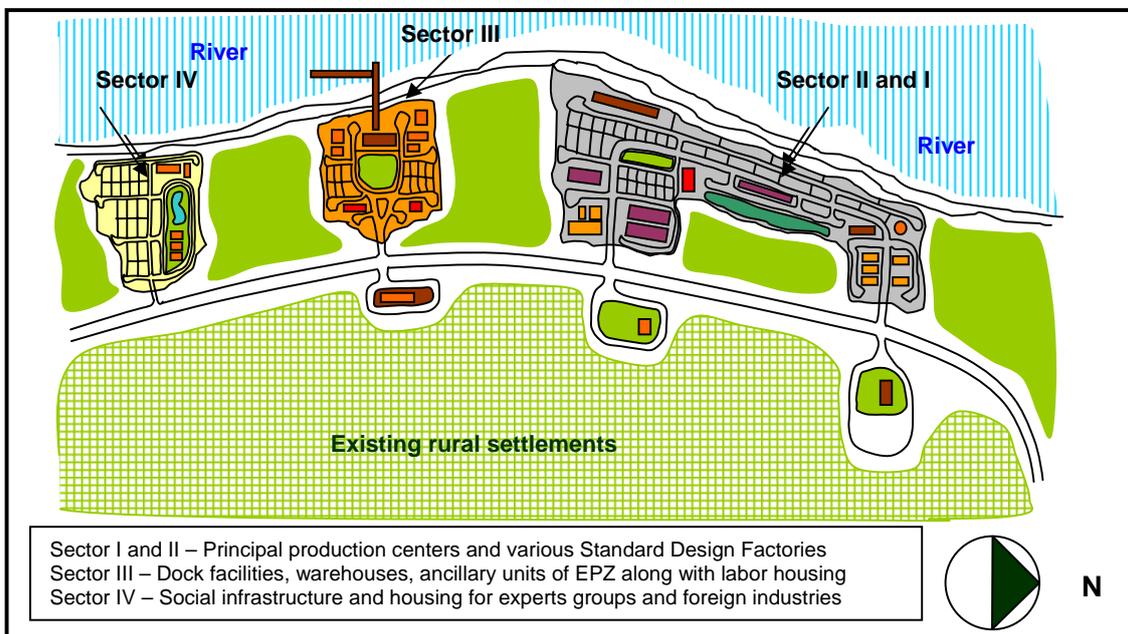


Figure 2 Plan of Falta export processing zone, located south of KMR
 Source: Master plan of FEPZ (1984), WBIIDC, Calcutta

In the last decade, the EPZ at Falta has expedited the trade potential of the region based on total foreign trade (in million rupees – Table 1) and break up of exports (in million rupees – Table 2).

Table 1 Foreign Trade FY 2003-04 and FY 2004-05 (up to October 2004) from FEPZ

Type	FY 2003-04	FY 2004-05 (up to Oct'04)
Exports	11599.79	4986.93
Imports	4264.08	1798.58

Source: Report on EOUs (2004-2005) (up to October-2004), FEPZ
 (Note: around 53 Indian Rupees = 1 Euro (mid-June 2005))

The break-up of exports is as follows:

Table 1 Break-up of exports: 2004-05

Sl. No.	Country	2002-03	% of Total	Country	2003-04	% of Total	2004-05 (upto Oct'04)	% of Total
1.	USA	267.13	11.10	USA	412.81	5.00	184.36	6.20
2.	HOLLAND	22.80	0.87	SINGAPORE	478.39	5.80	94.33	3.17
3.	U.K.	83.21	0.85	DUBAI	2467.84	29.90	639.17	21.49
4.	GERMANY	125.76	1.40	U.K.	121.20	1.47	60.81	2.04
5.	HONGKONG	1403.42	17.93	JAPAN	202.95	2.46	144.43	4.86
6.	DUBAI	38.06	8.75	GERMANY	214.06	2.59	59.94	2.01
7.	IRELAND	6.17	0.01	ITALY	205.18	2.49	107.63	3.62
8.	OTHERS			CHINA/ HONG KONG & OTHERS				
		3177.40	59.09		4150.97	50.29	1683.93	56.61
	TOTAL	5123.95	100.00	TOTAL	8253.40	100.00	2974.60	100.00

Source: Report on EOUs (2004-2005) (up to October-2004), FEPZ

It is evident (refer tables 1 and 2) that FEPZ has been able to marginally break-off the stagnant regional economy and establish more trade linkages with the global economy and particularly with the emerging economy of the Asia-pacific – in Japan, China / Hong Kong and Singapore.

However, unlike other EPZ, the regional preparedness to EPZ at Falta has shown serious deficits in terms of basic infrastructure investments and re-orientation of the local labor potentials matching the level of expected export quality control.

The initial plan of FEPZ was conceptualized in a creative cluster of four sectors (see figure 2) planned as a globalization 'proto-type'. The synergy of its local linkages (in terms of production networks, communication and local labor utilization) with the surrounding region was never taken up seriously as a part of the initial strategy. These shortcomings are discussed in the following sub-sections.

Adaptation of the technological and cultural environment

FEPZ though located in a pollution free sylvan environment (at a distance of about 55 kilometers from the heart of KMR) is well connected by a developed network of roads including a state highway, two ports at Calcutta and Haldia and the International airport near the metropolitan core.

Though Export Oriented Unit (EOU)^v strategies had earmarked its location depending upon factors like source of raw material, ports of exports, hinterland facilities, availability of technological skills and labor existence of an industrial base and the need for a larger area of land for creative industries, the technological environment has not established export linkages for local small homestead or cottage-based enterprises and further realize their potential as small scale industries (SSI).

Sector III was designed for industries, which are ancillary to the mega enterprises in sectors II and I. In sector III, an independent container-handling jetty is operational near the zone with no customs formalities at the jetty site for units in the zone. Facilitation and documentation services serves as the one-window office for all the units in the zone. However, a regional circulatory network of container logistics covering other regional production zones has not yet been established. Moreover, the logistics does not ensure participation and quality control of the local SSIs. Overall escort services from the

promotional bodies have not reached an intended level of trade activity boosting a circulatory economy in the region.

Social Infrastructure and ancillary facilities are provided in sectors III and mainly in IV. These two sectors (III and IV) accommodate staff of expert national and international bodies. Physically, the development has yet to establish an optimal level of residential and socio-cultural ambience to attract more number of potential and creative settlers in them.

Minimization of the 'core-periphery' imbalance

So far the strategic position of FEPZ in creating positive challenges and opportunities has been realized marginally. Strong and well-serviced linkages with high industrial capacities in the command and catchments areas is still in the strategic pipeline. In this regard, immediate action plans, as part of long-term strategies, are to be activated for:

- Linking FEPZ in terms of creating 'knowledge clusters' recognizing surrounding resources – in terms of land, labor, traits and production
- Implementing a sub-regional green plan organically merging the special economic zone with the natural and commercial potentials of the river, the nearby mangroove 'Delta' and other urban corridors in the region and
- Finally constructing transportation and communication services linking FEPZ activities to the region 'recreating' a greater 'livable' deltaic region in the south of Bengal

To assure this, contributions between various players of the economy need to be integrated to minimize gaps between the core and the hinterland.

Future strategies to guarantee long-term sustainable opportunities

The objective is to provide adequate infrastructure & other necessary support services to a range of Export Oriented Units (EOU), under the EOU scheme approved on stand-alone basis outside the Zone in the eastern and northeastern states of India.

As on 01.11.2004, there were 272 valid approved EOUs out of which 101 units were in production and 130 units were under implementation. Prominent functional sectors are still limited to Yarn & Textiles, Food & Agro products, Electronic Software, chemicals, pharmaceuticals and leather. Majority of these functional units are located in other neighboring states of eastern India and not in the immediate hinterland. Unfortunately, the image of the special economic zone is still alien to the region. Therefore the governance has to rope in local preconditions and streamline the global EOU guidelines in harmony with local trade potentials.

A larger strategy has to be realized to attract potential tourists, international agencies and the creative people in the region. Creative opportunities going beyond a standard functioning of an EPZ need to be activated for boosting scope of local capacity building and diversifying the export profile for raising investor confidence.

Further, the ranges of ease of entry and lower cost of operation for commodity / volume driven products and ease of operation for niche products have to be expanded to sustain long-term local participation.

Limitation of actors – WBIDC and WBIIDC

The WBIDC (West Bengal Industrial Development Corporation) and WBIIDC (Industrial Infrastructure) are the focal point for promotion of industries. WBIDC's *Shilpa Bandhu* (meaning - friend of industry) is a 'single window' personalized investment facilitation centre for entrepreneurs. But their role limits the scope and range of a diversified EPZ functioning.

Ultimately, the other actors have to be integrated from public, private and international levels with their industrial and service bases in the State. This will transform the EPZ at Falta into a major zone of ‘creative opportunity’ in the deltaic region.

Case study two: evaluation of strategies for Advanced Electronics Zone (AEZ)

The actors and their prime intent

West Bengal Electronics Industry Development Corporation Limited (WEBEL), the prime actor behind the AEZ had made an early vision in the year 1974 to facilitate and nurture the growth of Electronics Industry in West Bengal. WEBEL’s objectives were to assist in setting up nucleus industries through subsidiaries and joint ventures in the areas of electronics, telecommunication and information technology, address entrepreneur requirements and create the right environment. As a result of these activities, over the next 30 years, a high-tech industrial zone at Salt Lake (see Fig 3) has been set up over an area of 135 acres land housing over 175 IT companies and 15,000 professionals. The State Government has set up an IT task force, comprising the members from government departments, educational Institutions and Industry. National IT task force also declares Calcutta as one of the six creative ‘Info habitats’ in India and it recommends a series of promotional measures to realize the full creative potential of the AEZ.

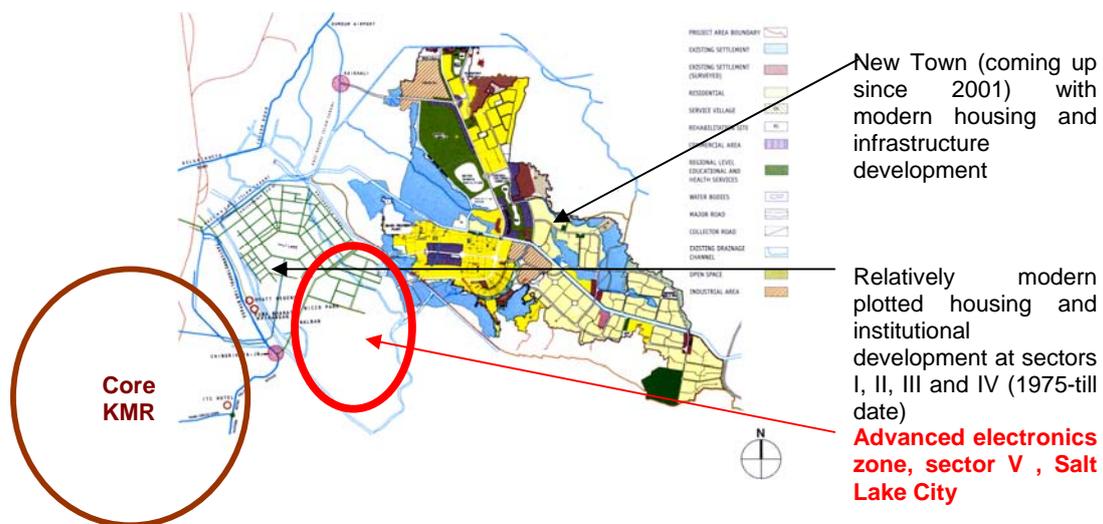


Figure 3 Location of Advanced Electronics Zone (AEZ), Salt Lake, Sector V – contiguous to areas north- east of Core KMR

Source: official website of Newtown, KMR: E:\SECTORV\NEWTOWN_SECTORV_URBAND_.HTM

Besides this there are two other important agendas:

1. AEZ offers about 580 Mbps of international satellite connectivity. Software exports from the state have doubled from \$ 167 million in 01-02 to \$ 289 million in 02-03. The state is benchmarking itself against the best in the country and is aiming to rank among top -3 IT States of India by year 2010.
2. The Government in association with the IT industry has established an international institute for IT education. It is conceived as an apex institute for IT education, training and research. Its broad vision is to serve as a catalyst and an

agent of change to steer the State of West Bengal towards integration with the global network society in the new millennium. The school has initiated direct industry led programs like "Learn and Intern" and "Work and Teach" that involves student taking up live industry assignments from various sectors of creative opportunities and extend tools like creative digital arts and design software.

Strategies for cultural and technological environment supporting the AEZ

The urban atmosphere sustaining the growth of AEZ is complimented by the development and particularly through the creation of a New Town. The New Town is a housing estate with a service industrial complex planned adjacent to the core and the AEZ. An integrated urban strategy has been formulated to resuscitate the atmosphere of 'urban opportunities' and 'living spaces' within KMR to:

- Create positive and encouraging precedence and discourage unplanned settlement growth in the vacant areas of KMR
- Accommodate 750,000 people from low to high-income groups living harmoniously to become the hub of Kolkata's future metropolitan growth.
- Carve land and space for modern, pollution free, no hazardous industries
- Set up regional level centers for community facilities and finally
- Revive an environment friendly and aesthetically attractive new urban space rejuvenating the future of metropolitan Kolkata.

AEZ, Sector V has been visualized as a globalization 'proto-type', as a minor version of the larger 'Indian silicon valley' that blooms at Bangalore and regions up to Pune and Hyderabad. But the level of natural, intellectual and organizational capitals of the AEZ at KMR is not comparable to these situations.

Metropolitan-level strategies are therefore needed to understand limiting conditions and make them synergic to a pace of creative transformation characteristic of KMR only. The historic pre-conditions are not analogous to the Silicon Valley cities of India or abroad.

The major shortcoming is that the natural demands of KMR's economic base looks forward to a multi-sectoral opening. Therefore it cannot be just dependent on a few advanced service sector industries alone, which are backed by the global IT world. AEZ therefore has to expand beyond Electronics and IT to a range of activities and 'creatively' include diversified paths of income and living opportunities.

Setting right examples – a creative cluster of local Jewelry – Manikanchan!

The indigenous legacy of KMR and her larger hinterland cannot be viewed through priorities that are just high-tech and high-end. The rich folk heritage of the region covers different traditions of homestead and cottage industries remaining as a neglected network of suburban and village-based micro-enterprises. Of them, one exception is Indian jewelry, which has recently gained national importance as a priority sector.

The majority of skilled artisans in the Indian jewelry industry hail from larger Bengal, where a rich pool of human resource for the gem and jewelry industry offers immense opportunities both within India and in the global perspective.

"*Manikanchan*", the Gem & Jewelry Park in Salt Lake, Kolkata, is being promoted by WBIDC with I-WIN (a joint venture between WBIDC and ICICI) as the Project Management Consultants. The Government of India has approved this as the first 'sector-specific special economic zone' (S-SEZ) in eastern India.

The first phase has been completed by 2003. The creative space has common facilities Building with around 5000 sq. m on 6 floors is uniquely designed in the shape of a Diamond.

Manikanchan will have a comprehensive base - a customs Office for in-house clearance, a Bank, strong rooms, canalizing and export Promotion agencies, exhibition/conference halls, a special secure CAD-CAM design centre for the use of manufacturers in the park creating new digital design facilities. In the days to come, its creative spaces for new economic opportunities have to include a larger section of gem and jewelry experts from the region and network to national and international retail outlets.

However, beyond jewelry, there are many others. Jute and cotton products, terra-cota (burnt clay) items, handmade paper items, ivory and metal handicrafts are to name a few. New creative strategies augmenting diversified digital technology driven or guided product design opportunities have to go a long way to include them.

Are the present actors - WBEIDC and WBWIDG enough?

There are two other actors to AEZ - one, West Bengal Electronics Development Corporation (WBEIDC) and two, WBWIDG - for industrial development and growth. But they are not enough. In the world of competitiveness and creativity, local governance cannot be limited to them alone.

Competition and comparative quality control adds value to a potential creative system, reinforces the working situation, diminish inefficiencies in local governance, raises ownership, boosts higher degree of personalization of public services and augments collective partnership amongst people with power and money and also people with talent and creativity. Thus local governance has to stitch into its larger administrative and industrial policy making a network of other groups and other incentives to facilitate the process of 'creative transformation' in a city like Calcutta.

Conclusion: a realization

Creative economy is a state that integrates economic opportunities and living aspirations. In a developing situation, such integration is not always possible due to gaps between actual physical space planning and priorities of development.

In a metropolitan situation, gaps are widened by a polar economy, as there is a dichotomous separation of a powerful formal crystallized economy lying in the hands of a few from a disorganized form of an informal economy in the hands of the majority. Despite the initial inertias of these preconditions, the journey to economic rejuvenation has to begin somewhere. The two case studies of a free export processing zone and an advanced electronic zone in the metropolitan situation of Kolkata (Calcutta) are no exceptions. They are indeed successful experiences with some shortcomings.

From this starting point, as zones of creative opportunities, the EPZ at Falta (outside metropolitan limits) and the AEZ at Salt Lake (adjoining metro core) have shown variations in achievements. They have shown strengths as starting points in creative strategies, weaknesses in their scopes or coverage over range of services, opportunities by nurturing 'priority service sectors' complimenting a global economy and finally threats in terms of the neglect of the 'informal sector and the smaller ones'. A holistic strategy is therefore a distant goal. But this is inevitable.

The paper has realized that there is an immediate and a better way out to expand on opportunities and strengths and minimize the weaknesses and threats. There are two realizations. One is in terms of total partnerships. The local governance welcomes foreign technology and investment and it continues to have faith in the public sector. It realizes its own budgetary constraints in investments for infrastructure such as roads, communications and service growth centers, and realizes the effective and inevitable role of private initiative or joint ventures in these infrastructure programs.

The other is the need for a pro-active frontline strategy to new spaces for the creative economy, which is sensitive to the traditional past. This is extremely pertinent to an increasingly plural and multicultural society of Kolkata, which can be subsequently sustained generating high livability, work ethics and quality control permeating different sectors of economic opportunities.

Historically Calcutta has been a city of great minds and changes. The heart of Saint Mother Theresa, the vision of economist Amartya Sen, the rhythm of Poet Tagore, the altruism of Humanists Aurobindo and Vivekananda, the aesthetics of film-maker Satyajit Ray are to name a few of the great minds. At the same time, Calcutta has ever been the city of the first industrial transformations in recent Indian history. The humane and the cultural dimension to development have always been included in her material progress. To what extents this integral value is reflected in the new urbanism of the 'Creative economy' is an intriguing question? This may be open to more in-depth research inquiries.

However, this paper has realized the need of a holistic approach to creative development in the context of metropolis like the KMR. The pace towards creative transformations has one foot in modernization and the other in cultural continuity. Thus holistic strategies have to aim for a long-term vision of 'integrating' the following:

- Policies for economic growth backed by globalization with an aim for improving and sustaining local livability standards in the region
- Global and national capital technology-intensive opportunities with creative labor-intensive potentials of the local communities
- Advanced restructuring of conventional industrial spaces to 'creative clusters' (development of land, space and investment profile) with creative product design potentials of the local folk and cultural base.

This 'holism' is the need of the day. A holistic strategy alone will be able to create a 'livable' metropolis of near-similar metropolitan situations and Calcutta and indeed raise greater 'community livability' in her deltaic region in the south of Bengal.

ⁱ Kolkata (Calcutta) Metropolitan Area (KMA) as defined by the Calcutta Metropolitan Planning Area (Use and Development of Land) Control Act in 1965 and configured by the Town and Country Planning Act in 1979. The area of the then CMA was 1380 sq. km. Today, after the constitutional mandate in terms of Metropolitan Planning Committee in 1994, the re-delineated area is 1786 sq. km. The current compositional pattern (Socio-Economic Profile 1996-97; Perspective Plan 2001) is:

- 3 Municipal Corporations of twin Core Kolkata and Howrah and Chandannagar
- 38 Municipalities and
- 70 non-municipal urban areas and 14 outgrowth areas, which have developed urban characteristics but have not been converted to municipalities.

ⁱⁱ The city population had exploded from some 2.25 million (in 1921) to a metropolitan population of 11.86 million (1991) or 17.42% of the then state population (68 million). According to provisional Census (2001) and KMDA report, the current population is estimated close to 15 million, which is 18.46% of the current state population (80 million). Thus the demographic share of KMA is still growing though the urban growth at the State and District level is decreasing over the last two decades.

ⁱⁱⁱ Several other significant strategies preceded the trade liberalization policies. First among them was the Basic Development Plan (1966) advocating a bi-nodal strategy for metropolitan development proposing one center in the current metro core and one in the northern limits. The plan was executed in collaboration with planners-consultants funded by Ford Foundation. Later was the Calcutta Megacity Program (1994), which prepared investment plan for new housing, new development areas of creative opportunities and augmentation of infrastructures. This was

executed in collaboration with national and international consultants. So far most important contribution had finally come from a planning consortium with the assistance of international fund agencies like PHRD, Japan and ODA (later called DFID), Government of United Kingdom to prepare an Environmental Management and Strategy and Action Plan (CEMSAP, 1995-97) outlining a future metropolitan Green plan. The author was a part of the CEMSAP team for two years (1995-97).

^{iv} As a whole, KMA has continued to share a major portion of economic activities in West Bengal and its economic base still represent the economy of the State and the eastern region. The metropolitan share of the State domestic product (SDP) is an important indicator to estimate the economic status of a metropolitan region in relationship to the urban share of the state itself. It has been made recently evident that contribution of KMA to secondary and tertiary sectors based SDPs of Urban west Bengal is significant. Also the share of the primary sector is very low and constantly falling for obvious reasons in a modernizing metropolitan economy. On the contrary, the higher and accelerated growth rates of the tertiary sector (from 3.6% (1985-86 to 1993-94) to 11.06% (1993-94 to 2001-02) compared to the secondary or manufacturing sectors are evident. Furthermore, both tertiary and secondary sectors of KMA had exhibited remarkable growth rates in SDPs in the recent decade compared to the last one and the reasons can be largely attributed to the recent attempts of overall economic liberalization and the globalization of the retail economy in particular (*Source: Statistical abstract, 2001-02, Bureau of Applied Economics and Statistics, Government of West Bengal, India*).

^v For further details of SEZ - <http://www.sezindia.nic.in> and for EOU (export oriented units) <http://www.eouindia.com/>

Bibliographic Reference

Berry, B.J.L., Vinning, Robert and Dhar, Ranajit (1966). "Inter-regional and inter-sectoral relations of the Indian economy", *Essays on Commodity flows and the spatial structure of the Indian economy*, Research paper III, pp 257-324, University of Chicago.

Bhatt, L.S, (1986), "The case of spatial planning and decentralization of the planning process", *Regional Disparities in India*, pp 66-79, Ch. 2, Agricole Publishing Academy, New Delhi.

Bose, Nirmal Kumar (1973), "Calcutta: A Premature Metropolis", *Cities: Their Origin, Growth and Human Impact*, pp 251-262, San Francisco: Freeman.

Calcutta – The Living City (1990), Oxford University Press

Calcutta (Kolkata) Metropolitan Development Authority (2001), Government of west Bengal (2001), *KMDA: A Perspective plan – Vision 2021*.

Department of Environment, Government of West Bengal (2001), *Calcutta Environmental Management and Strategy and Action Plans (CEMSAP)*, Supplementary volumes 1-7.

Sinha, P (1991), "The Genesis of a Colonial city", *Calcutta's Urban Future*, Vol 1, pp 1-7

State Planning Board (2001), *A Perspective plan for Calcutta: 2011*, Supplementary volume 2.