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The Revival of Calcutta

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1. The Revival of Calcutta

Tarun C. Dutt

Two and a half decades ago Calcutta, a metropolis of 12 million people, was seen by many observers as headed for collapse. As visions of catastrophe multiplied, Geoffrey Moorhouse, in his widely-read *Calcutta: The City Revealed* [1971], called it "the problem city of the world, with problems that not only seem insoluble but which grow every day at a galloping and fantastic rate." Yet Calcutta has not only managed to survive but is thriving today. The world's fifth-largest metropolis, Calcutta still may be no paradise, nor the prettiest city on earth, but it gives powerful testimony of a community's will to survive.

The political and economic processes by which Calcutta saved itself from what seemed imminent catastrophe may be of interest to leaders in other cities, like Rio de Janeiro and Lima, Detroit and Moscow, that are struggling against disorder and decline. This is the story of those processes and changes, told by one who had a privileged grandstand view of the proceedings. I hope that the freshness of this story has not affected my objectivity. The story tells of breakthroughs in cooperation, both in domestic politics and in international aid efforts.

My dear friend, Norman Gall, executive director of the Fernand Braudel Institute of World Economics, wrote to me with rare discernment that Rio and Calcutta began their respective declines when they lost their roles as 'political capitals.' However, there is one much earlier aspect of the story which deserves mention.

In 1793 Lord Cornwallis, the then Viceroy of British India, introduced a Regulation known as the Permanent Settlement of Bengal under which lots of agricultural lands were settled for the first time with big landlords who came to be known as zamindars. The only condition for the continuation of such settlement was that the landlords were to provide to the East India Company, which administered British India at that time, a fixed sum of land revenue by sunset on the last day of the revenue year. This sum of land revenue was permanently fixed in Indian currency (rupees) and was not liable to any change with passage of time or with depreciation in the value of rupee.

In England, the introduction of a similar measure a couple of centuries earlier led to substantial investment and development in agriculture. But in Bengal this had the opposite effect, institutionalizing an ancient form of parasitism. Absentee landlords settled into the security and advantages of the city life of Calcutta, contracting out their revenue-collecting right to a second layer of landlords in return for a fixed income which left a substantial margin over the land revenue he had to pay. The second layer again contracted out their right to a third layer with a similar margin and thus there came to exist layers of sub-infeudation leading to the worst forms of rack-renting and exploitation of farmers without investment and improvement in agriculture. Thus, during the whole of 19th Century Bengal's agriculture continued to decline. Inevitably, there were re-current famines accompanied or followed by large-scale epidemics. At the turn of the century, in 1899 and 1901, there were epidemics killing millions of people.

In spite of this extremely gloomy backdrop, the city of Calcutta flourished during the 19th Century. Trade and commerce and industries, including jute and tea, textiles and engineering and coal mining flourished with British investment and the establishment of railways and a major port. As the capital of British India until early in this century, Calcutta could boast of better water supply, sewage, sanitation, public education and road system in the early years of this century than most other cities in the world. Then the British shifted the capital of India to Delhi in 1912, to avoid further challenges to their authority by the British-educated Bengali elites who frustrated the Viceroy's proposed partition of Bengal in 1905. This shift in the center of political power truncated governmental investment in Calcutta and deprived Bengalis of political patronage and jobs, although no immediate economic effect could be seen. Calcutta was still the premier city of India for at least another three decades. Then came the disruptions and deprivations caused by World War II, its eastern theater reaching Calcutta's northeastern hinterland. During this extremely difficult period there occurred a substantial crop failure in Bengal in 1943 because of a

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large-scale 'pest attack.' This severely eroded the already limited purchasing power of the long exploited Bengal peasantry, leading to large-scale failure of entitlement that deprived starving people of food as a political right and led to the Great Bengal Famine of 1943 in which more than a million died. Hordes of starving farmers came to Calcutta in search of food and succor. Calcutta did its best but that was not enough. Many people died in the streets of Calcutta.

The end of World War II was followed almost immediately in August 1947 by the partition of India, involving partition of Bengal as well. This led to an unprecedented migration during 1947-52 of about six million Hindus from the then East Pakistan (now Bangladesh) into the Indian part of Bengal, now known an West Bengal. Another four million migrants followed in the next decade. For economic reasons about half of these refugees conglomerated in and around the city of Calcutta and its immediate hinterland in south Bengal. Inevitably large scale settlements, authorized as well as unauthorized, grew up around Calcutta, within a 50-mile radius, with little care for minimum standards of public health and hygiene. The government provided loans and grants for homesteads to migrants but providing economic livelihood to so many in such a short time was almost impossible.

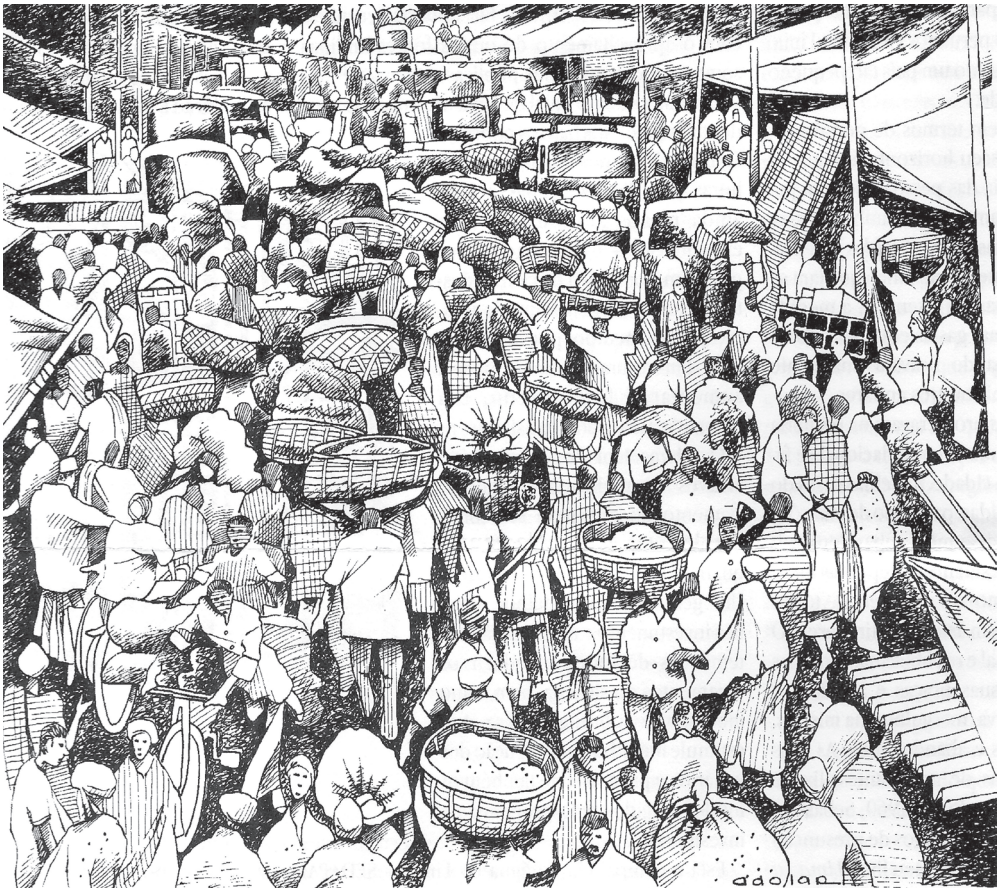
The partition of India and Bengal also took away major portion of Calcutta's economic hinterland and market. West Bengal and Calcutta became heavily deficit in food grains. The mammoth task of rehabilitating refugees strained every nerve of administration amid severe paucity of resources. There were, however, surprisingly few deaths among the refugees, although children suffered considerably. All over Calcutta thousands of hawkers occupied the pavements. Public services deteriorated. Established institutions and self-governing bodies suffered serious erosion of authority and capacity.

Few modern cities, even in today's world of rapid urbanization, suffered the crushing burdens of migration that Calcutta has been forced to carry in recent decades. "Saddled as it was with a massive refugee population," writes Partha Chatterjee of Calcutta's Center for Social Science Studies, "Calcutta was the first [Indian] city to be hit by creeping industrial stagnation, rising food grain prices and shortages, lack of housing and the seemingly intractable problem of educated unemployment." Even before India's Partition in 1947, migration nourished the radicalization of Bengali politics. The huge refugee population, living in slums, squatter settlements and the streets, provided a natural constituency for leftist parties, strengthened when universal adult suffrage was adopted after Independence.

Calcutta was thus ripe for political, social and economic instability. There were several changes of local government in West Bengal during the period 1967-72. The absence of investment in agriculture for a century and a half accompanied by the exploitation of farmers created a potentially explosive backdrop. It was in this context that the Naxalite movement — a peasant revolt aiming to set up a parallel government — started in 1967 in an obscure corner of rural North Bengal. When this left extremist movement was suppressed by the then leftist state government in about six months, many Naxalite leaders and organizers congregated in or near Calcutta as it was easy to live underground in a big city. This led to an urban guerrilla operation from mid-1970. Police, security personnel and other government officials, including a few senior officers, were attacked and many killed. West Bengal, including Calcutta, was put under central government rule twice in three years. Big anti-insurgency operations were undertaken with the help of state and central government police forces with the army standing by. It took about a year to break the back of this movement in which more than 100 persons were killed by extremists. Counter-insurgency police operations also led to death of an equal number of persons, particularly youngsters.

Even during such tumultuous and dangerous times, Calcutta's regeneration was making progress. The turning point may have been the cholera epidemic of 1958, when the World Health Organization (WHO) addressed Calcutta's problems of water supply and basic sanitation in an effort to avoid a pandemic spreading worldwide from the ancient heartland of cholera in Bengal. Acting on WHO recommendations, the state government created the Calcutta Metropolitan Planning Organization (CMPO). Helped by specialists from the Ford Foundation, the United Nations Development Program and WHO, CMPO drafted a master plan for improvement of water supply, drainage, transportation and living conditions in the slums. A Calcutta Metropolitan Immunization Organization was created to take up large-scale anti-cholera operations. While cholera has been endemic in the Ganges delta for centuries, epidemics and mortality declined steadily during the 20th Century until the seventh pandemic of El Tor cholera appeared in Calcutta in 1964. During the next few years there were large scale attacks though the mortality rate was much lower than in earlier pandemics. In 1971 about one-third of the world total of cholera attacks notified to WHO (155,000 cases) occurred

amongst East Pakistan refugees in West Bengal. With the help of WHO, the government carried out sanitation and cleaning up measures, inoculation and treatment with oral rehydration salts. As a result of these operations, cholera virtually disappeared from Calcutta in a few years until the Eighth Pandemic appeared in neighboring Bangladesh in 1992-93 with a new bacterial strain.



Large scale implementation of Calcutta metropolitan area development plans gained momentum with the creation of the Calcutta Metropolitan Development Authority (CMDA) in 1972. This was basically a fire fighting operation and therefore suffered in quality of both planning and execution. Assisted by the World Bank, major investments were undertaken to double the capacity of safe drinking water supply and to lay new drainage and sewage networks for Calcutta proper as well as for 33 surrounding municipal areas. The central government also began massive investment for an underground railway for Calcutta but the cut and cover method of implementation of this project created additional traffic and health hazards and delayed execution. About 11 Km of the proposed 18 Km of Metro railway is now in operation and it is expected that the rest will be completed by 1995. Similarly, a high cable-stayed bridge across the river Ganges with complex road interchanges on the Calcutta and Howrah sides was undertaken but again took about 15 years to be completed in 1992.

The Congress Party was in power in West Bengal in the immediate post-Naxalite period of 1972-77. The leftists, led by the Communist Party of India (Marxist), came to power with overwhelming majority in 1977 election. This ushered in a new era involving major changes in the political and economic processes for the revival of Calcutta. Remarkably enough, the leftists won the subsequent three state Assembly Elections in 1982, 1987 and 1991 and have been in power in the state of West Bengal continuously since 1977. During this entire period non-leftist parties, mainly the Congress Party, have been in power in the federal government in New Delhi. The basic economic and social policies are in the hands of the federal government according to the division of power between the center and the 25 states under the Indian constitution. Hence the state government of West Bengal had to work within the broad economic and political policy framework of the government of India. This did represent some constraints for them but even then they have done remarkably well in several fields and directions just as they were not so successful in a few other fields.

CPI(M) was born as a result of a split in the Communist Party of India in 1964. Originally a votary of the USSR, for a short period it leaned towards the Chinese Communist Party of Mao Tse Tung until the Naxalite insurrection in Bengal, which was supported by the Chinese Communist Party but opposed tooth and nail by the CPI(M). After that the party maintained "equidistance" between the Soviet Communist Party and the Chinese Communist Party.

In recent years the CPI(M) has forged an 'independent' line of its own, a sort of Indo-Communism, especially after the Soviet Communist Party broke down and the Chinese Communist Party went its own way. CPI (M)'s economic policies are now being revised towards relaxation of government controls, limitation on the public sector and liberalization in favor of the private sector. These revised policies are expected to be approved in their next party congress in 1995.

The CPI(M)'s success is largely attributable to the leadership provided to the party and the government by a unique personality, Shri Jyoti Basu, Chief Minister of West Bengal for this whole period. Shri Basu combines in himself the qualities of a gentleman with those of a pragmatist and a leader of great integrity. His capacity to carry with him different elements of the Communist Party of India (Marxist) and three other minor leftist parties (CPI - Communist Party of India, RSP - Revolutionary Socialist Party and FB - Forward Block) in his Left Front Government and to get the best out of his followers and subordinates have been the key to the success of his Left Front government. One more name deserves special mention for his work in land reform and modernization of agrarian economic relationships. The late Harekrishna Konar was not only an agrarian theorist of the highest caliber but also an unparalleled leader in practical aspects of land management in Bengal. His leadership and policies provided the basis for land reforms in West Bengal.

Clearly there is a transformation in the attitude of the CPI (M) towards several social and economic classes, the most remarkable of them being their changed attitude toward business. The party and government now talk of government-business cooperation and of joint efforts to revive and develop the economy of West Bengal. This transformation from a relationship of conflict to one of cooperation has been possible almost entirely due to the personal and leadership qualities of Chief Minister Shri Jyoti Basu. The high respect in which he is held, all over India by all classes, including the business community, has made this transformation possible in the context of liberalization of India's economic policies.

This big change within a relatively short period inevitably created tensions and pressures within the CPM and in the three minor leftist partners of Left Front Government. By and large, however, discipline was maintained, though a few local members had to be thrown out of the party as examples to other potential dissidents. There are still differences in ideological stance within the CPI(M) both at the all-India and West Bengal state levels. However, the persuasive pragmatism of Shri Jyoti Basu and his position as elder statesman are likely to see the CPI(M) through the present phase.

2. The many facets of Calcutta´s reforms

The leftist parties came to power in West Bengal with a manifesto clearly laying down its policies. Over the last 17 years many of these policies have been successfully implemented, while others could be implemented only partially or not at all.

We can understand the importance of land reform in West Bengal and all India if we bear in mind that, while three-fourths of the populations of Brazil and most other Latin American countries now live in towns and cities, three-fourths of our people still live in rural areas. This is why India's constitution provides for land reform. Most states of the Indian federation enacted laws in the 1950s and 1960s that banned land owners from intermediating in tax collections between the government and the peasant cultivator and fixed ceilings for individual agricultural land holding, with surplus land reverting to the state. However, almost all such laws were honored more in their breach than in their observance all over India. The leftist government in West Bengal made the land reform laws stricter and enforced them vigorously by detecting large scale attempts to evade limitations on size of farms. As a result, over 500,000 hectares (1.3 million acres) of surplus land reverted to the state in West Bengal, about 80% of which have been settled with 2.2 million farmers, 60% of them belonging to lower castes. Also, about 1.4 million share-croppers farming lands owned by others have been initially registered and their rights to share the produce have been legalized.

The success of land reforms in West Bengal went far beyond those attempted elsewhere in India. Along with land reform, serious efforts were made with considerable success to make non-land inputs like irrigation and seeds available to the small farmers at reasonable rates. The result has been a breakthrough in agricultural production that turned West Bengal from a state seriously deficient in food grain to one only marginally deficient today. Since 1976 rice production more than doubled. West Bengal now leads the states in rice output, with impressive productivity gains in recent years. Thus the ghost of Lord Cornwallis's permanent settlement finally has been laid to rest.

There was a Green Revolution and a remarkable increase in productivity of wheat and rice in the states of Punjab and Haryana in the 1960s and 1970s. This agricultural revolution made India self-sufficient in food. But Punjab and Haryana never suffered from absentee landlordism and had enacted reasonable land reform legislation as early as the first quarter of the 20th

Century. In any case, reasonably big land holdings still continued in Punjab and Haryana and formed the base of agricultural revolution there. What happened in West Bengal in the last 17 years is qualitatively different, helping to bring about a new set of socio-economic relationships in the agrarian economy. Along with the working of the Panchayets (i.e., directly elected local bodies) this has really helped in eliminating the feudal relations in rural West Bengal, unlike most other parts of rural India.

Decentralization

Hand in hand with comprehensive and deep land reforms, the leftist government organized from the beginning the establishment of a three-tier system of local bodies called Panchayets. Here again, the Indian constitution provided for such local bodies but local elections were almost never held in most parts of India. These local bodies hardly existed in any real sense. In West Bengal the leftist government held regular local elections in 1978, 1983, 1988 and 1993 with the same regularity with which federal and state elections are held in India. The three-tier Panchayet system had the village Panchayet at the bottom, the block Panchayet at the level of the jurisdiction of a police station and the district Panchayet at the district level. Thus experience and expertise were gained through large scale training and practice during this period. The state government vested these Panchayets with statutory as well as non-statutory functions, devolved substantial funds to them from the state treasury and largely ensured the democratic functioning of these bodies. While insistence on accounting and auditing of public expenditures has led to some bureaucratization of these local bodies in recent years, on the whole they displayed a degree of vigor and activities to fulfill local needs and aspirations which has been a new experience in the previously stagnating rural set up of the state. The local bodies repaired and built roads, set up market places, built primary schools, irrigation sources and spent their funds in improving social and economic infrastructure in the rural areas. This has helped to revive agriculture, animal husbandry, cottage and small industries and to create new economic activities in rural and suburban areas. The influx of people from rural West Bengal into the Calcutta metropolitan area has virtually stopped. However, pressures on Calcutta have not eased substantially as migration from rural areas of adjoining states has increased.

As with the rural local bodies, the leftist government of West Bengal also ensured equally regular elections in the 120-odd municipal bodies in the state. Attempts were made to strengthen such municipal local governments also, though somewhat less successfully until now.

The success of the leftist government of West Bengal in decentralizing local administration has been so remarkable that the model now is included by the Indian government as a special component of all economic development plans throughout the country. Thus in 1993 the government of India sponsored and got enacted, with the help of all political parties, a series of amendments to the constitution making it incumbent upon all states to set up such rural local bodies and to hold regular elections to them as well as to the municipal bodies at regular five yearly intervals. The amendments require substantial delegation of powers and duties to these local bodies. Different states are required to implement them during 1994-95. Full achievement may not be easy because of persisting feudal relations, but the constitutional amendment has laid the foundation for political changes in all of rural India, following the example of West Bengal. In West Bengal itself, implementation of the state economic plan also has been decentralized. Half the schemes today are initiated and implemented by local bodies. The state government appoints the local bodies as its agents in certain other schemes, giving them substantial funding and making them centers of vigorous planning and developmental activities.

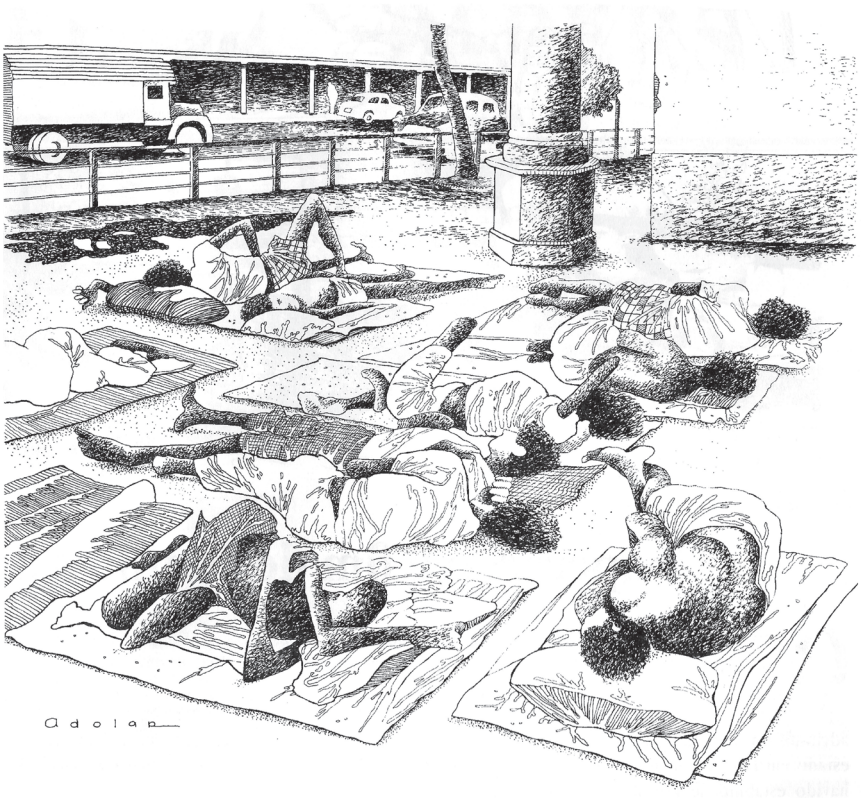
> The problem of Calcutta is absolute levels of density and poverty

The slums and street sleepers of Calcutta are well-known internationally. At least one-third of Calcutta's 12 million people live in slums. However, these proportions are not shocking by international standards. Around 1970 Casablanca and Rabat (Morocco) and Ankara and Izmir (Turkey) had 60-70% slum/squatter populations. Africa showed even higher prevalence, reaching 80-90% in Addis Ababa (Ethiopia) and the two main cities of Cameroon and with several cities exceeding 70%. In Buenos Aires, one of the world's richest cities before being impoverished and decapitalized by chronic inflation over the past half-century, the share of population living in squatter settlements and other "precarious" housing rose sharply from 34% in 1974 to 44% in 1989. Many other Latin American cities have at least one-third of their people living in squatter settlements.

The problem in Calcutta is absolute levels of density and poverty. "The slums are a demographic entity unto themselves, not unlike the scheduled caste colonies in many villages," writes Professor Ambikaprasad Ghosh of Jadavpur University. Each latrine is used by 40 to 50 people a day, and each source of water (like a tubewell or a tap) by 35 to 45. Failure to maintain these facilities properly is a main cause of filth and disease. As in many other of the world's cities, drinking water is contaminated as it passes through rotting pipes, infiltrated by sewage during frequent interruptions of water flows. Roughly 26-30% of Calcutta's water supply is lost through leaks in the distribution system, which are modest if compared with Latin American cities, where losses of 50% are common.

The most famous of Calcutta's poor are those who dwell on its sidewalks. Surveys by the Calcutta Metropolitan Development Authority (CMDA) counted 48,802 street sleepers in 1971 and 55,571 in 1987, or about 0.5% of the population. These numbers are less shocking when compared with the most careful surveys of homeless people in United States cities. In 1985-86 an estimated 2,800 people were sleeping in streets, airports, bus stations and public shelters of Chicago, or 0.1% of the population of a city of 3 million with average per capita income roughly 100 times higher than Calcutta's. The number of homeless in New York City is variously guessed at between 27,000 and 60,000, with the most conservative counts focusing mainly on those sleeping in public shelters. In contrast to these unfortunates, the street dwellers of Calcutta are not derelicts or dropouts but disenfranchised and displaced persons, most of them with a strong will to survive, concentrating their efforts in transport (pulling rickshaws and hand carts), casual labor and petty trade.

The first slum improvement schemes initiated in the 1950s, as in many other cities of the world then, replaced sprawling ground-level slums by multi-story structures. This met with stiff resistance from slum dwellers after they were tried out in a few clusters. In the late 1960s a revised slum improvement scheme, consisting of provisions for its site and services and environmental improvement, was started. A large package of such schemes was included in the Calcutta Urban Development Projects I, II and III, assisted by the World Bank. The sites and services consisted of several drinking water sources, sanitary arrangements for groups of inhabitants, paved lanes (*paehwaya*), community lighting, construction of buildings for primary schools and dispensaries. These sites and services schemes were implemented with the cooperation of committees in each slum. Thus, there was considerable degree of community participation in planning and executing these schemes after an initial period of trial and error. Sharing maintenance responsibilities was a problem in first 10 to 15 years. But by the late 1970s the municipal authorities of Calcutta and 33 other municipalities of the metropolitan area were persuaded to take care of maintenance. By now about 80% of all slum dwellers have been benefited from slum improvement efforts.



In the early 1980s the Indian government started nation-wide immunization and family planning. In later Calcutta urban development projects assisted by the World Bank (CUDP-II and III) such health components of the program were enlarged, involving local municipal authorities as well as citizens' committees. Voluntary workers, mainly women paid very small honoraria, carried out the immunization and family planning schemes, leading to major improvements in health statistics. Here again, supervision by local authorities and implementation by citizens' committees proved very successful. A national drinking water improvement mission intensified this success. The drinking water program ensured a reasonably safe water source for large swaths of the population in many parts of the country, especially in urban areas.

These public health initiatives led to major improvements. Throughout the Calcutta metropolitan area, infant mortality fell since 1981 from 52 to 38 per 1,000 live births in 1992, less than in many Brazilian cities with per capita incomes several times higher. In the 20 municipalities of the Calcutta area where urban development health programs have been operating for at least five years, immunization coverage of infants and pregnant women rose from less than 20% in 1987 to nearly 100% in 1992-93, contributing to a 39% reduction of infant mortality in four years. Diphtheria has practically been wiped out in children under five years old. Polio and whooping cough cases have been cut by three-fourths and measles by nearly two thirds. On the other hand, tuberculosis cases have risen by 11%, reflecting difficulties of cure, poor living conditions and a worldwide resurgence of the disease.

In the 1970s the state government, as in many other parts of India, started a mid-day meal program in primary schools with international assistance. This had also a salutary effect on the nutrition of school children as well as on the dropout rate. However, this has not been as successful as in the South Indian state of Tamil Nadu. This is one important deficiency that West Bengal still has to remedy.

During all these periods various municipal development schemes, mostly in the outlying 33 municipalities were also being implemented, consisting of new sewage and drainage and drinking water systems that improved public health in large parts of Calcutta. These schemes were implemented under CUDP-I, II and III through the assistance of the World Bank. The main problem has been maintenance. This financial problem has been partly resolved by imposition of a tax on most goods entering Calcutta. The income from this tax is considerable and is allocated entirely to Calcutta and other municipal governments to help them implement this civic responsibility. This is an irksome tax but we had to bear with it for proper maintenance of civic facilities.

While the proportion of workers in registered factories has stagnated, the growing demand for jobs has been met by proliferation of small, labor-intensive manufacturing units. To further stimulate creation of small firms, the state government launched self-employment schemes all over West Bengal but concentrated in Calcutta, by which jobless young men and women were provided with seed capital and some grants for starting business venture of their own. Initially such schemes were largely unsuccessful but very large number of business development plans were subsequently undertaken for training of such entrepreneurs not only by government agencies but also by NGOs. These programs by now have created several hundred thousand jobs.

Simultaneously there has been remarkable development of small industries in Calcutta as in the whole state of West Bengal largely as a result of the big agrarian reform. Agriculture-based small industries have grown up in rural and urban areas. In suburbs and cities, small industries and ancillaries of large industries are encouraged by priority treatment with seed money loans at concessional rates of interest. While many such schemes failed, more than half of them succeeded, also creating many thousands of jobs.

As late as late 1980s the state government took up a mammoth drive against the curse of illiteracy all over the state. This was again largely a program based on low paid voluntary teachers recruited and trained for this purpose. Norms were set by a leading NGO. Implementation was done in partnership between government and the local bodies, which played a leading role. This mission proved remarkably successful over three to four years, with literacy reaching 85% in the Calcutta area, with interaction between literacy and community health and welfare being demonstrated once more.

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One of the most encouraging and redeeming features in the life of Calcutta has been the vigorous and multifaceted role played by NGOs over the last two decades. Today, the activities of the NGOs are not only welfare based but also constructive and developmental in nature. The NGOs are seen as partners in work with the government as well as with the government's critics. It was because of the endeavor by the NGOs that in the last two decades several erstwhile neglected issues were taken up by the government for remedial action. The NGOs are active today along with the government in the fields of child labor, street children, child prostitutes, care of children of prostitutes, retarded children, pavement dwellers, adult literacy, and health care including anti-drug and anti-aids programs. The activities of NGOs have created an awareness amongst the urban population and induced them to take part in

their own developmental activities. Many NGOs have been innovative in their approach and government has increasingly firmed out the implementation of many of the schemes in the diverse fields mentioned above to active NGOs. There are at present as many as 44 active NGOs in the field of child welfare in Calcutta and another approximately 50 running children's homes and institutions.

The combined impact of all such measures has been remarkable. There has been an obliteration of caste and community differences all over the state, especially in the Calcutta. Hence, the social ills arising out of communalism and castes have been largely absent in these areas. There has been continued political stability and remarkable degree of social tolerance and social democracy in the everyday life of the citizens of Calcutta. This has helped in the growth of Calcutta's cultural life.

3. Cooperation and the end of self-destructive conflicts

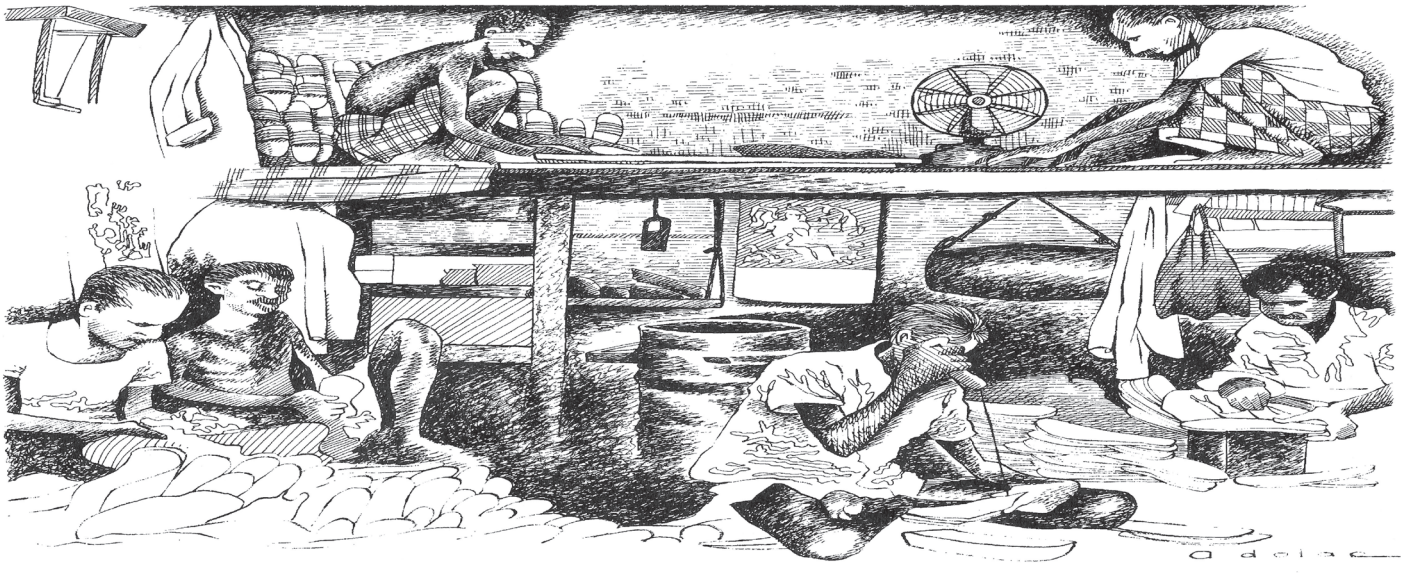
Despite dramatic improvements in the overall ambiance of Calcutta, certain problems still loom large and new ones seem to be emerging on the horizon. Failures to reduce population growth and to intensify economic development have bred severe pressures resulting in an erosion of discipline. With passage of time, these failures tend to neutralize the benefits of the social, agrarian, economic and cultural transformations of the past quarter-century in Calcutta.

As in several Latin American cities, there has been a steady deterioration in the civic and economic infrastructure of the Calcutta metropolitan area in recent decades. While the main dimension of this deterioration has been physical, it has eroded institutions and authorities in some fields. This has come from increasing pressure of a bulging population on infrastructure and intensifying scarcity of resources facing governmental authorities, particularly the state government. Thus both state and municipal hospitals and health centers, schools and colleges, roads and public recreational facilities like parks have been damaged because of poor maintenance over the last several decades. The government, saddled with a bloated civil service, spends about 90% of its income on salaries and allowances, leaving scant resources for maintenance and development expenditure. Another disturbing factor has been the inefficiency, financial and otherwise, of public sector enterprises where the government invested scarce resources in hope of yielding adequate returns for the state treasury. Nationalized road enterprises, public sector companies in such varied fields as spinning and weaving, chemicals and pharmaceuticals and electricity generation and distribution all have been running heavy losses.

It is in this context that the deterioration in standard of public health and reappearance of several endemic and epidemic diseases have assumed special significance. Malaria, philaria, calazar and encephalitis have reappeared, basically because of lack of resources of public authorities to maintain the standards of sanitation and public health required to stem the onslaught of such diseases. In West Bengal as in most parts of India, this lack of resources is not the result of continuing and unbridled inflation (as in some Latin American countries), but the result of a bloated civil service taking away the lion's share of government resources and producing little in return by way of public services. The reappearance of Cholera through the new 0139 Bengal Serogroup V Cholera strain has also posed new dangers though oral rehydration and antibiotic therapies have reduced mortality rate to reasonably low levels. While civilizational indicators like maternal and infant mortality have not yet been affected, there has been an enormous increase in the incidence of enteric and respiratory disease all over Greater Calcutta. Similar impacts have been felt in many Latin American cities.

Life in urban areas like Calcutta has been under increasing pressure of because of migration from other regions and states. Therefore, the remedy will at least partly lie in stopping such migration through decentralized development works in such regions in different states. Otherwise, the sheer pressure of urbanizing population will lead to massive influx with which deteriorating public health facilities will be unable to cope with.

The problems of maintaining proper standard of public health and hygiene and treatment of endemic and epidemic diseases have been compounded further by the rising cost of disinfectants and other sanitizing media and modern medicines. Such increasing costs have affected not only government services but even more so urban public health and sanitation. Municipalities are



faced with even greater scarcity of resources because of very low taxes and levies.

While the New Economic Policy of liberalization and opening up of Indian economy has brightened the chances of quicker industrial development and higher rates of economic growth, these policies have adversely affected the resource base of governmental authorities at a time when they were already suffering from acute resource scarcity. This is probably inevitable but does set up serious interim problems in the field of public health and sanitation. For example, there has been a critical deterioration in investment in research and development in public health and hygiene. Also, the standard of higher education in general and medical and paramedical education in particular have suffered in recent years because of inadequate funding.

In an age of rising expectations of people in a democratic country like India, the overall effect of all these factors has been a growing frustration which is ultimately bound to be reflected in a loss of social cohesion and stability. An immediate danger is the deterioration of epidemic control, especially in the case of cholera. Though mortality rates may be low, large scale attacks will prove to be extremely costly for affected communities. Increasing pressure of urbanization and easy international transmission through trade may magnify the scale of the problem to almost global proportions. AIDS and other blood-transmitted diseases make the situation worse. The enormous cost of safe drinking water and safe blood transfusion for the entire population has to be viewed in the context of the inability of the state and municipal governments to meet the cost of their services through rates and levies.

We thus are dealing with awesome problems in the political economy of scale. The overwhelming swamping effects of economic and industrial stagnation often lead to enormous problems of public policy. It is the scale of these problems which makes any centralized solution prohibitively costly. What is probably called for is a basic change in our approach from a centralized, government based, technology driven, high cost approach to a community oriented, service based, decentralized, lower cost approach. While broad policies should continue to be laid down by international, national and regional authorities, our future solution to these basic problems may lie more with decentralized local bodies and local NGOs. An increasing shift toward NGOs would also emphasize a shift to preventive and promotive medicine from curative medicine. Even in curative medicine, there is already a shift from government to private and NGO sectors.

Calcutta's recent experience in public health and family planning shows the vastly increased efficacy and lower cost of implementing such programs through local bodies and NGOs. This approach will also ensure a faster decline in the rate of population growth, which is central to the ultimate solution of our problems.

We are thus faced with an apparent dichotomy, deeply involved in the political economy of scale. On the one hand, there is need for increasing decentralization in favor of local bodies and NGOs and away from structured governmental public authorities. On the other hand, there is also increasing need of overall international and national and regional coordination in the fields of public health policy and research. Governability has thus more than one aspect and probably there are scales of operation appropriate to each of these different aspects. I hope that the recent experience in the revival of Calcutta will constitute a modest contribution towards understanding these problems of scale. Avoiding

catastrophe in Calcutta has been no miracle. Instead, it has involved the stubborn pursuit of survival in the face of grave dangers posed by political convulsions and the relentless pressure of numbers and desperate poverty. Survival has demanded cooperation and the end of self-destructive conflicts. It has challenged our will to live and mankind's capacity for adaptation and innovation. Our will and capacity will be tested even more severely in the future.

4. Lima Emerges from Hyperinflation and Violence

Shane Hunt

Lima's population has multiplied tenfold in the past half century. Today its seven million people fill the strip of coastal plain where four centuries ago Spain built its viceregal capital in the midst of agricultural abundance. New settlements occupy field after field, and extend far beyond the fields to the bone-dry desert that is the Peruvian coast wherever irrigation water is absent.

Lima's population growth has been driven by an intense flight from rural poverty. Migration has not reduced the rural population but has skimmed off demographic growth from the rural areas and swollen the city to where, now, one third of all Peruvians live in Lima and one-third of all *Limeños* live in squatter settlements. Nowhere else in the world does so small a country support such a big city.

Lima is big not only in terms of population but also of land area. It has built outward rather than upward. By and large, people live in small houses, not in apartment buildings. Many of them have built their own houses, in "young towns" *(pueblos jóvenes),* starting with huts of reed matting that slowly become brick houses as family savings are turned into construction materials. When finally finished, years later, such houses have two or sometimes three stories.

While the squatters' "young towns" have proliferated on Lima's periphery, the sheer weight of population growth has made itself felt in the central city as well. Older houses of downtown Lima have been divided and redivided as they sink from mansions to tenements. Meanwhile, the middle classes have abandoned the central city. First residences, then shops, office buildings, banks, even government ministries, all have migrated to the upscale suburbs of San Isidro and Miraflores. Downtown Lima, the colonial and republican capital with its architectural masterpieces, its plazas and avenues, and its mementos of collective memory, has sunk into poverty. Buildings are derelict and unkempt. Streets are choked with vendor stalls, rubbish and masses of poor people. Writing in 1960, Sebastian Salazar Bondy jolted any residues of viceregal smugness with his book, *Lima La Horrible.* Sadly, Lima is now in much worse shape than in the days of Salazar Bondy.

Maintenance and expansion of an adequate infrastructure to accommodate such a human avalanche would test public authorities anywhere. It is more difficult in a poor country, and even more so in a poor country gripped by economic crisis. This has been Peru's destiny. Since the mid-1960s economic growth has been meager, erratic and punctuated by episodes of deep recession. At times of relative prosperity, government has invested in infrastructure expansion, particularly in the "young towns." But at other times the treasury was empty. The problem of maintaining adequate public services is not just one of investment. Poor management, sabotage and scarcity of water also have added to Lima's problems.

The low point was probably reached in 1990, as the government of President Alan Garcia (1985-90) was handing over power to President Alberto Fujimori (1990-95). Hyperinflation had been raging at 50% per month and began to accelerate. The Shining Path guerrillas seemed to be knocking on the gates of Lima. Production was plummeting. Public services were collapsing. Water ceased to be available for extended periods and when it did arrive through the pipes it was obviously contaminated. Electricity blackouts were chronic. Lima seemed to be slowing to a catatonic state. Those who could leave Peru were getting out. To the eyes of many, Lima was dying.

Lima didn't die. Conditions are much better today than they were at that low point. To show how Lima got to that low point, and how it has at least partly recovered, we need to examine the provision of public services in

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greater detail. We will examine water, transportation, electricity, public health and hospitals, schools and pollution abatement.

The two public services that present the most intractable problems are supplies of potable water and transportation. Water is a problem because it is intrinsically scarce: Lima lies in a desert. The city's supplies come from a series of rivers, lakes, and reservoirs in the Andes. Supplies could be increased by tapping into additional Andean watersheds, but only through enormously expensive public works.

Currently available water supplies do not meet the city's needs. In any poor district water flows from the pipes only a few hours each day. In even less fortunate poor distric6 there are no pipes at all. There water must be bought from tank trucks at prices far above those charged for metered water. In a nutshell, supply cannot be increased yet current demand is unsatisfied.

The dilemma has to be resolved through improved management of what must be viewed as essentially a fixed quantity of available water. Improved management means systematic investment and maintenance so as to reduce leakage in the system, and also effective metering and billing that will encourage conservation measures by users and also provide the funds required by the investment program.

Is Lima's water company - SEDAPAL - up to the challenge? The best that can be said is that SEDAPAL has been getting better. A few years ago, SEDAPAL was notorious, even as compared to other public enterprises. Its metering and billing systems were a shambles, its investment program woefully inadequate. More recently, however, it has improved on many fronts, partly in anticipation of privatization. Replacement investment to stem leakage has been stepped up, and major investment planning is being developed in cooperation with international agencies. The most innovative and interesting example of technical cooperation involves the bilateral debt with Switzerland, which has been converted via a debt-for-public works swap into a major project to restore the aquifer underlying Lima's coastal plain. In 1990 the Water Monster seemed out of control, but by 1994 the beast seems to be on the verge of domestication.

Lima is a mega-city with no subway system and hardly any express roads. A subway substitute — an elevated railway — was begun in the 1980s but quickly was paralyzed by corruption and hyperinflation, producing much scandal but no transportation. As for express highways, one was built in the 1960s linking downtown to wealthier suburbs and a piece of a belt highway was built in the 1970s. But nothing more. Nearly all public transportation proceeds on city streets choked with big buses, minibuses, microbuses and a horde of taxis, mostly Brazilian-made VW beetles. In the poorer districts the taxis give way to motorcycle rickshaws. The typical Lima city street is not only crowded but also noisy, because upkeep of mufflers is too costly for many. It is filled with a pall of smoke, because upkeep of engines costs even more than mufflers. It is also a fairly dangerous place, because the microbus drivers are entrepreneurs always competing with each other for the potential fare on the next corner.

Limeños are quick to criticize this transportation chaos, but in fact the system has improved greatly over the past few decades. This is because of a vast increase in the supply of seats in public vehicles. Time in transit may be as long as it ever was, but the additional time spent waiting for a vehicle that one can board has been virtually eliminated. By contrast, I remember waiting on street corners for up to an hour in the early 1970s.

Perhaps the greatest change occurred in the 1970s, when microbuses (or minivans, called "combis" in Lima) replaced auto jitneys. This meant replacing a vehicle with seating capacity of 5 by one of essentially the same size, in terms of street space occupied, but 2 to 3 times the seating capacity. More recently, the supply has been increased further simply by establishing a structure of fares and costs that make running a public vehicle a profitable business. This involved some increase in the real price of fares, but the major change was on the side of costs, by permitting importation of used vehicles and by tariff liberalization that cheapens all imports.

Eventually, Lima will need a subway, or completion of Alan Garcia's discredited elevated railway - -the *tren eléctrico.* But Limeños may have to put up with the present rickety system for a few decades more. Experts report that the *tren eléctrico* was so poorly planned that finishing the half-done job isn't economically viable. Such a judgment depends on the economic value of time, because the main social contribution of a mass transit system is the saving of time. When wages are low, time isn't worth much. But with economic development, wages rise, time is worth more, and a bad project can become a good project. Limeños of the early 21st Century may yet have the pleasure of seeing the sights through the windows of the *tren eléctrico.*

Lima's electric power comes almost entirely from hydroelectric sources high in the Andes. Most of this hydro power comes from a single complex on the Mantaro River in the Amazon watershed. From that complex, three major power lines cross the continental

divide to serve the factories, shops and homes of seven million people.

If more power is needed, more hydro stations can be built. Current consumption is far below the potential offered by water running down Andean slopes. The problem of electricity supply has not been one of expanding capacity but of keeping those three power lines in operation against persistent sabotage by the Shining Path guerrillas.

At the height of its power, before the guerrilla leader Abimael Guzmán was captured in September 1992, Shining Path's strategy was to destroy the government in Lima by slowly tightening the noose until the city collapsed. Cutting the power lines from the Mantaro was a key element of this strategy. Much of the Battle of Lima was fought at the power pylons, by the army and by the electric company repair crews as well.

One of the three power lines was given up for lost, but the other two were, except for short intervals, kept open. Every so often, guerrillas would succeed in blowing a series of pylons and Lima would suffer a total blackout, followed by several days of rationing as limited local generator capacity partially restored power while crews worked to erect new pylons. This pattern of periodic blackouts lasted for several years in the late 1980s and early 1990s. They were a major element of the view, so widespread among the middle classes in 1990, that life in Lima was becoming intolerable.

But the light faded on the Shining Path, and Lima has not suffered a major blackout for well over a year. The electric company, nationalized in the 1970s and on the verge of privatization today, has always been reasonably efficient. Its metering and billing practices are recognized to be something below state of the art, but one cannot help but think that a company that kept the power lines operating under guerrilla assault can meet more mundane challenges as well.

The medical and educational facilities available to poor people in the capital have always been superior to those available in small towns and rural areas. This has always been a basic part of the city's attraction for migrants. Lima's clinics and schools are still the best in the country, but the quality decline everywhere has been much noted and lamented. This is a national problem, directly attributable to the collapse of the public sector under the assault of hyperinflation. Tax collections as a percent of GDP fell from a normal rate of about 17% to a low of four percent in the last years of the 1980s. Now they are back up to about 13%.

Military expenditure had to be kept up by the demands of the war against the Shining Path, so the impact on the social sectors has been devastating. The collapse of public sector salaries has expelled doctors, nurses and teachers from their professions. Many have been obliged to become vendors and taxi drivers in order to survive. Those who remain, relatively unqualified, work without the most basic materials: schools without textbooks, hospitals without medicines or dressings. Patients in public hospitals have been required to supply their own medicines and dressings. When asked what happened to patients who could not afford to do so, one doctor answered simply, "They die."

This crisis in public services brought on by hyperinflation marked the late 1980s and early 1990s, but it must be recognized that the decline in quality began much earlier. The middle classes have been fleeing from the public schools for the last 50 years, in part because of the radicalization of student politics at the university level and of teacher politics at primary and secondary levels. A similar process of middle class flight has occurred from hospitals.

It seems almost miraculous that the death rate has not increased recently. But the secular decline in death rates has come to a halt. The same is probably true of illiteracy rates, which are harder to measure.

Only in the past year or so has the government started trying to put the social sectors back together again. Serious plans have been developed, and serious programs have been launched, many of them with substantial backing from international and bilateral agencies. There is purposefulness and there is hope, but as yet there aren't many results. Schools and hospitals remain places of extreme scarcity.

If Lima were in a valley, it would probably win the championship for air pollution from Mexico City and Santiago de Chile. But it is on a coastal plain, where breezes blow and sweep the city clear of smog in a way that rain never does to Lima's dust. Exhaust smoke from malfunctioning engines can make narrow city streets very disagreeable, but thanks to its location Lima is spared from the worst of air pollution.

The Pacific Ocean rescues Lima from worse air pollution and at the same time provides a convenient dumping place for the city's sewers. Lima has no sewage treatment plants. Most of the city is connected to a sewer system ending in two large pipes that disgorge their contents a few miles out to sea. From there the Humboldt Current takes most of it out to the broader ocean.

Most, but not all. Lima's beaches are polluted, and the pollution extends along the coast for several miles both north and south of the city. The only investment response thus far has been to widen the Pan American Highway running south, permitting the middle classes to escape to more distant beaches for their summer tanning.

Nevertheless, environmental awareness has grown dramatically in Peru in recent years, and the pollution of the ocean is increasingly seen not only as an embarrassment, but as something for which something ought to be done. A more systematic attack on pollution, of air, of oceans, and of rivers, is sure to be seen in coming years.

Lima is as viable as Peru is. In the past few years, Peru has come back from the brink of social chaos, and so has Lima. The immediate causes of the social chaos were hyperinflation and the Shining Path, and both have been defeated. So Peru is spared from the brink.

Or is it? One must look behind the immediate causes of the chaos and ask: What caused the hyperinflation and what caused the Shining Path? The answer in both cases is the same: the profound social conflict that made Peru a polarized country from its very inception. Social conflict is muted now, but the polarization remains. The unanswered question is whether enduring, effective government is possible in such an environment, or whether, on the other hand, an absence of shared common values will render Peru as ungovernable in the future as it has been at times in its past.

Nevertheless, we are living in a time of hope, relief and recovery. For the time being, political space will exist for continued revival of public services in Lima, for two basic reasons.

First, Peru is enjoying an economic recovery. Stabilization ended the hyperinflation that peaked in 1990 and reduced chronic inflation to about 20% yearly now. Real economic growth was 6.5% last year and may be as high as 10% in 1994. Skeptics may find such growth figures much less impressive if one recalls the magnitude of the economic collapse of the previous few years. But it is also true that, in the recent economic history of Latin America, collapse has rarely been followed by rapid recovery. One reason for the rarity of rapid recovery is that it demands more than just putting idle capacity back to work. Massive new investment is needed, which is going on in Peru today. Foreign money is pouring into ventures in mining, petroleum, agriculture and commerce. Foreign portfolio investment in Lima's stock market has bred an unprecedented boom in recent years. Most of this investment comes from the usual suspects in the Northern Hemisphere, but Chilean investors also have joined in, as well as Peruvians bringing their money home again.

Skeptics observe that few benefits of this boom have trickled down to the poor. This may be true, but it is also true that the government has launched massive social programs over the past year. Such programs had been moving at a glacial pace until the October 1993 referendum on the new constitution almost lost by an unexpected No vote from Peru's poorest regions. The vote served as a wake-up call for social development programs, in education, in public health and job creation. The World Bank and the Inter-American Development Bank (IDB) have been helping massively. Even the International Monetary Fund (IMF) has been pushing for social expenditure.

The second reason for the brightness of the current picture is that social conflict has been muted. The terrifying Shining Path insurgency caused rival political groups to think more of their shared values, in particular a common commitment to democracy, rather than their

differences. For this reason, as well as because of the world-wide eclipse of socialism, a new consensus on the basic elements of economic policy has developed.

The future is more threatening for Lima in the longer term. Peru's primate city has grown faster than the nation throughout the 20th Century, all sorts of past decentralization policies notwithstanding. Such policies have always proven feeble against the strong centralizing tendencies of the Peruvian state.

However, Peru is slowly getting serious about government decentralization. Municipal power is being strengthened as never before. But decentralization involves major changes in the balance of political and social forces. It will help to slow Lima's population growth, but it is hard to imagine that regional redistribution of political and administrative authority will proceed very fast. Lima's population growth still will run ahead of Peru's. According to some projections, Lima's population may grow to 15 million before the mid-21st Century, against seven million today and only 100,000 in 1900. Even today, Lima must manage daunting problems of scale, for which new solutions must be found.

These ominous musings focus on a more distant horizon. However, over the next five to ten years, we car expect that social conflict will remain muted. We must take advantage of this peace. In the short term, Lima not only can survive, but even prosper. We can increase prospects for survival when we face rather than flee long- term problems in our daily lives.

5. The Political Economy of Regeneration

Norman Gall

As populations age, the threat of rising adult mortality warns of an implosion of many urban populations. Especially vulnerable are peoples suffering from malnutrition whose public health systems have been damaged by impoverishment and chronic inflation. The starkest warning comes from the former Soviet bloc, where life expectancy of men has diminished steadily over the past three decades. Breakdown of public health systems accelerated during the collapse of communism in the 1990s. Russian mortality rose by 20% in 1993, following a 7% increase in 1992. The increase in deaths was very high among men of working age. Resurgence of epidemic diseases in Latin American cities is another dangerous sign. More ominous is the economic collapse of African cities, swollen by poor migrants in the fastest long-term growth of urban population that the world has ever seen.

Members of our Institute recently visited Russia to compare the impact of inflation on public health systems in Brazil and Russia. We also are engaged in research on metropolitan public health problems in the cities of Fortaleza and São Paulo. We are trying to find ways of dealing rationally and courageously with ongoing processes of chronic inflation and with the threat of rising adult mortality that may intensify early in the next century.

Even in rich countries, disturbing trends are appearing. In Britain, despite the strength of its National Health Service, mortality among men aged 1544 has risen since 1985, reversing a long-term trend of decline, as adult mortality among the poor resurged to levels not seen since the 1940s. Outside the rich countries, data on most poor populations is scarce. Latin America's cholera epidemic shows how survival systems, especially water and sewage networks that defend cities against infectious disease, have weakened dangerously under pressures of migration and population growth. Fortaleza suffered the worst cholera outbreak of any Latin American city outside Peru, which since 1991 has been stricken with one of the biggest cholera epidemics on record anywhere. The impact of cholera in Fortaleza was compounded this year by new outbreaks of dengue, meningitis, leptospirosis and calazar. These epidemics would have been more destructive had they not been controlled by dedicated teams of public health specialists.

Given the threat of implosion of urban populations, the essays by Tarun Dutt on Calcutta and Shane Hunt on Lima in this issue of *Braudel Papers* generate hopeful messages that collapse can he avoided in cities suffering from overload and fatigue by developing a political economy of regeneration to reverse disorder and decline. The elements of this political economy

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of regeneration are: (1) balanced fiscal accounts; (2) credible government; (3) cooperation between political and business leaders; (4) responsible social policies and (5) international support. The experiences of Calcutta, Lima and Fortaleza show that regeneration can be achieved along these lines, albeit unspectacularly and with continuing risk of relapse and failure.

Born as a British trading post in 1691, Calcutta is a younger city than New York, Rio de Janeiro or Lima. It dramatizes problems and solutions facing cities pressured now by problems of scale which have failed to consolidate sudden bursts of growth over the past century. Calcutta's burst came as population quadrupled from 469,000 in 1891 to 1.7 million in 1911, around the same time as New York's was tripling to 5.6 million from 1880 to 1920. In a similar burst, Los Angeles grew from a small town of 11,000 in 1880 to become the fourth-largest city in the United States, with 1.2 million people by 1930. After the Bolshevik Revolution restored its role as imperial capital, Moscow's population grew fivefold from 970,000 in 1920 to 5 million in 1940. Between 1900 and 1930, the population of Detroit multiplied fivefold to 1.6 million. Lima's population grew from only 100,000 in 1900 to seven million today. All these inflated cities now must manage daunting problems of scale, demanding new solutions. All must find ways of dealing in civilized ways with growing surplus populations of adults, many of them unskilled and not easily absorbed into modern economic systems with clearly defined codes of rights and obligations.

Brazil has its own problems of urban consolidation. As elsewhere, the share of people living in Brazilian towns and cities grew fast in this century. Urban population rose from 11% of the total in 1920 to 75% today. The number of Brazilian cities with at least 20,000 inhabitants multiplied from only 51 in 1940 to nearly 500 today. In 1960 Brazil had only two cities of at least one million people; today there are 11, with São Paulo and Rio de Janeiro ranked among the world's ten biggest metropolitan areas.

Problems of scale are many-sided, often dramatized by crises in water supply. Fortaleza now has 2.5 million people, after multiplying tenfold since 1950. While its population grew by roughly two-fifths since 1980, Fortaleza's total consumption of water multiplied fivefold. This huge increase in water use in a region subject to severe droughts was driven by several factors: (1) rapid economic growth; (2) big migrations from the drought-stricken interior of Ceará State; (3) massive leakage from a deteriorating urban water distribution system; (4) failure of water prices to cover delivery and maintenance costs. When the Northeast was stricken by a three-year drought in 1991-93, water supply in Fortaleza approached collapse by September 1993, barely averted when the Northeast was stricken by a three-year drought in 1991-93, water supply in Fortaleza approached collapse by September 1993, barely averted when the state government built a 115-km. canal in only 89 days to tap water from a distant reservoir.

Other big cities seek similar emergency solutions in water crises bred by neglect of problems of scale. The highland metropolis of Mexico City, with 18 million people, pumps water uphill from a site 2,000 meters below the city and 200 km. away, using six power plants of 1,000 megawatts each. Half of China's 570 cities suffer from serious water shortages. China is starting a 10-year, $10 billion project to build a 1,100-km. aqueduct to avoid collapse of water supplies to Beijing's 12 million people.

The cholera epidemics in Calcutta, Lima and Fortaleza drove governments toward policies of regeneration. All three epidemics followed great surges of migration. The 1958 cholera outbreak in Calcutta erupted among the flood of migrants that swelled the city after India's partition in 1947. The 1991 epidemic among cities of Peru's desert coast followed intensified migration from the Andes in response to drought and political violence. The 60,000 cholera cases in Fortaleza since 1992 were concentrated among new migrants after the city's *favela* population grew from 358,000 in 1985 to 545,000 in 1991, a 52% increase in six years. The impact of drought and epidemics in Fortaleza would have been worse if policies of regeneration had not bred, responsible public finance and investment, cooperation between political and business leaders, improved efforts by state and municipal governments to contain the effects of poverty and international support to improve urban infrastructure, especially water and sewage systems. This also happened in Calcutta, a much poorer urban society where infant mortality is half the Brazilian average. The level of human organization is what matters and the political economy of regeneration can make a difference.