

Patterns of urban growth

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The figures for India's projected urban growth over the next 30 years are colossal. Today's population of about 100 million people is expected to reach about 500 million by the turn of the century.

It is evident that with this kind of increase, the existing cities are going to be under enormous pressure. In fact some demographers expect our principal cities, as for instance Bombay, to reach a population of up to 60 million in 30 years time.

Countries like India must of necessity develop new growth centers in order to cope with the urbanization explosion they face. And the creation of these new centers presents us with an unprecedented and historically unique opportunity: for they can be so placed as to completely re-structure the urbanization pattern across the country. After all, a five-fold increase is really an enormous advantage in the final analysis. It means that whatever we see around us today in the urban scene is only one-fifth of what we shall see 30 years from now.

This brings us to three important questions:

- a. How do we develop the criteria necessary to rationally locate these new centers?
- b. Do we have the dynamic growth techniques to generate them?
- c. How do we postulate the sizes of these centers? and related to this meet the financial cost of setting them up?

First, the placing of urban centers across the nation is of profound significance — both in terms of national economics and international geo-politics.

The second set of location criteria we would have to develop would be largely ecological. For instance, looking at the map of the entire country, one would first identify the land best suited to agricultural use, followed by that best suited to forestation, and so forth. In this kind of picture perhaps cities could be located in the areas of mild invigorating climate — in the hill stations?

Yet even if we can identify more rational urban patterns, do we have the techniques for creating new urban growth centers? The recent history of urban planning has very little of relevance in this regard. For instance, new towns like Chandigarh and Brasilia have nothing really to do with the process of urban growth — which is primarily the creation of new jobs. They are really company towns. To generate new towns we would be better off to study the history and origin of cities like Bombay, or Sao Paulo or Tokyo. Why did they grow the way they did? What were the basic inputs that went into these cities? What, in short, were their genetic codes? If we could unravel the code for any one of these cities, we would have important clues to the kind of inputs which over a period of time generate growth.

In the case of Bombay, the key ingredients appear to be certain crucial economic and physical inputs; transport (the docks), trading, and the government functions. The growth process commenced with their integration. But there was more to the DNA of Bombay than just this. For instance, social infrastructure: the creation of fine new hospitals, schools and universities; these inputs were important. So also the civic

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		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ELEMENTS	ERISTIC UNITS	MAN	ROOM	DWELLING	DWELLING GROUP	SMALL NEIGHBORHOOD	NEIGHBORHOOD	SMALL TOWN	TOWN	LARGE CITY	METROPOLIS	CONURBATION	MEGALOPOLIS	URBAN REGION	URBANIZED CONTINENT	ECUMENOPOLIS
	NATURE															
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structure. Let us look into the implications of any one of these inputs.

Let us take the civic structure. Bombay never really had a master plan (it was started by a small group of people — perhaps two East India Company civilians and an army colonel? — who made a few bold decisions and started a process of growth). But what the city did have, right into the beginning of this century, was the right kind of civic structure. In short: the right kind of mayor who chose the right kind of city engineer who in turn put in the roads and the sewer lines — usually in the right places. And this is far more important than having the right kind of master plan but the wrong kind of mayor, city engineer, and so forth all the way down the line. The civic structure which helped create Bombay was a very Victorian one. It involved the whole paraphernalia and mystique of city fathers — a very paternalistic mystique which found a responsive parallel in 19th century Indian society. For in the various castes and communities of our society, there were a number of elders and “leaders” who were keen to play this fatherly role. Today in Bombay there aren’t any more of those kind of city-fathers left; or if there are, there isn’t anybody very interested in following them. Thus Bombay is breaking down, because the civic structure no longer relates to the social realities.

But how do we find a civic structure relevant to the 20th century? For this indeed will constitute a decisive element in the DNA of the city.

How can we go about determining the sizes of these various new centers? Obviously a major effort should be made to generate new growth at the village-cluster level, as this will cause minimal disruption and upheaval to the quality of national life. Similarly, there are arguments in favor of small satellite towns (as opposed to large new metropolitan centers) since smaller towns usually offer better living conditions.

Although we may embark on a program of village cluster growth centers, it is obvious that these schemes will have a long take-off point, and we shall have to create at least a few metropolitan counter-magnets to the existing cities, as holding actions, if nothing else. Furthermore, the development of an urban system may well necessitate larger centers at crucial nodal points, giving the whole system a logical structural hierarchy. Thus there may be several reasons — both economic and structural — for developing new metropolitan areas; and if this is so, then the Indian government will have to overcome a considerable moral and political hostility towards large cities.

Thus we would endeavor to work a trade-off between the number and size of the new centers, and the growth inputs involved. But since the cost of duplicating these inputs might still be prohibitive, could we find some way of re-using some of them over again?

After all, certain inputs are more mobile than others, and are, in that sense, re-usable. For instance, take transport: dock facilities once set up, cannot be moved. On the other hand, a key function like that of the government is highly mobile. Furthermore, government jobs have a high multiplier effect. (For instance, in the context of Bombay, it is estimated that for each government job shifted to the new twin city, five other jobs will move as well). Obviously if we are to generate a series of new urban growth centers, within the limitations of our economy and our resources, then we will have to find techniques for re-using some of the key inputs several times. As soon as a healthy and sustained growth is ensured, some of these ingredients can be re-marshalled and used again. This would be rather like a technique for grafting trees. Or perhaps a better analogy would be a travelling circus? The government pitches tent every 20 years and generates the process of urban growth; then it moves on.

The important thing to remember is that this kind of growth has occurred in history. The British really created Bombay and Calcutta out of thin air. It is interesting that these colonial powers — whom Buckminster Fuller rightly calls “pirates” — were really very decisive. They knew that they would have to act quickly and forcefully in order to keep their empires going. It seems to be more difficult to get national governments thinking in these terms. Yet it is crucial that the techniques of urbanization be invented. For within this decade the countries of the third world must begin to plan their urbanization patterns as boldly as they plan industrialization today.

Obviously the disciplines involved in this work, and the quantity of data required, are so considerable — that the most logical agency to undertake this task would be the national planning commission itself. If this were done, then India’s five-year plans would indeed have the spatial components necessary to provide a dynamic context for economic planning. This spatial context should be envisioned not as a “frozen” master plan (or plans), but as a series of growth options in a kind of open-ended planning. Because of the organic nature of urban growth, it would be self-defeating to postulate only precise and fixed patterns — when you start a city, you are starting a process. One can’t directly interfere with urban growth (as Colin Rosser has said: “except in terms of population, Indian cities aren’t growing too fast — they are growing too slowly”). But what we can do is feed inputs into other parts of the system so as to create counter-magnets, and a balanced urban structure. The concepts set down in this note are merely tentative; but they do seem to indicate that we have a real opportunity to use the colossal urban growth of the next 50 years to our permanent advantage, and thus emerge from the tunnel — so to speak — better off than when we entered.