

Exponential Growth of Bangalore City- Omissions in Planning and Execution

T.N.K. Kurup*

The transformation of Bangalore from a quiet pensioner's paradise to the most happening city in India has taken place during the past three decades or so. As one, who had been in and out of Bangalore during the past sixty years, the ever changing city has fascinated me. Over the years the quality life of the citizens has taken a downward trend. In this article I would like to cover both the positive and negative aspects of the city's exponential growth.

Bangalore in 1950's

It was in the summer of 1951, I had my tryst with Bangalore. I had completed the third year Mechanical Engineering from the college of Engineering, Guindy, Madras, when all of us had to undergo practical training during summer vacation in any leading factory or workshop. My friend, Chandra Kumar** and myself, both hailing from the town of Calicut, chose the Hindustan Aircraft factory at Bangalore for our training. The journey through the thick Bandhipur forests was full of expectations of encountering wild life and by dusk we reached the city of Mysore, resplendent with the grand palace, beautiful avenues and the comely market place. Attractive street lights

lit by underground electrical cabling made the city distinct from other cities. By night fall we boarded the train and in the early morning hours reached Bangalore. The city railway station was the old one, on the Malleswaram side. We got accommodation in the city Y.M.C.A situated at a central location. We could visit most of the city and cantonment areas either by walk or by bus. There were very few vehicles on the well laid out roads and it was an experience to see the road signs at the entry points of all main roads – STOP, Look and Proceed – which every motorist strictly adhered to. This was quite different from Madras which had much more vehicles and no such safe measures were practiced. Compared to the rustle and bustle of Madras, Bangalore looked every inch a Pensioners' Paradise.

In September 1952 after my graduation, I came to Bangalore for my practical training. I stayed in cantonment Y.M.C.A not far from M.G.Road, Commercial street and popular theatres. I left Bangalore in April 1953 for taking up my first professional assignment. For the next ten years I did not visit Bangalore. In the year 1965, I joined of the Hindustan Aeronautics LTD at NASIK. Official visits to Bangalore became

* The author is Member, CARTMAN, a Bangalore based NGO specializing in environmental activities.
e-mail: cartmanblr@hotmail.com

** He passed away in the year 1985 while working as general manager in the Mysore Unit of BEML.

a routine affair. My wife had occasion to visit Bangalore a couple of times and we took a final decision to settle in Bangalore, when the time and opportunity arose. This happened in the year 1981 when I was transferred to Bangalore from Nasik, where I had already spent more than sixteen years of official work.

Exponential Growth

In the year 1982, I was transferred to Bangalore and I could construct a house in Koramangala and moved in July 1984. During the next ten years the developments of the City were at normal pace, with many of the vacant sites filling up, banking, commercial, and eating establishments coming up and the new roads taking shape. Even as late as 1994 with increased number of vehicles plying on the roads, commuting to railway stations, airport, M.G.Road, Century Club, etc were not difficult as we could reach within a matter of 30 minutes. But from the year 1994 onwards with numerous IT establishments being established in Bangalore and with the ease of filling loans for housing and purchase of vehicles, the entry of job seekers and vehicles became uncontrolled. As a result commuting between places became difficult and traffic bottlenecks were endemic. Unlike Mumbai and Chennai, there were no alternate rail routes and the Bangalore city planners were really caught napping with the un-precedented growth of the city. Bangalore got the reputation of the most one way city, even then the movement of the traffic was at snail's pace. Bangalore roads in comparison with other major cities were narrow and with the additional vehicles adding up every day, the city was at loss to take any corrective step.

While the traffic was at the cross roads, another major problem surfaced was the water logging and flooding of habitations at low level and near storm water drains with every rain fall. Because of unplanned growth, free flow of storm water was obstructed and flooding occurred. Even though, sufficient funds were allocated for modeling of storm water drains, because of difficulty in clearing unauthorized habitations no major improvement happened, as on date. To add to the trouble, accumulation of silt, garbage and plastic bags thrown in the drains continue to obstruct free flowing of water and the City corporations has a gigantic task ahead.

In earlier occasions when PSUs were established in Bangalore, their buses were used extensively for transporting their personnel from various parts of the city to the factories and back. If the IT establishments likewise were established at designated locations say IT Corridor between Whitefield and Electronic City, perhaps public transport system could have been employed, for commuting of employees from different locations in the city thereby reducing the number of private vehicles on the roads.

Aesthetics

Another point is the selection of trees for planting in residential areas. While raintree branching off with green foliage is an attractive sight on broad roads and highways they are not suited for narrow streets as their roots clog drainage and sewage lines and their branches obstruct the overhead electric lines. Avenue trees in many blocks look like headless torsos with extended arms, as their branches remain mutilated by mindless pruning by BESCOM contractors. These trees become imbalanced

during rains and get uprooted causing road blocks. Laying of underground cables could have been resorted to, as was done in many residential areas of Chennai.

In spite of what have been mentioned above, Bangalore still retains the charm, beauty and grace of the most well known Garden City of India handed over from the time of Kempegowda, Hyder Ali to Sir Mirza Ismail, Sir M. Visweswarayya and others. It still boasts of excellent parks, attractive shopping areas, and functions covering religious, cultural, educational are taking place regularly. The availability of fresh vegetables and fruits at every residential layout is another positive point. Electronic connectivity is very high as we can see the younger generation talking freely through mobile phones and even vegetable vendors and auto rickshaw drivers display them with elan.

Omissions in planning and improper implementation

The essential requirements which citizens look forward to in a city are

- Developed locality for construction of houses
- Availability of water power, sanitation and drainage
- Connectivity to places of work, schools markets and other essential areas.

These were available in the city during the 1950's. As the years went by population increased and these essential requirements are denied to many now. It would be worthwhile to examine whether this could have been minimized by better planning and execution.

An essential prerequisite for the development of a city is to plan and lay proper transport lines to ensure connectivity to all places. Take the case of metropolises like Mumbai and Chennai which are of linear nature. Rail and road transportation preceded around which habitation developed. Mumbai has three separate railway lines viz., western, central and harbor and broad linear roads. Chennai has local rail from Tambaram to Beach. Major roads are Mount Road, Poonamallee and the Beach road. When Karnataka became a separate state with Bangalore as capital the city planners should have looked at railways as an alternate mode for local mass transportation. A circular surface rail connecting the outer periphery of the already developed areas and those planned for future expansion could have been thought of and constructed over a period of time. In association with railways a survey could have been undertaken as to the feasibility of a circular rail line. If found feasible land could have been acquired and protected over a period for construction of rail as the city expanded. Funding requirements would have been a fraction of the cost of Metro Rail, now under construction. This is not an alternative to Metro but as a forerunner and an alternate system. Four lane broad radial roads connecting rail head (stations) to central business areas would have taken care of transport requirements of each developed sector. With such preliminary arrangements taken in advance planned development of the city could have been achieved.

Water Logging and Drainage

Bangalore city located at an elevated level should not naturally have drainage problem.

But this is not so. Many localities get inundated when heavy rains take place and in some cases even a mild rainfall cause hardship to people. This is mainly due to obstructions on the drainage path. At many locations building and apartments constructed on the drainage path obstruct the free flow and flood the low lying areas. These could have been prevented if the sanctioning authority of the state had avoided construction in such areas. A simple contour map of the area would have been made use of while selecting and giving approval for construction activities.

Water Availability and Pollution

Karnataka state and Bangalore city in particular had many lakes, tanks and water bodies which provided water to its populace. The natural choice of city planners is to develop and preserve them from the point of maintaining the groundwater level, aesthetics, recreation and an attraction of birds. But the totally indifferent planning by development authorities in connivance with the avaricious building enterprises decimated many of the water bodies and the remaining ones polluted by the entry of sewage and sludge. It is reported recently in the newspaper that between 2006 and 2011, 1039 acres of lake land have been encroached upon the market value of which is estimated at a whopping Rs 24,000 Crores. This has also been a subject of active discussion in Karnataka State assembly and a decision was taken to reclaim the encroached land and preserve the existing lakes. Lakes and tank beds are the essential life lines ensuring water availability to the parched City and every effort should be made to preserve and develop them for posterity. The importance of water in the

everyday life of an individual or family can never be over emphasized.

Rainwater Harvesting and Solar Water Heating

In the extensions of Bangalore city, viz., Banashankari, Outer Ring Road, Sarjapur Road, Hebbal, etc. many high rise buildings had come up and many are in progress. For any city to function well there is need for adequate power and water. While rainwater harvesting (RWH) and solar water heating (SWH) have been propagated, it is not known as to how much of these essential arrangements have been installed in the various buildings already constructed and also under construction. Even though the govt. has made R.W.H. mandatory there are many loopholes for builders to evade such measures. The property developers on their own initiative and in the larger interest of the city should take it upon themselves to introduce R.W.H. and S.W.H. in the buildings already constructed and under construction by them. They will be doing a great service to the govt. and to the people if they voluntarily do so. Groundwater resources of the city are depleting very fast and therefore there is an urgent need to undertake R.W.H., on a massive scale.

Yet another step the property developers, hotels and bigger establishments should do is to recycle used water for non – potable purposes. This would go a long way to ensure water conservation. Bangalore city boasts of about three hundred sunny days a year. If solar water heating (S.W.H.) is provided in their high rise buildings, coupled with replacements of incandescent lamps with CFL/LED ones, power consumption could be reduced considerably. The property owners, who advertise their

attractive proposition in newspapers, should ensure that such environment friendly measures are installed without further delay, if not already done.

Solid Waste Management

The garbage accumulation in the City has become so enormous as to name Bangalore, a garbage City. The subject, of late has been under discussion at various forums, newspapers, individuals and experts. I would only like to make a reference as to what happened in the early 1990's. my classmate from college of Engineering, Guindy, Chennai, Sri K.S.SIVA PRASAD had set up a Waste & Energy PILOT plant in the year 1989 in Madivala;it was inaugurated by Chief Justice R. Mohan of Bangalore High Court. This was a technology demonstrator after success of which Sri Prasad had had plans to upgrade the same with funding support from IREDA.

The brief details as I recollect of the demonstration plant are as follows:

Two truck loads of garbage are taken for processing every alternate day. After removal of plastic bags, bottles, etc the process is initiated. First in line is a perforated flat conveyor which ensures removal of sand and fine manure which are collected and sent as manure. The unprocessed garbage is conveyed through a vibrating conveyor where metal cans and light metallic items are separated. The material enters a set of choppers where they are cut into smaller pieces. The homogenous garbage is passed through a long cylindrical chamber where hot air at 180 C ensures that the garbage loses its toxicity and foul smell. Another chopping and shredding operation takes place after which the shredded and processed material are lifted to an air classifier and then to an extruding

chamber. The solid waste is converted into fuel pellets which can be fed for Power generation. Approximately fifty percent of the M.S.W is converted into fuel pellets. 30% goes out as moisture. Balance 20% sterilized during operation goes for land filling.

The plant was in operation for more than three years and seen by various dignitaries from India and abroad. In fact one World Bank representative wrote highly about the plant. The major action of Sri Prasad was to get a vacant land allotted to him for upgrading the plant for which funds are available from IREDA. But inspite his best efforts neither the B.D.A nor the State Govt. could provide any assistance in the matter. If this technology was out in operation during the early nineties Bangalore City would have made some progress towards garbage management for production of fuel pellets for power generation.

Sri Prasad during the meantime was approached by a Malaysian Company for a technical tie up. J.V Company for establishing a power plant from the municipal solid waste generated from cities. The power plant is in operation for the past three years and has got recognition from U.S as one of the top renewable plants in the world.

Conclusion

Bangalore City with its salubrious climate, cosmopolitan nature and educational spread is preferred by the I.T companies and the building corporations for setting up their companies and construction activities. The Govt. and the allied agencies also have to ensure that the special needs of the children and the elderly are taken care of. This is a major challenge for the City of Bangalore.

