CLOSE to where I live, every morning hundreds of cars line up at a popular school. From an optimist view, it’s a pleasant sight to see. Parents coming to drop off their wards, waving them good byes. All this while a battery of buses arrives one behind the other bringing kids.

But if you were to witness this routine five days a week it does not make for such a rosy picture. At 7:30 in the morning, the fresh crisp air is disturbed by the fuel guzzling cars and buses that try to negotiate their way as close to the school premises as possible, often leading to traffic snarls and incessant honking of vehicles.

Seeing this day in and day out one gets the feeling that there is an immediate requirement for planned infrastructure that is sorely lacking today in most cities of our country. It is ironic that in one of the fastest growing economies of the world, only two cities have planned physical infrastructure development – Chandigarh and Gandhi Nagar.

By 2030, India will witness the largest urban migration in the world with 130 million people migrating to urban areas. By 2021 around 40% of the population would be living in urban areas in India. Going by today’s pace of development, in the not so distant 2020 we will face a shortage of 30 million dwellings, 200 million water connections, 350 million sewage connections and 160 GW of power. This is apart from the infrastructure to support a fivefold increase in vehicular traffic.

Today we have just two schemes catering to the vast and urgent need of urban centers – Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and Rajiv Awas Yojna (RAY). While JNNURM focuses on improving urban infrastructure which includes improving conditions in slums, RAY proposes to build houses for the urban poor residing in slums.

While it may seem a perfect solution to address the slum menace in the city, but these housing projects are taken up on the outskirts and are often left midway without providing necessities like water connections or an effective transport link to the city. Coupled with absence of other infrastructure like schools and electricity, there is little incentive left for the poor to live in the houses built by the government.

There have been media reports of rampant corruption in such schemes because of the huge sums of money involved. It takes about 10 lakhs to build just one unit of house. This is excluding the cost of the land and other supporting infrastructure like roads, etc. If one were to do simple math to provide such infrastructure to even fifty thousand people, the sum goes up to billions making one question the rationale behind such schemes.

Slums come up in the cities because there is a demand for cheap housing near places of work or because of an absence of low-cost mass transit system that timely and effectively connects all points of the city. This absence leads to people spending more time in overcrowded systems leading to inefficiency and losses to the economy.

The administration has also failed to check the growth of slums that have occupied potential commercial spaces in the cities. Cheap housing and almost no restriction on starting an industry is what attract many to these areas. It is surprising to see how space is efficiently utilized to run several hundred production houses in a space smaller than an MNC’s parking lot! They also provide low cost labor that is vital to maintain the economic competitiveness of the city.

Today, no Indian city appears in the top 100 cities of the world. New Delhi scores a 143rd position while Mumbai is at the 146th position. Though late, India can benefit from the advancement in technology and implement ingenious solutions to the challenges that cloud the growth of its cities today. Around 1, 20, 000 crores are required to upgrade road infrastructure that includes new


flyovers, highways, freight corridors, terminals, etc. just to keep up with the current statistics of growing vehicular traffic.

It is imperative to understand that haphazard building of freeways and widening existing community roads will be beneficial for only the short term, since without planned infrastructure people would make trips that could otherwise have been avoided. With an inefficient public transport, the need for personal vehicles will grow even further. There is a need to reduce unproductive mobility. This can only happen when cities grow in a planned fashion.

For centuries humans have walked and our bodies are used to this form of natural mobility. The sudden spurt of mechanized mobility has caught it completely off guard resulting in innumerable health drawbacks. If schools, groceries, hospitals, parks, community centers and other essentials are located at a walking distance of maximum ten minutes, apart from its health benefits, it also greatly reduces unnecessary usage of personal vehicles thereby saving costly subsidized fuel and sparing the taxpayer’s money for a better purpose.

In the context of Indian cities, it may not be possible for the administration to take very radical steps to shift the current patterns of urban transportation but with simple and imaginative solutions, these issues can be re-visited more effectively. For example, by creating walkways between large city blocks we can interconnect them with every other block like a grid pattern. So, instead of going around a large block, one can walk or cycle through it reducing the usage of vehicles for short distances.

Creation of a network of free cycling options that allows anyone to pick up a cycle after paying a refundable deposit and drop off the same at any cycle stand dotting the city will have multiple benefits, which include boosting tourism too.

Prohibitive parking rates can then be implemented in the next phase for congested areas to divert parking to relatively less congested or planned parking spaces without shutting the main street completely for vehicular traffic.

Ground water availability in the urban areas has shrunk considerably in the past few years. This is largely due to vanishing greenery paving way for a concrete jungle. When it rains, water cannot pass through the cement and asphalt surface. So, it has to be drained using a sewage network. But replacing old sewage pipelines can be both expensive and cumbersome in a busy area.

There is a need to use permeable surfaces for roads and pavements that allow water to seep through, relieving pressure off the existing sewage lines or on the line of Curitiba city in Brazil, create a green corridor consisting of parks and water bodies in the city. This circle of greenway would naturally recharge ground water and encourage natural habitat in the neighborhood. Moreover, it provides a soothing experience as well as keeps the general temperature of the area down. As a consequence power consumption for air conditioning the offices and shopping centers will decrease in the region.

Runoff water from the roofs of buildings can be collected and channeled back to locally meet the demands of the community. Recycling water using biological solutions will save administration the huge sums it currently employs in managing it. This will also free up pressure from the reservoirs.

For centuries civilizations have been established around a source of water. It may either have been a lake, pond or river. Many Indian cities have such water bodies existing in their jurisdiction or passing through them. Unlike Bangkok, which developed an extensive network of water transportation, rivers in India have largely been reduced to filth-choked dribble – open sewage channels through which thousands of cubic liters of waste water flow into the rivers everyday. But what if such channels could be used for transport?
If the waters from major feeder pipelines could be cleaned before entering the main channel, we would have waters that are clean enough to be used for water transportation. It can be an alternate mode of transport for people residing in areas which have low or no connectivity to public transit system but have a channel flowing nearby. Water transport costs 1/6th of ground-based transportation and so benefits the poor and also keeps our water bodies clean.

Since these channels drain into a river, we will have a seamless connection giving scope for even intercity travel and trade. With an active transportation link in the backyard to other commercial points of the city, valuation of properties around the banks of these channels, which are today considered worthless, will improve considerably. A win-win situation for all!

We must understand that land is a finite resource which has to be shared equally. Therefore, we must adopt sustainable development that includes creating spaces for people and not cars. Allowing random growth of cities and townships has resulted in chaotic network of roads.

When large settlements are allowed to be built in an unsystematic manner around a carriageway it results in community roads that end abruptly or randomly curve seeming unsure of where they intend to proceed. This pattern reduces the number of alternative routes available for motorists which would otherwise be available in a grid-like pattern. As a result there is heavy dependence on a single road which if laid in arbitrary order can further hamper speed severely decreasing its traffic carrying capacity. It is interesting to note that the average speed of a vehicle in a city today is around 8 km/hr.

The success of any city depends largely on seamless travel for its citizen from one point to another as efficiently as possible.

Today we need to build cities that are smarter, that conserve energy, are pleasant to live in and easy to operate. The success of any city depends largely on seamless travel for its citizen from one point to another as efficiently as possible.

Unplanned development leads to chaotic traffic

This form of chaotic growth severely reduces the number of alternative routes possible for a road user resulting in heavy dependence on main carriageways.
as possible. It is wise to implement mass transit solutions like BRTS, trams or metro rail in cities with high densities of people. However, it is more important to integrate them. Today most of these systems function independently in our cities resulting in long hours of travel time which ultimately leads people to opt for the relatively convenient personal vehicles.

These systems have to be integrated keeping in mind the ground reality of the user. For example, a commuter wanting to travel from point A to B requires him to take a metro whose station is located a few blocks away; he should know when the next train would be and also the connecting mode of transport to reach there. If buses/trams are scheduled to seamlessly integrate with that of metro and through a single settlement system which allows the consumer to pay for multiple services, the user would spend less time in buying tickets or waiting and travel faster to his/her destination.

Frequencies could be altered depending on the density of the commuters thereby making the system more efficient. Planned infrastructure allowing availability of taxis, cycles, and automatic personalized vehicles to cover the last mile to reach ones’ destination will drastically reduce the need for people to own vehicles.

We need to focus on Transit Oriented Development (TOD) and build compact, dense and vertical urban centers that will push for efficient mass transit systems and encourage cycling and walking. The cost of not doing anything can be enormous. Allowing the cities to grow in an unplanned manner will result in severe environmental degradation. This also has an incalculable economic cost. Building massive freeways can only be a short term solution to serve the needs of residents residing in settlements built by developers far away from the city that cater only to their private vested interests. Communities must be designed keeping in mind the larger interests of the society.

Cities are not just concrete blocks. They are about people living in an interactive environment. Streets are places of primary social interaction between people. It’s where the society builds trust. They have to be lively with activity and greenery. Design should be simple and elegant.

Today we need to build cities that are smarter, that conserve energy, are pleasant to live in and easy to operate. The cities should be about sustainability and not adaptability. Its citizens should go on to live their lives the way they want to and not have to strain themselves adapting to it.

If we want to make lives happier for people, let’s make our cities better.

An organized settlement will have several alternative routes allowing motorists to avoid using the main carriageway.

Mr Ankit Sharma is an aspiring Urban Planner. Address: Plot no 8, Sanjeeviah Co-Op Housing Society, Vahini Nagar, Road No. 3, Sikh Road, Secunderabad-500009; Email: avs.ankitsharma@gmail.com