

**Research Paper on**

# **A Study on Floor Scale Index in Chennai**

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*"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."*

- Aldo Leopold

## INTRODUCTION

Cities grow at an alarming rate, trying to accommodate the teeming millions within its urban embrace as the same millions clamor at its gates for salvation from the twin evils of impoverishment and unemployment. But, land has seized to be a flexible commodity. The author, Gladys Taber once said, '*My own recipe for world peace is a little bit of land for everyone*'. However, with population increasing by the minute, land has become a scarce commodity, often owned only in the painted landscape of dreams.

This land scarcity becomes a much-bemoaned urban nightmare because of housing issues. The cities, with their constricted spaces and constructions find it difficult to provide proper, affordable and sturdy dwellings to all those who migrate to them. The lack of proper housing, in turn causes the urban poor to set up ramshackle lodgings and mud huts over conveniently empty spots, whose girths quietly widen and become their domains, known commonly as slums and ghettos. Here, poverty runs rampant, hand-in-hand with other urban problems. The end result would be sprawling areas of urban land, often in the heart of the city teeming with the urban poor, upon whom the urban elite looks down with distaste. In the shadows of the same, poor urban governance and lack of planning bow in shame while elements of real estate mafia quietly spread their hood.

FSI or more commonly understood as Floor-Scale-Index (or FAR or Floor Area Ratio) were foreign terms, present only in the languages of the architects and building

constructors. But, now we see urban governance tout them as answers to deliverance from poor urban planning and the constant population migration from rural areas. Floor Scale Ratio is the ratio between the extent of land to the plinth area or the boundary walls. It becomes significant because it is this that deigns the amount of land a building or any construction may possess at any given point of time. It demarcates the boundaries and in well-planned cities, limits the constructional sprawl so that there may be enough room for public recreation spaces and public access ways.

A hike in FSI is often seen as liberating ground space, for it operates to create ‘cities in the sky’ – tall skyscrapers capable of housing a 1000 households and perhaps an entire working economy within its chrome windows. They are peddled as the future of urban housing and the solution to all housing related problems, not to mention the population influx. But, in the heady relief that accompanies such a discovery, urban planners often forget key factors that influence them.

It would not be my prerogative to declare FSI and its future possibilities as being either of a positive or negative nature. Infact, it would be downright unwise to do. A hike in FSI might prove beneficial in certain sectors, while others may not prosper from it. A true answer may come only from a tried and tested formula. I seek only to present certain possibilities, *nay*, hypothetical scenarios that may result from a hike in FSI.

If indeed by 2050, as studies indicate, India is going to be the most populated country in the world, then most of her population is going to be residing in cities, which would, incidentally, have to be mega-cities by then. The Question most people are confronted with then would be – ‘Why not have an increase in FSI from now on, to face those future housing-related problems?’ After all, prevention is better than cure.

The common man rationalizes that if hiking FSI in cities is problematic, purely because its consequences would be beyond the capacity of the current infrastructure, all that need be done, would be to hike it in those areas where future planning can be incorporated i.e. half-planned or totally unplanned areas. They figure in letting FSI be the encouraging factor for investors to invest in such areas and thus deviate the urbanization

process to them, accomplishing the dual goals of 1) preventing an increased drain on already prevalent urban resources and 2) optimum utilization of empty urban plots. However, the downside to the same would be that the government will have to be prodded to provide the necessary infrastructure to these areas, because when you come down to it, who wants to migrate or invest in areas, albeit a higher FSI, if there is a shortage of basic necessities like water, sewage treatment plants, electricity etc?

Most of the arguments against hiking FSI stem from the lack of public infrastructure, but a good amount of it also comes from the fact that there are social, economical and ecological problems. The goal of high-rise buildings is to integrate cost efficient housing and a healthy dose of imagination thereby transforming the building from being a concrete box into a living, breathing and self-sustaining entity in itself. Most planners, when asked about the possibilities of a FSI hike, point out the disastrous effects it created in Mumbai. There, the slum rehabilitation procedures went on to play a real-estate drama where, though the thought and the spirit of city-planners were much appreciated, the eventual outcome was a mockery of the same. The city continued to remain over-run with poor housing and flooded with congestion but in addition, now sported half-build structures looming over the uneven urban terrain, like stone gargoyles overlooking old citadels.

Perhaps, as seen from their perspective, the consequences of a higher FSI are destructive. However, from a common man's perspective, the prospects look good. The following are the possible outcomes a hike in FSI could have on its various variables:

### Planning

FSI can be defined simply as the ratio Total Floor Area/ Plot Area. If higher FSI is made a part of planned development, it could facilitate better housing and commercial facilities. Integration of commercial and residential zones (Mixed zones) may also encourage better public transportation facilities. Lack of planning could be disastrous since the consequences of an unplanned FSI could give grief to the existing urban infrastructure

## Population

As population increases and more and more people migrate to cities (this being an inevitable process), the need for housing in urban areas become more urgent. Thus, the value of land hikes in order to meet this need.

## Poverty

When the poor do not get adequately housed, they take to the streets and street dwelling. Slums become commonplace, inspite of the flourishing city life around it. Such illegal areas, unrestrained by land and FSI regulations can have any amount of FSI to meet the needs of the people.

## Migration

FSI can help increase housing, but an increase in FSI having caused a simultaneous increase in urban housing can also contribute to urbanization, by increasing migration from rural areas.

## Transfer of Development Rights or (TDR's)

If the right to develop a property were separated from the bulk of property rights, being able to sell build-up-area separately would resolve issues of conservation of historical property and many zoning problems. In a country like India where property rights don't exist, a possibility to trade, at least in cases of government acquisition of private property, (in the name of public interest of course) paying back such private owners, who have been deprived of their property, with the FSI instead of cash, would definitely be more profitable with a view to both in terms of investing in future infrastructure and a boost to organized planning. FSI having become a marketable commodity would be capable of being bought and sold like shares. The market can regulate the value of FSI and how

much it should cost. FSI can be sold as a whole or as piece meal. This can be extremely beneficial in 3 cases: (a) where land has low developmental potential, (b) it's a heritage site or natural conservatory and (c) the land has been so marked either by virtue of urban master plans or the government wishes to acquire and use it for public good.

## Land

If there is inadequate supply of land for housing needs and if FSI regulations and land laws 'lock' urban lands, then an artificial real estate boom is created. Since the land cannot meet the people's needs, the value of land, being a scarce commodity, skyrockets. Available land will end up being classified as developable land and un-developable land (Purely from a commercial perspective.) Such un-developable land could have value from a cultural, social or other perspective, e.g.: heritage land. It could come within different zones as per expected planning – commercial, residential, mixed-use, institutional, industrial etc. It would open up infinite possibilities for the market and bring about a radical concept of trade in FSI's. The owners of the developable land would buy FSI from the owners of un-developable ones and build up on their property using said FSI thus facilitating structured development. And, if there is less developable land, then land remains in constant demand.

Those who trade in for the greater FSI can be compelled to pay for the public infrastructure needed by them to support the same. For every 100% of FSI bought by a developer, a percentage of it could be put to compulsory utilization (say, through Private-Public partnerships) for building low cost, quality housing for the poor and the low-income groups. The urban poor should also be given the property titles to the same, thus preventing illegal settlements and slums. This can be encouraged in areas capable of further development, thus ensuring self-sustainability. Further, if this is incorporated within proper planning, it leaves enough land for open spaces, recreational activities etc. And, since development takes place vertically, accommodating an (supposed and unprecedented) increasing population would be easier.

## Land Use

The purpose for which a particular land is sought to be put to use would affect FSI to a great deal, since commercial districts or zones, which seek to erect multi-storeyed buildings to meet retail space, would obviously have a larger FSI than residential zones. If a bus depot could occupy the vacant area below the flyover, that would amount to a multi-intensive use of land (MILU). A playground above an underground complex would meet both recreational needs of residents as well as the commercial demands of the economy. If retail space is a commodity, underground-shopping areas near bus and train stops could achieve high real estate value and contribute towards multi-intensive use of land. Multi-intensive-land-use could be the answer to efficient utilization of urban land and striking a balance between real estate needs and needs of the common man.

## Transportation

Flyovers, public transport system (buses and train terminals) better roads etc form a part of transportation facilities. Planned development needs to take into account a simultaneous increase in road transport, which mandates wider roads and pedestrian areas for private and public transport. Increasing FSI in planned localities allows more road width and thereby better commutation. Residential areas will thus have more open spaces, preventing unnecessary hazards on the road in the form of children playing. Flyovers prevent traffic congestion by allowing traffic to proceed both above and below, unhindered

## Income

If the land can be put to different uses at the same time (read, MILU), income can become much more than a variable, it can become a deciding factor. Hypothetically speaking, a person, who owns a property of historical value and thus unable to develop it, could sell the development rights to that property to more than one person, if need be and

yet continue to earn from the land itself, by virtue of its historical value. Thus, economically, his needs are met and conservationists are happy too.

### Inflation and Rent Control

Inflation in land prices could be curtailed by the fact that developers who wish to further build-up on their land have to buy the FSI (at market price and not government subsidized rates) from those with land incapable of development, pay higher government taxes and provide low cost housing. Since, only those people who can afford to stay in such high-rise buildings are going to inhabit them, payment of rent is not going to be an issue. The upper floors with a view of the city/ more rooms/penthouses can be allotted to high income groups, while the middle class can be accommodated in the lower floors (within normal FSI) and pay rent accordingly. Thus, the rent being regulated by the market, there would be no need for archaic and obsolete rent control laws.

### Investments

If FSI is tradable in the market like shares, then selling it to the highest bidder could have a TDR owner engaging in a profitable transaction. If it were possible to demand housing in return for granting FSI, then it is possible to solve housing issues. Land titles have to effectively belong to the inhabitants. Tenant-ship causes FSI to go to a waste. It also reduces the tradability of land, having it locked in either rent control laws or some other form of legislations or court cases. It depreciates the values of buildings. If old depreciated buildings, at the point of decapitation have tenants who need relocation but if existing FSI norms prevent the same, then the building can be built up to the existing FSI norms and the remaining FSI sold in exchange of tenancy rights (in the lower floors) for a reasonable period of time. After the tenancy rights have expired, the tenants can be given the choice of either purchasing the dwelling at the market price or moving out.

### People



If such a mode 1, as discussed above, were hypothetically possible, both People and FSI would be the two variables. If it is possible to design how much space is necessary for a family of 4 or 5 when it is time to allocate land through a housing programme, then technically, it should be equally possible with an area 100 times the same size. Impediments that could probably stand in the way might be that allocating space for a residential area is far different from a commercial or industrial purpose, unless the various job requirements can be clearly demarcated along with the necessary placing of resources. A flexible FSI could reassure the organization that, should there ever be a shortage of space, building up could be a solution. But then again, if it is an industrial organization, perhaps some of their equipments may not be capable of such elevation. That could turn out to be a problem whose answer may bring us to a dead end. Perhaps proper planning and a good dose of ingenuity could resolve the same.

## CONCLUSION

A way, in which a higher FSI can be brought about, is through its gradual introduction into urban renewal. It is impractical to conclude that because the current infrastructure is strained, there can be no higher FSI. Without higher FSI in city areas, often, urban sprawling can take place in those far-flung places where there are no basic amenities or where the outreach of the same is impossible. While ideally, it is necessary to have infrastructure first and a higher FSI later, it is not impossible to have both go in tandem. As can be evidenced in most Southern cities, a lack of higher FSI leads to a concentration of construction activities in merely commercial sectors like the hospitality or corporate industries and also causes loss to developers because of the ever-increasing land prices. But all this is possible on the assumption that market remains constant and there are no great fluctuations in land value. Though constant re-assessments in land price and FSI values will have to be conducted in order to keep up such as mechanism, it is my personal belief that there is a good possibility for such a model to effectively function.

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