Prelim Bits 17-09-2019

Floor Space Index (F.S.I)

- The Maharashtra Government has unveiled a slew of measures to boost the flagging realty sector in the State.
- It has offered significant cuts in builders' fees for availing Floor Space Index (**FSI**) for their projects.
- 'Floor Space Index', also known as 'Floor Area Ratio' (**FAR**), is the maximum area that can be constructed on a plot of land.
- It is the ratio of total floor area of a building (Built up area) to the total Plot area (land).



- For instance,
  - On a 1,000 square feet of land with the **FSI 1.5**
  - then build up area could be up to 1,500 sq.ft of covered structures on the plot.
  - Apartments can be built comprising 1 or 2 floors or a single dwelling unit on the plot, but not beyond 1,500 sq.ft.
  - The constructed area would include staircases and other basic structures.
- It is regulated by the municipal or local authorities of the respective State government.
- **FSI** norms are usually set based on the National Building Code.
- The fees paid to the government for this construction is known as FSI fees.
- If a developer wants to build over and above the FSI limit, the authorities give permission to do so for an additional fee.
  - This is termed as 'Premium FSI'.
- A developer can utilise the area (above FSI limit) for providing additional amenities such as flower bed, gardens, balcony.
- Higher FSI for an area indicates greater building volume.
- FSI is the most crucial among all the regulations in development planning.
- FSI limit helps regulate vertical building growth and living conditions, while accommodating the burgeoning population.
- Water supply adequacy, sewerage system, solid waste disposal and road

capacity are also taken into consideration in **FSI**.

- This is why FSI varies with each State and each region within a State. FSI varies with the type of building as well.
- Increase in **FSI** - For **Land-owners**,
  - Usually peg up the value of land available for sale.
- Increase in **FSI** - For **home buyers**,
  - This would mean more residents needing to share common amenities such as lifts, pools, clubs, electricity and water.
  - This is particularly in high-density buildings and the maintenance cost in such cases could also go up.
  - But **FSI** increases in the outskirts of a city may lead to lower property prices.
  - The builders may lower the price to stimulate demand for homes in these areas.

Bengal Famine

- The greatest tragedy that befell the country in the 20th century under British watch, the Bengal famine, the worst through 1943.
- The famine took half as many lives as the Holocaust did.
- Official records from that period available in the India Office Records section of the British Library establish that the famine was not the outcome of a lack of foodgrain.
- Rather, political machinations, greed, hoarding and bureaucratic bungling on a massive scale.
- A careful reading of official papers establishes that,
  - at all levels of British-Indian administration the effort was more to create records and “keep the files healthy”,
  - to save ‘official’ skin at some future enquiry, rather than to get to grips with the problem through resolute action.
- The war effort could resulted in famine, but it opted to continue exporting rice from India to elsewhere in the empire.
- Rice stocks continued to leave India even as London was denying urgent requests from India.
- It is good copy to hold the Winston Churchill solely responsible for the famine ignoring the fact that enough food was available within India to have prevented its occurrence.

Dangers of artificial ripening of Fruits and Vegetables

- Fruits are a good source of vitamins and minerals and play an important role

in preventing Vitamin C and A deficiencies.

- **WHO** recommends 5 servings of fruits and vegetables every day for a healthy living.
- However, the health benefits of fruits depend on how they are ripened.
- The best course will be to allow them to ripen on the plant itself.
- The fruits become soft, change in colour and develop aroma with an increase in sugar level and reduction in acid content.
- Many factors influence the process of ripening including temperature and relative humidity.
- It is not always possible to wait for the fruit to ripen naturally.
- More often than not, they need to be transported over long distances.
- If they had been harvested in a ripe stage, they get spoilt before reaching their destination.
- For such situations, farmers harvest them much before they get ripe.
- The traders then ripen them artificially at the destination using certain chemicals.
- Most fruits produce a gaseous compound called **'ethylene'** that starts the ripening process.
- Its level in under-ripe fruit is very low, but as the fruits develop, they produce larger amounts of the chemical that speeds up the ripening process.
- These enzymes convert complex polysaccharides into simple sugars and make the skin of the fruits soft.
- In artificial ripening, this process is mimicked using chemicals.
- The most commonly used chemical is called **'ethephon'** (2-chloroethyl phosphonic acid).
- It penetrates into the fruit and decomposes ethylene.
- Another chemical that is regularly used is '**Calcium carbide'**, which produces 'acetylene', which is an analogue of 'ethylene'.
- It is, however, fraught with several problems.
- Studies have shown that it breaks down the organic composition of vitamins and other micronutrients.
- Besides, it changes only the skin colour, the fruit remains raw inside.
- Industrial grade calcium carbide is often found contaminated with traces of arsenic and phosphorus which are toxic chemicals.
- The symptoms of arsenic and phosphorous poisoning include,

1. Vomiting, diarrhoea with/without blood, weakness, burning sensation in the chest and abdomen, eye damage, ulcers.

- According to studies, Calcium carbide can also affect the neurological system.
- **FSSAI** has banned calcium carbide under the "Prevention of Food

Adulteration (**PFA**) Act, 1954".

- To distinguish the artificially ripened fruit,

1. They will have uniform skin colour in fruits like tomato, mango, papaya, and in the case of banana,
2. The fruit will be yellow while the stem will be dark green.
3. If the fruits are available before season, it could mean they are artificially ripened.

- Washing and peeling the fruits before eating can minimise the risks of calcium carbide.

Banni Grasslands

- The 'Banni Grasslands' in Kutch, Gujarat, span over 2,600 square kilometres.
- These grasslands are home to a pastoral community called the **Maldhari**.
- In the 1960s, the government wanted to protect this region from salinity ingress from the Rann of Kutch.
- So it dropped millions of seeds of an exotic species called **Prosopis Juliflora** from helicopters.
- Since then, 'Prosopis Juliflora' has overtaken the native grasses in the area.
- The locals call this tree 'Ganda (Crazy) Babool' because it does not let anything else grow.
- The problem of salinity has also multiplied several times, and the Maldharis are faced with a perpetual fodder crisis.
- Often called Asia's finest natural grassland, it now resembles a shrubby forest.
- The area under the 'Prosopis Juliflora' was only 6% till 1997 but it increased to 54% in 2015.
- Generally, this area gets about 400 millimetres of rainfall.
- But for the last 2 years, there has been hardly any rain, and the region is facing a drought-like situation.
- Because this tree sucks up all the water from the soil, it is also leading to land degradation and desertification.
- Gujarat has lost more than 50% of its area to desertification.
- To restore the Banni grassland, a non-profit, '**Sahajeevan'** is working along with the local communities.

Source: PIB, The Indian Express



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