

ECOLOGIC

Building rules must include green norms

A structure compliant with the current development rules may still adversely impact the earth and its resources



PAVITRA SRIPRAKASH
@pavisriprakash

The inclusion of renewable materials or alternates for wood in construction will save the environment. When we are obsessed for such mandates, sustainable buildings will become the order

Nagpur city council ruled that henceforth government buildings (new or renovated) will follow green building concepts. The state of Maharashtra has framed a renewable energy policy favouring the use of solar water heaters. Tamil Nadu recently ordered that one third of terraces be reserved for generating solar power and introduced 'net metering'. But how much more does 'green' need to get mandated to become transformational?

As an architect practising holistic sustainability, the moves are bitter sweet. Cities and governments are finally seeing the advantages of becoming green, and adopting new initiatives like the latest in Nagpur to address the sustainability tenets of the rating agency LEED. However a lot more needs to be done to consider holistically sustainable norms and get them included in the DCRs (development control rules). Planning sanctions for buildings up to 15



Present regulations are silent on the type of materials or technologies used to construct buildings

metres high by city development authorities and corporations generally consider land use, setbacks, height, FSI / FAR, etc. Buildings that are taller require clearances from traffic police, water supply and sewage board, fire department, electricity board and air-

port authority among others. These statutory authorities are concerned with the availability of infrastructure for the residents of the building.

Present regulations do not address the extent to which materials or technologies are used to

construct buildings. They are also silent about the use of equipment and fittings that promote sustainable use of resources during the life of the building. If a building is allowed to be built today that will negatively impact the earth and her resources, then what pur-

pose does it serve even if it is compliant with the current development rules? The mandatory EIA (Environmental Impact Assessment) is only applicable when the building size exceeds 2,000 sq metre. The Ministry of Environment and Pollution Control Boards of various states certify such projects. But many city projects that are below the cut offsize will never need to be compliant under their standards.

Arguably every building should address how excavation technologies for foundation and site grading will impact the site. Besides articulating their plans for earth and construction waste disposal, they should highlight their post construction impact on creation of recreational open spaces, avoidance of heat islands and improvement of ground water through harvesting rainwater. Water efficient fittings and landscaping using native plants that encourage water conservation should be preferred. So also the adoption of passive architecture to enhance

energy efficiency for lighting and cooling/heating. Incorporating renewable and green energy mechanisms, proper equipment commissioning procedures and metering of water and energy will augment efficiency. Instrumentation that monitors air quality for volatile organic compounds, CO2, SO2, NO2 and particulates will improve awareness resulting in healthier residents.

Provisions for waste and garbage segregation, removal and transport / compost will encourage hygiene and reduce stress on landfills. And inclusion of recycled, reused, renewable materials or alternates for wood in construction will save the environment. What is good seems evident and when society begins to be obsessed for such mandates from their elected bodies, holistically sustainable buildings will become the order.

(The writer is an architect, urban designer, dancer and chief designer at Shilpa Architects)