Sustainable Planning, improve India improve

Kandarp Bhatt

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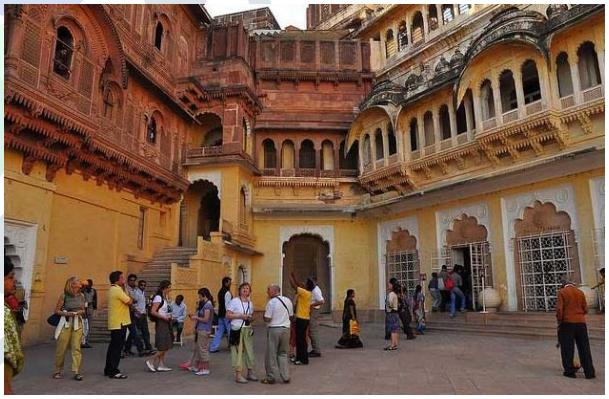
Though India is on its way and its journey for achieving sustainability, it needs to do much further for keeping its promise of sustainability. It can keep the promise as following. Architect needs to be responsible in dealing with built environment and open spaces. Sustainable built environment is largely one which is using maximum green materials,green building construction and green building technology. Open spaces need to have due green cover they need to be socially sustainable. Infrastructure, a complex phenomena if not sustainable, will lead to serious consequences in future.Same is about community facilities which would include campuses/buildings. Relationship of building/s, neighbourhood and city is important for sustainable planning. Lucid, smooth relationship of all 3 leads to sustainability. India must reach rapidly onto minimising energy consumption and exploring renewable energy in sustainable planning. Earth summit, 1992, Rio is an excellent event to be followed for understanding what is sustainable planning. Good governance remains vital to sustainable planning. Promise thus given by India to itself of developing sustainable planning by 2030 needs to be kept to. As far as sustainable planning is concerned, one can say, improve India improve.

Key words: Sustainability, Green, Building, Energy, Planning

Sustainable Planning, improve India improve

India is on its way and its journey for achieving sustainability. It has given promises to itself for achieving sustainability by 2030 through document called INDC i.e. Intended Nationally Determined Contributions. Let's examine what India needs to do further if it has to keep this promise of sustainability. Let's examine step by step and categorically how to execute this promise of sustainable planning.

(A) Built Environment and open spaces: Architect plays vital role in achieving sustainability. He will have to be responsible in designing buildings. Buildings with larger built up areas require special attention. They consume ample energy during construction as well as post-construction. Therefore architects need to be responsible in seeing to it that buildings they design are sustainable. Large scale buildings require special attention with regards to sustainability. Context comes here of client as well who are associated with putting up of larger buildings. They need to see to it that they entrust architects with designing buildings, built environment which are sustainable. Sustainable built environment is largely one which is using maximum green materials, maximum green building construction and green building technology. Sustainable built environment is one which is generating minimum construction waste. One needs to examine India has reached from where to where. Example here goes like this. Traditional, earthen construction of hot dry climates like Jaisalmer have demonstrated what sustainable construction/built environment needs to be. Construction is rising from earth to its minimalist. Earth/stone/lime/wood from vicinity remained primary construction materials. Construction waste did not emerge or if at all it emerged, it was reusable, recyclable or it would once again merge within earth. Construction industry in India has demonstrated picture opposite to this traditional wisdom of India. As per some estimate construction industry in India is produces very high construction waste.

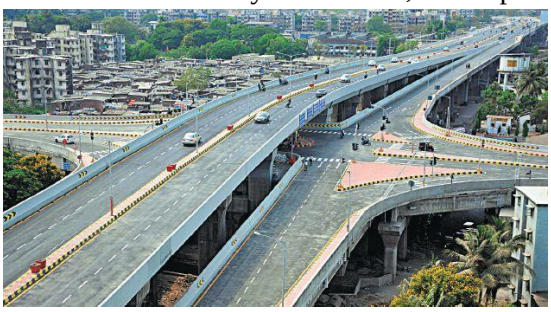


Sustainable built environment, sustainable built space *Source: Bestourism.com*

Similar is case for open spaces. Open spaces are vital parts of our settlements, be they village, be they town or be they city. Open spaces play vital role in sustainability. How can they be sustainable. They need to have due green cover i.e. vegetation especially trees. What else? They need to be socially sustainable. What's that? They need to be accessible by all. What's that? There shall be no bar for access to public open spaces for anyone, namely differently abled, woman, children, senior citizens. All shall have free and equal access, free and equal usage.

(B) Infrastructure Development, especially transport: Infrastructure in history remained primarily limited to carts/roads/bridges though Indus valley civilization demonstrated of

drainage also. Industrial revolution added more facets of infrastructure like motorable vehicles, roads/bridges, railways, airports, electricity etc. Infrastructure today is vast, complex.



Rising Complexity of infrastructure
Source: CSRNOBLE

It contains varied facets like varied road transportation e.g. city buses, metro trains, roads/bridges, railways, airports, electricity, telecommunication, electronic communication like wi-fi, water supply, drainage, gas supply etc. Thus infrastructure today has emerged into complex phenomena. If this complexity is not sustainable it will lead to serious consequences in future. That is about physical infrastructure. Let us also review on social infrastructure. Social infrastructure includes educational institutes like schools and colleges. Healthcare facilities like hospitals, Public spaces such as gardens, Community facilities like city centres, crematorium, sports centres, libraries, Transportation facilities like busstops, Justice facilities like prisons, courts, Governance facilities like local authority buildings. Transportation is vital part of planning. Water supply, drainage, telecommunication etc. are equally important elements of planning, especially infrastructure. But transportation stands out most and draws vast attention of masses, designers and policy makers being over a ground and being obviously mobile. This is the reason transportation is most discussed element in public forum compared to other infrastructure.

(C) Community facilities: They would include campuses/buildings spaces like auditoria/theatres, museums, art galleries, civic centres, libraries, sports facilities like stadia/sports halls,swimming pools etc. There are obviously many similar/overlapping names and list can be big.

RisEnhancement of public spaces: Abu Dhabi
Source: Construction week online

These facilities need to have wider acceabiliy, freedom for all e.g. children, women, differently abled etc.

(D) Relationship between building/s, neighbourhood and city: Inter relation of these three is important for sustainable planning. Lucid, smooth relationship of all 3 leads to sustainability. How does one plan for sustainability at these three; let us examine. How should interrelationship between building/s and neighbourhood be/prevail. Building primarily should be sustainable. Primarily, its architectural design should reveal of varied sustainability features. It should speak of homoginity with immediate surroundings. Its construction materials and construction technology shall stress on sustainability. It shall be green building. It should be in context to surrounding and must carry respect to surrounding when it is a heritage building. This is where comes context of smooth, lucid shift from building/s to neighbourhood and similarly from neighbourhood to city.

(E) Energy and sustainable planning: This is an important issue as we Indians are surprisingly marching towards vast and indescriminate consumption of energy. India must reach rapidly onto minimising energy consumption and exploring renewable energy in sustainable planning.

Roof tops with solar panels in Dubai
Source: new.abb.com

Putting up several solar energy and wind energy generation sources needs to be integrated in

planning. Cities consume indiscriminately energy from sources which are not renewable.

(F) Earth summit, 1992, Rio is an excellent event to be followed for understanding what is sustainable planning. Sustainable planning in simplified words can be inferred from it as socially, environmentally and economically balanced planning.

(G) Issues related to governance: Policy issues remain vital to sustainable planning. Many agendas, unless taken up as policy issue, no more remains meaningful. Unless garbage disposal at city level went into policy issue, it was never attended. Indore in Madhya Pradesh took garbage disposal under policy formulation and implementation. It has demonstrated well about sustainable planning through policy formulation and implementation and it has stood out at national level. It has demonstrated about sustainable planning of city through making garbage disposal as agenda at city level. Roles and responsibilities of local/country authorities and communities. Role of local/country authorities go primarily of providing good governance. Governance is good as long as respective authority thinks of sustainability in planning. Similar to text at last point, governance shall be triple fold i.e. socially environmentally and economically sustainable. Responsibility of community equally is important. Zebra stripes may be painted by local authorities responsibility goes of people to use it, honour it also. Enforcement of local legislation/ bye laws: Planning is sustainable planning, once all honours local legislation/ bye laws. People i.e. clients not violate bye laws, architect shall design building/s in conjunction with bye laws and authorities shall approve projects/drawings in conjunction with bye laws.

Promise thus given by India to itself of developing sustainable planning by 2030 needs to be kept to. It will keep India to outstanding position in world map when world is talking on issues like global warming and role of different countries therein. India has lot to add, lot to improve yet. As far as sustainable planning is concerned, one can say, improve India improve.

Conclusions

Sustainable planning is key to keeping promise to be kept by 2030 given by India to itself through INDC. Built Environment and open spaces will have to be made sustainable wherein architects and town planners can play effective role. Lessons traditional India has taught will have to be integrated for example minimizing construction waste. Infrastructure especially transportation will have to sustainable. Public open spaces i.e. community spaces, community infrastructure will have to be socially sustainable. Relationship between buildings, neighbourhood and cities reveals of sustainability and will have to be addressed. Energy efficiency will have to be rapidly explored and renewable energy sources like solar energy and wind energy will have to be taken on priority for achieving sustainability. In fact Earth Summit, 1992, Rio has set good standards for sustainability. Good governance is demand of the day and it will have to be thoroughly enhanced to achieve sustainability. For coining India as country with sustainable planning by 2030, one can say, improve India improve.

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About the Author

Kandarp Bhatt is an architect and a town planner, based at Vadodara/Ahmedabad in Gujarat. He carrys experience of more than 30 years of combination of profession and teaching in this field. He is presently principal at school of architecture, ITM Universe, Vadodara, Gujarat.

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