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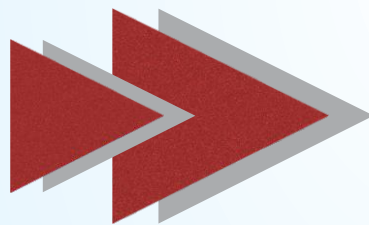
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# Essay Test - 6

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Previous Marks :- 124

(135)

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Essay Topic : .....

Smart cities in India: Myth or Reality

India is at demographic cross-roads. The traditionally rural country is fast urbanizing. Today, urban area constitutes 2% of land area, 31% of population and 66% to India's GDP. These cities have emerged as engines of growth.

However, cities in India are facing plethora of problems. Problems such as pollution, congestion, poor infrastructure and complex social life are prevalent. These problems hamper the quality of life of city dwellers.

In this context, government of India came up with smart cities mission. It aims to build 100 smart cities in India based on project based approach. These projects would demonstrate effectiveness of PPP model and replicate the best practices.

Thus, it is necessary to understand the cities in India, are smart cities myth or reality? challenges and opportunities in this quest.

Impact

cities have always been a part of India's civilization. The flourishing cities of Indus valley civilization like Harappa, Mohenjodaro and Lothal exemplifies it. These cities were characterized by smart grid based designs, effective sewerage and many public spaces such as Great Bath.

It continued in later times as well. There were many important cities in Mauryan empire. Pataliputra, Pratishtan, Ujjain and Taxila became the centre of social and economic activities. These cities were important for trade, education and cultural life.

Medieval period saw the emergence of beautiful cities under mighty moghals. Delhi, Agra, Fatehpur sikri and Dawatabad housed the centres of power. In south, Vijaynagar, Hampi, Madurai and Tanjore flourished.

However, the most significant development in this field ~~to~~ happen during colonial rule. Many cities such as Bombay,

Calcutta, Madras, Pondicherry and Panji were built. These cities became blending pots for various cultures. Our historic national movement started from these cities. Urban way of life based on modern education, occupations and diverse society, flourished.

However, post Independent India saw the focus being shifted towards villages. Successive five year plans neglected the needs of urban areas. But, urban area housed sources of livelihood. Thus, large scale migration continued. The result was congestion, development of slums, lack of quality infrastructure and overall poor quality of life.

Smart cities A myth

### Challenges to develop smart cities

The first and foremost challenge is of lack of infrastructure. The most pressing issue is housing. Lack of affordable housing, force poors to live in slums and substandard houses. The financial capital of India - Mumbai is marked with 55% population living in slums. Lack of housing affects not

only their economic wellbeing but also prevent them from living a dignified life.

In Infrastructure, transportation is second big issue. Lack of effective public transportation hampers efficient mobility of people. It have negative impact on economic activity in the cities. Also, resultant high ownership of private vehicles results into congestion on already constrained roads.

Solidwaste management is also a big challenge. Our cities are producing tonnes of garbage everyday. Estimates suggest that only  $\frac{2}{3}$ rd of it is collected and half of it is processed. Recent example of collapse of mount of garbage in Delhi exemplifies it. Lack of effective solid waste management results in spread of diseases, stray dogs and pollution of air and water. Apart from that, it makes our cities look poor aesthetically.

Apart from that, dearth of soft infrastructure such as quality public hospitals, schools, and other support systems. Public hospitals and schools are often crowded and illequipped. And the private ones are simply unaffordable for poor section. It hampers their capabilities.

Apart from infrastructure, pollution is a huge challenge. According to WHO reports, 99% of Indian population is living in highly polluted air. We are familiar with dismal performance of our cities in various pollution related rankings. Apart from air pollution, water pollution, noise pollution and light pollution make our cities less livable.

Our cities are also characterized by lack of public spaces for recreation, sports and fitness. It prevents city dwellers from enjoying a vibrant outdoor life. All over the world, best cities are marked with recreational facilities, be it theme park of London or Disneyland of Singapore.

Smart cities can not be built without smart governance. Urban areas in India lack effective governance. Overlapping jurisdictions of various authorities such as Mayor, Municipal Commissioner and Chairman of Standing Committee hampers political accountability. Apart from that lack of public participation, poor tax collection and ineffective delivery of services affects quality of governance.

Another major problem is related to disaster resilience of cities. Every year cities like Chennai and Mumbai experience flash floods. Apart from that frequent fire incidences, collapse of buildings and acute shortage of water during drought are evident. Recent case of Shimla residents rejecting tourists during summer is a reminder of poor disaster preparedness of our cities.



climate change is bringing havoc world over. Indian cities are not immune from it. Resultant extreme weather events, stressed migration to cities and changing sea levels pose a danger for our cities. Cities like Mumbai, Chennai, Vishakhapatnam and Mangalore ~~are~~ can face the challenge of rising sea levels.

Last but not the least, our cities are far from being inclusive. They are not suitable for weaker sections such as children, disabled and old age people. Lack of safety for women prevents her participation in public life. No wonder female labour force participation for urban areas is mere 17%. Apart from that increasing ghettoization, reducing social harmony hampers inclusivity of our cities.

However, there is a flip side to it as well. In last 2 decades few cities have made exceptional progress. Cities like Chandigarh, New Mumbai, Pune are becoming extremely livable. Solid waste management have improved considerably after launch of swach

Bharat Mission. Swachh Sarvekshan has created a strong awareness about cleanliness.

Apart from that, Amrut reforms have improved governance of cities. They are becoming fiscally more independent. Municipal bonds exemplifies it. Also, many

states have devolved more powers to urban local bodies under Amrut.

Public transportation is being focused all over India. Many cities have efficient Metro systems, BRTs and now focus is on 'moving people and not vehicles'. However, overall our cities are far from being smart.

### Towards smart cities

The journey towards smart cities have begun. There is need to focus on developing quality infrastructure. In that equal attention needs to be given to hard infrastructure such as housing, transportation, solid waste management and soft infrastructure.

Smart cities demands smart solutions. It is necessary to focus on digital technology. New technologies such as big data analytics, Block-chain, Internet of Things and Artificial Intelligence needs to be harnessed on this front. Recent example of use of big data analytics by Municipalities for collecting taxes is a step in right direction.

It is important to learn from best practices around the world. In the field of renewable energy china is making leaps and bounce. The solar road that it has opened recently which uses solar panels on the road to fuel vehicle, can be replicated. Also, from Israel we can adopt water recycling and from Mexico city we can adopt Green-buildings.

However, smart cities are not possible without smart villages. Hence, adequate attention needs to be given to prevent distressed migration. Securing livelihood of rural population needs to be high on priority of urban development. Rurban Mission is a right move in this direction.

Aggarwal

Thus, it can be observed that cities in India face plethora of challenges. It is necessary to build and maintain people-centric cities in India. These cities need to be transformed into more liveable cities.

In this quest it is necessary to focus on all aspects of urban development. Smart cities are essential to fuel the economic growth of the country. It holds the key for attracting tourists from all over the world. Smart cities can also help to attract quality investment in our economy. More livable cities would prevent brain-drain.

Thus, in our journey towards New India, newly energised cities hold the center stage. The New India which is free from poverty, corruption, Casteism, communalism and terrorism can not be achieved without smart cities.

Essay Topic : .....

## Ecological sustainability v/s Economic Growth

Today, climate change has taken the center stage in economic planning. Climate change caused by very high greenhouse gases emission after industrial revolution is asking serious questions to the world. The debate around ecological sustainability v/s economic growth is prominent all over the world.

The advocates of economic growth calls for more economic activities, greater industrialization and use of resources for improving economic situation. Their argument rest on the fact that industrialization has improved quality of life of people. To tackle climate change they advocate adaptation and climate engineering.

On the other side of the table, sits advocates of economic & ecological sustainability. Their focus is on consuming

less resources, preventing forests and ecologies. They seek to restore balance between human and nature. To deal with climate change in this era, they call for mitigation, climate justice and changing lifestyles.

The dichotomy between ecology and economy however has been questioned from across the globe. This third front advocates sustainable development - development of today without compromising development of tomorrow. Thus, the dichotomy between economy and ecology is transformed into a continuum.

In this essay we would try to analyze the causes of disturbing balance between economy and ecology, need for the balance between the two and challenges on this front.

Ancient Indian scriptures highlights the importance of ecological sustainability. Vedas mentions 'Prithvi Dhrara Dhritam' that means earth if protected, would protect us. Also, Bhagwat gita talks about difference between man and sage. one who uses wood for fuel is a man and one who thinks of forests, their contribution to rainfall, is a sage.

The ancient wisdom of sustainability gave the way for mercantile capitalism in the west. Industrial revolution in 18th and 19th century observed mass production, large scale mechanization and coal fired transportation. The path for growth was resource intensive.

This mindless extraction and burning of natural resources continued. The paradigm was changed by the celebrated work called 'silent spring'. It highlighted the ecological damage caused by obsession with growth. The path was set for stockholm convention, the historic earth summit and dialogue for climate action.

Temporal

## Causes of disturbing balance

The resource intensive path of economic growth saw rapid depletion of resources. Forests all over the world were cleared for mining, plantations, construction of cities, industries and roads. The intense deforestation reduced the capacity of nature to absorb the changes in climate.

The tremendous use of fossil fuels in the form of coal, petroleum products and gas, led to huge GHG emissions. Today, carbon dioxide level in the atmosphere has crossed the mark of 400 PPM. It is resulting in global warming.

Apart from that, population has increased by leaps and bounds in the last century. This the 7.2 billion people on earth are putting enormous pressure on resources such as land, forests, fuels and water.



Inequality in the world is also a major reason on this front. Inequality manifests itself from growing affluence on one hand and poverty on another. The affluent class chose flamboyant lifestyles. The focus on consumption led to wastage of resources. And on the other hand poverty left no option for poor but to go for exploitation of cheap but dirty resources.

Today, global canvas is divided into two camps. One led by developing countries who favours economic growth over sustainability and other led by developed countries which are reluctant to give unilateral concessions to poor countries. But recent shift of USA (which withdrew from Paris deal) towards industrialization would further hamper the balance.

In this context, it is necessary to understand the need for balancing economic growth and ecological sustainability.

Need for balance between ecology and economy

Ecological  
Sustainability  
Ecological  
Challenges  
posed by  
Economic  
Growth to  
Ecological  
Sustainability  
Impacts  
Ecological  
Sustainability

Economic growth

The disturbed balance between ecology and economy is starting to give disastrous consequences. First and foremost being global warming. Global warming ~~exemplify~~ manifests itself from retreating glaciers, melting of polar caps, rising sea level and increased temperature of in the climate.

Global warming is leading to emergence of extreme weather events such as heat waves, increased intensity of droughts and floods, frequent forest fires and landslides. These extreme weather events results in huge loss of lives and property. Thereby, hampering the livelihood. Also, rehabilitation ~~rest~~ demands huge social and economic cost.

Another aspect of disturbed balance is marked by ever-increasing pollution. Pollution includes pollution of marine water, groundwater, rivers, air, soil and plastic pollution. Pollution is resulting in increased cost of healthcare, reduced productivity of labour and reduced longevity. It also results in loss of productivity of soil, thereby hampering agriculture.

Thus, combined effect of pollution and climate change is affecting various sectors of economy. Worst hit is agriculture. IPCC 5th report suggest that there would be increased temperature and increased number of dry days. It pose the danger for livelihood of farmers and food security of ever growing population.

Other sectors primarily affected by ~~the~~ this is fisheries. Reduced income of fishermen and lack of fish production is threat to food and income security of societies.

Extreme weather events, global warming and pollution are also impacting other sectors of economy, such as infrastructure, tourism and insurance. The disturbed balance with ecology and economy is eating the benefits of development.

### How to achieve the balance

To achieve the balance between economy and ecology, we need to adopt a multiprong approach. The focus areas needs to be mitigation, adaptation, Capacity building and International cooperation for fund and technology transfer.

First of all, focus needs to be on mitigation. By becoming a responsible producing and consuming individuals we can mitigate emissions. There is a need to believe 'small is beautiful'. Apart from that mitigation includes resource efficiency of economy. It would slowdown the pace of climate change.

Equally important is adaptation. Today, climate change is a reality and not a hoax. We need to adapt to the change. Focus needs to be on building resilient infrastructure, resilient farms and special help to sectors such as insurance and subsidies. Another aspect include climate engineering such as use of carbon sequestration, launching mirrors in space, to lower the temperature.

But the most important is building capacities of communities. It involves reducing the vulnerability of weaker sections. special focus needs to be given on the needs of health, education and skill development of tribals and farmers. ~~The~~ reduced livelihood opportunities in one sector needs to be compensated in other.

However, all this effort would prove inadequate in absence of international cooperation. Sustainability is a global common and no single country has the capacity to deal with it. Focus needs to given on unanimous climate action. International solar alliance is the

step in right direction.

Thus, it is necessary to understand the consequences of disturbed balance of economy and ecology. The debate of economic growth v/s ecological sustainability is not the way to deal with the issue. It is established that economic growth is not possible without ecological sustainability and vice-versa.

Thus, focus needs to be on securing a correct balance between the two. This balance essentially is what we call sustainable development.

The sustainable development would ensure that economic growth is viable, inclusive and qualitative. It is based on our ancient wisdom of 'Sarve Bhavantu Sukhinah'. But now, time calls for an action. Action would only secure 'Future that we want'.

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### REMARKS : ESSAY-1

	Excellent	Good	Satisfactory	Average	Poor
(i) Introduction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Temporal Illustration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Sectoral Elaboration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Content-Knowledge	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(v) Contextual Justification	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(vi) Paragraph Alignment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(vii) Conclusion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(viii) Visibility of Thesis-Statement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ix) Visibility of Topic Sentence	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(x) Novelty-Illustrations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(xi) Language Competency	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(xii) Legibility- Readability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Overall Remark:-

Intro - Good but also mention some features of a smart city or define smart city

Temporal - visible

Sectoral - Good but add more spheres to discuss smart cities as a reality.

Content - Good but needs to add more content. Discuss more features of Indian cities that reflects potential of Indian cities to be turned into smart cities. Also mention various initiatives taken that would help to

turn smart cities into a Reality.

Discusses challenges that make smart-cities

Alignment: Better to discuss four smart cities - a health, a myth & reflect topic sentence in content for better cohesiveness

Intro Suggestion = Good  
Also reflect topic sentence in conclusion  
Myth = Good  
Conclusion = Good

68<sup>+</sup>

**REMARKS : ESSAY-2**

	Excellent	Good	Satisfactory	Average	Poor
(i) Introduction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Temporal Illustration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Sectoral Elaboration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Content-Knowledge	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v) Contextual Justification	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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(vii) Conclusion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(viii) Visibility of Thesis-Statement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ix) Visibility of Topic Sentence	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(x) Novelty-Illustrations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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(xii) Legibility- Readability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Overall Remark:-**

Intro - Good. Also define terms Economic growth and Ecological sustainability.

Temporal - visible

Sectoral - Good to satisfactory

More spheres to discuss economic growth vs Ecological sustainability. Needs to be added. ⇒ Consequences in front

Content = Good. Also mention detail some measures taken that would help to achieve economic growth

Alignment = Paragraph + Coherence = Good  
But topic sentence needs to be more visible

Good. More can be added. Given suggestions = Good ⇒ Conclusion = Good

with ecological sustainability. Challenges posed by economic growth to Ecological sustainability





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