Inter-linkage between Swachh Bharat Abhiyan and Sustainable Development in India: Issues and Challenges

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ABSTRACT

Cleanliness is being considered as the medium for the success, prosperity and growth of individual, society and nation. Swachh bharat abhiyan is the mission of cleanliness in India, which will pave the path of growth of the economy and derive the economy on the path of sustainable development. Three components of the sustainability like social, economic and environmental can be achieved and possibility for the equity, equality and cohesiveness in the society becomes true. This paper tries to bridge the gap between cleanliness and the concept of sustainable development. Study is based on available secondary data, government policy guidelines, reports of various commissions and other relevant literature available.

Keywords: Cleanliness, Derive, components and Cohesiveness

Introduction-

Government of India has launched cleanliness campaign Swachh Bharat Abhiyan, this campaign covers approximately 4041 towns for the purpose of cleanliness of infrastructure, roads and streets and was launched by PM Narendra Modi on 02 Oct 2014.

Swachh bharat abhiyan was launched to fulfill these objectives-

Open defecation is to be eliminated, such sanitation practices are to be adopted which are health friendly and manual scavenging is to be eradicated from India.

Expected benefits from this mission are like- more waste handling jobs will be created, Indian economy will become plastic free economy, cleanliness will attract more tourist in turn more related work opportunities, promotion of tourism will earn more foreign currency, rupee will become more stronger with high forex reserve and because of cleanliness expenditure on medical and health by common people will get reduced.

Economic impact of swachh bharat abhiyan (SBA) can be related to these many activities —

Construction of toilet under this mission (SBA) will generate employment in related industries like Tile, sanitary industries, cement, brick and others. Along with this workers get employment in the construction of toilet throughout India, this will enhance and boost up the employment rate in rural as well as in urban areas. Impact of swachh bharat abhiyan can be seen on health, tourism, rural development and on foreign investment.

Impact on Health-

It is revealed from the latest report of United Nations that only approximately 40% population use toilets where as 60% population in India go for open defecation. This open defecation makes them vulnerable to diseases like diarrhea, typhoid, cholera etc. it can be quoted that unhygienic conditions and lack of cleanliness is the main cause for prevailing diseases in India. World health organization in its study has revealed that because of lack of hygiene and conducive environment to live, every Indian has to spend approximately RS.6500/- every year. It can be positively claimed that swachh bharat mission may change this scenario, burden of every Indian on health expenditure can be reduced in turn it will reduce the burden on health care system in India and in turn it will boost GDP of India. It can also be highlighted on the basis of World Bank report 2006 that approximately 6.4% of GDP in India goes in wane on yearly basis for the reason of lack of cleanliness and unhygienic conditions.

If India is able to improve its hygienic, sanitation and cleanliness conditions then it will be able to protect large scale population from health hazards and economy from economic losses.

If cleanliness is linked to the ethical and moral values then the concept arises that humbleness and politeness in approach of a person comes with the cleanliness as, it enhances affection and it accommodates analogy to purity of mind. Cleanliness also develops coordination among different people. Good health
enhances the efficiency of the workers, their employability increases and in turn the production or output of production unit increases and raises the rate of profit to the new heights and in turn capital becomes available for reinvestment and further expansion of industries in the economy. Expansion of the economy indicates the rise in income of the people in turn rise in the purchasing power of the consumer which promotes the manufacturing in the economy.

In another way it is a method to increase goods (consumable and capital) in the economy, and also increases the employment level in the economy. This leads to the prosperity of the economy. Prosperity denotes the improved socio-economic condition of nation which means economic upliftment of a person which leads to the better social status as well.

Cleanliness can only be found in any nation when there is emphasis on planning and on the development of related infrastructure. In developed economies cleanliness is better than in developing economies. The reason behind is these economies have developed waste management mechanism by which these are able to assimilate the waste material and recycle it and make it available as a reusable product. The advantages of the clean economy are as follows- it attracts tourists, organization and multinational companies to make an investment in these economies.

This swachh bharat abhiyan can also be linked to the sustainable development concept. As, sustainable development has three components- social, economic and environmental and it can be noted that objectives of the swachh bharat abhiyan are inter connected with the segments of sustainable development.

Connection between Swachh Bharat Abhiyan and Sustainable Development-
Sustainable Development: It is known that this term has been used by the World Commission on Environment and Development in its seminal report called 'Our Common Future'.

Definition of Sustainable development given by Brundtland Commission as, "Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs".

Sustainable development can be related with an effort to reduce absolute poverty of world’s poor by providing long lasting, confirm and ensured livelihoods which will minimize resource depletion, environment degradation, cultural deterioration and social instability. In another words, Sustainable development is that which meets the need of all, specifically deprived and poor people for work opportunity, food for existence, power availability, water and residential accommodation and also leads to the growth of agricultural and industrial power and services to fulfill these needs.

Definition given by Brundtland Commission insists as the protection of the Environment for future generation. The present generation should focus on:

a) Protection and Conservation of Natural assets/resources so that available quantity doesn't diminish.
b) Regenerative capacity of Ecosystem is to be preserved.
c) Social Equality/Equity is to be maintained.
d) Present generation should not pass-on the added cost or risks on succeeding generations.

It can be justified that there is connection and correlation between swachh bharat abhiyan and sustainable development. Swachh bharat abhiyan leads to the protection of environment, conservation and protection of natural resources which will conserve the biodiversity of nature as well as enhance the regenerative capacity of all the natural resources. Protection and conservation of environment will not only fulfill the present needs but also it will safeguard the needs of the upcoming future generation also. Swachh bharat abhiyan also develops the coherence and cohesiveness between different social and religious groups and will also improve the living environment of the society. This improved relationship will boost the performance of the every individual of the society.

Segments of Sustainability: There are three segments of Sustainable development; Economic, Social and Environment, all these segments are interdependent.
1. **Economic segment** of sustainability needs that societies must adopt and pursue growth/development path which generates income and also maintains the stock of man-made capital, Human capital and Natural capital. Economic sustainability requires internalizing costs i.e. Environmental cost related to production and consumption.

There are three basic goals of Economic System:

- To increase production of Goods and Services.
- To satisfy or fulfill basic requirements/or to reduce poverty.
- To improve equity.

Economic segment of the sustainable development indicates that there must be a regulated use of environmental natural resources so that these species can be conserved and protected from extinction. Economic segment emphasizes on the optimum utilization of natural resources in turn it ensures conservation of the biodiversity of the available natural resources. The connection between economic segment of sustainable development and swatch bharat abhiyan can be established that. This mission or abhiyan leads to the conservation and protection of environmental resources which will ensure economic growth of the nation in future.

2. **Social Segment** of sustainability depends on the ‘twin principle of Justice and Equity’. Sustainable development over a long period of time needs wealth, resources and opportunity should be equitably shared.

All have equal access to social security measures (security of human rights, social benefits like food, health, education, shelter and opportunities for self-development). Social equity implies equal opportunities to all for attaining education and employment in order to make productive contribution to the society. These are meant to achieve social goals like cultural diversity, social justice, gender equality and public participation.

Social segment of sustainable development can also be connected to the swachh bharat abhiyan (SBA) as it deals with social security measures food, health, and education. Swachh bharat abhiyan will lead to an availability of fresh and nutritious un- contaminated food items which ensure good health of the fauna and human resource. SBA also ensures good health facilities as, cleanliness will provide better environment to live and improve the performance of the human resource. Factor like education of social segment of sustainable development is related aesthetically with the SBA as, ethical and moral value system can only be imposed on society by means of education system. Value mechanism developed by education will enhance the cleanliness, conservation and protection of environmental resources which ensures sustainable development in the economy or nation. This will improve social equity, social justice and unity among culturally diverse social groups.

3. **Environment segment** needs optimal and sustainable utilization of the resources. Efficient assimilative/waste disposal function and maintenance of stock of natural resources/capital.

Environment segment of sustainable development can be connected to the SBA. Under ongoing mission of SBA conservation and protection of natural resources will be ensured to the living environment and
in turn spontaneity and regenerative capacity of nature can also be protected. It is clear from the studies of various developed economies that the socio-economic growth of the economy only becomes possible when there is the availability of the pure environment to live. Pure and non polluted environment will certainly enhance the work efficiency of human resource and definitely recharge his work capability with the recreational activities.

**Rules of Sustainable Development:** rule of sustainable development is that there must be equity among the present and the future generation. It means that what resources have been inherited by the present generation from their predecessors, similar quantity and quality of resources must be made available to the upcoming generation. There must be an equal parameter of distribution of resources among present and future generation. It can be shown by--

- Future generation should inherit natural resources as well as manmade resources.
- Future generation should inherit similar quality of natural resources what present generation have inherited from their predecessor.
- Stock of resources inherited must include natural resources, and manmade resources.

When rule for sustainable development is connect to a swachh bharat abhiyan then, it is found that efforts made under this scheme will definitely secure, conserve and protect the available natural resources like air quality, purity of rivers, canals, lakes and sea water and it will also ensure the purity of land area, by protecting these resources from getting contaminated with hazardous chemical agents.

**Stock of resources includes:**

- a) Man-made capital ($K_M$) consist of machines, buildings, road and other infrastructure etc.
- b) Human capital ($K_H$) it includes knowledge and skills of human resource.
- c) Natural capital ($K_N$) it includes renewable and non-renewable natural resources.

**What Swachh Bharat Abhiyan is lagging behind ? and how to ensure process of sustainable development in Indian economy?**

Swachh Bharat Abhiyan in India is very good cleanliness programme with set prime objectives and has been launched throughout the India. But there are various limitations of this programme as there is lackness of coordination between various concerned departments, lackness of proper required infrastructure, equipments, tools and there are various other major challenges which are as follows-

**Management of waste:** - it is being revealed from the state of Environment report 2015 that, municipal bodies of Indian cities are disposing of the waste generated in cities in landfills. This method of waste disposal is not environment friendly and unhygienic; it also contaminates the land and the water resources of the regions. With the help of SBA scheme main focus can be insisted on the issue of waste management and inturn possibility for the process of sustainable development will also become ground reality. **Under this event of waste management various steps can be taken, like- collection of waste, its segregation, recycling/treatment and then reuse of recycled waste material.** By means of proper waste management in Indian economy sustainable development can also be ensured as, economy will be able to provide available natural resources to the future generation also.

**Treatment of the sewage:** - in India as urbanization expands there is the rise of one more challenge with respect to environment that is management of waste generated and proper disposal of waste. It is revealed from the State of Environment Report 2015 that, there were approximately 36165 industrial units in 2009 which were generating 6.2 million tonnes of hazardous waste. Whereas this number has increased to a 42429 industrial units in 2015 and which are generating about 7-8 million tonnes of hazardous waste.

As per State of Environment Report 2015 more than half of the hazardous waste is generated in the industrial units of Gujarat and Maharashtra.

<table>
<thead>
<tr>
<th>State</th>
<th>Hazardous Waste Generated (in millions of tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gujarat</td>
<td>28.76%</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>25.16%</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>4.38%</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>4.15%</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>8.93%</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>4.74%</td>
</tr>
<tr>
<td>West Bengal</td>
<td>4.17%</td>
</tr>
</tbody>
</table>


Objective of Swachh Bharat Abhiyan cannot be fulfilled till India is able develop infrastructure for waste management and its proper assimilation or disposal.

Indian economy is facing a challenge of policy formulation and its implementation. Policy formulated lacks effective implementation that is one of the reasons India still lacks behind in the provisions of waste management and its proper assimilation or disposal.
management mechanism. For the emerging economy like India development of the waste management system is the need of the hour as, without proper waste management and disposal of waste generated economy will not be able to maintain the growth rate of the GDP as well as will not be able to maintain the environmental quality which may impound negative dimension to the economy.

An overview of Indian economy shows that there is the extension and development of three components of the sustainable development that is economic, social and environmental but still there is the lackness in waste management of solid and liquid waste material generated from household sector, industrial sector and services. On analysis of data available it is revealed that in India approximately 90% of the solid waste generated is dumped openly. This has become a challenge for the government that how proper and effective disposal and assimilation of waste generated can be made. What is needed is to develop and adopt sustainable waste management mechanism so, that effective disposal of waste generated can be taken up. It will maintain the environmental quality and ecosystem of the region. Indian economy will be able to acquire sustainable development only when it develops all the three components like environment, economic and social.

**Solid Waste Generation has become a challenge in India:** in India different sectors of the economy are generating approximately 140000 tonnes of solid waste per day, out of which approximately 92000 tonnes is collected and only 26000 tonnes is treated. Approximately 0.70kg solid waste is generated by per person in urban areas and approximately 0.18kg is generated in smaller town areas.

### Different Indian states which are generating solid waste:

<table>
<thead>
<tr>
<th>State</th>
<th>Waste generated per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maharashtra</td>
<td>11564-19204 tonnes</td>
</tr>
<tr>
<td>Uttar Pradesh, West Bengal, Tamil Nadu</td>
<td>11523-15363 tonnes</td>
</tr>
<tr>
<td>Andhra Pradesh, Kerala</td>
<td>7683-11522 tonnes</td>
</tr>
<tr>
<td>Madhya Pradesh, Rajasthan, Gujarat, Karnataka, Mizoram</td>
<td>3842-7662 tonnes</td>
</tr>
<tr>
<td>Jammu and Kashmir, Bihar, Jharkhand, Chhattisgarh, Orissa, Goa, Assam, Arunachal Pradesh, Meghalaya, Tripura, Nagaland, Manipur</td>
<td>3841 tonnes</td>
</tr>
</tbody>
</table>

### Specification of the waste generated:

- Social class with high income: plastic, polythene, paper, glass, metals, textiles.
- Hazardous waste containing solid waste: pesticides, paints, used medicines, batteries.
- Waste which can be converted into compost: Fruits, vegetables, food waste.
- Waste from healthcare system: disposable syringes, sanitary materials and blood containing clothes.

### Possible waste generation in future:

An approximately 28billion tonnes per year is the possible waste generation at world level by 2050. Expected Waste generation in city areas of India will be approximately 0.6kg and more per person per day in 2025, it is approximately 4-6times higher than what was there in 1999.

### Present waste material management in India:

For effective and appropriate waste management the government of India has passed MSW (management and handling) rules 2000. Municipal corporations of urban areas are being given the responsibility to develop proper infrastructural facilities for collecting, storing, segregating, transporting the waste material for processing and disposal. In India unorganized sector plays important role in the collection of waste, recycling of waste and making it reusable. Indian economy is facing a challenge of solid waste management and its proper disposal.

### Dumping of waste and its impact on Environment and Health:

Negative health impacts may be in the form of respiratory diseases, asthma, throat ailments, bacterial, immunity downfall, anemia and other allergies and other infections.

### Availability of planned, structured and developed Landfills in India:

Well developed landfills always protect and safeguard the environment as it protects quality of underground and surface water, it saves purity of air, it also reduces rate of emission of greenhouse gases in the environment, and saves from fire hazards.

### Waste management in India and hurdles a head:

- India lacks behind in use of improvised machines, tools, equipments in the area of waste collection and its proper disposal.
Solid waste management in India is having untrained and unskilled working staff.
Solid waste management in India has several lack nesses like non fixation of responsibility/accountability, as well as it also lacks with the adequate quantity of fund/budget
Whole process of collection, segregation, recycling, reuse and proper disposal of waste material lacks proper planning
In India people are having less awareness about environmental concerns, steps to be taken for the conservation and protection of environment

Possibilities for further waste management in India:-
Economy needs to develop mechanism for the use of waste material
Increased value extraction, recycling, recovery, reuse
Provision of more funds for SWM
Strict policy formulation and implementation.
Cess is to be imposed/collected
Waste management must involve waste segregation, recycling and reuse

Conclusion:
It has been revealed from the above said study that government of India has taken up the important issue of cleanliness by means of swachh bharat abhiyan and which will in turn make possible the persistence of sustainable development in India. swachh bharat abhiyan has various lack nesses which are being highlighted in this study but as, it is the need of the hour for an emerging economy like India that issue of waste management must be taken up with top priority so that objectives and necessities of three components of sustainable development can be fulfilled and growth process may be ensured with the equity, equality and parity among all the residents it may be present our upcoming future generation. Government should focus on the better policy formulation for waste management, its effective implementation and also to ensure its effective consistency throughout India without failure. Such a policy should be implemented that scarce natural resources are being utilized optimally. It will reduce the misuse and over exploitation of available resources in resource scarce country like India. Swachh bharat abhiyan like scheme will definitely promote better waste management, conservation and protection of natural resources and definitely enhance the further growth possibilities of populous country like India.

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