

A Study Of The Relevance Of Sustainable Development: A Historical Perspective

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Introduction

The important and much talked about phrase sustainable development is a notion that requires societies to lead a harmonious life in interaction with others in countryside and support everybody's existential needs accepting that the perpetual future generations shall also support their survival needs on their own. It is a pro nature way for people on earth to use natural resources deprived of letting these resources run out of stock. This essentially means planning and enabling systemic development without allowing damage, deterioration.

'Sustainable Development, as it is well-defined, has three distinct mutually exclusive components, these are

a) *Economic growth*, defined as improvement in the inflation-adjusted value of goods and services produced,

b) *Environmental stewardship*, defined as responsible use and protection of the environment, and

c) *Social inclusion*, well-defined as the inclusive social process of refining the relations and circumstances of overall participation in society, more precisely for less privileged ones by increasing their access to resources.

In summary, development goals are all about systematically gathering the inherently diverse requirements of different dwelling groups to establish an improved excellence of life in forthcoming time for all. If we look at the various aspects, we get some examples of sustainable development around us.

A few are enlisted here for a ready reference.

1. *Wind Energy*

The human race has utilized the wind power for centuries, which dates back to the earliest recorded history of windmill from Persia sometime between sixth to ninth century AD. By the twenty-first century, in many geographies across the world, electrical energy generated by wind power has become more and more cost effective than coal and other fossil-fuel-based electric energy.

2. *Solar Energy*

It is observed that powered by the sun, around is a worldwide renewable energy mass uprising happening in the world, if we consider how small roof-top small cellular solar panels to large solar farms, planned solar parks to solar energy concentrators are contributing to reducing the world's renewable energy gap,. Solar energy harvesting technology is getting cheaper and cheaper every day and is now cost-competitive compared to other conventional and simple influence group approaches in numerous fragments of the emerging world.

3. *Crop Rotation*

Over the last century, agricultural practices went through industrialization. Currently, bulk of our food production is catered through industrial agriculture. In this kind of mere mechanized agri-systems, considerable amount of industrially produced pesticides and chemical fertilizers are used. Which otherwise immensely damage air, water, soil and the overall climate in particular. In contrast the crop rotation process improves the fertility level of soil in alternate sowing in the same land and helps in controlling population of insects and havoc of diseases. This particular farming practice is not new and it is rather an ancient way of chemical-free farming practice, while it maximizes the long-term potential soil fertility. This practice also helps produce a diverse and many a time thoroughly different range of foods, and can be modified to dissimilar local climatic conditions, because fewer soil corrosion, and store more nitrogen adsorbed in soils that assists indirectly by natural carbon appropriation.

4. Water-efficient fixtures

There are numerous countries in the world that are water-stressed and everyone understand and believe that water is not an unlimited resource. In many households round the world, vital water usage such as daily showering, mandatory washing of hands, and essential manure transportation is unavailable.

It is also observed that the water used for these simple and essential daily requirement can be drastically lessened by more than fifty percent through usage of water-saving practices, and using suitable fittings and fixtures. Low-flow taps and specially designed showerheads, inbuilt dual flush toilets, water-saving closets and bidets are a few examples of such fixtures. These fixtures are such designed and produced that these can be fitted effortlessly and affordably into present buildings and can also be specified for upcoming housing projects.

5. Green Spaces

Forests, wet marshlands, lakes, or other green ecosystems are fundamental to the sustainable development of urban areas. These areas are basically important for chilling urban and rural areas as they provide to trees producing oxygen and filter out polluting air pollutants. Green spaces also deliver a space for breathing and provide safer commuting routes for foot walking or bicycle riding. These provide safer spaces for physical activity and also mental recreation.

As reported by WHO, recent estimates show that 3.3% of world-wide deaths are related to insufficient physical activity, in addition to poor walk sessions and lack of access to leisure areas,. It proves that having simple access to green belts can help improve general health conditions. This also will help improvement in intellectual well-being and even help in the treatment of psychological illness (Crops.extension.iastate.edu, 2018).

As cited above, these examples constitute a few of the various types of a sustainable life, which, if developed can bring in global change. It is never too late to shift the global sustainable development directions as we are at the crossroads with the power in hand. Therefore, required changes to government regulations and rewarding incentives that augment the prime mover and minimal and overall development activities need to happen. It is observed and accepted as general that this will not only make sustainable development the most affordable but also make the most obvious one to adopt. (Hawken.P, 2017)

Background of the Study

Thus to be sustainable, communities having their livelihood depending on local natural resources must have the maximum control over it through some well thought out strategic political system; and there must be arrangements made to encourage community participation with open dialogue and a democratic decision process. Thus it is generally envisaged that more practice of these two steps described above will accelerate communities towards sustainable overall development.

Everyone desires to have a better living place. While some individuals want better living in improved housing, others want better school education, better jobs, better working spaces, or more clear and safe roads. However, when analyzed in detail, whatever the current problem is in any neighbourhood, it can usually be classified into a few main groups. Thus people need:

1. *A better living environment* – that essentially means green eco-parks, joyful play areas, no visible litter bins, lush green gardens, equally decent living houses, and finally less acoustic noise pollution and no air pollution from suspended particulate

matters. The natural resources used in urbanization should renew over generations and replenish our mother earth.

2. *A better economy* – that means decent jobs for livelihood that supports the minimum necessity and sufficiency for ones desire for achievements in his or her chosen field of excellence, reasonable, stable and affordable commodity prices, cheaper energy for heating up the houses, affordable eco plants for generation of friendly lights, and availability of funds at affordable interest rates.
3. *A better social conditions* – that means facilities for leisurely living for both after work and working life, joyful community groups, engaging team and individual sports and artistic performances and of course, helpful neighbours.

Now many people realize that these issues are interconnected to each other in such a way that achieving one may affect the other, requiring us to tackle multiple issues together. For example, new businesses are not likely to open in an area where the crime and poverty prevails. Unless there are sufficient jobs available; crime is not expected to reduce in areas even where the housing sector has been improved. In general, people may move into a locality where basic housing and rewarding jobs are available. And if the areas around the dwellings are under-developed, down-trodden and poor, they may well not intend to stay there for long. This is not only a local issue but also can become a national problem of great importance.. Worldwide Governments are to deal with poverty as a whole, and they cannot just try to provide paltry sum and minimal food aid, what they need is to help citizens receive the benefits of various living infrastructures and get job opportunities locally, where they need to commute unnecessarily for work. People also need a safe and secured work environment with sufficiently serviced quality homes, safe drinking water and water for other use, and sanitation access at a minimum. To improve the things to work for people, it is imperative that governments should create an atmosphere where people can have their own decision in planning for betterment where they live.

This newer wholesome approach is called ‘sustainable development. The phrase has already received much attention in the last two decades and it's now used in many documents as a part of their implementation, government policies framing, and funding programs. So, as observed before, sustainable development comprise of three different parts that encompass all the sections. These are generally referred as: environmental sustainability, economic sustainability, and socio-political sustainability (George, s. et. al, (1971).

At the center of this method is the notion of providing means to meet people’s requirements like a home to live in, a decent job to work and go for, a suitable education for their future generations, good and supportive health-care to assist during illness, and a secured and healthy neighbourhood to live in and share the joy with. Most of the people living in the rich nations have many of these needs met. In other areas and in other countries, there are still many people left living in abject poverty and very poor-quality homes. Even if these basic needs are met and provided with, there are still many ways in which people’s *quality of life* needs further assertive consideration. Examples of such situations may be increasing heinous crime in society, air and water pollution that imparts a dose for slow killing, or living in toxic neighbourhoods with authorities show lackadaisical attitudes.

In the international forums, many actions are initiated to bring in vision and focus for augmenting *local sustainability*. The first such vision document was formulated in the 1992 United Nations Earth Summit held in Rio de Janeiro. According to Agenda 21, there was an action agenda for the United Nations, other multilateral organizations, and state governments of the independent countries around the world. Agenda 21 was assembled into 4 sections, such as

Section I: *Social and economic dimensions* focused towards combating poverty, altering consumption, and population patterns to help socio-economic decision-making.

Section II: *Conservation and Organisation of Resources for Development* towards protection against atmospheric pollution, deforestation, biodiversity, biotechnology, and radioactive wastes.

Section III: *Strengthening the Role of Major Groups* towards including the roles of children, youth and women, and indigenous people and communities.

Section IV: *Means of Implementation* that includes quality education in science, transfer of technology for emerging new frontiers, and the creation of financial mechanisms that play to include all the population towards a holistic inclusive ecosystem.

All local, national, and transnational governments have the opportunity to increase the pace of traditional development in leaps and bounds to make it more economically and environmentally sustainably so that the development process can include all stake holders for an inclusive development and growth. . It is evident and also easy to comprehend that as a result of these development steps, countries can attract more foreign direct investment. The resulting development shall also improve the quality of life of its citizen. These inclusive approaches that include creative problem solving and intensive group discussions among important members shall help make the *Sustainable Development Goals (SDG)* a reality by 2030. In reality more multidimensional efforts are necessary to attain sustainable development goals and also it is authoritative that in direction not to exhaust the natural resources for the coming generations countries need to change the consumption pattern, consumption volume and use more sustainable products so that not only it brings sufficiency in available resources but also brings in overall prosperity. As a result, it may be safely assumed that without these necessary changes in consumption patterns and use approaches we only may expect the demographic bomb to explode and social inequality to widen further from its present sorry state of affairs.

Historical Concept /Analysis of Sustainable Goal

The concept of sustainable development remained a subject of critical appreciation that fundamentally questions the basic aspects that require sustenance in sustainable development. The critical arguments describe that there cannot be any concept like sustainable use of a non-renewable natural resource. This is because any use, irrespective of its intention will lead to the exploitation of natural resources. Therefore, the earth's finite stock will eventually exhaust (Turner & Kerry 1988). This perspective concerning the historical development till

the present time makes the global Industrial Revolution, which started in the eighteenth century in Europe unsustainable as a whole [Roegen & Nicholas, 1971; Rifkin & Jeremy, 1980; Daly & Herman E, 1992]

Arguments are also put forth towards defining the concept of sustainable development, and is extended opportunistically from just '*conservation management*' to *all-encompassing 'economic development'*. Arguments also claim that the Brundtland Report did not promote anything. This report is nothing but a strategic output for normal usual business development, having no clear meaning and no substantial concept attached to it. This has not been anything but a catchword of public relations. [Riordan & Timothy, 1993; Perez& Alexander, 2013]

Historic aspects of Sustainability

Sustainable human and world development is documented as a way of systematically organizing and monitoring our society and its affairs in a way that it co-exists with other comparable societies for a long tenure of time. This holds us responsible to take the imperatives of both present and future generations, such as the conservation of the natural environment, and its pristine resources, or its ecological balance, or its social equity and equitable economic practices.

It is a generally accepted phenomenon that the so-called industrial revolution has its direct effects on the emergence of the concept and idea of sustainable human and world development. Since the latter half of the nineteenth century and through the next century, developed and emerging societies eventually begun discovering that many their indigenous economic activities and most of all industrial performances cast an overwhelming impact mostly on the balance between the society and environment. Around the world, many ecological crisis and social imbalances emerged and those, in turn, helped increase the awareness that not just a mere but a more sustainable development model was needed to counter the threat (The Borgen Project, 2018).

In the 1st United Nations Environment and Sustainable Development conference, organized in 1972 as the first historical conference based on the world's accumulated knowledge of geo-politics, responsible world leaders met to discuss economic development. Among many

pressing issues, one principal objective of this conference was to identify a shared vision including to inspire, motivate and thus direct the world living genre toward preserving the socially responsible individual endeavour and environment.

Further, the matter was continued based on Human Development Index and the so called Sustainable Development in 1980. The HDI is a statistical tool for measuring the achievements in economic and social dimensions of member countries. In doing so, it uses, inter alia, various dimensions, including general education, public health, overall financial inclusion, and individual security. Afterward, the matter was continued on the consideration of the need for identifying world's Resilient and Greenest Cities, as a part of *The Four Pillars of Sustainability*.

Human Development Index and the Ecological Foot Print: Achieving Sustainable Development

The Brundtland report, published in 1987 and as rechristened as Our Common Future, provided the outline of the term Sustainable Development. The first most identified and accepted and well defined sustainable development as “*the human ability to ensure that the current development meets the needs of the present without compromising the ability of future generations to meet their own needs.*”

Climate change and Sustainable Development

This concept was done in the year 1988. After, the completion of the assigned time, our awareness becomes more about the forthcoming climate change and its ever potential non reversible impact on the earth and its occupier, mainly human life. As a result, the International Panel on Climate Change was formed as a part of the United Nations Development Programme and also by the World Meteorological Organization. Its purpose has been to gather various pertinent information and share the acquired knowledge about the potential impact of societal activities on various facets of climate change. It is generally believed that a small change in habit can play a vital role in reversing the harmful effects. It also focuses on to explore and understand the subtle causes that results in undesired consequences including other various ways of fighting imminent climate change and

reversing its effects. Earth gasses such as carbon dioxide and methane exist to help the earth keep its habitable temperature. Thus it directly helps guarantees life on it. However, unchecked release of these otherwise benevolent gases increases the temperature of planet. Considering all these aspects, the sustainable development goals are developed and established on many decades of experience with participating countries and the UN. (<https://www.truegridpaver.com/sustainable-development-examples/>)

In the month of June and the year 1992, at the Earth Summit held in Rio de Janeiro, Brazil. It was found that more than one seventy eight countries accepted Agenda 21. This was a complete and well planned set of achievement. This was to build a trans-global partnership for sustainable development aimed at improving human lives and defending the earth environment.

In September 2000, during Millennium Summit at the New York UN Headquarters, the member states universally adopted the charter of the Millennium Declaration in September 2000. This was done at UN Headquarters in New York. This Apex Summit later resulted in the further methodical classification of the most important eight Millennium Development Goals of reducing extreme poverty by 2015 (Will Allen, 2007).

The Millennium Ecosystem Assessment and Sustainable Development (2001)

In 2001, this Assessment came into being. This is a 4 years-long investigation initiated by the United Nations. It was observed that humans have transformed earth eco-systems more quickly. Further it was found that it was envisaged ever before. This caused in a very substantial and largely irreparable loss of biodiversity. It can be observed that these changes did affect ecosystems that improved human quality of life in many aspects and the general economy in long term. However, these have changes also harmed positively the planet and its society in many ways.

Not only does biodiversity decrease at a higher rate but also the general level of poverty also decreased, which still is affecting many communities. Therefore, the degradation of ecosystem services would possibly get poorer over the 21st century. Climate change increased the risk of nonlinear irreversible changes.

It is agreed that the required changes to stop the degradation of the ecosystem, improve the present state of climate affairs and to meet the ever-increasing other related services could still be met. This will require significant changes in economic and social policies prevalent across the private and public sectors across the globe (Living Planet Report, 2006).

Further, it was adopted in 2015 by all United Nations Member States. According to this, it offers a shared vision for peaceful living and potential prosperity for people and the planet. These are the seventeen sustainable goals (SDGs). All countries in a global partnership called for an urgent action they recognize and also promote an idea that various developmental goals along with the poverty alleviation can go parallel with synergistic strategies that will also reduce inequality, improve standard of education, conditions of public health, and trigger economic growth. And all this can happen tackling bad effects of climate change and working towards preserving the very fundamental thread of our vast oceans and ever-green rain forests and man-made planned forests as well.

In the year 2002, during the World Summit on Sustainable Development in South Africa, the Johannesburg Declaration on Sustainable Development and its Plan of Implementation were adopted. This Declaration repeated the global community's commitments to eradication poverty and the upliftment of atmosphere.

It was created on the introductions of Agenda 21 and the Millennium Declaration by including more importance on multilateral partnerships.

- The United Nations Conference for Sustainable Development was done in June 2012, in Rio de Janeiro, Brazil, Member States adopted the outcome document the future we want. In that *they* made up their mind and decided, inter alia, to supplement a long and detailed workable process to grow a set of Sustainable Development Goals. Further it was found to develop and build upon the Millennium Development Goals. This has also been to create a High-level and thorough political forum based on cross-domain development. The program outcome of Rio +20 also contained other measures for implementing sustainable development, including mandates for future programs of work in development financing, small island developing states and more.

- The General Assembly set up a thirty member open working group was done in 2013. This was prepared to develop a proposal on the SDGs.
- In the month of January, 2015, the General Assembly began the negotiation process and on the post-2015 development agenda. The process concluded in the subsequent adoption of the 2030 Agenda for Sustainable Development, through 17 SDGs at its core, in September 2015 at the UN Sustainable Development Summit.

2015 was a considered as a landmark year for multilateralism and international policy formulations. This was also considered for the adoption of several major agreements. These were:

- In March 2015, Sendai Framework for Disaster Risk Reduction.
- In July 2015, Addis Ababa Action Agenda on Financing for Development
- In September, 2015 Transforming our world: the 2030 Agenda for Sustainable Development with its 17 SDGs was adopted at the UN Sustainable Development Summit in New York.
- In December 2015, Paris Agreement on Climate Change

Afterwards, it was found that the annual High-Level Political Forum on Sustainable Development served as the central UN platform for the follow-up and review of the Sustainable Development Goals.

Nowadays, the Division for Sustainable Development Goals (DSDG), Department of Economic and Social Goals (UNDESA) provides overall substantive support and capacity-building facilities and their related issues like issues with water, energy, climate, oceans, rapid urbanizations, mass transport facilities, science and technology aspects in Global Sustainable Development Report (GSDR) Small group partnerships, and Small Island Developing States.

Division for Sustainable Development Goals plays a pivotal role in the evaluation of systematic cross-boundary implementation of the UN 2030 Agenda. It also works on mutual advocacy and visionary outreach activities regarding the Sustainable Development Goals. In order to achieve realistic results of UN Agenda 2030, broad based individual ownership of the Sustainable Development Goals must convert into a strong vision commitment from shareholders. The well Division for Sustainable Development Goals (DSDG) focuses on facilitating this engagement towards total implementation, review, and monitoring in member countries.

Descriptive Analysis of the Study

Concerning the above-mentioned discussion, it has been analyzed that to maintain sustainability in the environment there is a need for a few points. These are

- a. Stabilisation of population growth
- b. Conservation and rational exploitation of forest resources.
- c. Forestation in wastelands and deforested areas.
- d. Control of pollution (air, water, land, etc.)
- e. Maintenance of natural sustainability in agriculture
- f. Recycling of waste and agricultural residue
- g. Conservation of biodiversity
- h. Development of non-polluting renewable energy stems.
- i. Updating environmental laws and their strict imposition.
- j. Assessment of ecological security.

Following are to be considered in the achievement of Sustainable Development Goals:-

- a. The input quantum of matter and energy should be to their limiting values.
- b. The many faces of renewable energy to replace the exhaustible and certainly polluting fossil fuels.
- c. Technology should be developed to provide all essential goods for daily living with minimal by-product or waste in an acceptable non-polluted process.
- d. The population growth should be planned on priority and slowed down drastically to reduce stress of natural and industrial resources on sustainable support on global life.
- e. Environmental laws should be strictly implemented. .
- f. Positive steps should be taken for the conservation of natural forests, conservation of flora and fauna diversity, reducing and recycling of wastes, monitoring and control of pollution, etc.
- g. There should be integrated land use planning.
- h. Environmental education should be made compulsory to create awareness about the basic environmental issues.

Therefore, the fundamental of the Sustainable Development Goals are:

- a. To start up and promote a plethora of development that finally minimizes environmental problems and issues related to its overuse.
- b. To meet and cater to the wants of the present generation deprived of compromising the quality of the life and environment of the future generations.

Achievement of Sustainable Developments with the consideration of below mentioned:-

- a. Strategically Limiting human beings from overuse and ill use
- b. The development of technologies should be directed towards input efficient and not gross input utilizing.
- c. For renewable resources, the rate of production of renewable substitutes should surpass the rate of consumption.
- d. Pollution of every type must be minimized
- e. Sensible use of Natural Resources should be promoted at every opportunity.

- a. nment of the future generations.

CONCLUSION

Sustainable development brings an opportunity for both urban and local administrative governments to jump the so called considered to be slower traditional development trajectories towards more inclusive, environmentally sustainable, and economically successful development super highways. By leading the global shift towards sustainable development, cities stand to overall improve not only their quality of life of citizens but also to become attractive investments hub in their own right. Creative problem solving and all-inclusive intensive deliberations among key stakeholders is required at all levels to make the SDGs a reality by 2030. Further, it has been found that to achieve SDGs, orchestrated effort is necessary when it comes to evolving consumption pattern and more sustainable products and process that do not exhaust already constrained natural resources for generations to come, and promote overall prosperity for all. It is largely true to comprehend that unless planned changes are brought in, the ongoing population and economic growth will only increase planetary population and escalate social inequality. The challenges identified in SDGs are integrated and must be pursued together.

Today's consumption pattern, both in absolute value and in trend, is posing a big challenge to the world's quest for sustainable holistic development. While working with the Environmental aspects and Developmental agendas, the World Commission also observed that the frugal concept of timeless sustainable societal development must also consider that development in every sphere of life has also its limitations inherent to human endeavor. As per them, "*the present state of technology and the social organization on environmental resources, together with the limited ability of the biosphere to absorb the effects of human activities*" impose both challenges and limitations on the world's sustainable pace of development.

The populations around the world continue to increase in leaps and bounds every day. The climate crisis grows more and more with each passing day. And so the need for overall holistic sustainable development in all shapes and sizes has also increased. This essentially

means that we need new construction methods, new materials, and newer strategies that are utmost eco-friendly so as to be process agnostic, input efficient and as renewable as possible.

Further, it has been proved and concluded that if the consumption of natural resources is more than nature's ability to replenish it, there will be perpetual environmental degradation and there cannot be any sustainability.

In addition to the above, if the consumption of natural resources is equal to nature's ability to replenish, there will be an environmental equilibrium, and a steady-state economy will be prevalent. So say, if the consumption of natural resources is less than nature's ability to replenish, there will be the perpetual renewal of Environmental factors and therefore, Sustainable Environment will be found.

Ideally, humankind must achieve a minimum Human Development Index (HDI). Though they may live below par the maximum level of ecological-per-capita-footprint resulting from the cumulative development efforts. If they live above the minimum HDI, it would definitely guarantee the achievement of fundamental human societal needs and aspirations, such as food for all, minimum contemporary education for all, or sound community health for the general public.

An ecological footprint is characterized as the maximum consumption limit of a person concerning the ecological and resource capacity of the earth. Living below this ecological footprint will ensure that we are compromising on the needs of future generations to come, as the blue planet earth would be able to recover, regenerate and improve itself. This will happen if we tolerate our development productions above the smallest HDI level and beneath the maximum per capita ecological footprint (an index inversely proportional to the human population), we would be able to sustain a perpetual development in the forthcoming.

Nevertheless, the authenticity is that every year the 'Earth Overshoot Day' originates gradually earlier. By definition, this day signifies the calendar date when resource consumption humankind drives into debt with the planet. This fundamentally means that our cumulative demand expressed for natural ecological planet resources in a given year has been superseding the resources that the planet can regain and regenerate in that same year.

This modest shortage is not dropping as we are using more ecological natural resources than the planet can renew to convalesce. At the same time, while using increasingly more resources, we are also not taking minimum necessary and proper care of the development and processing of waste that we create as a by-product of every life action we take. Therefore, the truth persists that human society is playing with the overall planet development goals in a very much non-renewable and non-reversible way, in contrast to natural phenomena, where every process follows a circular regenerative approach.

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