

Here the rishi prays for the welfare of all, which includes the happiness of all living as well as non-living being. In the Indian concept non-living being things are personified. We treat Earth and rivers as our mothers. A Vedic rishi prays for the peace of living beings as well as environment:

“ॐ द्यौः शांतिरन्तरिक्षं शान्तिः
पृथिवी शान्तिरापः शान्तिरोषधयः शान्तिः ।
वनस्पतयः शांतिर्विश्वेदेवः शांतिर्ब्रह्म शांतिः
सर्वं शांतिः शांतिरेव शांतिः सा मा शांतिरेधि ॥”

(Yajurveda, 36.17)

(O Almighty! May there be peace in the heavens; may there be peace in the space; may there be peace on Earth; may the waters be peaceful; may the plants and herbs be peaceful; may all the vegetation be peaceful; may all the celestial beings bring peace; may the Supreme Being bring peace; may everything in the universe be at peace. Peace alone, peace alone, peace alone. May that supreme peace come to me.)

However, the wishes of Indian rishis could always not be fulfilled due to various reasons in the different part of worlds. Quest to improve standards of living of individuals and societies started the First Industrial Revolution in Europe circa 1750 with the development of steam engines (Dixit et al., 2017). However, the Industrial Revolution brought unsustainable development to the world. Even today the world is facing environmental, social and economic problems. In 1970s, western world faced energy crisis. In 1973, Organization of Arab Petroleum Exporting Countries (OAPEC) led by Saudi Arabia imposed the ban on export of oil to Canada, Japan, Netherlands, United Kingdom and United States (Tache, 2024). The ban was later extended to Portugal, Rhodesia and South Africa. The second oil crisis came in 1979 because of a drop in oil production due to Iranian Revolution. This prompted developed nation to pay attention to sustainable energy source. In 1983, United Nations set up the World Commission on Environment and Development under the Chairpersonship of Gro Harlem Brundtland, former Prime Minister of Norway. In 1987, a report entitled *Our Common Future* was published, which stressed on the necessity of sustainable development (Dixit et al., 2012). It also defined sustainable development as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Several non-governmental organizations started putting their efforts for conserving the flora and fauna of Earth such as The World Wide Fund for Nature (WWF) set up in 1961 (Anyango-van, et al., 2019). The Human Development Report 2007-08 (UNDP, 2007) on the theme "Fighting Climate Change: Human Solidarity in a Divided World" critically examined modern development and argued, "Climate change calls into question the enlightenment principle that human progress will make the future look better than the past." This sentiment underscores a reality that became increasingly apparent in the latter half of the 20th century, when the Industrial Revolution—while driving economic progress—had devastating environmental consequences. The Industrial Revolution, often regarded as a boon for humanity, revealed its darker side as it relentlessly exploited natural resources. In parallel, colonial powers exacerbated the

environmental degradation and social disarray by exploiting their colonies without regard to long-term consequences. When these colonial regimes finally withdrew, they left many nations, including India, in a state of severe economic, social, and environmental disrepair (Guha, 2007). The British colonial rule, in particular, drained India's resources and economy, leaving behind a legacy of poverty and systemic challenges, a figurative cold-blooded murder of India's potential for self-sustaining development.

Many apologists would like to comment that the British first introduced the Indians with the world of technology. However, India was already far ahead in technology before the British invasion. History stands as a clear testimony that this land called Bharat was once very rich in economy and ecosystem. Indian economy shared 27% of world gross domestic product (GDP) in 1750 but at the time British left India, the GDP of India decreased to 3%. British Industrial Revolution was built on the destruction of India's thriving manufacturing industries (Tharoor, 2016). British rule was responsible for the stagnation of India's industrial development as India was already able to achieve remarkable achievement in industry, agriculture; arts, science and technology. Wootz steel, a high-carbon crucible steel, was produced in India from around 400 BCE to 1800 AD (Srinivasan and Ranganathan, 2014). Until around 1750, India and China together were producing 70 percent of world's industrial output. British initially disrupted India's thriving textile industry, followed by the steel industry, which was renowned for its superior quality compared to British steel. Thus, several of India's sustainable technologies became extinct. Ultimately, British left India, ending the era of colonialism. However, Western World continued their eco-colonialism or ecological imperialism by imposing their environmental policies on other nations.

Contrary to Western Word, India has been a practicing "sustainable development" since times immemorial. The people of this land have been preserving nature since ages and our culture and tradition also largely advocate for worshipping (in a sense conserving) the nature. Nature was never considered as a separate entity from human beings in Indian culture and traditions. That is why, we always personify nature as 'mother', which means a nurturer:

माता भूमिः पुत्रो अहं पृथिव्याः पर्जन्यः पिता स उ नः पिपर्तुः॥”

(Atharva Veda 12.1.12)

(Earth is my mother, and I am her son. The rain is the father; may he nourish us.)

Mahatma Gandhi was a stern advocate of Indian culture and traditions and his fight against the British colonial power had many symbolic implications (Gandhi, 2022). Mahatma Gandhi saw the catastrophic depletion of natural resources resulting in unsustainability due to the imitation of Western pattern of production and consumption. He warned India about the danger inherent in imitating Western model of development. Gandhian environmentalism is largely woven with the philosophy of *Ahimsa*, i.e., non-violence. Gandhi realized the conflict between economy and ecology in the modern era. He was aware about the limitless exploitation of nature brought by

the Industrial Revolution. Therefore, he criticized the western Industrial upsurge. He was sceptical about the modern technologies brought by the British. According to him, Railway brought by British was a colonial scam because they used it as weapon to loot the resources from the remote places of India (Gandhi, 1997). However, it has to be admitted that ultimately railways helped in the task of freedom movement and national integration by providing good connectivity. What Gandhi meant was that technology should be used for masses and in a frugal manner. Long before the 3R principle i.e. reduce, reuse and recycle became popular, Gandhi had been implementing those in his ashram (Iyengar, 2022).

2. What is sustainable development?

Scientific discoveries and inventions have brought some radical changes to human civilization. The growth of a civilization is always dependent on the scientific advancement and because of the growth in science; there have been lots of transitions in social structure, economy, technology, demography, production and attitude of people. The traditional agrarian society has changed into urban industrial society; technology got changed from manual to artificial intelligence. As a result, production increased and demography changed with the rapid expansion of industrialization. When people were fully agrarian, they used manual tools to run them without the depletion of fuel energy. Then the production was also limited. However, the First Industrial Revolution had changed the global scenario through the expansion of speedy production by the use of technology. As a result of the advancement of technology, there were rapid growth in the production and manual technology got replaced by fuel based technology. Thus, there grew an imbalance between natural resources and need. In 1970 the world faced a gradual crisis of oil at the international level (Ortiz, 2023). In the following year, an Earth day (April 22) was launched to attract attention of the people to make them aware about the degradation of natural resources. The Club of Rome at the Stockholm Conference published a report entitled “Limits of Growth”, which cautioned against unsustainable development (Meadows et al., 1972). The Brundt Commission, dealing with the question of ecology and environment, raised a very important question – “Are we to leave our successors a scorched planet of advancing deserts, impoverished landscapes and ailing environment?” (Palkhivala, 2008). In 1978, Mr. Lester R Brown in his thoughtful book **The Global Economic Prospect** mentioned earth’s four principle biological systems – fisheries, forests, grasslands and croplands which also provide all the raw materials for the economy except minerals and petroleum (Brown, 1978). In the year 1980, while the two superpowers were busy mapping the world into two political divisions, the Brundt commission published a report entitled “North-South: A Program for Survival”, strongly emphasizing on the importance of leading self-fulfilment and creative partnership in the use of nation’s productive forces and its full human potential (Kim, 1999). Therefore, in 1987, the Brundtland Commission published a report titled as “Our Common Future” and the term ‘Sustainable Development’ was coined first in that report.

The concept of "sustainable development" has evolved over time and is now widely understood to encompass three key dimensions—environmental, social, and economic—which collectively form the pillars of sustainability (Elkington, 1994; Rogers et al., 2012). Elkington’s (1994) "Triple Bottom Line" framework highlights the interconnected nature of these pillars in achieving the overarching objective of sustainable development.

In 2015, the United Nations revisited the challenges surrounding sustainable development during the UN Conference on Sustainable Development in New York. This effort led to the adoption of a resolution titled *Transforming Our World: The 2030 Agenda for Sustainable Development*, which introduced 17 Sustainable Development Goals (SDGs) to be accomplished by 2030 (UN, 2015; UNDP, 2015). These SDGs include: “No poverty; Zero hunger; Good health and well-being; Quality education; Gender equality; Clean water and sanitation; Affordable and clean energy; Decent work and economic growth; Industry, innovation, and infrastructure; Reducing inequality; Sustainable cities and communities; Responsible consumption and production; Climate action; Life below water; Life on land; Peace, justice, and strong institutions; and Partnership for the goals.” When comparing the Millennium Development Goals (MDGs) from 2000 with the 2030 Agenda, it becomes evident that several objectives from the MDGs were redefined and incorporated into the new framework due to their partial achievement (UN, 2015).

Technology is an inherent part of modernism. Without technology, modernism and globalization would not have been possible. Thus, technology and development are symbiotically related to each other. It is pertinent that with the advancement of technology, natural resources will unquestionably get decimated and the environment and ecology will, of course, be harmed. Technology has always worked for reducing human labour and we have been habitual using technology. A single glimpse of thought is unimaginable without technology. So eliminating the technology is impossible whereas saving natural resources is also equally important. The salient factors responsible for an alternative thought in technology are— i) A rising consumption of natural resources ii) the dramatic increase in world population iii) environmental impacts such as limited natural resources iv) global communication networks based on standards v) unstoppable worldwide globalization” (Westkamper et al., 2000). Thus, these factors compelled many scientists to be introspect. Scientists coined the term ‘Green Engineering’ with the aim of continuing the engineering activities with minimal hazards to natural resources as well as to the environment. Here the word ‘green’ symbolizes the plants and vegetables whose colour is green and which are primarily responsible for converting CO₂ to O₂ which is needed for the survival of human being. In short, Green engineering indicates environmental concern in engineering. It also includes Green Manufacturing. Sustainable Manufacturing is an extension of Green Manufacturing, which basically focuses on the economic and social sustainability in addition to environmental concern. More than 65 engineers and scientists formulated nine principles for sustainable development, in the

conference “Green Engineering: Defining the principles” held in Sandestin, Florida, in May 2003 (Nguyen and Abraham, 2003).

3. Gandhi on sustainable development

The world commemorated Gandhi on his 150th birth anniversary from October 2, 2018 to October 2, 2020. The United Nations declared his birthday as the “International Day of Non-Violence” in 2007. This iconic persona is frequently called as political prophet and he demonstrated how a victory can be won without gun and sword. He did not beg for independence bowing before the violent colonial power rather he wanted his freedom with dignity. Thus, Gandhi’s unique way of fighting against the colonial power influenced many people around the world. Indeed, Gandhi’s civil disobedience movement left a strong impact on many such people who were striving to get justice in their own lands.

In the bygone years, history witnessed how following the philosophy of Gandhi, a battle can be fought and won without violence, yet some people still believe that Gandhian teachings are antique and cannot be utilized in the modern era. Gandhian ethics can be inculcated through his thoughts encapsulated in Satyagraha.

As has been mentioned already, there are 17 Sustainable Development Goals (SDGs) initiated in 2015. To understand the legacy of Gandhi and his viewpoint, it will be interesting to analyse thoroughly how his developmental thoughts resemble the dream of harmonious, well-balanced, sustainable society with all round developments. Interestingly, the sustainable development goals planned by UN also desire to materialize the same dreams which Gandhi had dreamt long ago.

According to Gandhi, “Progress of a society should be determined by the state of the most vulnerable and the weakest ones.” It reflects the aspiration of 2030 agenda of sustainable development which is captured by tagline “Leave No One Behind.” Gandhi observing closely the causes of poverty culminated that poverty cannot solely stem from low income as the factors such as life cycle issue, social stigma, class distinction, and gender disparity also contribute towards poverty.

“Poverty is the worst form of violence.” Gandhi proclaimed it much before the sustainable development concept was materialized. It is in line with the concept

“विद्या ददाति विनयं विनयाद् याति पात्रताम्।
पात्रत्वात् धनमाप्नोति धनाद्धर्मं ततः सुखम्॥”

(Hitopadesha)

(Education gives humility. Humility provides worthiness. With worthiness, one gets wealth. From wealth, righteousness comes; and from righteousness one gets happiness.)

Gandhi argued that the objective of any development should not be to build the island of prosperity in the ocean of poverty. Hence, Gandhi suggested the philosophy of Sarvodaya or the development of all. In fact, Indian scriptures provide a lot of importance to donations. A one-line gist on sustainable development is best given by Gandhi’s famous quote: “The Earth has enough resources

to meet the needs of all but not enough to satisfy the greed of even one person”. This quote, in fact, conveys what the first verse of Ishavasyopanishad says, “All that is in this world is covered by the almighty God; enjoy it with a feeling of sacrifice but do not covet other’s wealth”.

“ईशावास्यमिदं सर्वं यत्किञ्च जगत्यां जगत्।
तेन त्यक्तेन भुञ्जीथा मा गृधः कस्यस्विद्धनम् ॥”

The new SDGs also promote for the economic sustainability through the welfare of all which considerably reflects what Gandhi dreamt much before. Fighting against the poverty is one of the most important global agendas as recognized in the SDGs.

Gandhi mentioned once that we should use everything judiciously so that our next generation may have the access of every natural resources. Emphasizing on sustainability, Gandhi once said, “The future depends on what we do in present”. He also said, “We should not look upon the natural resources—water, air, land—as inheritance from our forefathers.” He considered them to be the “loan given by our next generation” (Das, 2021).

The 2030 Agenda is basically considered as “transformative” change that includes the changes in livelihood, production and consumption. Gandhi always advocated for the personal practice of sustainable consumption and production. He believed that it is the responsibility of every individual to make the world sustainable for living which is also echoed in the Sustainable Development Goals. He wanted that every human being should play pivotal role to make the world a better place for living harmoniously. Gandhi in his unique way mentioned, “Be the change you wish to see in the world” as per the famous Hindi proverb “आप भला तो जग भला” or as Saint Kabir Das (1398–1518 CE) said,

“बुरा जो देखन मैं चला, बुरा न मिलिया कोय।
जो दिल खोजा आपना, मुझसे बुरा न कोय।”

(When I set out to find the flawed, not a soul seemed ill or awed. But when I searched my heart within, I found myself steeped deep in sin.)

Gandhi viewed sustainability as all round development of all. He believed in *Sarvodaya* i.e. the welfare of all and he reckoned health as one’s “biggest wealth, not the gold and silver”. This is as per the following verse of Charak Samhita:

“धर्मार्थ काम मोक्षाणां आरोग्यं मूलमुत्तमम्।
रोगास्तस्यापहर्तारः श्रेयशो जीवितस्य च॥”

(For Dharma, wealth, desires, and peace, Health is the root that grants release. But ailments steal both joy and grace, They dim life's glow and slow its pace.)

Nowadays, gender equality is one of the most important part in our development discourse in general and in the SDGs in particular. The concern for gender equality was also prevalent in Gandhian perspective. In his freedom movement, both men and women participated. Gandhi did not impose his will on his wife Kasturba Gandhi. Some prominent female personalities, like Sarojini Naidu,

Kamala Devi Chattopadhyay, Mirabehn, Rajkumari Amrit Kaur and Aruna Asaf Ali, played leading role with him. In Indian culture, females are considered the manifestation of Shakti (power). Manusmriti proclaims

“यत्र नार्यस्तु पूज्यन्ते रमन्ते तत्र देवताः ।
यत्रैतास्तु न पूज्यन्ते सर्वास्तत्राफलाः क्रियाः ।”
(Verse 3/56)

It means, “where women are worshiped, gods live there. Wherever they are not worshiped, all actions result in failure”.

Gandhi said that, “I do not want employment for few, I want employment for the masses.” He propagated a right-based approach, which is very much in line with the SDGs, when he said that, “We need to give people a square meal based on a good work, not necessarily based on charity”. These thoughts are also as per Indian tradition, in which providing an employment is considered a noble activity. The “bold new world”, according to Mahatma, should give up “politics without principles” and “commerce without morality.” (Bhattacharya, 2019).

4. Gandhi on environmental issues

Gandhi is often considered as the precursor of the concept called Sustainable Development as he was very vocal against the injustice towards natural resources. His legacy on the Green movement is often discussed and his absence is frequently felt in almost all environment related conferences. Gandhi’s non-violent approach to save nature can be best exemplified by the Chipko movement in Uttarakhand in 1970 where the women came out for the conservation of the forest (Rawat, 2004). This incident happened much before when the other parts of the world had yet to be aware of the concept called Sustainable Development. This is the legacy of Gandhi, as an environmentalist, but is inspired by Indian thoughts where the trees are also worshipped. Thus, it proves that though Gandhi did not provide directly any structured model on solving the environmental issue, yet his deep concern on saving nature undoubtedly elevates him as an environmentalist. In Hind Swaraj 1909, Gandhi talked about the dangers of unplanned and reckless industrialization. He was against the Nehruvian model of development who wanted to develop an economy based on big industries (Misra, 2005). That is why, in 1928, he wrote “God forbid that India should even take to industrialization after the manner of the West. If the entire nation of 300 million took similar economic exploitation, it would strip the world bare like locusts”. This statement clearly shows that Gandhi was never against the wave of industrialization but he very importantly mentioned that India should never take up the industrial movement like the ‘West’. As Gandhi was a radical egalitarian, he knew if India focused on establishing the big industries like the West then it would monopolize the natural resources to a certain section of people. Besides, this trend of industrialization, as he realized, would exploit the natural resources leading to unprecedented global warming and climate change. Thus, he was a critic of unequal share of resources and his non-possession philosophy is based on making everyone fit to survive as the people of this planet are endowed with enough resources for everyone’s needs

and not for anybody’s greed. He opposed “survival of the fittest” motto; our scriptures often mention God as *Deenabandhu*, friend of downtrodden. Instead, Gandhi stressed on the judicious use of natural resources and said “one should not attempt to possess more than what he/she really requires”. This is in line with the Jain philosophy of *Aparigrah*; do not store more than what is essential. Defining his non-possession philosophy, Gandhi further said “nature produces enough for our wants from day to day, and if only everybody took enough for himself and nothing more there would be no pauperism in this world, there would be no man dying of starvation in this world” (Jena, 2022). Gandhi’s view on sustainable development can be looked through the lens of Sarvodaya philosophy, which too is based on a holistic paradigm.

5. Gandhi on social issues

5.1 Religion

In Hind Swaraj, Gandhi said “Religion is dear to me”. By the word religion, Gandhi did not particularly name any particular belief system. His version of God is the incarnation of truth i.e. where truth prevails, there exists God. In that sense, Gandhi’s idea of God and Religion can be equated, in a sense, with science because the ultimate purpose of science is also to attain the truth. But his religious philosophy emphasizes both on truth and morality. Thus, Gandhi said “I reject any religious doctrine that does not appeal to reason and is in conflict with morality” (Gandhi, 1920).

Gandhi’s concept of *satyagraha* can be synthesized with three components i.e. religion, science and social change. Though many modern thinkers pretend to discard the religious values in the light of science, but ironically both science and religion are symbiotically related to each other. How they are related to each other? Gandhi answered that the mission of both science and religion is to endeavour the truth. Though he was a devout Hindu yet he had equal respect to all other religions. Thus, all religions, according to Gandhi, have the same purpose that is to achieve the ultimate truth without losing morality. His religious belief had its roots in ancient Hinduism, but it grew and developed in the light of other religions. In Hind Swaraj, Gandhi further stressed that the people of India are embracing modern civilization, discarding the religious values (Gandhi, 1997). Gandhi wanted to create a society which would be based on religious values. He opined that all religions teach us to pursuit godly things. Some authors and occasionally Mahatma Gandhi himself asserted that Gandhian philosophy is influenced by all the religion of the land. His Non-violence philosophy is attributed to the influence of Jainism and Buddhism; his social service is indebted to the influence of the Christian priest; his pacifism was from Sikhism, and he also told once that his satyagraha which means Dharma-Yuddha has been influenced by Islam where Jihad means dharma-Yuddha. Though he called Satyagraha as Dharma-Yuddha yet he was more likely to mean it as the fight of the righteousness. In Islam also, Jihad has two different connotations—Greater Jihad or Jihad-e-Akbar and Lesser Jihad Jihad-e-Asghar. Gandhi found similarity between Greater Jihad and his satyagraha, because Greater Jihad fights against the

inner evils. However, this concept is already in Gita. Gita says,

बन्धुरात्मात्मनस्तस्य येनात्मैवात्मना जितः |
अनात्मनस्तु शत्रुत्वे वर्ते तात्मैव शत्रुवत् || 6.6 ||

(For those who have conquered the mind, it is their friend. For those who have failed to do so, the mind works like an enemy.)

Hence, one needs to control his mind. In fact, all good concepts followed by Gandhi are part of Indian tradition, but being also a politician, he used to give reference of other religions for a larger appeal.

5.2 Education

Gandhi emphasized the importance of education. He believed that education is a significant driver of change. However, “doing away with illiteracy is not necessarily full education according to Gandhi. He said education is a “life-time phenomenon”. Revealing amount of inner goodness or potentials of a person is the real education as Gandhi believed. Gandhi considered every individual as a spiritual being and that is why, he regarded morality, an important part of education. For example, if he had been asked about the present scenario of the education of India today, then he would have probably, with a sigh, replied introspectively whether the students from the esteemed institutes of India are educated enough. Are they morally virtuous human beings? Has their education taught them to be selfless and treat all equally? Gandhi would have surely been disappointed seeing so much immorality and selfishness among Indians today. Gandhi’s idea of education was very clear and he gave much importance to the ethical education. According to him, Modern education is mis-education as it has taught people to be immoral, violent, and selfish. According to Gandhi, the basic objective of education is to generate the potential in children and to create a new world order. Therefore, he suggested to involve everyone for the welfare of the humankind. He believed that education is the harmonious development of body, mind and soul and he named this idea as “naye-taalim” (new education).

5.3 Population

It may raise the eyebrows of many of us knowing the opinion of Gandhi on population policy as he was against the artificial birth control. Gandhi said, “It is contended that birth control is necessary for the nation because of overpopulation, I dispute the proposition. It has never been proved. In my opinion by a proper land system, better agriculture and a supplementary industry, this country is capable of supporting twice as many people as there are in it today.”

5.4 Sanitation

Gandhi’s 150th birth anniversary was celebrated in 2nd October 2019. The government of India announced the myriad achievement of 100% Open Defecation Free (ODF) India on the same day laying indebtedness to the revered “Father of the Nation”. It was planned by Modi Government when they came to power in 2014 to fulfil Gandhi’s dream of making India Open Defecation Free. During his stay in South Africa, Gandhi used to do the scavenger job and conducted scientific experiments in

sanitation. Returning from there, Gandhi realized that sanitation and social hygiene were two insurmountable problems of India. While penning down the book Hind Swaraj in 1909, in his scheme of gram swaraj and hind swaraj, he postulated that swaraj or self-rule does not stand alone for the political fight for freedom. He exhorted that if we do not keep our backyards clean, our swaraj will have a foul stench. Self-improvement is the action to this much aspired dream. To materialize his dream of self-improvement, Gandhi organized Ashram Observance and Constructive Work, where he emphasized two most fundamental issues i.e. hygiene and sanitation. The Champaran episode started as a political battle to give justice to the sharecroppers but ended up in Gandhi’s understanding of many core issues related to the people of India. Gandhi knew that making the people free from British was not enough. There were many other core issues to be solved in order to make the society free and independent. Hence, the Champaran episode stands as an epoch making testimony where he first initiated his dream of combating the hygiene and sanitation issues through proper practice of orientation, education and training. For Gandhi, Swaraj can be fulfilled if these two concomitant aspects i.e. sanitation and hygiene are met by the Indians. Gandhi started his experimentation of sanitation and hygiene through the ashram rules where he clearly instructed the inmates to take care of the roads and paths not to be polluted by spitting. In the nearby areas of the ashram Gandhi put a close vigilance so that the people do not defecate openly by the side of the road. Gandhi advised the inmates to frequently visit those places and to clean the roads so that people may be adapted with a behavioural change by observing the culture of the ashram. Further, in the ‘Rules of Sewagram Ashram’ it was clearly mentioned “...water must not be wasted and boiled water is used for drinking purposes... we should not spit and clean the nose on the road, but only in an out of the way place where no one is likely to walk.” In almost every Congress major convention Gandhi used to bring the issue of sanitation and health and hygiene. Gandhi’s approach towards sustainable health and environment can be scaled out from one of his speech where he clearly touched down all the multidimensional aspects of sustainable development. He said “... there is a Trinity of Evil—in insanitation, poverty and idleness— that will have to be faced with and you will fight them with broomsticks, quinine and castor oil and, if you will believe me, with the spinning wheel.” Gandhi was a sanitary scientist whose motive behind the campaign for sanitation had twin social objectives— eradication of untouchability and promotion of the dignity of labour.

5.5 Food and vegetarianism

Gandhi was a passionate food reformer who believed that eating right was central to living right and a good diet was very much important. However, Gandhi was Vaishnavite by birth and his religious ideologies sanctioned him to strictly follow the vegetarian diet. While leaving for London, Gandhi had to vow to his mother that he would keep distance from meat, women and wine. Though he tried veganism but his later experiences proved “...in order to keep perfectly fit, a vegetarian diet must include milk and milk products such as curds, butter, ghee, etc.” (Gandhi and Prabhu, 1959). Gandhi basically divided food

in three types— vegetarian, flesh and mix. Interestingly, though his dietary plan can be much prescribed with today's dietary principles, yet his diet was much more concerned with politics and ethics rather than nutritional values. For Gandhi, eating ethically meant more than avoiding certain foods. Gandhi related the practice of vegetarianism to the practice of ahimsa. As Gandhi said, "I want to bring to your notice is that vegetarians need to be tolerant if they want to convert others to vegetarianism". Vegetarianism is a symbol of tolerance and it may be a sense of dignity to live. That is why, his motif behind the call of a dietary plan has deeper implications. However, that does not mean that Gandhi provoked anyone to enforce the vegetarianism to any non-vegetarian eaters. Neither he was of the opinion to put a mask of hatred on those who consumes meat. His opinion rests on the ideology of ahimsa. He classified living beings into two categories i.e. higher animal referring to human beings and lower animal indicating the animals. He said both are for the sake of each other. Gandhi's advocacy towards vegetarianism and animal care is immersed in his ethics of non-violence. He was strongly against cow-slaughter.

Gandhi was against modern anthropocentric idea, which places human being as the highest being on Earth. As Bhiku Parekh observes, Gandhi's favourite metaphor is that "the cosmos was not a pyramid of which the so-called nature or material world was the basis and man the apex, but a series of ever-widening circles." (Bhikhu, 1989). He believed that such a hierarchical arrangement would legitimize and encourage man's exploitation of the rest of the world and nature. He believed that animal sacrifice is a sinful act (Gandhi, 1933). In his Ashram the killing of any creature, even poisonous one, was completely forbidden. His view on this issue enlightens us with a profound insight in environmental ethics. He said, "I do believe that all God's creatures have the right to live as much as we have. Instead of prescribing the killing of the so-called injurious fellow-creatures of ours as a duty, if men of knowledge had devoted their gift to discovering ways of dealing with them otherwise than by killing them, we would be living in a world befitting our status as men— animals endowed with reason and the power of choosing between good and evil, right and wrong, violence and non-violence, truth and untruth" (Gandhi, 1933).

5.6 Women empowerment

In Sustainable Development Goals, reducing the discrimination to women was one of those millennium development goals. The 21st century has brought many advancements to the human civilization yet the women are still deprived from their rights. Till today, girl child is considered as a curse to the parents and before the attainment of their marital age they are got married. Thus, the world may be advancing, yet the gender related discriminations are still prevalent.

Gandhi believed in the equal human relationships where both man and woman enjoys the equal rights. In his scheme of Satyagraha, he gave equal importance to the empowerment of women. He said that the women should understand their dignity and innate nature. He accepted the guilt that once he himself used to consider women as a slave of man, but later Kasturba made him realize by

proving an unwilling slave and thus opened his eyes to his mission. It was Kasturba Gandhi who taught him lesson on domestic Satyagraha by defying Gandhi's unjust and unreasonable diktats. Elevating the importance of women in bringing Satyagraha Gandhi wrote, "Women strengthen my belief in swadeshi and Satyagraha. If I could inspire in men devotion as pure as I find in the women, within a year, India would be raised to a height impossible to imagine" (Joshi, 1988). Gandhi emphasized the importance of khadi primarily intending to target the rural, unprivileged women who need to be made self-sufficient and independent. Hence, the economic sustenance to women is the best way to break the barriers of discrimination and this goal of economic sustainability was also realized in the sustainable development goals initiated in 2015.

5.7 Untouchability

Gandhi was against untouchability. He appealed to the people to clean their own lavatories. He started the initiative from his Ashram; those who desired to join the Ashram must be able to pass the test of cleaning the toilet bucket. Gandhi opposed the idea of labelling a particular section of people of the society as scavenger and compelling them to do only scavenging works. Opposing the discrimination of a particular section of people regarding them as untouchable, Gandhi stated "God, who is the embodiment of truth and right and justice, can never have sanctioned a religion or practice which regards one-fifth of our vast population as untouchables" (Tendulkar, 1957). In fact, our Puranas never indicate that in ancient Indian civilization, there was any job of cleaning other's lavatories. On the other hand, some Puranas describe in detail how should a person go to forest, dig a pit and defecate without strain and then cover the pit with soil. In 1932, Gandhi founded the Harijan Sevak Sangh and advocated for the eradication of untouchability in Hindu society. Gandhi called them Harijan or the Children of God. In 1933, Gandhi founded a journal named as Harijan and it became the vehicle to voice against the discrimination on the people belonging to the lower strata of society. Besides, Gandhi wholeheartedly supported the entry of the untouchables into the Hindu temples which was opposed by some upper-caste people. Gandhi opposed to Ambedkar's views of separate electorate and strongly protested against the Communal Award announced by the British. Gandhi's approach was that of a reformist. Gandhi narrated a story how he experienced the untouchability. A scavenger named Uka who was from the untouchable community, used to attend their house for cleaning latrines and Gandhi used to ask his mother why it was wrong to touch him. He asked it because whenever he accidentally touched Uka, he was ordered to perform the ablutions. Gandhi said that though he obeyed yet he remained confused.

6. Gandhi on economic issues

Gandhi was an economist of masses. Being a radical egalitarian, Gandhi was critical of unequal hierarchical structures of domination and advocated for creating non-violent, non-exploitative socio-economic relations and development model. His economic philosophy of

Sarvodaya or “the wellbeing of all” focused on addressing the needs of those with the least freedom and greatest needs. He himself proclaimed “if I accumulate great wealth, while others live under desperate economic and social conditions of poverty and great suffering, I am living an unjust life of theft. If I benefit from or remain silent in a community, in India and world of such inequality, I am responsible for this economic structural violence.” Thus, stressing on the values of egalitarianism, Gandhi said without moral, social and economic values, truthful living is impossible.

Gandhi could well realize the consequences that may be brought by this giant expansion of modern economic growth which by and large divides people in regard to their haves and have-nots with little concern to their socio-economic development. Later on, Gandhi started advocating distributive justice or equity, and improvement in the overall quality of life of the masses. Therefore, Gandhi’s ideology of economic growth is not only based on the poverty reduction but also for meeting human needs and aspirations for better life. He vehemently criticized the modern economic development which is usually West-centric. Many people thus blamed Gandhi’s thought in Hind Swaraj on technology and development as antiquated. However, behind the garb of this “half naked fakir” there laid a very modern man in his thoughts and approaches. Eventually, Gandhi’s relevance is felt in the 21st century too. In Hind Swaraj, Gandhi expressed openly about his displeasure on modern technology like railway. He reasoned that this modern locomotive had worked as tool of exploitation during British regime in India. Through the example of railway, Gandhi critiqued all those modern technologies which the consumerist’s countries had adopted and are still producing to use as weapons for economic exploitation. His views were that science and technology must promote all round progress of the entire humanity, and also it should stand as a means to achieve cultural and spiritual ascent. Gandhi was not against any sustainable technology that masses could afford. He himself used to keep a small “watch” with him. Once someone asked why he remained half-naked. He replied, “As long as a single person of India is without proper clothe, I do not want to spend money on my clothes.”

In Hind Swaraj, defining the word Swaraj, Gandhi pointed out that his version of democracy was different from what has been happening today. He did not want to attain democracy by driving away the British colonizers for welcoming new band British colonizers in the guise of Indian. His vision of Swaraj was much broader, deeper and qualitative from our dominant, modern versions of democracy. Gandhi believed that there is no political democracy without economic democracy and without a non-egoistic commitment to our interconnected relations of concern for the welfare of all beings, real democracy is unachievable. Gandhi opines that economically, Poorna Swaraj means full economic freedom for the toiling millions.

In order to achieve the wellbeing of all, he proposed the concept called Swadeshi according to which the economy can be decentralized making everyone self-sufficient. To achieve the desired goal of Swadeshi, Gandhi proposed the weapon “Charkha” or spinning wheel. He had firm

belief that Khadi and the Spinning wheel are able to set up a non-violent, non-exploitative and harmony promoting economic development. In his own words, “Khadi must be taken with all its implications. It means a wholesale Swadeshi mentality, a determination to find all the necessities of life in India and that too through the labour and intellect of the villagers. That means a reversal of the existing process. That is to say that, instead of half a dozen cities of India and Great Britain living on the exploitation and the ruin of the 7,00,000 villages of India, the latter will be largely self-contained, and will voluntarily serve the cities of India and even the outside world in so far as it benefits both the parties” (Ravi, 2015). For Gandhi, the adoption of Khadi by the common people marked the protest against industrialism and materialism (Nanda, 1958).

Gandhi supported those small scale industries in villages that did not require help from outside the village and could be run with little capital. He was against the railway brought by the British as he regarded railway as a weapon of economic exploitation because with its arrival in India the rogues have started visiting to the remote villages in order to practice their roguery. In Hind Swaraj, Gandhi being dissatisfied with railway stated clearly “...Railway can become a distributing agency for the evil one only.” Gandhi was aware about the fact that with the imbalance of the economy there will be oligarchy and the poor man will forever be the victims of exploitation and the rich man will be richer day by day. That’s why, Gandhi hoped that small industries in the villages would generate employment and purchasing power in the villages and would also break the economic barriers between rich and poor by giving equal opportunity to all. This is where his ideology stands hand in hand with sustainable development goals.

7. Gandhi on preservation of culture

Mahatma Gandhi wanted to bring a radical change in the living condition of the people of India. During the freedom struggle, Gandhi noticed that merely attaining the physical independence from the British colonialism is not what independence in reality means. He did not desire to bring back a new set of British people in the guise of Indian. According to him, freedom is not merely physical but also psychological and cultural. He therefore appealed the people to use khadi that promotes indigenouness. For him, khadi and Charkha were also the symbols of culture.

8. How would have Gandhi reacted to modern technology?

Was Gandhi really against science and technology? How would he have reacted to the modern technology such as internet and mobile phones if he had been alive today? Was his intention to take back India to the “dark medieval age”? Many of his contemporaries blamed Gandhi, of having a utopian ideology. It is true that Gandhi termed material progress achieved through modern machinery as evil and satanic. In Hind Swaraj, Gandhi vehemently criticized the Railways in India. He said, “Railways have impoverished the country... and they propagate evil.”

Does it mean that he was against the modern machinery? The answer is “no”. If we closely understand Gandhi’s ideology, it will be very clear that Gandhi was against the modern machinery in terms of its incontrovertible contribution to the pauperization of India and to the enrichment of Britain. He repeatedly quoted the words of the celebrated British biologist and anthropologist Alfred Russell Wallace who once wrote that the advance of science had not reduced hatred and injustice, and added ‘not an inch to the moral stature of Europe’ (Casolari, 2022). Gandhi basically wanted to bring scientific development that would be non-violent, non-exploitative and promoting harmony. Gandhi would have been a core supporter of the pioneering scientists like Gershenfeld who worked at the grassroots for the promotion of the digital technologies in all over the world including India because digital technologies, to some extent, have treaded through the sarvodaya dreams of Gandhi. Digital technologies have also endeavoured the spiritual liberation as dreamt by Gandhi himself. This also has decentralized the power from a few to many, from singular individual to plural cooperation. In this sense Gandhi’s vision towards the modern technologies was very clear as he himself said once that if a better substitute comes which will fulfil the dreams of Charkha, he advised to accept those technologies. These evidences are enough to prove that Gandhi was never against the modern technologies but his only condition was that the modern technologies must stand his dreams of a well-balanced, harmonious and non-exploitative society. The eminent scientist Dr. R.A. Mashelkar, former Director General of the Council of Scientific and Industrial Research used the term “Gandhian Engineering” to refer Gandhi’s approach to find engineering solution that can lift the “iceberg above the surface so that everyone can have the quality of life they deserve”. He also suggested for the engineering solution that uses less resources and benefits to more people. Mahatma Gandhi supported for the use of human energy as current energy in manufacturing instead of fossil energy. Khadi proved fruitful to serve his purpose because it employs human labour and is also eco-friendly in nature. His faith on khadi proved fruitful from various socio-economic as well as environment point of view. Gandhi’s suggestion for the use of the Charkha was really thought-provoking and it definitely elevated him to a forerunner of engineering thought. Green engineering proposes for environment friendly machining that reduces the environmental degradation and also serves the engineering purpose. Gandhi could anticipate the present day scenario long before. Therefore, he emphasized more on the manual technology and his campaign for the use of the Charkha can be observed as very beneficial from environmental as well as engineering perspectives. Many scholars believe that British colonial regime is solely responsible for bringing a scientific temperament into India. However, history states clearly how India has been developing the scientific temper since ages. Technology of India was far ahead of the time. Even before the European Industrial Revolution, India was producing finest cotton and until around 1750, India along with China was producing 73% of world’s total industrial output. Even till 1830, these two countries were dominating 60% of the world’s industrial output. Moreover, Indian manufactured steel was far better than the British steel. The cotton

produced in India was the finest in quality. Most importantly, the industries during the pre-colonial era were village centric involving the local people, whereas post-colonial era brought drastic changes in the industrial growth. The British colonial power emphasized more on the centralization of production with the inclusion of the heavy mills; industries were established mainly in the urban areas. Gandhi was basically against this. He sought to bring an Industrial revolution to India that would be non-exploitative. In modern terms, he was more inclined towards Micro, Small and Medium Enterprises (MSMEs). He did not want to bring a technological development that replicated the Industrial Revolution of Europe. Therefore, he gave more emphasize on the cottage and small scale industries. Gandhi’s vision was very clear as he observed that the small industries promote less damage to natural resources and very effective in dealing the unemployment, economic sustainability and also eradicating the gender barriers. From the engineering point of view, hand woven khadi industries are less harmful to nature in comparison to the mill woven khadi industries. The hand woven khadi uses less energy. Further, water usage was the maximum in the use phase of the garment produced in the mills. Hand woven khadi is actually cleaner due to its manual operation. Therefore, Gandhi’s approach to enhance the khadi industry has far reaching effect from the sustainability point of view. Gandhi’s ethical ideologies prophesized many sustainable development goals that are realized today.

9. Conclusion

Undoubtedly Mahatma Gandhi was a great proponent of sustainable development. It is clear not only from his words but by action also. His popularization of khadi and charkha, his attire, his food habits and his bias towards village life speak volume about his commitment to sustainability. However, it is also clear that the concept of sustainability propounded by Gandhi had roots in Indian Knowledge System. However, Gandhi was a politician too and he was not a scholar either Sanskrit or tribal knowledge. Still his thoughts and actions are inspired by his inherited Indian Knowledge from his family and society. It is true that sometimes he could not advocate Indian Knowledge exclusively due to political compulsion. It is high time that modern stakeholders of sustainable development should look to Indian Knowledge for guidance.

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