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Sustainability Management Issues – Social, Cultural and Economic Perspectives

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***Abstract*: The paper looks at the social, cultural and economic sustainability management issues holistically and not discretely, blended as they are into each other in real life. The paper focuses on the interconnectedness of cultural, linguistic, social, legal, religious sustainability concerns and practically assesses the economic viability of each of the aspects.**

***Keywords*: Cultural, Economics, Linguistics, Sustainability.**

1. Introduction

The paper on Social, Cultural and Economic Sustainability views sustainability issues from a practical rather than an idealistic perspective. The different aspects of sustainability proposed to be discussed include all dimensions of a modern human lifestyle. Neither of the pillars of the sustainability triangle is evaluated discretely. Intrinsically blended as they are into each other in real life, the paper focuses on the interconnectedness of cultural, linguistic, social, legal, religious sustainability concerns with an underlying unifying theme of the economic viability of each of the aspects.

One of the most imminent dangers of this century is the viability of our blue planet. Towards that end, the paper takes a rational look forward through the lenses of our past.

The word 'sustainability' first became important as a concept in the year 1987, when The Bruntland Report (The World Commission on Environment and Development 1987)was submitted at the United Nations General Assembly (www.researchgate.net). The word has been so often defined that it needs no more expansion than describing it as a way to meet the present needs without compromising the needs of the future (www.lutpub.lut.fi) Born of the Industrial Revolutions #1 through #4, and at the doorstep of #5, *sustainability* is now an undeniable part of all discourse of life processes globally. While Industrial Revolution #1 gave the world coal and steam, the years 1760 – 1840 also saw pollution from soot and combustion processes. Industrial Revolution #2 (1870-1914) gave the world a technologically advanced process of steel making, generated gas and electricity, while simultaneously contaminating Nature through its by-products. Industrial Revolution #3 (1970-2000) saw computers rise likes never before and Nature had to deal with technological wastes anew. We are in the midst of Industrial Revolution #4 (2000-2020) and the processes of computerization, automation, and robotization continue to generate such enormous amounts of non-bio-degradable wastes. Looking ahead is Industrial Revolution #5, which promises to transform the world with AI, IoT, AR, and VR.

These processes also have an undeniable impact on one's way of life, which is not always positive. Three categories of concerns combine to form the issues of sustainability. They are, broadly, *social, cultural and economic.*

2. Discussion

A. Cultural Sustainability

The paper looks at sustainable practices in Art, Fashion, Architecture, Music, Religion and Language as facets of *Cultural Sustainability*. Prevalent practices in the above domains that endanger the planet and compromise our resources would require to give way to greener forms of cultural expression. With respect to this, let us focus our attention to many traditional, sustainable and eco-friendly ways of human creative expressions that have been part of the Indian heritage both in the country and in the world.

From the 1980s to 2010, the focus was on a 3-pillar approach to sustainability – environment, economic and social. From 2013, Ahman 'notes that different authors have debated that culture as a sustainability entity should be treated as the 4th equal pillar'. *[Mc Guinn, Jennifer. IPOL_STU (2020) pg25*]

The Indian philosophic and cultural fabric may be said to be based on Vedas and Upanishads. These were lifestyle manuals, more than religious texts. Today the Indian is more cosmopolitan and as such, follows the Constitution more than any other edict. Therefore, the Indian Constitution may be called the soul of India, the values that the country has chosen to live by. As a dynamic nation, the constitution has the provision to change and amend itself as required. This ensures 1.5 billion people the freedoms and rights that they wish to exercise in a fast-changing world.

Cultural Sustainability is discussed along its aspects of art, architecture, music, religion and language.

1) Art

Discussions on *Art* includes treating the genre both as the medium as well as the message. It is not only an end in itself in terms of aesthetics but also a tool to disseminate and promote

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ideas of sustainability (ACCIONA n.d.)

KINTSUGI:

This is a sustainable Japanese art form that encourages people to mend rather than throw away, cracked pottery or ornaments. These are mended with precious metals like gold and silver. It is almost a celebration of the fact that something of value retains or enhances its value when it is broken or damaged from use. The philosophy of reducing wastage by avoiding the 'buying' of new artifacts simply because the old one is damaged from use, is almost beautiful in itself. The Japanese revere the 'old' and has less importance attached to the 'new'. This is a metaphor for the entire nation and her societal values. Old people, old relationships are all mended and revered for their endurance and continuity. (Sho 2021)

MADHUBANI:

Painting of nature on canvas, textile and even tree barks not only promotes and conserves this traditional East Indian art form, it also promotes environment consciousness. Colours used are usually vegetable dyes, and the motifs are predominantly of men and women adorned by leaves, flowers and tendrils, living in eco-friendly sustainable environment. The message through these paintings is to love, protect and cherish Nature as a Life Giver as opposed to being simply a resource. (Indian Culture, GOI n.d.)

WARLI ART:

This is one of the most ancient painting techniques in India, indigenous to Maharashtra, a state in Central India. This is ethnic to certain tribes in Maharashtra. Painting tools used are bricks, rice, sticks, and other such commonly found material found at an Indian rustic home, every day. Portrayal of line figures is its signature style. (Caelidoscope n.d.)

PATTACHITRA:

This is a typical Bengali painting style which is traditional to artists of West Bengal, Odisha and Bangladesh. These are cloth-based scroll paintings of mythological stories or their scenes portrayed with vegetable dyes. It is said that the Mahapatras and Maharatnas (two sections of East Indian folk) created this painting style as an alternative to building figurines of deities. (Subudhi 2016)

GOND:

This ethnic art form is the creation of a tribe called 'Gondi', native to Madhya Pradesh, India. The Gond people live close to nature and have a deep relationship with her. Their art media uses resources that are part of their daily rustic lives, viz dung, coal, soil, leaves etc. (Sahi 2020).

Proposed methods to sustain art forms and promote sustainability in art

One of the integral means of preserving anything for posterity is to use it often and let it evolve with time. The same method may be used in case of prevalent art forms. If collecting a Picasso can be made comparable to collecting a Pattachitra, perhaps these art forms never need die. For this to happen realistically, the painter as well as the consumer needs to synchronize their thoughts. The theme and colours of the artistic piece require to be open to interpretation, set in neutral tones, and primarily be adaptable to any customer preference. It is perhaps sacrilegious to even consider this today because any thought of making 'art' commercially viable, leads to the view that one is diluting its aesthetic and philosophical worth. One need not put a price on art, but one definitely requires to look at endurability of a creation. Can it withstand the test of time and context? Towards this end art has to imitate the contemporary as well.

Branding and geo tagging one's artistic endeavours is a legitimate option to consider, along with use of organic resources in an effort to conserve and sustain a country's myriad art forms. These are after all the stories and signatures of humankind.

The paper proposes the following ways to sustain indigenous artforms thus:

2) Fashion

No discussion on sustainable art forms is complete without a mention of *Fashion* as a creative form of art. Carbon neutral, organic, recycled material used for creating clothes and accessories is a trending rage globally. Jute is India's fabric offering to the world of sustainable fashion. Silk, from different worms are also eco-friendly, as is the ubiquitous cotton. Sustainable fabrics and accessories are rarely affordable for the common person on a budget, however, that needs to change by imposing some cess on non-recyclable or machine-made media of fashion that are excessively carbon intensive. The processes advocated in the Geneva discussions are ideal, though challenging in the East Asian scenario. (Geneva Environment Network 2021)

Proposed methods to sustain fashion concepts and promote sustainability in fashion

Inherently transient in nature, fashion is not something that one would seek to continue everlastingly. One would rather it evolved naturally, over time, and per the needs of the user. Tradition as well as modernity have a strong role to play in the use of sustainable materials used for fashionable wear. Clothes and accessories are rarely only functional now. They are reflective of persona, period, socio-economic mores of the lands and times. Sustainable and responsible fashion would ideally be created from upcycled material, abundantly available natural, eco- friendly material and using eco-friendly means. Organic fibres, carbon neutral processes and reusable material are definitely the way forward.

3) Architecture

Discussion on *Architecture* seeks to analyse how modern choices of building materials and shapes are contributing to a greenhouse effect in the Earth's atmosphere and what may be the alternatives to these 'avant garde' skyscrapers which may not be what the earth needs at this time. Much before the time of modern building materials like concrete, glass, polymer fibres, etc, what were used for construction of spaces were natural elements found easily on the surface of the Earth. In an era of electricity intensive dwellings, it is certainly time to look back into the past where wood, soil, terracotta, clay were the chief media for construction. Today, these are again the preferred choices of niche dwellings built by responsible people, of course, at a premium. Kolam, Mandala are the architectural choices of many of the rich and famous.

Proposed methods to sustain architectural forms and promote sustainability in architecture

Bio Mimicry is a novel way to revisit architectural ideas. Man, alone does not use shelter to combat the vagaries of nature. Indeed, man ought to learn from Nature and her beings how to adapt and adopt to the changing habitation resources. It is very clear now that the metalled and glassed facades of modern architectural constructs are making the Earth hotter and humans unhealthier. Natural material, flowing shapes and blending in rather than standing out of the planetary landscape is the way forward. No wonder, stone, wood and other such naturally available materials are immensely in demand and prohibitively expensive in present times. The 4 'R' s of sustainability are ideally incorporated in any enduring architecture. (Architecture+ 2021)

4) Ethnomusicology

This is all about the study and preservation of world music in a bid to sustain the sounds of the people's souls. Technology in music often results in the loss of feeling. Human kind may not desire only an electronic signature as her legacy.

Proposed methods to sustain music genres and promote sustainability in music

Like other art forms, ethnic music can only be sustained if it is made popular and listened to by everyone. Neither Music nor Art can truly survive by being elitist and inaccessible. One way of ensuring the continuity and preservation of a particular people's songs is by playing them over Frequency Modulation Radio. AI could be used to geo track one's location and automatically play music of the region on FM. Cell phone caller tunes could also change when one changed location. This is just one thought that could ensure use of ethno-musicality in order to sustain it for posterity. Incorporating ecological concerns and preserving such compositions for posterity is among the primary focus of 'ethnomusicology'. (Bendrups and Schippers 2015)

5) Religion

Man is on the edge of existence today with a silent but powerful tug of war for inter-racial supremacy. What started out a way to harmonise the peaceful and symbiotic co-existence of Man and Nature, has now become at least a differentiator, a divisive force. The paper seeks to evaluate the role of religion in disseminating information on sustainability. Also pertinent is the thought whether the constitution of a country can or should be given more priority than its practised faith(s). Religions and Faith groups across the world could easily propagate the message of sustainability and responsible balanced life choices. However almost all religions fall short of offering this service to mankind. Only in the Pagan, Heathen, Vedic times were mankind exhorted to find their symbiotic identity with abounding nature. Religions today, across faiths and continents are predominantly about rituals more than spirituality. An important point to consider in this regard is whether a country's constitution may be a substitute for a people's professed faith.

Proposed methods to sustain religious faiths and promote sustainability in religions

Religions, spirituality, one's relationship with the divine consciousness, one's own consciousness are intangible and difficult to describe and define. Indeed, they are tricky ice-sheets that one treads upon gently, especially in a sensitive and emotional country like India where a multitude of Faiths abound.

However, some common grounds may be discovered and the paths to the Divine Cosmic Consciousness may all be united for mankind to meaningfully sustain themselves religiously, spiritually. Differences in rituals ought not to take centre stage as that becomes a premise for conflict. Many wise people are choosing more and more to be open and accepting of different Faiths rather than inhabiting an ivory tower. It is important to unite on religious paths rather than being divided because of it.

An advanced country could also look at the judicial-social framework to define and determine her core values. Such a set of values could be embodied in the constitution of the land and be the framework of beliefs. Indeed, almost all religions of the world advocate 'giving back' to the land that sustains one. (1 Million Women 2016)

6) Language

Perhaps the most interesting aspect of a discourse on cultural sustainability is its focus on *Language.* This brings out the concerns associated with rampant globalization and urbanization along with its commercial and technological impact on languages of the world. There is an unbiased take on the preferred languages of commercial communication in the world, including English, and the extinction of native tongues that result therefrom. Once again, like art, music, religion, architecture, language too, is both, the message as well as the medium of an article on sustainability concerns. There is a definite 'greenification' of jargon that is today the buzzword in any technical communication of relevance and will be analysed for validity. In a digital world where ethnicities and borders are blurred in an instant, it is perhaps an ambiguous decision to want to preserve one's exclusive and unique identity through language.

English has, by default, become the lingua franca of the commercial world. In a global business context, heterogeneity is not a goal to be aspired to. One always wishes to establish common ground which unites, rather than tongues that divide. Yet, with the rise in global use of English, Spanish, French etc, there are so many languages that are endangered. With them, their culture. Towards this end, Language Sustainability requires the use of these endangered languages, in technology and commerce, the twin pillars of life.

To minimise or reduce the subtractive effects of English usage, at least in India, there has evolved a '2 or 3 language policy' in the classroom. Multilingualism is accepted and encouraged. The Indian government is strongly promoting Hindi as the Rashtra Bhasha, or National Language, despite the fact that India has 23 official languages and no National Language, per Article 343 of the Indian Constitution.

Language is a vital tool in ensuring the 'intergenerational equity' (Kates, Parris and Leiserowitz 2005) that sustainability is broadly referred to as. (Toppo and Rahman 2020) It makes it possible for a heterogeneous population to arrive at amicable decisions that address every stakeholder concern.

Language is a powerful tool. It may well be used for:

- Empathy generation for our fragile ecosystem
- Environmental awareness
- Moving from 'me' to 'we'
- Managing our ecological footprint through persuasion and negotiation
- Incorporate words like RoR, P2NPR

(Return on Resource, Product to Non-Product Ratio)

These, co-existing with the pre-existing jargon of economic indicators like 'carbon footprint', 'carbon tax', 'net zero', 'triple bottom line', 'water stewardship', LCA (Life Cycle Assessment) etc. could cement the cause of 'sustainability' as a part of everyone's daily life.

Most discourses on Language and Sustainability that consider language as a tool or a media which is used to convey the message of sustainability, (Djite 2008) echo the same perspective. One would also like to focus on the fact that language (Mother Tongue/ L1) is often sacrificed at the altar of progress in the times of globalization. To stem this damage, MT/L1 requires special attention. Because, when a language dies, with it dies an entire culture, its people, their beliefs, stories, songs, native wisdom, music and legacy. One should verily adopt a language for profit and employability, but not all wealth is quantifiable.

A Three-language formula (regional, national, international) is the best way to sustain languages.

Proposed methods to sustain Language Scripts and promote sustainability in Languages

Languages need to be spoken. Else they are lost. It is paramount that endangered tribes and sections of a country's populace be encouraged to digitally record their words, wisdom, music and stories, so that continuity of a language is ensured. The three- language formula appears to be the way forward, in order to minimise the subtractive effects of any one national or international language usage.

B. Social Sustainability

Social Sustainability as a concept was introduced late into the debate. Environmental and economic concerns were the foregrounded issues of sustainability since the inception of the idea. However, social practices and society are the framework over which any un/sustainable choice is made by Man, therefore including 'social sustainability' into the discourse. Loosely, the phrase refers to how and where people live, what the ambient amenities are and whether they have the freedom to make sustainable choices. Since humankind is sensitive to the vagaries of Nature, any constructed dwelling ought to prioritize concerns of safety, environment, community and health. This is where the paper brings into the discussion ideas of eco-friendly architecture.

As a second stage, the ideas of *equity and equality* as premises for attaining sustainability came into focus. One needs to define 'the kind of society …. we want to sustain' (Eizenberg and Jabareen 2017), (www.mdpi.com) Interpretations of social sustainability is diverse. It is associated with urban planning and design principles of compactness, mixed use, density, sustainable transport, greening etc. (Eizenberg and Jabareen 2017) [https://www.mdpi.com/]

Dempsey et al., enumerate the physical factors that social sustainability is associated with such as urbanity, an attractive public realm, decent housing, environment, amenities, accessibility etc. (www.mdpi.com). Alongside the physical parameters of a sustainable society are the philosophical ones of living spaces set in a strong, welcoming, inclusive, tolerant, diverse and cohesive social structure. Sustainability performance indicators ought to be based on environment, systemic practices, community feedback, and be reflective of an inherent dynamism. (Colantonio 2009), (McGuinn 2020).

'The concept of *Equity* encompasses three dimensions: recognition, which *revalues* unjustly devalued identities'…. (Eizenberg and Jabareen 2017) (www.mdpi.com) Democracy is the cornerstone of sustainability. An integral component of any process of achieving sustainability goals is to obtain equal commitment from all the stakeholders of the process. In that sense, democratization of opportunities is related to basic tenets of social structure like hygiene, shelter, nourishment, and safety which are undeniable pre-requisites. Equal availability of opportunities promotes a desire to protect them. Great inequality leads to great environmental degradation. (Eizenberg and Jabareen 2017)Dharavi, in Mumbai, India, is a case in point. Nowhere else in the world is there such a huge contrast in the same geographical area between inequal opportunities and inequal living standards. At once the address of the financial capital of an emerging Indian economy and the world's largest slum.

A question arises when discussing the usage of the word 'equity' and its role as a pre-requisite to sustainability. Are the terms equality and equity to be used interchangeably? Equality may not translate into equity and/or a forced homogeneity in society. Opportunities should ideally be uniformly accessible. What one makes of them, beyond the level playing field of equal opportunities, is unique to individuals. Else, competition dies. Sustainability is also about the levels to which one is able to adapt.

In this sense, the paper argues in favour of *equality* and not *equity* as being the plinth of sustainability goals. The reservation system in India is one step taken by the founding fathers of the Indian Constitution, in their quest for equity. They sought to guarantee protected/opportunity-supported, status to

Table 1
Traditional vs. Emerging themes of sustainability

	Traditional Themes of Sustainability	Emerging Themes of Sustainability
1	Basic needs of shelter, environmental health and education ('roti, kapda and makaan')	Demographic changes (aging, migration and mobility)
2	Employment	Identity (place, culture, belongingness)
3	Human Rights and Gender concerns	Health & Safety
4	Poverty alleviation	Social capital
5	Social Justice	Green Human Development Index (UN,1990)

Source: Social sustainability: review and critique of traditional versus emerging themes and assessment methods: Andrea Colantonio, 2009- SUE MoT (http://eprint.lse.ac.uk/35867/)

some select tribes and categories of Indians dwelling in the hinterlands where industry, technology or education struggles to reach because of erroneous policies or inept execution of healthy policies/distribution of national wealth. However, many Indians today are frustrated with what has become an unending skewed slew of freebies distributed among those perceived as marginalized despite some of them being benefitted by these drives for innumerable generations. Many of the mainstream Indians are actually poorer than these tribal natives and feel deprived of valid opportunities that could also legitimately have been theirs. In order to build a sustainable society therefore, it is very important to provide a level playing field, but thereafter, not shy away from competition. For evolution dictates that only the fittest ought to survive.

Traditional concepts of sustainability have changed over the course of time and thus one is required to clearly understand the new parameters.

Certain areas that have changed with respect to interpretations of sustainability may be tabulated as follows:

The above table clearly marks a shift from quantitative needs-met assessment to qualitative metrics. Going forward, the future would ideally frame a metric that would focus on inclusivity, empathy and increased protection of people's freedoms in society. Assessment would factor in soft themes of happiness index, well-being, and social capital.

[21/139/IPOL STU (2020)] Kahn (1995) proposes the inclusion of equity, empowerment, accessibility, participation, sharing, cultural identity and institutional stability as the bulwark of future sustainability assessment tools.

Nobel Laureate Prof. Amartya Sen includes a few more dimensions to his discussions on social sustainability to include: quality of life, equality, diversity, social cohesion, democracy and governance. It may be classified simply as People (Social & Cultural), Profit (Economic) and Planet (Environment). Social sustainability is intrinsically related to economic sustainability. Prof Sen champions the cause of distribution of equal resources contributing to one's freedom to aspire towards well-being while also being aware of one's capabilities. Prabhu Kandachar, in 'Materials Experience', 2014 concludes that 'social sustainability is a neglected component of sustainability. Our world has primarily focussed (thus far) on only economic sustainability.

There is often enough funds allocated for cash starved initiatives, but proper distribution of resources is always a roadblock. (The World Bank 2020). The integral point that the deliberation makes, is that resilient and inclusive societies are those where '*citizens have a voice and governments respond' [https://www.worldbank.org/]*. Social inclusion foregrounds the problem of confronting/uprooting systemic inequalities and biases including abuse, LGBTQI issues, gender violence, children concerns and ethnic oppression.

A socially sustainable society is empowering but not over protective. It is about teaching people to fish. (Lao Tzu)

Proposed method to sustain society

Before one endeavours to sustain society, one must ascertain what society one wishes to sustain. There is much in society that is beautiful, empathetic, nurturing, kind and considerate. However, there is also a lot that is based on superstition, bias, prejudice and discrimination. It is when one fails to differentiate what to perpetuate and what to filter out that society unravels on its own. All that one wants to sustain ought to be intelligently filtered for negativity and personal gain. While the 'individual' is undoubtedly very important, s/he cannot live in isolation. Hence societal values are paramount.

One cannot naively yearn for the times and communities of the yore. Indeed, one cannot even guarantee a physical society anymore. Alongside one's physical society, exists the real/virtual world. Meta verse, Social Media platforms, creates for us a homogenous though augmented parallel reality. The only way to sustain human society in the face of such impermanence, is to come back to learn at one's innermost circle – one's family. It is here and only here that societal values can be imparted. The spirit of inclusivity and not exclusionism, the traditional East Asian respect for elders and their wisdom, the culture of deference and to some extent acceptance is what is required for any family of multiple generations, to continue to thrive.

However, in stark contrast are some of the modern values of challenging status quo, of rebelling against what is 'tradition', of breaking new ground, which in themselves are great opportunities for success and progress. If we look at Nature, there is no tradition being deferred to, there is kindness and empathy, only to an extent. When the lion becomes old, a new lion, often his son, or daughter takes pride of place while he retreats to insignificance. Cruel as it may be to emulate this in human life, perhaps there is a lesson. As a nation one cannot dwell forever on the glories of the past as many East Asian cultures are wont to do. There is a certain deification of values and persons and not only metaphorically. East Asian culture and societies are history intensive. Everything one does has a spiritual, historical, societal and traditional connotation to it.

Dare one suggest that while learning from the past is a wonderful habit (*Those who have not learnt from history tend to repeat it* – Winston Churchill) living in the past is not conducive to a sustainable society. Family values are important, however these ought to adapt to the changing times. Modern life is contextual and dynamic. So should the values and philosophies governing it, be. Empathy, acceptance, inclusivity and a healthy respect for divergent views are the plinth of a sustainable society.

Along with natural resource conservation and optimisation, it is important to nurture and nourish young ideas and views, however radical and divergent they might be from the consciousness of the past.

Many methods have been developed over time to enable the measurement of social sustainability and to rank nations according to such measures. These measures could be used to understand where the futures of sustainable societies lie.

Positive News reported the Social Progressive Index (SPI) which since 2011, has used indicators, like healthcare quality, personal safety, access to education and technology, rights, and quality of environment, to give a score for social sustainability.

While a total 0f 168 countries were measured for social sustainability, The 25 best countries for social progress, as per

the report are as follows**:** ((Positive News 2021)

1. Norway
2. Finland
3. Denmark
4. Iceland
5. Switzerland
6. Canada
7. Sweden
8. Netherlands
9. Japan
10. Germany
11. Australia
12. New Zealand
13. Ireland
14. Austria
15. Luxembourg
16. Belgium
17. South Korea
18. United Kingdom
19. France
20. Spain
21. Estonia
22. Czech Republic
23. Italy
24. United States
25. Portugal

[https://slidelegend.com/]

One key finding of the report is that 147 nations improved their score from a decade back when the index was first introduced. "Social progress is advancing across the world," the report concluded. "But it remains slow and uneven."

Another encouraging observation was that social progress had a weakening relationship with emissions. This can be considered as evidence that, sustainable development does not necessarily mean compromising on the quality of life.

One discouraging observation was that individual rights have shown a decreasing trend. This trend has been seen in at least 116 of the 168 countries.

Scandinavian countries, as they often do, dominated the top ten.

'Movehub' compared three different studies from 2016 to determine the most liberal nations — the Social Progress Index, the Environmental Performance Index and the World Economic Forum's (WEF) Gender Gap report. (Hancock 2017) [https://www.businessinsider.in/?r=US&IR=T]

The Social Progress Index takes into account multiple categories like religious and LGBT tolerance, affordable housing, press freedom and access to education. [https://www.businessinsider.in/?r=US&IR=T]. The WEF's Gender Gap report looks into gender parity in economic and education opportunities as well as health and political empowerment. The EPI uses 40 performance indicators across 11 issue categories to rank 180 countries on climate change indicators like air quality and recycling. [https://www.zawya.com/en/mena] and [https://www.businessinsider.in/?r=US&IR=T]

Movehub combined the findings of all three reports to prepare a comprehensive report of its own on the most socially liberal places in the world.

[https://www.businessinsider.in/?r=US&IR=T] It comes as no surprise that the Scandinavian nations continue to top every social performance list. Their focus on using renewable energy sources, preservation of natural resources, reduced inequality of income distribution and reduced gender disparity have made their societies highly sustainable and liveable. Namibia's appearance in the list at rank 25 does come as a surprise. The explanation provided here is as the ranking looks at social liberties, even countries with struggling economies like Namibia are able to make it to the top because they afford their people more rights than other nations with a similar per capita income. Listed below are the 25 most socially liberal countries on our planet. [https://www.businessinsider.in/?r=US&IR=T]

1. Iceland
2. Finland
3. Sweden
4. Norway
5. New Zealand
6. Slovenia
7. Switzerland
8. Denmark
9. Ireland
10. United Kingdom
11. Canada
12. Portugal
13. Germany
14. Latvia
15. Australia
16. France
17. Estonia
18. Belgium
19. Lithuania
20. Spain
21. USA
22. Netherlands
23. Phillipines
24. Austria
25. Namibia

[https://www.businessinsider.in/?r=US&IR=T] and [http://nordencentrum.pl/en/homepage/]

C. Economic Sustainability

The very concept of sustainability stems from countries' desire for uninterrupted economic growth for current as well as future generations. Countries often measure economic growth using GDP or Gross Domestic Product. The governments of different countries have different economic growth targets. Developed economies like the United States or the United Kingdom usually define growth targets as a sustained GDP growth around 2-3%. While developing economies like India the GDP growth target is significantly higher at 9%. (The World Bank 2022) However, for any level of growth to be sustained indefinitely, there is a need to maintain a constant income that can be generated from capital stocks which do not decrease. (Spangenberg 2005).Thus the idea of sustainable economic

development is inseparable from ensuring continued supply of natural and human resources. In 2015, all the United Nations' member countries adopted "The 2030 Agenda for Sustainable Development". [https://journalssr.com/index.php/ssr]. It is built around 17 Sustainable Development Goals and 169 targets. [https://bim.ie/]. The goals and targets are aimed at providing guidance to nations to build policies that lead to sustainable economic development.

Some policy targets that are essential in the context of economic sustainability are discussed in brief next.

No poverty:

High GDP growth may not reflect the true purchasing power of the people. While discussing economic sustainability, it is imperative to acknowledge that mere growth of an economy may not imply better living conditions for all. In India, 28% of the population still remains below the minimum standard of living. (Mahapatra 2021). It is not possible for the economy to sustain its development until this poverty is alleviated.

Zero hunger:

Food security and ensuring minimum nutrition for all the world population remains a huge problem. It is closely linked with alleviation of poverty as well as sustainable agricultural practices. 13.3 % of the world's food is lost from point of harvesting to the point of retail sale and yet another 17% is wasted at consumption level. (Department of Economic and Social Affairs, UN 2022) Until this wastage is dealt with, zero hunger for the world population will remain a dream.

Good health and well-being:

Ensuring good health of the population goes a long way in building human capital. Poor health leads to an erosion of human capital and hinders any economic development of the nation, sustainable or otherwise. Clean water and proper sanitation facilities are also essential targets for good health.

Quality education:

Not only basic primary education but also equal and inclusive opportunities for professional skill development are another necessity in building an unhindered supply of human capital. Gender biases in education opportunities must also be dealt away with.

Decent work and economic growth:

To ensure inclusivity, growth in GDP or national income must be accompanied with fair distribution of income and wealth. A jobless economic growth serves no purpose of sustainability. Appropriate labour reforms and proper training of workforce are essential so that growth in the economy is coupled with growing employment.

Proper waste management:

As of 2022, globally 82 % of municipal solid waste is collected but only little over a half was managed in controlled facilities. (Department of Economic and Social Affairs, UN 2022). Improper solid waste management is a hindrance to the growth of sustainable cities. In 2019, less than a quarter of electronic wastes was collected or safely managed. (Department of Economic and Social Affairs, UN 2022) [https://dukonference.lv/en]

In addition to the above, access to energy should be affordable to all, human settlements should be resilient and safe, there should be increased access to public transportation and economic agents must be accountable for their activities. Simultaneously, profits from business must be directed towards development of social and human capital by ensuring improved, affordable and accessible health and education infrastructure. Better health and improved skills will lead to higher human productivity and higher outputs.

It is worth noting that the sustainability goals are interlinked and one cannot be truly achieved in alienation of another.

Traditionally, economic expansion has led to harmful environmental impacts and indiscrete use of natural sources and sinks. However, if the rate of consumption exceeds nature's ability to replenish itself, we will run out of such resources that are essential for economic activity, even the basic ones like agricultural production. Not only that, poorer environment quality implies poorer health for human beings and worsening living standards. There must be increased efficiency in production, decreased wastage in consumption and responsible disposal of waste.

As an example, in this regard, we may highlight the recent scenario in Thermal power sector of India.

There are reports that coal supplied to power plants is coming mixed with impurities. (Singh 2021). This leads to increased wastage and damage of plant equipment. Filtering becomes essential and we have increased cost of production. Further poorer coal quality leads to more pollution and damage to health. Along with economic costs, quantifiable social costs will also tend to increase.

There has been growing awareness among the general populace about sustainable development. Further, government policies are increasingly including sustainability as a goal. All these have led to both public and private players are adopting sustainable practices faster than before. Yet, businesses continue to harm the natural environment and in turn compromise on their own ability to stay afloat. This problem stems from the mere fact that it is generally costlier to buy environment friendly products, both raw materials and finished goods. Higher cost to planet does not translate to higher cost to producer or higher price to customer. It is difficult to assign, in terms of quantifiable currency, any value to many of the natural sources and sinks used in business. This has led to business enterprises treating them as 'free'- their costs have remained external to businesses' accounting. Researchers and policy makers need to find ways to internalize these costs to environment and society and only then can the sustainable movement be successful.

In this context several alternative measures which may capture sustainability in an economy has been proposed.

1) Human Development Index (HDI)

While the most widely used measure for economic progress remains the GDP, one measure that is as widely used and accepted is the HDI. This measure designed by the UNDP includes the Gross National Income as proxy for standard of living. It also includes mean years of schooling, expected years of schooling and life expectancy at birth.

[https://acikbilim.yok.gov.tr/]. While this somewhat takes care of the level of knowledge and health, by the UNDP's own

admission it still fails to quantify inequality in distribution of income, gender disparity of opportunities, human security and empowerment and environmental impact. The first issue has been addressed by the UNDP in a slightly modified measure- The inequality adjusted HDI (IHDI), published since 2010. The latest HDI ranking list puts Switzerland at top spot followed by Norway. (UNDP 2022)

2) Green GDP

In an effort to integrate market and environment, the concept of green GDP was proposed in early 2000s. Many countries tried to find a way to incorporate into their national income accounting, the cost of resource depletion and waste generation. A recent publication by the Reserve Bank of India (RBI) proposes that Green GDP = GDP – (Carbon dioxide damage + particulate emission damage) – (Opportunity cost of energy depletion + mineral depletion + net forest depletion) + Expenditure on environmental protection (Prakash, Sarkar and Kumar 2022) [https://rbi.org.in/] However, there is no unanimity among countries on the measure of green GDP and this measure has seen a declining interest.

3) System of Environmental-Economic Accounting (SEEA)

The System of Environmental-Economic Accounting (SEEA) is an accounting framework developed and adopted by the United Nations. [https://community.unescap.org/] Per the UN, "The SEEA is a multi-purpose system that generates a wide range of statistics, accounts and indicators with many different potential analytical applications. It is a flexible system that can be adapted to countries' priorities and policy needs while at the same time providing a common framework, concepts, terms and definitions." (UN 2014) [https://www.unsiap.or.jp/]. The thematic areas included in SEEA are a) agriculture, forestry and fishery; b) Air Emission accounts; c) Energy; d) Environmental Activity Accounts; e) Ecosystem accounts f) Land accounts g) Material Flow accounts and h) Water.

4) Inclusive Wealth Index (IWI)

The Inclusive Wealth Index (IWI), jointly developed by the UN University's International Human Dimensions Programme on Global Environmental Change (UNU-IHDP) and the UN Environment Programme (UNEP) is the latest attempt to accurately measure sustainability. (Margarete 2019) [https://rais.education/] In the "Inclusive Wealth Report 2012: Measuring Progress toward Sustainability," a comprehensive study of the various components of countrywide wealth is provided. The report presents IWI as an index that measures wealth using countries' natural, manufactured, human and social capital. The long-term proposal is to replace Gross Domestic Product (GDP) and the Human Development Index (HDI) with IWI. [http://sdg.iisd.org/]

The suggestion here is that the different forms of capital have a trade-off between themselves. The report on IWI concludes that the increase in human capital and improved technology has offset the decline in natural capital. Further, it is recommended to include policies like reforestation and agricultural biodiversity. (IISD 2012). If more countries adopt IWI, uniform sustainable policies might be created.

D. Policy Suggestions for Economic Sustainability

1) Resource efficiency

Larger investments must be allocated for innovations in technology that minimize fossil fuel usage, maximize efficiency and allow for conservation of natural assets. An example in this regard may be made of the supercritical power plants. Supercritical and ultra -supercritical power plants have lower emissions of harmful pollutants as they require less coal per unit of energy produced. This increased efficiency of fuel usage also reduces running cost of production. These plants are the standard for new coal power plants, as their efficiencies can reach around 44%, compared to older coal power plants that operate around 33%. (Energy Education n.d.) [https://energyeducation.ca/encyclopedia/Supercritical_coal_plant]

In 2019 National Thermal Power Corporation (NTPC) India, commissioned country's first ultra-super critical unit having capacity of 660 MW at Khargone in Madhya Pradesh.

[https://www.psuconnect.in/]. The higher efficiency will also lead to a reduction in 3.3% Carbon dioxide emissions. (NTPC 2019)

2) Substitution with renewable energy resources

Reducing bank of fossil fuels implies that we have to move towards other energy sources like solar, wind, hydro and biomass for continued supply of energy for production and consumption. Additionally, while the initial setup cost for renewable energy systems may be high, the recurring fuel cost is minimal as compared to fossil fuels. Most renewable energy resources are also free of harmful emissions. This leads to compounding benefits in terms of social cost savings.

3) Appropriate technology

Our hunt for improved and cutting-edge technology often leads us to ignore "appropriate technology" as proposed by Ernst Friedrich "Fritz" Schumacher. A lot of money, time and resources are wasted in trying to import or replica technology developed elsewhere. Instead, the focus should shift towards indigenous technology—locally developed, suitable and comfortable to be used by population of the region. Additionally, such technologies must use resources which are found in the vicinity thereby minimizing the cost and wastage of resource transfer.

4) Green buildings

Green buildings are constructions that are designed keeping the environment in mind. Non-toxic and sustainable materials are used in construction to reduce negative environmental impacts. Also, the buildings are designed in such a way that they are highly efficient in the use of energy, water and other resources.

[https://wordpress-204417-887366.cloudwaysapps.com/] Green buildings must also ensure good environmental quality.

Buildings in India that are following the guidelines of Indian Green Building Council (IGBC), often called green buildings, can record water savings of 30 - 50% and energy savings of 20 - 30%. (INDIAN GREEN BUILDING COUNCIL 2014). These buildings thus generate a lot of economic benefits as well for the dwellers. More often than not these buildings have lower construction cost.

5) Sustainable agriculture

Agricultural sustainability must ensure profitability for farmers alongside food security of masses. Some sustainable practices in agriculture are crop rotation; agroforestry; rainwater harvesting; mulching and precision. Micro farming or urban agriculture reduces the stress of food production on environment.

6) Circular economy

Recycling and reusing is another effective tool in assisting sustainability in both production and consumption. In this context, transitioning into circular economy has been proposed. The idea is to make products more durable, continually repaired, remanufactured, reused and finally recycled. [https://hbr.org/] Additionally, circular economy is a labour-intensive process. Adopting the system enables to create employment and generates income for both firm and employees.

3. Conclusion

In conclusion of the paper, one may opine that while economies prefer higher profits human beings desire a long and healthy life. Sustainability of society, culture and economy are interlinked and economic wealth creation must go hand in hand with social security and culture conservation for a holistic sustainability approach. In such a scenario, moving towards more sustainable practices is a necessity and not a choice.

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