

Corporate Social Responsibility – The Reflex of Science and Sustainability

Satbir Yadav, Research Scholar, Lovely Professional University, Phagwara, Punjab, India

2. Dr. Sunil Bhudhiraja, Dr. Sunil Budhiraja, Associate Professor, Mittal School of Business, LPU, Phagwara, India

3. Dr. Manish Gupta, Additional Registrar, Lovely Professional University, Phagwara, Punjab, India

Corresponding Author and Address: Satbir Yadav, Area Manager, CSD Depot, 1-Porus Road, Jalandhar Cantt., Punjab, India. Pin – 144005, Contact: shrisatbir@gmail.com

Article Info

Volume 82

Page Number: 15057 - 15067

Publication Issue:

January-February 2020

Abstract:

Science, which is termed as the mother of development, has served the society since its inception but has simultaneously harmed the humanity. Sustainability science (SS) is the by-product of this realization whereas corporate social responsibility (CSR) is modern manifestation to off-set the effects (harmful) handed over by developmental race of society. The corporate, in this age of globalization, as a business entity has been effectively instrumental and successful as employment generator, wealth creator, equity distributor, and environment protector and thus, attained the status of a champion or one of the leading actors for sustainable development. CSR plays a pivotal role in achievement of sustainable development (SD) when applied as a business strategy and paves the way for business to act as economy builder, society harmonizer and protector of the environment. Through this paper, an effort is made to draw a conceptual framework interlinking different dimensions of sustainability science, sustainable development and corporate social responsibility. It is more of viewpoint or a thought paper than the research one as it draws heavily from researchers' experience on constructs covered but in its unique way, conveys the inter-connects to comprehend the gigantic problem and suggest an apt & time-tested and applied, that is, the practical solution.

Article History

Article Received: 18 May 2019

Revised: 14 July 2019

Accepted: 22 December 2019

Publication: 28 February 2020

Keywords: Corporate Social Responsibility, Sustainability Science, Development, Sustainable Development.

AN EXTENDED ABSTRACT

Purpose: The main objective of the study is to comprehend the impact of science on sustainability and to highlight the role of corporate in achieving this global goal through the modern mode called CSR (Corporate Social Responsibility).

Research Design: An exploratory approach is adopted to dive deep into the constructs and establish the link amongst variables and their different dimensions. To achieve the aim, several works of authority in the domain - both researchers and academics, have been explored by the author on variables including Sustainability Science, Environmental Science, Sustainable Development and Corporate Social Responsibility.

Findings: The principles of science permeates sustainability aspect of development for the achievement of the common cause called the 'well-being of humanity' through the organisational arm named CSR. The recommendations, besides the theoretical model, to the corporate include to not only get their responsibility initiatives aligned with 'sustainability' but also all its operations i.e. core activities, to be based on principles of science of sustainability to ensure its continuity for the benefits of all concerned – the ultimate aim.

Practical Implications: The study shall help both researchers and practitioners. For former, to conceptualise the influence & impacts of variables on each other and to undertake evidence based research or empirical investigations and for the later which includes not just the corporate but the NGOs and policy makers in government as well, to follow

the former i.e. to use their energy, efforts & resources in a way which is well within sustainability parameters.

Originality: Being one of its kind, the study has conceptualized and developed a model consisting of variables and its determinants. It also underscores the importance of leveraging organisational CSR strengths in creating an ecosystem which is sustainable for itself and equitable for society.

I. INTRODUCTORY EVALUATION (INTRODUCTION)

The research area in sustainability science has reached new horizons as it encompasses every possible field known to have a direct or indirect effect on the society. Its aim is to exploit the potential of science and technology directed at the achievement of sustainability goals – social well-being and environmental protection. The society rather humanity can only be served by ensuring the development which promote, protect and preserve the planetary life-support system and such an ecosystem calls for ‘sector-specific and cross-sectoral’ approach to problem solving. The scientific and research community has this onerous task of saving the society from reaching the point of no return and the current corporate concerns addresses such issues by undertaking upon itself to support the sustainability drive riding on the shoulders of corporate social responsibility or CSR.

Promoting human well-being and protecting planetary existence – the life-support system i.e. natural resources including living species, flora and fauna, is “one of the central challenges of the twenty first century”(NRC, 1999) for the developmental destination of sustainability. The role of science and technology is considered to be “essential for society’s efforts in fostering such a transition” (Interacademy Panel, 2000, ICSU, 2002) from ‘development’ to ‘sustainable development’ and for finding such a sacred solution, sustainability science or science of sustainability shows the way.

Sustainability science is the ‘use-inspired’ research (Stokes 1997) and it has a room of its own (Clark, 2007) which covers and converge a large number of disciplines from streams of science, engineering, and social science aimed at establishing human-environment systems capable of meeting the rudimentary requirements for social sustenance and safeguarding the ecosystem and environmental integrity (Turner et al., 2003; Clark and Dickson, 2003). The science of sustainability adorns a star-studded crown as it adopts a multi-disciplinary approach which integrates the practical wisdom sourced from across the spectrum of sciences like basic, natural and social sciences; engineering, medicines, mathematics, agriculture and much more. Such an approach to the field of sustainable development has been developed over three decades by academic and research forums which has now come to be known as and “fall under the rubric of sustainability science” (Clark 2007; Schellnhuber et al. 2004; ICSU 2002; Kates et al. 2001; NRC 1999) whereas this scholar prefers to call it as ‘Science of Sciences’ or ‘Science of Solutions’ (SoS) and ‘Mother of the Father of Practices’ (MFP) for its action or practice based research orientation drawn from multi-discipline aimed at human progress or social development with zero adverse impact on environment – an almost ideal aim and tall order to achieve in this modern era of corporate competition, market economy and product consumerism. But here enters the savior of system in the guise of Corporate Social Responsibility (CSR), also called by many other names like Corporate Responsibility (CR), Corporate Social Behavior (CSB), Sustainable Responsible Business (SRB), Corporate Citizenship (CC), Corporate Conscience, Social Performance, etc. in the form of self-control and regulations through an integrated business strategy capable of creating a corporate continuum or sustainable business ecosystem influencing every possible sphere of society.

The potential of CSR can optimally be harnessed, with the stable support of sustainability science,

having an interactive understanding of human-environment relationship affecting each other in short & long-terms and at local & global levels. The clarity of this understanding simplify the ‘use-means’ equation between human and environment besides serving as the foundation for science of sustainability. As the “natural capital” is the source of life-support system for human well-being, its sustained use can only be ensured through sustainable means. Every action of human being invites reaction from the environment and thus, establishes the inseparable relationship with their impact being felt both at local & global levels. Some of the researchers describe the current age as the “anthropocene” to emphasize upon “the major impact humans have in shaping the environment” (Crutzen and Stoermer, 2000). For this very fact of humans’ impact on environment and the latter’s role affecting well-being of human beings, an enhanced understanding of human-environment interactions is essential for sustainable development which calls for due diligence leading to thoughtful “decisions to guide human actions in ways consistent with maintaining human well-being in the long-run”(Friedman, 2010).

The critical study and analysis of ‘development’ since the industrial revolution reveals uncomfortable facts about modern development which is considered ‘progressive’ for the mankind and the most prominent being the ‘sustainability’ of the civilization or humanity itself . The damage caused is irreversible. The concept of ‘sustainable development’ emerged on the academic arena and discourse, as an alternative to ‘development’, in 1980s consequent upon several scientific studies on effects of use of non-renewable resources and the spread of pollution on environment & ozone layer and, in turn, latter’s adverse impact on the humanity itself signaling its very end! The irony, however, is that in spite of clarion call by the researchers and scientific community, the practitioners of ‘development’ pays little rather no attention towards the sustainable dimension of development. The

concept and practice of ‘After-Sale-Service’ in sales & marketing of consumer durables is applied here in the form of CSR by majority of firms across the globe as efforts are made to ‘negate the effects’ rather to ‘affect the negatives’. The solutions for sustainable development are sought within the same system which is responsible for the seismic turbulence on this planet. The real, effective and immediate solution for this perennial problem is internal rather than external. We as consumer must restrict our needs & desires and, in the words of Gandhiji, not ‘multiply’ it to achieve the ultimate goal of sustainability. The simple statement is actually a very tall order for the world community to follow but then there seems to be no other options or ways to circumvent it to save ourselves – the future generations of mankind and all kinds of flora & fauna on this earthy planet.

In third world countries, when we think of and talk about development, we are reminded of discussions which revolve around developed countries, for example, their living standard, per capita income and gross national income, infrastructure, etc. Now the question arise, does economics alone measure everything? Developed countries have good industrialization, good infrastructure and can be said that everything is well managed. If it be so, than why are they researching for ‘sustainable development’? Is the ‘development’ alone not sufficient for them?

II. LITERATURE REVELATION AND CONTEXTUAL CONSTRUCTS (REVIEW OF LITERATURE)

2.1 Development and Sustainable Development: The Interlink

‘Development’ – the process of progress, has probably been subsumed by the term ‘Sustainable Development’- the progress with a purpose (as the scholar call it) in the 21st century, at least in theory and for discussions & discourses during workshops, seminars & conferences at both national and international level. The need and importance of

Sustainable Development (SD) has been discussed and debated for over half a century without any concrete conclusion. The concept has been more theorized than being practiced.

Development is the process of progress or change in current system for comfort or betterment and can simply be defined as 'good change'. It relates to the improvement in the well-being of society. Development literally means 'growth' or 'progress' but over a period, especially during 19th & 20th centuries, it was considered as the same or used as synonym to economic growth which is measured in terms of per capita income or gross domestic product (GDP) of the nation. It is perhaps for this very notion or definition of 'development' which laid the circular track for countries to continue their rat race to the illusory goal-post called 'development'. Such a developmental goals, more often than not, are against the very essence of real development as they lead to over-utilization rather exploitation of natural resources and thus fail to preserve or sustain the ecosystem or the environment. This approach to development led the world think-tanks to re-think on the necessity of harmonious human-environment relationship essential for the peaceful co-existence of man and nature. Many international organizations like United Nation (UN) are leading the campaign to reverse this 'race' and step-up the pace to sustainable development.

Sustainable development as a concept and practice received modern meaning and impetus from the WECD (World Commission on Environment and Development) Report which is also known by the name of 'Brundtland Commission' or 'Brundtland Report', presented in 1987 which stated: "Environment is where we live; and development is what we all do in attempting to improve our lot within that abode. The two are inseparable...."

Humanity has the ability to make development sustainable: to ensure that it meets the needs of the

present without compromising the ability of future generations to meet their own needs."

The concept of sustainable development serves as the sub-way to reach the highway of human development. It is the 'organizing principle' for achieving goals of human or social development and simultaneously, ensuring nature's ability to sustain itself by sustaining the supply of natural resources and the ecosystem on which both - the society and economy, depend. In this way, the goals of attaining high standard of living conditions for the society by use of natural resources without compromising the 'integrity and stability' of natural system to meet the human needs can be achieved. The principles, processes and practices so adopted falls under the concept called 'sustainability' which means, in simple terms as per this scholar, the 'ability' of the ecosystem to 'sustain' itself in the face of developmental onslaught.

2.2 Sustainability – The Marriage of Science and Development

Sustainability can be considered as the process to ensure uninterrupted supply or productions of the means of development with simultaneous replacement of resources used for the purpose and without affecting the ecosystem adversely. Sustainability, in terms of development, has undivided concerns to persevere the life-support system and to help humanity to face economic, social or even political challenges with the support of scientific advancement made in every sphere of study.

Sustainability science, as a separate discipline, basically revolves around and involves the study of two broadfields or concepts - of sustainable development and environmental science. It, in fact, can be termed as the matrimonial relationship of science and development. As a marriage can be solemnized with mutual consent and sustained not without perfect understanding and respect to each other's concerns, so is the case with sustainable

development which pre-supposes the presence of harmonious relation between human and nature or the peaceful co-existence of society and the environment for the ultimate ‘conjugal bliss’ to be blessed with next generation of humanity in the lap of environmentally healthy mother – the planet earth.

The humanity’s survival entails environmental support whereas economic and social development demands perpetuity of planetary resources and thus, the need or importance of sustainable development which, in turn, requires science of sustainability to help the society to preserve & protect the life-support system of this planet –The Mother Earth, to sustain the present and future generations of all living species including the mankind.

The term sustainable development has been defined and described differently by many a researchers and authors emphasizing aspects of their respective fields of study and research but by far, the Brundtland Report is known to be the origin of often repeated definition usually quoted as: “Sustainable development is the development that meets the needs of the present (people) without compromising the ability of future generation to meet their own needs”. To put it differently, it is the process or practice to improve the living conditions or quality of life of present generation without affecting the prospects of future generations by way of maintaining the balance between use and need of natural resources for both the present and future generations. Sustainability or sustainable development can be conveniently called as the *marriage* of economy and ecology as it aims at attaining economic development leaving the ecological balance un-affected.

2.3 Sustainability and Corporate Social Responsibility (CSR) – The Sacred Union

The term ‘sustainability’ had acquired the status of “hot topic” (Wilkinson, 2005) during the last two decades of last century whereas it has become “another mantra” (Ehnert, 2009) with the turn of the

century, especially for the researchers in development related domains from the vast fields of science and management. The content analysis of research pertaining to 20th century does not confirm any substantial effort on the part of researchers to establish the connect between the all-inclusive external field of sustainability and equally pervasive internal area of CSR. Also, even the research in the sub-area like Sustainable Development (SD) treated the term ‘Sustainability’ in a way incongruent to today’s interpretation of researchers and academics alike besides there being any effort to connect the two i.e. to establish the relationship between ‘sustainability’ and ‘corporate sustainability’ or ‘corporate social responsibility’. This however, has changed with the turn of the century and there is paradigm shift in the approach two concepts are looked at and treated with. Various terms like “sustainability”, “sustainable development”, “corporate sustainability”, “corporate social responsibility”, “corporate social development” and “corporate citizenship” are used in similar vein by researchers without delving deep to dig the differences out. However, the term ‘sustainability’ has touched upon every aspect of corporate functioning and thus, earned the tag of “Corporate Sustainability (Dyllick&Hockerts, 2002)”. To start with, the focus of corporate sustainability was to study or analyse the impacts, especially harmful effects, of business on the environment but later on, the entrance of ‘CSR’ into corporate culture helped highlight the ‘social’ element in corporate efforts towards sustainability, “leading to the convergence of separate streams (Van Marrewijk, 2003)”.

Notwithstanding the definitional differences for above mentioned terms/concepts, author treats the two - ‘Sustainable Development’ (SD) and ‘Corporate Sustainability’ (CS) in the similar manner as treated by the World Commission on Environment and Development in their definition of SD: “Seeking to meet the needs and aspirations of the present, without compromising the ability to meet those of the future” (WCED, 1987) and by

Kaptein and Wempe(2002)who stated that the corporate set-up provides an environment of possibility to achieve the ultimate objective of Sustainability “through the *intermediate stage* of Corporate Social Responsibility” by “balancing the imperatives of profits and environmental impacts”.

Earning short-term economic gains or profit are no longer the sole aim of business enterprises but the long-term strategic “market-oriented yet responsible behavior” (Mahajan,2011). Corporates have realized their potential to contribute to the common cause of community, that is, their ability and responsibility towards sustainable development by conducting their business operations maintaining the desired balance between economic growth duly accompanied by protection of the environment and social responsibility toward all stakeholders.The well-intended and all-inclusive statement of Boudreau and Ramstad (2005) that “decision makers, opinion leaders, voter, and employees care about sustainability. They want corporations to reduce the externalities that burden future generations. Sustainability is not just good ethics; it is potentially good long-term economics.” says what all major stakeholders - the government, non-government organisations (NGOs), business and society, have a role to push for and contribute to the ‘sustainability’ movement.

“What corporations do to society is far more important than what corporations can do for society”

-Peter Druker

2.4 Environmental Sustainability: Indian Traditions, Practices and Examples

The conservation and protection of environment has been part of Indian living & livelihood. Environmental sustainability has been at the core of Indian ethos & culture evidenced by the traditions & practices of worshipping to the extent of even marrying the trees! All five elements of the environment, viz. Prithvi (Earth), Vayu (Air), Jal (Water), Agni or Tejas (Fire or Sun), and Aakash (Sky) are worshipped across the country or Indian

sub-continent. One can perhaps have no closer relation than with the God or one’s life partner – an intimacy beyond description, and such is the relation of Indian people with the environment and its sustainability. The example of *Chipko* movement where rural people, particularly women embraced or hugged trees to stop their cutting at the risk of their life is outstanding and being mentioned in the history of conservation of the forest & environment across the globe. On looking for such examples in the country, a similar i.e. Chipko-type movement find its mention which took place as back as 1730 in a non-descript village namely KartikeyKamboj of Rajasthan where 363 persons of Bhisnoi community sacrificed their lives (!) in order to save Khejri trees. As for the practice in current CSR supported scenario, trends points towards an increased awareness and appreciations on the part of all concerned including the industry resulting into an enhanced allocation and expenditures on environment by the corporate. The relative CSR spent (14%) on conservation of environment or related activities was higher than the total amount spent on rural development (12%) and next only to education (32%) & health (26%) during the year 2014-15, as per the data released by the Ministry of Corporate Affairs. The trend is supported by another study on CSR expenditures analysis of top 100 companies for the year 2015-16, conducted by NextGen where result is same i.e. CSR expenditure on environment focused initiatives is on the rise. This rising trend is the testimony of corporate’s concern and understanding of impact of climate change on their business strategies & operations beside the opportunities provided to integrate the sustainability issues into a larger dialogue with major stakeholders. An apt example is the recent ‘Champions of the Earth’ Award - the UN’s highest environmental honour, bestowed upon Prime Minister NarendraModialong with President of France Emmanuel Macron, “recognized in the ‘Policy Leadership’ category for their pioneering work in championing the International Solar Alliance and promoting new areas of levels of

cooperation on environmental action, including Macron's work on the 'Global Pact for the Environment' and Modi's unprecedented 'pledge to eliminate all single-use plastic' in India by 2022". One of the Indian airports i.e. Cochin International Airport, also received the award for its exemplary initiatives in the usage of sustainable energy in the category of Entrepreneurial Vision.

The Indian business operations are increasingly including 'sustainability' into mainstream and partner their CSR projects with government and non-governmental agencies. For many a large contributors to the environment focused projects, 'sustainability' has come to occupy the central stage on CSR landscape, e.g. ITC has named its CSR committee as "CSR and Sustainability Committee." HUL, another large spender, has tied-up with Unilever to focus on global issue of water scarcity through its projects on water stewardship. The focus on renewable energy led Axis Bank to spend about 28 Crores for reduction of GHG emissions.

The Tata group, one of the leading player in the field long before the term CSR came into being, spent more than 1000 Crores on various social projects including environment. One of its constituent company – Tata Chemicals launched a programme called 'Save the Whale Shark Campaign' to create awareness amongst people about one of the most vulnerable marine species and to conduct scientific studies on their survival resulting into saving of nearly 200 sharks since 2004.

The 'United Way Worldwide' – an NGO or non-profit organisation through its Bengaluru Chapter launched its flagship campaign called 'Wake the Lake' and successfully helped in saving some of the city's dying lakes with the joint efforts of stakeholders – citizens or the immediate society, civic body or the government and corporate.

The above examples are just illustrative of endless activities being undertaken by businesses either at their own or in co-ordination with government

and/or society to off-set the adverse imprints left by 'development' on our planet and environment.

2.5 The Way Forward: Gandhian Perspective – The Indian Solution to International Problem of Sustainable Development

Gandhiji prescribed the local solution to global problem while advocating for holistic (economical, intellectual, emotional and spiritual) and non-exploitative development i.e. sustainable approach. Gandhian approach to development is human centric and not GDP centric. His economic philosophy is that of inclusiveness that calls for "elimination of poverty, unemployment and urban-rural inequalities through socio-economic development" (Dodd Pankaj, 2012). According to him, "Poverty is the worst form of violence". The economic system adopted by Western countries, as described by Gandhi, are based on "multiplications of wants" which he felt was self-defeating – being unsustainable in the long-run and against the dignity of human spirit. He advocated for an economic model which is based on fulfillment of basic need of self (man) and society. He preferred "preservation of human dignity" over "material development". His economic model is integrative of economics and ethics as both draws synergetic strength from each other. According to him, economics devoid of ethics is "against morality" and even "sinful". The business or industry should be evaluated not by the profits earned for its promoter but the effects (harmful or otherwise) caused on the earth including environment and the human beings – their soul, spirits and bodies, involved in the industrial process. We, the human beings, are the integral part of this earthly planet as "living part of Earth's life, owned and operated by the Earth" (Huffman, J.L., 1992, Sharma, M). Our attitude towards the earth is defective and dangerous. Our notion that we own it and can exploit it to our advantage is void ab-initio. Gandhi's ideas are relevant for protecting the environment and to preserve the carrying capacity of Mother Earth. Gandhi emphasizes on three aspects: economy, society and environment. According to

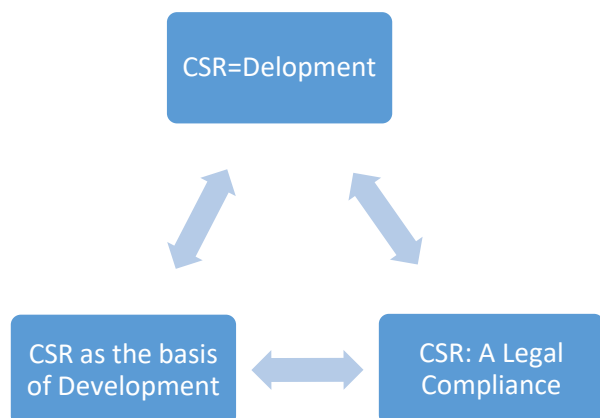
him, we need to change our materialistic outlook and adopt the lifestyle based on the principles of sustainable development. By following his advice on economy of cooperation being followed by honey bees and birds, society can surely sustain the development movement and achieve a lifestyle consistent with his ideals of sustainability. A sustainable life style automatically ensures sustainable development.

2.6 Mantra – The Secret Solution

Sustainable Development (SD) is, in essence, both - means as well as the end. It is simple to understand and easy to implement. Our desires or wants (not needs) deviate the development and thus, sustainable development or sustainability depends on the extent of our requirement which need to be optimized (if not minimized) for the very fact no 'progress' or 'development' can be without affecting the 'sustainability'. Desires directed development deliver devastation. So the solution is an open secret, universal and simple – contain to sustain (as this scholar see it) that is, society need to contain or restrict its unending attempts to acquire assets (physical) which are produced not without the exploitation of natural resources and are temporal in nature, to sustain rather save the humanity which is at the brink of collapse if not the extinction!

2.7 The Conceptual Framework:

As is Scenario



To be Scenario

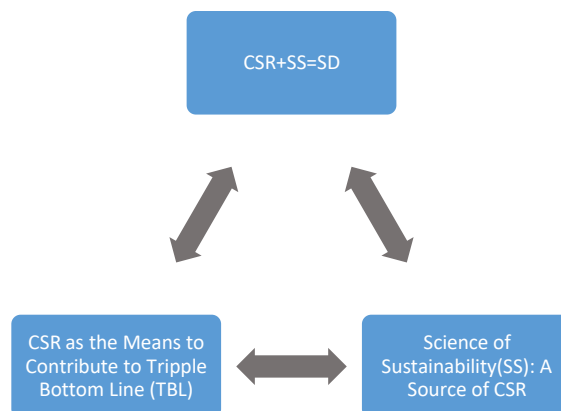


Figure: 1. Linkage between Sustainability Science, CSR and Sustainable Development

III. RESULTS (FINDINGS)

The content analysis of extant literature on CSR, especially on its definitional construct and conceptual context, establish the clear link at macro level of self, society and environment keeping the corporate at the centre of interactions.

Author consider CSR both as the ways and means to explore the self to serve the society and protect the environment by being the constituent of entity called the Corporate. To restrict CSR's definition and role around 'social responsibility' alone would lead to an unintended restrictions on its scope of untapped potential to cover the space of sustainability in terms of impact on economy and environment.

Its area of influence starts with self (individual), covers the community or society and merge into the environment.

CSR can thus, be depicted as a set of three 'Concentric Circles' with the Self or Corporate (combination of 'selves' or individuals) at the inner most core, 'Society' in the centre and 'Environment' as an outer most encircle.

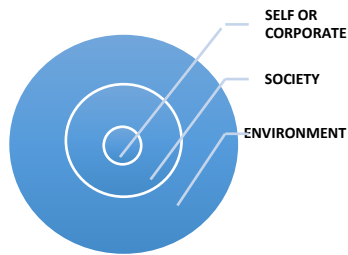


Figure: 2 CSR – Areas of Influence

In essence, CSR is an off-shoot of ISR (Individual Social Responsibility) manifested through corporate and both - CSR & ISR, are integral constituents of SSR (Society's Self Responsibility) – as the authors view it.

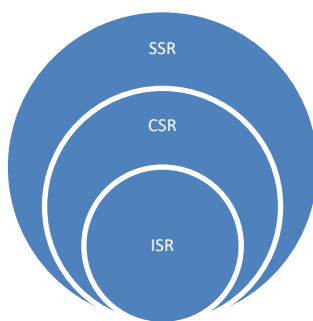


Figure: 3 SSR=ISR+CSR

In this way, organisations fulfill their social responsibility for being an entity or corporate citizen and thus, the corporate must be responsive to the 'needs' of society by maintaining a sustainable equilibrium of achieving economic and environmental balance. To say the least, corporate must align their business strategy to social requirement and develop a business model which is socially responsible and environmentally sustainable. Being 'socially responsible' requires business activities to be beneficial to the society in which a corporate operates and being 'environmentally sustainable' demands dedicated efforts on the part of an organization to ensure no harm is caused, due to its operations, to the environment – an asset which we inherited, need to handle as trustee and must ensure its safe handing over to the future generation, without any degradation or downgrading if not in an improved condition, as if we owe it to them. This is possible

with the help of clear conception of constructs involved in the process i.e. the science behind sustainability and the sustainability before development.

In essence, sustainable development is a directed or desired development. It is a process of 'good change' where resources are used and not abused resulting into the fulfillment of present and future needs and aspirations of mankind.

According to law of economics, resources are limited and needs are always unlimited but human being should satisfy their needs with limited resources. It will thus be appropriate for me to conclude with the most often quoted quotes on 'needs' and 'sustainable development':

*"Earth provides enough to satisfy every man's need,
But not every man's greed".*

- Mahatma Gandhi

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

It contains within it two key concept:

The concept of 'needs', in particular, the essential needs of the world's poor, to which overriding priority should be given; and The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs".

- 'Our Common Future' (1987): World Commission on Environment and Development.

IV. SAARANSH – THE CONCLUSION

The meaning of development pertains to meaningful and resourceful growth of society which could fetch positive outcomes in long term for welfare of not only human beings or society but for the entire planet. Therefore, maintaining equilibrium between development of environment, flora, and fauna is the integral part of sustainable development. The

concept of development does not lie only within frame work of increase in comfort levels of humans but depends on sustainability. The ‘co-operation’ and ‘reciprocity’ are essential properties for the sustainability and existence, without which entire creation would reduce to nothingness. Hence, principles of interconnectedness and reciprocity lie between Nature & Humankind. There should be fine balance as everything is interconnected. We are trustees of mother earth (our planet). It is the responsibility of the humankind to care for and maintain our planet while obtaining required resources in response. Planet has vast recourse and biotic system. So we, the trustees, need to learn and make use of planet support system or natural resources – renewable and non-renewable, provided by the earth in an ethical and responsible manner. The moderation and humility worth of mother earth or the nature are beyond economic valuation. Sustainable development demands extensive understanding of the environment including biological diversity and its defining role in development of the society in terms of material gain and non-material or spiritual growth. Material world cannot establish the happiness of mankind, happiness can only be achieved when material and spiritual worlds are linked and coordinated.

V. RECOMMENDATIONS

Two distinct recommendations, one for researchers including academicians and other for practitioners, emerges out of discussion and findings. The former – researchers, need to consider ‘science of sustainability’ in its entirety and not in isolation for the fact that ‘sustainability’ in itself is an hallow concept “without there being anything to ‘sustain’ and if there exist something to be sustained, the same need sustenance in its entirety” (Satbir, ISC, 2019). Similarly, the latter – practitioners of ‘sustainability’ including the government, non-govt. agencies engaged in development work, corporate and the society, all need to treat ‘sustainability’ as non-sacrosanct in itself and consider its all-inclusive (input-output) impacts. To put it in practical

perspective, example of solar power generation bring home the point best i.e. the “comparative cost and advantages of input processes or practices to generate solar power must not outweigh its resultant (output) benefits as the process to use sustainable source of energy (solar) may require extensive use of lithium batteries, production of which in itself may not achieve the ultimate aim of ‘sustainability’ as input to such production is exploitation of scarce resources and their disposal after use causes irreparable loss or damage to the environment” (Satbir, ISC, 2019).

VI. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

At times, the very strength of paper becomes its weakness and so is the case with the paper in hand i.e. ‘the conceptual clarity of constructs and framework linking various variables’ being its sole strength also proves its main limitation as the paper is fully devoid of any testimony or empirical evidence based upon any survey or study. However, this very limitation itself provides the direction to future researchers to drive them “to testify empirically the effects & influence of CSR initiatives by corporate on economic, social and environment sustainability” (Satbir, ISC, 2019).

VII. REFERENCE

1. Boudreau, J. W.; Ramstad, P. M. (2005). Talentship, talent segmentation, and sustainability: A new HR decision science paradigm for a new strategy definition. *Human Resource Management*, 44(2), 129-136.
2. Clark, William C. 2007. “Sustainability Science: A Room of Its Own.” *Proceedings of the National Academy of Sciences USA (PNAS)*, 104: 1737–1738. DOI:10.1073/pnas.0611291104.
3. Clark, W. C., & Dickson, N. M. (2003). Sustainability science: the emerging research program. *Proceedings of the national academy of sciences*, 100(14), 8059-8061.
4. Crutzen, P. J., & Stoermer, E. F. (2000). The “Anthropocene.” *Global Change Newsletter* 41, 17–

18. International Geosphere–Biosphere Programme (IGBP).
5. Dodh, P. (2012). Impacts of globalization on social inclusion: A comparative analysis to Gandhian economic philosophy. *International Journal of Physical and Social Sciences*, 2(5), 287-297.
6. Dyllick, T. & Hockerts, K. (2002). Beyond the business case for corporate sustainability. *Business strategy and the environment*, 11(2), 130-141.
7. Ehnert, I. (2009). Sustainability and human resource management: reasoning and applications on corporate websites. *European Journal of International Management*, 3(4), 419-438.
8. Friedman, A. (2010). Human Well-being and the Natural Environment: Research Challenges in Mathematical Sciences.
9. Huffman, J. L. (1992). Do Species and Nature Have Rights. *Pub. Land L. Rev.*, 13, 51.
10. ICSU (International Council for Science) (2002). Science and technology for sustainable development. *World Summit on Sustainable Development Report 19*
11. Interacademy Panel. (2000). *Transition to Sustainability in the 21st Century: The Contribution of Science and Technology*. Tokyo: IAP.
12. Kaptein, M., & Wempe, J. F. D. B. (2002). *The balanced company: A theory of corporate integrity*. Oxford University Press, USA.
13. Kates, R. W. (2018). What is sustainable development?
14. Kates, R. W., Clark, W. C., Corell, R., Hall, J. M., Jaeger, C. C., Lowe, I., ... & Faucheux, S. (2001). Sustainability science. *Science*, 292(5517), 641-642.
15. Komiyama, H., & Takeuchi, K. (2006). Sustainability science: building a new discipline.
16. Mahajan, P. (2011). *Corporate Social Responsibility: A new wave of corporate governance*.
17. National Research Council, Board on Sustainable Development. (1999). *Our Common Journey: A Transition Toward Sustainability*. Washington, DC: National Academies Press.
18. Satbir, (2019) ISC. Paper on 'Corporate Social Responsibility – The Crossroad of Science and Sustainability' presented during Indian Science Congress, Jan'2019.
19. Schellnhuber, H. J., Clark, W. C., & Crutzen, P. J., (2004). Science for global sustainability. *Earth system analysis for sustainability*. MIT, Cambridge, 1-28.
20. Stokes DE (1997) *Pasteur's quadrant: basic science and technological innovation*. Brookings Institution Press, Washington.
21. Turner RK, Paavola J, Cooper P, Farber S, Jessmy V and Georgiou S (2003). Valuing nature: lessons learned and future research directions. *Ecol Econ* 46: 493–510
22. Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of business ethics*, 44(2-3), 95-105.
23. Wilkinson, A. (2005). Downsizing, rightsizing or dumbsizing? Quality, human resources and the management of sustainability. *Total Quality Management and Business Excellence*, 16(8-9), 1079-1088.
24. World Commission on Environment and Development (WCED). *Our Common Future*. Oxford and New York: Oxford University Press, 1987.