

# Impact of Sustainable Finance on MSMEs and other Companies to Promote Green Growth and Sustainable Development

Mahesh K. M.<sup>1</sup>, P. S. Aithal<sup>2</sup> & Sharma K. R. S.<sup>3</sup>

<sup>1</sup>Post-Doctoral Research Fellow, College of Management & Commerce, Srinivas University, Mangalore-575001, India and Principal - SBM Jain Evening College, V.V. Puram, Bangalore-560004, India

OrchidID: 0000-0002-7196-7580; Email: [km.mahesh@jaincollege.ac.in](mailto:km.mahesh@jaincollege.ac.in)

<sup>2</sup>Vice Chancellor, Srinivas University, Mangalore-575001, India.

OrchidID: 0000-0002-4691-8736; E-mail: [psaithal@gmail.com](mailto:psaithal@gmail.com)

<sup>3</sup>Faculty at EWIT, Research Scholar – AIT Bengaluru, India

OrchidID: 0000-0001-9559-6633; Email: [sharma.krs@gmail.com](mailto:sharma.krs@gmail.com)

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## Impact of Sustainable Finance on MSMEs and other Companies to Promote Green Growth and Sustainable Development

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OrchidID: 0000-0002-7196-7580; Email: [km.mahesh@jaincollege.ac.in](mailto:km.mahesh@jaincollege.ac.in)

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### ABSTRACT

**Purpose:** *Sustainable Finance (SF) contributes to better development and better Finance for Economic growth. Sustainable development is protecting and restoring the ecological system. SIDBI, NITI Aayog, and World Bank facilitate Sustainable Finance to encourage businesses to grow from Small Medium Enterprises to large Industries to make an enormous global impact. As per the World Bank estimate, adversely affect the standard of living of the population and climate change will reduce India's GDP by nearly 3%. For tracking the climate protection performance of the country, the CCPI tool is used. The Key sustainable finance providers to companies and MSME's are Banks, Corporations, International Financial Institutions, Institutional Investors, International organizations through Financial Instruments Climate Funds, Green Bonds, Impact Finance, Social bonds, Microfinance, SIDBI Sustainable Finance Scheme for funding, NABARD, and Make in India. MSMEs, and SMEs involved in the Projects Solar Power Plants, renewable energy, Green Machinery, Waste Management, Electric Vehicles (EV), Clean Energy, Recycle, Poverty alleviations, and Energy conservation, and India is committed to achieving Net Zero Emissions by 2070. During the Climate summit in Glasgow, India accepted for Five –Point climate 'panchamrit, or pledge' towards climate change and Climate Finance. As per the Environment ministry. India needs \$280 billion for green infrastructure and the government of India proposed the creation of a Social Stock Exchange, Europe Investment Bank (EIB) with SBI. RBI has considered Green and Sustainable projects should be put under Priority Sector Lending (PSL) to support GE (Green Economy) growth and to meet the SDG (Sustainable Development Goals) and ESG (Economic, Social, Environment) guidelines for fundraising.*

**Methodology / Design /Approaches:** *In this article theoretical concepts are used in the analysis of various financing Mechanics for green production and Sustainable development.*

**Findings and results:** *The effectiveness of sustainable finance or Climate finance required for MSME and Companies for greener production infrastructure and government of India missions on climate Change, Regular to boost the ESG to promote sustainable development and Economic growth.*

**Originality/value:** *Analysed the various articles and case studies and prepared the model required for sustainable fiancé for green growth in India.*

**Type of Paper:** *Research Analysis*

**Keywords:** ESG, Climate Finance, Financial Institutions, Green Bonds, Green Economy, MSME's, RBI, SIDBI, Social Stock Exchange, Sustainable Development Goals (SGS's), ABCD analysis

## 1. INTRODUCTION :

Sustainable Finance is one financial instrument to fight climate change and its impacts by regulating emissions and promoting developments in renewable energy and Sustainable development towards ESG-Environmental, Social and Governance. Sustainable development is a concerted effort towards building an inclusive, sustainable and resilient future for people and the planet has three core elements (i) Economic Growth, (ii) Social inclusion and (iii) Environment protection. Socially responsible Investment has already emerged in the late 1960s and 1970s in the US and Europe 1980s (Boxenbaum & Gound,2006) [1]. The concept of the Evergreen Revolution in India was mooted by the Father of the Green revolution M.S. Swaminathan and United Nations Environment Programme (UNEP) has played a leading role in shaping and promoting the green economy for reducing environmental risks. The funding in the area of reduction in carbon emissions, pollution, enhance energy and resource efficiency in the area of clean technologies, renewable energies, water services, green transportation, waste management, green building and sustainable agriculture. Indian economy is one of the fastest-growing and emerging market economies in the world. As per the Global Climate Risk Index 2021, India stands seventh amongst the most vulnerable countries prone to climate change impact and has incurred losses of USD 69 billion in 2019. Agriculture-related land use accounted for 17% of global GHG emissions and 16% of India's GHG emissions from all sectors. India initiative for generating solar energy through International Solar Alliance (ISA) at the Paris climate change summit and with Green Grid Initiative (GGI) led by the UK called One Sun, OneWorld, One Grid (OSOWOG), will draw more investment opportunities for Funding Agency in solar power production.

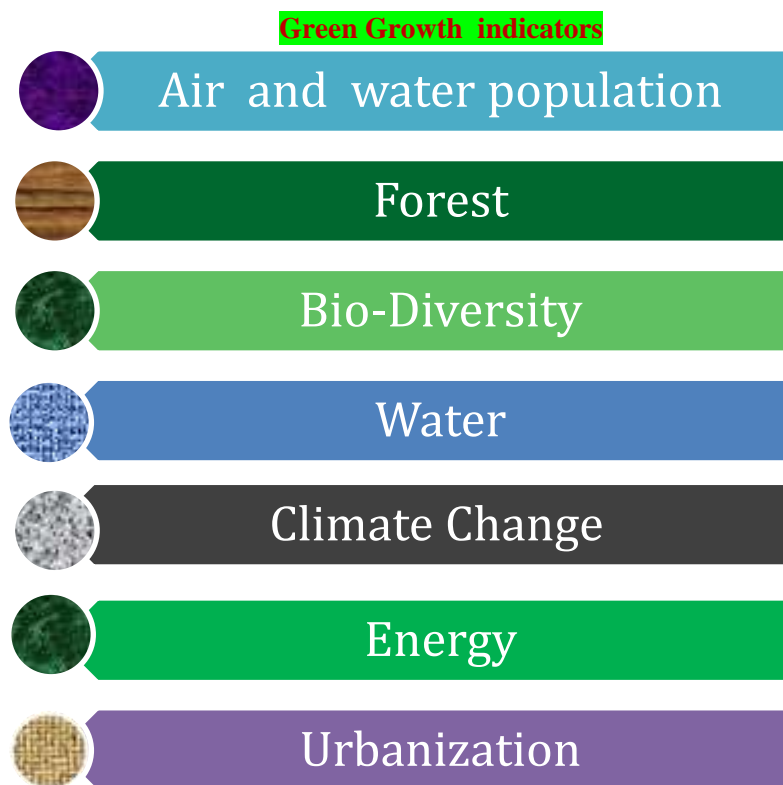


Fig. 1: Green Growth indicators

Source: Global Green Growth institute

New definitions of MSMEs and Companies based on Turnover and Investment Micro-Enterprises Companies with an investment of less than Rs. 1 crore and turnover less than Rs. 5 crores small Enterprises Companies with an investment of less than Rs.10 crore and turnover of Rs. 50 core medium Enterprises Companies with an investment of less than Rs. 50 crore and turnover less than Rs. 250 crore.

## 2. RELATED WORKS :

The author's analysis that the SDGs have set many targets to achieve. Among them are transforming

public and private activities related to adapting the new business plans, acquiring innovative technology and performing business activities more sustainably. This transformation opens the new kind of opportunities under MSMEs in creating employment opportunities for all under poverty in all regions, be it rural or urban and accomplishes the second SDG, and contributes GAV & GDP in major ways through green jobs in manufacturing, renewable energy and energy efficiency. Green jobs help in minimizing greenhouse gas emissions, reducing pollution and waste and restoring ecosystems and preserving the environment quality. Ever since 2006-2017, there has been a steady growth in green jobs generation under MSMEs but at a slow pace. The MSMEs have faced a few problems in access to formal credit, difficulty in bringing in equity capital and finance due to the informal nature of the MSMEs. There is a lack of awareness among MSMEs about the government provision regarding MSME loans, lack of availability of labs for product testing, rural broadband and electricity [2].

**Table 1:** Review of related published work on sustainable finance on MSME

Sl. No	Focus	Authors & Reference
1	The author highlights cooperation with the BRIC framework and inclusion of developing countries, the infrastructure co-financing through New Development Bank, India investment in Africa, Key Human Development Climate change challenges, Energy equity in sustainable development, technology skills transfers, techno-economic approach promoting multi-country projects. It is shown that renewable energy provides opportunities for Green growth inclusive, practice and policies are transform the green growth.	Renwick, N, Gu, J & Xue, L 2018 [3]
2	The paper highlights in green finance recent trends, challenges and future opportunities in emerging India. Regulatory gaps, limited awareness and role of various banks in green financing including SIDBI and MSMEs focus on shifting, adopting alternative technologies for production and process to maximize the energy conservation	Soundarrajan, P., & Vivek N. (2016) [4]
3	The primary study focuses on 4 districts to know the MSME towards sustainable development in availability of infrastructural facility, financial institution supports inclusive of entrepreneurial skills, innovation marketing, opportunities to socially backward classes. The global challenges are associated with sustainability and highlight the Environment/Planet, Social Environment/People and Economic Environment/Profit.	Sharma N. (2015) [5]
4	The paper highlights sustainable development goals and the potential of MSMEs in achieving sustainability due to huge subsidiary organization through the application of policy approach by the Ministry of MSME towards encouraging industry-related waste management, lean manufacturing, credit support, collaboration and awareness programmes for MSMEs entrepreneurs. The author highlights the MSMEs promoted and supported through appropriate government interventions.	Verma, T. L., & Nema, D. K. (2019) [6]
5	The Report highlights the financial assistance for solar energy support and solar policy for MSMEs and financial assistance through NABARD, Solar energy Corporation of India(SECI), National Housing Bank(NHB), IREDAs loan scheme, skill-building activity connecting solar and rural population, OPEX MODEL of solar ( Build-own- operate), competitive market and improving governance system in the MSMEs.	Acosta, L. A., & Suresh, S. (2016) [7]

6	In this paper Green Finance: How to Benefit in the Indian Economy, the author has connected green growth through products and services in green finance such as green securitization, green technology leasing, carbon finance, carbon insurance and corporate finance. Concerning environmental and economic growth, the author points out that the MSMEs are neglected due to limited technological know-how and appropriate financial products. He also suggests that sustainability measures through the energy efficiency loan model and training should be provided to the MSME industry.	Pathak, Devendra and Srivastava, Vishal and Sharma, Mohit (2014) [8]
7	In the article sustainability, finance is a new financial vehicle (ESG funds, Green Bonds) to combat climate change. “The Global Investment banks, Black Rock. Goldman Sachs, HSBC, Morgan Stanley, UBS institution” can play a critical role in sustainability and adapt the global economy in limiting carbon emissions and the paper outlines SASB - Sustainability Accounting Standard Board for reporting ESG from Companies	Strauß, N. (2021) [9]
8	The Paper analyses 6 Asia Pacific Central banks of Bangladesh, India, China, Indonesia, Singapore and Vietnam for their role in the regulatory framework for Green finance promoting and sustainable funding options to banks, insurance companies and refinance in the area of low carbon industries and financial policy on priority sector lending (PSL) for banks in allocating funds on social importance.	Durrani A, Rosmin M. &Volz U. (2020) [10]
9	The author analyses the importance of green finance monetary help for green development and historical background of green finance, the equator principles, the UN global compact, green finance products and sustainability initiatives by RBI, SEBI, The companies Act 2013, IREDA, Exim Bank, future Scope of green finance in India and government policies and incentives for adaptation and mitigation of climate change.	Mohd S. & Kaushal V. K. (2018) [11]
10	Research Article provides insight about green growth through sustainable technology, innovation entrepreneurship, government agencies and consumers have a positive impact on economic growth and more sustainable society. The paper highlighted the concept of green growth in the early 1970 and government policy, collaboration in technological development has a positive impact in mitigating climate change.	Fernandes, C. I, Veiga, P. M., Ferreira, J. J, & Hughes, M. (2021) [12]

### 2.1 RESEARCH GAP:

There are several topics regarding green finance technology, e - policies energy conservation, sustainable growth, sustainable finance etc., which were explained by many authors. The current research article enlighten on sustainable finance in various sectors and also investment made by a European investment bank in India. It also analyses the EV sales and penetration rate that shows the sustainable growth of the country. In this study, to accelerate more Ancillary units of electric chargers to EV sales and green growth more sustainable finance required to MSMEs and company in India will be considered as a research gap.

### 3. OBJECTIVES :

- (1) To Understand the concept of Sustainable finance on MSME and companies concerning green growth.
- (2) To know the initiative taken by Government NABARD, SIDBI, RBI and Niti Ayog in Sustainable finance with ECG.
- (3) To Analyze the progress of Sustainable finance in India.
- (4) To Create a model for MSMEs and Companies Sustainable development.
- (5) To apply ABCD analysis constructs for Green Growth and Sustainable development.

### 4. NEED OF THE STUDY :

There is a necessity to provide sustainable finance for green products to protect the environment. The study becomes essential to increase environmental protection, promote economic growth and also social inclusion. This research is very important to enhance the efficient use of renewable resources, water resources, reducing carbon emissions pollution by funding green power production in agriculture, EV, solar and transportation. Contents of this research article explore the idea to reduce the loss of biodiversity, low carbon, increasing afforestation, efficient usage of resources to build the green ecosystem.

### 5. SCOPE OF THE STUDY :

The purview of this area is to know about the various government missions related to sustainable green revolution and also reduce “pollution, social and economic development of the country”. It creates an opportunity to protect the environment and promote funding for these green revolutions in several sectors of the economy. This article also covers all various sustainable development funding programmes by NABARD and SIDBI.

### 6. RESEARCH METHODOLOGY:

The methodology used here is purely secondary sources i.e. “Articles, journals, Newspapers and Magazines”. Here, a systematic study on the impact of Sustainable Finance on MSMEs and Company to Promote Green Growth and Sustainable development.

### 7. THE PROGRESS OF SUSTAINABLE FINANCE IN INDIA :

#### 7.1 Role of SIDBI in sustainable development:

SIDBI has introduced sustainable finance schemes growth and development of MSME. Manufacturing activity and service activity of micro small medium enterprises contribute 6.11 % and 24.63 per cent to the GDP of the country and also it contributes 33.4 % of Indian manufacturing output that helps for the economic growth of the country.

SIDBI provides finance to MEMEs through two major approaches-It introduced sustainable finance to MSMEs to attain sustainable green projects. The main intention of providing finance for the green revolution is to encourage low carbon, use renewable resources efficiently and also enhance the profitability of MSMEs.

#### 7.2 Role of NABARD in sustainable development:

NABARD also made easy accessibility of climate finance for sustainable development and it also provides many e adaptation fund green climate funds and also promoting advanced technology for agriculture increase in green technology for various development projects. One of the schemes introduced by NABARD is APL I the production Linked incentive to promote organic farming efficient use of renewable resources proper management of waste create employment opportunities and so on.

#### 7.3 RBI and NITI Aayog:

RBI has made amendments on Priority sector lending and sustainable development in 2012 and 2015 housing, social infrastructure and renewable energy by considering environment risks in assessing agricultural price development. NITI Aayog launched project Shoonya –an initiative to pace of adoption of electric vehicles (EVs) in the urban deliveries segment. EV can lead to the reduction of oil demand, reduction in CO<sub>2</sub> and reduction in GHG emissions

**7.4 Five pledges for a cleaner world by India in CoP-26 –Climate Summit in Glasgow:**

Climate summit in Glasgow five pledges are taken that will help to achieve for a cleaner world by India CoP-26. The main goal is to reduce carbon emissions and energy requirements from renewable energy.

**Table 2:** Five pledges

1	Non-fossil energy capacity will touch 500GW by 2030
2	Reduce the Carbon emissions by 1billion tonnes till 2030
3	50% energy requirements from renewable energy
4	Carbon intensity target of 35% (45%)
5	Net-zero by 2070throughGreen house gas emissions

Source: EIB

**7.5 Rank List of Global Climate Change Performance Index (CCPI):**

The Climate Change Performance Index gave the rank to various countries in that the first 3 places are not awarded to any countries and India got 10<sup>th</sup> rank. The remaining ranks are listed below.

**Table 3:** Rank List of Global CCPI

Rank	Countries
1	None
2	None
3	None
4	Denmark
5	Sweden
6	Norway
7	United Kingdom
8	Morocco
9	Chile
<b>10</b>	<b>India</b>
13	Germany
17	France

Source: Times of India November 10,2021

**7.6 Sustainable Development Goals and linkage Matrix:**

Sustainable development goals and linkage matrix show degree of association with each goal i.e. highest, moderate, lowest and not directly linked.

**Table 4:** Sustainable Development Goals and linkage Matrix

(Degree of Association: 3 = Highest, 2 Moderate, 1 = Lowest, and 0 = Not directly linked)

Sustainable Development Goals	Degree of Linkage: SDG & Renewable Energy
No Poverty	0
Zero Hunger	2
Good Health and Well Being	1
Quality Education	0
Gender Equality	0
Clean Water and Sanitation	1
Affordable and Clean Energy	3
Decent Work and Economic Growth	1
Industry, Innovation and Infrastructure	2
Reduced inequalities	0
Sustainable Cities and Communities	2
Responsible Consumption and Production	3

Climate Action	3
Life below Water	3
Life on Land	3
Peace, Justice and Strong Institutions	0
Partnerships for the Goals	1

Source: YOJANA December 2021

**7.7- Financial Mechanism for Mitigation and adaptation–clean energy and Climate Change and Meaning:**

Financial Mechanism for Mitigation and adaptation–clean energy and Climate Change in various areas and its meanings are shown in the below table 6.

**Table 6:** Financial Mechanism for Mitigation and adaptation–clean energy and Climate Change and Meaning

Financial Mechanism	Area	Meaning
Sustainable Finance India SIDBI	Integrate Environment, Social and Governance	Sustainable finance refers to “any form of financial service integrating environmental, social and governance criteria into the business or investment decisions for the lasting benefit of both clients and society at large”.
Climate Finance India- National Adaptation Fund for Climate Change(NAFCC) National Clean Energy Fund National Adaptation Fund	A sustainable low carbon	Climate Finance is "local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change.”
Green Finance	Main focus on diminution in the area of transportation and industrial pollution, climate change, deforestation, carbon footprint. The area of focus is “Green Project like renewable energies, energy efficiency, Environmental audits and water sanitation,”.	The finance which provides funds to environmentally sustainable projects and that should lead to green growth in the country is called Green finance.
Green Bonds	Environmental and Climate projects.	“Green bonds” and “climate bonds” are used interchangeably. In the area of Environmental and Climate projects raise money as a fixed-income instrument.
ESG Bonds Investment/Funding	ESG Issues	Portfolio of Equities or bonds which integrated investment process includes Environmental, Social and Governance factors
Conclusion: Financial arrangements for environmentally sustainable projects both equity & Debt are called sustainable Finance.		

**7.8 Impact of sustainable finance for climate finance:**

- By 2030 Indian green economy will contribute 50 million employment opportunities and by 2070 it will become 15 trillion (according to IBEF).
- According to the assessment of the World Bank India's GDP will be decreased by 3% due to the variation of climate which has contrary effect effects on the living standards of the people.



- Sales of the linked overseas bond have increased to 10 billion dollars in this year (salat, Das 1st times:group.com)
- 100 million US dollars contributed by SBI, SBI cap ventures and also Neev funds on Indian business which emphasizes the production of electric vehicles, waste management, effective usage of raw materials, and water.
- Sustainable finance helps to accomplish the goals of sustainable development and growth of the country.
- In 2020 CFA institute trust has conducted a survey among 3525 retail investors and 921 institutional investors in 15 major markets comprises India, they found that only 19% of institutional investors and 10% of retail investors were investing in the business of environmental, social and governance but remaining 76% and 69% of institutional investors and retail investors were having an interest in ESG.
- The major players of sustainable finance are in India are banks, international financial institutions, international organizations such as UN, OECD, G20, EIB, government, institutional investors, operation through CSR initiatives, social stock exchange, international solar alliance with world solar Bank, New Development Banks.
- UNFCCC - The United Nations framework convention on climate change has been set up to provide financial resources to developing countries against various financial risks.

**7.9 Share of installed generation capacity of different types of fuel:**

There are several types of fields with its share of generation capacity they are nuclear with 1.7% with 51.9 % share, diesel with 0.1% share, gas with 6.4 % share, lignite with 1.7 % share, hydro with 12% share, wind, solar and other RE with 26.4% share.

60% of the share of generation capacity from fossil fuel find 40% off of share of generation capacity from non-fossil fuel (Economic time -28 November 2021)

**7.10 Government Missions under National Action Plan on Climate Change (NAPCC):**

Understand the Environment & Ecology through NSM, NMEEE, NWM, GIM, NMSA, NMSKCC, NMSH and NMSHE’s missions and its features under National Action Plan on Climate Change

**Table 7:** Government Missions under National Action Plan on Climate Change and features

Mission	Features
NSM – “National Solar Mission”	To improve solar energy generation and use To enhance capacity 100GW by 2022
NMEEE – “National Mission for Enhanced Energy Efficiency”	To build up their regulatory and policy regimes To achieve fuel savings
NWM – “National Water Mission”	Equitable distribution in the area of conservation of water, minimizing wastage Water use efficiency by 20%
GIM – “Green India Mission”	To enhance carbon sequestration To the extent the 5 million hectares forest and tree
NMSA – “National Mission for Sustainable Agriculture”	Nutrient management & livelihood diversification New technologies and practices in cultivation
NMCC – “National Mission on Strategic Knowledge for Climate Change”	Providing Strategic knowledge
NMSH – “National Mission on Sustainable Habitat”	Promote and encourage the use of less polluting vehicles Promoting technologies and energy conservation practices Better urban planning-better disaster management
NMSHE – “National Mission for Sustaining the Himalayan Ecosystem”	Significant issues concerning Himalayan Glaciers.

Source: Drishti- Environment & Ecology –Second edition

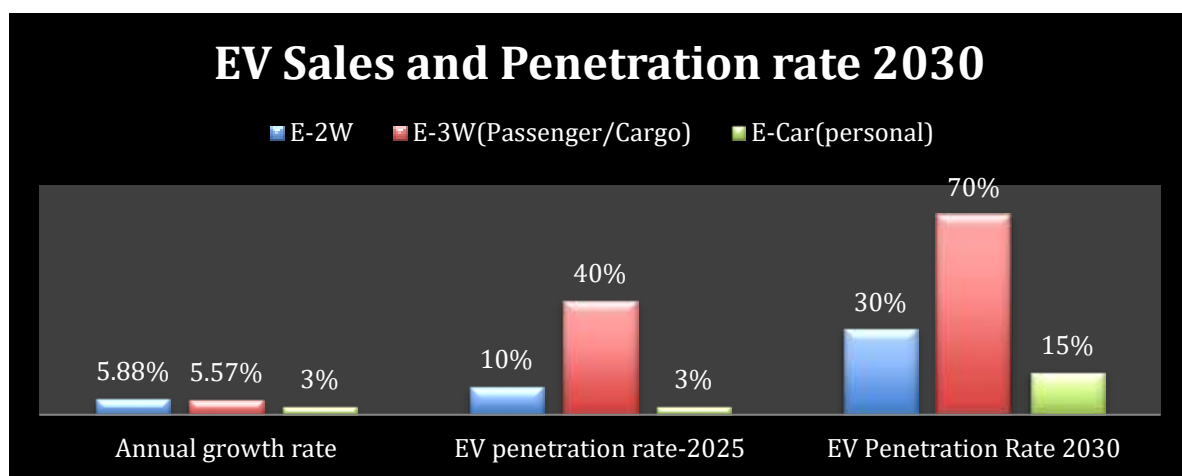
**7. ANALYSIS AND INTERPRETATION :**

EV Sales and Penetration rate (2030) includes the annual growth rate and the total number of electric vehicles for said segments covered in the Business India newspaper. To promote green growth Priority sector lending can encourage banks to fast track India’s transition to EVs and help achieve 2070 climate goals. It is an opportunity to finance the EVs sector for MSME and companies.

**Table 8:** EV Sales and Penetration rate 2030

Vehicle Segments	Annual growth rate	EV penetration rate-2025	Total No of EVs - 2025	EV Penetration Rate 2030	Total No of EVs - 2030
E-2W	5.88%	10%	1,00,477	30%	6,12,353
E-3W(Passenger/Cargo)	5.57%	40%	30,376	70%	1,15,804
E-Car(personal)	3%	3%	4,519	15%	42,561

Source: Business India



**Fig. 1:** EV Sales and Penetration rate 2030

As per the report, there is an annual sales growth rate of 5.88 per cent in electrical two-wheeler vehicles, 5.57 per cent in electrical three-wheeler vehicles and 3% in an electrical car used for personal use. When we forecast sales growth rates in these various segments increased by 10%, 40%, 3% in 2025. In the country number of electrical vehicles will be increased due to the proper sustainable financial accessibility for a green revolution in 2025 and also in 2030.

**Table 9:** Sustainable finance investment needs by Sector

Sectors	Cumulative Investment needed by 2030 USD billions
Energy	404( 2018-30)
Transport -EVs	667( 2018-30)
Green Buildings	1400
Climate-resilient cities	128
Waste management	11( 2018-30)
Pollution abatement	50
Afforestation	140
Sustainable Agriculture	194

Source: IFC & India –UK sustainable Finance Working group-2021

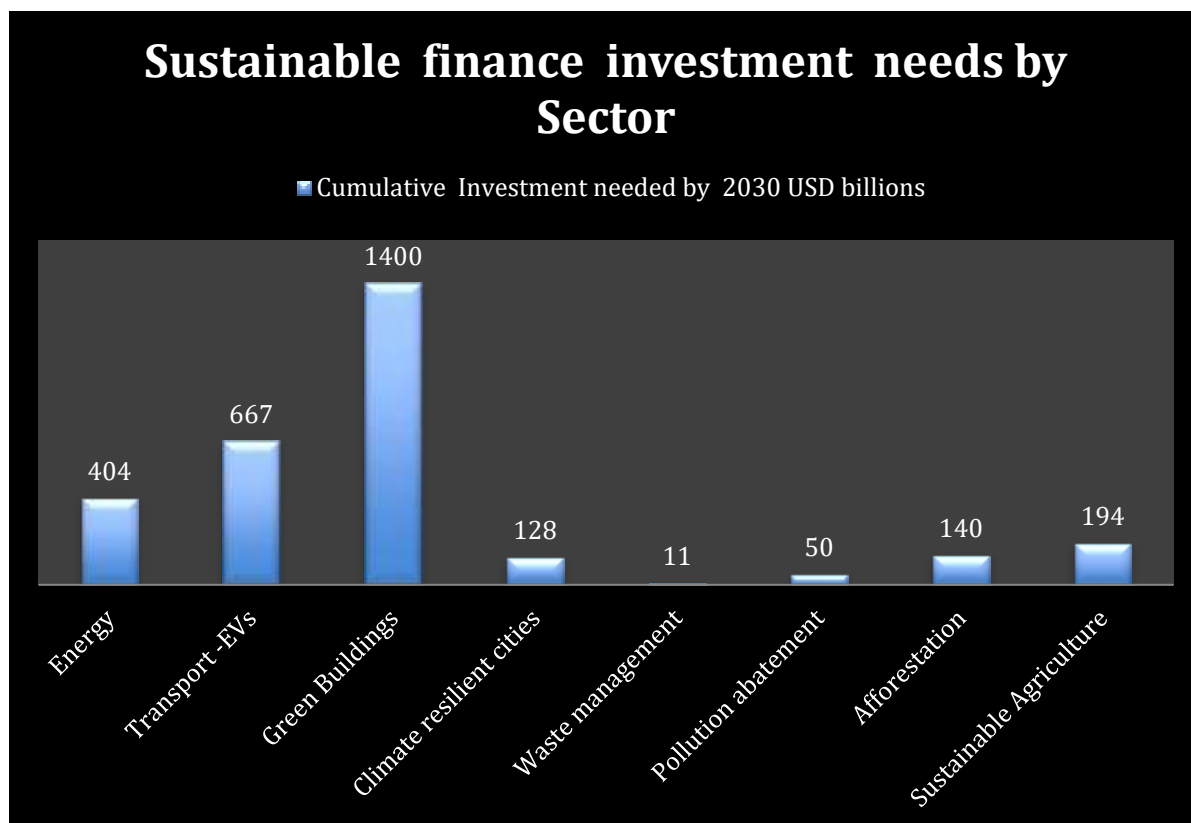


Fig. 2: Sustainable finance investment needs by Sector

From the above graph, it is explained that there is a requirement for proper financial investment for various sectors such as energy, transport, green buildings, climate, resilient cities, waste management, pollution abatement, afforestation, sustainable agriculture. The total highest investment required by 2030 for green building is 1400 USD billion and for transport 667 USD billions. If the target of sustainable finance is achieved by 2030 then there will be constant growth and development in these sectors.

The “European Investment Bank is one of the world’s main financiers of climate action including Micro-enterprises” The European Investment Bank is the lending arm of the European Union. It is the biggest multilateral financial institution in the world and one of the largest providers of climate finance.

The European investment bank-financed US \$ 4.55 billion in India for various sectors, which boosts climate action including Micro-enterprises.

Table 10: The European Investment Bank (EIB) Financing in India (US \$ 4.55 billion)

Sector	% Financing
Transport	47.85
Energy	40.63
Water Sewage	0.33
Agriculture, Fisheries & Forestry	0.09
Credit lines	8.18
Industry	2.73
Services	0.19

Source: EIB

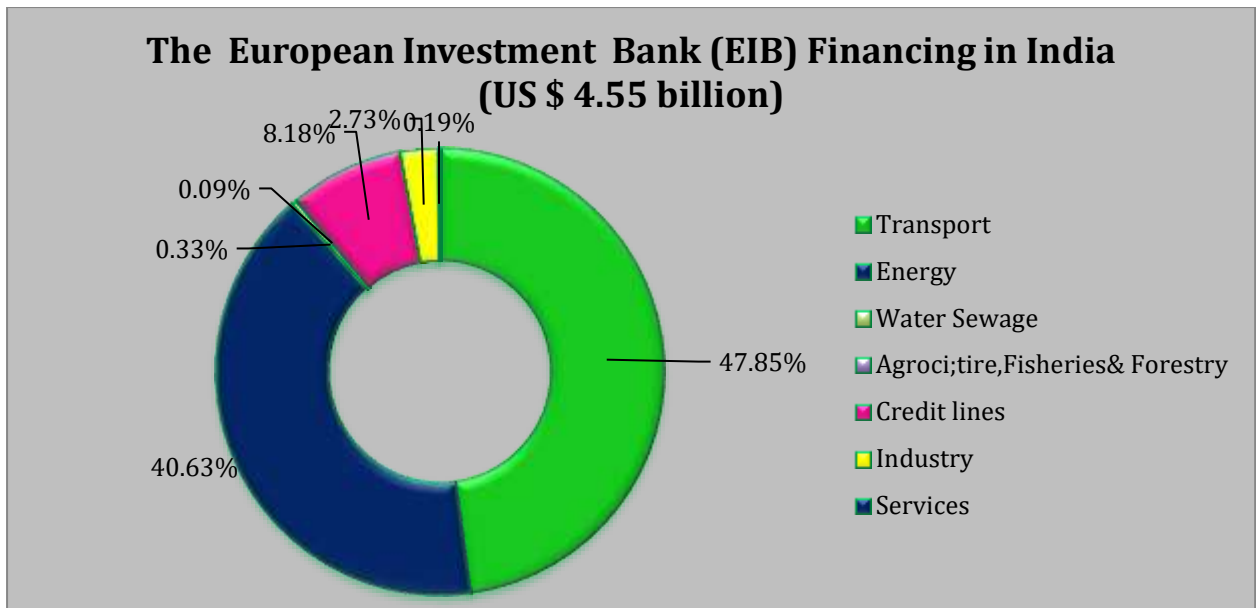


Fig. 3: The European Investment Bank (EIB) Financing in India

From the above graph, it is stated that 4.5 billion US dollars were invested by one of the world's famous financiers that is European investment bank not only for climate action but also for micro-enterprises. They provide finance for various sectors like transport, energy, water, sewage, credit lines, industry services.

Table 11: Amount provided and mobilized by developed countries on Climate Finance

Year	Amount ( US\$) Billion
2013	52.2
2014	61.8
2015	44.6
2016	58.6
2017	71.2
2017	78.6
2019	79.6
2023(Goal)	100

Source: Business India November 2021

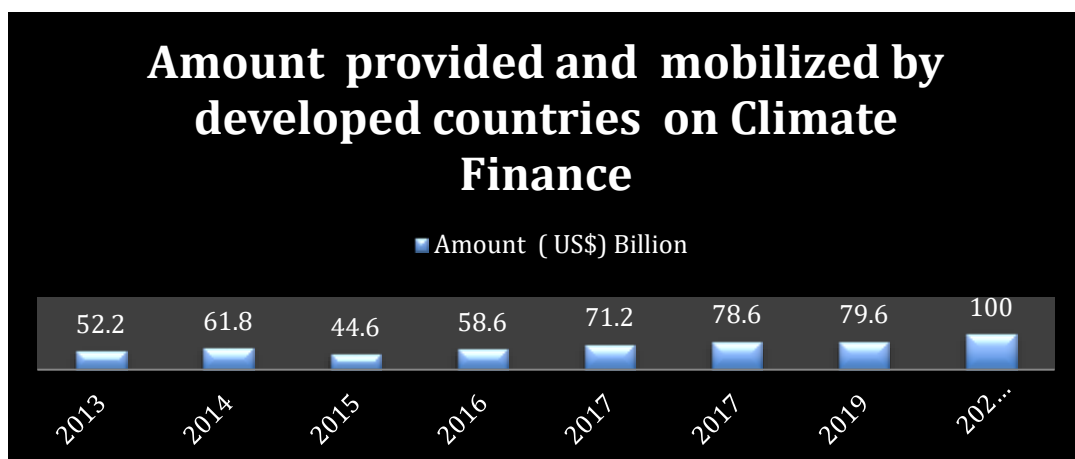


Fig. 4: Amount provided and mobilized by developed countries on Climate Finance

From the above graph, many developed countries finance the growth and development of developing countries and also for climate actions. In 2013, 52.2 us billion-dollar invested by developed countries for climate actions, after that it is increasing from year to year. In 2017 it reached 71.2 us billion dollars and it will reach 100 us billion dollars by 2030.

Table 12: Green Bond issuance in India for different sector

Issuer	Amount	Sector	Issued year
Yes Bank	INR 10 billion	Energy	2015
Exim Bank	USD 500 Million	Energy / Transport	2015
CLP Wind Farms	INR 6 billion	Energy	2015
IDBI Bank	USD 350 Billion	Energy/Transport/Water	2015
Hero Future Energies	INR 3 billion	Energy	2016
PNB Housing Finance	INR 5 Billion	Building	2016
Axis Bank	USD 500 Million	Energy/Building/Transport	2016
Renew Power	INR 5 Billion	Energy	2016
NTPC	INR 20 Billion	Energy	2016
Greenko	USD 500 Million	Energy	2016
Renew Power	USD 475Million	Energy	2017
IREDA	INR 7 Billion	Energy	2017
Rural Electrification Co	USD 450 Million	Energy/Water/Waste Management	2017
Azure Power	USD 500 Million	Energy	2017
IREDA	INR 19.5 Billion	Energy	2017
Indian Railway Finance Corporation	USD 500 Million	Energy	2017
Renew Power	USD 375 Million	Energy	2019
Greenko	USD 950 Million	Energy	2019
Greenko	USD 300 Million	Energy	2019
Renew power	USD 300 Million	Energy	2019
Azure power	USD 350 Million	Energy	2019
State Bank of India	USD 650 Million	Energy	2019
Adani Green Energy	USD 362 Million	Energy	2019
Renew power	USD 450 Million	Energy	2020
State Bank of India	USD 100 Million	Energy	2020

Source: Green clean guide

Developed countries pledged to provide poor and developing countries annually to fund mitigation and adaptation efforts:

**EV- Electric vehicle in India to make green growth**

Electric two-wheelers sold in 2021-1,35,000

Market share 1.1%

Annual manufacturing capacity- 3million

Estimated annual electric two-wheelers sales by2025-2million

Investment next 3-5years -22,000crores

No of manufacturer- Ather, Ola, Bajaj, TVS, Hero, Bounce, Revolt, Ampere, Okinawa

ESG - Environment, Social, Governance Indian Companies are adhering to ESG norms

Indian international has raised \$22 billion (2021) \$18.5 billion (2019) ESG compliant bonds

Source: Economic Times

**8. SDTIRE-MODEL FOR MSMES AND COMPANIES SUSTAINABLE DEVELOPMENT :**

With the help of a review of literature and case studies author developed the conceptual model which is to help MSMEs and Companies for Sustainable development.

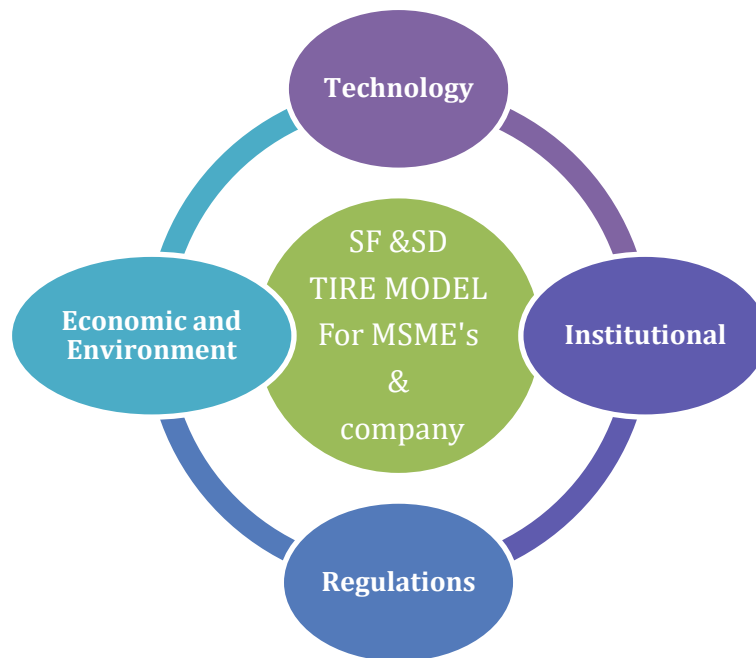


Fig. 5: The Conceptual Model

**Technology**-Adoption of Digitalization technology AI - Artificial intelligence, Machine learning, IOT - The Internet of Things and Robotics by MSME and Company will transform the green growth. COP26 climate uses artificial intelligence and machine learning to analyse satellite imagery and sensor data for emissions estimation. New age technology and innovation in Reduce, Recycle, Reuse, Recover, Redesign and Remanufacture accelerate sustainability and it has a transformation in mitigation of risk.

**Institutional**- Funding and finance institution and institution collaboration with International private equity investors, investment banking funds to MSME and Companies in the area of clean energy for safeguarding People, Plant, and Profit, finance are need for mitigation and adaption to reasonable the impacts of a changing climate and inclusive structure of governance.

**Regulations**-RBI coming up with its guidelines on ESG Compliance and Regulatory push in Raising funds, and resource utilization for achieving a carbon-free nation and governance relating to funds with the public, private regulatory interests of the organization. Regulations and policies can accelerate sustainable growth.

**Economic and Environment**-Green production and Green consumption by the MSMEs and Companies are essential for improving the quality of life of the present and future creation for sustainable economic growth. It will provide employment opportunities, growth of small industries and Newer sustainable innovations for reaching Socio- economic and environmental solutions [13-15].

## 9. ABCD ANALYSIS :

Analysis through advantages, benefits, constraints and disadvantages of the sustainable finance on MSME &Company, green growth and sustainable developments gives an idea to the beneficiaries a brief. Schemes and programmes offered by the Govt. of India NABARD, SIDBI, RBI and Niti Ayoga are were used for analysis [16 -21].

### 9.1 Advantages:

- (1) The global partnership between developing and developed countries and economic governance to encourage mitigation and adaption to climate change.
- (2) The multiple organization like International Finance Institution, Banker, Government has more impact in achieving sustainable goals.
- (3) RBI has initiated the Regulator framework for ESG disclosure and incorporated environmental impact into commercial lending.

(4) RBI has included Small renewable energy and social infrastructure projects under priority sector-leading rate.

### 9.2 Benefits:

- (1) Climate change poses challenges for both government and Institutions in adopting green policies.
- (2) Digital innovations and inventions transforming Indian industries in adopting sustainable and environment-conscious practices.
- (3) Government of India commitment to decarbonize and greenery's economy.
- (4) Large companies are shifting to green energy, enhancing the opportunities in investment in the green economy.
- (5) emerging technologies such as blockchain, GPU, AI, quantum computing can be a game-changer in protecting the environment.

### 9.3 Constraints:

- (1) The producer incurred a lot of costs to set up infrastructure and to adopt eco-positive trends.
- (2) Easy doing business policy measure to be introduced for converting Fossil fuel to Non –fossil fuel
- (3) Institutional participation in ESG Funds are more focused in Western Market as compared to the Indian market due to facilities and expert assistance in green and sustainable development.
- (4) The Collaborative push for Capacity building across sectors.
- (5) The support and incentive for Eco entrepreneurship will add value in building a green and sustainable future.
- (6) The government has made considerable changes in the climate change policy.
- (7) The developed countries have not paid their share for “a special climate change Fund, adaptation fund, Least Developed countries fund”.

### 9.4 Disadvantages:

- (1) For achieving sustainable development different types of finance such as Green asset-backed securities must be used to build technology in the area of RE along with more subsidies.
- (2) Financial institutions show more interest in funding sustainable projects to promote prosperity and to secure our future.
- (3) ESG regulation is to be framed as having a more positive impact on society, the investment community and the industry.
- (4) More collaborative policy measures to be instituted with global stakeholders for achieving a green future.
- (5) Through private or public banks government can issue bonds, to tap both domestic and international investors through the world bank and regional development banks.

## 10. RECOMMENDATION :

The government of India has to build separate financial institutions for advising and re-financing the financial intermediaries relating to climate transition risks, due policy, regulation, legal and market changes and which integrate social, environmental and governance for the flow of capital both for financiers /investors related to green and environmental change in the area of Clean energy, climate adaptation, sustainable agriculture, Waste management, effective usage of water, Clean transportation and Green buildings for both MSMEs and Corporate in facilitating a low carbon, climate resilient world. To accelerate electrical vehicles, charging units and strengthen the economy and ecology sustainable and cost-effective solution is required.

## 11. CONCLUSION :

More foreign direct investment to be encouraged in waste management, Ecotourism, renewable energy, organic agriculture and development of new-age technology in MSME. Collaboration with global partners plays a vital role in adopting climate change and large companies are shifting to green energy to minimize the negative environmental impact of its activity and regulation to be focused on the green economy. All ESG funds are Sustainable finance are a lucrative opportunity for both investors and corporations and have a positive impact on environmental and Economic growth it is not seen consistent in terms of growth, the government has to initiate the policy measures to adopt green or sustainable finance in the ESG global wave.

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