ROLE OF TECHNOLOGICAL ADOPTION BY ECO-PRENEURS (ENVIRONMENTAL SOCIAL ENTREPRENEURS) TO COPE WITH GLOBAL WARMING

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ABSTRACT
There is huge scope for Social Eco-preneurship as a remedy to ecological imbalance (ecological succession) to bring ecologically sustainable development through the use of technology in climatic uncertainties. This paper emphasis on a 'Eco-Preneurs', social entrepreneurs of Ahmednagar district, that uses innovative technique by adopting new and emerging technology to absorb carbon emissions and promote sustainable development in agriculture. The paper examines the strategies employed by 'Eco-Preneurs' to address the challenges of global warming, including the use of renewable energy, carbon sequestration, and sustainable farming practices. The study also explores the role of eco-preneurs in promoting sustainable development and the challenges they face in scaling up their businesses. The paper concludes that eco-preneurs have an important role to play in addressing the challenges of global warming and that technological espousal can provide effective solutions to these challenges.
Keywords: - Socio-ecological, global warming, the bottom of pyramid, ecosystem, technological advancement, uncertainties.

Introduction

The research problem reveals the importance and role of technology in social entrepreneurship that survive with uncertainties and manage the nation's rural development. In this paper, we highlight social prosperity as a metric for the measurement of the contributions of social entrepreneurship within the setting of total prosperity expansion. To us, total prosperity and growth include both economic and social prosperity.

This study focuses on the impact of technology in eco-preneurial activities at an uncertain level and the fundamental cause of climate change that influences global warming. The Socio-eco-preneurship at the bottom of the pyramid, causing works not only for monetary benefits gained annually but also trying to diminish the burden of global warming on humanity too. Thus, social eco-preneurship can lead to a). Cope up the uncertainties with the help of technology b). Societal value earned c). Monetary gained by the year.

Sustainability entrepreneurs are those, who make an effort to combine the economic, social, and mechanisms of sustainability thoroughly and are said to have a diverse organizing logic to more conventional entrepreneurs.

Social Eco-preneurship Environmental degradation and growing worries about the impacts have led many individuals to adopt sustainable business models, who accept the eco-standards, and to incorporate ecological ethics into their programs.

Gibbs (2015), Social entrepreneurs make substantial and varied contributions to their societies and nation, accepting occupational models and offering creative responses to identify and resolute social problems. It could be argued that ecological modernization, with its promised combination of new technologies and changing institutions, is increasingly becoming a mainstream source of policy responses and initiatives in the developed world. Mobiles, the Internet of things, CCTV, and solar power, for example, allegedly allow us to endure a similar, if slightly diverse, lifestyle that brings the excellence of life. Perhaps, at last, concern over climate change and resource scarcity will have a major impact on economic policies and behavior. This may open up opportunities for sustainable entrepreneurial activity to move into the mainstream of economic development. As with entrepreneurs more generally, agency depends in most circumstances on legitimacy.

Akkoyunlu (2015), social entrepreneurship synchronizes the activities and processes assumed to determine, define, and grab the opportunities to improve social prosperity by creating new ventures or managing current establishments in a state-of-the-art manner.

Nordin (2019), the past few years, considerable interest and research have been devoted to understanding the determinants of green growth. Though an important and related issue appears and has drawn the attention of economists and policy-makers, hence green products and technologies are to be introduced into the marketplace by 'green' entrepreneurs. These are the economic actors who make it possible to turn ideas into a reality, by transforming prototypes into commercially viable products.

Galkina (2021), new and additional business ventures at the bottom are tackling various environmental challenges. This trend has resulted in a separate research stream of ecopreneurship. Ecopreneurship research arose more than two decades ago at the intersection of studies on entrepreneurship and environmental policies. As a study area, it is still emerging and fragmented, which can be explained by the tremendous variety of disciplines from which it developed, such as political economics, political geography, sociology, business ethics, urban studies, environmental policy studies, and tourism research.

Certainly, we are all environmentalists now; the condition is the growing awareness of climate change through the advancement in technology (smartphones), social media, television, and continuously raising the rise in oil prices in the country and alternative solutions for it.

Literature Review

Moreira (2008), the environment became a major worldwide problem in 1972 at the United Nations Conference on the Human Environment, and 20 years later, at the Rio de Janeiro Earth Summit in 1992, the need for environmental conservation was connected to the need for sustainable development. Adoption of technologies for sustainable agricultural systems is a difficult and changing topic for farmers, extension services, agribusiness, and policymakers.

Nwankwo (2020), farmers have long looked to new technologies to help them save money. Furthermore, rising incomes, increased knowledge, and improved communication channels are driving customers to want low-cost, high-quality food grown organically in many nations, with greater variety, consistency, and year-round availability.

OECD (2001), Simultaneously, customers are increasingly demanding that their food be produced in ways that conserve natural resources, minimise environmental constraints, and prioritise rural viability and animal welfare. The process of trade liberalisation is broadening supply sources and increasing competitiveness. Policies reflect shifting demands, which are effectively communicated to farmers by the media, pressure organisations, food retailers, and processors.

Society (2021), agricultural productivity is critical to satisfying the world's expanding demand for food, feed, fibre, and bioenergy. With a growing global population, decreasing arable land, and the escalating effects of climate change, there is an urgent need to increase agricultural output in a sustainable manner.

Koudstaal (2015), it’s ever-evolving innovations, technology has emerged as a significant driver in addressing this dilemma. Technology's impact in increasing agricultural output is varied. It includes several breakthroughs, such as mechanisation, precision agriculture, genetic advancements, digital tools, and data-driven decision-making. These technology developments have the potential to revolutionise traditional farming practises, increase resource efficiency, and optimise crop yields. Uncertainty as a risk is one of an integral part of entrepreneurship which is the most silent dimension of it. Entrepreneurs assume business risks in the most uncertain environmental condition. Their income and wealth, satisfaction, and social status depend on the outcomes of their decisions in uncertain situations.

Newbert (2012), the rational view of decision-making, people predict the changes in the environment, which cannot be controlled, so in turn, they can predict the future and make decisions according to that inevitable reality. Uncertainty’ is concerned with the problems, business people face, when making decisions less than certain knowledge of what the outcomes of their actions will be.

Klein (2020), when we return to uncertainty, I hope, the crisis of the uncertainty leads to rethinking and research by the research community, more deeply about entrepreneurship in normal times. While thinking about uncertainty, creativity, and the open-mindedness of entrepreneurial action, these are increasingly documented and

appreciated. The literature still imposes in my view, that artificial distinction between extraordinary and normal conditions. Nonetheless, in the absence of a pandemic or similar crisis when facing incremental changes to known technologies in mature industries. Uncertainty plays a key role and hence social entrepreneurs have the duty of predicting the future.

Uncertainties of Global Warming

IPCC Fourth Assessment Report (AR4) [IPCC, 2007], the global mean surface temperature in 2100 is projected to be 1.1–6.4◦C higher than the 1980–1999 mean state, with the best estimation of increase at 1.8–4.0◦C. It should be noted that this is the projected range of increase rather than the so-called uncertainties in global warming projection**.** Greenhouse gases such as carbon dioxide (CO2) absorb heat (infrared radiation) emitted from Earth's surface.

Society (2021), the growth in the atmospheric concentrations of different gases, causes the earth to be warm by tricking more of this heat. Human actions mainly, the burning of fossil fuels, since the start of the Industrial Revolution have increased atmospheric Carbon dioxide concentrations beyond 40%, with over half the increase occurring since 1970. Since 1900, the global average surface temperature has increased by about 1 °C (1.8 °F).

Giorgi (2010), multiple sources of uncertainty are present in the creation of climate change projections for the 21st century. It is a crucial piece of information, needed for assessing the risks related to climate change and the costs of adaptation and mitigation options. Climate can change due to several anthropogenic and natural factors. The main anthropogenic factors, consist of distinctive greenhouse gases, tropospheric vaporizers due to pollution and its emissions (nitrates, organic aerosols), and changes in land use (deforestation, agrarian practices).

Aparicio (2021), there is Connection between Innovation Technology and Climate Changes**.** The link between innovation, technology, and climate change is critical in addressing the pressing need to minimize and adapt the effects of climate change. Innovation and technology are critical in accelerating the transition to a low-carbon, sustainable economy.

Nwankwo (2020), different effects have persisted throughout time, despite some active and potential countermeasures. In terms of minimizing the extensively reported consequences, there have been various novel technologies, strategies, and procedures developed, some of which have been widely embraced and used in the previous decade**.** At present, the difference in climate become the single most serious environmental threat that unkindly affects not just agricultural activities, but also other human actions globally. Right from creation, climate inconsistency has continued to cause severe harm to humans and their environment and uncountable scientific or technological mechanisms which kept in place for their mitigation and management.
Oliva (2020), technology adoption decisions include at least two elements that happen at various times; a) an initial take-up decision b) future investment or follow-through decision. While subsidies are frequently used to enhance take-up, critics of technology adoption subsidies in development, health, and environmental policy are concerned that subsidizing the initial take-up choice may reduce later utility of the technology, if agricultural technology are subsidized. Understanding the irregularities and dynamics of climate change would aid in mitigating the environmental threats caused by climate change, and the use of relevant innovative technology should be highlighted as a viable avenue towards achieving this aim. Human actions are mostly responsible for the growth and consequences of climate change.

Moreira (2008), mitigation and management of climate change impacts would be nearly impossible without trustworthy instruments and methods for continual assessment and analysis. If management is ruled out, mankind will be forced to confront the oncoming brutality inflicted by its own acts and inactions This highlights the importance of modern technologies; the ongoing demand for reliable, specialized meteorological forecasts from many economic sectors has resulted in the continual expansion of meteorological enterprises, particularly private meteorological forecasting.

Asian Development Bank (2014), impact of climate change and Agriculture Since, Asia extends over a large area with a wide range of climatic conditions, temperate, tropical, humid, and arid, the impact of climate change, on agriculture through the continent is probably to be wide-ranging yet significant. Higher temperature affects many crops, whereas the area which comes under cooler places gives more agricultural yield. Areas like Eastern Asia which produce Rice are at the thermal tolerance limit whereas Wheat producing areas like South Asia could be cut half of their original. But this is good for areas like Central Asia, which is the cool one, could see a longer growing season.

Student (2021), climate change affects seriously on agriculture and shows consequences for, crop yields, livestock and overall food security for humanity worldwide. Rise in temperatures, changes in precipitation, and increased frequency of extreme weather events, such as droughts and floods may negatively impact on crop yield in particular area and season.

Schlenker and Roberts (2009), each 1°C increase in temperature resulted in a decline of approximately 5% in global crop yields, with maize, wheat, and soybean being particularly vulnerable crops Climate change may influence the distribution and behavior of pests and diseases, affecting agricultural productivity. Increased temperatures may encourage the spread of pests, such as insects, weeds, and pathogens, to new regions.

Bebber (2013), highlighted the potential for increased crop losses due to pathogen proliferation under climate change scenarios. With changes in precipitation patterns and higher evapotranspiration rates, climate change exacerbates water scarcity. Droughts can have a significant influence on agricultural productivity, particularly in areas that rely significantly on rainfall for irrigation. Previous studies have been estimated that worldwide maize, wheat, rice, and soybean yields could fall by 10%-20% for every degree Celsius increase in global temperature.

To gain a preliminary understanding of the amount of literature covering Eco-preneurship (Social Entrepreneurship), uncertainty, and technological advancement researchers perform an exploratory search using Pro-Quest, IEEE Xplore, and Google Scholar. Different previous research study states that, ecological/environmental social entrepreneurs are adopting technology as a way to mitigate the effects of global warming and promote sustainability.

Objectives: -
1. To study challenges of global warming in a respective geographic zone.
2. To study the technological advancement helps to cope with climatic uncertainties.
3. To analyze the role of Chandan Man in transforming the local socio-ecological environment.

Hypothesis: -
H1: - Practices of Social Eco-Preneurs brings changes in socio-ecological development.
H2: - Ecological leaders helps in reducing global warming effect.

Material and Method
In the light of the clearly define the research objective, which is to understand the technology adoption strategies employed by eco-preneurs to address global warming, using the case of 'Chandanman', the paper has been designed to study and research on Role of Technological adoption by Eco-Preneurs (Environmental Social Entrepreneurs) to cope with Global Warming, with the help of people and Chandan plantation. Researcher conducted comprehensive literature review to search existing theories, studies and frameworks of technology adoption by eco-preneurship, global warming, and environmental sustainability as well as previous research papers is done to come up with an understanding of uncertainties and technological advancement for use for cause. Literature review helps to researcher to establish a hypothetical base for the research and identify research gaps. Researcher has chosen suitable research design which may aligns with research objective. For this study researcher adopted, a qualitative research design which is suitable to gain an in-depth understanding of the technology adoption and its implementation by eco-preneurs. The sample considered was eco-preneurs, experts in the field of eco-preneurship, and stakeholders associated with 'Chandanman' such as employees, customers, and partners. Researcher considered, in-depth interviews methods to collect the data and document for analysis. Researcher analyzed the case of 'Chandanman' in detail, explored its technology adoption, challenges faced, and outcomes attained with the help of Stockholders of it. The questionnaires were circulated amongst 112 beneficiary farmers and collected the responses from them. The analysis involves comparing and contrasting the case with the broader findings from the data analysis stage.

Data Analysis
The data was collected and analyzed by using specific statistical software. Likert Scale responses collected from respondents were analyzed by using degree of central tendency like mean, standard error and standard deviation to evaluate the level of agreement to disagreement of respondents. To test the hypothesis, One sample T test was used by researcher. The hypotheses were tested through the survey conducted by researcher of a sample of 112 farmers of Ahmednagar District and SE's working at bottom of the pyramid. Questionnaire used for survey, included the questions that measures the level of awareness and adoption of technology by Social Entrepreneurs in uncertainties of Global Warming. The findings will offer insights into, Chandan plantation to mitigate the effect of Global Warming at BoP and recommendations for improving awareness of Chandan Plantation and its influence on climate change.

Purpose of Technology adoption	Frequency	Percent	Valid Percent	Cumulative Percent
About the plantation of Chandan.	**21**	**18.75%**	**19**	**19**
Irrigation management.	**16**	**14.29%**	**14**	**33**
Weeding management.	**16**	**14.29%**	**14**	**47**
Development and its stages	**18**	**16%**	**16**	**63**
Legal activity	**24**	**21.43%**	**22**	**85**
Theft control technology	**17**	**15%**	**15**	**100**
Total	**112**	**100.00%**	**100**	

Table No. 1 **Practice of Social Eco-Preneurs.**

Above table shows the Practices of technology adoption by Eco-preneurs has significant advantage, out of total services offered, mostly 21.43% utilized to know the legality of Chandan plantation by the farmers, whereas 18.75% were interested to know about plantation methods and technics. 15% Farmers were interested to know theft control technology available as well as 14.29% respondents were interested to know irrigation needed for

Chandan and in same ratio (14.29%) were asking about weeding management in field. Chandanman developed specified partnerships with varied farmers and traders who follow eco-friendly practices, such as organic farming and fair-trade practices, to decrease the environmental impact of their products. Chandanman vigorously promoted reprocessing amongst farmers and local communities, directing to curtail waste generation and inspire to use the recycled materials for the products.

Responses	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Count	Row N%	Count	Row N%	Count	Row N%	Count	Row N%	Count	Row N%
a) Technology can play a significant role in raising awareness	13	11.60%	16	14.28%	20	17.85%	26	23.21%	37	33%
b) Technology can effectively communicate the benefits and importance of irrigation management	10	8.92%	12	10.71%	24	21.42%	31	27.67%	35	31.25%
c) Technology can facilitate the dissemination of knowledge and best practices for weeding management	16	14.28%	11	9.82%	28	25%	26	23.21%	31	28%
d) Technology can help in visualizing and explaining the different stages of development	18	16%	17	15.17%	30	26.78%	22	19.64%	25	22.32%
e) Technology can provide information and resources regarding the legal aspects involved in establishing and managing a Chandan plantation	10	8.92%	11	9.82%	32	28.57%	29	25.89%	30	26.78%
f) Technology can contribute to the understanding and implementation of theft control technology	11	9.82%	13	11.60%	34	30.35%	28	25%	26	23.21%

Table No. 2 **Likert Scale responses of Farmers to Practice of Eco-Preneurs.**

Above table shows that most of respondents (33%) are strongly agree, 23% are agree whereas 17% were neutral towards the technology played important role in spreading the awareness about the Chandan Plantation and Global warming effect. Only 11% and 14% respondents were strongly disagree and disagree towards the matter.

This suggests that, different technology immerges; it becomes a boon to the social entrepreneurship activity and would be adopted by them in uncertainty like GW. They use technological advancement for different commitments towards societal issues. ESE's utilized the different agriculture technology to optimize crop yields and reduce the impact of climate change on agriculture. These entrepreneurs use precision agriculture techniques, such as soil sensors, weather monitoring systems, and drone technology to increase the efficiency of farming and reduce the number of resources needed for crop production. They use the advanced technologies for various purposes.

Above table shows that maximum of respondents (31.25%) were strongly agree, 28% are agree whereas 21.42% were neutral towards Technology can effectively communicate the benefits and importance of irrigation management. Only 9% and 11% respondents were strongly disagree and disagree towards the stuff.
This Suggest that**,** Ecopreneurs communicate effectively regarding the benefits and importance of the irrigation management for Chandan plantation by adopting technological advancement. Ecopreneurs also communicate the benefits of Chandan plantation to mitigate the climate change effect. They also use the certain technology for training or education through the technological advancement and available in the hands of the farmers, about the Sandalwood plantation and which is offered by the Ecopreneurs to the needy one.

Above table demonstrate that many of respondents (28%) are strongly agree, 23% are agree whereas 25% were neutral towards Technology can facilitate the dissemination of knowledge and best practices for weeding management. But merely 14% and 10% respondents were strongly disagree and disagree towards the parameter.

This illustrates that, Chandanman uses innovative technology to educate people about the Chandan plantation, as well as to teach them about weeding techniques and weed management. Most influencing factor to be considered in technology utilization was for legality of the Chandan plants and harvesting. Finding the farmers, who are interested in the cultivation (Plantation of Sandalwood) of Chandan? Social media groups of related to farming or sandalwood cultivation were chosen to connect with potential farmers. Eco-preneurs put information posts on these groups, to inquire about sandalwood cultivation or search for information from farmers who are interested in planting sandalwood.

Above table validate that, several of individuals (22%) are strongly agree, 19% are agree whereas 27% were neutral towards Technology can help in visualizing and explaining the different stages of development. Merely 16% and 15% respondents were strongly disagree and disagree towards the matter.

This suggest that, most of farmers were not convinced towards the use of technology for visualizing and explaining the different stages of Chandan Plans development and its impact on global warming. This data also depict the picture of future development stages, now assisting farmers in improving their economic standing as well as controlling pollution, heat, and soil erosion. The ultimate result of eco-preneurs' usage of advanced technology is that it helps to limit the uncertainties of global warming to some extent.

Above table authenticate that, several of individuals (27%) are strongly agree, 26% are agree whereas 29% were neutral towards Technology can provide information and resources regarding the legal aspects involved in establishing and managing a Chandan plantation. Very few, 9% and 10% respondents were strongly disagree and disagree towards the matter.

This suggest that Social Entrepreneurs at the bottom of the pyramid utilized different technological advanced tools, for providing the information which would deals in new farming realities, like advancement in farming technics, availability of new high bread seeds, new plantation technics, new fertilizers and insecticides or pesticides. Another use of technology is to convey the market realities and availability, market rates, and many more, for farmer’s crop. Also farmers were showing keen interest to get the information about the legality of Chandan plantation, which has been potential threat in the farmers. Because of the state's regulatory framework, most farmers are concerned about Chandan plantation. They were always concerned about the legitimacy of the Chandan Plantation. By informing farmers about the benefits of Chandan plantation, many farmers expressed interest and planted hundreds of acres of Chandan plants in various Maharashtra villages.

Above table shows that, many respondents (23%) are strongly agree, 25% are agree whereas 30% were neutral towards Technology can contribute to the understanding and implementation of theft control technology. Very few, 10% and 12% respondents were strongly disagree and disagree towards the understandings.

This suggests that farmers were involved to get the knowledge of available technology for theft control. But it also demonstrates that many farmers confirm their own techniques to control the theft of Chandan plants after maturity period. Selected SE uses technology to share the weather conditions in particular season and the cultivation work to be done in the period, crop pattern to be used in period, pest detection, soil moisture monitoring, and crop monitoring. Certain SE uses the technological advancement to spread government policies relating to the farm and allied field in different farmers in particular area.

Hence Ecopreneurs using technological advancement helps to concentrate on ecological/environmental issues through Chandan Plantation which would help the farmers get economic benefits.

Social Media	Frequency	Percent	Valid Percent	Cumulative Percent
Facebook	12	10.71%	11	11
What's app	26	23.21%	23	34
You Tube	21	18.75%	19	53
Websites	16	14%	14	67
Webpage/blogs	20	17.86%	18	85
Telesms	17	15%	15	100
Total	112	100.00%	100	

Table No. 3 **Use of social media by SE**

The above table shows the use of different social media to control the GW effect in their particular area. Eco-preneurs created visual aids, handouts, or presentations to supplement counselling sessions, and they share informational videos on social media. Most of the farmers (23.21%) agreed towards the utilization of what's App to spread the information through groups created regarding the Global Warming and parameters to mitigate its long-term impact on environment as well as human civilization. But 19% farmers were using YouTube to get such type of information, uploaded by Ecopreneurs. 18% Educated farmers follows the blogs and web pages to get the facts. A computer savvy farmer (14%) uses to visit the website to get information; but many (15%) need to depend upon the services provided by Ecopreneurs like telephonic calling and Telesms.

Responses	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Count	Row N%	Count	Row N%	Count	Row N%	Count	Row N%	Count	Row N%
Facebook groups created by ESE are effective platforms for sharing knowledge to discuss global warming solutions through Chandan plantation.	9	8.03%	12	10.71%	34	30.35%	29	25.89%	28	25%
What's App provides a convenient platform for sharing informative articles, videos, and other resources on Chandan plantation and its role in mitigating global warming	10	8.92%	11	9.82%	29	25.89%	31	27.67%	31	27.67%

YouTube channels focused on Chandan plantation and global warming contribute to raising awareness and educating viewers about sustainable practices	**11**	**14.28%**	**10**	**9.82%**	**33**	**29%**	**29**	**23.21%**	**30**	**28%**
Webpages/blogs focused on Chandan plantation and global warming offer practical tips and strategies for individuals and organizations interested in contributing to climate change mitigation	**14**	**13%**	**9**	**8.03%**	**29**	**25.89%**	**26**	**23.21%**	**34**	**30.35%**
Interactive websites help individuals and organizations to measure and reduce their carbon footprint through Chandan plantation.	**16**	**8.92%**	**19**	**16.96%**	**30**	**28.57%**	**22**	**19.64%**	**25**	**22.32%**
Telesms provide actionable tips and reminders to individuals engaged in Chandan plantation as a means to mitigate global warming	**17**	**9.82%**	**20**	**17.85%**	**35**	**30.35%**	**19**	**17%**	**21**	**18.75%**

Table No. 4 **Use of social media By Social Entrepreneurs.**

Above table shows that, many respondents (25%) are strongly agree, 26% are agree whereas 30% were neutral towards Facebook groups and communities created by ESE are effective platforms for sharing knowledge and discussing global warming solutions through Chandan plantation. Very few, 8% and 11% respondents were strongly disagree and disagree towards the understandings.

This suggest that respondents those were strongly agree (25%) and agree (26%) if combines they become half of the respondents. This means that, they are in fewer of Facebook groups and communities created by ESE are effective platforms for sharing knowledge and discussing global warming solutions through Chandan plantation. Facebook helps to share informative messages, videos, and graphics about the effects of global warming and the benefits of sandalwood plantation on social media sites. Highlighting how sandalwood plants absorb CO2 and help to minimize greenhouse gas emissions.

Above table displays that, various respondents (28%) are strongly agree, 28% are agree whereas 26% were neutral towards What's app provides a convenient platform for sharing informative articles, videos, and other resources on Chandan plantation and its role in mitigating global warming. Only 9% and 10% respondents were strongly disagree and disagree towards the matter.

This suggest that the respondents which were agree (28%) and strongly agree (28%) in equal number and they became more that the half of (54%) total count of the farmers who uses what's up, as a widely used social media platform, which has a number of features and functions that allow farmers to connect, share knowledge, and exchange information. The platform is user-friendly design and widespread acceptance makes it available to farmers, regardless of location or scale of operations. What's App can be a powerful tool for raising awareness and mobilizing people in support of sandalwood plantations as a measure of combating global warming. Eco-preneurs created some groups on what's App, which has focused Chandan Plantation on (sandalwood). He also invite individuals interested in environmental issues, farmers, and enthusiasts to join these groups; and shared

regular updates, educational content, success stories, and relevant news relating to Chandan Plantation. Eco-preneurs produced program lists to distribute important information, such as Chandan plantation techniques, how to take care of Chandan Plants (Before, during and after), and updates on Chandan plantation initiatives. The Eco-preneurs used these activities to reach a huge number of individuals with a single message, thereby raising awareness and encouraging involvement. Eco-preneurs communicated instructive articles, films, info graphics, and documents about global warming, climate change, and the benefits of Chandan plantation via what's App. They also gave information that describes the planting and caring of Chandan Plants, as well as its carbon sequestration capacities.

Above table Shows that, most of the respondents (28%) are strongly agree, 23% are agree whereas 29% were neutral towards YouTube channels focused on Chandan plantation and global warming contribute to raising awareness and educating viewers about sustainable practices. Only 10% and 10% respondents were strongly disagree and disagree towards the response.

This suggest that YouTube utilized by Eco-preneurs is another popular social networking platform that many farmers (Agree and strongly agree in total 51%) use to updates with the latest farming news, climatic conditions, farming techniques, Chandan plantation and its role in mitigating global warming. Eco-preneurs created step-by-step tutorial videos on how to plant, care for, and nurture Chandan. Viewers were given a complete demonstration of the process of preparing the soil, selecting saplings, watering, pruning, and safeguarding the Chandan plants from pests and diseases. These instructional films inspired people to take action and start their own Chandan plantations.
Above table exhibits that, most of the respondents (30%) are strongly agree, 23% are agree whereas 26% were neutral towards Webpages/blogs focused on Chandan plantation and global warming offer practical tips and strategies for individuals and organizations interested in contributing to climate change mitigation. Only 13% and 9% respondents were strongly disagree and disagree towards the matter.

This suggest that, most of the farmers were shown the interest in Webpages/blogs of social media type were used by educated farmers to reach out to information and encourage them to plant and learns about the implications of climate change, global warming, greenhouse gases, and the CO2 sequencing capacity of Chandan plants. Chandanman organized different workshops and awareness campaigns for farmers and other societal stockholders for sustainable practices through webpages like Zoom or Google meet.

Above table portrays that, number of the respondents (22%) were strongly agree, where as 23% were agree and 29% were neutral towards, Interactive websites provide tools, that help individuals and organizations measure and reduce their carbon footprint through Chandan plantation. Only 17% and 9% respondents were strongly disagree and disagree towards the matter as they were not technical farmers.

This suggests that, as strongly agreed and only agreed farmers (45%) were in the side of iinteractive websites, which were useful to provide informative tools, carbon emission calculators, and different resources like literatures, government data of carbon emission and other climatic factors affecting on nature, environment and mankind, that help individuals and organizations measure and reduce their carbon footprint through Chandan plantation. On other side, above analysis shows that non-technical peoples were unaware about the websites available for information like above mentioned.

Above table shows that, most of the respondents (30%) were on the neutral side, where as 19% were strongly agree and 17% were agree towards, Telesms that provides actionable tips and reminders to individuals engaged in Chandan plantation as a means to mitigate global warming. Only 10% and 18% respondents were strongly disagree and disagree towards the matter as they were using other different Social Medias to get the information.
This suggests that, as now, number of social media options are available to provides actionable tips and reminders to individuals engaged in Chandan plantation as a means to mitigate global warming, so that they were not interested to get the information through SMS services. But on other side non-technical farmers show curiosity in such a service provided by Ecopreneurs about Chandan plantation as a means to mitigate global warming.

Hypothesis Testing
Hypothesis No 1
H1: Practices of Social Eco-Preneurs brings changes in socio-ecological development.
The researchers used one sample t-test for testing the hypotheses of the study. It verifies whether the sample mean is moderately different from the hypothesized mean.
The first hypotheses of the study as given as-
H_{null}: - Practice of Social Eco-Preneurs do not bring changes in socio-ecological development.

The result of the test is tabulated in the below table:

count	112
mean	3.446429
std dev	1.320928
std err	0.124816
hyp mean	3
alpha	0.05
df	111
t stat	3.576693
p value	0.000258
t crit	1.658697

Table No. 5 **One Sample t-test for Practice of Social Ecopreneurs**

The above table (Table no. 5) shows the tests values. The p-value is less than the alpha value (level of significance) and thus the null hypothesis is rejected and alternate is accepted.
From the results, the researchers can conclude that practices of social Eco-preneurs bring the significant changes in the socio-ecological development in particular area by adopting technological advancement to mitigate the uncertainty like Global Warming.

Hypothesis No 2
H2: - Ecological leaders helps in reducing global warming effect.
The researchers applied the one-sample t test for testing the second hypothesis. The hypothesis to be tested is as follows:
H_{null}:- Ecological leaders do not help in reducing global warming effect.
The below table (Table 6) shows the result of the test.

count	112
mean	3.392857
std dev	1.282994
std err	0.121232
hyp mean	3
alpha	0.05
df	111
t stat	3.240551
p value	0.000787
t crit	1.658697

Table No. 6 **One Sample t-test for Global Warming Effect**

From the table, p-value is less than significant alpha value 0.05 and thus the null hypothesis is rejected and alternate is accepted.

Thus, the researchers safely conclude that, the work of the ecological leaders help in reducing the global warming effect. Therefore, ecological leaders contributing to lessen the effect of global warming and its related effect on the species on the environment.

Conclusion

As Social Ecopreneurs, Chandan plantation (Sandalwood) activities can address numerous economic, social, and environmental concerns at the global and local levels for farmers who are cognizant of economic disparities.

Eco-preneurs are taking use of the new era of technical growth, as well as the introduction and availability of smart phones for farmers, to address environmental and social concerns through commercial tactics and market-based initiatives. These entrepreneurs concentrated on developing new solutions to environmental problems such as climate change, pollution, and resource depletion. ESEs use various social media apps with their environmental knowledge to generate new solutions that benefit both the economy and society.

The role of social ecopreneurs in combating global warming and supporting economic freedom is a complicated and multidimensional topic that can be splintered. However, by adopting and utilizing new technology, social ecopreneurs may play a vital role in tackling both environmental and economic concerns. Social ecopreneurs can indeed play a revitalizing role for farmers, particularly those from weaker sections of society, by empowering them and promoting sustainability. By developing innovative solutions that are both environmentally-friendly and economically viable, social ecopreneurs can create new opportunities for farmers and promote inclusive growth.
Similarly, technology growth assists Social Ecopreneurs and farmers in empowering themselves socially, economically, and technologically. As a result, it fosters a culture of social entrepreneurship throughout society. Certainly, the focus of this work was on the role of technology employed by Social Ecopreneurs to cope with the uncertainties of global warming, and how it is assisting farmers from various backgrounds and their efforts to improve social life. Chandanman actively participated in policy making to influence ecological principles positively.

Technological advancement in uncertainty of global warming and climate change was treated primary and thus economical contribution as a secondary result.

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