



EFFECT OF SELF-HELP GROUPS ON CLIMATE CHANGE IN INDUSTRIAL DEVELOPMENT

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Abstract: - The industrial sector holds considerable sway over the global economy and plays a pivotal role in the propagation of climate change. This research investigates the significant significance of Self Help Groups (SHGs) within the framework of industrial development and their contribution to the mitigation of climate change. Industrial operations play a significant role in the generation of greenhouse gas emissions, hence emphasizing the imperative of embracing sustainable methods. This study employs a mixed-method methodology, incorporating quantitative data analysis and qualitative interviews with self-help group (SHG) members, industrial stakeholders, and experts. The research investigates the diverse endeavors undertaken by SHGs, such as the promotion of environmentally friendly technologies and the adoption of sustainable industrial practices. Advocacy has a significant role in the context at hand. The research study involved a sample size of 200 participants. The statistical analysis for our research was performed utilizing the SPSS 22.0 software program. And this research has been targeted at Gwalior and Datia industrial areas or Self Help Groups (SHGs). The main objective of our research is to investigate the extent to which Self-Help Groups (SHGs) contribute to the reduction of carbon emissions, preservation of finite natural resources, and promotion of the adoption of environmentally friendly technologies in various industries. Findings reveal a strong connection between self-help groups and climate changes in industrial development, as well as strong evidence that the former significantly affect the latter.

Keywords: Industrial sector, Climate change, Environment, Self Help Groups (SHGs).

I. INTRODUCTION

A large number of women (10-20) with similar aspirations are helped to voluntarily band together and take part in development activities including income generating, credit, and saving. A self-help group (SHG) is an organization that employs this method. Women's self-help groups have a positive impact on the economy and society as a whole. The SHGs investigate the concept of instilling enormous confidence in the minds of rural women to succeed in their daily lives and highlight the power of women to shape communities in the proper viewpoint.

The phrase "climate change phenomenon" is used to characterize the long-term seasonal fluctuations associated with the rising concentration of greenhouse gases in the atmosphere. Climate change has to be addressed immediately because of the fundamental role it plays in the development of natural eco systems and the human economies and civilizations that are based on them. Extreme heat waves, brought on by an increase in the global average temperature, are having an effect on countries with warm climates. In recent

years, India has seen a rise in the variability of its monsoons. This results in flooding in some areas and drought in others. The negative consequences of climate change on health are caused by a number of reasons, including increased temperatures, poor air quality, and extreme weather, as well as changes in meteorology that affect vector-borne diseases, decreased water quality, and reduced food security. **(Rajasekhar, Ramani, 2019)**

1.1 SHGs' role in development processes and the development industry

Self-help groups (SHGs) are made up of anywhere from 10 to twenty local women and men who pool their resources to aid those in need. A self-help group is an informal network of people who have come together to work on a problem or issue. In reality, self-help groups are made up of people who already know each other and are located in the same geographical area. They are a cohesive unit because of the shared values and norms that existed among them beforehand. Self-help groups in the microfinance context center around the issues of loans and investments.

Self-help groups tend to be concentrated in India, but you may also look for them in other parts of Asia, particularly in South and Southeast Asia. Self-help groups are a relatively new form of organization in India with the stated goal of uplifting women. All women in India are encouraged to join a Self-Help Group (SHG) to gain the skills and support necessary to become successful employees and business owners. As if Indian women aren't smart enough to run their own enterprises, the government encourages them to join self-help clubs. While the government will buy the SHGs' products, the SHGs are responsible for providing the infrastructure for women to learn how to perform certain jobs in India. **(Nichols, 2021)** The Bank must also offer financial support to carry out manufacturing and company activities. Finally, the government must provide provisions for the autonomous administration of SHGs in order to have administrative capability and to improve the quality of women in leadership positions. As a result of government support, self-help organizations have flourished and become invaluable to citizens. **(Baland, J. M., Somanathan, R., & Vandewalle, 2008)**

The Self Help organizations Guiding Principle lays an emphasis on social mobilization, training, bank finance, and government subsidies to build small organizations out of the poor in rural regions. The Gram Sabha will adopt a BPL list, from which self-help groups will be constituted. Roughly ten members of each household will be selected to participate in these groups, which will focus on skill development training in response to local requirements. Self-help groups are becoming increasingly popular across the country and contributing to the growth of rural economies in a variety of ways. **(Samajho, 2021)**

1.2 Significance and importance of self-help groups in India

The primary motivation for the formation of self-help groups is to empower marginalized members of society, particularly women, to break free from exploitation and establish sustainable livelihoods in rural areas. In order to combat the multiple forms of exploitation its members face, these groups bring people together to work toward a common purpose and take strength from one another. Collectively, people have more power to effect positive change. As an added bonus, it facilitates the development of trustworthy ties between the promotional organization and the rural poor through regular dialogue and earnest effort on both sides.

Self-help groups can play an important role in a variety of contexts, including easing access to credit, helping other groups or organizations exert effective control, ensuring repayments and continuity through group dynamics, and setting clear guidelines for interest rates, repayment plans, deferment policies, and more. **(Singh et al., 2011)** Women in rural areas can access microloans through self-help groups, which can help them, get started in business. All of the credit needs of low-income women, both in the countryside and the city, are met by the SHGs. By increasing women's access to decision-making roles and resources in the workplace, SHGs boost women's empowerment in the political, economic, social, and cultural spheres. **(Pangannavar, 2014)**

II. LITERATURE REVIEW

(Junaid et al., 2022) Positive developmental outcomes and general well-being depend on a person's sense of empowerment, defined as the ability to take action in pursuit of their own goals and realize their own potential. A persuasive argument can be made for empowering people to take greater control of their own lives and futures. The concept of empowering others is complex in and of itself. Development and competence-building literature frequently draws on the ideas of women's agency, autonomy, and empowerment. The above concepts still have a lot of unanswered questions attached to them, however. Although women's agency and well-being are sufficiently separate from one another, there appears to be significant overlap between the two factors—agency and empowerment—and the other two, agency and autonomy. To determine the degree to which these ideas overlap and to what extent they are unique to the Gwalior region, this study compares and contrasts various interpretations of these concepts.

(Kumar, 2022) The effects of Self-Help Groups extend across all levels of society, from the political to the economic to the pedagogical. It's a game-changer for rural areas and people. In addition to providing a means of financial support, skill improvement, and reducing feelings of social isolation, SHGs can also foster a sense of personal connection, social closeness, and social assurance. Self-Help Groups unite women from all walks of life and are an excellent tool for advancing the status of women in both rural and urban settings. Ranka, East Sikkim, 16 kilometers from Gangtok, was chosen. The study was focused to focus on functioning of SHG at Phenzong, Baliman. Six SHGs (KURSONGREEP, UJWAL, PRERNA, LOTUS, AJAMBARI, and MICKEL) participated in the survey. Due to a general lack of education, expertise in agricultural production, favorable climatic conditions, and fertile soil, the majority of the group preferred farming as a primary occupation. As a side hustle, however, LOTUS engage in the industries of baking, weaving, and composting, while AJAMBARI engage in the industry of raising chickens. The report also makes an effort to consider the economic and social impact, to draw attention to the problems that still exist, and to offer solutions, as well as to offer suggestions and initiatives.

(Meena & Prasad, 2021) Self-Help Groups (SHGs) were studied in this article to see how effective they were in the Tribal Sub Plan Region of the Indian state of Rajasthan. Performance was also correlated with demographic variables such as age, income, and level of education. Three hundred SHG participants were randomly chosen for this analysis. The relationship between two categorical variables can be examined with either the one-sample t-test or the Pearson chi-squared test of association. The views of respondents on the appropriate duration of aid were analyzed using a frequency distribution. Study participants reported high levels of satisfaction with the SHG's operations, regardless of demographic factors such as family size, age, income, or level of education. Although SHGs have been the subject of a lot of research, no papers were found that were written with the needs of the Tribal Sub Plan Region in mind.

(Soni, 2018) The Self Help Group's Bank Linkage Program has helped to normalize the process of women's social and economic empowerment. Researchers and writers alike have hailed the SHG program and its movement as a crucial means of advancing women's equality. However, SHG is nothing more than a casual gathering of a few individuals, typically women, working together toward a common objective. The study's overarching goal is to examine and analyze the changes that occur in the social, cultural, and behavioral status of rural women members as a result of their membership in Self Help Groups (SHGs) and their subsequent economic empowerment. Another goal of the research is to identify the most pressing problems and challenges being experienced by SHGs in the region. The investigation takes place in rural Udaipur. The research uses both original and previously collected information. Primary information is collected by a survey of the research area's inhabitants. Research into the demographics, socioeconomic standing, and work habits of SHG members, both before and after they joined, and other factors, has been conducted on a sample of 10 SHGs. After participating in SHGs, rural women reported feeling more confident in themselves and making healthier lifestyle choices.

(Geethanjali & Prabhakar, 2013) India faces poverty and unemployment like other emerging nations. India's women's employment is slowly rising. Poor growth in new and productive jobs is to blame. A "Self Help Group" (SHG) technique is more appealing and requires fewer resources. It helps Indian women obtain economic independence and security. Low-income rural residents who have similar social and economic backgrounds can form self-help groups to pool their resources and put away a little money each month. These funds are pooled in a common account from which members can borrow interest-free and have their

bills paid if they so want. When women band together in self-help groups, they gain strength in all spheres of society and culture. This article focuses on women's economic empowerment, self-help group development, and entrepreneurship in the YSR district in the Andhra Pradesh (A. P.) region of India. Andhra Pradesh's pilot program for rural women and children was launched in the YSR district (Kadapa), Srikakulam, and Adilabad. Andhra Pradesh's YSR district has 21 Mandals and 35,338 Self Help Groups. Study participants were selected from SHGs in the five most successful communities (Kodur, Ramapuram, Sidhout, Yerraguntla, and T. Sundupalli). Thus, this research concentrated on these topics. YSR has 43275 individuals in 3756 Self Help Groups. We randomly picked 200 people, 40 from each of the five settlements.

(Deininger & Liu, 2013) Despite the recent buzz about microcredit programs, very little rigorous study has been conducted on how the development of self-help groups affects local efforts to increase savings and boost participants' sense of agency. Using data from a sizable survey of Indian households, the authors assess the societal and economic results of the growth of self-help groups there. They find that the program has had positive benefits on participants' sense of agency and eating habits in the places where it has been implemented, with some variance in these outcomes between participants and across new and established groups. There were positive externalities in the program regions, with women's social and economic empowerment increasing regardless of their degree of engagement. There was a bigger nutritional benefit for the new participants compared to the existing groups. At the time of the survey, the program's major economic advantage had been accomplished through consumption diversification and smoothing, rather than the introduction of new revenue sources, as seen by members' higher spending. It's possible that the results of an evaluation of such a program that accounts for the variability in its effects might have significant policy implications.

(Hove et al., 2002) In this paper, we compare and contrast the climate change policies of three major worldwide oil companies: BP Amoco, TotalFinaElf, and ExxonMobil. There are three main ways to approach this problem; waiting to see what happens, being proactive, and resisting emission limitations. These methods are noted, and justifications are provided, when applicable. They cover topics in economics, politics, science, and society. According to a corporate ethics framework, the oil industry has an ethical dilemma regarding climate change because of a contradiction between profits and CO₂ emissions. We categorize responses to this dilemma into three categories: (i) focusing on the positive business outcomes while downplaying the role of human activity in increasing greenhouse gas emissions; (ii) attempting to avoid responsibility; and (iii) stressing the need for process changes while downplaying the negative business outcomes. Finally, we believe that moral concerns arise when a company utilizes society as a tool to achieve its financial goals, in addition to the moral questions caused by climate change. Promoting proactive and collaborative conduct among business participants appears to be possible through the public exhibition and evaluation of a company's ethical commitment.

(Brody et al., 2017) In this systematic study, we use a variety of quantitative and qualitative methods to look at how women's self-help groups (SHGs) have helped to advance women in the areas of economic security, social status, mental health, and political participation. In low and middle income South Asian countries and other developing nations, government and non-government organizations invest substantial resources in support of Self-Help Groups (SHGs), with the hope that increasing women's empowerment through micro-finance, training, and group support. Women's economic self-help groups (SHGs) have been found to improve women's autonomy in the spheres of social advancement, family planning, and financial security. Estimates of standardized mean shifts are made, with impact values ranging from 0.06 to 0.41. No evidence supports the claim that SHGs help members feel more confident in their own abilities. Qualitative studies have shown that SHGs can help people feel more confident because of the connections and support they foster among members, as well as the autonomy they get in making financial decisions, the comfort they gain with handling money, and the admiration they earn from their families and neighbors. However, it was often the case that the included evaluations lacked adequate details regarding the specifics of the activities carried out by the SHGs. The most efficient of the several SHG models has not yet been determined. Finally, when we combined the qualitative and quantitative data, we found no evidence that SHGs contribute to an increase in domestic violence.

(Lieberman, 1990) The author first provides a brief history, overview, and overview of self-help groups before comparing them to groups that receive professional therapy. It is proposed that there are five main dimensions along which group helping systems can be evaluated: the helping group as a social microcosm,

the technological complexity/simplicity, the psychological distance/closeness between the helper and the helpee, the specificity/generalizability of help methods, and the differentiation/no difference among members.

III. RESEARCH METHODOLOGY

This section of the study covers techniques, measurements, ethical considerations, data gathering, and analysis. Research is an intellectual pursuit in the academic world. "Researchers say the research process entails defining and reframing the "problem," developing hypotheses about possible solutions, gathering data, making conclusions, and conducting experiments to determine whether or not the results bear out the theory.

3.1 Research Design

A study design is used to decide which course of action will yield the best results if your research aims and any potential confounding variables have been clearly established. The first research questions offered can be used to create a systematic method to data gathering and analysis. This study's goal is to examine effect of self-help group on climate change in industrial development via descriptive research methods. It is possible for a descriptive study to be qualitative, quantitative, or both. This study used both quantitative and qualitative methods. It is a tactic that combines both of them. The research method must include defining the study's objectives and gathering and analyzing participant data. Effect of self-help group on climate change in industrial development is the subject of this study.

3.2 Research Approach

A study's approach has a key role in its outcome. The selection of an appropriate research strategy will be influenced by the objectives of the study Survey. Pre-existing surveys will be used to collect the data. By choosing a combination of structured and closed-ended questions, survey participants may customize their experience.

3.3 Methods and Tools used

The information was collected using a survey. Several techniques for collecting information on climate change in industrial development rely heavily on surveys. Each survey uses a sample to better understand the relationship between self-help groups and climate change in the context of industrial expansion. Self-help group activities in Gwalior and Datia were evaluated for their impact on the impacts of climate change on industrial development. Especially relevant here, 200 respondents (100 from SHG and 100 from various industries) who participated in a poll of various workplaces were the responders.

3.4 Statistical Analysis

SPSS 22.0 was used for the statistical analysis of the data collected for this investigation. The most important data was analyzed using methods like analysis of variance and percentage approaches. Percentage analysis was used to emphasize the most significant aspects of the inquiry. Percentages are a powerful tool for data comparison and analysis. This simple strategy might assist you in getting your point across. Once sufficient data has been gathered, a more precise picture of the problem might be created. Percentage breakdowns may be made more interesting by using visualizations.

3.5 Objectives of the Study

- "To find relationship between self-help groups and climate change in industrial development".
- "To find impact of self-help groups on climate change in industrial development".

3.6 Hypothesis

H₀: "There is no significant relationship between self-help groups and climate change in industrial development".

H₁: "There is significant relationship between self-help groups and climate change in industrial development".

H₀: "There is no significant impact of self-help groups on climate change in industrial development".

H₂: “There is significant impact of self-help groups on climate change in industrial development”.

IV. Results

In-depth analysis of the interpretation of the survey data is done. In-depth examinations of the data in the Frequency and Percentage table are provided via the accompanying graph. The statistical method "Pearson correlation and Regression" was used for these analyses.

Table 1: Gender wise distribution of respondents

Gender		
	Frequency	Percent
Male	77	38.5
Female	123	61.5
Total	200	100.0

Gender wise distribution is presented in the table above. The frequency and percentage of male respondents are 77 and 38.5%, respectively. 61.5 percent and 123 frequency of the female respondents.

Graph 1: Graphical representation of gender wise distribution of respondents

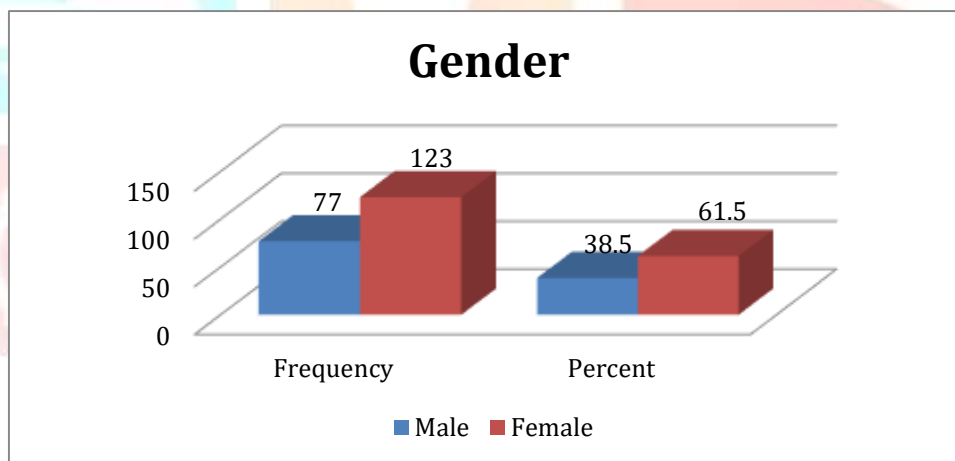


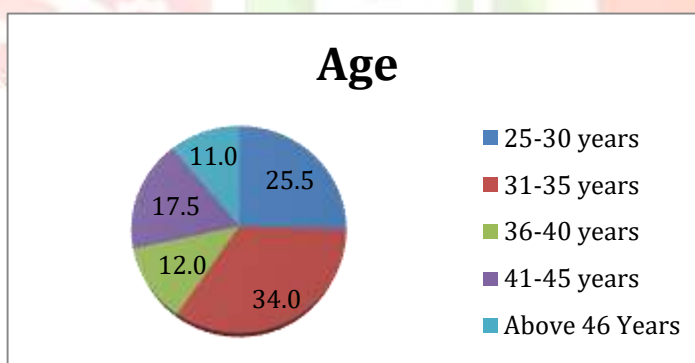
Table 2: Age wise distribution of respondents

Age		
	Frequency	Percent
25-30 years	51	25.5
31-35 years	68	34.0
36-40 years	24	12.0
41-45 years	35	17.5
Above 46 Years	22	11.0
Total	200	100.0

The age distribution of the respondents is covered in the above table. The percentage is 25.5% and the frequency is 51 in 25–30 years. The frequency is 68 and the proportion is 34% in 31 to 35 years. The frequency is 24 and the percentage is 12% in 36–40 years. Frequency is 35 and percentage is 17.5% among those aged 41 to 45. The frequency is 22 and the proportion is 11% in the past 46 years.

Graph 2: Graphical representation of age wise distribution of respondents**Table 3: Correlation**

Correlations			
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		Self-help group	Industrial Development
Self-help group	Pearson Correlation	1	.446**
	Sig. (2-tailed)		.000
	N	200	200
Industrial Development	Pearson Correlation	.446**	1
	Sig. (2-tailed)	.000	
	N	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

The above table discusses correlation in which sig. value is 0.00 which indicates there is significant correlation between self-help group and climate change in industrial development.

Table 4: Regression

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.446 ^a	.199	.195	7.27732
a. Predictors: (Constant), Climate change in industrial development				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2610.197	1	2610.197	49.287	.000 ^b
	Residual	10485.958	198	52.959		
	Total	13096.155	199			
a. Dependent Variable: Self-help group						
b. Predictors: (Constant), Climate change in industrial development						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.174	2.010		8.047	.000
	Climate change in industrial development	.469	.067	.446	7.020	.000
a. Dependent Variable: Self-help group						

Regression analysis uses ANOVA to establish the framework for a test of significance and to ascertain the degrees of variability within a regression model. The statistical significance of the components in the investigation is evident from the above table. Regression examination of the relationship between self-help groups and climate change in industrial development shows that these groups have a 44% explanatory power over the remaining variance in climate change in industrial growth. The ANOVA table indicates that there is

a significant impact of self-help groups on climate change in industrial development ($F=49.28$, sign. value = 0.00),” as evidenced by the R value (0.19). According to the values in the above table of coefficients, the variable is "Self-help groups have a significant effect on climate change in industrial development." B-coefficients are usually significant and positive. It is better to translate the B-coefficients instead of the beta coefficients because all indicators have the same dimensions. According to the significance value, "Self-help groups have a significant effect on climate change in industrial development",

V. CONCLUSION

SHG networking is an effective instrument for carrying out programs for social development. It is possible to successfully integrate their traditional methods of dealing with resources and the natural world while creating an adaptation or mitigation plan. Since, they serve as the means and the end; such an action will be extremely effective. The results show that, in the context of industrial development, self-help organizations are perceived favorably as having a role in reducing climate change. This emphasizes how crucial it is to promote teamwork and adopt sustainable practices in order to develop a more environmentally friendly and climate-friendly industrial sector. But it's critical to understand that addressing the intricate and dynamic difficulties presented by climate change in industrial settings will require constant efforts and collaboration. Results show that self-help groups and climate change in industrial development are significantly correlated, and that self-help groups significantly influence climate change in industrial growth.

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