

Achieving Sustainable Development Through MGNREGA: A Study on West Bengal Covering the COVID - 19 Period

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ABSTRACT

Alleviation of poverty, achieving zero hunger, bringing gender equality, reducing inequalities, providing decent work, and achieving economic growth are just a few of the prioritized objectives of the Sustainable Development Goals. Consequently, inclusive social development and bringing equality among different genders are a few of the prioritized areas of the Sustainable Development Goals along with the development agenda of India. These objectives are the prerogatives of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) of 2005 as well. Although this program started before the SDGs were announced, it promises to fulfill many of the SDGs. MGNREGA ensures 100 days of guaranteed wage employment for rural households at the government-decided wage rate without any discrimination against women or caste. Here, it has been examined for the state of West Bengal to check how much the MGNREGA Act has been able to uplift the state's marginalized communities, namely, Scheduled Castes (SCs), Scheduled Tribes (STs), and women, in the past 5 years from 2017 to 2022. In this study, an attempt has been made to show the trend in the number of person days or working days provided to the SCs, STs, and women for their upliftment through this scheme and whether the increase in total person days provided on the whole through the scheme is good enough that the person days of the SCs, STs, and women have increased proportionally.

Keywords: *SDGs; Inclusive Development; MGNREGA; Marginalised People; Regression Analysis*

Introduction

Achievement of the Sustainable Development Goals (SDGs) by means of inclusive development has been one of the prime goals of the Indian Government. Inclusiveness of all sections of people in the society along with the removal of gender disparity are in the line of priority of India's planning of developing the society, but the unbalanced form of growth, so far, has not allowed that to happen; the already developed segments of the society have progressed further, but the ones left behind could not move much. India is lagging behind in several social aspects. For the sake of bringing equality into society, achieving a balanced path of growth, or even moving towards the desired direction from all aspects, including indicators of health, education, social equality, etc., inclusiveness is the only way that can

not only include women and the marginalized sections in the mainstream of development but also take them towards development. Equality in society has to be prioritized in all aspects, be it achieving the goals of sustainable development, reducing unemployment, or distributing income. Growth along with equity have to be prioritized. But inclusiveness of all in society, especially the marginalized ones, is a huge challenge in a backward, developing nation like India. In India, it is a well-known fact that the majority of the people live in rural areas (at least 60%–65%), and they live in informal economic sectors. Bringing them into the mainstream of economic development is one of the biggest challenges that needs to be fulfilled. The problem or challenge that the nation faces is to distribute the advantages of growth among all sections of society; that is, the fruits of growth are accumulated by a few only. Hence, there is a dual economy in all parts of society and in all spheres of activity. Hence, it is necessary to prepare and implement a proper plan that can take care of the fact that balanced growth is necessary for all regions and for all segments of the population, with the intention to abolish casteism and gender discrimination. These action plans have to be committed as well as timely in order to bring about gender equality, unless it remains a dream. MGNREGA promises to address as well as fulfill both of these aspects by providing a minimum of 100 days of wage employment, at the government-decided wage rate, for public activities or public works to rural households. This act assures no gender or caste discrimination, thus ensuring the participation of women and people from all sections of society, including the marginalized ones. Hence, such an act can be considered a 'never before' opportunity for rural people of all categories of society. India has always suffered from wage discrimination against women due to several reasons, but NREGA ensures that it is abolished—a feature that could hardly be imagined in rural India. But one cannot deny the fact that despite no discrimination in wages, there is inequality in labor force participation among women; that is, in a few states, women have shown good progress as far as registration in NREGA is concerned, whereas in other states, there is a lack of participation by women in this program. This disparity in labor force participation is actually hampering the equality of standard of living between men and women, as well as between rural and urban areas—a feature that deserves to be abolished for the sake of the development of the economy. It is understandable that in a backward economy with such dualities in various forms, it is immensely problematic to empower women, but the planners in India have always emphasized that, and special attention was given to this aspect in the eighth five-year plan. It has been recognized that in a male-dominated society where women have been lagging behind in several aspects, including health, education, and employment, public funding has to be made in order to pull them out of the vicious cycle of backwardness. Otherwise, it would be impossible to uplift the women who are living in the lower range of inequality. One can highlight three important features that look to wipe away the existing gender inequality. Firstly, it ensures at least 33% female participation. Secondly, there is a guarantee of wage equality between men and women, and lastly, household members can allow their female members to participate in the program since the guarantee of employment is at the household level. Three basic features that were never thought of before but are immensely important to bring equality. Even regarding the payment

of wages directly to the bank accounts, attention was given to discrimination, i.e., that the money should not go only to the account of the male member.

During the COVID period, it is an established fact that MGNREGA has acted as a life saver for all forms of labor forces, including the migrant ones. Around 10 million migrant workers were given employment opportunities under this act during the lockdown era. This act not only saved their lives, but they also managed to earn at least 30% of their income compared to the pre-lockdown period. Around 350 crore employment days, that is, person days of employment, were generated during this period of COVID, which was around 45% higher when compared to the person days of employment generated in the previous year of COVID. During the pandemic period, more than 52% of the employment under NREGA was for the female labor force, which is significantly good from the perspective of development. The government even extended the working days from 100 days to 150 or 200 days with increased wages for the migrant laborers. During the prolonged lockdown period because of the COVID, it has been proven and widely accepted that MGNREGA has acted as life-saving medicine for the rural poor (Lokhande & Gundimeda, 2021). This is one such scheme that not only curbed the migrant workforce's distress but also helped them not go back to their previously uncertain workplace. Hence, if properly used with innovation and good strategies, this scheme should be their forerunner in asset creation as well as infrastructure building in rural India.

Apart from all these under NREGA, the government of India has launched several exclusive schemes to remove the disparity between the rich and poor in India. Some of them include Janani Suraksha Yojana, Mission Antyodaya, Jan Dhan, Jan Suraksha, and Pradhan Mantri. Jeevan Jyoti Bima Yojana, Atal Pension Yojana, PAHAL The scheme has different perspectives. The Mission Antyodaya looks to pull out more than 1 crore households from below poverty level. The Jan Dhan was launched by the Prime Minister with the intention of financially including the backward people in the main stream by opening bank accounts, and it was a successful one as it opened around 60% of the rural people's accounts. The Atal Pension Yojana focuses on the unorganized sector. In this study, how women from the marginalized section of society have benefited from this act of NREGA has been shown. In a developing nation like India, the non-marketed activities of the women are not evaluated; these are not brought under the purview of national income accounting, a phenomenon against which feminists as well as social activists have always protested because they feel that men and women should be equally valued for their works in all spheres of life, be it at home, in the public sector, or in the private sector. They are even in favor of including child rearing as a prime source or form of labor employment, which would increase female labor force participation. Despite all these efforts, even today, women suffer from gender discrimination at work, even in the corporate world.

Here, the objective of the work is to vividly analyze whether marginalized communities and women are being uplifted through MGNREGA and how far MGNREGA has been successful in generating employment during the COVID-19 period in West Bengal. A study that is expected to cover up the achievement or failure of multiple SDGs is almost absent in the

literature, and an effort has been made to fill up that lacuna. If such an analysis can be done, it is expected to give an idea about at least five objectives of the Sustainable Development Goals (SDGs) which itself is expected to give answers to numerous questions on SDGs in West Bengal.

Literature Review

Mohanty (2012) have carefully questioned how the MGNREGA initiative was upheld and its effects on the lives of tribal people, that is, how much the program has been able to provide in the tribal areas of the Sundergarh district of Odisha. After careful analysis, this study revealed that the impact of MGNREGA on rural lives is close to negligible. The careless implementation of the program and the callous way in which it has been carried out have ruined its spirit. Religious, cultural, and caste bias in the case of job distribution, along with faulty leadership, have stood as major obstacles in this program.

Ranaware *et al.* (2015) surveyed 4800 users over 100 villages in 20 districts in Maharashtra to verify their existence under the MGNREGA scheme and to understand how the targeted areas under the scheme perceived the initiations along with the problems and advantages they faced under its implementation. The survey found that most of the work provided was agriculture-related. Most users were found to have benefited from the scheme and gave positive feedback. Overall, this paper finds the scheme to be a success with some room for improvement.

Sukhtankar (2017) in his paper, he presented some takeaways after analyzing the past 10 years' data regarding the implementation of the MGNREGA scheme in all the Indian states. The first states that it has not been implemented equally well in all states, and its impact in each state depends on how well it was implemented individually. Secondly, the poorest states, which need the scheme the most, are the most unable to put it into effect. Third, the increase in rural private sector wages has led to an increase in the opportunity cost of attending school for older children. Fourthly, the scheme's impacts on productivity remain a topic of debate to this day.

Ranjan and Ahmedabad (2015) examined the performance and effectiveness of the MGNREGA in order to improve the living conditions of backward sections of Indian society by providing employment. The study has analyzed secondary data, bringing to light many deliberate as well as nondeliberate effects of the act. The main positive effect was the increase in agricultural productivity due to large water harvesting and land development works undertaken under MGNREGA. A subsequent con was the rise in the cost of production along with soaring food prices because of the increase in wages, which had an effect on social welfare in MGNREGA.

Mafruzza and Rao (2016) have canvassed the standing of women, their part, and their performance under MGNREGA in India, particularly in the State of West Bengal. The paper dealt with giving equal rights to women on frontiers, like the priority of their participation in the one-third ratio of total workers, and making sure that they receive a consistent wage rate under MGNREGA. It can be seen that after the implementation of MGNREGA in West

Bengal, there has been an increase of 4.75% in women's person days (the number of people working per day times the number of days worked) and a decrease of 7.77% in men's worker participation from FY2012 to FY2017. The study has shown that the implementation of MGNREGA has been a success in the studied districts of West Bengal in the above time span. Socially and economically marginalized women in these rural districts have empowered themselves under the MGNREGA.

Kumar (2016) examined the impact of MGNREGA on rural women in Coimbatore, Tamil Nadu. The block selection was based on the highest employment status among women workers in the program. Most respondents during the interview said that neither their income had improved nor was it sufficient after their enrollment in the scheme. The study found that the implemented scheme did not improve the expected level of socio-economic conditions for rural women.

Paul (2016) has given us an exhaustive study on the advantages, applicability, and challenges faced by MGNREGA in its effectuation in rural areas of India as well as West Bengal in recent years. The study is based on detailed arguments and the incorporation of various qualitative and quantitative elements based on secondary data related to MGNREGA activities in rural India. This study has been based on secondary data collected from different books, research papers, reports, journals, newspapers, and online databases. The study reveals that MGNREGA has a positive impact on rural employment generation and development.

Breitkreuz *et al.* (2017) provided us with an emic perspective on how the MGNREGA scheme has brought about change in areas; it aims to create a difference. Two-thirds of India's population inhabits rural areas. 30% of Indians live below the poverty line. SCs (22%) and STs (11%) account for 80% of the rural poor. Further, women are overrepresented in rural poverty, holding an unreasonable number of marginal agricultural jobs with low wages in rural India. They used a qualitative research design in three study areas (Kerala, Tamil Nadu, and Odisha) with 60–85% poverty rates. Major findings included that the number of days worked per householder was 54, significantly more than in 2006–07 but almost half the promised 100 per year. The average percentage of MGNREGA funds spent on wages was only 67.5%. The lack of awareness of MGNREGA decreased the likelihood of participation among the poorest households. There is also evidence that some MGNREGA spots were reserved for the middle class, thereby lessening positive impacts for the poorest. Although in national-level analysis, MGNREGA is used by the poorest, in one state it was being used by community members who were relatively well off. Findings suggest that the MGNREGA program was known to end users in all three regions, but wages varied between genders and were uneven in some regions.

Vasanthi (2017) has provided us insights with an original research paper based on the MGNREGA scheme, which talks about the empowerment of women in rural areas of selected blocks in Tiruchirapalli district, Tamil Nadu. Her paper consists of descriptive research based on both primary and secondary data. Primary data was collected with the help of a specifically designed structured questionnaire and personal interview schedule for

rural women under MGNREGA, with special reference to villages in Tiruchirapalli such as Azghyamanavalam, Thiruvasi, and Kovathakudi. Through the study, the author has been able to conclude that MGNREGA is an effective device for poverty alleviation and improving the socio-economic conditions of rural women in particular. It was observed that women, after the implementation of MGNREGA, have gained a stronghold and the opportunity to start saving their daily income in banks. It was also found that the recognition of rural women in the above areas increased, which led to their active participation in society as a whole and helped them overcome their societal problems.

Michael (2018) in his paper, he strives to study the progress, consistency, and performance of MGNREGA in the Bangalore district of Karnataka. The objective of this paper is to examine the employment situation in those mentioned districts after the MGNREGA scheme was implemented there. It also provides some insightful remedies after analyzing the obstacles that arose. Findings reveal elite groups among workers who try to capture the majority of job cards. There was a delay in the payment of wages and difficulty in the implementation of the scheme where the market wage rate was high.

Kumar (2019) in her study of the correlation between MGNREGA and women's empowerment, she has shown that originally MGNREGA was not envisioned as a women's empowerment program, yet it has brought about the economic and social empowerment of women. By providing an insured income to its registered workers, it has brought about change among the previously unemployed inhabitants of rural areas in the country. Boosted livelihood protection in the form of the generation of stipulated wage employment by enhancing village infrastructure was the main focus of the scheme. Gender-neutral measures such as increased participation of women in MGNREGA's implementation of better working conditions, safety facilities, wages, phased work plans, and hasty complaints addressed invigorated women to demand more work under this scheme.

Narayanan, Oldiges and Saha (2020) have combined administrative data per month with data from the district levels on migration and poverty to test whether the additional person days in public works generated by MGNREGA have been distributed among districts homogeneously or not. Findings suggest that poorer districts were found to have extended the program to more households. Secondly, this seems to not hold for districts with a higher proportion of out-migrants. Thirdly, in these districts, unmet demand for work is higher than in other areas. Also, the number of person days generated per rural household suggests that expansion is far from enough, given the large number of households pushed into economic distress in specific districts. What these hurdles need is continued funding and attention to fulfill their promises of credibility, especially in districts that need it the most.

Chahal and Kumar (2020) have used secondary data to check the effectiveness of MGNREGA in Haryana, and the authors have found that the scheme has not only been significant in increasing food productivity and generating food security but also immensely impactful in generating employment.

Patwardhan and Tasciotti (2022) have used NSS level data for the period of 2004–05 to 2009–10 and have shown the effectiveness of MGNREGA in repayment of a household's outstanding credit. The authors have found positive and significant results in this study, and they concluded that MGNREGA is an effective scheme for minimizing the outstanding credit amount of households.

Singh, Modi and Maurya (2022) have shown the effectiveness of the MGNREGA scheme on the social upliftment of the tribal people living in the districts of Annupur and Dindori in Madhya Pradesh. The authors, by means of various econometric tests on a sample size of 200 households, have concluded that the scheme has been effective in improving the socio-economic conditions of the tribal people in these areas and that it needs even more coverage.

Narayan (2022) has raised the important question of whether MGNREGA has been the most effective employer or not. The author has observed that since its inception, MGNREGA has been immensely helpful for the social improvement of the marginalized section, but since 2014, there has been a sharp reduction in its coverage, which has had a significant impact on its beneficiaries and on society. Hence, by praising its effectiveness, the author concluded that MGNREGA needs more budget allocation and coverage for the sake of social improvement in the backward section.

Few Facts and Figures

Although at present NREGA works effectively in around 700 districts nationwide after 22 years of implementation, initially it was implemented in 200 backward districts during its inception in February 2006. Then it was extended to 130 more rural as well as backward districts in its second phase in 2007, and then in the third phase, the remaining districts of rural India were brought under its functioning. It is a guaranteed scheme that legally provides 100 days of wage employment to the rural as well as unskilled labor force who are willing to take part in public or government-related activities. The wage rate has kept on changing over the years, and state-wise, this has varied as well. This act has always looked to diminish the rural-urban wage gap, or even the men-women or rich-poor wage gap, by not only ensuring guaranteed female participation but also by ensuring an increase in the purchasing power of the rural population, which has, over the years, helped in the growth of the rural economy by multiplier effect. Apart from these, NREGA has been immensely influential in pulling people out of the poverty line and thus contributing to the reduction of overall poverty in the nation, especially the poverty among the rural, backward, and marginalized communities, which has been massively reduced, which has been a move towards sustainable development. Unlike other initiatives, NREGA is a huge initiative in all aspects. Since its inception, it has generated more than 30 billion person-ddays of wage employment, which, as of January 2020, had cost around 6,000 crore rupees. One can easily understand that during the lockdown period, these figures have increased at an increasing rate. Despite these impressive figures, expenditure on NREGA has never exceeded even 1% of the GDP. There are several works that are permitted under the scheme of MGNREGA. There is scope for conservation of water, and there is opportunity

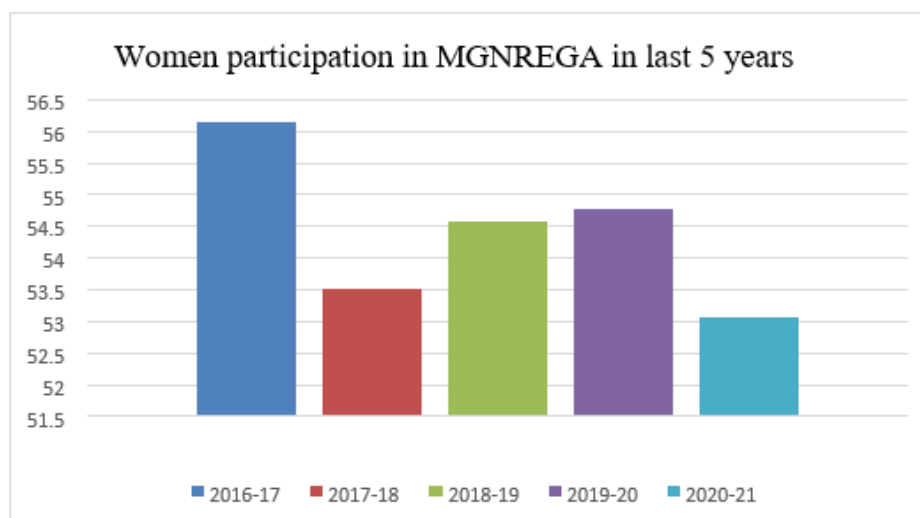
for plantation as well as afforestation that would help against drought. There are chances to work for protection against floods, the development of land and irrigation facilities, and improving rural connectivity. For the people in marginalized and backward segments of society, there are several other scopes, including horticulture.

Here, secondary data have been accumulated from different sources, including various books, research papers, and journals, and a descriptive analysis related to SCs, STs, and women's employment generation through MGNREGA is developed.

Table 1: Coverage of MGNREGA in Employment Creation in West Bengal

Total No. of Districts	23
Total No. of Blocks	342
Total No. of GPs	3,341

But it is a sad phenomenon that employment under the scheme of MGNREGA has been falling over the years, and it went down to a five-year low figure of around 53% in 2020–21. Sources from the Ministry of Rural Development reveal that these figures were over 56% in 2016–17, and then the gradual fall started.



Source: MGNREGA Website

Figure 1: Last 5 Years Women Participation in MGNREGA in West Bengal

Data from the ministry about the scheme reveals that Scheduled Caste people accounted for 25% of the total employment share in the first year of its inception. Then these figures went on increasing and reached their peak of 31% in 2010–11. Since then, it has remained constant or gone down. In 2016–17, this figure was 23%, but in 2020, it went down to 21%. For the STs, these figures started at 36% in 2006 but kept on decreasing to as low as 16% in 2013–14. But since then, it has gone up slightly. The year 2009 witnessed the highest joint participation from these two marginalized communities (SCs and STs) since the implementation of the scheme, which was as high as 55%.

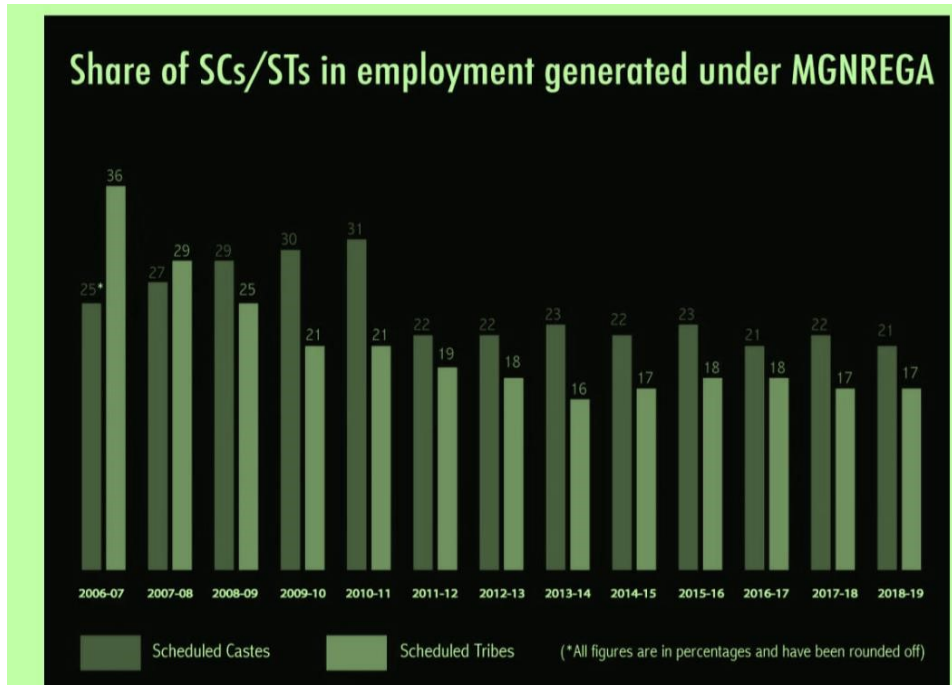
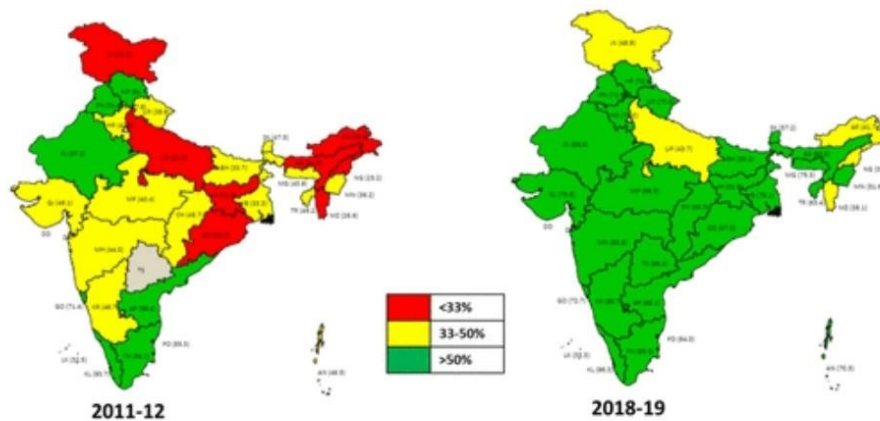


Figure 2: Year Wise Scs, Sts Employment Generation Through MGNREGA in West Bengal (Tewari, 2019)

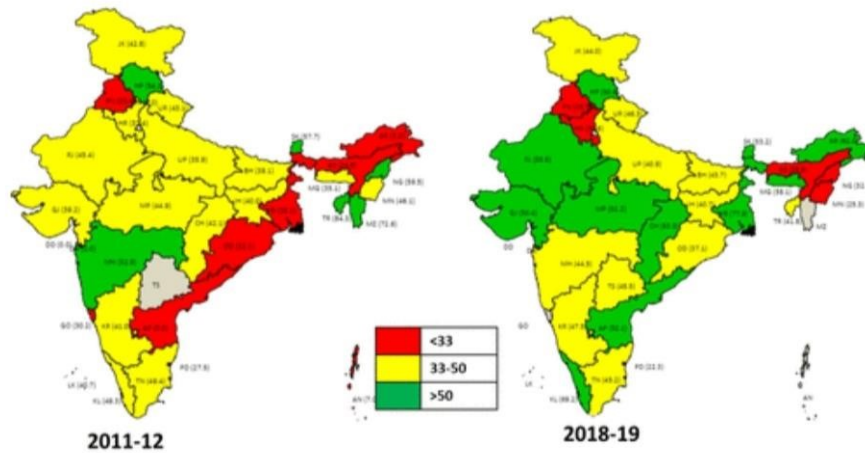
So, if the COVID era for now is excluded, it is quite clear that though women's participation in India has increased slowly till 2019, the participation of SC and ST has fluctuated over time, but overall it has followed a declining trend.

Women's, SC, and ST participation in MGNREGA varies within states. Though several states have satisfactory results for women's participation, that does not mean the SC and ST participation in those states is also satisfactory. Let us see the state-wise performance of women, SC and ST participation in MGNREGA.



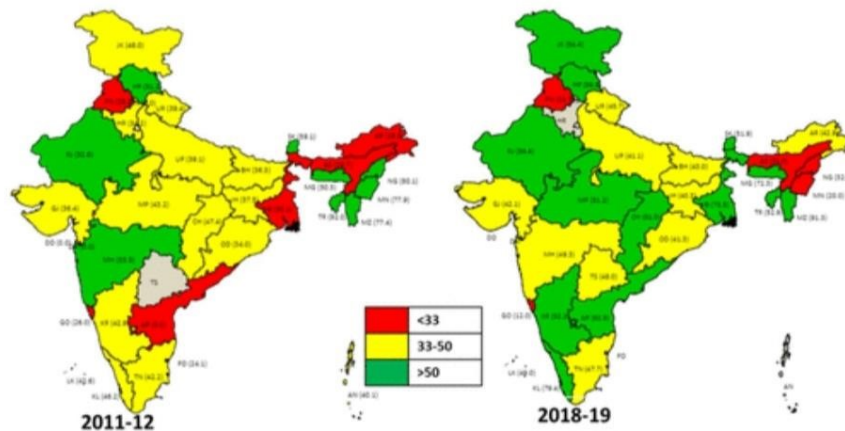
Source: <https://www.theindiaforum.in/article/continuing-relevance-mgnrega>

Figure 3: SC Participation in MGNREGA in all over India



Source: <https://www.theindiaforum.in/article/continuing-relevance-mgnrega>

Figure 4: ST Participation in MGNREGA in all over India



Source: <https://www.theindiaforum.in/article/continuing-relevance-mgnrega>

Figure 5: Women Participation in MGNREGA in India

Here, the state-wise picture of employment generation for women, SC, and ST can be compared between 2011–12 and 2018–19. Though the employment generation of women has increased all over India over the years, in the case of SC and ST, the picture is not so impressive. But one thing can be easily concluded: West Bengal has massively improved its situation in generating SC, ST, and women's employment through MGNREGA.

Methodology

This study focuses on inclusive development and women's empowerment through MGNREGA. It analyzes the implementation process in the state of West Bengal, the

inclusive development of the socially and economically backward classes, and the economic empowerment of women.

To meet the objectives, secondary data has been collected from the official website of MGNREGA, the Government of India. The following tools were used during the analysis:

- To analyze the trend of person days generated by SC, ST and women, with the help line diagrams.
- To check if there is a relation between total person days and SC person days, ST person days and women person days, simple linear regression model has been used.

Data Analysis on SC, ST and Women Participation in MGNREGA

Inclusive development and women's empowerment were two of the main objectives of MGNREGA. In a society that is mainly dominated by the upper classes, it is very difficult for the marginalized sections to develop their socio-economic status. The same goes for women; in a male-dominated patriarchal society, it is very difficult for a woman to earn and be financially independent, as it is very difficult to believe that women's decision to avail employment under the MGNREGA would get precedence over the decision of male family members. But since the inception of MGNREGA, there has been a change in the socio – economic status of marginalized people and women, especially in rural areas. There are various factors that encourage the participation of SC, ST, and women under this scheme, such as 100 days of guaranteed employment, limited work hours, availability of work locally, a substantial increase in the wage rate, the nature of work etc.

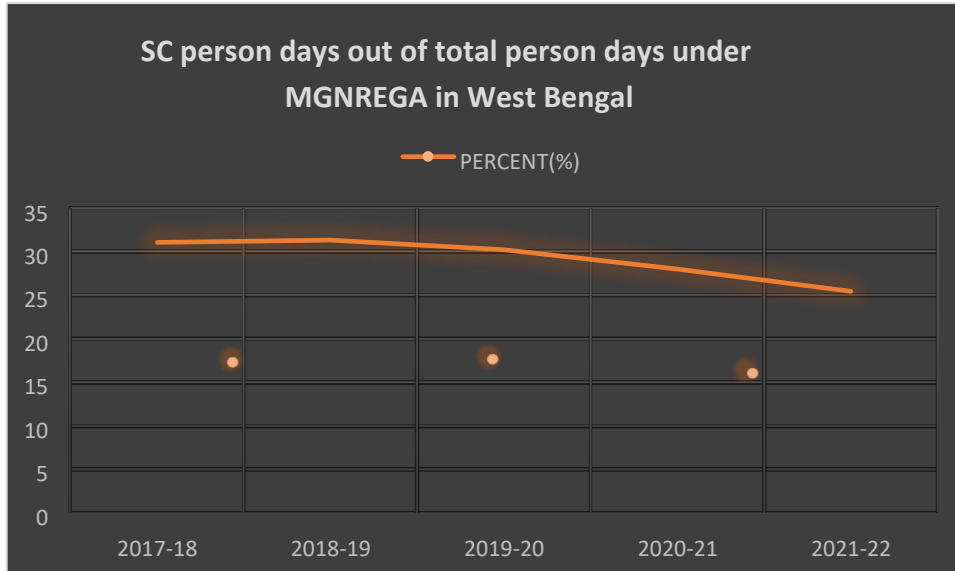
Table 2: MGNREGA in West Bengal at a Glance in the Last Five Years

INDICATORS	2017-18	2018-19	2019-20	2020-21	2021-22
	Person days Generated so far (in Lakhs)	3125.55	3382.53	2723.05	4140.17
SC person days as of total person days (%)	31.12	31.36	30.28	28.02	25.51
ST person days as of total person days (%)	8.46	8.4	9.66	8.39	7.96
Women person days as of total person days (%)	47.59	48.12	47.86	45.2	46.6
Average wage rate per day per person (in Rs.)	170.66	174.5	178.62	193.29	201.13

Source: https://mnregaweb2.nic.in/netnrega/homestciti.aspx?state_code=32&state_name=WEST%20BENGAL

From the above table, it can be seen that the person days generated have been showing an increasing trend and were highest during the pandemic years, i.e., 2020–21. The SC and ST person days out of total person days have shown a decreasing trend, with the former being reduced to 25.51% in FY 2021-2022 from 31.12% in FY 2017-18, and the latter being reduced to 7.96% in FY 2021-2022 from 8.46% in FY 2017-18. The number of women's days also shows a declining trend, but the decline is not very large. The average wage rate

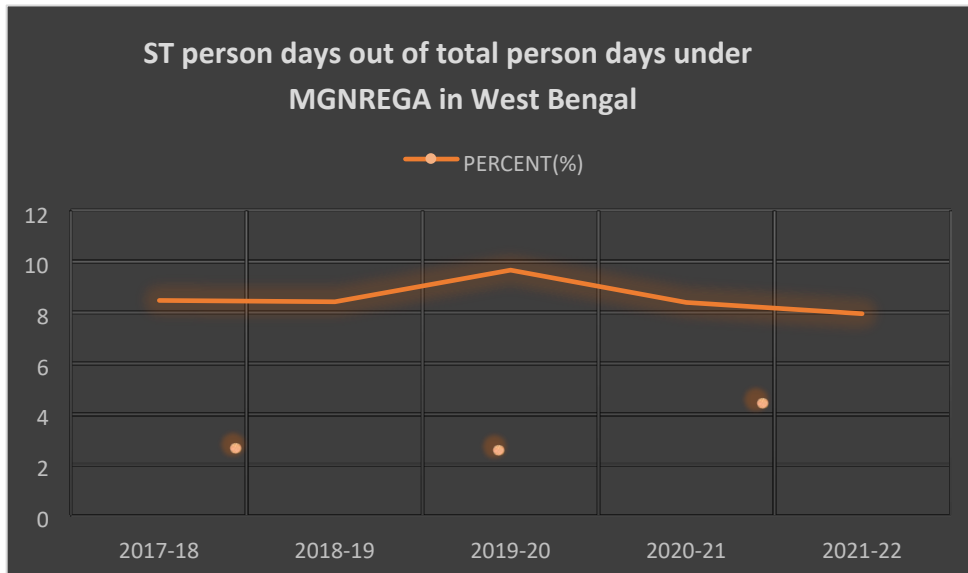
per day per person is also rising; it reached Rs. 201.13 in FY 2021-2022 from Rs. 170.66 in FY 2017-18.



Source: https://mnregaweb2.nic.in/netnrega/homestciti.aspx?state_code=32&state_name=WEST%20BENGAL

Figure 6: SC Person Days Generated Through MGNREGA In Last 5 Years (The Author's Calculation)

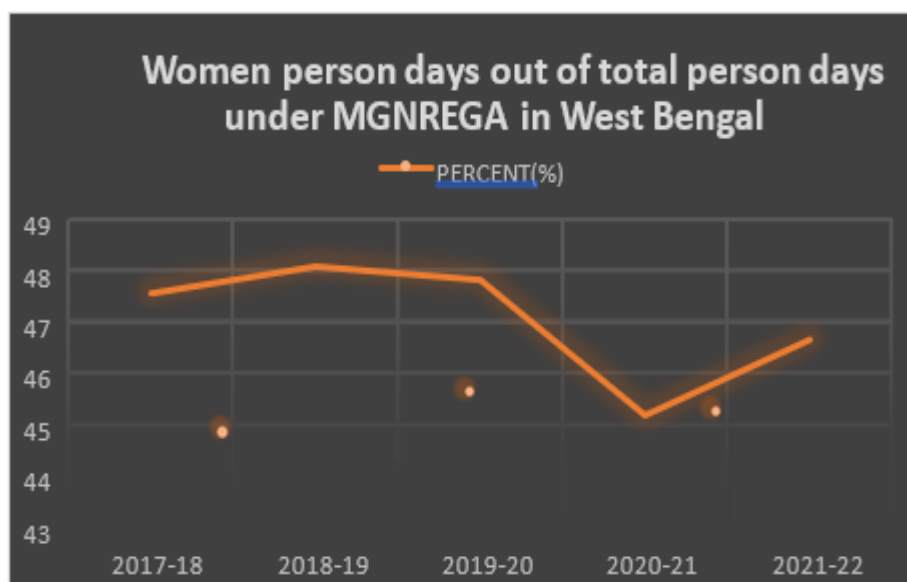
The above figure shows that the person days generated by SC under MGNREGA shows a declining trend.



Source: https://mnregaweb2.nic.in/netnrega/homestciti.aspx?state_code=32&state_name=WEST%20BENGAL

Figure 7: ST Person Days Generated Through MGNREGA In Last 5 Years (The Author's Calculation)

In the above figure it is shown that the person days generated by ST under MGNREGA initially shows an increasing trend i.e., till 2019-20. After that it starts declining.



Source: https://mnregaweb2.nic.in/netnrega/homestciti.aspx?state_code=32&state_name=WEST%20BENGAL

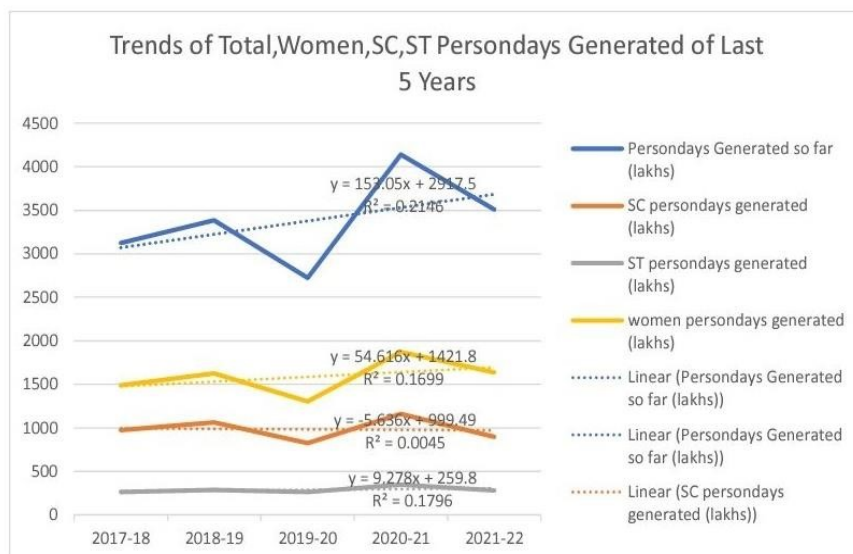
Figure 8: Women Person Days Generated Through MGNREGA In Last 5 Years (The Author's Calculation)

In the above figure it can be observed that the person days generated by women under MGNREGA initially shows an increasing trend (till 2018-19), after that it starts declining and there is a sharp decline in the pandemic years (2020-21). After that it again starts increasing.

Table 3: Data Analysis of Person Days Generated Through MGNREGA in West Bengal

Year	Persondays generated so far (lacs)	SC persondays generated (lakhs)	ST persondays generated (lakhs)	women persondays generated (lakhs)
2017-18	3125.55	972.68	264.43	1487.45
2018-19	3382.53	1060.77	284.14	1627.68
2019-20	2723.05	824.54	263.05	1303.26
2020-21	4140.17	1160.07	347.36	1871.36
2021-22	3511.98	894.85	279.21	1638.69

Source: https://mnregaweb2.nic.in/netnrega/homestciti.aspx?state_code=32&state_name=WEST%20BENGAL



Source: Author's Calculation

Figure 9: Trends of Total, Women, SC, ST Person-Days Generated in Last 5 Years

The Regression Equations Are as Follows:

- (1) (SC person days) $(y) = a + b(x)$ (total person days)
- (2) (ST person days) $(y) = a + b(x)$ (total person days)
- (3) (Women person days) $(y) = a + b(x)$ (total person days)

Here, SC person days generated in lakhs are regressed on total person days generated per year to show how much the total person days provided affect the SC person days and how much the SCs are benefited by the increase in the total person days.

Checking whether the total person days generated are enough to explain the person days generated for the SC category The p-value is $0.0124 = 1.24\%$, which is less than 5% and hence significant. The positive sign of the coefficient shows that with the increase in total person days generated, person days generated for the SC category increase as well. R-squared is 0.6878 , i.e., 68.78% of the variation in SC person days can be explained by the total person days provided. A coefficient of 0.21 shows that for every one-person day increase in total, 0.21 SC person days have increased.

Again, ST person days generated in lakhs are regressed on total person days generated per year to show how much the total person days provided affect the ST person days and how much the STs benefit from the increase in the total person days.

To check whether the total number of person days provided is enough to explain the number of person days provided for the ST category, the P-value is considered. A value of 0.0283 , or 2.83% , which is less than 5% , is significant enough. The positive value of the coefficient shows that with the increase in total person days generated, person days

generated for the ST category increase as well. R-squared is 0.8411, i.e., 84.11% of the variation in ST person days can be explained by the total person days provided. A coefficient of 0.06 shows that for every one-person day increase in total, 0.06 ST person days have increased.

Women's person days generated in lakhs are regressed on total person days generated per year to show how much the total person days provided affect the women's person days and how much the women are benefited by the increase in the total person days.

On checking whether total person days provided are enough to explain the person days provided for women, the P-value is 0.007, i.e., 0.07%, which is less than 1% and is very significant. The positive value of the co-efficient shows that with the increase in total person days generated, person days generated for women increase as well. R-squared is 0.9863, i.e., 98.63% of the variation in women's person days can be explained by the total person days provided. A coefficient of 0.39 shows that for every one-person day increase in total, 0.39-woman person days have increased.

Conclusion

The study evaluates the concept of inclusive development and women's empowerment in West Bengal through MGNREGA by analyzing time series data for the period 2017–2022. After a thorough study of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) 2005, although West Bengal has a population of over 10 crore people with a skewed sex ratio, gender disparity, extensive poverty, and unemployment to begin with, the MGNREGA initiative has succeeded in improving many socio-economic areas that previously had not been thought of, of improving. Hence, the process towards achieving multiple SDGs through one program has been initiated, and it is very feasible to do so. The initiative has also been subject to difficulties and failures which have mainly arisen through political reasons and misuse of power. Unlike earlier studies, this study attempted to check the condition of marginalized communities in society and that of women. Three of the marginalized classes of society - SC, ST and womenfolk have been the faces of MGNREGA since its inception in 2006. There are various factors that encourage the participation of SC, ST and women under this scheme.

According to collected data over the past 5 years from 2017 to 2022, the percentage of working person days provided to women of the total ranged from around 45 to 48%, which is a significantly large chunk showing that women were targeted and their condition improved by implementation of the Act even though their involvement peaked at 48.12% (FY 2018–19) but decreased slightly thereafter. The involvement of SCs in terms of their person-day percentage varied from 25 to over 31%, which could have been much better and is comparatively low as compared to the former. STs have had it the toughest, with the lowest inclusion range of 7–10%. But one thing has to be remembered: within the female workforce, there are SCs and STs included as well. So, from the data of women, one can conclude that conditions for SCs and STs have improved as well, but from their sole data, it may not generate a bright picture for the last five years. But one should remember that

during the prolonged pandemic of COVID-19, when millions of people were becoming unemployed, coming back to their home states, and searching for employment opportunities, this very program (MGNREGA) provided employment to the millions and helped them to sustain themselves during challenging periods.

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