



## IMPORTANCE OF PHYSICAL ENVIRONMENT AT WORKPLACE FOR WOMEN STONE CRUSHER INDUSTRY WORKERS IN PAKUR AND BIRBHUM DISTRICTS

**Debdutta Chakraborty**

*Ph.D. Research Scholar, Department of Rural Studies, Visva Bharati University,*

*Email id.-[debduttachakraborty93@gmail.com](mailto:debduttachakraborty93@gmail.com),*

**Paper Received On:** 21 JUNE 2023

**Peer Reviewed On:** 30 JUNE 2023

**Published On:** 01 JULY 2023

### Abstract

*The extraction of raw materials for infrastructure and construction projects is one of the major contributions made by the stone crushing sector to the economic growth of places like Pakur and Birbhum. Despite the fact that both men and women can find employment in the stone crusher industries, this abstract focuses on the significance of the physical workplace for female stone crusher industry workers in the Pakur and Birbhum areas. The physical workplace environment has a significant impact on how women who work in the stone crushing sector in the Pakur and Birbhum regions perceive their experiences. Stakeholders may empower female employees, improve their well-being, and boost their overall productivity and job satisfaction by offering a welcoming and encouraging environment that includes layout design, ergonomics, safety precautions, and general atmosphere. Such actions will not only help the workforce as a whole but will also advance the stone crushing sector's sustainable growth.*

**Key Words:** *Physical Environment, Women Workers, Stone Crusher Industry, Likert Scale*



[Scholarly Research Journal's](http://www.srjis.com) is licensed Based on a work at [www.srjis.com](http://www.srjis.com)

## I. INTRODUCTION

### 1.1 What is Physical Environment at Workplace?

According to *World Health Organization Report, 2010* Workers' health, safety, and well-being are critical concerns that extend beyond individual workers and their families. These issues have far-reaching implications for the productivity, competitiveness, and sustainability of enterprises, communities, and national and regional economies. It also highlights the significant impact of occupational accidents, work-related illnesses, and injuries on a global scale. Annually, approximately two million lives are lost due to such incidents; while an additional 268 million

non-fatal workplace accidents result in an average of three lost workdays per casualty. Furthermore, work-related illnesses contribute to 160 million new cases each year. It is noteworthy that occupational risks account for 8% of the global burden of disease from depression. The Report also suggests the urgent need for prioritizing worker health and safety to mitigate the adverse consequences associated with workplace hazards. By addressing these challenges, organizations can enhance productivity, competitiveness, and sustainability. Effective implementation of comprehensive occupational safety and health measures is crucial to reduce occupational accidents, work-related illnesses, and injuries. Such measures include robust risk assessments, preventive strategies, training programs, and adherence to regulatory standards. Furthermore, fostering a supportive work environment that promotes workers' well-being and mental health is essential. By recognizing the broader impact on economies and societies, stakeholders at all levels can work collaboratively to safeguard workers' health, ensure safer workplaces, and cultivate thriving, resilient economies.

## **II. LITERATURE REVIEW**

### **2.1 Importance of safe Physical Environment at Workplace in Stone Crusher Industry:**

The physical environment for workers in the stone crusher industry can be challenging and demanding due to the nature of the work involved. Stone crushing operations typically take place in quarries or open-pit mines where large rocks are extracted, crushed, and processed into various sizes of aggregate or other materials. Stone crushing operations generate a significant amount of dust, which can pose health hazards to workers. The crushing process releases airborne particles that can be inhaled, leading to respiratory problems and lung diseases. Dust control measures such as dust suppression systems and proper ventilation are crucial in minimizing the impact on workers' health. Stone crushers are operated using heavy machinery and equipment, which can present risks to workers' safety. Moving parts, conveyor belts, and the presence of large rocks create potential hazards, such as crushing or trapping injuries. Proper training, regular maintenance, and the use of safety devices and protocols are crucial to prevent accidents and ensure worker safety. (International Labor Organization, 2012). Stone crushers typically operate in outdoor environments, exposing workers to various weather conditions. Extreme temperatures, humidity, and exposure to sunlight can affect worker comfort and productivity. Adequate provision of shaded rest areas, access to drinking water, and appropriate clothing are important to ensure the well-being of workers in such conditions. Strict adherence to

safety regulations and comprehensive training programs are critical for workers in the stone crusher industry. Employers should provide proper safety equipment, conduct regular safety inspections, and promote a culture of safety among workers. It is essential for employers in the stone crusher industry to prioritize the physical well-being and safety of their workers by implementing appropriate measures to address the challenges posed by the physical environment.

### **2.2 Importance of Safe Physical Environment at Workplace for Women Workers at Stone Crusher Industry:**

Creating a safe physical environment at the workplace is crucial for women in the stone crusher industry to ensure their well-being, productivity, and overall job satisfaction. The workstations and equipment should be designed ergonomically to minimize physical strain and discomfort. Women may have different body dimensions and strength compared to men, so it's important to consider their specific needs. Providing adjustable seating, work surfaces, and tools can help prevent musculoskeletal disorders and improve overall comfort. Provision of clean and easily accessible sanitary facilities is important to ensure the health, hygiene, and dignity of women workers. This includes separate and well-maintained toilets, washing facilities, and waste disposal systems. Adequate facilities are necessary to support menstrual hygiene management and overall well-being. Women's safety is a critical aspect of a safe physical environment. Employers should implement security measures such as well-lit premises, security personnel, surveillance systems, and emergency response protocols to prevent harassment, violence, and unauthorized access. Overall, creating a safe physical environment at the workplace for women in the stone crusher industry is essential to ensure their physical and mental well-being, reduce occupational hazards, and promote equal opportunities. It requires a combination of proper infrastructure, equipment, training, and policies aimed at addressing gender-specific needs and ensuring a healthy working environment for all (Maniou, M *et. al.*2021)

### **2.3 The relation between Physical work environment and Employees' performance:**

In the study of Budie (2019), author utilized PCA (Principal Component Analysis) to identify and reduce the number of variables associated with work environment satisfaction. The resulting components captured various aspects of comfort, territoriality, pleasantness, communication, privacy, and functionality, demonstrating relevance to both psychological and functional needs in the work environment.

The report of International Labor Organization stated that exposure to elevated temperatures in the workplace can have significant implications for workers' health, safety, and well-being. Heat stress and heat-related illnesses are common consequences of working in hot environments, particularly in industries such as construction, manufacturing, agriculture, and mining. The report underscores the importance of addressing this issue to ensure the occupational health and safety of workers. It draws attention to the scale of the problem on a global level, emphasizing the need for effective measures to mitigate the risks associated with workplace heat exposure (International Labor Organization, 2012). The report from the International Labor Organization (ILO) also states that approximately 80 million workers worldwide face such hazards and risks annually.

The thermal conditions in a work environment play a crucial role in influencing the physical and psychological state of individuals. Uneven temperature conditions can negatively impact workers' well-being and potentially hinder their performance and productivity. The direct effects of high temperatures on workers and emphasizes the relationship between thermal conditions and both physical and psychological well-being (Zivin et al. 2014).

The effectiveness and efficiency of a business are also influenced by its internal processes and relationships among employees and departments. Furthermore, in a high-performing workplace, employees not only possess talent individually but also demonstrate the ability to work well together and collaborate on ideas and problem-solving (Kagwi, 2018).

Employees' health serves as a link between productivity, physical environment, and behavioral environment. A positive and supportive work environment that promotes physical health, such as providing ergonomic workstations, appropriate lighting, and comfortable temperature, can contribute to reduced stress levels and improved physical well-being. This, in turn, can positively influence employees' focus, energy, and overall productivity (Hafeez et. al. 2019).

The relation between the impact of the physical work environment on employees' productivity and the overall well-being of organizations is closely related. It suggests that the conditions of the physical work environment play a crucial role in influencing employees' functioning and performance. The physical work environment encompasses factors such as the office layout, temperature, comfort zone, and overall work setting or arrangement. The office layout plan refers to the way the physical space is organized and structured, which can affect communication, collaboration, and workflow within the organization. Office comfort encompasses factors such as

temperature, lighting, noise levels, and ergonomic considerations, which can influence employees' comfort and satisfaction (Amir, 2010).

### **III. OBJECTIVE OF THE STUDY**

1. Find out the availability of Infrastructural Facilities at workplace in Stone Crusher Industries of Pakur and Birbhum districts.
2. Find out the nature of Necessary Assistances provided by Stone Crusher Industries in Pakur and Birbhum districts.
3. Analyze the importance of Infrastructural Facilities according to the women Stone Crusher Workers in both districts.

### **III. METHODOLOGY**

It is a field based study with primary data which are collected through Interview Schedule. In this study, total 160 numbers of women workers were selected through Purposive sampling method from 32 Stone Crusher Industries of 8 GPs.

Number of Blocks	Number of GPs	Number of Crushers	Number of Women workers
4	8	32	160

Birbhum district of West Bengal and Pakur district of Jharkhand were selected on the basis of most stone crusher concentrated areas. Then 2 Blocks from each district (Rampurhat-I, Md. Bazar from Birbhum; Pakur and Hiranpur Block from Pakur district) were selected on basis of same logic. Then most crusher concentrated 2 GPs were selected from each block and 4 Women labour concentrated crushers were selected from each GPs. Now from each crusher, 5 women workers were selected as respondents through snowball sampling.

After collection and classification of data, all primary data were tabulated and analyzed in quantitative method. In this Study Frequency Table and Likert Scale are used to analyze the data.

#### IV. ANALYSIS AND INTERPRETATION

##### 4.1 Infrastructural Facilities at Workplace:

Table 4.1: Infrastructural Facilities provided by the Stone Crusher Industries of Pakur district of Jharkhand State and Birbhum District of West Bengal State:

District	GP	Safe Drinking Water	Washing Station	Latrines	Urinals	Rest Shelter	Canteen	Crèche Facility	Housing Facility
<b>Pakur</b>	<u>Malpahari</u>	15 (75%)	5 (25%)	20 (100%)	0 (0%)	10 (50%)	0 (0%)	0 (0%)	0 (0%)
	<u>Chengadanga</u>	10 (50%)	10 (50%)	5 (25%)	15 (75%)	5 (25%)	0 (0%)	0 (0%)	0 (0%)
	<u>Manjaldih</u>	15 (75%)	15 (75%)	15 (75%)	15 (75%)	5 (25%)	0 (0%)	0 (0%)	0 (0%)
	<u>Murgadanga</u>	15 (75%)	0 (0%)	20 (100%)	5 (25%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	<b>Sub total</b>	<b>55 (68.75%)</b>	<b>30 (37.5%)</b>	<b>60 (75%)</b>	<b>35 (43.75%)</b>	<b>20 (25%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>
<b>Birbhum</b>	<u>Hinglow</u>	10 (50%)	20 (100%)	0 (0%)	5 (25%)	10 (50%)	0 (0%)	0 (0%)	0 (0%)
	<u>Bharkata</u>	20 (100%)	10 (50%)	20 (100%)	5 (25%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	<u>Mashra</u>	10 (50%)	0 (0%)	5 (25%)	5 (25%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	<u>Kusumba</u>	20 (100%)	10 (50%)	10 (50%)	20 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	<b>Sub total</b>	<b>60 (75%)</b>	<b>40 (50%)</b>	<b>35 (43.75%)</b>	<b>35 (43.75%)</b>	<b>10 (12.5%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>
<b>Total</b>		<b>115 (71.87%)</b>	<b>70 (43.75%)</b>	<b>95 (59.37%)</b>	<b>70 (43.75%)</b>	<b>30 (18.75%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>

Source: Field Data

Malpahari is a community in the Pakur district, 75% of women workers whom have access to clean drinking water, and 25% of whom have access to washing stations. Additionally, all residents have access to restrooms, and 50% have urinals and rest areas nearby. However, this location doesn't have any canteens, childcare centers, or housing options. Moving on to

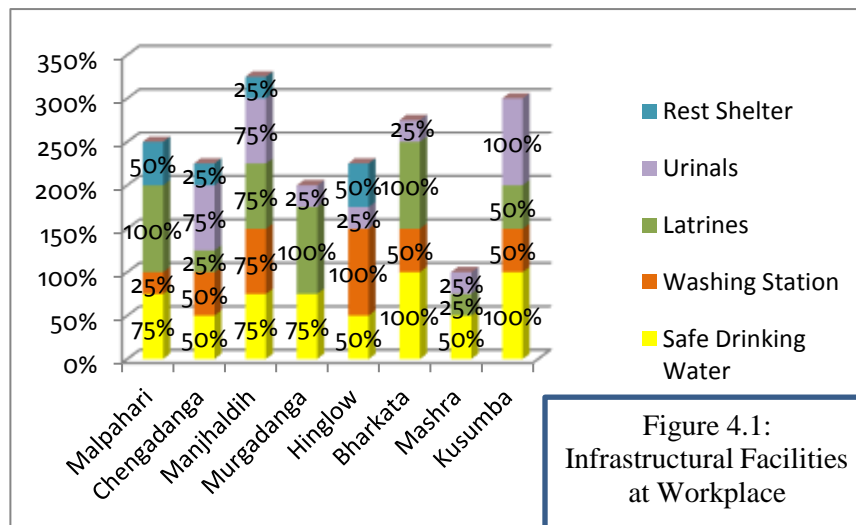


Figure 4.1: Infrastructural Facilities at Workplace

Chengadanga, only 50% of women workers had access to washing facilities and safe drinking water. On the other side, 25% of the women workers has access to urinals and rest areas, while

75% of the population can use latrines. In Chengadanga, just like in Malpahari, there are no canteens, childcare centers, or facilities, latrines, and rest areas. 25% of people also have access to urinals. In Manjhaldih, just like the previous two places, there are no canteens, childcare centers, or housing amenities. In Murgadanga 75% who have access to clean drinking water and 100% who have access to washing facilities. Only 25% of people have access to latrines, nevertheless. Murgadanga lacks restrooms, rest areas, canteens, childcare centers, and housing options. Combining the information from the aforementioned districts, we find that 37.5% of women workers have access to washing facilities, bringing the total number of women workers with access to safe drinking water 68.75%. Additionally, 43.75% women workers have access to urinals, while 75% women workers have access to restrooms. 25% of the women workers have rest shelters available, but none have canteens, childcare centers, or housing amenities. Focusing on the district of Birbhum, in Hinglow, 100% of the women workers are having access to washing facilities and 50% of the population having access to safe drinking water. 50% of people have access to urinals and rest areas, but only 25% have access to restrooms. Similar to Bharkata, 50% of its women workers have access to washing stations, while 20 (100%) have access to clean drinking water. Additionally, there are no canteens, childcare centers, or housing amenities, and only 20 (100%) GPs have access to latrines and 25% to urinals. In Mashra 50% of women workers who have access to clean drinking water and 25% who have access to washing facilities and latrines. In contrast, in Kusumba 100% who have access to clean water, 50% who have access to washing stations, 50% who have access to latrines, and 100% who have access to urinals. Similar to the prior locations, no canteens, childcare centers, or housing amenities have been documented. According to the aggregate data from the Birbhum district, 75% of women workers have access to clean drinking water, 50% to washing stations, 43.75% to latrines, and the same number to urinals. Additionally, 10.5% of women workers provide rest areas, but there are no canteens, childcare centers, or housing amenities available. In total, 71.87% women workers have access to clean drinking water across all districts, along with 70 (43.75%), 95 (59.37%), and the same number of latrines and urinals. Additionally, only 30 (18.75%) GPs have rest areas, whilst no canteens, childcare centers, or housing amenities have been identified.

4.2 Necessary Assistance provided by the Stone Crusher Industries:

Table 4.2 Necessary Assistance provided by the Stone Crusher Industries of Pakur district of Jharkhand State and Birbhum District of West Bengal State:

District	GP	Medical Facility	Maintenance of Health Record	Fire Safety	Cleanliness	Educational Facility	Recreational Facility	Hours of Work	Mask	Safety Equipments
Pakur	Malpahari	15 (75%)	0 (0%)	0 (0%)	10 (50%)	0 (0%)	0 (0%)	10 (50%)	20 (100%)	10 (50%)
	Chengadanga	10 (50%)	10 (50%)	20 (100%)	5 (25%)	0 (0%)	0 (0%)	20 (100%)	10 (50%)	0 (0%)
	Manjhaldih	20 (100%)	5 (25%)	5 (25%)	10 (50%)	0 (0%)	0 (0%)	20 (100%)	20 (100%)	0 (0%)
	Murgadanga	5 (25%)	10 (50%)	10 (50%)	0 (0%)	0 (0%)	0 (0%)	10 (50%)	15 (75%)	0 (0%)
	<b>Sub total</b>	<b>40 (50%)</b>	<b>25 (31.25%)</b>	<b>35 (43.75%)</b>	<b>25 (31.25%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>60 (75%)</b>	<b>65 (81.25%)</b>	<b>10 (12.5%)</b>
Birbhum	Hinglow	5 (25%)	0 (0%)	10 (50%)	5 (25%)	0 (0%)	0 (0%)	5 (25%)	20 (100%)	10 (50%)
	Bharkata	10 (50%)	20 (100%)	5 (25%)	10 (50%)	0 (0%)	0 (0%)	20 (100%)	20 (100%)	0 (0%)
	Mashra	10 (50%)	0 (0%)	15 (75%)	10 (50%)	0 (0%)	0 (0%)	15 (75%)	10 (50%)	0 (0%)
	Kusumba	10 (50%)	0 (0%)	10 (50%)	0 (0%)	0 (0%)	0 (0%)	20 (100%)	20 (100%)	0 (0%)
	<b>Sub total</b>	<b>35 (43.75%)</b>	<b>20 (25%)</b>	<b>40 (50%)</b>	<b>25 (31.25%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>60 (75%)</b>	<b>70 (93.75%)</b>	<b>10 (12.5%)</b>
<b>Total</b>	<b>75 (46.87%)</b>	<b>45 (28.12%)</b>	<b>75 (46.87%)</b>	<b>50 (31.25%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>120 (75%)</b>	<b>135 (84.37%)</b>	<b>20 (12.5%)</b>	

Source: Field Data

Malpahari, a GP in Pakur, reports that there is no maintenance of health records or fire safety procedures; however 75% of the workers who are women have access to medical facilities. There are no educational or recreational facilities, and only 50% of the population reports that the area is clean. However, 50% of people work 8-hour shift, and 50% of them have access to safety gear and 100% wear masks. Moving on to Chengadanga, there are 100% fire safety precautions in place, and 50% have access to medical facilities and the upkeep of health records. There are no known educational or recreational facilities, and just 25% of people claim cleanliness. In Chengadanga, 100% women workers have 8 hours working facility, 50% of them wear masks, and no safety gear is mentioned. In Manjhaldih, all of the women who work have access to medical services, and 25% are responsible for keeping track of their health information and fire safety precautions. 50% of the population reports that the area is clean, but no educational or recreational amenities are present. In Manjhaldih, everyone works a 20-hour shift, wears a mask, and has access to safety gear. 25% of the women employed in Murgadanga have access to medical care and the upkeep of health records, and 50% have fire safety measures. There are no documented amenities for cleaning, education, or recreation. 50 percent of workers works 8 hours a day, 75 percent use masks, and no safety gear is specified. Combining the



information from the aforementioned districts, there are 40 medical facilities (or 50%), of which 35 (43.75%) have fire safety measures and 25 (31.25%) maintain health records. These places don't seem to have any facilities for education, recreation, or cleaning. Masks were worn by 65 (81.25%) people, and 10 (12.5%) had access to safety gear. Focusing on the Birbhum district, 25% of the female workers there have access to medical services, and 50% have fire safety precautions. Additionally, 25% cite cleanliness, but no mention is made of any amenities for education or pleasure. 100% have access to safety equipment and are wearing masks. According to data from the Birbhum district as a whole, 40 (50%) of women employees have fire safety precautions, 20 (25%) have access to medical services, and 43.75% have health records maintained. These places don't seem to have any facilities for education, recreation, or cleaning. With 10 (12.5%) people having access to safety equipment and 70 (93.75%) people wearing masks.

#### 4.3 Analysis of importance of Physical factors at workplace through Likert Scale:

To found out the need to improve the physical factors at workplace according to women stone crusher industry workers, 5 Scale Likert method is used (Pimentel, 2010). Total 32 women groups were selected from each Crusher industry of 2 districts and they were asked to rank the

Range: 5-1=4; Interval: 4/5=0.80

Weight Value of Likert Scale:

**Very Important:** 1.00-1.80

**Important:** 1.81-2.60

**Neutral:** 2.61-3.40

**Unimportant:** 3.41-4.20

**Strongly Unimportant:** 4.21-5.00

physical factors according to their importance to improve. Total 17 Physical factors were selected which were important to maintain a healthy environment at workplace.

Responses from the workers are collected for each factor. All the responses are represented in percentage value and then the value of each criterion was multiplies with their weighted score.

Total Score =  $\sum(\text{percentage of responses in criteria} * \text{weighted value of designated criteria})$

Example: weighted score of Safe Drinking water:

$$=(0\%*1+19\%*2+25\%*3+50\%*4+6\%*5)=3.43$$

**Table 4.3.1 Survey Questionnaire:**

Factors which need to be improved first	Very Important	Important	Neutral	Unimportant	Strongly Unimportant
Safe Drinking Water	1	2	3	4	5
Washing Station	1	2	3	4	5
Latrine	1	2	3	4	5
Urinal	1	2	3	4	5
Rest Shelter	1	2	3	4	5
Canteen	1	2	3	4	5
Recreational Facility	1	2	3	4	5
Medical Facility	1	2	3	4	5
Creshe facility	1	2	3	4	5
Maintenance of health record	1	2	3	4	5
Fire Safety	1	2	3	4	5
Cleanliness	1	2	3	4	5
Educational Facility	1	2	3	4	5
Housing Facility	1	2	3	4	5
Daily Hours of Work	1	2	3	4	5

Source: Field Data

*Table 4.3.2 Importance of Physical factors at workplace which are needed to be improved according to the women stone crusher industry workers of Pakur district of Jharkhand State:*

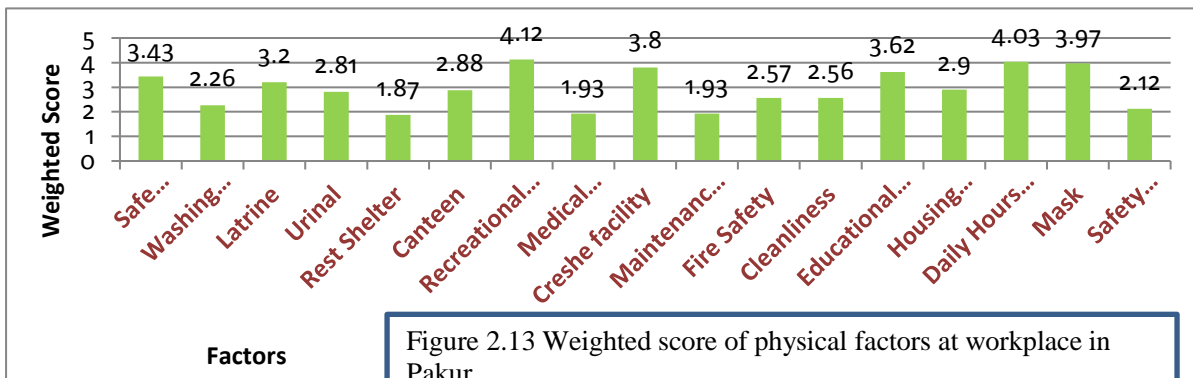
Factors	Very Important	Important	Neutral	Unimportant	Strongly Unimportant	Total Score	Rank
Safe Drinking Water	19%	25%	6%	25%	25%	3.12	11 <sup>th</sup>
Washing Station	19%	19%	25%	19%	19%	3.03	10 <sup>th</sup>
Latrine	31%	19%	0%	19%	31%	3.00	9 <sup>th</sup>
Urinal	25%	50%	0%	6%	19%	2.44	7 <sup>th</sup>
Rest Shelter	69%	31%	0%	0%	0%	1.31	1 <sup>st</sup>
Canteen	37%	19%	19%	6%	19%	2.51	8 <sup>th</sup>
Recreational Facility	0%	13%	31%	6%	50%	3.93	15 <sup>th</sup>
Medical Facility	38%	31%	31%	0%	0%	1.93	2 <sup>nd</sup>
Creshe facility	25%	31%	38%	6%	0%	2.25	4 <sup>th</sup>
Maintenance of health record	31%	31%	19%	13%	6%	2.32	5 <sup>th</sup>
Fire Safety	31%	13%	37%	13%	6%	2.44	7 <sup>th</sup>
Cleanliness	13%	13%	25%	25%	25%	3.39	12 <sup>th</sup>
Educational Facility	13%	6%	31%	13%	37%	3.55	13 <sup>th</sup>
Housing Facility	19%	31%	37%	6%	6%	2.41	6 <sup>th</sup>
Daily Hours of Work	0%	6%	19%	31%	44%	4.13	16 <sup>th</sup>
Mask	0%	13%	19%	31%	37%	3.92	14 <sup>th</sup>
Safety Equipments	37%	31%	25%	6%	0%	1.98	3 <sup>rd</sup>

Source: Field Data

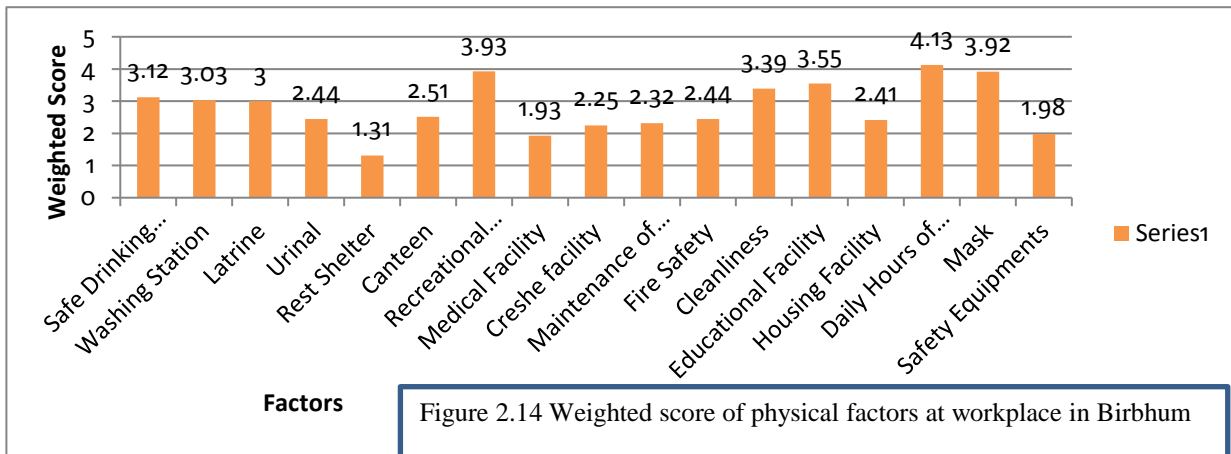
Table 4.3.3 Importance of Physical factors at workplace which are needed to be improved according to the women stone crusher industry workers of Birbhum district of West Bengal State:

Factors	Very Important	Important	Neutral	Unimportant	Strongly Unimportant	Total Score	Rank
Safe Drinking Water	19%	25%	6%	25%	25%	3.12	11 <sup>th</sup>
Washing Station	19%	19%	25%	19%	19%	3.03	10 <sup>th</sup>
Latrine	31%	19%	0%	19%	31%	3.00	9 <sup>th</sup>
Urinal	25%	50%	0%	6%	19%	2.44	7 <sup>th</sup>
Rest Shelter	69%	31%	0%	0%	0%	1.31	1 <sup>st</sup>
Canteen	37%	19%	19%	6%	19%	2.51	8 <sup>th</sup>
Recreational Facility	0%	13%	31%	6%	50%	3.93	15 <sup>th</sup>
Medical Facility	38%	31%	31%	0%	0%	1.93	2 <sup>nd</sup>
Creshe facility	25%	31%	38%	6%	0%	2.25	4 <sup>th</sup>
Maintenance of health record	31%	31%	19%	13%	6%	2.32	5 <sup>th</sup>
Fire Safety	31%	13%	37%	13%	6%	2.44	7 <sup>th</sup>
Cleanliness	13%	13%	25%	25%	25%	3.39	12 <sup>th</sup>
Educational Facility	13%	6%	31%	13%	37%	3.55	13 <sup>th</sup>
Housing Facility	19%	31%	37%	6%	6%	2.41	6 <sup>th</sup>
Daily Hours of Work	0%	6%	19%	31%	44%	4.13	16 <sup>th</sup>
Mask	0%	13%	19%	31%	37%	3.92	14 <sup>th</sup>
Safety Equipments	37%	31%	25%	6%	0%	1.98	3 <sup>rd</sup>

Source: Field Data



According to women workers in the Pakur area, the Rest Shelter was ranked as the most crucial physical component that needed to be upgraded in the stone crushing industry out of the 17 physical aspects that made up the overall workplace ranking (Table 4.3.2). Medical facilities and maintaining health records have now moved up to the second-most essential factors for women workers. Safety equipment was ranked third by female workers in the Pakur district as an



important physical feature. Washing stations rank fourth as an important physical factor, according to 31% of female employees, while 25% of female employees believe they are an important factor. Recreational facilities were ranked 16th by female employees, showing that majority of them do not believe they are a significant physical aspect in improving the standard of the workplace. Now, 44% of women thought that improving the Mask and Daily Hours of Work was strongly unimportant. They claim that the majority of the crusher business maintains respectable schedules and provide masks. These two elements are therefore placed 14th and 15th, respectively.

**Table 4.3.3** demonstrates that women employees are given first preference for rest shelters in the Birbhum area. Women employees ranked it as the most crucial element in improving the workplace at 69%. To provide a safe and healthy working environment, women employees of the stone crushing industries in Birbhum ranked medical facilities second and safety equipment third. Women workers in Birbhum ranked childcare as the fourth most essential element because it helps moms feel secure and at ease knowing that their children are within arm's reach and receiving good care, which helps them, stay focused at work. Their ninth and eighth priorities for the workplace were the canteen and the restrooms. Their lowest priority is the number of hours they put in because they haven't had any issues with it.

## V. CONCLUSION

For a number of reasons, the physical environment at work is crucial: Employee Well-Being: An attractive and welcoming physical setting fosters employees' wellbeing. The physical comfort of workers is influenced by elements like sufficient lighting, cozy furniture, enough ventilation, and appropriate temperatures. Employees are less likely to become exhausted, uncomfortable, or have health problems when they are physically at ease, which can enhance their general well-being and job satisfaction. Health and Safety: For employee well-being and organizational performance, a safe and healthy physical workplace is crucial. Accidents and injuries can be avoided with the use of adequate safety measures, such as good lighting, comfortable furniture,

and clear walkways. A clean and sanitary workplace lowers the risk of illness and encourages healthy employees.

## REFERENCE

- Amin, Md. A., Chakraborty, A. (2021). *Impact of Physical Factors of Workplace Environment on Workers Performance in Industry*. *Journal of Engineering Science Vol.13, Issue3* , 57-66.
- Amir, F. (2010). *Measuring the Impact of Office Environment on Performance Level of Employees: A Case of Private Sector of Pakistan*. *Proceedings of the 2nd International Conference of AGBA South Asia Chapter on Nurturing Innovation, Entrepreneurship, Investments and Public Private Partnership - in Global Environment*. Bhurban, Pakistan.
- Budie, B., APPEL-MEULENBROEK, R., KEMPERMAN, A., WEIJS-PERREE, M. (2019). *Employee Satisfaction with the Physical Work Environment: The Importance of a Need Based Approach*. *International Journal of Strategic Property Management, Vol.23, Issue1* , 36-49.
- Corporation, N. (2010, April 12). *R P News*.
- Government of India, *The Mines Act (1952)*. Available at: [http://coal.nic.in/weboflifeminessafety/ma\\_1952.pdf](http://coal.nic.in/weboflifeminessafety/ma_1952.pdf)
- Government of India, *The Mines Rules (1955)*. Available at: <http://coal.nic.in/webofl-ifeminessafety/mr.pdf>
- Hafeez, I., Yingjun, Z., Hafeez, S., Mansoor, R., & Rehman, K. U. (2019). *Impact of workplace environment on employee performance: mediating role of employee health*. *Business, Management and Education, 17(2)*, 173-193.
- Hamidi, N. E. B., Mansor, F. A., Muhammad, N., Azib, W. N. H. W. (2020). *The Relationship Between Physical Workplace Environment And Employees' Performance*. *Journal of Contemporary Social Science Research, Vol. 4, Issue 1* , 56-67.
- Kagwi, C. W. (2018). *Influence of Physical Workplace Factors on The Employees' Performance in Organizations (A case of Huduma Centre-Nyeri County)*. *Human Resource and Leadership Journal, Vol.3, Issue 1, No. 3* , 47-61.
- Manioui, M.; Perraki, M.; Mavrikos, A.; Menegaki, M. *Women in the Stone Sector: Challenges and Opportunities from an Educational Point of View*, *Mater. Proc. 2021, 5*, 79
- Rorong, S. V. (2016). *The Impact of Physical Work Environment Tow and Employee Performance at PT. Bank Negara Indonesia Manado Regional Office*. *Journal EMBA* , 441-450.
- Satish, S. (2023, January 4). *ClearIAS, National Commission for Women (NCW)*.
- Torres, R., (2012). *World of Work Report*. *International Labour Organization*.
- The WORLD HEALTH REPORT (2010)*. *Health System Financing: The Path to Universal Coverage*. *World Health Organization*.
- Zivin, J. G., Neidell, M. (2014). *Temperature and The Allocation of Time : Implications for Climate Change*. *Journal of Labour Economics, Vol. 32, Issue1* , 1-26.

### Cite Your Article as:

Debdutta Chakraborty. (2023). IMPORTANCE OF PHYSICAL ENVIRONMENT AT WORKPLACE FOR WOMEN STONE CRUSHER INDUSTRY WORKERS IN PAKUR AND BIRBHUM DISTRICTS. *Scholarly Research Journal for Interdisciplinary Studies*, 11(77), 209–221.  
<https://doi.org/10.5281/zenodo.8162308>