

Research Report On

Occupational Health and Safety, Workplace Accidents, and the Situation of the Rana Plaza Survivors, and Critical Review of the Status of the RMG Industry in the Last 10 Years on Effective Operationalization of the Decent Work Agenda



RESEARCH REPORT

Occupational Health and Safety, Workplace Accidents, and the Situation of the Rana Plaza Survivors, and Critical Review of the Status of the RMG Industry in the Last 10 Years on Effective Operationalization of the Decent Work Agenda

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The Institute of Social Business (ISB) would like to thank ActionAid Bangladesh for entrusting us with the assignment to conduct research on occupational health and safety, workplace accidents, and the situation of the Rana Plaza survivors, and critically review the status of the RMG industry in the last 10 years on effective operationalization of the decent work agenda. We sincerely thank the program and administrative personnel of ActionAid Bangladesh for their support and technical assistance.

We acknowledge the cooperation and suggestions provided to us to improve the study by Ms. Tamazer Ahmed, Manager - Women's Rights and Gender Equity; and Mr. Mohammad Maruf Hosain, Senior Programme Officer - Democratic Governance, at every stage. It is real and true that this study would not have been possible without the active involvement and sincere support of the project team.

At the end, we remember the contribution of the respondents. Without their cooperation, this study could not be completed. During the survey, they shared their knowledge and experiences focus on occupational health and safety, workplace accidents, and the situation of the Rana Plaza survivors, and the status of the RMG industry in the last 10 years on effective operationalization of the decent work agenda, and suggested on to be done the improvement of the situation.

In addition, we would like to convey our sincere gratitude to the research team who were involved in the whole process.

Abbreviations

AAB	ActionAid Bangladesh
ANCP	Australian NGO Cooperation Programme
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BKMEA	Bangladesh Knitwear Manufacturers and Exporters Association
RSC	RMG Sustainability Council
FGD	Focus Group Discussion
ISB	Institute of Social Business
KII	Key Informant Interview
LEED	Leadership in Energy and Environmental Design
NGOs	Non-Governmental Organisations
NTPA	National Tripartite Plan of Action on Fire Safety and Structural Integrity
OHS	Occupational Health and Safety
RMG	Ready-Made Garments
TOR	Terms of Reference

Executive Summary

Introduction

ActionAid Bangladesh commissioned the Institute of Social Business to conduct a study to analyse the real scenario of the occupational health and safety of garment workers along with the current status of Rana Plaza survivors. The study was carried out during March-April 2023. The methodology used for the study consists of a mixed-method approach, which included documents review and quantitative and qualitative data collection. Two surveys were carried out of 200 survivors and 200 garment workers respectively. Additional information was obtained through 4 key informant interviews and 8 focus group discussions.

Findings of the survey of Rana Plaza survivors

More than two-thirds of the Rana Plaza survivors surveyed are females, while almost an equal proportion are below the age of 35 years. About 7.5% claimed their health to be completely stable. In the last panel survey, conducted in 2022, this percentage was 10.5%. About 70% of the survivors said their condition was more or less the same as before. This proportion was 33% last year. Trend analysis shows that, compared to the first survey of 2014, the health status of the respondents has not improved. Although most of the respondents are relatively young, they still have health issues that are rising. This can be attributed to the Rana Plaza tragedy which impacts their life expectancy and productivity.

In regard to the survivors' psychosocial health, only 8% said they have fully recovered compared to 20.5% last year. Almost two-thirds (63%) said their condition is more or less stable, which was stated by 31% in the last survey. A third (29%) claimed that their condition is getting worse. This proportion was 48.5% in 2022.

The survey also enquired about the employment status of the survivors. More than half (54.5%) are unemployed, while the rest are either engaged in service (38%) or business (7.5%). In the last survey, 53% of the survivors were unemployed and 47% were engaged in various types of wage and self-employment. The main reasons for unemployment are bad physical and mental health condition and inability to find a job.

The household income of 22% of the survivors is between BDT 5,001 and 10,000, while that of half of the survivors (46.5%) is BDT 10,001-15,000. On the other hand, more than a quarter (26.5%) of the respondents reported that their monthly family expenditure is between BDT 5,001 and 10,000, while nearly half of them (47%) said it is BDT 10,001-15,000. The household income of the majority of respondents is not sufficient to cover their expenses, especially under the present circumstances of the current price hike in the country. About a quarter (21%) of the survivors said they cannot afford to have food three times a day, while a similar percentage (24.5%) reported not being able to afford treatment and medicines. The majority (69.5%) said they could not buy essentials due to the current price hike.

Findings of the survey of garment workers

Most of the garment workers surveyed (84.6%) are females. The selection was done purposively to reflect the gender ratio in the garment industry. A third of the respondents (36.3%) are aged 19-25, while another third (33.8%) are in the age group of 26-30 years. Slightly more than a quarter (25.4%) work as Helpers, while more than half (54.2%) are Operators. The rest work as Senior Operators (10.4%), Iron Men (1.5%), Quality Inspectors (6%), and others.

Asked what measures the management has taken to ensure occupational health and safety in their factory, 59.7% said the management has provided them training. Other measures taken include installation of fire

alarm and provision of medical treatment and hygiene products. More than a quarter (25.9%) said the management did not take any measures.

The frequency of initiatives taken to ensure occupational health and safety in the factories varies from factory to factory. About a third of the respondents (31.8%) said that, in the last ten years, the management had taken an initiative only once, while 20.4% said 3-5 times, and 18.4% mentioned 16 or more times. These data show that the frequency of initiatives taken by the management, as reported by half of the respondents (52.2%), is inadequate.

Most of the respondents consider the occupational health and safety status in their factories to be good. They claimed that their workplace has enough light, is well ventilated, the temperature is comfortable, and there is sufficient space to work in. However, about 19.9% of the respondents reported that their factories do not have firefighting equipment and 23.4% said emergency fire exists do not exist. Also, a fifth (20.9%) stated their factories do not have a medical centre and a similar proportion (23.9%) claimed that a doctor/nurse is not available.

Policy architecture of the garment industry

There are a number of laws, acts and rules promulgated by the Government of Bangladesh to regulate the activities of the industrial sector, including the ready-made garment industry. There are also laws specifically designed for ensuring occupational health and safety. These include the National Policy on Occupational Health and Safety-2013, the Bangladesh Labour Act-2006, and Bangladesh Labour Rules-2015. Other policies and laws that have several provisions for occupational health and safety include the following: Fire Prevention and Extinguishing Act-2003, Bangladesh National Building Code-2006, and the Labour Welfare Foundation Act-2006. The key areas covered by the policies and laws related to occupational health and safety can be categorised under three broad groups: (a) Occupational Accidents, Hazards and Diseases; (b) Safety Equipment/Tools and Facilities; and (c) Welfare at Workplace.

A number of national authorities, bodies and initiatives are responsible for ensuring occupational health and safety in Bangladesh. These include the Department of Inspection for Factories and Establishments, Department of Labour, Labour Courts, Department of Public Health Engineering, Bangladesh Fire Service and Civil Defence, Department of Environment, and Public Works Department, etc.

Since the Rana Plaza tragedy, a number of positive changes have taken place in the garment industry of Bangladesh. These changes have contributed and are contributing to making garment factories safer to work in. These include the following:

- Improvement in workplace safety
- Emergence of green factories
- Stricter criteria for membership of BGMEA
- Formation of Safety Committees
- Guideline for sub-contracting
- Formation of RMG Sustainable Council
- Establishment of the Minimum Wage Board
- Increase in the minimum wage for garment workers
- Improved labour laws
- Employment Injury Scheme
- Corporate social responsibility

Recommendations

Based on the study findings, the following recommendations are made:

- The health issues of Rana Plaza survivors need to be addressed. Treatment and medicines should be arranged for those needing them. Their health status should be regularly monitored.
- The employment status of Rana Plaza survivors also needs to be improved. In this regard, livelihood training for survivors who are able and willing to work needs to be arranged.
- The survivors with disabilities can be linked up with organisations that work in the field of disability inclusion and have livelihood programmes for such people.
- The current price hike has hit the garment workers badly and many find it extremely difficult to make ends meet. The factory owners and their associations should take measures to complement the workers' incomes through, for example, sale of essentials at subsidised prices at the factory premises.
- The awareness of garment workers and management regarding occupational health and safety issues needs to be further increased through training.
- The factories need to be more compliant with occupational health and safety requirements of the Bangladesh Labour Law. The use of personal protective equipment, for example, should be extended beyond masks and workers need to be encouraged to use other required PPEs as well.

1. Introduction

ActionAid Bangladesh (AAB) is working to ensure that garment factories have healthy and safe working conditions as part of the decent work agenda. AAB and ActionAid Australia have been awarded an Australian NGO Cooperation Programme (ANCP)-funded project titled “Decent Work for Garment Workers in Bangladesh” (ACNP project). The aim of the project is to improve workplaces and ensure decent work for garment workers and upskill people with disabilities, including those who were injured in the Rana Plaza and Tazreen Garments incidents, and link them to job opportunities. As part of this project, ActionAid Bangladesh commissioned the Institute of Social Business (ISB) to conduct a study to analyse the real scenario of the occupational health and safety (OHS) of garment workers along with the current status of Rana Plaza survivors, based on the Terms of Reference (TOR)¹, developed by ActionAid for the purpose. The study was conducted during March-April 2023.

¹ ActionAid Bangladesh: Terms of Reference (TOR) for Conducting Research on Occupational Health and Safety, Workplace Accidents, and the Situation of Rana Plaza Survivors, and Critically Review the status of the RMG industry in the last 10 years on effective operationalization and the decent work agenda.

2. Objectives and Methodology of Survey

According to the TOR, the objectives of the study are:

1. To find out and recognise the invisible occupational health and safety concerns of garments workers and to analyse the opportunity cost of these health and safety concerns.
2. To understand the progress around rehabilitation and reintegration of Rana Plaza survivors and the policy architecture and progressive reforms around workers' rights and safety.
3. To critically review the status of the RMG industry in the last 10 years on effective operationalisation of the decent work agenda.

To fulfil the above objectives, the study adopts a mixed method approach consisting of both quantitative and qualitative research methods. The methodology used contains the following elements: (a) Documents review; (b) Data collection; and (c) Data processing, analysis and report writing. These are briefly explained below.

2.1 Documents Review

The Study Team reviewed all relevant documents relating to the ready-made garments (RMG) industry of Bangladesh, project documents of ANCP project, and documents pertaining to the survivors of the Rana Plaza tragedy, including survey reports prepared by AAB.

2.2 Data Collection

Quantitative data was collected through 2 questionnaire surveys of garment factory workers and Rana Plaza survivors respectively. The sample for the surveys has been determined by using the following statistical formula:

$$n_0 = \frac{Z^2 pq}{d^2}$$

Where, n_0 is the sample size, z represents standardized normal deviate set at 1.96 with 95% confidence interval, 'p' is the estimated proportion of an attribute that is present in the population, 'q' represents proportion without the characteristics (i.e. $1 - p$), and 'd' is the margin of error. In this study, 5% error will be considered as acceptable.

$$n_0 = \frac{1.96^2 \times .5 \times .5}{.05^2} = 384$$

According to the formula, the sample size comes to 384 which has been rounded to 400. Thus, a total of 400 respondents were surveyed. Of them, 200 are workers of garment factories around Dhaka and 200 Rana Plaza survivors.

Qualitative data was collected by conducting 4 key informant interviews (KIIs) and 8 focus group discussions (FGDs) with key stakeholders, namely Rana Plaza survivors, garment factory workers, garment factory managers, and representatives of trade unions and non-governmental organisations (NGOs).

The Study Team, in consultation with AAB, developed a questionnaire for the worker survey and guidelines for KIIs and FGDs. The questionnaire for the survey of Rana Plaza survivors was similar to the one used by AAB for its “Follow-up with Rana Plaza Survivors” Surveys. The data collection tools were prepared in English and translated into Bengali before pre-testing and administering them in the field.

2.3 Implementation of Data Collection

Orientation and pre-testing of data collection tools: A day-long orientation was organised for the Supervisors and Enumerators. The orientation covered the areas of overview of the study, questionnaires and electronic data collection procedure, mock interviewing, feedback session on the questionnaires, field supervision, monitoring strategy, quality control, financial and management issues, and problems that may be encountered. As an important part of the orientation, all data collection tools were pre-tested at the field level and finalised.

Field operational planning: After completing orientation of field staff and online data collection platform, rigorous field operation plan was developed for smooth running of the survey.

COVID prevention: Measures to prevent transmission of COVID-19 that were applied during field survey include frequent hand washing or disinfection with alcohol-based hand sanitiser, respiratory hygiene, physical distancing, and wearing of face masks, etc.

Field management: The Supervisors had the key role of supervising the Enumerators and monitoring data collection from the respondents.

Data quality control: All efforts were engaged and invested to ensure maximum quality of data. Real time checking, spot checking, sudden checking were followed to ensure quality of data. In addition, Supervisors went through the online recorded questionnaire after survey each day and talked to the Enumerators to finalise the questionnaire.

2.4 Data Processing, Analysis and Report Writing

Quantitative data was entered through the online data entry platform Kobo Toolbox during the surveys of workers and Rana Plaza survivors. The supervisors checked data at the field level by real time checking, spot checking, and sudden checking mechanisms. The Data Management Expert ensured real time checking at the central level.

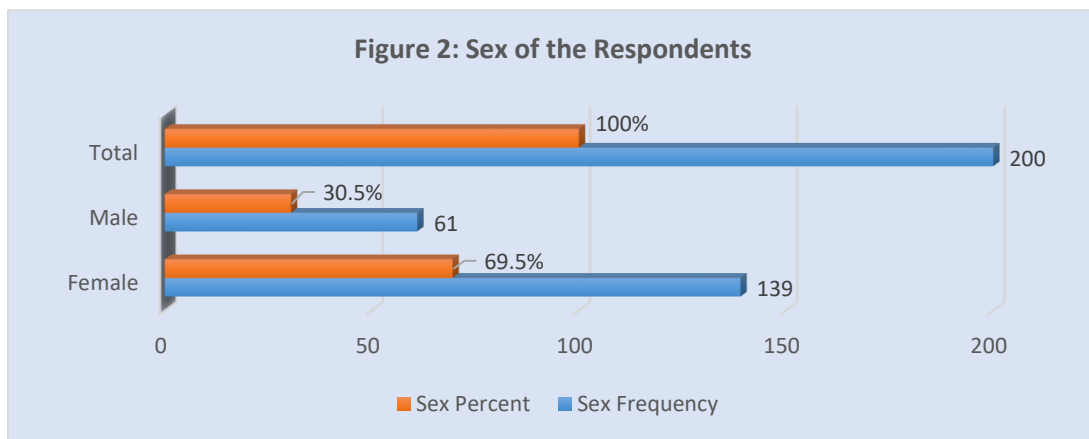
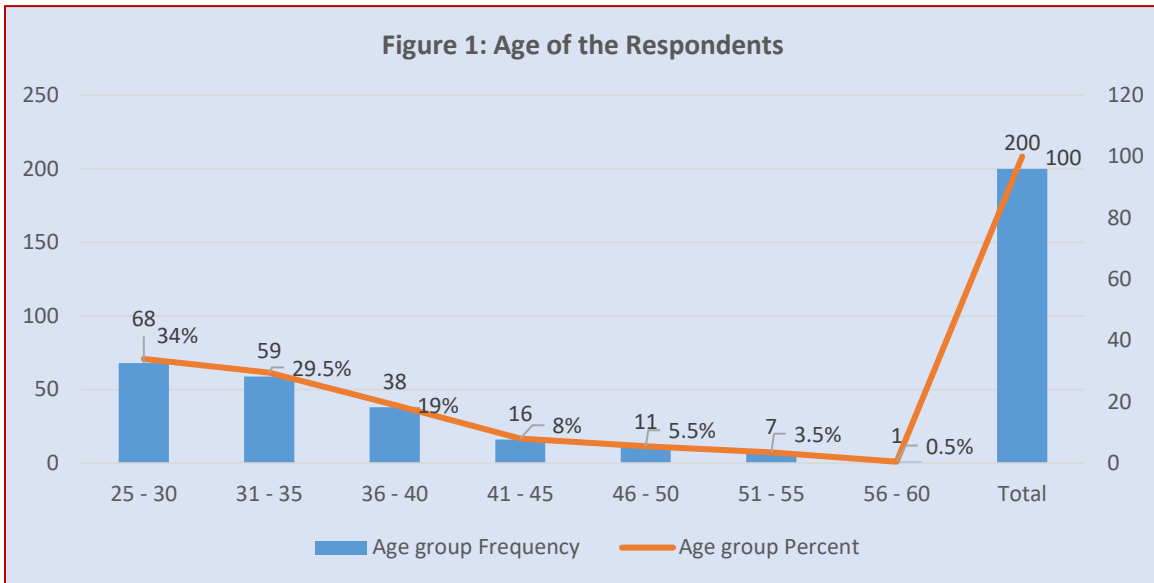
Quantitative data processing comprised documentation of schedules, editing and computerisation, generation of analytical tables, and matching of data. MS Excel-based data entry format was used for easy and efficient data entry process. Electronic datasets in SPSS 22.0 format were developed and labelled with variable names and value labels. Both univariate and bi-variate analyses were performed for selected indicators. Tables, graphs and charts

were also generated for analysis. The qualitative data analysis involved the identification, examination, and interpretation of views and insights of the respondents. Based on quantitative and qualitative analyses of the data, the Study Team prepared this report the main findings of which are presented in the following sections.

3. Main Findings of Survey of Rana Plaza Survivors

3.1 Background of Respondents

Out of the 200 Rana Plaza survivors surveyed, 139 are females (69.5%) and 61 males (30.5%). About 34% of the respondents are aged 26-30 and 29.5% are in the age group 31-35. Thus, most of the survivors (63.5%) are less than 35 years old. Almost a fifth of the respondents (19%) are between the ages of 36 and 40, and 13.5% are aged 41-50 years. Only 4% are 50 or above. Most of the female survivors (83%) are aged between 26 and 35, while more than half of the male survivors (50.8%) are in that age group.



3.2 Health Condition of Survivors

The respondents were asked about their current health condition. About 7.5% claimed their health to be completely stable. In the last panel survey, conducted in 2022, this percentage was 10.5%. About 70% of

the survivors said their condition was more or less the same as before. This proportion was 33% last year. Around 22.5% declared that their health has deteriorated, which was stated by 56.5% in the last survey. Details are shown in Figure 3.

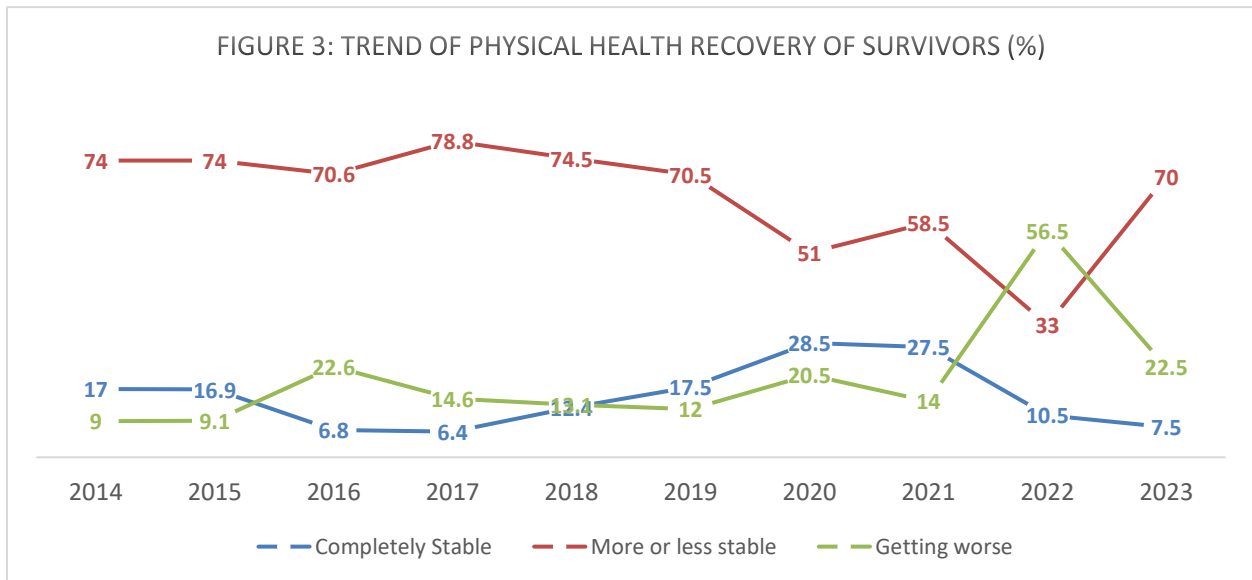
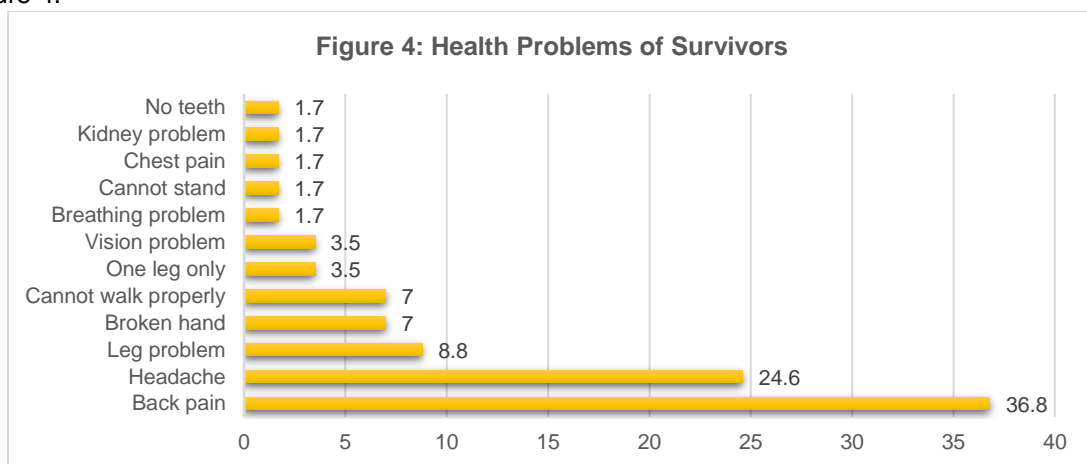
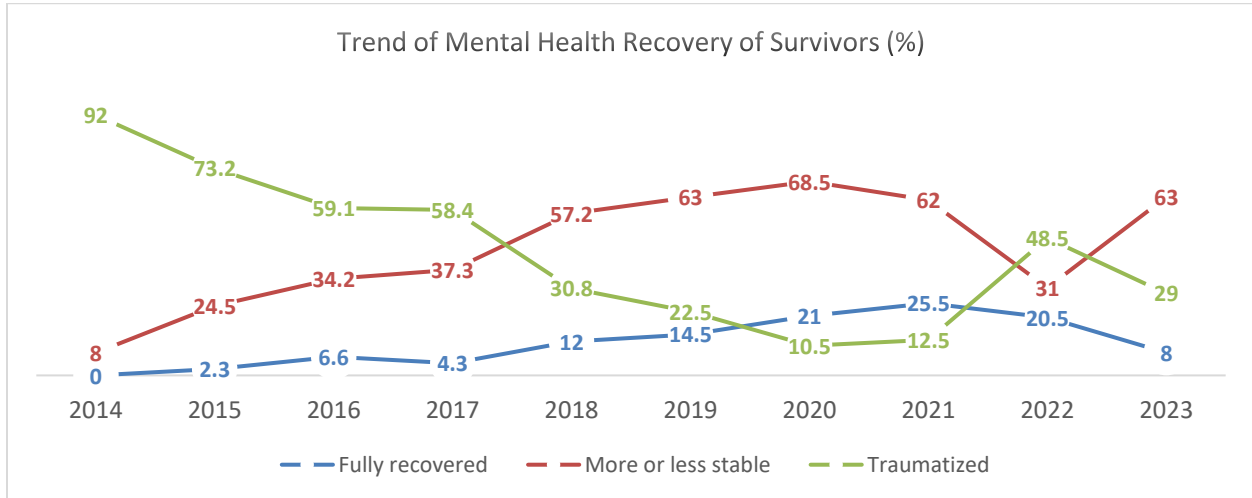


Figure 3 also shows that, compared to the first survey of 2014, the health status of the respondents has not improved. The proportion of survivors claiming to be completely stable has decreased from 17% in 2014 to 7.5% in 2023, while the percentage of respondents whose health has deteriorated increased from 9% to 22.5% during the same period. It should be noted that, although most of the respondents belong to the relatively young age group (63.5% are below 35), they still have health issues that are rising. This can be attributed to the Rana Plaza tragedy which impacts their life expectancy and productivity.

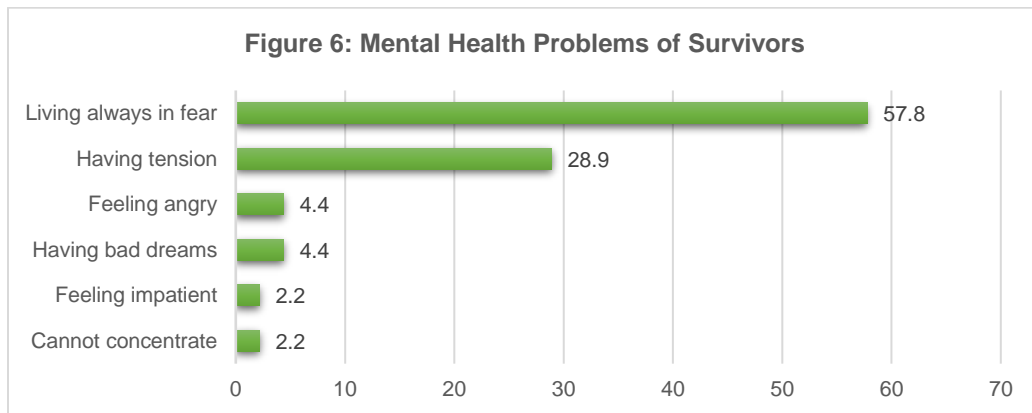
Asked about their current health problems, more than a third of the respondents (36.8%) mentioned back pain, while a quarter (24.6%) complained of headache. Other health problems include breathing problem, broken hand and leg, inability to stand and walk properly, vision and kidney problems, etc. Details are given in Figure 4.



The respondents were also asked about their current psychosocial health. Only 8% said they have fully recovered compared to 20.5% last year. Almost two-thirds (63%) said their condition is more or less stable, which was stated by 31% in the last survey. A third (29%) claimed that their condition is getting worse. This proportion was 48.5% in 2022. Figure 5 contains details.

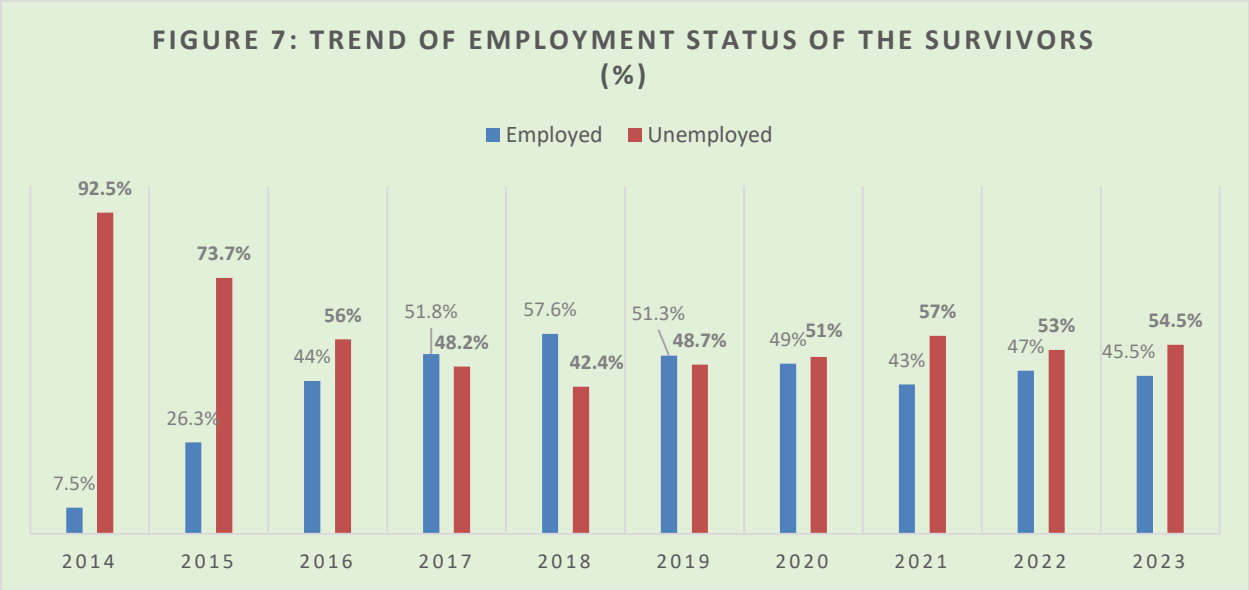


Asked about their psychosocial problems, more than half (57.8%) said they were traumatised and have fear because of their experience of building collapse, while 28.9% complained of being tense. Other problems mentioned include having bad dreams, inability to concentrate, feeling angry, and being impatient. Details are shown in Figure 6.

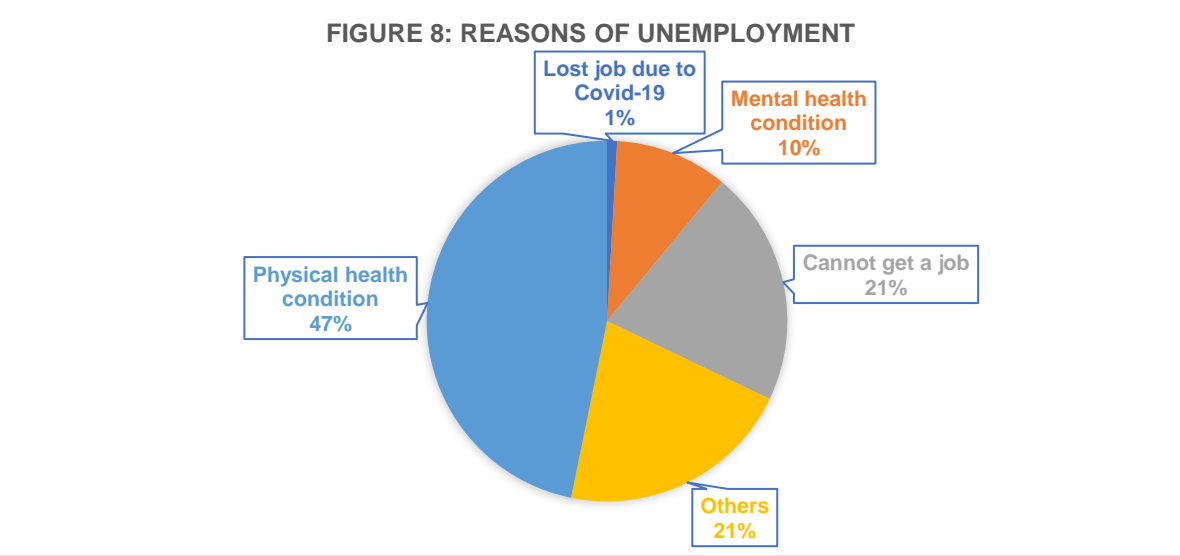


3.3 Employment Status of Survivors

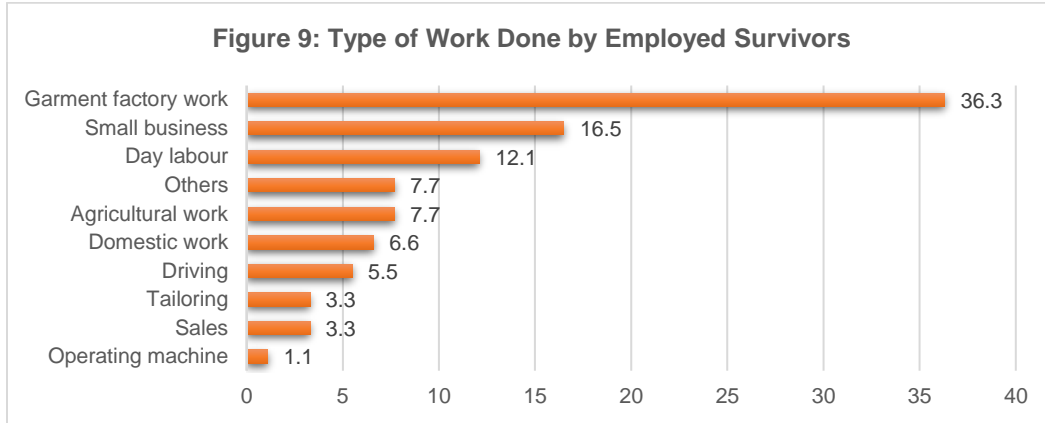
The survey also enquired about the employment status of survivors. More than half (54.5%) are unemployed, while the rest are either engaged in service (38%) or business (7.5%). In the last survey, 53% of the survivors were unemployed and 47% were engaged in various types of wage and self-employment. Figure 5 shows the current employment status of survivors.



As shown in Figure 7, 54.5% of the survivors are currently unemployed. Of them, 89% have been unemployed for the last 5 to 8 years and 5.5% for the last 3 to 4 years. The main reason for unemployment, stated by almost half (46.8%) of those without a job, is their bad physical health condition. This proportion was 67% in the last survey. The other reason is bad mental health condition, stated by 10.1%, which was the same last year. About 21.1% cited their inability to find a job. Details are shown in Figure 8.



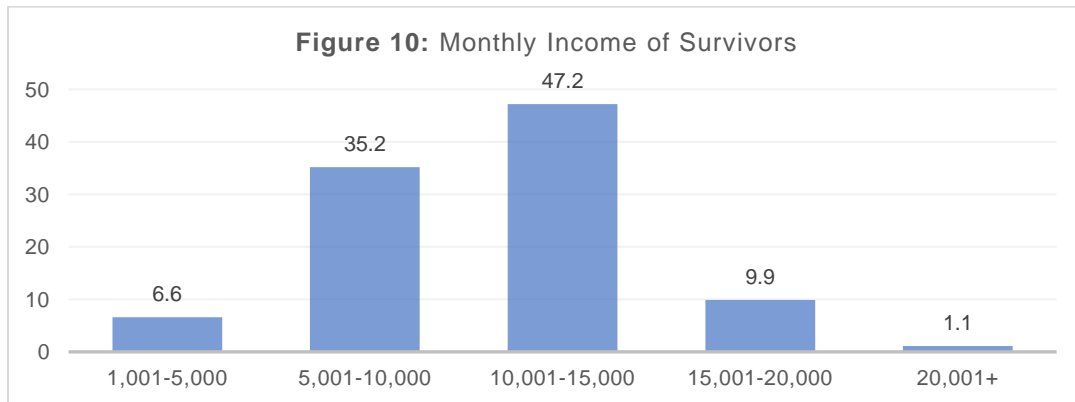
More than a third of the employed survivors work in garment factories (36.3%). This was 14.5% last year. Others work as day labourers (12.1%), agricultural labourers (7.1%), domestic workers (6.6%), drivers (5.7%), tailors (4.3%), and salespersons (4.3%). About 16.5% are engaged in small businesses. Figure 9 contains details.



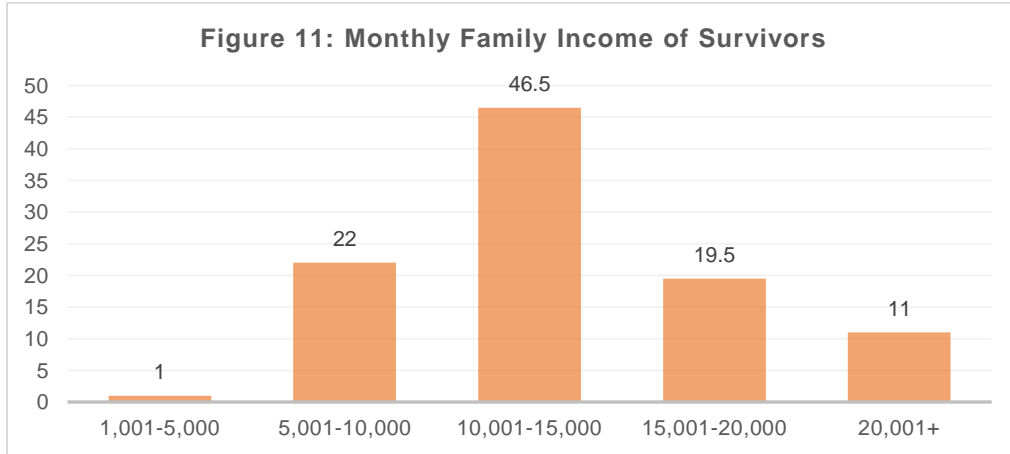
All the survivors have other family members who are working. More than half of them (54%) have one, a fifth (20.5%) have two, and a quarter (24.5%) have three or more working family members.

3.4 Economic Condition of Survivors

About 6.6% of the employed survivors earn BDT 5,000 or less per month. A third (35.2%) earn between BDT 5,001 and 10,000, while the monthly income of half (47.2%) of them is in the range of BDT 10,001-15,000. About 9.9% get a monthly income of BDT 15,001-20,000. Only one respondent earns more than BDT 20,000 a month. Details are given in Figure 10.

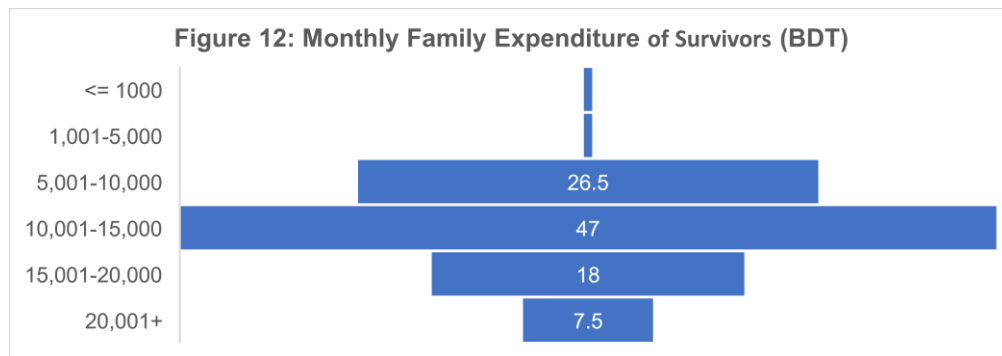


The monthly family income of 1% of the employed survivors is BDT 5,000 or less. About 22% earn between BDT 5,001 and 10,000, while the monthly family income of half of the survivors (46.5%) is BDT 10,001-15,000. About 19.5% earn a monthly family income of BDT 15,001-20,000, while 11% get more than BDT 20,000 per month. Details are shown in Figure 11.

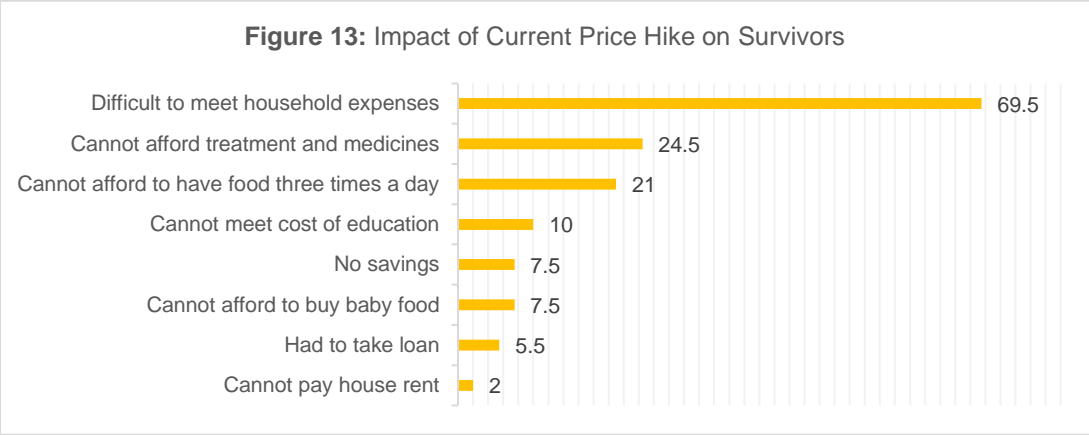


As discussed below, the household income of the majority of respondents is not sufficient to cover their expenses, especially under the present circumstances of the current price hike in the country.

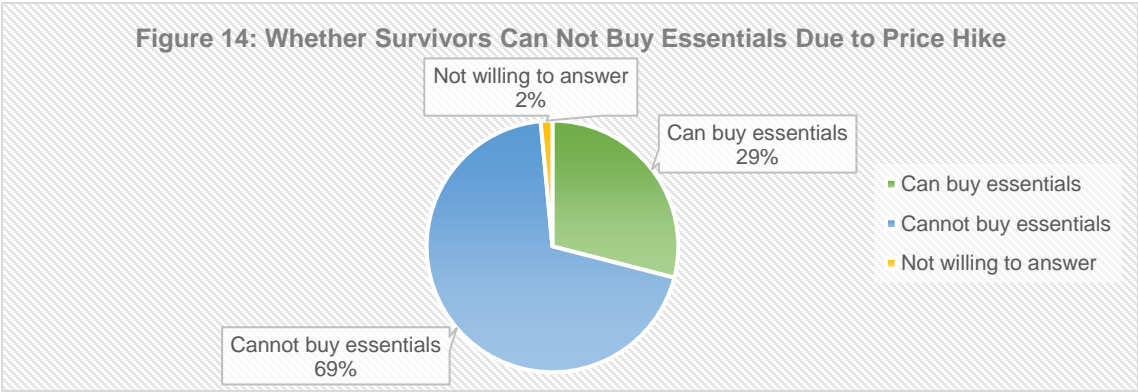
More than a quarter (26.5%) of the respondents reported that their monthly family expenditure is between BDT 5,001 and 10,000, while nearly half of them (47%) said it is BDT 10,001-15,000. Another 18% mentioned spending between BDT 15,001 and 20,000. About 7.5% reported their monthly family expenditure to be more than BDT 20,000. Figure 12 shows details.



The respondents were asked to mention how the current price hike has impacted on their lives. A large majority (69.5%) said they have difficulty in meeting their household expenses. About a quarter (21%) said they cannot afford to have food three times a day, while a similar percentage (24.5%) reported not being able to afford treatment and medicines. Around 10% said they cannot bear the cost of education of their children. About 5.5% have taken loans to make ends meet. Details are shown in Figure 13.

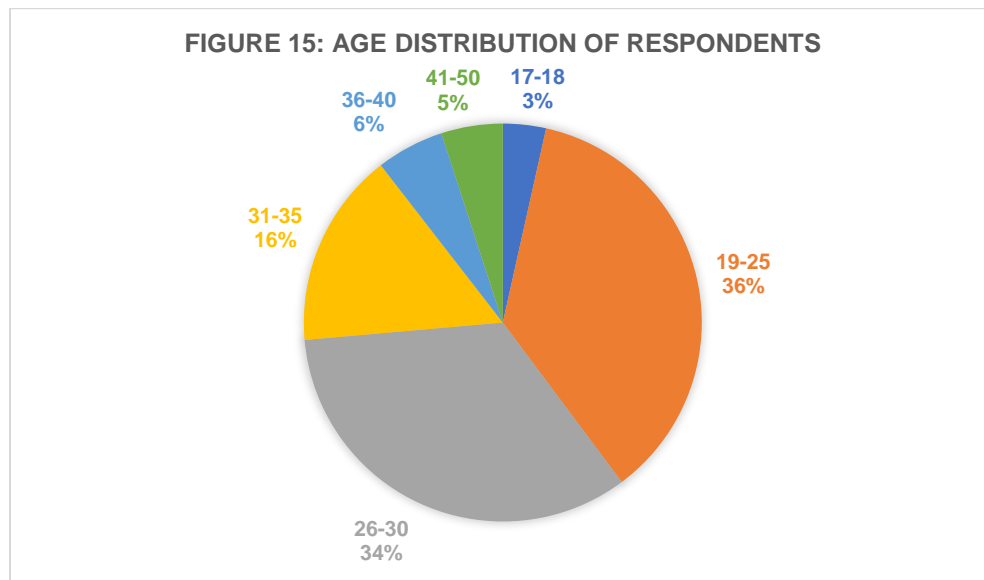


The respondents were finally asked whether they could not buy essentials due to the current price hike. About 29% said they could, while the majority (69.5%) said they could not. About 1.5% did not want to answer the question (Figure 14).



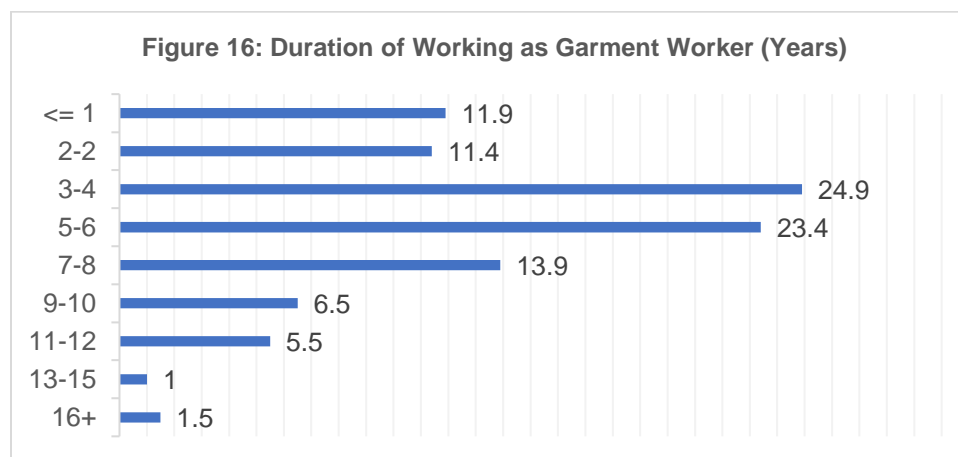
4. Main Findings of Survey of Garment Workers

Out of the 201 garment workers surveyed, 170 are females (84.6%) and 31 males (15.4%). The selection was done purposively to reflect the gender ratio in the garment industry. A third of the respondents (36.3%) are aged 19-25, another third (33.8%) are in the age group 26-30, while 15.9% are between the ages of 31 and 35. The remaining 10.5% are 36 years or above. Figure 15 shows the age distribution of the respondents.



Slightly more than a quarter (25.4%) of the respondents work as Helpers, while the rest are Operators. The rest work as Senior Operators (10.4%), Iron Men (1.5%), Quality Inspectors (6%), and others.

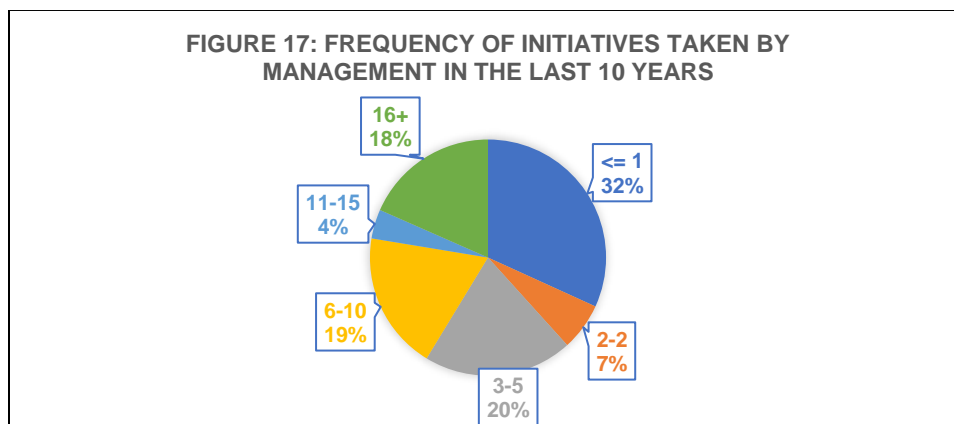
Almost a quarter of the workers (23.3%) have been working as a garment worker for 1-2 years, another quarter (24.9%) for 3-4 years, and similar proportion for (23.4%) for 5-6 years. Details are shown in Figure 16.



Almost three-fourths (73.1%) of the respondents reported that their factory provided training on OHS to the workers. Asked if they have themselves received such training, an equal proportion (72.1%) replied in the affirmative, while 27.9% said they did not.

Asked what measures the management has taken to ensure OHS in their factory, 59.7% said the management has provided them training on OHS. Other measures taken include installation of fire alarm and provision of medical treatment and hygiene products. More than a quarter (25.9%) said the management did not take any measures.

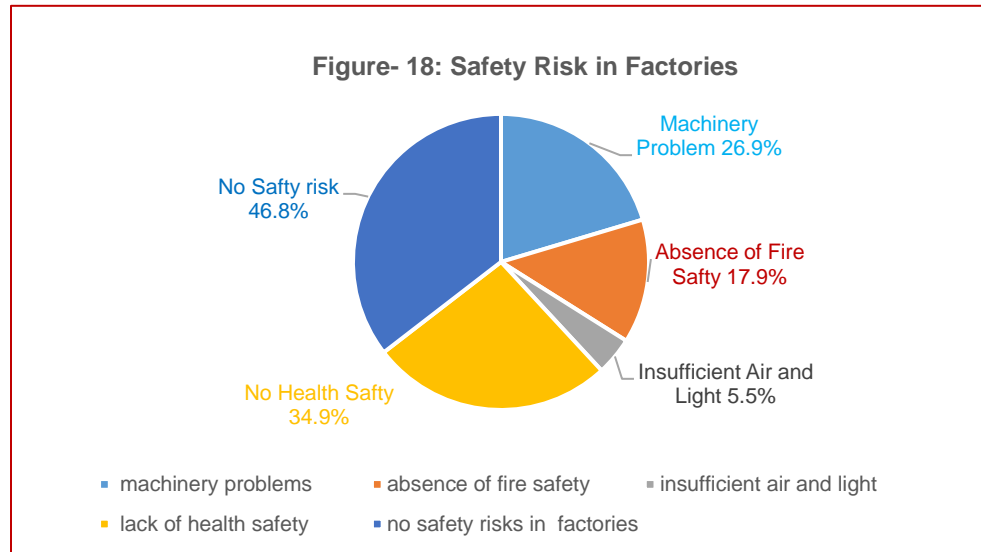
The frequency of initiatives taken to ensure OSH in the factories varies from factory to factory. About a third of the respondents (31.8%) said that, in the last ten years, the management had taken an initiative only once, while 20.4% said 3-5 times, and 18.4% mentioned 16 or more times. These data show that the frequency of initiatives taken by the management, as reported by half of the respondents (52.2%), is inadequate. Details are shown in Figure 17.



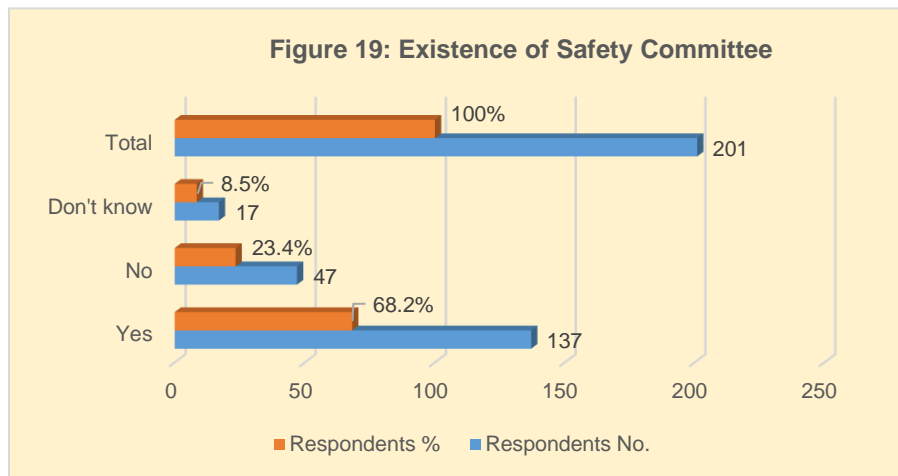
The workers were asked whether the working environment in their factory is safe. The majority (74.1%) said it is safe, 17.4% said it is somewhat safe, while 8.5% said it is not. The reasons given for the environment not being safe are unhygienic condition and absence of medical emergency facilities.

Asked about the safety risks in their factories, the respondents identified the following risks: machinery problems (26.9%), absence of fire safety (17.9%), insufficient air and light (5.5%), and lack of health safety (34.3%). Almost half of the respondents (46.8%) said there were no safety risks in their factories. Details are shown in Figure 18.

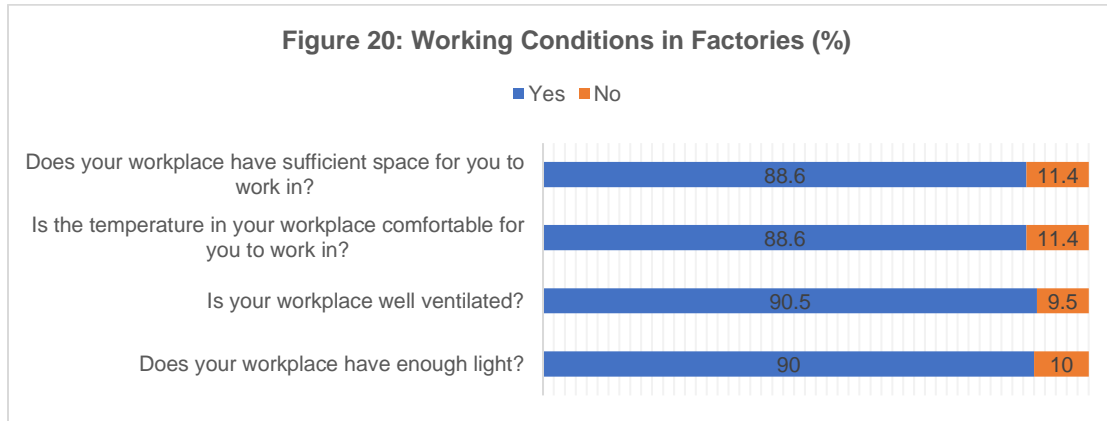
More than a quarter (26.9%) reported that the management does not do anything to mitigate the safety risks, while 14.9% said the management raises awareness of workers regarding the risks and an equal proportion said the management forms Safety Committee to address safety issues.



About 68.2% of the respondents claimed to have Safety Committees in their factories, while 23.4% said their factories did not have such committee, and 8.5% did not know. Details are shown in Figure 19. Asked about the role of Safety Committee, 63.2% said the committee ensures safety and provides training on safety issues (3.5%).



The workers were asked a number of questions regarding the working conditions in their factories. The questions and responses given to them are contained in Figure 20.



The above graph shows that more than 80% of the respondents claimed that their workplace has enough light, is well ventilated, the temperature is comfortable, and there is sufficient space to work in.

The survey also enquired about the availability of a number of facilities to ensure safety in their factories. The questions and responses are presented in Figure 21.

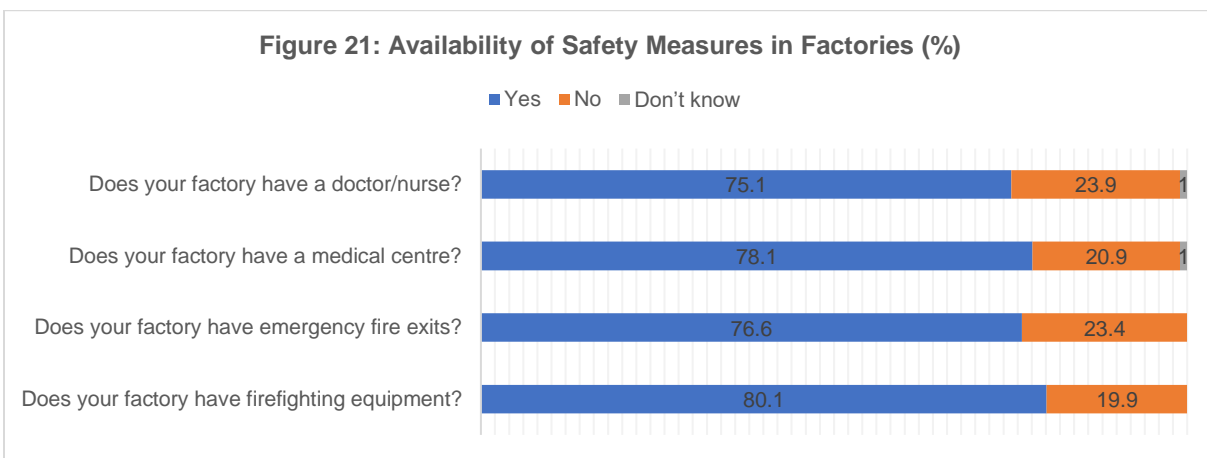
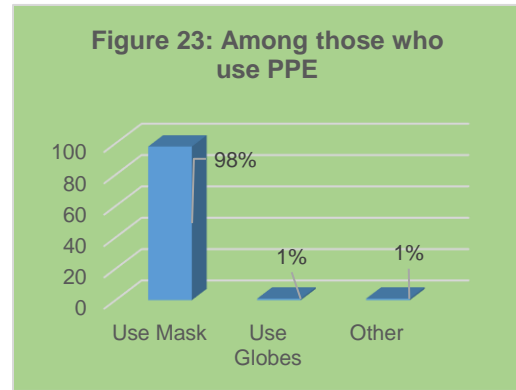
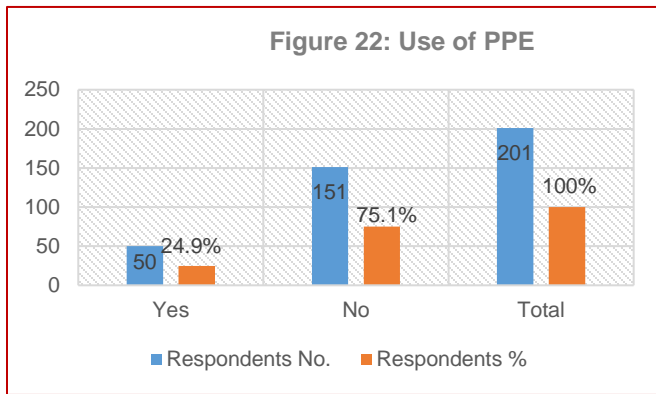
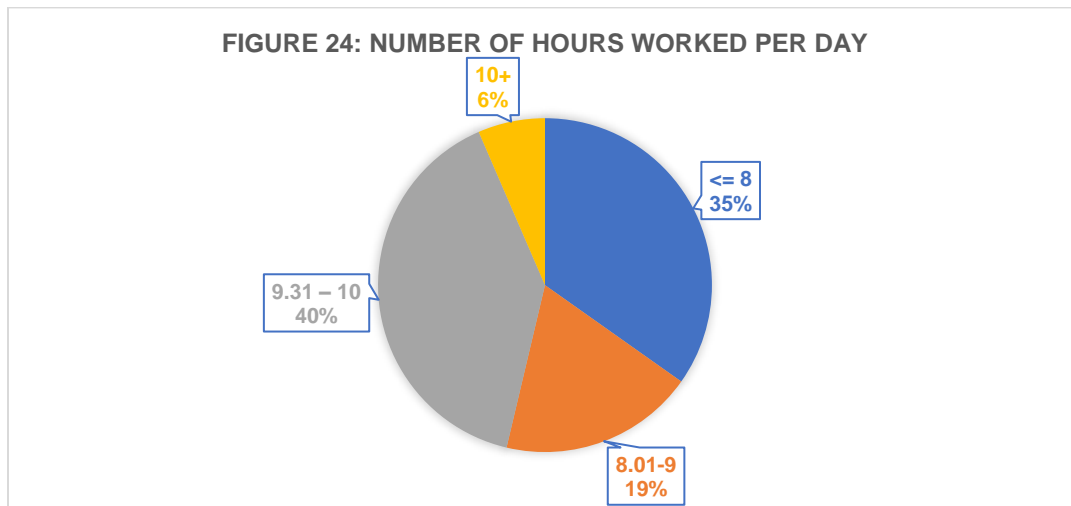


Figure 21 shows that about 19.9% of the respondents reported that their factories do not have firefighting equipment and 23.4% said emergency fire exits do not exist. Also, a fifth (20.9%) stated their factories do not have a medical centre and a similar proportion (23.9%) claimed that a doctor/nurse is not available.

Asked whether they wear personal protective equipment (PPE), three-fourths of the respondents (75.1%) replied in the negative. Among those who use PPE, 98% mentioned masks, while only one respondent uses gloves. Details are shown in Figures 22 and 23.



The survey asked the respondents how many hours they usually work in the factory. More than half of them (58.7%) claimed working 8-10 hours a day, while 34.8% work less than 8 hours. Only 6.5% said they work more than 10 hours. Details are shown in Figure 24.



Asked if they feel exhausted/fatigued from work, two-thirds (67.2%) said “no”. The overwhelming majority of workers also said that they do not suffer from any disease. Those who reported suffering from disease (7%) mentioned the backpain, headache, kidney problem and vision problem.

The respondents were asked whether there are health hazards in working in their factories. The overwhelming majority (92.5%) answered in the negative. Those who said there are health hazards (4.5%) identified the following hazards: fire from machines, chemicals, backpain and headache caused by sitting for long time, and injury from broken needles. They also added that the management does nothing to mitigate these hazards.

In response to a question whether their present health condition was impacted by their working conditions such as sitting for long hours at the workplace or working on machines for long or unhealthy working environment at the workplace, 95.5% said “no”.

The respondents were asked up to what age they would like to keep on working as a garment factory worker. The answers were varied. However, when they were asked if they would be able to work for that long given their health status, 93% replied in the negative. This indicates that they are concerned about their health condition and do not think they will be able to continue working for as long as they want to.

5. Policy Architecture of Garment Industry

5.1 The Garment Industry in Bangladesh

The garment industry of Bangladesh emerged in the 1980s replacing the declining jute industry as the main source of the country's exports. Since the 1990s, the industry has been growing at a phenomenal rate. In 1984, there were only 134 factories in the country, today there are more than 4,000 factories. The industry employs 4 million people, 60% of whom are women. It provides 83% of the country's export earnings and 11% of its gross domestic product. In 2022, the industry earned US\$ 52 billion. Bangladesh is the second largest exporter of garment products in the world with a share of 6.7% in the global RMG export market. It is considered to be the top global sourcing hotspot. Despite the phenomenal success of the industry, it suffers from massive problems in working conditions that have resulted in tragedies such as the Tazreen factory fire in 2012 and Rana Plaza building collapse in 2013. Occupational health and safety in the factories is one of the major concerns faced by the industry today.

5.2 Regulations on Occupational Health and Safety

There are a number of laws, acts and rules promulgated by the Government of Bangladesh to regulate the activities of the industrial sector, including the ready-made garment industry. There are also laws specifically designed for ensuring occupational health and safety. In November 2013, the **National Policy on Occupational Health and Safety**, known as OSH Policy-2013, was formulated with the aim of ensuring safety of workers and helping to increase industrial productivity. This policy applies to all workplaces in Bangladesh, including formal and informal sectors of industries, factories, enterprises, and business and commercial entities and farms. The **Bangladesh Labour Act-2006** also contains labour legislation relating to occupational health and safety and compensation for injury and accidents in the workplace. In 2013, this act was amended primarily in response to the Rana Plaza building collapse. The **Bangladesh Labour Rules-2015** guide implementation procedures relating to relevant sections of the Bangladesh Labour Act-2006. Other policies and laws that have several provisions for occupational health and safety include the following: **Fire Prevention and Extinguishing Act-2003**, **Bangladesh National Building Code-2006**, and the **Labour Welfare Foundation Act-2006**.

The key areas covered by the policies and laws related to occupational health and safety can be categorised under three broad groups: (a) Occupational Accidents, Hazards and Diseases; (b) Safety Equipment/Tools and Facilities; and (c) Welfare at Workplace.

Policies and laws relating to Occupational Accidents, Hazards and Diseases cover regulations preventing accidents, workplace hazards and diseases, record keeping and planning, rehabilitation and building awareness of occupational health and safety. These regulations govern areas such as factory construction, risk identification and awareness, fire license, fire resistance requirements, and safety committees, etc. Regulations governing Safety Equipment/Tools and Facilities cover areas such as personal protective equipment, safety of buildings and machinery, and firefighting apparatus and emergency fire exit. Welfare at Workplace includes regulations on health services and medical care, and other facilities like first aid equipment, washing facilities, canteen, resting place, and dining areas with water in factories.

A number of national authorities, bodies and initiatives are responsible for ensuring occupational health and safety in Bangladesh. These include the Department of Inspection for Factories and Establishments, Department of Labour, Labour Courts, Department of Public Health Engineering, Bangladesh Fire Service and Civil Defence, Department of Environment, and Public Works Department, etc.

The **National Tripartite Committee for Fire and Building Safety in the RMG Sector** was specifically formed in May 2013 to monitor implementation of the **National Tripartite Plan of Action on Fire Safety and Structural Integrity** (NTPA) for the garment industry following the Rana Plaza building collapse. As part of NTPA, Accord on Fire and Building Safety in Bangladesh, Alliance for Bangladesh Worker Safety and National Initiative assessed 3,780 export-oriented garment factories regarding fire, electrical safety and building integrity.

5.3 Changes in the RMG industry after Rana Plaza Tragedy

Since the Rana Plaza tragedy, a number of positive changes have taken place in the garment industry of Bangladesh. These changes have contributed and are contributing to making garment factories safer to work in. These changes are briefly summarised below.

Improvement in workplace safety: After the Rana Plaza building collapse, Accord on Fire and Building Safety in Bangladesh and Alliance for Bangladesh Worker Safety worked with Bangladeshi factories to improve their fire safety, structural safety and electrical safety measures. Currently, almost 90% of the factories are complaint as per international standard. The government of Bangladesh has increased the number of inspections of garment factories to improve worker safety.

Green factories: An important change has been the emergence of green factories. The country has the highest number of platinum-rated garment factories in the world. In 2012, there was only one LEED (Leadership in Energy and Environmental Design)-certified green factory. Now there are 135 such factories, of which 39 are Platinum-rated, 84 Gold-rated, 10 Silver-rated, and 2 other green factories, approved by the US Green Building Council.

Stricter criteria for membership of Bangladesh Garment Manufacturers and Exporters Association (BGMEA): The criteria for joining BGMEA have been stricter and factories applying for membership have to go through a stricter scrutiny process and comply with structural safety, fire safety and electrical safety standards laid down by the association.

Formation of Safety Committees: An important compliance requirement is the formation of Safety Committees consisting of representatives of management and workers. These committees have to conduct safety checks to identify safety hazards, respond to employee complaints and suggestions about safety and health, and review factory accident reports to ensure prevention of such accidents in future.

Guideline for sub-contracting: In 2019, the government issued a guideline for sub-contracting in the garment industry. According to this guideline, only compliant factories are allowed to be sub-contractors. There has to be an agreement between the principal and sub-contractor and a copy of the agreement must be submitted to BGMEA and Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA). It is also mandatory for the subcontracting factories to obtain approval of their structural design from the relevant authorities.

Formation of RMG Sustainable Council: In 2020, garment manufacturers, global brands and trade unions formed the RMG Sustainability Council (RSC) to take over the functions of Accord and Alliance in improving the safety standards in the garment industry. RSC, which consists of representatives of all three groups, aims to sustain workplace safety.

Establishment of the Minimum Wage Board: The Bangladesh government established the Minimum Wage Board in 2013 to set and adjust the minimum wage for workers in different sectors, including the garment industry. The Board includes representatives from employers, workers, and the government.

Increase in the minimum wage for garment workers: In 2013, the minimum wage for garment workers in Bangladesh was increased from BDT 3,000 (\$38) per month to BDT 5,300 (\$68) per month. In 2018, the minimum wage was increased again to BDT 8,000 (\$95) per month. **Garment workers' organisations have repeatedly expressed their dissatisfaction with the minimum wage increase in 2018 and have been demanding substantial pay rise, especially given the price hike in the country. The government announced the formation of a new minimum wage board for garment workers in the first week of April 2023 to review the current wage and recommend changes.**

Improved labour laws: Bangladesh Labour Law was promulgated in 2006. After the Rana Plaza building collapse, the labour law was amended twice since 2013 and the Labour Rules were announced. In 2018, the Bangladesh government passed the Bangladesh Labour Act, which includes provisions for worker safety, collective bargaining, and the formation of trade unions. The Act replaced the outdated Bangladesh Labour Law of 2006, which had been criticized for its inadequate protections for workers. In addition to making unionisation easier, the Act made it mandatory for garment factories to form an elected participation committee consisting of representatives of workers and owners.

Employment Injury Scheme: On 21st July 2022, the Government of Bangladesh officially launched the first ever employment injury insurance pilot project for workers of the garment industry. The project has two components: (1) Data gathering and capacity building on occupational accidents, diseases and rehabilitation, based on a sample of representative factories; and (2) Risk sharing for long-term benefits: payment of ILO-compliant compensations in case of permanent disability or death for the entire export-oriented garment sector.

Efforts of owners to improve compliance: Many companies have increased their efforts to ensure that their suppliers are complying with labour and safety standards. This has involved more frequent visits to factories, increased transparency, and the establishment of worker safety committees.

6. Conclusion

Findings of the survey of Rana Plaza survivors show that, compared to the first survey of 2014, the health status of the respondents has not improved. The proportion of survivors claiming to be completely stable has decreased from 17% in 2014 to 7.5% in 2023, while the percentage of respondents whose health has deteriorated increased from 9% to 22.5% during the same period. It should be noted that, although most of the respondents belong to the relatively young age group (63.5% are below 35), they still have health issues that are rising. This can be attributed to the Rana Plaza tragedy which impacts their life expectancy and productivity. In the case of mental health, there has been improvement. In 2016, 59.1% of the respondents said their condition was getting worse compared to 29% in 2023. The proportion of those who claimed to have fully recovered also increased. The employment status of respondents has significantly improved over the years, from 7.5% in 2014 to 45.5% in 2023, although it has slightly decreased compared to last year.

Findings of the survey of garment workers reveal that most of the respondents consider the occupational health and safety status in their factories to be good. They claimed that their workplace has enough light, is well ventilated, the temperature is comfortable, and there is sufficient space to work in. However, about 19.9% of the respondents reported that their factories do not have firefighting equipment and 23.4% said emergency fire exists do not exist. Also, a fifth (20.9%) stated their factories do not have a medical centre and a similar proportion (23.9%) claimed that a doctor/nurse is not available.

7. Recommendations

Based on the study findings, the following recommendations are made:

- The health issues of Rana Plaza survivors need to be addressed. Treatment and medicines should be arranged for those needing them. Their health status should be regularly monitored.
- The employment status of Rana Plaza survivors also needs to be improved. In this regard, livelihood training for survivors who are able and willing to work needs to be arranged.
- The survivors with disabilities can be linked up with organisations that work in the field of disability inclusion and have livelihood programmes for such people.
- The current price hike has hit the garment workers badly and many find it extremely difficult to make ends meet. The factory owners and their associations should take measures to complement the workers' incomes through, for example, sale of essentials at subsidised prices at the factory premises.
- The awareness of garment workers and management regarding occupational health and safety issues needs to be further increased through training.
- The factories need to be more compliant with occupational health and safety requirements of the Bangladesh Labour Law. The use of personal protective equipment, for example, should be extended beyond masks and workers need to be encouraged to use other required PPEs as well.
- There should be greater monitoring to ensure that factories are complying with the requirement of establishing Safety Committees
- There should be greater monitoring and implementation of fire safety measures in factories
- A detailed review should be undertaken to identify the health safety issues at factories referred to by respondents and undertake appropriate measures

ANNEXURE- 1

Quantitative Survey Questionnaire

Study on Occupational Health and Safety in the RMG Industry of Bangladesh

Consent of participants: You are invited to participate in the Study on Occupational Health and Safety in the RMG Industry of Bangladesh. This study is conducted by the Institute of Social Business (ISB) with a contractual agreement between Institute of Social Business (ISB) and Action Aid Bangladesh. The purpose of this study is to analyse the real scenario of the occupational health and safety of the garment workers along with the current status of the Rana Plaza survivors including the status of policies and measures, in terms of institutional changes, legal and policy reforms, and structural modifications that have been adopted or implemented to address the workplace issues and challenges in the RMG sector in the last 10 years following the tragic incident.

There is no risk associated with your participation in this study. The information given by you will be used only for study purposes and will be kept completely confidential. Your participation is voluntary, you may choose to participate or not to participate in this study and you may withdraw your participation at any stage of discussion.

1) Questionnaire for Survey of Garment Workers

A. Background Information

No.	Questions	Response/Code
A1	Name of respondent	
A2	Age	1 = 16 to 18 2 = 19 to 25 3 = 26 to 30 4 = 31 to 35 5 = 36 to 40 6 = 41 to 50 7 = 50+
A3	Gender of respondent	1 = Female 2 = Male 3 = Third gender
A4	Present address of respondent	
A5	Name of factory in which respondent works	
A6	Address of factory in which respondent works	
A7	Designation/Grade of respondent	1 = Helper; 2 = Operator; 3 = Senior Operator;

No.	Questions	Response/Code
		4 = Iron Man; 5 = Quality Inspector; 6 = Others (specify)
A8	How long have you been working as a garment factory worker?	_____

B. Survey Questions

No.	Questions	Response/ Code
B1	Does the management of your factory provide training/orientation on occupational health and safety to the workers?	1 = Yes 2 = No 3 = Don't know
B2	Did you receive any training/orientation on occupational health and safety in your factory?	1 = Yes 2 = No
B3	What measures does the management take to ensure occupational health and safety in your factory?	_____
B4	In the last 10 years, how many times did the management take initiatives to ensure occupational health and safety in your factory?	
B5	Is the working environment in your factory safe for workers?	1 = It is safe 2 = It is somewhat safe 3 = It is not safe
B6	If it is not safe, why not?	
B7	What are the safety risks in your factory?	_____
B8	What does the management do to mitigate the safety risks?	_____
B9	Does your factory have a Safety Committee?	1 = Yes 2 = No 3 = Don't know
B10	If yes, what does the Safety Committee do?	
B11	Does your workplace have enough light?	1 = Yes 2 = No
B12	Is your workplace well ventilated?	1 = Yes 2 = No
B13	Is the temperatures in your workplace comfortable for you to work in?	1 = Yes 2 = No
B14	Does your workplace have sufficient space for you to work in?	1 = Yes 2 = No
B15	Do you use any personal protective equipment in your factory?	1 = Yes 2 = No

No.	Questions	Response/ Code
B16	If yes, what kind of personal protective equipment do you use?	_____
B17	Does your factory have fire fighting equipment?	1 = Yes 2 = No 3 = Don't know
B18	Does your factory have emergency fire exits?	1 = Yes 2 = No 3 = Don't know
B19	Does your factory have a medical centre?	1 = Yes 2 = No 3 = Don't know
B20	Does your factory have a doctor/nurse?	1 = Yes 2 = No 3 = Don't know
B21	How many hours do you usually work in the factory?	_____ hours
B22	Do you feel exhausted/fatigued from work?	1 = Yes 2 = No
B23	Do you suffer from any disease(s)?	1 = Yes 2 = No
B24	If yes, what disease(s) do you suffer from?	_____
B25	How long have you been suffering from the disease(s)?	_____
B26	Are there any health hazards in working in your factory?	1 = Yes 2 = No 3 = Don't know
B27	If yes, what are the health hazards?	_____
B28	What does the management do to mitigate the hazards?	_____
B29	What are your major concerns regarding occupational health and safety in your factory?	_____
B30	Do you think or have been told by a doctor that the disease(s) you are suffering from are due to the health hazards in your factory?	1 = Yes 2 = No 3 = Don't know
B31	Do you think that your present health condition is due to the nature of your working condition such as sitting for long hours at your workplace or working on the machine for long hours, or unhealthy working environment at your workplace?	1 = Yes 2 = No 3 = Don't know

No.	Questions	Response/ Code
B32	Up to what age would you like to keep on working as a garment factory worker?	_____
B33	(Ask if the respondent has said "Yes" to question B23). Do you think you will be able to work for that long given your present health condition?	1 = Yes 2 = No 3 = Don't know

2) Questionnaire for Survey of Rana Plaza Survivors

A. Background Information

No.	Questions	Response/ Code
A1	Name of respondent	
A2	Age	1 = 16 to 18 2 = 19 to 25 3 = 26 to 30 4 = 31 to 35 5 = 36 to 40 6 = 41 to 50 7 = 50+
A3	Gender of respondent	1 = Female 2 = Male 3 = Other
A4	Present address of respondent	

B. Survey Questions

No.	Questions	Response/ Code
B1	How is your physical health at present?	1 = I am fully well 2 = I am more or less well 3 = Health has deteriorated
B2	If the response is (3), what are your health problems?	_____
B3	How is your mental health at present?	1 = I am fully well 2 = I am more or less well 3 = Health has deteriorated
B4	If the response is (3), what are your mental health problems?	_____
B5	At present, what is your occupational status?	1 = Service 2 = Business 3 = Unemployed

No.	Questions	Response/ Code
B6	If the response to the above question is (1), what sort of service do you do?	1 = Working in garment factory 2 = Salesperson 3 = Tailoring 4 = Driving 5 = Agriculture 6 = Day labour 7 = Domestic work 8 = Others
B7	How long have you been engaged in this occupation?	_____
B8	If the response to question B5 is (2), what type of business are you engaged in?	_____
B9	Currently, what is your monthly income?	1 = BDT 1,000 – 5,000 2 = BDT 5,001 – 10,000 3 = BDT 10,001 - 15,000 4 = BDT 15,001 – 20,000 5 = BDT 20,000+
B10	How many of your family members are employed?	_____
B11	What is your monthly family income?	1 = BDT 1,000 – 5,000 2 = BDT 5,001 – 10,000 3 = BDT 10,001 - 15,000 4 = BDT 15,001 – 20,000 5 = BDT 20,000+
B12	What is your monthly family expenditure?	1 = BDT 1,000 – 5,000 2 = BDT 5,001 – 10,000 3 = BDT 10,001 - 15,000 4 = BDT 15,001 – 20,000 5 = BDT 20,000+
B13	If the response to question B5 is (3), how long have you been without work?	1 = 1 to 2 years 2 = 2 to 3 years 3 = 3 to 4 years 4 = 5 to 8 years
B14	What is the reason for being unemployed?	1 = Lost my job due to Covid-19 2 = Physical health condition 3 = Mental health condition 4 = Cannot get a job 5 = Others (specify)
B15	If you had lost your job in a garment factory because of Covid-19, did you get any money from the factory when you were laid off?	1 = Yes 2 = No
B16	What impact did the current price hike have on your economic condition? (Food security, house rent, lifestyle, disposal income, child care, health, loan and saving).	_____

No.	Questions	Response/ Code
B17	Was there a day when you could not buy food or pay for any essential because of the current price hike?	1 = Yes 2 = No 3 = Not willing to state

ANNEXURE- 2

Qualitative Data Collection Tools

Study on Occupational Health and Safety in the RMG Industry of Bangladesh

Consent of participants: You are invited to participate in the Study on Occupational Health and Safety in the RMG Industry of Bangladesh. This study is conducted by the Institute of Social Business (ISB) with a contractual agreement between Institute of Social Business (ISB) and Action Aid Bangladesh. The purpose of this study is to analyse the real scenario of the occupational health and safety of the garment workers along with the current status of the Rana Plaza survivors including the status of policies and measures, in terms of institutional changes, legal and policy reforms, and structural modifications that have been adopted or implemented to address the workplace issues and challenges in the RMG sector in the last 10 years following the tragic incident.

There is no risk associated with your participation in this study. The information given by you will be used only for study purposes and will be kept completely confidential. Your participation is voluntary, you may choose to participate or not to participate in this study and you may withdraw your participation at any stage of discussion.

A. Guide for FGD with Garment Factory Workers

1. Does the management of your factory provide training/orientation on occupational health and safety to the workers?
2. What measures does the management take to ensure occupational health and safety in your factory?
3. In the last 10 years, how many times did the management take initiatives to ensure occupational health and safety in your factory?
4. Is the working environment in your factory safe for workers?
5. If it is not safe, why not?
6. What are the safety risks in your factory?
7. What does the management do to mitigate the safety risks?
8. Does your factory have a Safety Committee?
9. If yes, what does the Safety Committee do?
10. Does your workplace have enough light?
11. Is your workplace well ventilated?
12. Is the temperature in your workplace comfortable for you to work in?
13. Does your workplace have sufficient space for you to work in?
14. Do you use any personal protective equipment in your factory?
15. If yes, what kind of personal protective equipment do you use?
16. Does your factory have fire fighting equipment?
17. Does your factory have emergency fire exits?
18. Does your factory have a medical centre?
19. Does your factory have a doctor/nurse?
20. Are there any health hazards in working in your factory?
21. If yes, what are the health hazards?
22. What does the management do to mitigate the hazards?

23. What are your major concerns regarding occupational health and safety in your factory?
24. Do you think or have been told by a doctor that the disease(s) you are suffering from are due to the health hazards in your factory?
25. Do you think that your present health condition is due to the nature of your working condition such as sitting for long hours at your workplace or working on the machine for long hours, or unhealthy working environment at your workplace?

B. Guide for FGD with Rana Plaza Survivors

1. How is your physical health at present?
2. What are your health problems?
3. How is your mental health at present?
4. What are your mental health problems?
5. What is your occupational status?
6. Currently, what is your monthly income?
7. Is it enough to cover your monthly expenditures?
8. Has your economic condition improved compared to last year?
9. How has the current price hike impacted your regular life?
10. What are your main concerns at present?

C. Guide for KII with Owners/Managers/BGMEA/BKMEA

1. What are the elements of occupational health and safety in your factory?
2. What procedures relating to occupational health and safety do you follow in your factory?
3. How does the present situation regarding occupational health and safety in your factory compare with the past?
4. Have things improved in the last 10 years?
5. If yes, in which areas have they improved?
6. If yes, in what ways have they improved?
7. Did the international buyers provide any support to ensure occupational safety standards after the Rana Plaza incident?
8. Is there any specific yearly budget allocation by your factory for ensuring occupational safety?
9. What is the regular way of monitoring whether workers are aware of what to do during any disaster?
10. On average, up to what age does a worker keep on working in a garment factory?
11. What is the policy architecture of the garment industry in Bangladesh in terms of ensuring occupational safety?
12. What policies have been changed or improved after the Rana Plaza tragedy?
13. What is the current status of the RMG industry in Bangladesh in terms of occupational safety?
14. What is the progress made in relation to occupational health and safety so far by all stakeholders and where does it stand today?
15. What remains to be done?

D. Guide for KII with Department of Inspection for Factories and Establishments (DIFE)

1. What is the current status of occupational health and safety in the garment industry of Bangladesh?
2. How does the present situation regarding occupational health and safety in garment factories compare with the past?
3. Have things improved in the last 10 years?
4. If yes, in which areas have they improved?
5. If yes, in what ways have they improved?
6. What is the policy architecture of the garment industry of Bangladesh?
7. What policies have been changed or improved after the Rana Plaza tragedy?
8. What is the progress made in relation to occupational health and safety so far by all stakeholders and where does it stand today?
9. What remains to be done?
10. What is DIFE's monitoring mechanism used to monitor garment factories in Bangladesh?
11. Were there any changes brought about in the monitoring mechanism because of the Rana Plaza incident?
12. If yes, what were the changes?
13. What are DIFE's plans for the future?