

Enabling and Empowering the Urban Unskilled

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Introduction

The construction industry has been booming in the Bangalore metropolis for nearly a decade now. To cater to this demand, construction workers come into Bangalore from all over the country to seek employment. No matter what their skill level, the sheer demand for numbers ensures that everybody gets a job at different construction sites. However it has been observed in many cases that safety is a low priority on many of these constructions sites. Loss of life and limb are often taken lightly. Workers are unaware of how and when to use safety/ protective equipment and often do not take the right precautions necessary for a safe work environment. A large section of the construction worker community in Bangalore comes from the impoverished districts of Raichur, Koppal and Yadgir of Karnataka. But there are also a number of immigrant workers who come from all over the country including the states of Bihar, Orissa etc.

The demographic of the construction workers is largely the urban poor and a migratory population that is straddling an unviable agricultural background and an unpleasant but marginally more monetarily rewarding urban life. Stakeholders in this are mostly the workers whose very livelihood and future is at stake and their employers (builders/ contractors) who are required to insure the workers and indemnify them in case of loss due to accidents. However, most workers are unaware of the law and the provisions that could benefit them.

The Problem

The real estate sector in India is a key employment driver. However, it is a highly unorganized sector which employs a large number of unskilled and semi-skilled workers. Existing facilities are largely institutionalized and do not cater to a mass of population which is underprivileged and cannot forgo its daily wages in order to get formally trained. Distress migration necessitates stronger livelihood adaptive strategy than induced migration.

Challenges Faced by Bangalore Metro

Following an inspection conducted by the Labour Department at the various Metro construction sites, it was found that more than 5,000 migrant labourers were employed in construction activities without any social security cover or safety measures. These labourers work in

bad conditions and were sometimes deprived of basic and essential civic amenities like onsite drinking water facilities or toilets. The workers were living in unacceptable conditions and were not paid for overtime work. To improve the conditions of the workers employed under the Bangalore Metro project and responding to a Public Interest Litigation, the Division Bench directed the BMRCCL to convene a meeting of contractors, labour department and petitioners to improve the condition of the workers.

There are several Metro projects in major cities in India, with similar conditions for the workers. The ruling is important as the Court said that development cannot be at the cost of workers and gave a warning that the construction project would be stopped if human rights of workers were not protected. The project was given 20 days to ensure compliance, increase awareness on need for safety and its practice.

Picture 1: Internet Discussion Forum Based on an Accident at the Bangalore Metro Construction Site

Continued 1 2 Next»

Author	Messages	To Expand	To Collapse
Service Apartment in Bangalore-Apex suites	Its really so sad. (Posted: Wednesday, January 06, 2010 at 16:12)		
veena	The contract of the metro, they want to make money only. They are bothered about safety of the people of the nation and safety of the metro (Posted: Friday , December 11, 2009 at 16:40)		
niranjn	This shows how we care for poor people's life and well being.it is a shame for all us to see the them risk their life and limb so we all can have a nice life. (Posted: Friday , December 11, 2009 at 14:08)		
jossy philips	prematve safety to be taken at any time of work, safety is better then running out for helping the injured and safe guarding them. (Posted: Wednesday, December 09, 2009 at 11:45)		
Biranchi Narayan Acharya	The staging failure is unfortunate but in cnstruction sector it is a common phenomina. When a thing is being constructed or being produced, there are a lot of compelling reason beyond control that leads to accident as these are hazardous activities. Despite all possible care a mother may expire while giving birth to a baby. Thus such events needs moral supports not criticism. (Posted: Saturday , December 05, 2009 at 15:09)		
busna	As expected. India doesnot have Safety attitude towards construction activities. People responsible shall be prosecuted under the law (Posted: Saturday , December 05, 2009 at 13:36)		
silvestre machado	i can not understand is there no health and safety department or risk acessment department that is responsible for the safety of it,s workers.It's just a shame to have an accident like this it does not matter 1 person or 100 it is just that human life counts. (Posted: Friday , December 04, 2009 at 19:02)		
Raja	we don't need any foreigners to halt our 'development'. we are helping ourselves anyway. (Posted: Friday , December 04, 2009 at 08:41)		
saraswathi seshan	Before taking any construction work its the duty of the govt. as well as the assigned com.to take safety measures for their workers as well as public.for that matter anything involved in the construction of the project.AND ABOVE ALL THE COMMITMENT ,SINCERIATY,HONESTY AND INTIGERITY IS PRIME AND THE REST WILL FOLLOW AUTOMATICALLY (Posted: Friday , December 04, 2009 at 07:52)		

LabourNet bagged the assignment for the essential ‘Safety Measures’ implementation training that aimed at bringing about behavioural changes in the workers and their supervisors leading to better enforcement of safety measures at the worksite; the understanding that safe work practices would lead to better productivity and income increase (due to no-person work days lost due to accidents/ injuries) was the key outcome mapped by LabourNet and the client. The project aimed to impact over 5,000 workers aligned to 15 contractors participating in the Bangalore Metro project.

The process began with a Safety Climate Survey of the Bangalore Metro projects sites by LabourNet, to diagnose the prevalent attitudes towards safety and the extent of safety behaviour followed. This was then followed by a 6 weeks training program which was a combination of classroom based study as well as on-site learning. The training program was further followed up with a Post training Safety Climate Survey. The focus of Safety Climate Survey was primarily on the attitude of the Supervisors & Managers across nine behavioural parameters. Post training, the trainees were observed with regard to adherence to safety rules at site. The best performer was awarded as the Safety Champion. Till date, this distinctive program has trained 980 workers /Supervisors across various Bangalore Metro sites and it was extended to 160 workers of the Hyderabad Metro site also. 100 people have been trained in crane operations at the Bangalore and Hyderabad Metro sites.

The Solution

On-site training module is the right initiative to help construction workers at the entry level learn while they earn and help them move up their career graph with a prospect to get better wages. The training also helps the fraternity of employers (BMRCL contractors) to offer higher construction quality, timely project completion, lesser material wastage, and happier customers. LabourNet focussed on the behaviour based safety to ensure that every worker performs his role with minimal risk by adhering to safety guidelines.

The scope of the engagement was to help BMRCL measure and improve the safety attitude across all its active sites. LabourNet was involved in 4 key areas across the work-sites:



Safety Climate Survey and Assessment

An analysis of the current state of safety culture at a site revealed that 96% of the injuries were from unsafe acts and only 4% were from unsafe conditions. Behaviours and the actions of people were observed; risky behaviours and situations lead to injuries and incidents were required to be corrected at the core level. Ratings on these parameters were provided across all levels and included Managers, Supervisors and Workers. The participant's level of maturity and improvements requirements were identified with respect to their attitude, mind-set and behaviour. This was then aggregated at a work-site level to arrive at the current safety perception scores that would be the baseline for future improvements.

Behavioural Safety Training

- BBS training program was planned and executed at all levels, from Managers, to Supervisors at site to the workers working on the site
- The objective was to achieve a change in the general attitude through providing on-going support
- Extended support was provided to the Contractor at site, where the training had already been completed with on-call training support and customized training content.
- Post the training programme, a gap of 6 weeks was given to participants to apply their training. After another 6 weeks, a post climate safety survey was also conducted to ascertain the impact of the program

Post training Survey and Assessment

- The Post training Safety Climate Survey was conducted via questionnaires, behaviour change observations at the sites
- The participants were rated across key behavioural safety attributes like Management Commitment, work environment, communication, involvement in safety drills and support systems within the site.
- Pre and Post Training Impact Assessment presentations were prepared for each work-site where the trainings were conducted.

Nature of Engagement, Intervention, Support and Strategies for Reaching out to the Poor

A detailed inspection report by Labour officials stated that for hundreds of contract workers employed by establishments as part of the construction of the multi-crore Namma Metro project found that for most workers, every workday was a challenge. Barring payment of their minimum wages, a majority of employers offered very little in the way of basic workplace facilities – be it drinking water, toilets, accommodation, canteens, first aid or medical help.

Most significantly, very few establishments held a licence under the Inter-State Migrant Workers (Regulation of Employment) Act (ISMW), a mandatory requirement for those employing migrant workers. The report submitted that barring six worksites, migrant labour was employed by all contractors. However, not one of them had a license or fulfilled any of the mandated requirements, such as providing accommodation, canteens, crèches and paying displacement/journey allowances routinely. The inspection found that the total number of contract hires on this project was around 3,745 men and 18 women (at that time). Since most migrant workers relocate in search of work and are hired independently, the job contractors were not taking adequate responsibility for their security.

In such a scenario, it became all the more important to educate and empower these workers about the hazards of unsafe work practises and how working in accident prone areas without proper protection could have adverse consequences.

The L&D team at LabourNet, after many deliberations, decided to use the Behaviour Science Approach to conduct Behavioural Based Safety training program as they found that individual behaviour was the major cause of most work-related injuries and illnesses. The training aimed to provide insight to reduce work loss-time injuries, through the analysis of current work environment.

Given the differences between the age as well as background and experiences of each of the participants, “one size fits all” safety training would not have worked for everyone. The training sessions had to have the right blend of content and also the right appeal to address to a diverse set of participants. Blending each group’s preferred style helped trainers to connect better with their participants, and apparently allowed the groups to learn from each other.

Critical Challenges Faced

The team faced, and successfully overcame barriers while implementing the workplace safety training programs by using a multi-dimensional approach shared below:

Top Management Support

A more visible commitment to institutionalizing workplace-safety practices, from the board and senior management, to improve the current status quo was strongly required. Introducing healthy practices to engage employees and volunteers by initiating reward structures and imposing difficult consequences would be a step taken in the right direction. Top management’s modelling the desired behaviour was deemed most essential for a workplace-safety program to become institutionalized. The team ensured that the project management team at the work-sites were a part of the training programme.

Lack of Safety Understanding/Appreciation

There were people at different levels of the organization who had to be drawn to understand why safety is a crucial issue and how their active and effective participation in a workplace safety program would benefit them in the long run. To an extent there was clear lack of appreciation and ability to identify the amount of time and money that accidents/injuries are costing the organization, and how this money could be used resourcefully.

Communication

Lack of clarity about the issues surrounding safety and the consequences of accidents and injuries to the employee/worker's overall well-being were some of the common barriers to workplace safety training. There was a constant need to clearly and consistently communicate performance expectations about safety from employees at all times. Employee's goals and objectives in terms of reducing the cost and frequency of accidents and injuries had to be emphasized at regular intervals. The potential cost of accidents and injuries also needed to be addressed.

Organizational Structure

The employee's organizational structure and location of offices was also a barrier to conducting an effective workplace safety program. Since most offices and workplaces were located in multiple sites, it was difficult to ensure a standard approach to workplace safety. A highly decentralized structure within the worksite also presented its own set of challenges in carrying out safety goals.

Diverse Group of Participants

Another significant barrier that safety trainers faced during the training was the work force spanning across diverse demographics, organizational hierarchy and work experience. Teams were comprised of workers of all ages; 20-year-olds were working alongside veteran workers, some well into their 60s.

Resolving the Hurdles

Identifying these barriers proved helpful in improving and implementing a better and more effective workplace safety program. Some of the recommendations suggested after the training were:

1. The concept of "Benchmarking", where a standard or point of reference is set, using which the Management can measure or compare how each department works to perform and check safety parameters was institutionalised.

2. Publicizing how much accidents and injuries were costing the company, underscored the serious nature of safety. For example, doing exercises on alternative uses of money saved (by not paying for injury/ other claims) made the consequences of the actions tangible.
3. Comparing departmental cost of accidents/injuries such as reflected in insurance premiums, were used encourage company involvement and backing
4. Project level leaders (across functions like Planning, Finance, Procurement) were associated and aligned with the program, they appreciated the impact of their individual and team actions on safety and began to change practices within their departments.
5. By linking performance reviews and team incentives with safety goals and objectives, employees and managers directed focused efforts to workers and led with the commitment to change.

People from various backgrounds retain information in different ways, making effective communication a challenge. Trainers need to find new and creative ways to connect with different demographics regarding safety.

One of the most significant barriers that safety trainers faced during the training was the work force spanning across four generations. Teams were comprised of workers of all ages; 20-year-olds were working alongside veteran workers, some well into their 60s.

Each of these diverse groups of trainees had different values and perspectives on work and safety. It was imperative that the trainers understood these perspectives in order to effectively connect with the workers in these age groups. In addition, each of the trainees received and processed information differently. The need was to understand this; hence formatting the training to attain the best retention was the main focus during the sessions.

Some latent issues which required to be addressed were:

1. Some of the trainees have been working in their respective trades for 20 to 30 years and they have seen and experienced much more than their younger co-workers, and were more likely to recognize the importance of safety. However, their knowledge and experience lead them to believe they don't need training, or also presume that they already knew the proper way of doing things.
2. On the other hand there were workers who had less experience than the seniors, yet very knowledgeable in their fields of expertise. These participants were more cynical and distrustful of authority, which led to resistance to training at time. However, they typically were very family and life focused, ushering in the idea of work-life balance. As a result, the trainer had to emphasize on the importance of the overall health and safety benefits to the person and his family.

3. The young lot of participants had their own set of issues. Though on one hand they responded well to mentoring, and were able to multitask with ease, they had a short attention span. So the trainer had to include activities on team building, group dynamics, and other energizers.

One Size Does Not Fit All

Given the differences between age as well as experience of each of the participants, the “one size fits all” safety training would not have worked for everyone. The training sessions had to have the right blend of content and also the right appeal to address a diverse set of participants. Blending each group’s preferred style helped trainers to connect better with their participants, and inevitably allow the groups to learn from each other.

1. The participants were kept engaged using graphics and a variety of teaching tools which helped in keeping all of them interested. This also led to higher message retention.
2. Participants were encouraged to do group discussions in the training session, images that included safety errors were presented in class, and they were asked to find them and to discuss safe alternatives and techniques.
3. Hands on demonstration were conducted; it was another interactive approach which kept the participants engaged through the entire class, while at the same time prepared them for real work situations.
4. Site-walks, demos, graphics, and videos of hazardous working styles were some of the activities used at different stages to create different kinds of impacts of the participants.

A sample of the stories of people whose lives have been changed for the better through the initiatives of LabourNet can be found in Annexure 2.

Special Highlights of the LabourNet BBS program

1. A first of its kind training, done in India, in the area of Safety and Crisis Management, delivered through the principles of **BEHAVIOURAL SCIENCE**.
2. Original training design -VAK (Values, Attitude and Knowledge)
3. People centric training delivery
4. Client centric content prepared for each module (customised according to demographics, hierarchy and RPL)
5. Training evaluation and certification was based on MCQ, Written Examination, Viva, and Formative Assessments

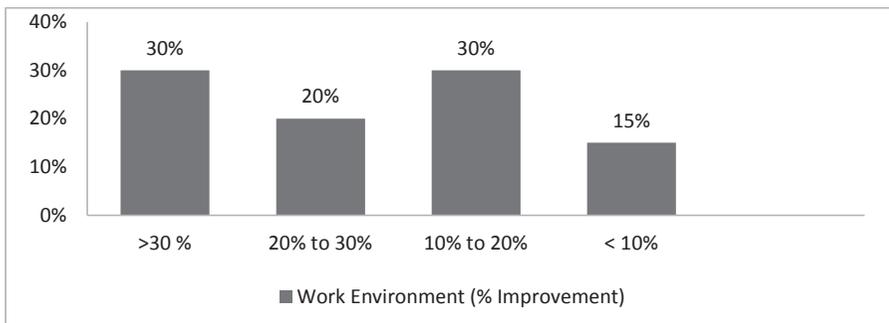
6. To encourage participants to proactively participate in the training sessions, they were honoured for their achievements with medals and trophies
7. The activities were designed keeping in mind the sensitivities of the participants
8. Medium of instruction was as per client requirement. At many places the trainers or the co-trainers who spoke the local language pitched in to make concepts easily understandable
9. Absolute team work of members chosen for training, each one playing their role very effectively and exclusively
10. The program catered to a diverse group of trainees who were culturally, educationally, and hierarchically different.
11. The sessions were well planned and the props and other materials used for the sessions were prepared well in advance to execute a smooth and successful session

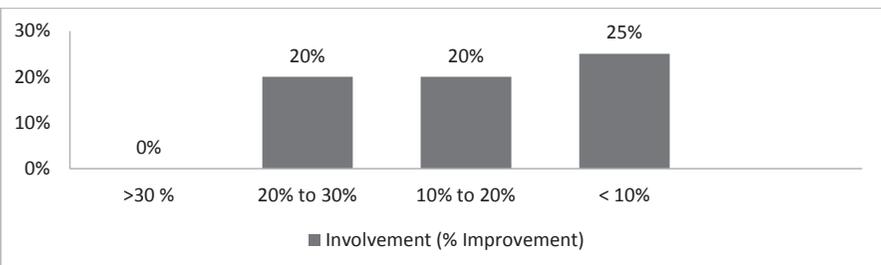
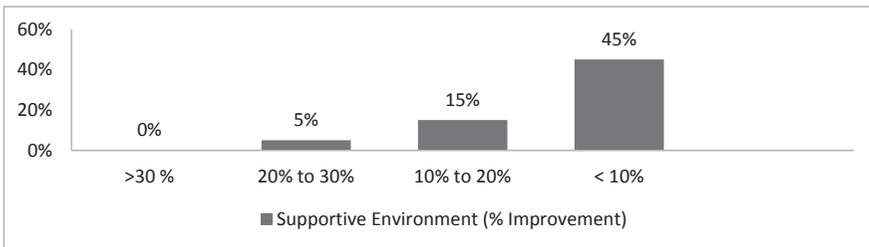
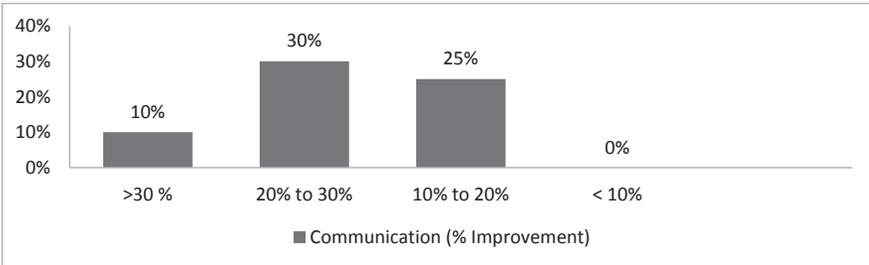
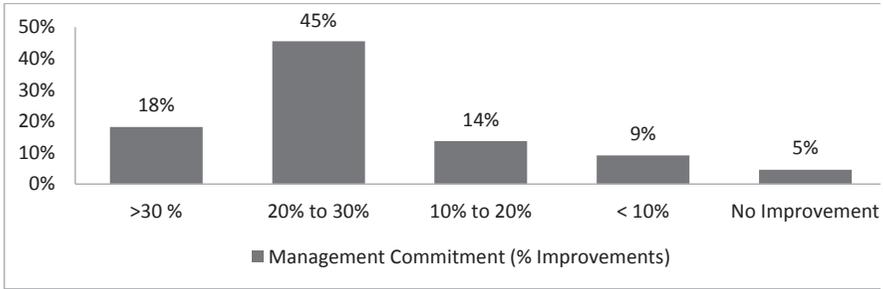
Impact of the Programme

An analysis of post BBS training -safety climate survey was conducted at the ABB Site. Feedback was received through 3 questionnaires:

- Training feedback questionnaire
- Post BBS training questionnaire
- Behaviour based safety questionnaire

The survey had been conducted around five important attributes related to a workers working on-site i.e. Management commitment, Communication, Supportive Environment, Involvement and Work Environment. A pre-survey had indicated most participants to be on a low scale on all these attributes – the scores from the post survey connected with the anecdotal feedback received about the success of the programme in making safety on-going cultural phenomena at the workplace and also cascading into the labour camps. The impact (improvements on various dimensions) have been shared below:





- 22% of the client sites had shown about 30% improvement in Work Environment.
- Almost 50% of the clients observed more than 30% improvement in employees' attitude towards Management's commitment towards their safety.
- 30% of the employers found that there was about 25-30% improvement in the communication levels between workers-supervisors -managers.

45% of the employees felt that there was less than 10% supportive environment

A snapshot of real life success stories can be found in Annexure 1.

Summary

With the rapid development of urbanization in India, in this case Bangalore, the number and size of development projects are increasing quickly and at an alarmingly rapid pace. At the same time, more and more freak and untoward accidents at the work-sites are causing construction at Metro sites to increasingly become a focus of social attention.

The construction industry is a booming sector in India, unfortunately the work-force which is the major contributor for the success of any projects is treated with very little dignity. At most Metro sites the basic human rights are violated and workers work in sub-human conditions. The apathy is at large, and no single solution can be arrived at or concluded to improve the quality of living of these workers. However, radical steps taken in the direction of better Labor Laws, stricter construction norms and harsher punishments for violation of basic human rights could not only improve the living conditions of these workers but enable them to work better, which in turn could lead to better productivity and income increase (due to no-person work days lost due to accidents/ injuries).

The 11-day (96 hours) intensive Behavior Based Training Program conducted by LabourNet Services (I) Pvt. Ltd at 15 Construction Sites across Bangalore, where approximately 1000 participants (Workers, Supervisors and Managers) were trained was a step taken in this direction. The L&D team's extensive research highlighted a few important characteristics of people, i.e their Values, Attitudes, Behavior and Knowledge(VAK). Based on the principle of VAK it was established that the responsibility of maintaining safety and following safety rules lies on each and every individual working on the job-site. Following rules is a mandate not only for a worker but also a supervisor who is overlooking the job work, therefore:

- (a) The execution of any work has to be conducted in a safe manner under supervision;
- (b) The safe conduct of the crew is mandatory under supervision; and
- (c) The safety of all workers under supervision at all times and at any cost.

It makes good sense to hold supervisors responsible for the employees placed under their charge. It builds a sense of teamwork and shared responsibility for safe productivity.

Supervisors are generally closer to the employees under their charge and better able to positively influence positive behavioural change.

The construction industry has a high employee turnover and the migratory worker population is a floating one that keeps moving back and forth between urban and rural areas. Therefore these training programs are not a one-shot solution but need to be a continuous and an on-going endeavour to ensure that every employee is educated on the safety requirements on the job and a culture of “safety above all” is perpetuated.

ANNEXURE 1

A Snapshot of the Success Stories

Case 1: LAKSHMIPATI P. is a 26 year old native of Tirupathi, Andhra Pradesh and currently works as a Senior Engineer for the Delhi Metro. He has over 6 years' experience in the construction vertical and has experience in building construction and bridge construction works. Lakshmiapati has been working in the Metro Project at its various locations, mainly Chennai and Delhi for the last 2 years. Working on the Metro site was no different from working on any of the other projects for him, until the BBS training happened last September.

The 96 Hours (11 days) on-site training program was an eye-opener in more than one ways for him. He had a complete 360 degree shift, in his attitude and behaviour after the program. According to him, though most of the Supervisors and Managers are aware of the safety requirements on job-sites, there is no emphasis on them. One of the reasons cited for this casual attitude was that most workers feel that wearing a harness or a helmet or a welding glass is an over-hyped requirement.

He feels that the BBS training gave him an in-depth awareness about his responsibility towards himself as well as each and every worker, on his site. Furthermore, the training has enabled him to effectively communicate the importance of safety to his sub-ordinates. Today, Lakshmiapati personally supervises and checks on the level of safety on each of the sites he visits. He says it's a mandate on the site for each worker who handles tools or machines that he follows the safety norms as laid down by the company. He conducts awareness sessions on safety for the new recruit and cautions them on the hazards and implications of not following safety rules. They have introduced "Safest Worker On-Site" incentive to the workers to encourage them to adhere to Safety Norms at the site.

Case 2: MANJEET SHARMA is a welder by profession and is a native of Badalgad, Haryana. He is employed with the Delhi Metro Works since 2007. Manjeet is the only earning person of a 5-member family and travels almost 12 kms everyday to his work place. He earns Rs. 361 per day and leads a very humble life.

With all these hardships, Manjeet is a happy man today. He feels a person coming from his background, lacks knowledge as well as awareness about how safety plays an important role on the work site. Before he attended the 96 hours (11 days) program, Manjeet like any other welder never used safety glasses or gloves on the work-site. The training exposed Manjeet to the hazards of unsafe practices on the work-site and how any unfortunate event or unforeseen errors, in a fraction of a second, could be a matter of life and death for a person. It also made him realize how casually he had been treating his own life! There is a good indication of behaviour change

in Manjeet, as today, he not only follows the required safety norms but also encourages trainee welders to inculcate the habit of being safe. In his own words “Unless being safe becomes a habit, people will remain unsafe!”

ANNEXURE 2

Snapshot of Curriculum

‘Work at heights’ Safety Outline for BMRC

Introduction & Ice Breaker

Statistics of work at height accidents with focus on BMRC

Consequences of fall from height - (Videos embedded)

Narration of fall from height accidents by Participants

Fall from height accidents (Videos embedded)

Hazard Identification at BMRC Study Tour with Trainer/SME

Strategy to avoid accidents Participative Session

Behaviour - Root Cause of fall from height accidents

Role Plays on Causes Leading to accident

Role Plays on Emergency (accident) Response

Technical Recap Sessions

Basics of work at height

Scaffolding

Ladders

Platforms

Elevated platforms

Fall protection

Applicable Standards

PPE

Safety Devices

Quality of Materials

What went wrong and how to avoid recurrence (Interactive Sessions with Photographs/ Videos)

Above Ground Level

Below the Ground Level

Legal Aspects

Work at height Safety Audit - Participative Session

Conclusion & Pledge