Construction OS&H for workers

Action plans & conclusions

We will start this module with some pictures to remind you of some basic safety precautions required during construction operations.

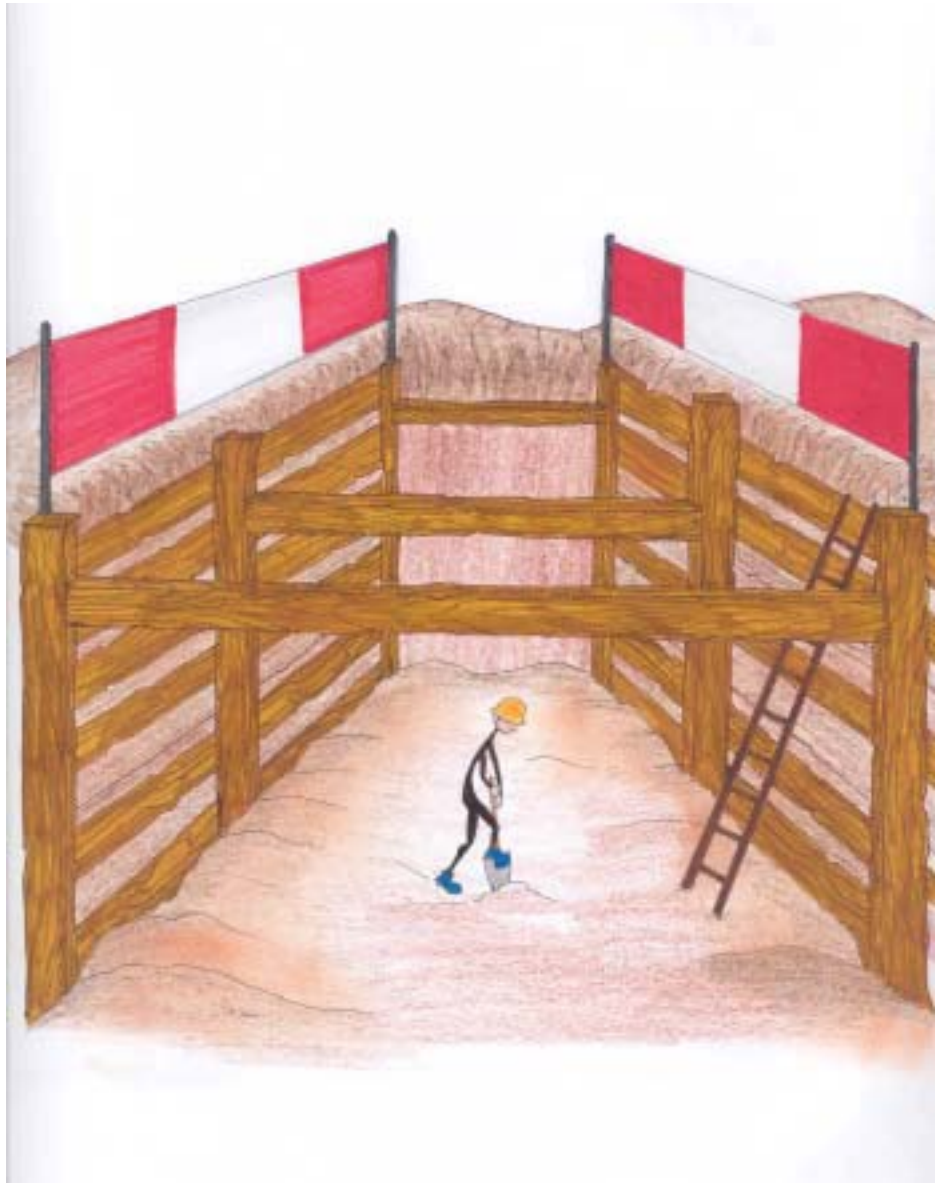
HOW TO PREVENT ACCIDENTS ON SMALL CONSTRUCTION SITES

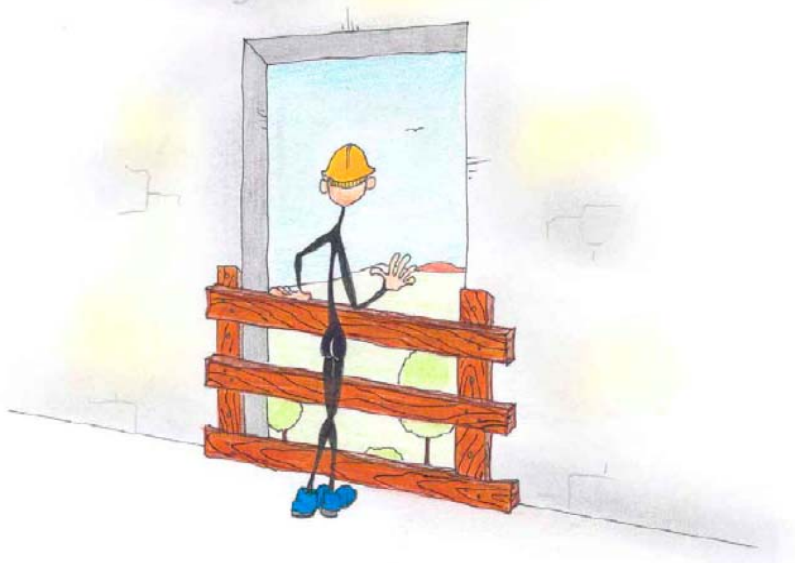
लघु निर्माण स्थल पर दुर्घटना रोकने के उपाय

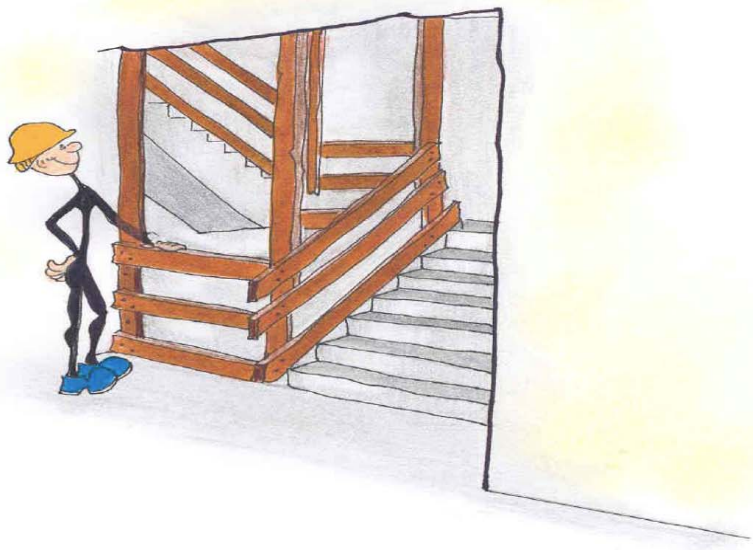
ZUIAA AJALI KATIKA UJENZI

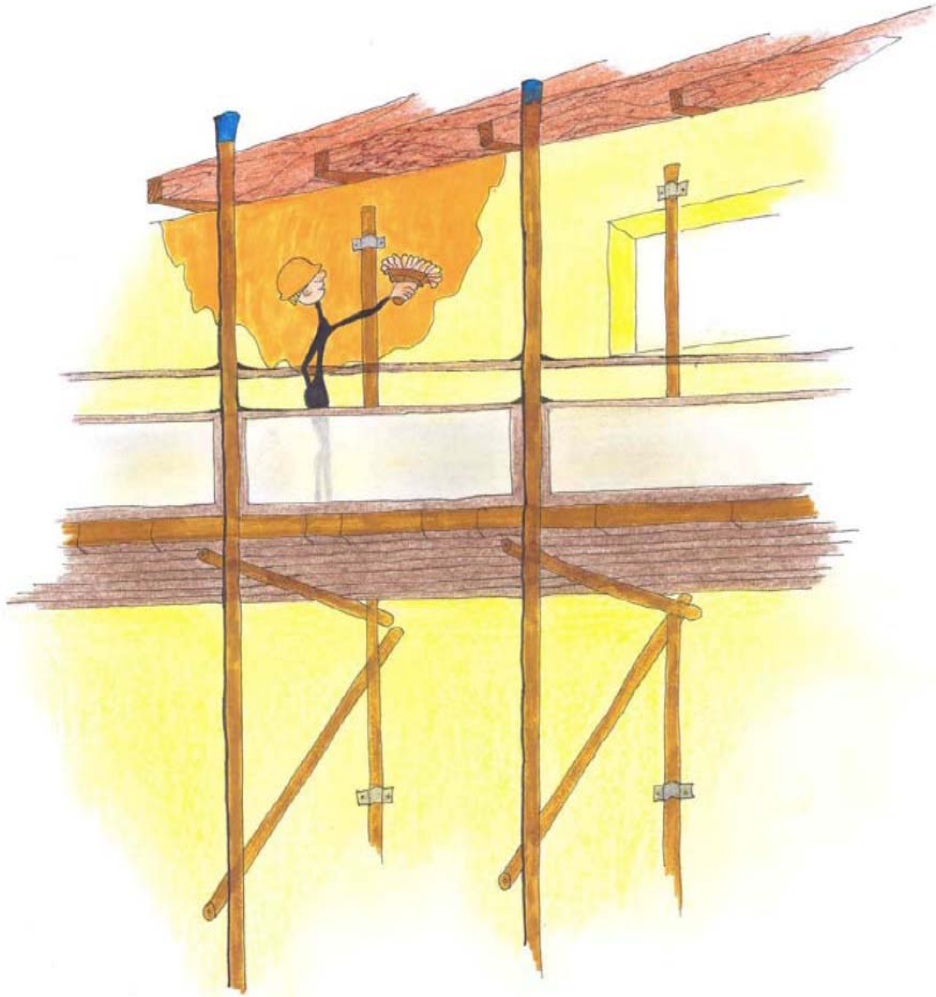
Illustrated by Rita Walle

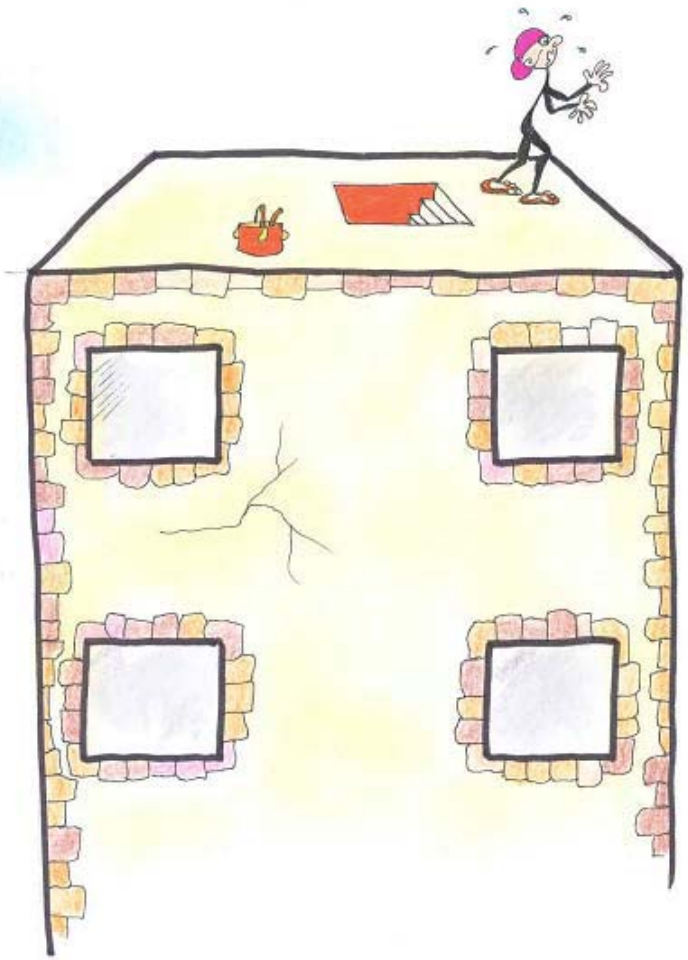
Sectoral Activities Programme
International Labour Office Geneva

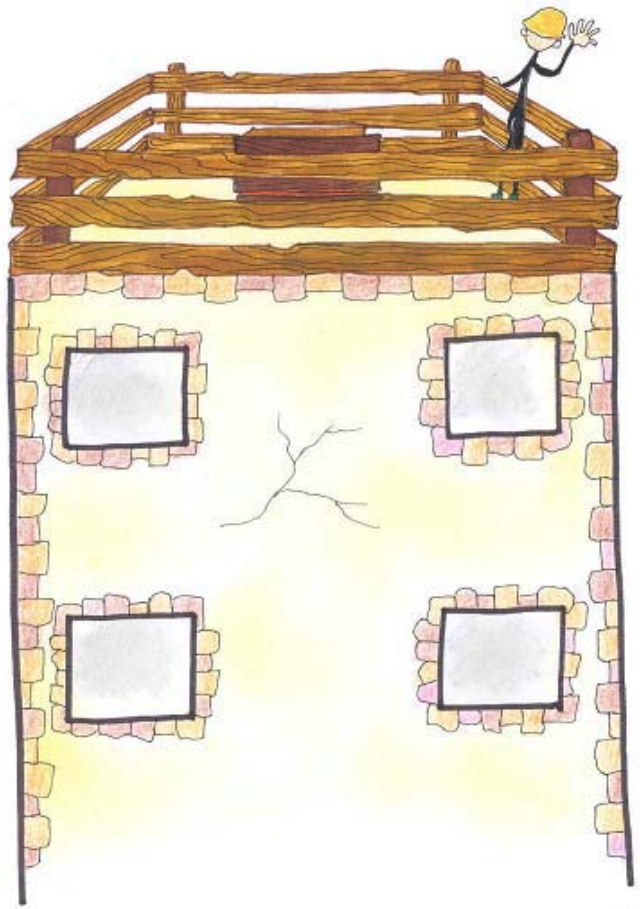


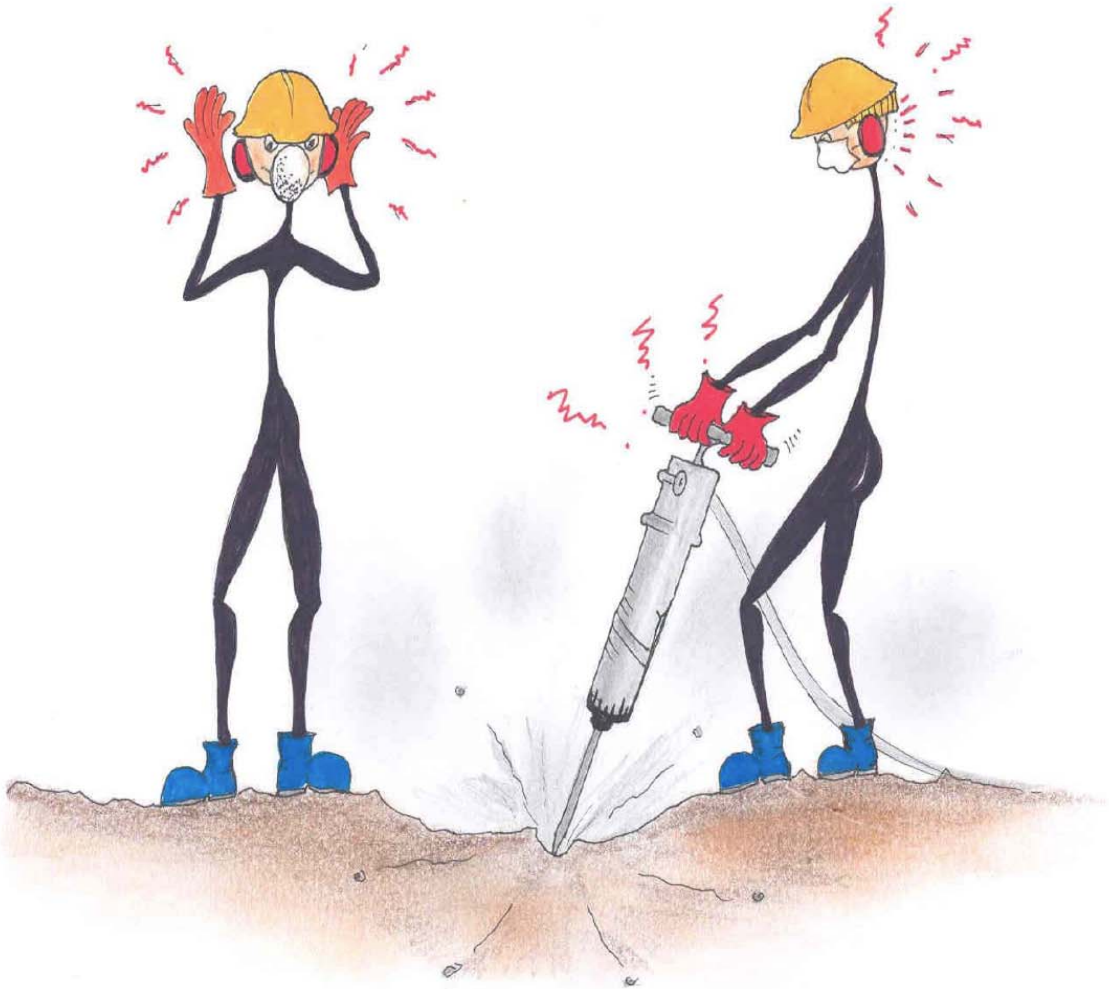












Illustrated by Rita Walle

ILO Construction OS&H would like to thank all those involved in making this illustrated guide for permission to use it in this training programme.

Your action plan

Here is an activity to help you use what you have learned

AIMS:

•Work out a plan for future activity on OS&H

•Identify the steps that we can take to involve, educate and inform workers and union members

•Think about the support we will need

Your action plan tasks

Draw up in outline:

Your own personal action plan for the next six months. Be realistic but try to achieve some real changes. Keep the plan in writing so you can refer back to it after the course.

A report back for workers and union members identifying what you have learned from the workshop; and how it will help to tackle risks at work.

A report back to your local union committee, with suggestions for future action on health and safety.

Prepare a report back to the rest of the course with your main points.

Evaluation of the modules on workers' perspectives

This activity is to find out how effective these three modules have been to you

It is an opportunity for you to help us to improve future programmes.

AIMS:

To help us to:

•Find out to what extent the aims of the programme have been achieved

•Decide how this training could be more effective.

Evaluation task

Discuss the following questions and summarise your group's view on a chart:

- Taking the three modules as a whole, did they meet your needs and interests?
- Which modules or parts of the modules were most valuable to you and why?
- Which modules or parts of the modules were of less to you and why?
- What suggestions would you want to make for future modules?
- Is there any other comment you would like to make?

Elect a spokesperson to report back.

Remember the introductory quiz?

"Thank you for taking part in this quiz.

The Course Tutor has noted your responses.

At the end of the course, you will be given this quiz again, with the same questions, and we can then discuss how your answers have changed by taking part in the course."

So, let us have a look at these questions again. Take 15 minutes to think about them, then let us discuss how you would answer them now.

End of programme quiz

1. Think about where you work now. What are the main hazards (dangers) that worry you?
2. How can the Trades Unions help to make your workplace safer and healthier?
3. What is a ‘tool box briefing’?
4. What is a site safety committee and what does it do?
5. As the Trade Union Safety Rep, you are about to inspect a simple scaffold. What would you look for?

End of programme quiz

6. As the Trade Union rep on a site, what do you do when there is a serious accident?

7. List the five most important welfare facilities required on a construction project

8. A worker is part of a crew placing concrete for a large ground floor slab. What items of personal protective equipment should the worker be wearing?

9. Explain what precautions you should take when excavating a long trench three metres deep in fairly firm, dry soil.

10. You are about to climb a long ladder. List at least five things that you would check before setting foot on it.

End of programme quiz

So, let us go through the questions one-by-one and hear some answers from each of you

Concluding case study

The case study is the collapse of the side of an excavation for a large building project, which killed eight people (seven on site and one later in hospital).

The case study shows a photo and gives extracts from the preliminary report by the Ugandan official investigation team.

The ILO is grateful to Evelyn Katusabe of the Occupational Safety and Health Department, Ministry of Gender, Labour and Social Development, Uganda, for providing this case study.

The building as planned

The collapse

Eye witness

According to one worker, at the time of the accident occurrence, workers were reinforcing the excavation with iron bars and wood.

Further, there was a compactor that was reportedly compacting soil close to the cave-in point.

He also said that there had been a spate of soil cave-in the past, including one in which part of the site offices collapsed into the excavation

Official observations at the scene (1)

The plot comprising of the site had been excavated to nearly 100%.

The excavation is about 15m deep and nearly vertical.

Most parts of the excavation base up to the height of about 7m were supported by strutting of metal and wood.

In addition, the rest of the excavation above the strutting had a plaster covering of about 2 inches (as viewed at the point of collapse).

At the western part there seemed to have been a previous cave-in, downing part of the site offices, as cleavage markings were observed from the site office structure.

Official observations at the scene (2)

Near to the accident point was an excavator with fresh marking on the ground; an indication that it was in use probably at the time of the accident occurrence. Above the accident point was a house that also caved into the site with the soil cave-in.

On site, seven (7) bodies were recovered and two injured workers were taken to hospital.

There were reports that one of the injured workers had also passed away in hospital. The identities of the dead and injured could not immediately be established.

Further, terms and conditions of employment of the workers could not be established.

Contractor compliance with the OSH Act, 2006

Pursuant to Section 40(2) of the OSH Act, the site was notified to the Commissioner for Occupational Safety and Health on 12th May 2008.

In addition, the Contractor submitted to the Department of Occupational Safety and Health a Construction Phase Safety, Health and Environment Plan for the project. This was in compliance with Section 14.

The Construction Phase Safety, Health and Environment Plan for the project was reviewed for adequacy and a response requesting the Constructor to further submit safety method statements for particular operations among others was sent as the Plan was inadequate. To date, no response has been received.

Issues that could have contributed to the accident

The presence of a house is an indication of disturbed ground and the water run-off from the house enabled water percolation in the ground which could have been compounded by the rainy season.

An excavation of such magnitude could have been undertaken progressively i.e. section by section proceeded by strutting and backfilling.

Previous cave-in at the site wasan indication of poor methods of work.

The methods of excavation protection were inadequate and did not provide protection to the ground level.

Excavator vibrations at the time of the accident could have triggered the event.

Progress of the investigation

Further investigations shall be undertaken and there is a need to work with other stakeholders to establish the circumstances of the accident and propose actions to avoid reoccurrence of such tragedies. In addition, it shall be established how the safety, health and environment plan was operationalised on site.

Conclusions by **ILO Construction OS&H** (1)

This is a clear case of inadequate support to a major excavation, and also failure to take due care not to make it even more unsafe by restricting the movement of plant and equipment at the surface near to the excavation. No realistic hazard and risk analysis or method statement would have allowed this excavation to proceed in this way.

The project was delayed for months while the parties argued about who was to blame.

The case study shows that everyone involved suffers through such incidents.

Conclusions by **ILO Construction OS&H** (2)

The **clients'** dream of an impressive building has been tarnished by such loss of life. The project will be delayed considerably while the excavation is cleared, the OSH investigation takes place and the excavation process is re-engineered to provide a safe method of working.

Conclusions by **ILO Construction OS&H** (3)

The **designers** have allowed unsafe practices, which will have damaged their reputation as competent supervisors of construction work on behalf of their clients.

The question has to be asked about the need for such a deep basement in ground of this nature and whether a different design of the building would have provided similarly useful areas and facilities which are easier and safer to build.

If the deep basement was necessary, the designers may have considered the use of such construction methods as contiguous piling, which supports the ground while constructing the wall, reducing the need for working space which reduces the excavated volume, so offseting the cost to some extent.

Conclusions by **ILO Construction OS&H** (4)

The **contractor** will suffer increased costs, delays, legal action and compensation costs, and may find it difficult to attract good workers to a site with such a reputation. In a tightly regulated procurement system, the contractor may find it more difficult to get future work.

And of course it was eight **workers** and their families who suffered the ultimate loss. Surely this is a good example of the need for worker participation in the construction OS&H process?

This case study emphasises why
the training offered by

ILO Construction OS&H

is so important to all those involved in
construction projects worldwide

Workers must be protected and supported