



NATIONAL CONSTRUCTION
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A REPORT ON TRAINING NEEDS ASSESSMENT IN SCAFFOLDING

Training Needs Analysis on Scaffolding, 2016

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1.0 Introduction

1.1 Background

A scaffold refers to a platform supported from below or above used by workers to sit or stand while conducting task(s) in great heights above the ground. It eases movement of workers, lowers their risk of injuries and preserves the integrity of a structure, while enabling workers to access high and hard-to-reach areas like ceilings or higher parts of walls with great stability, without using additional equipment.

While ladders are the common equipment used to access higher heights, scaffolding offers a wider, stable platform to work on and enables more workers to work on a site in a higher level at the same time hence enhancing efficiency. Scaffolding can be traced back to ancient times though despite technological changes in the sector it has not undergone advancement in modern times. Scaffolding materials includes: wood and metal (aluminium and iron are most popular metals used for scaffolding). A hand rail provides additional stability and support, further minimising the risk of workers falling off the platform.

In Kenya high rise buildings are becoming the norm in urban areas hence necessitating the need for scaffolders and reliable scaffolding. Informed by this, the Authority conducted a needs assessment focusing on scaffolding amongst NCA registered contractors using a questionnaire tool. The findings are to guide decision making as the Authority endeavours to streamline and build a robust construction sector.

1.2 Training Needs Assessment (TNA) Objective

The general objective of conducting TNA was to come up with informed findings to be used in developing training programme and syllabus for scaffolding.

1.3 Situation analysis

The National Construction Authority carried out mapping of technical training institutions in Kenya towards the end of the year 2015. According to the report, it was observed that most technical training institutions do not offer training in the trades that exist in the construction industry. In order to steer up the workforce in the construction industry, training taskforce committee was formulated in order to identify the trades required in the construction industry, among which was scaffolding. The taskforce committee identified 55 trades and of these, only 49% are trained by the technical institutions. This informs the assumption that skills in 51% of the trades are gained through hands-on experience. In addition, according to the Rapid Research Initiative (RRI) on skills assessment, also done by NCA in last year, only 16% of the construction workers in Kenya are qualified through formal training. It is therefore imperative to ensure that sound training network with relevant syllabus need to be devised in order to build capacity in terms of skills in the construction industry.

2.0 Methodology and data collection

To achieve the research objective, a draft questionnaire was developed and piloted to the contractors who attended the contractor training in Kajiado County. The final questionnaire was then developed and taken to selected construction sites where the necessary information was collected. The NCA contractor register was used to identify registered NCA 1 to NCA 3 contractors

within Nairobi County where face to face Interviews were made during due diligence visits to validate the information filled in the questionnaire. The collected data was then analysed which formed a basis of the TNA report.

2.1 Training Needs Analysis

TNA is a systematic approach for determining what training needs to take place. It ensures effective training programmes are correctly identified to address the training needs; determines what and who needs to be trained; and clarifies training needs. TNA on scaffolding endeavoured to answer the following questions;

- Which legal regulations do construction companies follow when installing scaffolding?
- Which training types does one require to become a scaffolder?
- What duration of training and working experience do various companies consider for one to become a scaffolder?
- Where are the scaffolders trained?
- What percentage of practical and theory content is required of a scaffolder during training?
- What are the contents and subjects of scaffold training curriculum?
- How is the training of scaffolders financed?
- What minimum qualification is required for a new scaffolder to work in a construction company?
- Which body is responsible for the issue of the scaffold training certificates?
- What type of scaffoldings do construction companies use during construction?
- Where do the construction companies get their scaffolds during construction?
- What measures have different construction company employed to ensure safety of scaffolders?
- Are there specialized contractors scaffold works as part of your project?
- Which type of payments do the construction companies have for their scaffolders?
- Which is the dominant gender and age cohort for scaffolders who are employed in construction sites?

Item	Responses and their percentages		
	Company rules and regulations	labor protection laws	Non
Which legal regulations do construction companies follow when installing scaffolding?	65%	29%	6%
Which training types does one require to become a scaffolder?	Appreciated	craftman	Site training
	10%	80%	8%
What duration of training do various companies consider for one to become a scaffolder? \$	<1 year	1- 2 years	>2 years
	62%	25%	13%
What duration of practical work experience does one require in order to be employed as a scaffolder?	<6 months	6 months - 1 yea	>1 year
	43%	51%	6%
Where are the scaffolders trained?	construction site	vocational center	Housing Finance Group
	76%	14%	10%
What are the contents and subjects of scaffold training curriculum?	Most training institution do not train in scaffolding		
How is the training of scaffolders financed?	By Company	By Name	
	36%	64%	
What minimum qualification is required for a new scaffolder to work in a a construction company?	Internal Certificate	Vocational Training	
	93%	7%	
Which body is responsible for the issue of the scaffold training certificates?	DOSH	None(Internal Training)	
	6%	94%	
What type of scaffoldings do construction companies use during construction?	Imported steel	Local steel	Local timber
	15%	31%	54%
Where do the construction companies get their scaffolds during construction?	Locally sourced	Imported	
	85%	15%	
What measures have different construction company employed to ensure safety of scaffolders?	Frequent inspection of scaffolds	Careful material selection	Following of set precautions in erection
	63%	7%	30%
Do you engage specialized contractors on scaffold works as part of your project?	Yes	No	
	2%	98%	

Which type of payments do the construction companies have for their scaffolders?	Per day	Per Month	Upon work completion
	81%	11%	8%
Which is the dominant gender and age cohort for scaffolders who are employed in construction sites?	Male	Female	
	97%	3%	
	Dominant age cohort = Between 25 – 35 years		
What percentage of practical and theory content is required of a scaffolder during training?	<50	50 -80	>80
Practical	15%	18%	57%
Theory	75%	22%	3%

3.0 Conclusions

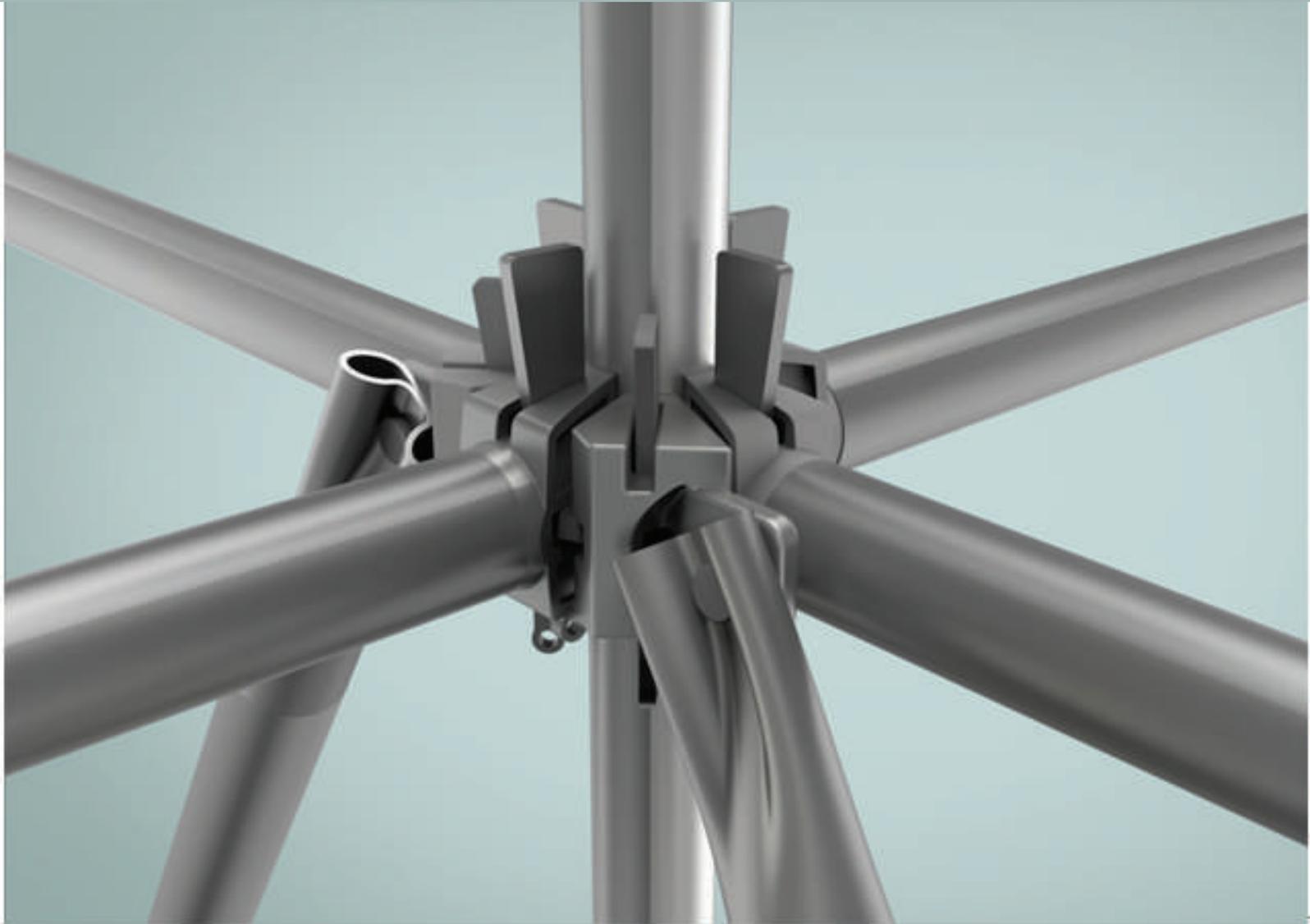
The following conclusions can be drawn from the above tabulated data;

- 1) There is no formal training for scaffolding and most scaffolders gain experience on construction sites.
- 2) Most construction companies use locally available wood scaffolds in their construction works.
- 3) Majority of construction workers involved in scaffoldings are males, whose age group lie between 25 – 35 years.
- 4) Most construction companies have internal trainings in scaffoldings where trainees pay for themselves the training expenses.
- 5) Most scaffolders who work on construction sites are paid per day for every work done.
- 6) Most construction companies use their own scaffolds during construction and less often do they engage specialized contractors in scaffoldings in executing their works.
- 7) Most the construction workers double as masons and scaffolders in their respective construction sites.

4.0 Recommendations

From the above conclusions, it can be recommended that;

- 1) There is a need to develop a curriculum for scaffoldings in order for the course to be offered in technical training institutions.
- 2) There should be a clear cut difference between a mason and a scaffolder, which leads to introduction of specialized training in scaffolding.
- 3) There is a need for construction companies to put more emphasis on safety of scaffolders. It was discovered that some contractors who construct high storeyed buildings use wood scaffolds which are comparatively weak as compared to steel or aluminium scaffolds.
- 4) There is a need to emphasize more on practical content of in scaffoldings. About 60% of the construction companies consider 80% practicals and 20% theory contents in their trainings.



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