

- However, if Company A is not assessed, and its subsidiaries achieved the score of 80%, 70%, and 50%. Then the overall score of the company A would be calculated as follows:  
 $(80\%+70\%+50\%)/3 = 66.67\%$
- If Company X operates three construction sites and obtains performance scores of 70%, 80%, and 75% respectively, the average score would be calculated as follows:  
 $(70\% + 80\% + 75\%) / 3 = 225\% / 3 = 75\%$

## ***2. Regional Level Ranking:***

This tier of assessment focused on evaluating individual companies, irrespective of their organizational structure as subsidiaries or independent entities or construction sites. In essence, it treated each company as a separate entity and rated based on its own performance. In order to determine the OHS standards of the organisation, following grading shall be given based on the percentage of their scores:

- Excellent: 80 to 100%
- Good: 70 to 79%
- Poor: below 69%

## ***3. Sector-wise Ranking (Construction & Non-construction)***

Companies were ranked separately within their respective sectors (construction and non-construction). The evaluation process ensured fairness by considering both construction and non-construction sectors equally. It utilised tailored criteria, equal weighting, and separate rankings for each sector to maintain accuracy and transparency. This approach promoted a balanced assessment of companies across diverse industries, fostering fairness and inclusivity in the evaluation outcomes.

## **Data collection and analysis**

The Occupational Health and Safety (OHS) assessment process involved officials from the respective regions where the assessments took place. These officials were responsible for conducting the assessments on-site, ensuring that all relevant data were collected and recorded accurately. Subsequently, the collected data from each region was compiled and analyzed at the Head Office.

## FINDINGS

### Enterprise Profile

The OHS assessments were conducted in 94 enterprises and the detailed profiles of each enterprise are provided in Table 1.

*Table 1: Number of Enterprises by Region*

Region	Enterprise	
	N	%
Gelephu	8	8.51%
Mongar	3	3.19%
Phuentsholing	43	45.74%
Samdrup Jongkhar	7	7.45%
Thimphu	30	31.91%
Trongsa	3	3.19%
<b>Total</b>	<b>94</b>	<b>100.00%</b>

The data provides a breakdown of enterprises across different regions, with Phuentsholing having the highest number of enterprises at 43, representing 45.74% of the total. Thimphu follows with 30 enterprises, comprising 31.91% of the total. Each region contributes to the total in varying proportions, highlighting the distribution of enterprises across different parts of the area under consideration.

The data shows how enterprises are spread across different Dzongkhags. Chhukha has the most workplaces, with 34, making up over 36% of the total. Thimphu comes next with 22.34% of the total. Other areas like Samtse, Wangdue Phodrang, Pema Gatshel, and Sarpang also have quite a few workplaces.

*Table 2: Number of Enterprises by Dzongkhag*

Dzongkhag	Enterprise	
	N	%
Chhukha	34	36.17%
Dagana	2	2.13%
Haa	1	1.06%
Lhuentse	1	1.06%
Mongar	2	2.13%
Paro	1	1.06%
Pema Gatshel	5	5.32%
Samdrup Jongkhar	2	2.13%
Samtse	9	9.57%
Sarpang	6	6.38%
Thimphu	21	22.34%
Trongsa	2	2.13%
Wangdue Phodrang	7	7.45%
Zhemgang	1	1.06%
<b>Total</b>	<b>94</b>	<b>100%</b>

Table 3: Number of workplaces by Major Sector

Major Sector	Enterprises	
	N	%
Construction (including Hydropower construction)	16	17.02%
Electricity and Water Supply	3	3.19%
Hotels and Restaurants	3	3.19%
Manufacturing	56	59.57%
Mining and Quarrying	5	5.32%
Public Administration	2	2.13%
Services (include Automobile Workshops)	4	4.26%
Transport, Storage and Communications	4	4.26%
Wholesale and Retail Trade	1	1.06%
<b>Total</b>	<b>94</b>	<b>100.00%</b>

The data provides an insight into the distribution of enterprises across various major sectors. Manufacturing emerges as the predominant sector, with 59.57% of the total. Following manufacturing, the construction sector, which includes hydropower construction accounting for 17.02% of the total. Public Administration and Wholesale and Retail Trade sectors have the lowest representation.

## Responses

The responses provided pertain to workplace safety measures in non-construction and construction settings, encompassing a wide range of protocols and practices essential for maintaining a safe and healthy work environment. The responses are categorised into three levels: low implementation (includes responses of *Not Implemented* and *Partially Implemented*), implementation with only minor deficiencies, and full implementation.

### 1. For Construction

In instances of **low implementation**, critical safety protocols are notably lacking or inadequately developed. For example, the absence of Confined Space Standard Operating Procedures (SOPs) poses significant risks, while the lack of Safety Celebrations and Accident Investigation Training hinders efforts to reinforce safety awareness and identify potential hazards. Additionally, insufficient Basic Occupational Health and Safety (OHS) Training and inadequate Worker Feedback Systems underscore gaps in employee preparedness and engagement in safety initiatives.

Conversely, areas identified with **only minor deficiencies** indicate a relatively higher level of adherence to safety protocols, albeit with room for improvement. These include aspects such as General Housekeeping and Manual Material Handling, where minor issues in cleanliness and handling techniques exist but do not pose immediate safety risks. Similarly, the provision of Working Platforms and Machine Guards with minor safety gaps highlights the need for ongoing

monitoring and adjustments to ensure optimal safety standards.

Finally, responses indicating **full implementation** signify robust adherence to safety practices and regulations. Comprehensive safety measures are in place, including the provision of Personal Protective Equipment (PPE) for Working at Height and adherence to strict protocols for Electrical Work and Confined Space Safety. Additionally, measures such as Regular Ladder Inspections and Proper Ventilation in Chemical Usage Areas demonstrate a commitment to maintaining a safe and healthy work environment.

## 2. *Non-construction*

In cases where safety measures are **poorly implemented**, there are significant shortcomings. This includes not having adequate safety measures for excavations, which increases the risk of accidents and collapses. Moreover, the absence of structured feedback systems and incomplete documentation for handling chemicals shows gaps in managing safety and meeting standards. Also, the lack of organised safety events indicates a need for proactive steps to promote a culture of safety in the organisation.

On the other hand, areas with **minor deficiencies** show a relatively higher level of adherence to safety rules, though there is still room for improvement. These include small issues like inconsistencies in labelling chemicals, communication methods, and checking ladders. Even though these areas generally follow safety guidelines, there are minor mistakes that need to be addressed to ensure the best safety practices.

Lastly, **full implementation** includes thorough training for staff, making sure personal protective equipment (PPE) is used correctly, and having regular meetings to discuss safety. Additionally, there are protocols in place for dealing with drugs and alcohol, proper documentation of explosives use, and meeting safety standards for equipment, all showing a commitment to maintaining a safe and healthy work environment.

## **Chemical Safety**

In any workplace, particularly in construction where workers face frequent exposure to hazardous substances, chemical safety is paramount. To address this concern, the Department of Labour, with support from the JICA Office in Thimphu and JISHA, arranged a one-day Chemical Safety Seminar/ Training on March 3, 2023 through an online platform, featuring two key sessions: "Management of chemical substances in safety and health measures" and "Essential legal framework on chemical substances safety control." Drawing upon the groundwork established by JICA's previous online training on chemical safety, there was a notable emphasis on translating acquired knowledge into practical implementation.