Comparative Analysis of WHS Regulatory: Insights from Australia and United Kingdom

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Abstract
This report examines agricultural incidents in Australia and the United Kingdom, utilizing data from Safe Work Australia for Australia and the Health and Safety Executive (HSE) for the UK. Agricultural safety is a critical focus due to the sector's high-risk nature and its importance to national economies and food security.

In Australia, the agriculture, forestry, and fishing industry is the most dangerous sector, with a fatality rate of 9.2 per 100,000 workers in 2023. While this represents a 25% reduction compared to the five-year average of 36 fatalities, the sector remains disproportionately hazardous (Safe Work Australia, 2024). Similarly, in the UK, 27 people were killed in farming and agriculture-related activities during 2022/23. Being injured by animals, particularly cattle, accounted for most deaths. The UK's agricultural industry has recorded a fatal injury rate 21 times higher than the all-industry average over the past five years, underscoring its severe safety challenges (HSE, 2023).

This report highlights key trends, similarities, and differences between the two regions and explores limitations in incident reporting. Recommendations aim to enhance safety measures, mitigate risks, and address gaps to promote a safer and more sustainable agricultural industry.

How it was completed
Data on agricultural incidents in Australia was put together by reviewing the websites of various state regulators, accessible through the Safe Work Australia website. Some state regulators provide publicly available information through incident releases while others state data can be found through safety alerts. Filtering for agricultural incidents allowed for more industry specific incidents. The same thing was taken for the UK, where all incident data is made available on the Health and Safety Executive (HSE) website. The data collected from these websites was collated into a single table, which describes the following details: source, URL, content, date of incident, location of incident, resulting injuries, injury details, plant/machinery/agency involved, cause of the incident, and recommended control measures. (See excel file ‘Research Raw Data.xlsx’ for the actual data)

Similarities
Both Australia and the UK show a declining trend in agricultural incidents, depicting the effectiveness of existing safety policies and procedures in both countries. This trend highlights the positive impact of implemented safety measures, which have contributed to reducing the number of incidents over time. In both courties, tractors and ATVs (quad bikes) were the most common machinery involved in agricultural accidents, highlighting the need to improve policy and knowledge about these machineries. Most of the data

found showed a lot of the information released about incidents usually resulted in fatality. This also highlights the significance of continuing with safety improvements to help reduce the severity of these incidents. Areas with higher agricultural activity, such as New South Wales (NSW), Queensland (QLD), South West UK, and Wales, hence experience more incidents due to the concentration of farming operations in these regions.(See ‘PowerBI_Internship_Final.pbix’ for interactive graph depicting this)

Differences

Despite these similarities, there are some differences between the two countries. The UK reported a higher number of incidents involving animals, such as bulls, cattle, and cows, compared to incidents in Australia. This suggests that different agricultural practices and farming environments may contribute to varying types of incidents. The data collected from Australia was more detailed, providing greater context surrounding the incidents, which improved the analysis.(See ‘PowerBI_Internship_Final.pbix’ for interactive graph depicting this)

Limitations

Both dataset have limitations which affect the depth of analysis that can be performed.The UK dataset only had 3 years worth of data available, and it didn’t detail the incident’s month. Whereas Australian data did, this made it harder to compare the 2 different datasets over the years effectively. One more limitation with the UK data was that no control measure was provided for incidents. With the Australian dataset the larger states like NSW reported more incidents compared to smaller states like Tasmania had limited reporting this could few the data. The different states had different standards of detail they released about the incident which made it hard to use all the data, making the graphs less detailed. ()

Recommendations

To address the limitations of current datasets, it is crucial to explore multiple online sources and gather data from a range of local authorities. This would help with consistency and improve the reliability of the information. When collecting data, it's also crucial to ensure that the information is comparable across different states and regions to make meaningful comparisons. Additionally, to provide a clearer and more accurate picture, look at population size and find the rates of incidents per 100k. This would make the data less skewed and identify more precisely where incidents happen the most. This also allows for more targeted support from the government. Finally to continue this project further, analysing more detail about what are the factors that affect these incidents would provide with better insights on how to reduce the level of agricultural Incidents.

References

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