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DEVELOPMENT OF TRANSPORTATION CARBON EMISSION METRICS DURING CONSTRUCTION PROCESS STAGE

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INTRODUCTION

Transportation is an inevitable process during the execution of construction projects. Thus, it is vital to understand the aspects involved and how carbon emissions are measured within the various transportation categories to ensure its input to the overall carbon emission of new construction is known. This study therefore aims to capture all the metrics utilised in measuring carbon during the transportation process of a construction project.

METHODOLOGY

A systematic literature review approach was adopted and 40 papers were found to be useful after utilizing exclusion criteria such as removing subject areas not related to construction and papers not in English Language.

FINDINGS

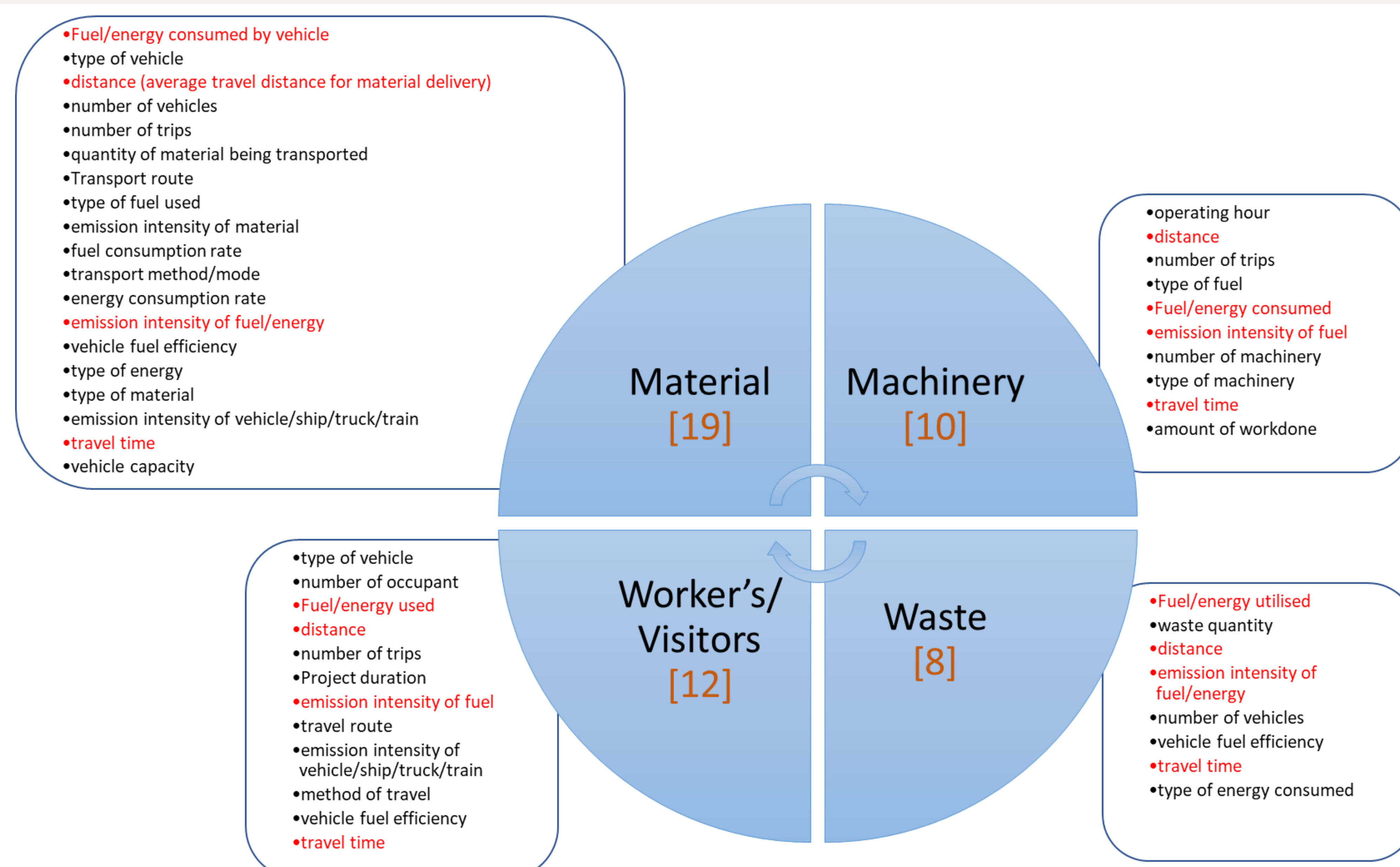


Figure 1: Transportation Categories and their Carbon Metrics during Construction Phase

DISCUSSION

The findings suggests that measurement of carbon emission related to the transportation of material can be done in several ways to ensure no possible carbon source is overlooked.

CONCLUSION AND FUTURE RESEARCH

Although, further research is to be conducted to establish the most efficient carbon metrics associated with each transportation category. This will enable the selection of the most appropriate metrics in determining each group's contribution to the overall emission from the transportation process during the construction phase of a construction project. Once this is done, efforts can then be made to prioritise the minimisation of the most impactful category carbon footprint.

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