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**STUDY ON THE TRANSPORT OF FRESH FRUITS BY ROAD: THE CASE OF  
FRESH MANGOES FOR EXPORT IN THE PROVINCE OF ZAMBALES**

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**Abstract:**

The physical distribution of agricultural commodities in the Philippines is characterized by multiple handling due to the disparity of the distance between the supply areas and the demand centers. This often results in bringing up the cost of transportation, thereby decreasing net economic returns on the part of the farmer-producers or traders. In addition, the decrease in profits from mango export can also be traced in the substantial volume of commodities being rejected because of the damages incurred during handling and transit. The objective of this paper is to examine the factors that contribute to the damages of mangoes transported via the road network. The study covered four municipalities in the province of Zambales, which are known for growing quality mangoes intended for export. A mathematical model was developed to relate some transportation parameters to the amount of damages incurred. The resulting model showed that the high level of physical damages incurred was due to the combined effects of (a) the use of vehicles with greater shocks and vibrations; (b) rough roads that cause bumps and accelerate physiological deterioration of the fruits; (c) the type of packaging material; and (d) the manner of handling the goods. Cost-effectiveness analysis revealed that the use of high tonnage/heavy vehicles are more appropriate in transporting fresh mangoes for export instead of smaller vehicles with less than two ton capacity. Results of this study serve as valuable inputs on the various aspects of planning particularly on the development of an efficient inter-modal goods movement system that will improve the agriculture sector competitive position in the international market.