



Recruitment Information Sheet

Silviculture and Harvesting Machine Cost Rates: An Analysis for South African Forestry Plantations

Researcher:

Nomalungelo F. Magagula, MSc Candidate

Nelson Mandela University

Email: s224172484@mandela.ac.za

Phone: 066 3695 688

Supervisors:

Dr. Muedanyi Ramantswana

Nelson Mandela University

Email: muedanyi.ramantswana@mandela.ac.za

Prof. Chad Bolding

University of Georgia

Email: bolding@uga.edu

Introduction

You are being invited to participate in a research study that evaluates silviculture and harvesting machine cost rates in South African forest plantations. This study forms part of the Master of Science in Forestry qualification under the science faculty at Nelson Mandela University. This work will be supervised by Dr Muedanyi Ramantswana and Prof Chad Bolding. Your participation in the study is voluntary;

should you, at any stage, wish to withdraw, you are welcome to do so without any consequences.

Purpose of the study

The primary objective of the study is to evaluate the cost framework for both silviculture and harvesting operations within South African forest plantations. Specifically, this work aims to:

1. Provide perspectives on key cost components and drivers in silviculture and harvesting operations.
2. Determine current cost estimates and provide machine rate input values based on contemporary data for selected silviculture and harvesting equipment.

Overall, this research study seeks to develop reliable and localised machine cost rate assumptions for accurate cost estimation to support operational planning, decision making, and budgeting.

Why have you been approached

You have been chosen as a potential participant due to your knowledge and experience within the forestry sector, particularly as a machine dealer, silviculture contractor, harvesting contractor, specialist, consultant, or forestry manager. Your expertise and knowledge of operational and machine costs make you an ideal candidate, well-positioned to provide valuable insights into the study.

Participation involves

Participation in the study will involve:

Objective 1: If you agree to participate, a semi-structured interview will be conducted, focusing on key cost components and drivers in silviculture and harvesting operations.

Objective 2: Completing a silviculture and/or harvesting questionnaire focused on machine cost rate assumptions for various forest equipment that are used in both silviculture and harvesting operations within your entity.

The interview sessions will take approximately 45 minutes, while filling in the questionnaire will take approximately 50-60 minutes (the time requirements will depend on the number of machines you enlist). The interviews will be recorded with your consent for data verification, and responses will be anonymised in the final report.

Potential benefits

There are no direct costs and offers no direct benefits. Your participation will help determine reliable, accurate cost assumptions for both silviculture and harvesting operations. That will, in turn, assist to develop industry wide benchmarks, support forestry managers and contractors in improving cost analysis, operational planning, budgeting, and decision-making.

Potential risks

There are no significant risks associated with participating in this research. Please note that should there be any questions you are not comfortable answering, you are welcome not to.

Confidentiality

All information provided will be treated as confidential information. The data collected will be anonymised, no personal data is required, and only the research team will have access to the raw data. The data collected will be solely used for academic purposes related to the study, and upon completion of the study, only aggregated findings will be reported and shared in publications or presentations.

Ethical considerations

This study has been submitted for approval by the Nelson Mandela University Research Ethics Committee (Human) (REC-H). Data will be collected in accordance with the standards set by the ethics committee.

Complaints and concerns

If you have any questions or concerns regarding the study, you can contact the researcher or the university's Research Ethics Committee. If necessary, you may also contact the National Health Research Ethics Council (NHREC).

Researcher Contact details:

Nomalungelo F. Magagula

Email: s224172484@mandela.ac.za

Phone: 066 3695 688

REC-H Contact details:

Research Ethics Committee (Human)

Nelson Mandela University

Email: rd@mandela.ac.za

NHREC Contact details:

National Health Research Ethics Council

Email: nhrec@nhrec.org.za

Phone: +27 (0)12 395 8000

Next Steps

If you are willing to participate in the study, please respond to this recruitment sheet to confirm your interest. Upon receiving your confirmation, a consent form will be sent to you for review and signature.

Thank you for considering this invitation. Your participation is valued and will help improve cost estimation and efficiency of forest operations in South Africa

Kind regards

Nomalungelo F. Magagula

MSc in Forestry Candidate

Forest Engineering

School of Natural Resource Management

Department of Forestry

Nelson Mandela University, George Campus