

## I 17. Analyzing uses of resources in agriculture engineering practical training at Meru National Polytechnic

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### Abstract

This research investigated the adequate utilization of resources in practical training for agricultural engineering programs at Meru National Polytechnic, focusing on workshops, laboratories, tools, equipment, and machinery. The study employed an explanatory research design, combining quantitative surveys and qualitative interviews to gather data from students. The study objectives were: to examine the status of existing workshops viability for practical training in agricultural engineering; to assess the availability of tools, equipment and machinery for practical training in agricultural engineering; to analyze the utilization and quality of laboratories used in practical training of agriculture engineering. Stratified random sampling was used to obtain a sample size of 181 students. Questionnaire was used to collect quantitative data from the trainees. The findings revealed the challenges faced and opportunities for improvement in resource utilization within the institution in enhancing learners work competencies. Key findings included the predominance of scheduled monthly workshop utilization, concerns regarding accessibility to tools and equipment, and underutilization of laboratories from giving practice classes to trainees. Recommendations were provided to address these challenges, including investment in workshop upgrades, promotion of laboratory use, and establishment of industry partnerships. Overall, the study highlights the importance of optimizing resource utilization to enhance the quality of practical training and better prepare students for the agricultural engineering sector. More studies should be carried out on alignment of practical skills gained with industry expectation.

**Keywords:** *enhancing, practical training, agricultural engineering, resources, trainees, competencies.*