

ABSTRACT

Dam construction is not an easy task and can lead to disastrous effects if not taken seriously. Cost of dam construction is also of importance since it is very expensive and care should be taken in every step to ensure no loss is incurred.

This brings the need for reducing cost hence can be done so by use of locally Available materials .The most common of the materials being soil found almost Everywhere in our county. With there being different types of soils around, for safety, Suitability of the material for use becomes apriority.

The main aim of a dam being holding water, material used should be up to task. Permeability of water through the material is therefore our main concern hence seepage. Stability of the material is also looked into. With this, RED COFFEE SOIL from Kiambu County is chosen as the material for an earth dam embankment. Red coffee because of its availability.

This research contains an introduction, literature review about the soil, sampling of Material and various laboratory tests done. Finally, conclusions and Recommendations are then made in comparison with the published Kenyan standards.