

Based on the finite element analyses results of the models, it can be explained that the roots play a role to unify the soil mass that holds each other to prevent abrasion. This unified soil mass then goes to the lower soil layer and provides increase the resistance against the pull up force. This phenomena are shown by comparing the numerical results for the third models to the others. Furthermore, it also increases the overall beach resistance against the abrasion. While in the absence of vegetations the beach is very vulnerable to seawater abrasion.

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