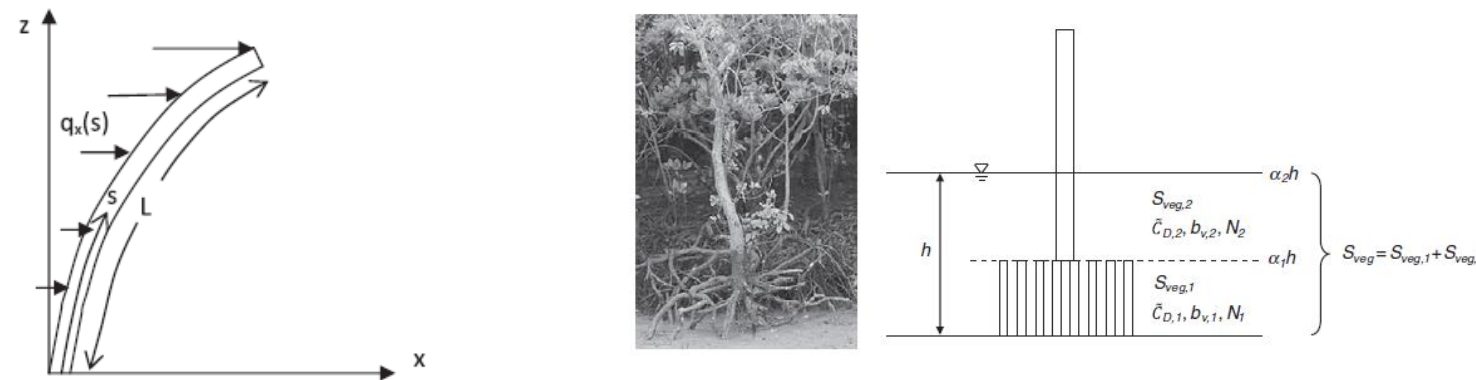


# Implementation of flexible vegetation effect in SWAN

## M.Sc. Graduation project

Aquatic vegetation such as mangrove, salt marshes and sea grasses provide valuable ecosystem services including their protective functions against storm events in coastal regions. They play a role as a buffer against erosive waves and promote sediment deposition by reducing the velocity of the water in the vegetation. Coastal managements using vegetation can be a key for the sustainable and cost-effective coastal protection, and thus vegetation research is now of a great interest and there are many researches have been done e.g. Hydralab IV and are ongoing e.g. BE SAFE project from STW international wide.

In this Msc project, the effect of the flexibility of the vegetation is implemented into SWAN model and investigate the validity of the new model comparing with physical model data from literature.



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