

Analysis of the problem

The following is known or feasible:

- ✓ Methods of measuring, instruments
- ✓ mathematical, physical model and context
- ✓ wind load analysis, with the only limitation that so far the aerodynamic wind drag factor (c_d) is unknown and has to be assessed.

The following parameters are unknown and research is required

- material properties of fresh palm wood fibres (compression strength, modulus of elasticity)
- c_d factor
- dynamic response of palm trees to wind gusts
- understanding the process of tipping for palm trees and determining its regularity.