

VETIVER AT DELFT UNIVERSITY



GERRIT JAN SCHIERECK
Water Resources University
Coastal Engineering

BOTANICAL GARDEN DELFT UNIVERSITY



DELFT UNIVERSITY MSc Theses

2005 Irene Maaskant: Application of Vetiver and Cyperus rotundus on dikes

2006 Jaspers Focks: Vetiver grass as bank protection

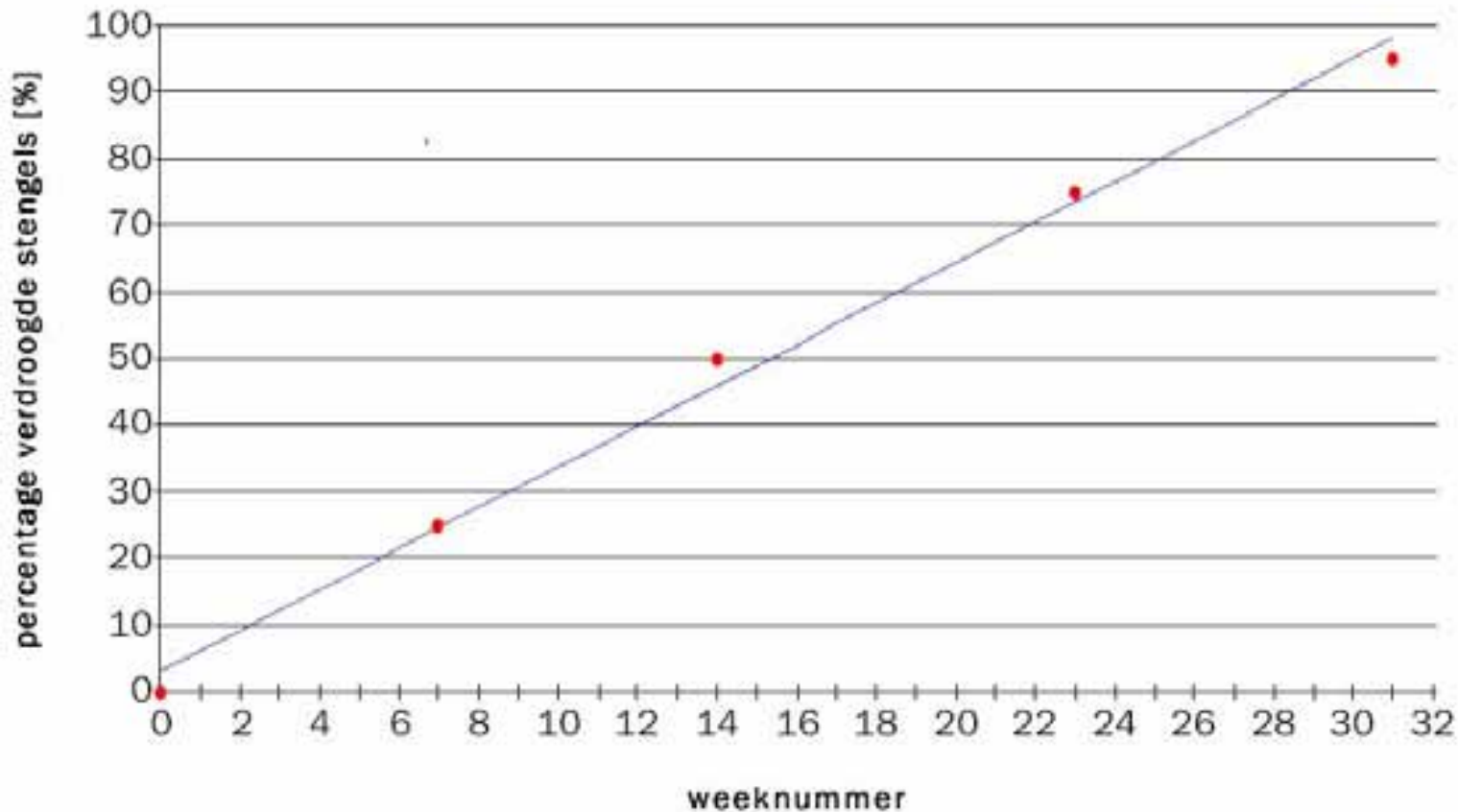
2006 Auke Algera: Run-up reduction through Vetiver grass

2007 Vu Minh Anh: Reduction of wave overtopping by Vetiver grass



Maaskant Application of Vetiver

Dying of Vetiver



Maaskant Application of Vetiver

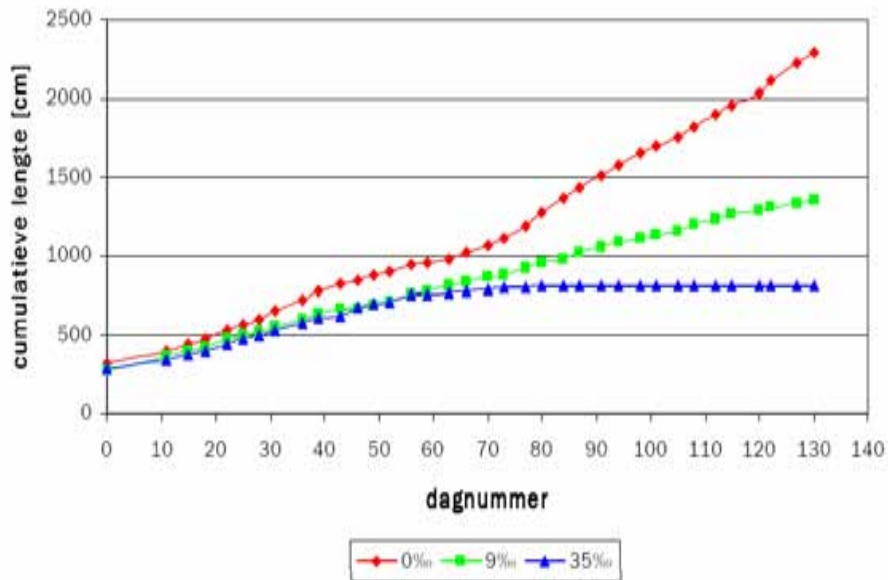
Influence waterlevel on roots



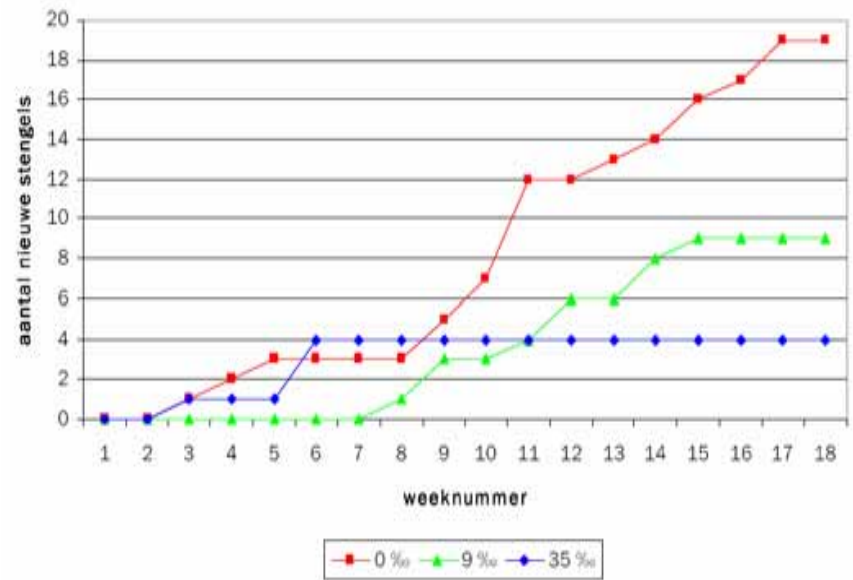
Waterlevel: high average low

Maaskant Application of Vetiver

Influence Salinity



Length of plant



Nr of new stems

Jaspers Focks Bank protection

Influence Groundwater-level on growth

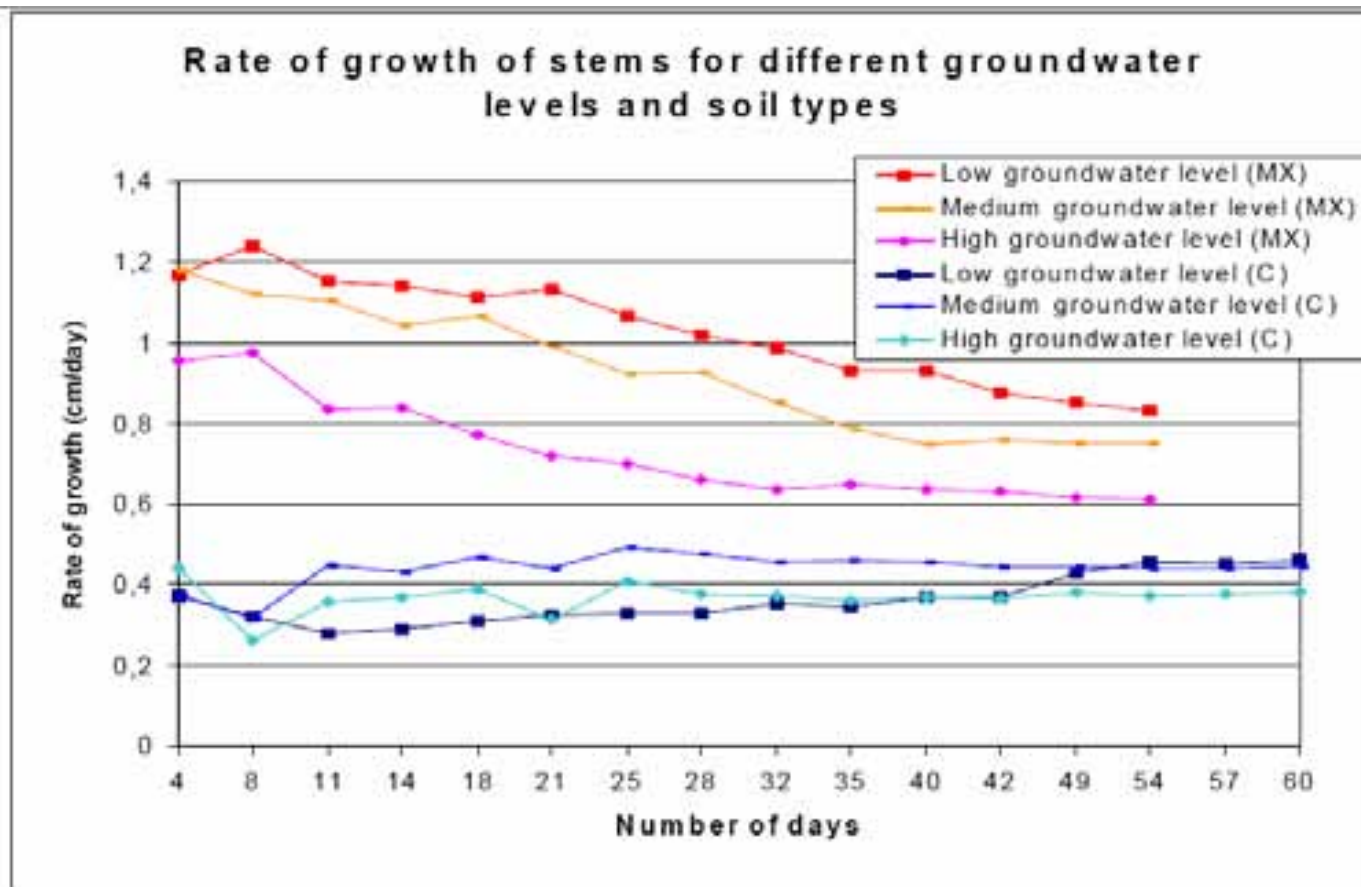


Figure 2: Experimental Results

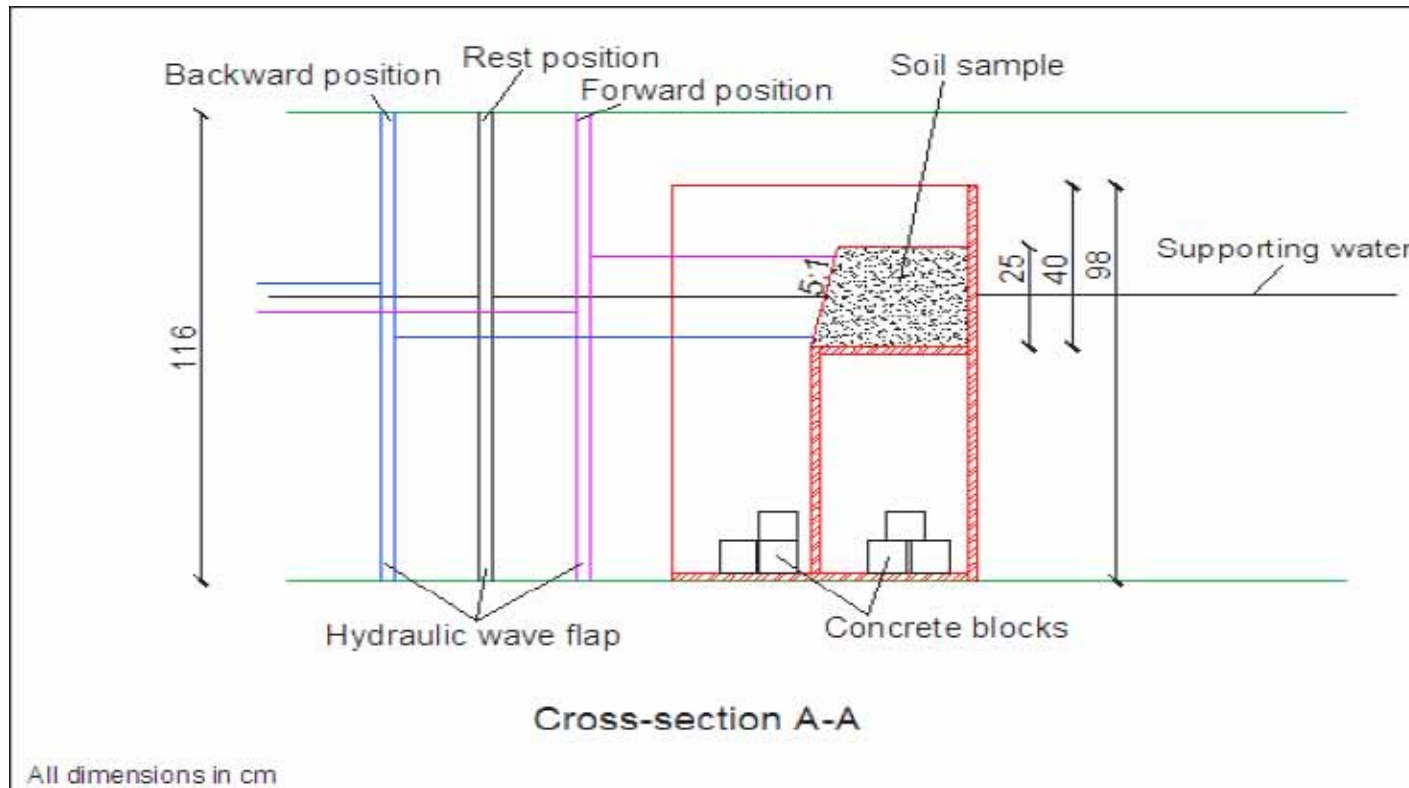
Jaspers Focks Bank protection



Bank erosion
Mekong
due to
Ship loads

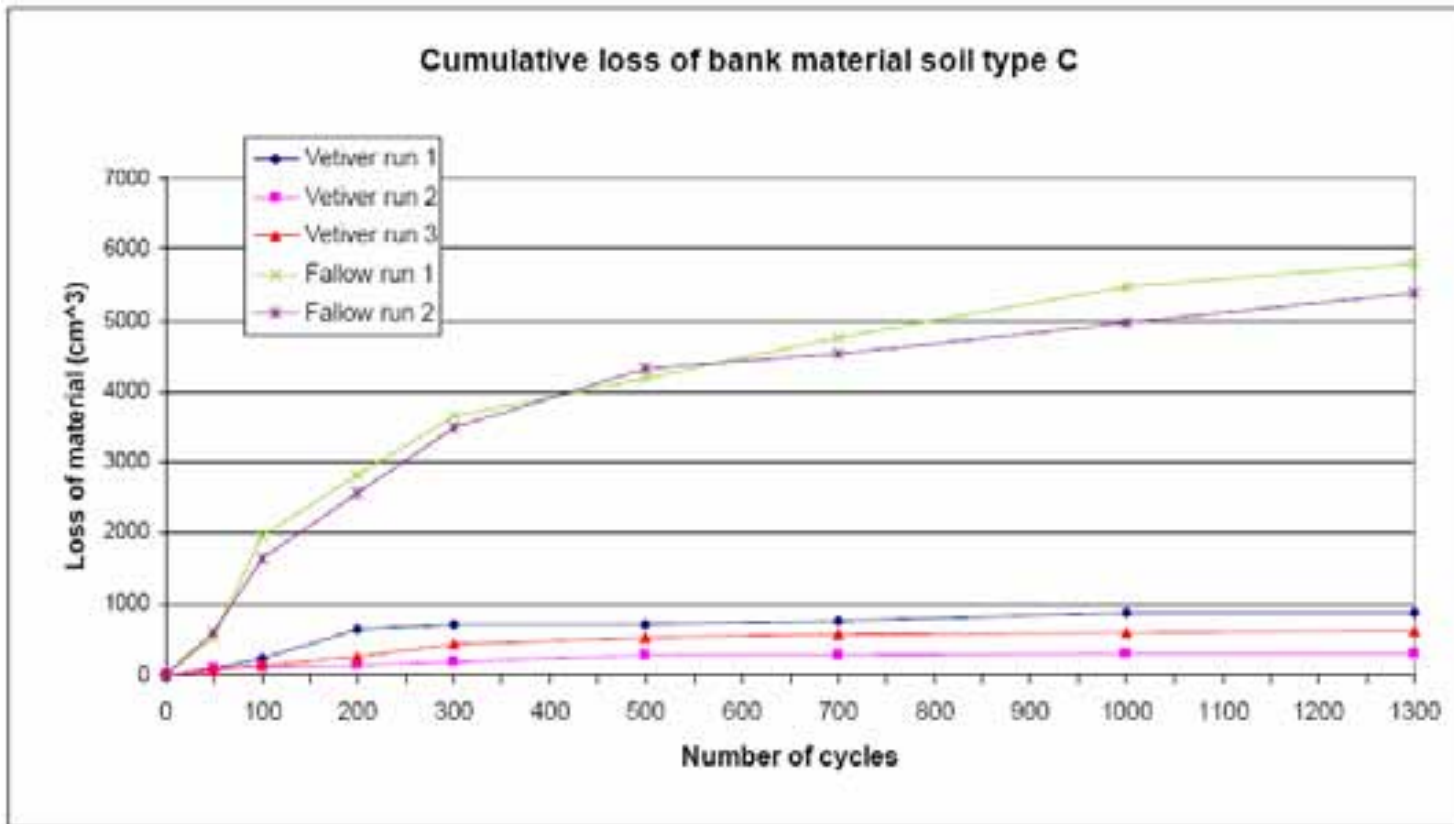
Jaspers Focks Bank protection

Tests on bank erosion



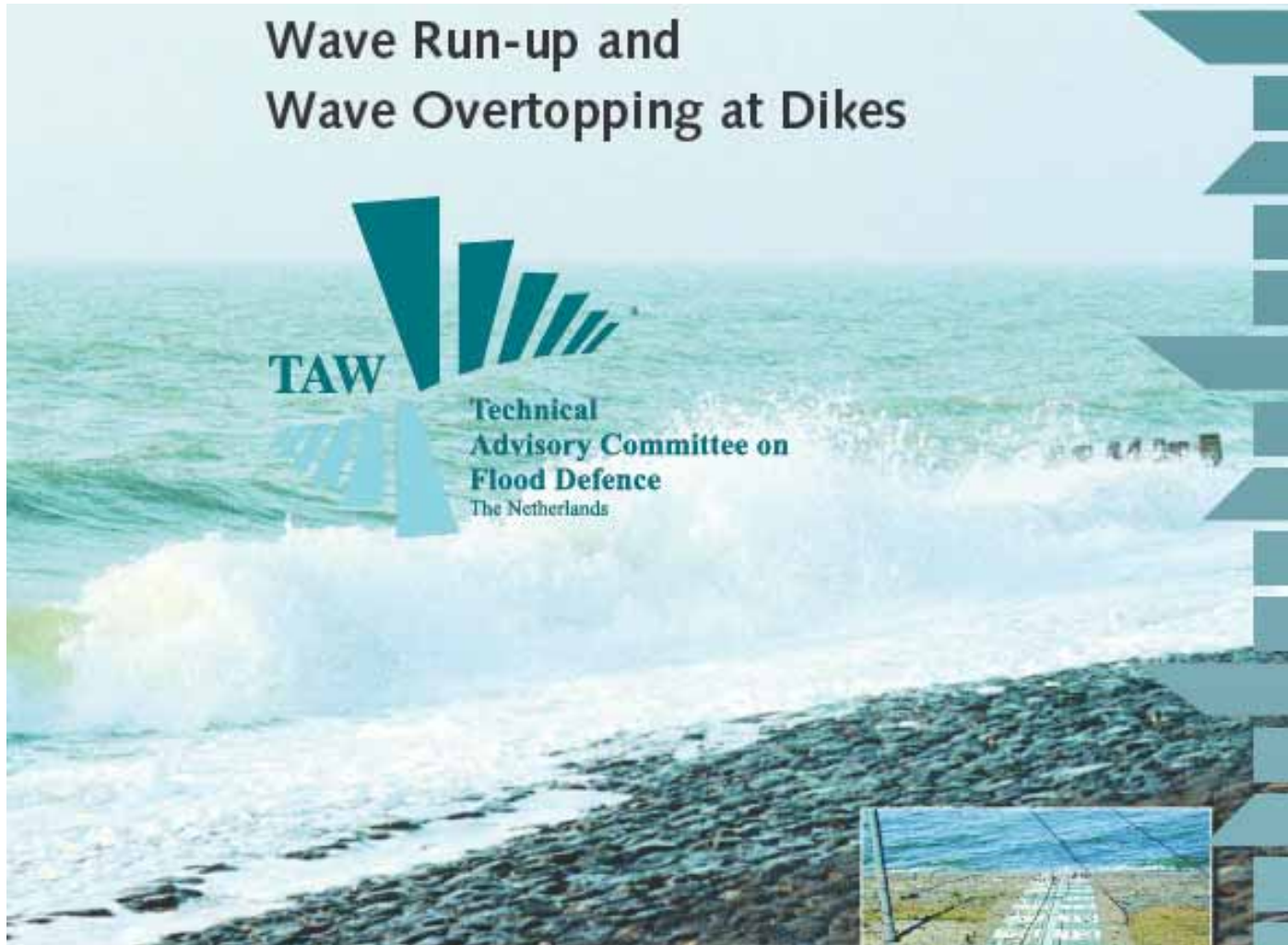
Jaspers Focks Bank protection

Results bank erosion



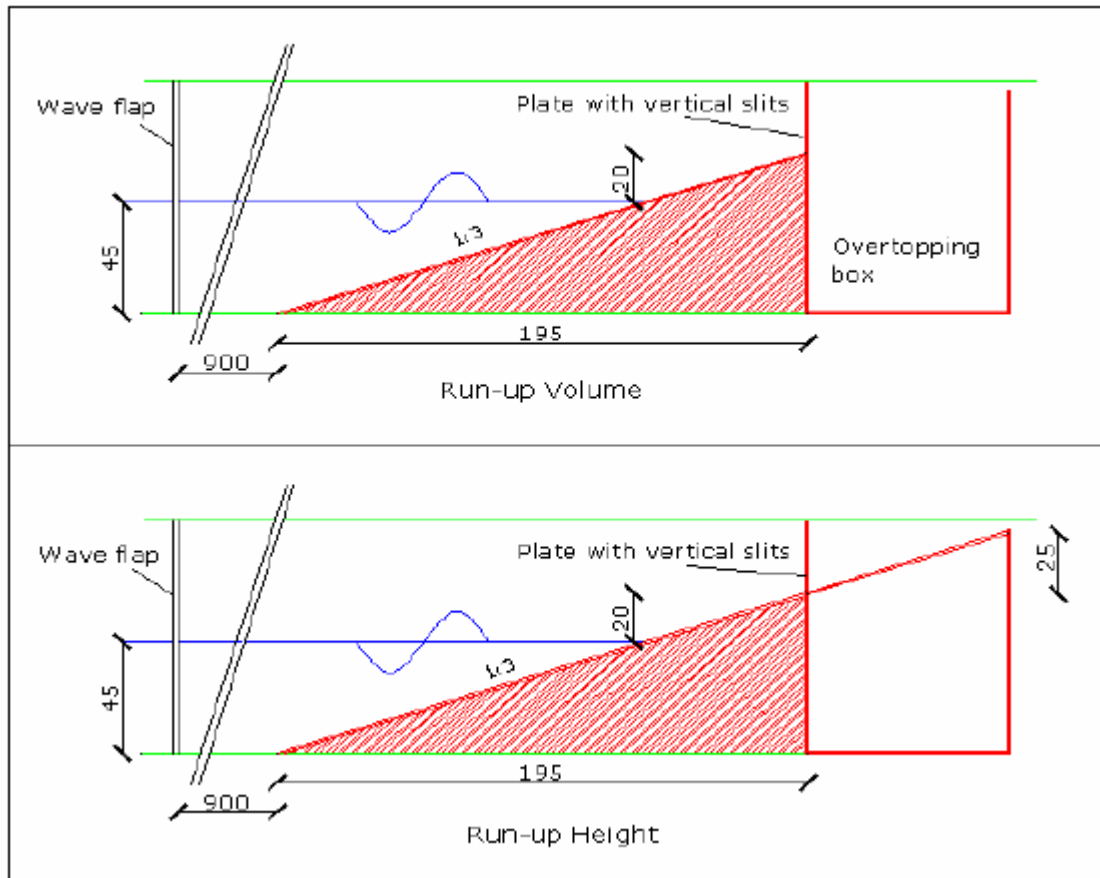
Algera

Wave Run-up



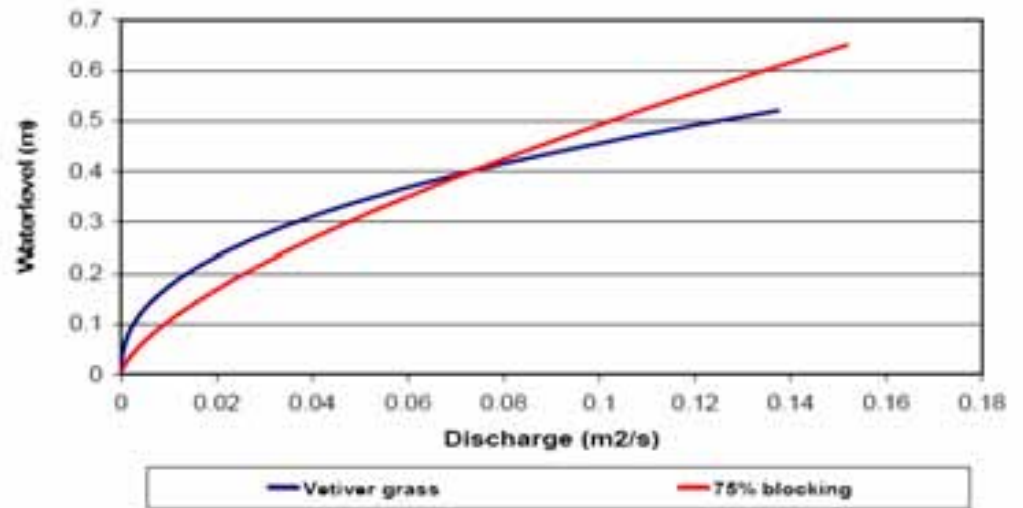
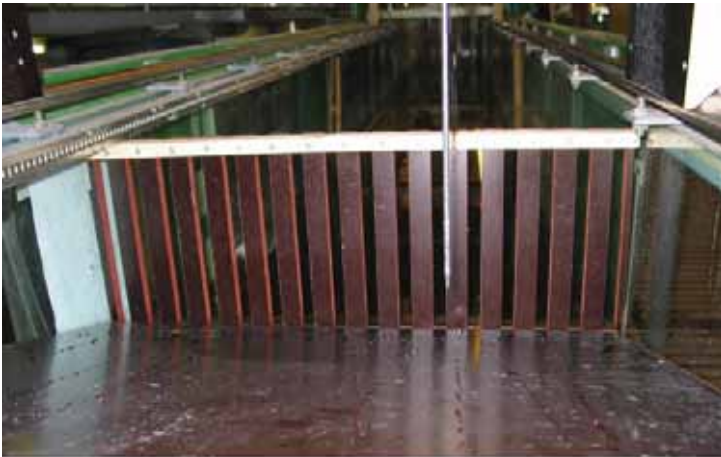
Algera Wave Run-up

Test set-up



Algera Wave Run-up

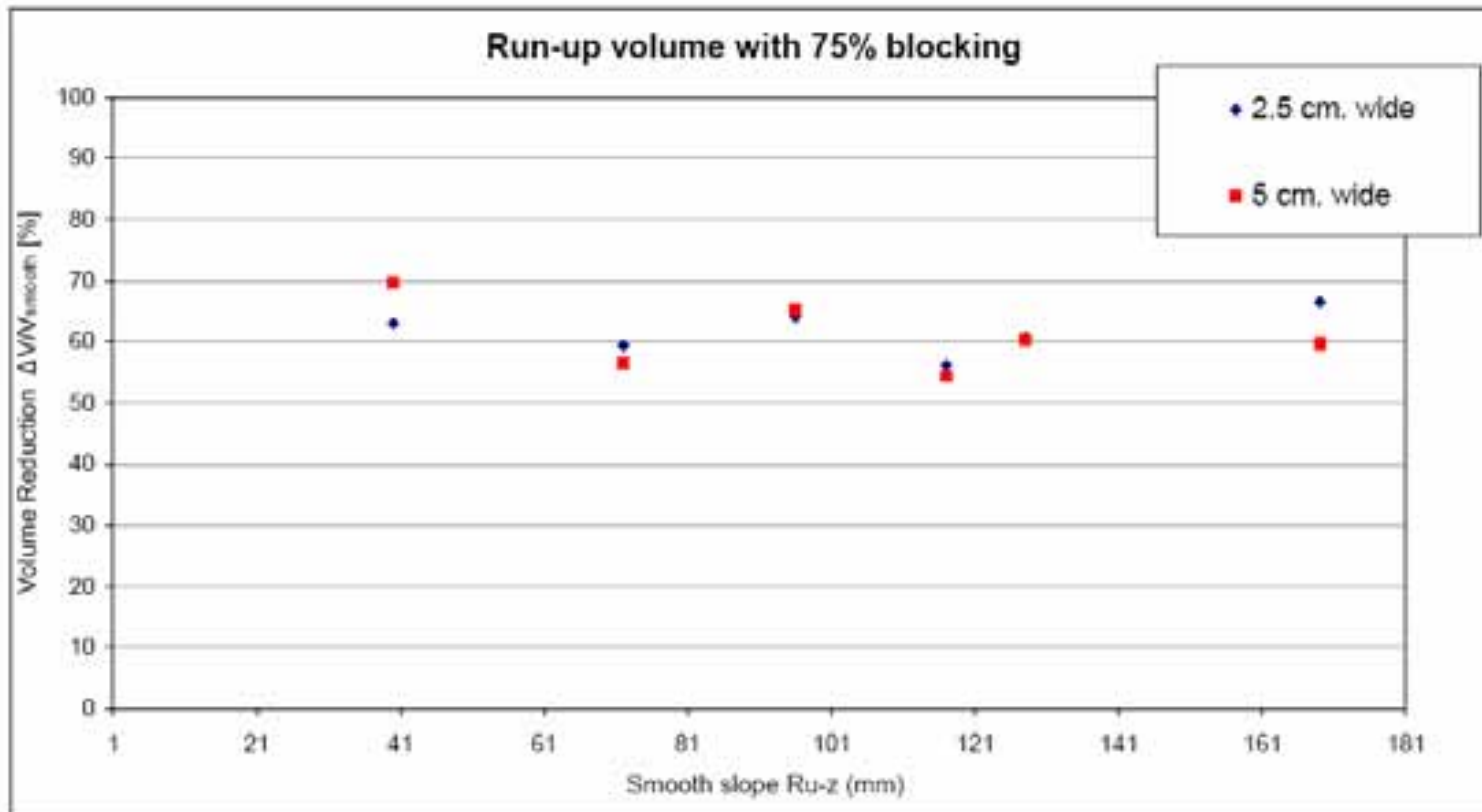
“Artificial” Vetiver row



Algera

Wave Run-up

Results overtopping volume



Dikes can be 0.5 m lower ???

Future subjects

Use of Vetiver on Seadikes in Vietnam



Future subjects

Cistern

