

ชื่อเรื่อง

**The Application of Vetiver Hedge in Soil and Water Conservation System :  
The Integrated Conservation**

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### **Abstract**

The principle conservation on sloping land by maneuvering run-off velocity proves to be highly effective, though this strategy demands engineering skills and comparatively high investment cost. The more economic and simple strategy of applying vegetative measure using Vetiver hedge, entice widespread adoption to the tiller.

Hydraulic characteristic of Vetiver hedge examined in an experimental flume at University of Southern Queensland, Australia reveals that run-off velocity is increasing after passing each hedge. In the field, the application of only Vetiver hedge alone does relevant downstream erosion by both run-off accumulation and increase velocity. The situation even gets worse after run-off passes more and more hedge especially at the foot of the slope.

The set of bunding with close parallel Vetiver hedge at the outside end of the intermittent small level bench terrace enhances the solution. Bunding fills the lower gap of the grass and the grass reinforces the bunding. The symbiotic bioengineer not only promotes integrated conservation but also accents water harvest system. On the other hand, after establishment a few rows of Vetiver hedge, either add diversion to divert run-off to moisture check dam or add level terrace to convert surface run-off to sub-surface flow.