Get Help Now

AGU FALL MEETING 2011
San Francisco, California, USA | 5-9 December

AGU
American Geophysical Union

Welcome   Submission

Instructions
○ View Submissions
Create a New Submission
Log Out

Please complete the information below

Submitted Abstract

PayPal

Paypal has routed, processed, and secured your payment information.
More information about Paypal.

Date:	August 03, 02:13AM
Society:	agu-fm11
Name:	Chuen-Ming Huang
Amount Paid:	$60.00
Transaction #:	017937
Credit Card Type:	Visa
Credit Card Number:	xxxxxxxxxxxx6886

Your abstract appears below.

Please print a copy of this page for your records.

To return to the Submission Center and check your list of submitted abstracts; click "View Submission" in the left menu.

Print

Abstract Proof

CONTROL ID: 1194692
TITLE: Sediment yield prediction based on landslide susceptibility analysis
PRESENTATION TYPE: Poster Requested
CURRENT SECTION/FOCUS GROUP: Natural Hazards (NH)
CURRENT SESSION: NH11. Landslide Forecasting: Susceptibility, Hazard, and Risk Assessment Using Remote Sensing Methodologies, Field Mapping, and In Situ Evaluations

AUTHORS (FIRST NAME, LAST NAME): Chuen-Ming Huang[1,2], Wei-Lien Chuang[2], Chyi-Tyi Lee[2]

INSTITUTIONS (ALL): 1. Geotechnical Engineering, Sinotech Consultants, Inc., Taipei, Taiwan.
2. Institute of Applied Geology, National Central University, Tao-Yuan, Taiwan.

ABSTRACT BODY: Landslide caused sedimentation in reservoirs and the subsequent lifespan reduction of the reservoirs is a common problem in Taiwan. The design of Taiwan's reservoirs was carried out using a rule of thumb estimate. At the time, non-accurate sediment yield estimate method existed.
This study attempts to use a landslide susceptibility analysis and soil depth estimate to predict future sedimentation rates. Modifications to the procedure are performed by comparing the outcome with both the results of a landslide inventory and the variation between two DEMs.
As a result, we can not only predict landslide location and area but also compute volume of landslide in a drainage basin. Even the return period of landslide susceptibility and sediment yields can be gained. This method can provide a reference for regional planning, engineering site selection and hazard mitigation policy making.

KEYWORDS: [4337] NATURAL HAZARDS / Remote sensing and disasters, [4319] NATURAL HAZARDS / Spatial modeling.
(No Table Selected)
(No Image Selected)

Sponsor
SPONSOR NAME: Chuen-Ming Huang
SPONSOR EMAIL ADDRESS: odin@gis.geo.ncu.edu.tw