FIRST CALL FOR PAPERS

3rd International Conference on

Soil Bio- and Eco-Engineering
The Use of Vegetation to Improve Slope Stability

Vancouver, Canada, 23 - 27 July 2012

WEB PAGES: http://inbe.cirad.fr

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Third in the series 'The Use of Vegetation to Improve Slope Stability,' this conference will take place at the Department of Forest Sciences, University of British Columbia, Vancouver, Canada. As in the preceding conferences, we will bring together scientific researchers, practitioners, geotechnical and civil engineers, biologists, ecologists, geomorphologists and foresters to discuss current problems in slope stability research, and how to address those problems using soil bio- and eco-engineering techniques.

Over the last 50 years, alterations in land-use coupled with the consequences of climate change have led to severe degradation of mountainous and hilly regions around the world. Once a landslide has occurred or erosion processes are underway, the replacement of soil on the denuded slope can take thousands of years through natural processes. In a world where the population is expected to reach 9 billion by 2040, agricultural soil is precious and hillslope stability is now a priority for governments needing to feed rapidly increasing populations. Therefore, the prevention of slope instability, the restoration of degraded slopes and the correct management of steep farmed slopes is of utmost importance. In response to the need for better mitigation strategies, advances in research and applications for using vegetation to improve slope stability have been major in the last ten years, largely due to the development of techniques and models for the study of root-soil interactions at different scales. These advances will be presented and discussed at the conference, where sessions will focus on root-soil mechanics, vegetation on slopes over time and space, vegetation for reversing soil degradation and soil bioengineering case studies. Proceedings will be published in a special edition of the international journal 'Ecological Engineering.'

We hope that you will be able to join us at this meeting, to be held in Vancouver, one of the most beautiful cities in the world. Surrounded by majestic mountains, sparkling ocean and rainforests, Vancouver is situated in a unique location, making it the ideal venue for our conference and for post-meeting leisure activities.

The Organising Committee

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S. MITCHELL, University of British Columbia, Canada
D. POLSTER, Polster Environmental Services Ltd, Canada
P. RAYMOND, Terra Erosion Control Ltd, Canada
A. STOKES, INRA, France

Scientific Committee

J. BATHURST, University of Newcastle upon Tyne, UK
G. BIBALANI, Islamic Azad University, Iran
G. BISCHETTI, University of Milan, Italy
E. BOCHET, CIDE Valencia, Spain
W. CHEN, National Taipei University of Technology, Taiwan
T. FOURCAUD, CIRAD, France
M. GHESTEM, Ministère de l'Agriculture, France/WASWC France
F. GRAF, WSL Davos, Switzerland
P. HALLETT, SCRI Dundee, U.K.
T.C. HUBBLE, University of Sydney, Australia
N.K. KOKUTSE, Université Lomé, Togo
Z. MAO, INRA, France/LIAMA China
S.B. MICKOVSKI, Jacobs UK Ltd, UK
C. PHILLIPS, Landcare Research, New Zealand
N. POLLEN-BANKHEAD, USDA Oxford, USA
J.E. NORRIS, Halcrow Group Ltd, UK
J. POESEN, Leuven University, Belgium
F. PRETI, University of Florence, Italy
B. REUBENS, ILVO, Belgium
F. REY, Cemagref, France
C. RIXEN, WSL Davos, Switzerland
G. SHRESTHA, Nepal
R.C. SIDLE, Appalachian State University, USA
S. SOMBATPANIT, WASWC, Thailand
R.B. SOTIR, Sotir Associates, USA
I. SPANOS, NAGREF, Greece
R. STANGL, BOKU, Austria
L. WALKER, University of Nevada Las Vegas, USA

The following themes will be covered:

Root-soil interaction
Root anchorage, root architecture, root/soil interface, root growth, modelling,

Root reinforcement
Root strength, soil cohesion, root density, root morphology, traits

Slope degradation
Debris flow, landslides, avalanches, rockfall, forest fires, pathogens, wind throw, silviculture, human intervention

Soil erosion and conservation
Soil loss by water and wind, run-off, sub-surface erosion, soil quality, soil sealing, desertification, soil and water conservation

Riverbank and coastline protection measures
Flow mitigation, torrent control, hydrological structures, up- and downscaling, sustainable planning, soil bio-engineering techniques

Integrated catchment management with an emphasis on eco-engineering
Slope hydrology, hydrological connectivity reducing sediment budgets, 'green' on and off site remediation of soil erosion, advanced tillage and mangement methods, infiltration, flooding, sustainability of agricultural crop systems, evapotranspiration, land use change

Slope stability modelling
Mechanistic and empirical models, root reinforcement, hydrology, unsaturated strength, soil moisture relations and vegetation, post-failure, static and dynamic models.

Vegetation and ecology
High-altitude plant ecosystems, disturbance ecology, broad latitudinal and climatic changes, plant establishment, plant management, bio-remediation, species selection, soil ecology, influence of climate change, agroecology

Mountain biodiversity and slope stability
Biological richness, structural diversity, grazing,

Plant growth versus engineering
Temporal factors (seasonality), when to choose which technique? Lifespan of systems.

Soil bio- engineering, earth stabilising and retaining techniques
New soil fixing techniques, protective techniques, cuttings and embankments, mulches, geotextiles, soil nailing, chemical stabilisers, long-term stability and performance of ground-bioengineered structures

Eco-engineering and land restoration
Disaster management, short and long-term measures, eco-restoration, protection forests

Risk management and decision support systems
GIS, modelling, databases, strategic management, choice of tools, new systems, neural networks

Benefits and liabilities in slope and erosion control
Economic factors, resource sustainability, legislation, cost analysis, ecosystem services, disaster management.

C O N F E R E N C E I N F O R M A T I O N

Conference abstracts

A book of abstracts will be available for each conference participant. Please submit abstracts (1 page maximum) before 31st December 2011. Please also send the abstract submission form with your contribution and use the specified format for writing your abstract.

Presentations

Presentations will be made in the form of lectures or posters. Key-note lectures will be 25 minutes long and standard lectures will be 15 minutes long with 5 minutes for questions. Posters will be on display throughout the conference week and two special poster sessions will be held where authors are requested to present their posters orally for 3 minutes in the lecture hall and then stand by their posters during the poster session.

Conference proceedings

Proceedings will be published in special editions of 1 or 2 journals to be decided

Manuscripts to be submitted for publication in the proceedings will be collected during the conference (final date for submission will be 27th July 2012). Instructions for authors are available at:

Arrival and information

From Vancouver International Airport, take the Canada Line Skytrain going to Waterfront. Get off at Oakridge-41st Station Northbound. Transfer to either the #43 UBC or #41 UBC buses.

Detailed directions to and maps of UBC campus can be found at:

http://www.ubc.ca/about/maps.html

Excursions

A day-long excursion will be available (to be decided). Accompanying persons are welcome to attend (please indicate on registration form). The price of the excursion is not included in the conference fees.

Conference banquet

The conference banquet will be held on XXth July 2012. Accompanying persons are welcome to attend (please indicate on registration form). The price of the banquet is not included in the conference fees.

Accompanying persons:

There will be no separate program for accompanying persons. However, Vancouver has an excellent bus system and many kilometres of waterfront walking trails and parks. The UBC campus has museums and botanical gardens and is surrounded by forested parkland and beaches. Accompanying persons are welcome to join the conference delegates for lunch, excursions and the conference banquet.

Visa

A letter of invitation for visa application will be sent on request to participants (and accompanying persons) who have registered and have had a talk or poster accepted by the conference scientific committee. Participants who have not submitted a talk or poster need to send, by ordinary surface/air mail, an official inquiry from their scientific institution to the conference address given below asking for a letter of invitation.

Conference venue

The conference will be held in the University of British Columbia Forest Sciences Atrium, 2424 Main Mall Vancouver, British Columbia, Canada.

For maps of the campus:

http://www.ubc.ca/about/maps.html

Vancouver is a harbour city sheltered by Vancouver Island to the west and the Coast Mountains to the north. The city is the economic and scientific engine of British Columbia. The weather in July is usually sunny and warm; however, this is the temperate rain forest so be prepared to enjoy your trip "rain or shine." Tourism Vancouver: http://www.tourismvancouver.com/visitors/

Accommodation

UBC is approximately 10 km from downtown Vancouver and off-campus hotels, and has a fine selection of on-campus accommodation. We have reserved a range of rooms and suites on-campus that are a 10-minute walk from the conference venue and would appreciate that you use these reserved rooms. Please use the following link to book your accommodation:

http://www.ubcconferences.com/accommodations/

If you wish to stay in downtown Vancouver, please book accommodation yourself through an internet site.

Registration fees

	Full fees[1,2]	**Students and researchers from developing countries ‡**
Early registration (before 1st May 2012)	**To be decided**	**To be decided**
Late registration (after 1st May 2012)	**To be decided**	**To be decided**

[1]Fees include reception, coffee breaks, lunches and a copy of the Conference Proceedings.

If you are a member of the following associations, you are entitled to a discount of 25%: IUFRO, WASWC, IEES, IGS, ESSC and IECA. Please note the association on your registration form and your membership number if appropriate. As fees for students and researchers from developing countries are very low, there will be no discount even if you are a member of the above associations. If you are a member of several associations, you cannot accumulate discount.

‡ Please contact us first to confirm eligibility (email: alexia.stokes@cirad.fr). Students need to send a photocopy of their student card. If you think may be entitled to a discount (if you are retired, unemployed etc) please also contact us by email.

ABSTRACT FORMAT SPECIFICATIONS

3rd International Conference on Soil Bio- and Eco-engineering: The Use of Vegetation to Improve Slope Stability

The official conference language is English. The abstract must be written in English and should be no longer than one page (A4), including graphics and references. Margins of 2.0 cm should be left on all sides of the text. A standard typeface is to be used, Times Roman 12pt is preferred. Please use the following layout for the title, authors and address:

Modelling the Influence of Vegetation on Slope Stability over Space and Time

A. Person[1], A.N. Other[2], A. Third[1]

[1]Forest Sciences Centre, 2424 Main Mall, Vancouver BC, V6T 1Z4, Canada.
[2]INRA, UMR AMAP, Bld de la Lironde, Montpellier cedex 5, 34398, France

Most of the existing slope stability models which consider vegetation are of a static nature, i.e. they just consider the distribution of roots at a given time, nevertheless, such models are still useful for estimating landslide risk for a given slope configuration. Exploring the effect of reforestation scenarios or more generally the impact of slope management can be performed making assumptions on the expected rooting patterns and using static models. However, coupling growth models, in particular based on structural-functional notions, with soil, climate and hydrological models is an exciting challenge to answer the question of the consequences of climate change on substrate mass movement.

ABSTRACT SUBMISSION FORM

Please submit this form with a copy of your abstract before: **December 31st 2011**

TITLE OF ABSTRACT:
_____
_____
_____

AUTHORS:
_____
_____

Author to whom all correspondence should be addressed:

Title: _____First Name: _____Surname: _____
Address:
_____
_____
_____

Telephone: _____Fax: _____

Email: _____

Would you like to present a paper ☐ or a poster ☐ (please tick the appropriate box)?
In which session do you think your presentation would be most appropriate? Please write the session name:
_____

Would you like to submit a paper for the special edition of the journal 'Ecological Engineering?' YES ☐ NO ☐ (please tick the appropriate box)
If YES, please give a provisional title:
_____
_____

Please send this form along with your abstract by email, fax or post, before
December 31st 2011

To:

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