

NEWSLETTER
2/2006



Visit the ESSC Website: <http://www.essc.sk>



Cover photo: Splash erosion in the Tabernas Badlands of South-East Spain. Note the stone protecting the soil from splash erosion, resulting in the formation of a pedestal. Photo by Mike Fullen (Wolverhampton).

E.S.S.C. NEWSLETTER 2/2006

Executive Committee of the E.S.S.C.

- President: J.L. Rubio
CIDE, Camí de la Marjal s/n
Apartado Oficial
E-46470 Albal-Valencia, Spain
jose.l.rubio@uv.es
- Vice-Presidents: A. Kertész
Hungarian Academy of Sciences
Geographical Research Institute
Budaorsi ut. 43-45
H-1112 Budapest, Hungary
kertesza@helka.iif.hu
- C. Dazzi
Dipartimento di Agronomia Ambientale e Teritoriale
Settore Pedologia
Viale delle Scienze
I-90128 Palermo, Italy
dazzi@unipa.it
- Secretary: P. Bielek
Soil Science and Conservation
Research Institute, Gagarinova 10
827 13 Bratislava, Slovakia
bielek@vupu.sk
- Treasurer: W. Cornelis
Department of Soil Management and Soil Care
Coupure links 653
B-9000 Gent, Belgium
wim.cornelis@UGent.be
- Co-Treasurer: D. Gabriels
Department of Soil Management and Soil Care
Coupure links 653
B-9000 Gent, Belgium
donald.gabriels@rug.ac.be
- Members: G. Govers, Leuven, Belgium
I.Pla Sentis, Lleida, Spain
P. Schjonning, Tjele, Denmark
S. Tobias, Zürich, Switzerland

The NEWSLETTER is published by the Editorial Board:

- Editor-in-Chief: M.A. Fullen
School of Applied Sciences
The University of Wolverhampton
Wulfruna Street, Wolverhampton WV1 1SB, U.K.
m.fullen@wlv.ac.uk
- Assistant Editor: C.A. Booth, Wolverhampton, U.K.
c.booth@wlv.ac.uk
- Co-Editors: N. Fohrer, Kiel, Germany
A. Rodríguez Rodríguez, La Laguna, Canary Islands, Spain

Produced and composed by the Editor-in-Chief at The University of Wolverhampton (U.K.)

Printed by The Soil Science and Conservation Research Institute „Vyskumny ustav podoznalectva a ochrany pody, Bratislava“ (Slovakia).

Contents

Award of the title of 'Young Scientist of the Year' (2006) to Dr Saulius Marcinkonis (Lithuanian Institute of Agriculture) by the Government and Parliament (Seimas) of Lithuania	3
NEW PH.D. THESES	4
Miet Van Den Eeckhaut (2006). Spatial and temporal patterns of landslides in hilly regions – The Flemish Ardennes (Belgium). K.U. Leuven	4
Nigussie Haregeweyn (2006). Reservoir sedimentation in the North Ethiopian Highlands: assessment and modelling of controlling factors and impacts (2006). K.U. Leuven	6
Nienke A. Bouma (2006). Rill initiation and development in relation to dynamic soil properties. The University of Amsterdam	9
Bezuayehu Tefera Olana (2006). People and Dams: environmental and socio-economic changes induced by a reservoir in Fincha'a watershed, western Ethiopia. The University of Wageningen	11
Jakolien K. Leenders (2006). Wind erosion control with scattered vegetation in the Sahelian zone of Burkina Faso. The University of Wageningen	13
Michel J.P.M. Riksen (2006). Wind Born(e) Landscapes: The role of wind erosion in agricultural land management and nature development. The University of Wageningen	14
CONFERENCE REPORTS	16
• Long-term Studies in Ecology: a celebration of 150 years of the Park Grass Experiment (22 – 24 May 2006) at Rothamsted Research, Harpenden, UK	16
BOOK REVIEWS	18
• J.L. Rubio, A.C. Imeson, P. Bielek, M.A. Fullen, J.A. Pascual, V. Andreu, L. Lecatala and C. Ano (Eds) (2006). The Directory of European Organizations and Persons Working on Soil Protection. Soil Science and Conservation Research Institute, Bratislava, Slovakia, 192 pp.	18
• T. Hengl and M. Gould (2006). The Unofficial Guide for Authors (or How to Produce Research Articles Worth Publishing). EUR 22191 EN, Office for Official Publications of the European Communities, Luxembourg, 54 pp.	20
• Inge Håkansson (2005). Machinery-induced Compaction of Arable Soils, Incidence – Consequences – Counter-measures. Swedish University of Agricultural Sciences, Uppsala, Department of Soil Sciences, Reports from the Division of Soil Management, No. 109, 154 pp.	21
BOOK ANNOUNCEMENTS	22
PUBLICATIONS BY ESSC MEMBERS	24
ANNOUNCEMENTS	28
APPOINTMENT OF NEW PH.D. RESEARCH STUDENT	29
INSTITUTIONAL MOVEMENTS AND PROMOTIONS OF ESSC MEMBERS	29
ESSC MEMBERSHIP LIST AND CONTACT DETAILS	29
FORTHCOMING DATES FOR YOUR DIARY...	30

FIRST ANNOUNCEMENTS	30
• The 'Flood Repair Network': 'First International Conference on Flood Recovery, Innovation and Response' (FRIAR), 21 and 22 April 2008 in London, U.K.	30
• Sixth International Conference on Ecosystems and Sustainable Development. 5 th – 7 th September, 2007 in Coimbra, Portugal.	31
SECOND ANNOUNCEMENTS	32
• 1 st European Congress of Conservation Biology: 'Diversity for Europe', 22 – 26 August 2006 in Eger, Hungary.	32
• International Conference on 'Farm Level Adoption of Soil and Water Conservation Measures and Policy Implications in Europe.' 1 – 3 October 2006 in Wageningen, The Netherlands.	33
• 2 nd International Conference on Ground Bio- and Eco-engineering 'The Use of Vegetation to Improve Slope Stability', 14 – 18 July 2008 in Beijing, China.	37
FOURTH ANNOUNCEMENTS	39
• The XVIII th Conference of the Romanian National Society of Soil Science '100 years of Soil Science in Romania', XVIII th National Soil Conference, 21 – 26 August 2006 in Cluj, Romania.	39
• International ESSC Conference on 'Soil and Water Conservation under Changing Land Use', 12 – 15 September 2006 in Lleida, Spain.	40
• Environmental change, geomorphic processes, land degradation and rehabilitation in tropical and subtropical highlands, 19 – 25 September 2006 in Mekelle University, Ethiopia.	48
• 5 th International Congress of the European Society For Soil Conservation, 25 – 30 June 2007 in Palermo, Italy.	51

Award of the title of 'Young Scientist of the Year' (2006) to Dr Saulius Marcinkonis (Lithuanian Institute of Agriculture) by the Government and Parliament (Seimas) of Lithuania

In recognition of his scientific achievements, the Award of the title of 'Young Scientist of the Year' (2006) was made to Dr Saulius Marcinkonis (Lithuanian Institute of Agriculture, Voke, Vilnius, Lithuania) by the Lithuanian Government and Parliament (Seimas). Saulius is a Senior Researcher at the Department of Soil Chemistry of the Voke Branch of the Lithuanian Institute of Agriculture (LIA). It is the second time Saulius received this National award; the first time being in 2002.

Saulius Marcinkonis started his work at the Voke Branch of the LIA in 1995. In 2000, he was awarded his Ph.D. for a thesis on 'The Influence of Liming on Soddy-Podzolic Soils of Varying Acidity in East Lithuania'. After successfully defending his doctoral thesis, Saulius continues scientific research. He is a well-known scientist not only in Lithuania, but also in other countries. Saulius is a member of the ESSC, 'Soil Association of Lithuania' and 'Nordic Association of Agricultural Scientists' (NJF).



Saulius at the ESSC Conference field trip in Tartu (Estonia) in May 2005.

The main objective of his research is to estimate the long-term influence of liming on changes in soil chemical properties and crop yield on soddy-podzolic strongly acid automorphic fluvioglacial sandy loam soils in East Lithuania. Results of investigations were applied in the preparation of the system for optimizing pH in soils of differing genesis and to recommend liming protocols for sandy loam soils in East Lithuania.

Saulius also investigated soil quality and fertility problems, especially acidity, soil environmental assessment and critical phosphorus loadings in agro-landscapes. This included field and laboratory experimental work, conducting field trials and statistical data analysis.

In 2002 – 2004 Saulius supervised two groups of research workers in the scientific project 'Long-term agricultural impacts of agricultural soil geochemistry', sponsored by the Lithuanian State Science and Studies Foundation. The Project collated, systematized and analysed the total database of long-term field experiments in the various divisions of the LIA and presented information of considerable value for agro-environmental management.

The main findings of research work have been presented at 16 conferences in Lithuania and several other countries. The data were published in 30 scientific manuscripts.

Dr Eugenija Baksiene

Voke Branch of The Lithuanian Institute of Agriculture, Vilnius, Lithuania

E-mail: Saulius.Marcinkonis@voke.lzi.lt

Six new Ph.D. theses are reported in this issue.

MIET VAN DEN EECKHAUT

K.U. Leuven

Spatial and temporal patterns of landslides in hilly regions – The Flemish Ardennes (Belgium) (2006), 250 pp. (ISBN: 90-8649-010-7)

Abstract

Although worldwide many studies deal with landslides in mountainous areas, research on landslides in hilly regions is rather limited. In Belgium, the Flemish Ardennes is a region where damage due to the reactivation of old (> 100 years) or the initiation of new landslides is occasionally reported in local newspapers. So far scientific research on the location of the landslides, their causal factors and their timing of initiation or reactivation was lacking. Therefore, establishing and understanding the spatial and temporal patterns of these landslides were the main objectives of this thesis.

As many of the landslides are nowadays partly or completely located under forest, detailed field surveys and the analysis of LIDAR (Light Detection and Ranging)-derived hillshade and contour line maps were required to map the landslides. The landslide inventory map created for a 430 km² study area contains 153 large (> 1 ha), deep-seated (> 3 m) landslides, mainly rotational earth slides, and 51 small (< 1 ha), shallow (< 3 m) complex earth slides. In total these landslides comprise 1.5% of the study area. In contrast with this relatively small total affected area, the volume of material displaced by the 153 deep-seated landslides is rather important (i.e. between 36,500,000 and 54,800,000 m³, or in other words between 850 and 1,275 m³/ha).

A multivariate statistical model that accounts for the limited spatial occurrence of the landslides, i.e. rare events logistic regression, revealed that the erosion zone of deep-seated landslides is mainly located on hillslope sections with slope gradients above 0.20 m.m⁻¹, and with clayey Tertiary lithologies, such as the Tielt Formation and the Aalbeke and Moen Member of the Kortrijk Formation present at shallow depth. The very good model results allowed the creation of a landslide susceptibility map for the study area. In order to limit the damage due to landslides, the qualified authorities now need to link specific land use regulations to the different susceptibility zones.

The analysis of the temporal patterns was more problematic as information on the timing of landslide initiations or reactivations was scarce. During this study we could not detect the triggering factors of the old, deep-seated landslides with certainty, but there

are indications that these landslides may have been initiated by earthquakes or under periglacial conditions. For the analysis of the recent landslide events (<100 years), a landslide catalogue was created. Most information was compiled from newspaper articles and interviews with local residents. This landslide catalogue contained information on 59 events which occurred during 34 different months, and revealed that 75% of the landslide events occurred between November and March with maxima in January and February. Landslides were generally reactivated after a 12-month period with cumulative rainfall depth above 1 000 mm in combination with a monthly rainfall depth above 100 mm. Such rainfall events have relatively short recurrence intervals (ca. <5 years). Hence, landslide events are not rare in time, and this is partly due to the impact of human interventions on or close to the reactivated site (e.g. removal of lateral support at the foot of the hillslope or overloading of the upper part of the hillslope for construction works, poor maintenance of drainage ditches, the creation of ponds or swimming pools) decreasing the stability of marginally stable hillslopes. The latter stresses that local residents should be informed about appropriate prevention and remediation measures. Not all landslides, however, are a threat to buildings and other infrastructure. Some well-preserved old (perhaps periglacial or early Holocene) landslides with a fresh morphology have a high geo-value and should therefore be classified as geo-reserves.

Publications

- Ost, L., Van Den Eeckhaut, M., Poesen, J. and Vanmaercke-Gottigny, M.C. (2003). **Characteristics and spatial distribution of large landslides in the Flemish Ardennes** (Belgium). *Zeitschrift für Geomorphologie* 47(3), 329-350.
- Vanwalleghem, T., Van Den Eeckhaut, M., Poesen, J., Deckers, J., Nachtergaele, J., Van Oost, K. and Slenters, C. (2003). **Characteristics and controlling factors of old gullies under forest in a temperate humid climate: a case study from the Meerdaal Forest** (Central Belgium). *Geomorphology* 56(1-2), 15-29.
- Vanwalleghem, T., Poesen, J., Van Den Eeckhaut, M., Nachtergaele, J. and Deckers, J. (2005). **Reconstructing rainfall and land use conditions leading to the development of old gullies**. *The Holocene* 15(3), 378-386.
- Van Den Eeckhaut, M., Poesen, J., Verstraeten, G., Vanacker, V., Moeyersons, J., Nyssen, J and Van Beek, L.P.H. (2005). **The effectiveness of hillshade maps and expert knowledge in mapping old deep-seated landslides**. *Geomorphology* 67, 351-363.
- Van Den Eeckhaut, M., Vanwalleghem, T., Poesen, J., Govers, G., Verstraeten, G. and Vandekerckhove, L. (2006). **Prediction of landslide susceptibility using rare events logistic regression: a case-study in the Flemish Ardennes** (Belgium). *Geomorphology* 76, 392-410.

Supervisors

Professor Dr Jean Poesen (Promotor).

Professor Dr Gerard Govers (Co-promotor).

Professor Dr Gert Verstraeten (Co-promotor).

Physical and Regional Geography Research Group,
Department Geography-Geology, K.U. Leuven, Belgium.

For further information, please contact:

Miet Van Den Eeckhaut

Physical and Regional Geography Research Group

K.U. Leuven

Geo-Institute

Celestijnenlaan 200E

B-3001 Heverlee

Belgium

Tel.: 00 32 16 32 64 17

E-mail: Miet.vandeneeckhaut@geo.kuleuven.be

<http://www.kuleuven.be/geografie/frg/>

Professor Dr Jean Poesen

Physical and Regional Geography Research Group

K.U. Leuven

Geo-Institute

Celestijnenlaan 200E

B-3001 Heverlee

Belgium

Tel.: 00 32 16 32 64 25

E-mail: Jean.Poesen@geo.kuleuven.be

<http://www.kuleuven.be/geografie/frg/>

NIGUSSIE HAREGEWEYN

K.U. Leuven

**Reservoir sedimentation in the North Ethiopian Highlands:
assessment and modelling of controlling factors and impacts**
(2006). 256 pp.

Abstract

Sediment deposition in reservoirs is a serious off-site consequence of soil erosion as it threatens the sustainability of the dams in northern Ethiopia. Moreover, soil erosion and sediment delivery processes are also responsible for associated export of sediment-bound nutrients. However, local data are lacking on sedimentation rates, their impacts and controlling factors. Moreover, adoptable sediment yield models are not available for planning and managing erosion and sedimentation rates. These might lead to risky or uneconomical design of the reservoirs for sedimentation rate.

The overall objectives of this study were: (1) to analyse the spatial variability of reservoir sedimentation rates in Tigray and to identify the factors causing these variations and explaining the absolute sedimentation rates through a comprehensive study of reservoir sedimentation; (2) to evaluate to what extent available categories of sediment yield models can be used to predict sediment production and sediment delivery: i.e. (a) two semi-quantitative models Pacific Southwest Inter Agency Committee (PSIAC) and Factorial scoring model (FSM); and (b) two versions ('original' and 'modified') of a Water and Tillage Erosion Model (WATEM)/Sediment Delivery Model (SEDEM)-distributed model; (3) to assess and evaluate erosion-caused soil fertility degradation and (4) to formulate strategies to cope with the sedimentation problem.

This study was carried out on 13 representative micro-dam catchments in Tigray (Northern Ethiopia), located between 12°15'-14°50'N and 36°27'-39°59'E. Quantitative and semi-quantitative catchment data on climate, topography, soils, geology and human practices were collected by field mapping using GPS, analysing available maps, interviewing the local farmers, development organizations, experts and local people. We assessed reservoir characteristics and problems related to sedimentation, such as deposited sediment volume, sedimentation rate, dry bulk density of sediment, nutrient and sediment trap efficiency of reservoirs, nutrient content of the sediment and the catchment soils. GIS was used to map and derive map layers and statistical analysis related to model calibration and validation was done in SAS®.

The reservoir sediment survey of 13 reservoirs showed that the sedimentation problem is high: six of the 13 studied reservoirs are under extreme siltation problem so that they will lose severe designed life (economic life) within half of the design period. The rapid siltation is associated with (1) poor planning of the reservoirs for the expected sediment yield during the design phase, which in turn is related to lack of sufficient database, lack of appropriate methodologies to predict sediment yield, lack of skilled and experienced manpower in designing the dams, (2) poor implementation of the recommendations forwarded in the design phase which include regular sediment dredging and catchment management prior the implementation of the dams. The poor implementation results from lack of awareness and co-ordination among policy makers, beneficiaries and implementers.

Analysis of specific sediment yield (SSY) shows that there is a large spatial variation between catchments with an average SSY of 866 (± 486) t.km⁻².y⁻¹. The sediment yield in this study area is high by world standards. The PSIAC model gave a reasonable prediction (ME = 0.51 and RRMSE = 19%) without adjustment. In the case of FSM, a three-stage calibration was undertaken and the model was adapted for the study area by incorporating new controlling factors (SWC) and modifying the description of the original factors that provided better predictions (ME = 0.75 and RRMSE = 28%). A robust SY multiple regression model was developed for the study area (ME = 0.88 and RRMSE = 30%). Therefore, SY can be predicted by measuring only two parameters (total drainage length and area covered by soil water conservation) for planning new reservoirs for sedimentation rate in the Tigray Highlands. It was observed that the prediction by the 'modified' version of WATEM/SEDEM has performed better than the 'original' version. In general, the model performance is promising for the whole dataset (n = 12) for the two versions and the performance was further enhanced significantly

for the stratified nine catchments where the role of gully erosion is limited. From a land management point of view, it is important to use the WATEM/SEDEM model (1) to predict absolute sediment yield and (2) to assess the spatial distribution of soil erosion and identify target areas for catchment management more favourably in less gully erosion areas.

Selectivity of soil erosion has been observed with enrichment ratios (ER) > 1 for the finest soil fractions and for major plant nutrients. The high ER is associated with both the preferential transport of nutrients bound with fine soil fractions and the parent material dissolution and its transport via runoff. As a result, the nutrient concentration is significantly higher in the deposited sediment and there is no hazard on the sediment associated with alkalinity and acidity. However, the fertility status of the deposited sediment is not sufficient by itself to support a sustainable crop growth and, therefore, external addition mainly of N and P are required. In March 2006, the yearly cost due to loss of N and P only was estimated at 342 million ETB (€ 34.2 million) and 3.06 billion ETB (€ 0.306 billion) from Tigray and the Ethiopian Highlands, respectively. The inclusion of OC and other nutrient losses and the losses in physical soil fertility increases the cost. Therefore, it is important to note that not only the current degradation rate should be controlled but it should also be accompanied with integrated soil fertility management practices.

Overall, based on the findings of this study, two major strategies are proposed to minimize the risk of rapid sedimentation rate: (1) strategy for planning new dams and (2) strategy for already implemented dams. We hope that proper implementation of the proposed strategies will help achieving a sustainable water resources development in the study area.

Publications

Haregeweyn, N., Poesen, J., Nyssen, J., De Wit, J., Mitiku Haile, Govers, G., and Deckers, J. (2006). **Reservoirs in Tigray: characteristics and sediment deposition problems.** Land Degradation and Development 17, 211-230.

Haregeweyn, N., Poesen, J., Nyssen, J., Verstraeten, G., de Vente, J., Govers, G., Deckers, J. and Moeyersons, J. (2005). **Specific sediment yield in Tigray-Northern Ethiopia: Assessment and semi-quantitative modelling.** Geomorphology 69, 315-331.

Haregeweyn N. and Yohannes F. (2003). **Testing and evaluation of Agricultural Non-point Source Pollution Model (AGNPS) on Agucho Catchment, Western Harerghie.** Agriculture, Ecosystem and Environment 99, 201-212.

Nyssen, J., Nigussie Haregeweyn, Descheemaeker, K., Desta Gebremichael, Vancampenhout, K., Poesen, J., Mitiku Haile, Moeyersons, J., Buytaert, Naudts, J., Deckers, J. and Govers, G., (2006). **Comment on "Modelling the effect of soil and water conservation practices in Tigray, Ethiopia".** Agriculture, Ecosystems and Environment 114, 407-411.

Supervisors

Professor Dr Jean Poesen¹

Professor Dr Gerard Govers¹

Professor Dr Seppe Deckers²

¹Physical and Regional Geography Research Group, K.U.Leuven,
Celestijnenlaan 200 E, B-3001 Heverlee, Belgium

²Department of Land Management and Economics,
Celestijnenlaan 200 E B-3001 Leuven, Belgium

E-mail: niguha@yahoo.com

jean.poesen@geo.kuleuven.be

NIENKE A. BOUMA

Universiteit van Amsterdam (The University of Amsterdam)

Rill initiation and development in relation to dynamic soil properties (2006), 317 pp.

Abstract

Soil erosion can be a major problem in hilly and mountainous areas in both temperate and drier climates. Many soils are suffering from concentrated surface flow in shallow channels (known as rills), entraining and transporting enormous amounts of sediment. The process of rill erosion is controlled by rainfall and slope water and occurs on soils with specific properties when specific thresholds are exceeded. This thesis studies the initiation and development of rills influenced by certain specific soil properties, such as soil structure and consistency. The initiation of rills is a very complex process as not only are rainfall and slope water conditions important, but also the way in which the soil or regolith changes their properties in response to wetting during rainfall. Two areas were selected for studying rills. These are a natural badland area in south-east Spain and a cultivated loess area in South Limburg, The Netherlands. Similarities between these areas are their susceptibility to rill erosion and their high macroporosity in the topsoil above a relatively impermeable layer. The general aim of this study is to investigate critical conditions for the initiation and development of rill erosion in regoliths and soils with a high macroporosity in their topsoil, e.g. marl regoliths and cultivated loess soils. The most important research question is whether

rill initiation and development is enhanced by the infiltration of water and specific dynamic soil properties.

A drainage theory derived from the theory of Hooghoudt and Donnan was studied in relation to rill initiation and development. An important aspect is the presence of a (semi-) impermeable layer. The soil properties micro- and macropores, shrinkage and swelling and soil consistency play an important role in drainage. An equation was established to describe the dynamics of loess and badland soils influenced by infiltration of slope and rainwater. Also indicators for thresholds of erodibility and related erosion processes were discussed.

In badland areas an indicator for erodibility and different forms of soil erosion appeared to be the relationship between soil moisture change and the behaviour of sediment concentration. The thresholds in this relationship are determined by the indicators surface sealing, increase of runoff, soil consistency, macroporosity, soil chemical properties, clay mineralogy and texture. It appears that before the saturation of the surface layer, dynamic soil properties play a major role in the erosion process, whereas after saturation and increase of runoff, the increasing importance of flow hydraulics results in an even more complex erosion process in these badland areas. In general, relatively more sediment is eroded from badland areas susceptible to mainly mass movements than to mainly rill erosion.

In ploughed loess soils macroporosity, because of ploughing and increase of macroporosity probably causes by-pass flow deeper into the Ap-horizon. Infiltrated water in the harrowed soil, on the contrary, remains more in the topsoil. This is explained by a lower macroporosity in the Ap. Ploughed soil appears to be more sensitive to slaking and probably welding than harrowed soil. These conditions of ploughed soil combined with a higher soil moisture content, especially in the subsoil, create a higher risk for deep rill erosion during or after high intensity rainfall.

The drainage model appears to be appropriate for ploughed loess soil, with a few adjustments being needed for the process of rill initiation. For the badland regolith the drainage model is not applicable and would need too many adjustments. Large soil cracks, developed by tillage, appear to be highly important for the initiation of erosion channels on cultivated land. Combined with water-saturated soil they cause loss of structure, which enables subsurface erosion to occur. Therefore it is highly important for example to plough in a drier season, when the soil is less vulnerable to loss of structure. In Mediterranean marl areas naturally formed soil cracks cause deeper infiltration and, in combination with a water saturated soil, a less stable soil. The results of the study in the cultivated loess area lead to a better understanding of the impact of cultivation practices on soil erodibility in combination with soil moisture content and dynamic soil properties.

Finally the importance of studying subsurface flow for society is emphasized by the recent flooding in New Orleans and in The Netherlands by certain high-risk situations in the past 15 years. In these situations dikes were weakened because of subsurface flow and piping.

For further information, please contact:

Nienke A. Bouma

Institute for Biodiversity and Ecosystem Dynamics (IBED)

Universiteit van Amsterdam

Nieuwe Achtergracht 166

1018 WV Amsterdam

The Netherlands

Tel.: 00 31 20 5257451

Address: De Laghe Weijdt 64, 1851 SM Heiloo, The Netherlands

Tel.: 00 31 61 1438595

E-mail: n.a.bouma@quicknet.nl

BEZUAYEHU TEFERA OLANA

The University of Wageningen

People and Dams: environmental and socio-economic changes induced by a reservoir in Fincha'a watershed, western Ethiopia (2006).

Abstract

Dams that store water for electricity, irrigation, domestic water supply or flood control have been constructed for thousands of years worldwide. In too many cases, an unacceptable and often unnecessary price has been paid by watershed inhabitants to secure dam benefits, especially in social and environmental terms. The Fincha'a multipurpose dam in western Ethiopia has caused major land use changes, relocated people against their will and induced excessive population pressure in the upper watershed. Following the creation of this dam, crop and livestock production have been shifted to steep and fragile parts of the watershed. Lack of agricultural intensification and soil and water conservation (SWC), poor family planning and land tenure insecurity are pressing socio-economic problems leading to impoverishment of the watershed inhabitants. Increased erosion rates and sediment yields reduce the economic life of the dam. Farmers are well aware of erosion problems but they lack confidence in the positive effect on crop yield of recommended SWC measures. The high labour requirement, loss of cropland, land tenure insecurity and the lack of immediate benefits have negatively affected SWC adoption. Integrated watershed management (IWM) has emerged as alternative to the centrally and sectorial approaches in planning dams. The focal point of any dam development programme, using IWM, is the combination of improving the livelihood of the watershed inhabitants and the sustenance of the resource

base. For subsistence farmers it is mainly the production in the current season that guarantees the mere survival of their families. Therefore, IWM should be accompanied by creation of multi-stakeholders platforms and integration of soft and hard system methodologies for creating an environment where science and knowledge help people to develop a diversity of locally appropriate resource management solutions. IWM can effectively address the social, environmental and economic problems during the planning of new dams in Ethiopia.

Résumé

Dans le monde, la construction de barrages de stockage d'eau, pour l'électricité, l'irrigation, l'approvisionnement domestique en eau ou le contrôle de l'inondation a été réalisé pendant des milliers d'années. Dans de nombreux cas, des coûts (notamment sociaux et environnementaux) inacceptable et souvent inutiles ont été supportés par des habitants du bassin versant afin de sécuriser les bénéfices qu'offrent le barrage. Le barrage de Fincha à l'ouest de l'Ethiopie qui avait plusieurs usages a provoqué des changements dans l'utilisation des terres, la relocalisation des populations contre leur volonté et une forte pression dans la partie supérieure du bassin versant. Après la création du barrage, les productions culturelles et animalières ont été décalées vers les parties fragiles du bassin versant. L'absence de méthodes d'intensification de l'agriculture, des techniques de conservation des eaux et des sols (CES), la pauvreté des familles ainsi que l'insécurité dans l'accès des terres et la forte pression socio-économique conduisent à un appauvrissement grandissant des habitants du bassin versant. Augmentant l'érosion, l'envasement et réduisant par conséquent la durée de vie du barrage. Les producteurs connaissent les problèmes d'érosions mais ne sont pas sûres des effets bénéfiques des mesures de conservation des eaux et des sols (CES) sur les rendements des cultures comme définies dans les recommandations. Le besoin élevé de la main d'œuvre, la perte des superficies cultivées, l'insécurité liée à l'accès des terres et l'absence de profit immédiat a négativement affecté l'adoption des mesures de CES. La Gestion Intégrée du bassin versant (GIBV) apparaît comme une alternative centrale et une approche sectorielle dans la planification des barrages. Le point essentiel pour le développement d'un programme de barrage utilisant la GIBV, est la combinaison permettant l'amélioration du niveau de vie des populations et la durabilité de la ressource de base. Pour les producteurs dont l'objectif de production est la subsistance, c'est seulement la production courante qui garantie la survie de la famille. Par conséquent, la GIBV devrait être accompagnée de la création de plateformes multifonctionnelles et de l'intégration de méthodes douces pour créer un environnement où la science et la connaissance aident les personnes à développer une diversité de solutions localement appropriées de gestion des ressources. La GIBV peut certainement dresser les problèmes sociaux, environnementaux et économiques pendant la planification de nouveaux barrages en Ethiopie.

Wind erosion control with scattered vegetation in the Sahelian zone of Burkina Faso (2006).

Abstract

The Sahelian zone of Africa is the region that is globally most subjected to land degradation, with wind erosion being the most important soil degradation process. By using control measures, the negative effects of wind erosion can be reduced. At present, adoption of wind erosion control measures by Sahelian farmers is low, as most recommended measures do not fit into the farming systems. Therefore, the possibilities of using the local agro-forestry system, i.e. scattered vegetation of trees and shrubs as a wind erosion control strategy were explored in this study. The study area was located in the Sahelian zone of Burkina Faso. A survey among farmers revealed that they generally have a good knowledge of wind erosion processes and the possible wind erosion protection by natural vegetation. Detailed field measurements of wind speed and sediment transport revealed that the fluctuations in horizontal wind speed mainly cause wind erosion. Measurements around isolated vegetation elements revealed that these elements reduce wind speeds and sediment transport, and they are effective in trapping material already in transport. The effectiveness in reducing wind speed and sediment transport of scattered vegetation depends on the number of vegetation elements, the type of vegetation element and the height, width and porosity of the canopy of the element. A model was developed to simulate field-scale wind erosion with different types and arrangements of vegetation elements. This model can be used to develop optimal vegetation cover densities and spatial arrangements for wind erosion control. Overall it can be concluded that the use of the local agro-forestry system as a wind erosion control strategy is promising.

Résumé

La zone sahélienne de l'Afrique est la région qui globalement est plus soumise à la dégradation des terres, avec l'érosion éolienne comme le processus de dégradation de sol le plus important. En employant des mesures de maîtrise, les effets négatifs de l'érosion éolienne peuvent être réduits. Actuellement, l'adoption des mesures de maîtrise l'érosion éolienne par des fermiers sahéliens est faible, car la plupart des mesures recommandées ne s'adaptent pas aux systèmes de cultures. Par conséquent, dans cette étude on a exploré les possibilités d'employer le système local des parcs

agroforestiers, c.à.d. des arbres et arbustes dispersées dans les domaines fermiers, comme stratégie de contrôler l'érosion éolienne. Le secteur d'étude a été situé dans la zone sahélienne au Burkina Faso. Un aperçu parmi des fermiers a indiqué qu'ils ont généralement une bonne connaissance des procédés d'érosion éolienne et la protection possible par la végétation naturelle. Les expériences détaillées de la vitesse du vent et du transport de sédiment sur le terrain ont indiqué que les fluctuations dans la vitesse horizontale du vent causent principalement l'érosion éolienne. Les expériences autour des éléments végétaux isolés ont indiqué que ces éléments diminuent la vitesse du vent et le transport de sédiment, et sont efficaces dans le piégeage de matériels déjà transportés. L'efficacité dans la réduction de la vitesse du vent et du transport de sédiment de la végétation dispersée dépend du nombre d'éléments de végétation, du type, de la taille, la largeur et de la porosité de la couronne de l'élément. Un modèle a été développé pour simuler l'érosion éolienne de plein champ avec différents types et arrangements d'éléments végétaux. Ce modèle peut être employé pour développer des densités optimales de couverture de végétation et des arrangements spatiaux pour le contrôle d'érosion éolienne. De façon générale on peut conclure que l'utilisation du système local des parcs agroforestiers comme stratégie de contrôler l'érosion éolienne est prometteuse.

MICHEL J.P.M. RIKSEN

The University of Wageningen

Wind Born(e) Landscapes: The role of wind erosion in agricultural land management and nature development (2006).

Abstract

Wind has played an important role in the geological development of north-western Europe. Various aeolian deposits such as inland dunes, river dunes, cover sands, drift sands and coastal dunes, form the base of large areas in our present landscape. The role of wind erosion in today's north-west European landscapes is, besides in coastal dunes, mainly related to arable fields (on light sandy soils), and to some active remnants of the inland drift-sand areas. In both latter cases there is an urgent need to manage the wind-erosion process. The aim of this Ph.D. thesis is to develop management tools and strategies to control unwanted and wanted wind erosion.

On arable land the main objective of managing the wind erosion process is to minimize the on- and off-site damage by reducing erosion risk. The extent, frequency, intensity of wind erosion events, and thereby their on-site and off-site effects, is controlled

by soil characteristics, climate and human activities. Field surveys in areas with light sandy soils in four European countries showed that the erosion risk on agricultural land on light sandy soils is controlled by the cropping system, openness of the landscape and farmers practices. Scenario runs with the WEELS wind erosion model give insight into the general change in erosion risk per month. The simulations point to major changes in erosion risk for changes in a wind-break network, but relatively small changes in erosion risk for the tested cropping systems and climate-change scenarios. With this information, the possible consequences for on-site and off-site damage can be estimated, and from this estimation, additional (policy) measures for controlling wind erosion can be formulated for the region in question. There are enough effective land-management techniques available to minimize the erosion risk to an acceptable level. Voluntary measures based on good agricultural practice work well in a cropping system with highly valuable crops and farmers' financial benefit from control measures. However, additional policy measures such as mandatory measures and subsidies are needed in case of cropping systems with low or negative net profits and in case of high risk for off-site damage for instance in the period after harvesting when the soil is not longer protected by a crop.

Inland drift-sand areas, on the contrary suffer from a lack of wind erosion activity. In the remnant active drift-sand areas with nature as the main land-use type, which were saved from the large-scale afforestation schemes at the beginning of the twentieth century, an ecologically high valuable vegetation and fauna developed. The role of wind erosion as main landscape differentiating process has changed to a local process with limited impact on the further development of the drift-sand areas. The general trend is an ongoing reduction of wind erosion activity and further colonization of the drift sands by vegetation. This development addresses the reduced openness of the landscape, change in land-use, the limited size of the remainder open drift-sand areas, the relative high nitrogen-deposition and the invasion by exotic plant species. Without sufficient erosion activity the drift-sand pioneer vegetation turns into a grass-dominated vegetation and eventually to forest. To maintain the positive interaction between erosion and the pioneer vegetation in the remaining active drift-sand areas, it is necessary to keep the active (bare) areas open (process management). In practice several tillage techniques are used by the terrain managers. Of these the beach-sand cleaner and the rotary cultivator proved to be most effective to reactivate drift sand areas with a pioneer vegetation cover. At the same time the complete topsoil needs to be removed to set back the succession (pattern management) in parts of the areas covered with higher succession stages. This can go hand in hand with reactivation of wind erosion on locations in order to slow down the succession rate. In that case the treated area should be at least 5 to 10 ha to guarantee a positive impact of erosion on the surrounding area. Other criteria are: the presence of a sufficient amount of erodible sand and an optimum erosive wind force.

For further information on the Ph.D. theses of Wageningen University, please contact:

Dr ing. Wim P. Spaan

Erosion and Soil and Water Conservation
Nieuwe Kanaal 11
6709PA Wageningen
The Netherlands
Tel: 00 31 317 482764;
Fax: 00 31 317 486103;
E-mail: Wim.Spaan@wur.nl

LONG-TERM STUDIES IN ECOLOGY: A CELEBRATION OF 150 YEARS OF THE PARK GRASS EXPERIMENT (22 – 24 MAY 2006) AT ROTHAMSTED, RESEARCH, HARPENDEN, HERTFORDSHIRE, UK.

Rothamsted Research is the largest agricultural research centre in the UK and almost certainly the oldest agricultural research station in the world. The Station was established in 1843, due to the vision of the fertilizer manufacturer Sir John Bennet Lawes. In collaboration with Dr Joseph Henry Gilbert, he instigated many field experiments and they were pioneers in the early development of our concepts in soil chemistry and our understanding of soil fertility and crop-soil interactions. Lawes and Gilbert collaborated for some 57 years.

2006 sees the 150th anniversary of the world-famous 'Park Grass Experiment' based at Rothamsted Research. It is the longest standing ecological experiment of its kind. The Experiment continues to exemplify the value of long-term studies to investigate effects of biotic and abiotic factors on population dynamics, above- and below-ground community composition and micro-evolutionary change. To commemorate this milestone, Rothamsted Research hosted an international symposium exploring the role and applications of long-term ecological research, and the exploitation of resulting datasets. The Symposium highlighted experiments already underway, but also reviewed opportunities for establishing new experiments as an investment for future generations of scientists and society as a whole.

The Symposium consisted of three sessions of invited oral presentations, covering a range of perspectives and scales, and a half-day of field visits to the famous field experiments of Rothamsted Research.

Session 1 commenced with an overview of the history of Rothamsted Research by Professor Sir Gordon Conway FRS. Then a series of presentations reviewed results from the Park Grass Experiment itself, with particular emphasis on recent studies of soils and plants and their interactions. It included contributions from Mick Crawley FRS (Imperial College London, UK), Jonathan Silvertown (Open University, Milton Keynes, UK), Keith Goulding, Richard Harrington, David Powlson, Paul Poulton and Ian Woivod (all from Rothamsted Research).

Session 2 widened the picture geographically, with presentations from five of the world's foremost plant ecologists. The main focus was exploring the mechanisms that control biodiversity, but the topics covered were extremely varied. They included 'The Niche Dimension Hypothesis of biodiversity' (David Tilman, University of Minnesota, USA), 'Nutrient-based niches in a neotropical tree community' (Stephen Hubbell, Smithsonian Tropical Research Institute, USA), 'New biodiversity experiments as platforms for long-term studies in ecology' (Bernhard Schmid, University of Zurich, Switzerland), 'Aboveground-belowground feedbacks in time and space: evidence from deer, islands and chronosequences' (David Wardle, Swedish University of Agricultural Sciences, Umeå) and 'Use of plant trait databases to interpret long-term experiments on the impacts of changing land-use and climate' Phil Grime FRS (University of Sheffield, UK).

Session 3 examined classic long-term studies of other trophic levels, including Darwin's finches on the Galapagos Islands and red deer on the Scottish Island of Rhum. These included contributions from Peter Grant FRS (Princeton University, USA), Ilkka Hanski (University of Helsinki, Finland), Jane Lubchenco (Oregon State University, USA), Charles Godfray (Imperial College, London, UK) and Tim Coulson (Imperial College). Delegates were able to display posters explaining their research and some 18 posters were on-view throughout the Conference.

For me, the highlight of the Conference was a visit to the classic Rothamsted field experiments. Naturally, the main focus was the Park Grass Experiment itself. The site was established to investigate how to maximize the yield of hay using mineral fertilizers and organic manure. However, Lawes and Gilbert soon observed responses of the plant communities to treatment. Thus, interactions between treatment and species composition became a major focus of research. This is just one example of the value of long-term experiments (LTE). The Park Grass site covers 2.8 hectares and consists of 98 plots and subplots. Some subplots are further subdivided into microplots. Soil and vegetation samples from the Park Grass Experiment are added to the established archive of over 300,000 samples stored at Rothamsted. However, Rothamsted missed out on the commercial possibilities of 'I have walked around the entire Park Grass Experiment' t-shirts!

Visits were also made to the adjacent 'Moth Light Trap Experiment' (established in 1933), the 'Broadbalk Winter Wheat Experiment' (established in 1843) and the 'National Willow Collection'. We also visited the impressive Victorian manor house and gardens of Sir John and experienced something of the flavour of Victorian country life.

A central theme of the Conference was the value of long-term field experiments. When they are established, the initiators do not know what benefits, if any, will accrue. However, there was a general consensus that such experiments produce more valuable scientific information than the initiators can imagine! To extend the same vision of promoting long-term eco-environmental experiments, a trust fund ('The Ecological Continuity Trust' (ECT)) is being established to promote long-term ecological and environmental research. Further information can be accessed from:

<http://www.ecologicalcontinuitytrust.org/>

The Conference was very professionally and well organized. The participants owe a sincere debt of thanks to the organizers. These included Marie-Louise Burnett, Keith Goulding, Richard Harrington, Paul Poulton, David Powlson, Jonathan Silvertown, Ian Woiwod and numerous other colleagues.

An up-to-date review of the Park Grass Experiment is presented in:

J. Silvertown, P. Poulton, E. Johnston, G. Edwards, M. Heard and P.M. Biss (2006). **The Park Grass Experiment 1856-2006: its contribution to ecology.** *Journal of Ecology* 94, 1-14.

Further information on Rothamsted Research can be obtained from:

<http://www.rothamsted.ac.uk>

Mike Fullen

The University of Wolverhampton, UK.



J.L. Rubio, A.C. Imeson, P. Bielek, M.A. Fullen, J.A. Pascual, V. Andreu, L. Lecatala and C. Ano (Eds) (2006). **The Directory of European Organizations and Persons Working on Soil Protection.** Soil Science and Conservation Research Institute, Bratislava, Slovakia, 192 pp.

The appearance of the Directory is a welcome joint initiative of the 'European Society for Soil Conservation' (ESSC) and the Project on 'Soil Conservation and Protection for Europe' (SCAPE). As stated in the foreword by Michael Hamell (Agriculture and Soil Unit, Directorate-General Environment, European Commission) the Directory "is timely and should prove an invaluable reference for all interested in this enormous area of work". It was a visionary activity to compile this database, which includes 204 national and international organizations, enterprises, associations, NGOs and 620 individuals working on various aspects related to soil protection. The Editors did great work in gathering, selecting, collating and composing the information. However, how they accomplished this is not explained, yet it would be very useful to know how it was achieved.

Technically, the Directory is a catalogue and consists of a book version and the interactive digital database in the form of a CD version. What is the most useful is for everyone to choose for themselves. The first impression is that in the Book, searching is faster and simpler. However, use of simple cataloging techniques (like pages in different colours or clipping of letters), could make it more user-friendly. In the associated CD, multi-selection search is well organized with the added advantages of interactive facilities.

The launch of the Directory supports and raises awareness and will make beneficial and lasting contributions to soil protection. Anton Imeson (SCAPE Co-ordinator) and José Luis Rubio (ESSC President) introduced the Directory as a tool to help facilitate scientific exchanges, promote co-operative research activities and provide a network representing a stakeholders' nucleus. Potentially, this nucleus could support the calls of the EU on the elaboration and launching policies related to soil, including the ongoing 'Soil Protection Thematic Strategy'. The present issue of the Book and CD covers many of the defined tasks, but is currently restricted to user groups (i.e. limited edition, selected distribution). I suggest the virtual distribution of the Directory is the next logical step. Translocation to the web and establishment of a web-based information source will make the Directory more open and accessible and easier and faster to update.

Editor's note: The Directory provides information on organizations and people who are dedicated to soil conservation and degradation research in Europe.

It is a pleasure that the Editors of 'The Directory of European Organizations and Persons Working on Soil Protection' (J.L. Rubio, A.C. Imeson, P. Bielek, M.A. Fullen, J.A. Pascual, V. Andreu, L. Lecatala and C. Ano) have invested their experience and energy and now the products of these efforts appear in our hands.

Dr Saulius Marcinkonis

Lithuanian Institute of Agriculture (Voke Branch), Vilnius, Lithuania.

The price for non-ESSC members is €10.

All orders should be addressed to The Soil Science and Conservation Research Institute in Bratislava. Contact details are:

Vyskumny ustav podoznalectva a ochrany pody

Soil Science and Conservation Research Institute

Gagarinova 10

827 13 Bratislava

Slovakia

E-mail: bielek@vupu.sk or tekelova@vupu.sk

Tomislav Hengl and Mike Gould (2006). **The Unofficial Guide for Authors (or How to Produce Research Articles Worth Publishing)**. EUR 22191 EN, Office for Official Publications of the European Communities, Luxembourg, 54 pp. (ISBN: 92-79-01703-9).

“Good ideas are like yeast in the historical progress of science.”
(T. Hengl and M. Gould, 2006, page 24).

The European Commission has produced this unofficial guide for authors, advising on approaches to the preparation of research articles for publication. This publication can be downloaded free as a pdf from the following web site:

http://eusoils.jrc.it/ESDB_Archive/eusoils_docs/other/EUR22191.pdf

The Guide is an extremely useful and informative document, of value to scientific authors in all stages of their career. The Guide has a helpful foreword by Luca Montanarella and continues in three Sections:

1. Introduction (p. 1-20).
2. Guide to Authors (p. 21-42).
3. Appendix (p. 43-54).

The Introduction reviews the challenges and problems posed by the publication of research articles. These include the ‘publish or perish’ syndrome, hyperproduction (production of similar papers in different journals), phoney co-authors, the difficulties posed by poor reviews and/or poor reviewers, the temptation for editorial board members to abuse their position in promoting self-publication and fashionable pliability (i.e. relative easy publication because a subject is currently in vogue).

The authors develop several response strategies to these problems. They stress the importance of quality rather than quantity in the evaluation of research productivity and that evaluation should not so much emphasize ‘publish or perish’ but rather ‘make an impact or perish’. The authors also stress the potential of the web, especially in the dissemination of science in the developing world.

The Guide to Authors gives helpful guidelines in the preparation of a research article, from initial idea to final publication. The authors stress the importance of careful planning and the value of a one-page ‘concept paper’ in the preparation process. They also argue that shorter, more focused papers tend to have higher impact. The authors present clear and informative writing and paper format rules and a pre-submission checklist.

In the Appendix the authors ‘practice what they preach’ and present a research paper on how to present a research paper! The paper entitled ‘Rules of thumb for writing research articles’ is very informative and annotated with useful notes and comments.

The Document is written in a very readable and ‘chatty’ style. The authors certainly leave little doubt as to their opinions. For instance, they state “phoney authors are the parasites of science and they lack moral values.” Furthermore, they regard the

review process as generally “slow, inefficient, unrepresentative and biased”, largely because reviewers usually receive no reward at all for their time-consuming work. The publication has several very useful flow diagrams which assist paper preparation (on pages 22, 36, 48, 49 and 50) and concludes with a 40 step procedure from ‘draft a working title’ to ‘are all references relevant, up to date and accessible?’ (page 54).

A very worthwhile read!

Mike Fullen,
The University of Wolverhampton, UK.

Inge Håkansson (2005). **Machinery-induced Compaction of Arable Soils, Incidence – Consequences – Counter-measures.** Swedish University of Agricultural Sciences, Uppsala, Department of Soil Sciences, Reports from the Division of Soil Management, No. 109, 154 pp. (ISSN: 0348-0976).

‘Machinery –Induced Compaction of Arable Soils; Incidence – Consequences - Counter-measures’ is an excellent book for anyone wishing to learn more about soil compaction and to explore environmental impact, compaction avoidance and alleviation strategies. Despite the ‘regional’ nature for the core of the information utilized, particularly stressing the Scandinavian experience, the specific effects of soil compaction are of importance and relevance to scholars and practitioners everywhere.

Soil compaction is a complex subject and this was effectively summed up in the first line of the first figure “when a soil is compacted nearly all of its properties change”. This is reflected by the nine chapters that encapsulate this statement and include topics ranging from soil physics, ecological impacts, crop growth responses, economic scenarios and considers possible engineering solutions, such as the need for vehicle load limits. Much of the data used are Scandinavian in origin, with some from North America, but the general principles of compaction are the same whatever the region of the world. However, the author does include the important caveat that each soil compaction scenario is unique and has to be dealt with on an individual basis. Although primarily aimed at the ‘soil science’ aspect of compaction, there is a very useful multidisciplinary Chapter 6. This Chapter examines mineral nutrition, bacteria and their role in the nitrogen and carbon cycles. If subsequent editions are to be produced, then this is an area that the author could consider expanding, as there is a growing body of knowledge that is emerging which concerns the roles of plant adaptation and tolerance strategies to soil physical conditions. To dissect the technical aspects of the text then an extremely useful summary or ‘jargon-buster’ box is included in each chapter to aid clarity and will make the text accessible to a wide readership.

Dr Barry Mulholland
University of Plymouth Colleges Faculty
Duchy Agricultural College
Rosewarne
Cornwall TR15 1LA, U.K.

Editors

John Boardman
University of Oxford,
UK

Jean Poesen
K.U. Leuven, Belgium

Hbk 0-470-85910-5
£150.00* / €235.00*
Due August 2006.

* Prices are subject to change

Soil Erosion in Europe

Soil Erosion in Europe provides a unique and comprehensive assessment of soil erosion throughout Europe, which is an important aspect to control and manage if landscapes are to be sustained for the future.

Written in two parts, this book primarily focuses on current issues, area-specific soil erosion rates, on and off-site impacts, government responses, soil conservation measures, and soil erosion risk maps. The first section overviews the erosion processes and the problems encountered within each European country, whilst the second section takes a cross-cutting theme approach.

- Based on a COST-funded project that has been running for five years with 145 erosion scientists from 19 countries.
- Reviews contemporary erosion processes and rates on arable and rangeland in Europe.
- Looks at current issues, such as socio-economic drivers, controlling factors specific to the country and changes in land use.

Contents

Preface

List of Contributors

Section 1

Norway, Sweden, Finland, Denmark, Iceland, Lithuania, Estonia, Russia and Belorussia, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Moldavia, Ukraine, Austria, Germany, Switzerland, Italy, Albania, Serbia and Montenegro, Greece, Macedonia, Slovenia, Spain, Spain: Canary Islands, Portugal, France, Belgium, The Netherlands, Luxembourg, Britain and Ireland.

Section 2

Introduction

Past soil erosion in Europe

Soil Erosion Processes

Erosion processes across Europe: major processes and controlling factors and research needs; Soil Surface Crusting and Structure slumping in Europe; Sheet and rill erosion; Gully Erosion; Piping hazard on collapsible and dispersive soils in Europe; Wind Erosion; Shallow landsliding; Tillage Erosion; Soil losses due to root and tuber harvesting; Soil erosion processes in non-cultivated land; Soil erosion by land levelling.

Risk Assessment and Prediction

Erosion risk assessment and erosion maps; Rain erosivity; Soil erodibility; Erosion modelling in Europe; Existing soil erosion datasets; Impacts of environmental changes on soil erosion across Europe

Off-site impacts and responses

Muddy floods; Reservoir sedimentation; Off-site impacts of erosion: eutrophication as an example; Economic Impacts; Government and agency response to the erosion risk; Agri-environmental measures and soil conservation.

Contents

Preface

List of Contributors

Section 1

Norway, Sweden, Finland, Denmark, Iceland, Lithuania, Estonia, Russia and Belorussia, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Moldavia, The Ukraine, Austria, Germany, Switzerland, Italy, Albania, Serbia and Montenegro, Greece, Macedonia, Slovenia, Spain, Spain (Canary Islands), Portugal, France, Belgium, The Netherlands, Luxembourg, Great Britain and Ireland.

Section 2

Introduction

Past soil erosion in Europe

Soil Erosion Processes

Erosion processes across Europe: major processes and controlling factors and research needs; Soil surface crusting and structure slumping in Europe; Sheet and rill erosion; Gully erosion; Piping hazard on collapsible and dispersive soils in Europe; Wind erosion; Shallow landsliding; Tillage erosion; Soil losses due to root and tuber harvesting; Soil erosion processes in non-cultivated land; Soil erosion by land levelling.

Risk Assessment and Prediction

Erosion risk assessment and erosion maps; Rain erosivity; Soil erodibility; Erosion modelling in Europe; Existing soil erosion datasets; Impacts of environmental changes on soil erosion across Europe.

Off-site impacts and responses

Muddy floods; Reservoir sedimentation; Off-site impacts of erosion: eutrophication as an example; Economic Impacts; Government and agency response to the erosion risk; Agri-environmental measures and soil conservation.

Editor's note: Dr Matt Römkens (Oxford, Mississippi, USA) has kindly agreed to review the publication for a future issue of the ESSC Newsletter.

Recent publications by ESSC Members

We are including the citation details of papers and books produced by ESSC members. This will provide a growing resource for exchange of valuable information to both research and teaching. The cumulative citation list is being added to and updated on the ESSC web site. Please e-mail the citation details of papers in international refereed journals since and including the year 2000 to any member of the Editorial team.

PAPERS

Bazzoffi P., Calzolari, C., Costantini, E.A.C., Pellegrini, S., Torri D., Borselli, L., Del Sette M., Sanchis P.S., Ungano, F., Yanez, M.S., Busoni, E. and Monaci, F. (2004). **Field trip guide to Val d'Orcia**, 27 March 2003. p. 585-610 In: R. Francaviglia (Ed.) *Agricultural Impacts on Soil erosion and Soil Biodiversity: Developing Indicators for Policy Analysis*. Proceedings from an OECD Experts Meeting. Istituto Sperimentale per la Nutrizione delle Piante (ISNP), Rome, Italy.

Boardman, J. (2000). Soil erosion, p. 984-986 In: P.L. Hancock and B.J Skinner (Eds) **The Oxford Companion to The Earth**. Oxford University Press, Oxford.

Boardman, J. (2000). **The problem of muddy floods**. Rural Property Bulletin November/December 2000, 26-27.

Boardman, J. and Lorentz, S. (2000). **The GCTE Soil Erosion Network and model evaluation studies**. South African Geographical Journal 82(3), 154-156.

Boardman, J. (2001). **Classics of physical geography revisited**. Trimble, S.W. (1983) A sediment budget for Coon Creek basin in the Driftless area, Wisconsin, 1853-1977. *Progress in Physical Geography* 25(2), 263-268.

Boardman, J. (2001). **Flooding and the use of land**. *Town and Country Planning* 70(4), 113.

Boardman, J. (2001). **Storms, floods and soil erosion on the South Downs, East Sussex, autumn and winter 2000-01**. *Geography* 84(4), 346-355.

Boardman, J. and Favis-Mortlock, D.T. (2001). **How will future climate change and land-use change affect rates of erosion on agricultural land?** p. 498-501 In: Proceedings of the 'International Symposium on Soil Erosion Research for the 21st Century'. American Association of Agricultural Engineers, 3 – 5 January 2001, Honolulu, Hawaii.

Boardman, J. (2002). Erosion assessment, p. 399-401 In: R. Lal (Ed.) **Encyclopedia of Soil Science**. Marcel Dekker Inc., New York.

Boardman, J. (2002). **The need for soil conservation in Britain – revisited**. *Area* 34(3), 419-427.

Boardman, J. (2003). **Soil erosion and flooding on the South Downs, southern England 1976-2001**. *Transactions of the Institute of British Geographers* 28(2), 176-196.

Boardman, J., Evans, R. and Ford, J. (2003). **Muddy floods on the South Downs, southern England: problem and response**. *Environmental Science and Policy* 6(1), 69-83.

Boardman, J. Parsons, A.J. Holmes, P.J., Holland, R. and Washington, R. (2003). **Development of badlands and gullies in the Sneeuberg, Great Karoo, South Africa.** *Catena* 50(2-4), 165-184.

Boardman, J., Holmes, P.J., Rhodes, E.J. and Bateman, M.D. (2005). **Colluvial fan gravels, depositional environments and luminescence dating: a Karoo case study.** *South African Geographical Journal* 87(1), 73-79.

Booth, C.A., Shilton, V., Fullen, M.A., Walden, J., Worsley, A.T. and Power, A.L. (2006). **Environmental magnetism: measuring, monitoring and modelling urban street dust pollution.** p. 333-342 In: J.W.S. Longhurst and C.A. Brebbia (Eds) *Air Pollution XIV*. Wessex Institute of Technology (WIT) Press, Southampton.

Brenna, S., Costantini, E.A.C., L'Abate E.G., Pastori, M. and Riparbelli, C. (2005). **Soil moisture and temperature regimes in Lombardy (northern Italy).** *Advances in Geo-Ecology* 36, 223-232.

Cantón, Y. Domingo, F. Solé-Benet, A. and Puigdefábregas, J. (2001). **Hydrological and erosion response of a badlands system in semiarid SE Spain.** *Journal of Hydrology* 252(1-4), 65-84.

Cantón, Y., Solé-Benet, A., Queralt, I. and Pini, R. (2001). **Weathering of a gypsum-calcareous mudstone under semi-arid environment at Tabernas, SE Spain: laboratory and field-based experimental approaches.** *Catena* 44(2), 111-132.

Cantón, Y., Boer, M., Sanjuan, M., Solé-Benet, A. and Moussa, M. (2002). **Land use change and topographic control in a semi-arid region in southern Tunisia,** p. 376-378 In: A. Faz, R. Ortiz and A.R. Mermut (Eds) *Sustainable Use and Management of Soils in Arid and Semiarid regions, Vol II*. Polytechnic University of Cartagena, Cartagena, Spain.

Cantón, Y., Domingo, F., Solé-Benet, A. and Puigdefábregas, J. (2002). **Influence of soil surface types on the overall runoff of the Tabernas badlands (SE Spain).** *Field data and model approaches. Hydrological Processes* 16, 2621-2643.

Cantón, Y., Solé-Benet, A. and Lázaro, R. (2003). **Soil-geomorphology relations in gypsumiferous materials of semiarid Almería (SE Spain).** *Geoderma* 115, 193-222.

Cantón, Y., Del Barrio, G., Solé-Benet, A., and Lázaro, L. (2004). **Topographic controls on the spatial distribution of ground cover in a semiarid badlands area.** *Catena* 55, 341-365.

Cantón, Y., Solé-Benet, A. and Domingo, F. (2004). **Temporal and spatial patterns of soil moisture in semiarid badlands of SE Spain.** *Journal of Hydrology* 285, 199-214.

Contreras, S. and Solé-Benet, A. (2003). **Hidrofobicidad en suelos mediterráneos semiáridos: implicaciones hidrológicas para una pequeña cuenca experimental en el SE ibérico.** *Cuaternario y Geomorfología* 17, 29-45.

Costantini, E.A.C. and Sulli, L. (2000). **Land evaluation in areas with high environmental sensitivity and qualitative value for crops: the viticultural and olive-growing zoning of Siena Province.** *Bollettino Società Italiana della Scienza del Suolo* 49(1-2), 219-234.

Costantini, E.A.C., Castelli, F. and L'Abate G. (2005). **Use of the EPIC Model in estimating soil moisture and temperature regimes to assess the desertification risk of Italy.** *Advances in GeoEcology* 36, 251-263.

- Costantini, E.A.C., L'Abate G. and Urbano, F. (2005). **Soil Regions of Italy**. CRA-ISSDS Consiglio per la Ricerca e la Sperimentazione in Agricoltura, Istituto Sperimentale per lo Studio e la Difesa del Suolo, Firenze (Florence), 8 pp. [online]: www.soilmaps.it
- Davies, K., Fullen, M.A. and Booth, C.A. (2006). **A pilot project on the potential contribution of palm-mat geotextiles to soil conservation**. *Earth Surface Processes and Landforms* 31, 561-569.
- Evans, R. and Boardman, J. (2003). **The curtailment of muddy floods in the Sompting catchment, South Downs, West Sussex, southern England**. *Soil Use and Management* 19, 223-231.
- Foster, I.D.L., Boardman, J., Keay-Bright, J. and Meadows, M.E. (2005). **Land degradation and sediment dynamics in the South African Karoo**, p. 207-213 In: D.E Walling and A. Horowitz (Eds) *Sediment Budgets*. Proceedings of the International Association of Hydrological Sciences (IAHS), Foz do Iguacu (Brazil), IAHS Publication 295.
- Frot, E., van Wesemael, B., Vandenschrick, G., Souchez, R. and Solé-Benet, A. (2002). **Characterising rainfall regimes in relation to recharge of the Sierra de Gador-Campo de Dalías aquifer system**. *Belgeo* 2002(2), 145-158.
- Fullen, M.A. and Booth, C.A. (2006). **Grass ley set-aside and soil organic matter dynamics on sandy soils in Shropshire**, U.K. *Earth Surface Processes and Landforms* 31, 570-578.
- Fullen, M.A., Booth, C.A. and Brandsma, R.T. (2006). **Long-term effects of grass ley set-aside on erosion rates and soil organic matter on sandy soils in east Shropshire**, UK. *Soil & Tillage Research* 89, 122-128.
- Fullen, M.A., Harris, J. and Hallett, M. (2006). **Soils of the Isle of Man**, p. 340-350, In: R. Chiverrell and G. Thomas (Eds) *The New History of the Isle of Man. The Evolution of the Natural Landscape*. Volume 1. Liverpool University Press, Liverpool.
- Gallart, F., Solé, A., Lázaro, R. and Puigdefábregas, J. (2002). **Badland systems in the Mediterranean**, p. 299-326 In: L.J. Bull and M.J. Kirkby (Eds) *Dryland Rivers: Hydrology and Geomorphology of Semi-arid Channels*. John Wiley, Chichester.
- Holmes, P., Boardman, J., Parsons, A.J. and Marker M.E. (2003). **Geomorphic palaeoenvironments of the Sneeuwberg Range**, Great Karoo, South Africa. *Journal of Quaternary Science* 18, 801-813.
- Jadczyzyn J., Stuczynski T, Szabelak P, Wawer R., Zielinski M., 2003. **History and current status of research and policies regarding soil erosion in Poland**. In: *Agricultural Impacts on Soil Erosion and Soil Biodiversity: Developing Indicators for Policy Analysis*, OECD, 201-209.
- Jankauskas, B., Slepeliene, A., Jankauskiene, G., Fullen, M.A. and Booth, C.A. (2006). **International comparison of analytical methods of determining the soil organic matter content of Lithuanian Eutric Albeluvisols**. *Communications in Soil Science and Plant Analysis* 37(5&6), 707-720.
- Jorba, M., Vallejo, V.R., Josa, R., Alcañiz, J.M. and Solé, A. (2000). **Evaluación de experiencias piloto de restauración ecológica después de una década**. *Ingeopress* 88, 44-50.
- Li, X-Y., González, A. and Solé-Benet, A. (2005). **Evaluation of two infiltration measurement techniques for different soil crusts**. *Catena* 60, 255-266.

Moussa, M., Solé-Benet, A., Domene, M.A. and Vidal, S. (2004). **Suivi de l'humidité du sol dans les oasis littorales tunisiennes pour une meilleure gestion de l'irrigation et du drainage.** Revue des Régions Arides, N° spécial, 370-377.

Nowocień E., Wawer R., and Podolski B., 2004. **Estimating the soil susceptibility to wind erosion in conditions of simulated wind.** Journal of Water and Land Development, 8, 137-146.

Robinson, M., Boardman, J., Evans, R., Heppell, K. Packman, J. and Leeks, G. (2000). **Land use change**, p. 30-54 In: M. Acreman (Ed.) The Hydrology of the UK: A Study of Change. Routledge, London.

Rubio, J.L., Imeson, A.C., Bielek, P., Fullen, M.A., Pascual, J.A., Andreu, V., Recatala, L. and Ano, C. (2006). **Directory of European Organizations and Persons Working on Soil Protection.** Soil Science and Conservation Research Institute, Bratislava, 190 pp. (plus CD-Rom).

Solé-Benet, A., Cantón, Y., Domingo, F., DelBarrio, G., Lázaro, R., Domene, M.A., Vidal, S. and Puigdefábregas, J. (2003). **Long term hydrological monitoring of two micro-catchments in semi-arid SE Spain**, p. 183-188 In: L. Holko, and P. Miklanek (Eds) Interdisciplinary Approaches in Small Catchment Hydrology: Monitoring and Research. IHP-VI Technical Documents in Hydrology No. 67, UNESCO, Paris.

Solé-Benet, A., Pini, R. and Raffaelli, M. (2002). **Hydrological consequences of soil surface type and condition in colluvial mica-schist soils after agricultural abandonment**, p. 523-533 In: J.L. Rubio, R.P.C. Morgan, S. Asins, V. Andreu (Eds) Man and Soil at the Third Millennium (3rd International Congress of the European Society for Soil Conservation), Volume I. Geoforma Ediciones, Logroño, Spain.

Urbano, F., Costantini, E.A.C., L'Abate, G. and Barbetti, R. (2004). **Integrating national soil database and other environmental databases to produce a desertification risk atlas of Italy at the 1:250,000 scale.** Global Workshop on Digital Soil Mapping, Montpellier (France) September 2004 (CD-ROM computer file).

Wawer R., 2003. **Modelling of environmental quality in rural areas: an erosion modeling example.** In: A.R. Dexter and E.A. Czyż. Soil Physical Quality, Puławy, p. 123-125.

Wawer R., 2004. **An indicator for estimating arrangement of rural roads in terrains relief and its digital implementation in GIS on the example of Grodarz stream watershed.** Electronic Journal of Polish Agricultural Universities. Civil Engineering Series 7.

Wawer R., and Nowocień E., 2003. **Application of Sinmap terrain stability model in Grodarz stream watershed.** Electronic Journal of Polish Agricultural Universities. Environmental Development Series 6.

Wawer R., Nowocień E., and Podolski B., 2005. **Real and calculated RUSLE erodibility factor for selected Polish soils.** Polish Journal of Environmental Studies, 14, 655-658.

Announcements

It is with deep regret that we inform you of the tragic death on Saturday, July 8th of two participants on their way to the '18th World Congress of Soil Science' from the Institute of Agrophysics in Lublin, Poland. They were going to Warsaw Airport when they were involved in a car accident. They were:

Professor Ryszard Walczak, D.Sc., corresponding member of the Polish Academy of Sciences and Director of the Institute of Agrophysics, Lublin, Poland.

Dr Dorota Matyka-Sarzynska, promising scientist and mother of two small children.

Other participants of the Conference:

Professor Jan Glinski, D.Sc., Member of the Polish Academy of Sciences and **Professor Teresa Wlodarczyk**, were hospitalized.

Dr Wojciech Skierucha suffered minor injuries.

We are in shock after the death of our colleagues. Professor Ryszard Walczak was a great scientist, perfect organizer, our leader, teacher and friend. His death is an irreparable loss to us all and Polish science. We will try to follow the scientific way that he directed.

Dr Dorota Matyka-Sarzynska was a promising, full of creative passion scientist, a kind and friendly person and mother of two small children.

Professor Józef Horabik

Polish Academy of Sciences

E-mail: sekretariat@ipan.lublin.pl

Editor's note: A message of condolence was sent by Professor J.L. Rubio to Professor J. Horabik on behalf of the ESSC.

Appointment of new Ph.D. research students

None reported.

Institutional movements and promotions of ESSC members

Dr John Boardman (The University of Oxford, UK) has been awarded the Degree of 'Doctor of Science' (D.Sc.). Dr David Favis-Mortlock (The Queen's University of Belfast, UK) is preparing a report for the ESSC Newsletter on John's notable achievement.

ESSC membership list and contact details

The full ESSC membership details are reported in ESSC Newsletter 2005/1. These details are also held on the ESSC web site. Under 'members' you can get a full listing. Also under 'members' you can click on any member country and find a listing of members in the selected country.

We are trying to keep the membership list on the web site up-to-date. Please check your details and let us know if there are any necessary correction(s). If your details change, also please let us know. Please send updated information to Zuzana Tekelová at:

E-mail: tekelova@vupu.sk

Forthcoming Dates For Your Diary...

First Announcements



The 'Flood Repair Network' is pleased to draw your attention to the 'First International Conference on Flood Recovery, Innovation and Response' (FRIAR)

Venue: Institute of Civil Engineers (ICE) Headquarters, Great George Street, London, UK

Dates: 21 and 22 April 2008

This two day Conference will provide a unique opportunity for Practitioners and Researchers to meet in order to exchange experience and ideas.

Scientific and technical sessions will provide an opportunity for the international flood repair community to share experiences and best practice. Themes will include flood repair, research, recovery, response, insurance and innovation in this field. A schedule of social events will also be offered.

The first call for Abstracts is currently being put into circulation, along with details of various advertising and promotional packages.

There is already significant interest in this event, so please register on our website. To obtain further details about this exciting project and to reserve your place, please visit our web site:

www.floodrepair.net

The EPSRC logo consists of the letters 'EPSRC' in a bold, dark red serif font, with a thick green horizontal line above and below the text.

**Engineering and Physical Sciences
Research Council**



Sixth International Conference on Ecosystems and Sustainable Development

Venue: Coimbra, Portugal.

Dates: 5th-7th September, 2007.

ECOSUD 2007 is the Sixth International Conference in the well-established series on Ecosystems and Sustainable Development. The meetings provide a unique forum for the presentation and discussion of recent work on different aspects of ecosystems and sustainable development, including physical sciences and modelling. The conference aims to help create a new science in line with Prigogine's statement that "at all levels we observe

events associated with the emergence of novelties and narrative elements, which we may associate with the creative power of nature".

ECOSUD is not only a forestage to present novel research related to ecological problems from all over the world; it also gives opportunities for new emergent ideas in science arising from the cross fertilization of different disciplines including mathematical models and eco-informatics, evolutionary thermodynamics and biodiversity, structures in ecosystems modelling and landscapes to mention but a few.

The aim of the Conference is to encourage and facilitate the interdisciplinary communication between scientists, engineers and professionals working in ecological systems and sustainable development. Emphasis will be given to those areas that will most benefit from the application of scientific methods for sustainable development, including the conservation of natural systems around the world. The Conference objectives have evolved over the years, seeking to integrate thermodynamics, ecology and economics into "ecodynamics". This successful series first started in Peniscola, Spain (1997); and continued in Lemnos, Greece (1999); Alicante, Spain (2001); Siena, Italy (2003); and Cadiz, Spain (2005).

Conference Topics: Thermodynamics and ecology; Sustainability indicators; Mathematical and system modelling; Ecosystems modelling; Biodiversity; Sustainability development studies; Conservation and management of ecological areas; Socio-Economic factors; Energy conservation and generation; Environmental and ecological policies; Environmental management; Environmental risk; Natural resources management; Recovery of damaged areas; Biological aspects; Complexity; Remote sensing; Landscapes and forestation issues; Soil and agricultural issues; Water resources; Sustainable waste management; Air pollution and its effects on ecosystems.

Further information: website

<http://www.wessex.ac.uk/conferences/2007/eco07/index.html> or email the Conference Secretariat ecosud@wessex.ac.uk

Second Announcements

1ST EUROPEAN CONGRESS OF CONSERVATION BIOLOGY, 'DIVERSITY FOR EUROPE', 22 – 26 AUGUST 2006, EGER, HUNGARY

The European Section of the Society for Conservation Biology and the Hungarian Natural History Museum invites you to Eger, Hungary for the '1st European Congress of Conservation Biology' (ECCB).

The ECCB will cover all aspects of conservation biology under the theme of 'Diversity for Europe'. We expect contributions to reflect the biological and cultural diversity of our continent, as well as the diversity of approaches to conservation. We have the specific intent to address the problems of linking science, policy and practice. The Scientific Committee decided to include circa 30 symposia and workshops in the programme. The topics are from the conservation of large carnivores to marine biodiversity, from modelling to threats of GM plants, from transboundary issues to urban conservation.

Now, ECCB announces its CALL FOR ABSTRACTS for contributed papers and posters. The Congress, with an expected 800 participants, and plenaries who are world leaders in their field (like John Lawton, Georgina Mace and Robert Pressey), encourages scientists and practitioners of all aspects of conservation biology to submit an abstract and to attend the Congress. Please visit our website for more information:

<http://www.eccb2006.org/>.

Please, join us in Hungary! This country is situated in the heart of Europe, has a unique and diverse wildlife and is the home of famous wines and cuisine. Just some of the many reasons to attend the Congress in Eger, 2006!

Looking forward to meeting you in Eger, 2006!

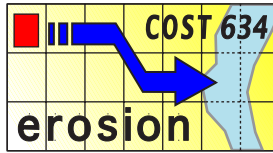
Andrew Pullin

Chair, Scientific Committee

András Báldi

Chair, Local Organizing Committee





INTERNATIONAL CONFERENCE

Farm Level Adoption of Soil and Water Conservation Measures and Policy Implications in Europe

Wageningen, The Netherlands (1 – 3 October 2006)

Objectives

The aim of the meeting is to discuss research methodologies and results on farm level adoption of SWC measures and 'best practices', and on the policy measures required for improved adoption. The Workshop will build upon the outcome of earlier COST634 conferences, and in particular the one in Mont Saint Aignan on 'Soil conservation management, perception and policy'. It will concern the two working groups WG1: 'Policy issues in the implementation of sustainable land use', and WG2: 'Sustainable farm-scale management'. In the papers for this Conference the focus should be on socio-economic aspects.

Conference Focus Topics

The Workshop will focus on the following issues in European agriculture:

- Under WG1:** Public versus private interests in SWC, and the role of negotiations.
Effects of policy measures on adoption of SWC measures.
- Under WG2:** Socio-economic (and physical) factors, affecting adoption of SWC measures. Farmer's perception and adoption behaviour with regard to SWC.
Best agricultural practices and cross-compliance.

Draft Programme:

- Saturday 30 September:** Arrival and registration, then welcome reception
Sunday 1 October: Field trip to South Limburg
Monday 2 October: WG2 Plenary sessions on Farm level adoption
Tuesday 3 October: WG1 Plenary sessions on Policy implications
Closing reception and dinner

Organizers: Jan de Graaf, Michel Riksen, Dirk Meindertsmā

Field trip committee: Wim Spaan, Piet Peters

Scientific committee: John Boardman (UK), Preben Olsen (DK), Anne Mathieu (F),
Leo Stroosnijder (NL)

Host Institution:

Wageningen University and Research Centre

Erosion and Soil & Water Conservation Group,
Nieuwe Kanaal 11, 6709 Wageningen, The Netherlands
Tel: 00 31 317 486096 /482881; Fax: 00 31 317 486103
E-mail: Jan.deGraaff@wur.nl

How to get to Wageningen

By air to Amsterdam-Schiphol: Then by train from Schiphol to Ede-Wageningen station.

Now one has to take first a train to Duivendrecht (direction Hilversum) and from there a train in the direction of Nijmegen until Ede-Wageningen Station. After May 2006 there probably be a direct train from Schiphol to Utrecht, after which you take a Arnhem or Nijmegen train until Ede-Wageningen. Total traveling time 1 hour.

By train from the South: In Rotterdam C.S. take a train to Utrecht and from there to Arnhem-Nijmegen until Ede-Wageningen.

By train from the East: In Arnhem take a train for Utrecht until Ede-Wageningen.

Then by bus from Ede-Wageningen station to WICC: Take bus 86 or 83 from station to Wageningen Bus Station. From there the WICC is less than 5 minutes walk.

By taxi from Ede-Wageningen station to WICC: Taxi fare from the railway station to the WICC in Wageningen should be about €15.

Registration: The registration fee includes fieldtrip, some meals and refreshments and conference materials.

Note: Hotel reservations have to be made directly with WICC, mention 'Cost 634 Erosion Conference' when booking.

Accommodation:

WICC Hotel and Congress Center (Conference will be held in WICC hotel)

- : 00 31 317 490133; Fax: 00 31 317 426243
Email: info@wicc.nl
- : Lawickse Allee 9
6701 AN Wageningen
The Netherlands
- : Reserved for COST634 meeting:
50 rooms single & 10 rooms double
- : Single room/day: €71 (including breakfast, but excluding tax)
Double room/day: €97.50 (including breakfast, but excluding tax).

Further information:

Jan de Graaff

Tel: 00 31 317 482881; Fax: 00 31 317 486103

E-mail: Jan.deGraaff@wur.nl

The following web sites contain updated information:

<http://pythagoras.gcparks.com/cost634>

<http://www.soilerosion.net/cost634>

Farm Level Adoption of Soil and Water Conservation Measures and Policy Implications in Europe (1 – 3 October 2006, Wageningen, The Netherlands)

Registration Form

Please send this form to: Jan.deGraaff@wur.nl

Or post to:

Erosion and Soil and Water Conservation Group

Wageningen University, Nieuwe Kanaal 11
6709 PA Wageningen, The Netherlands.

Participant's Data:

Family Name: First Name:

Affiliation:

Mailing address:

Postal Code/City: Country:

Tel/fax: E-mail:

Title of paper/poster:

Special diet:

Please make your own hotel reservation at WICC.

Mention with your booking that you will attend 'COST634 – Erosion Conference'.

Registration fee:

€120 for PhD students until 21 April 2006

€190 for participants until 21 April 2006

€200 for all participants after 21 April 2006

Number of participants will be limited to 55.

Payment of registration fee by bank transfer:

Account Holder: Department of Environmental Sciences

Address: Bornsesteeg 47, 6708 PD Wageningen

Bank Name: ABN-AMRO

Address: Stadsbrink 43, 6707 AA, Wageningen

Bank account: 53 95 09 396

: NL39 ABNA 053 95 09 396

BIC: ABNAANL2A (with payment please quote: ESW360-120217).

The Use of Vegetation to Improve Slope Stability Beijing, China, 14 – 18 July 2008

This Conference is the second in the series 'The Use of Vegetation to Improve Slope Stability.' The first Congress was held at Thessaloniki, Greece, from 13 – 17 September 2004. In an era where more natural hazards are occurring; soil erosion, landslides and other catastrophic events result not only in the loss of lives and infrastructure, but cause major environmental damage. The aim of these meetings, therefore, is to bring together scientific researchers, practitioners, geotechnical and civil engineers, biologists, ecologists and foresters to discuss current problems in slope stability research and how to address those problems using ground bio- and eco-engineering techniques.

Ground bioengineering methods integrate civil engineering techniques with natural materials to obtain fast, effective and economic methods of protecting, restoring and maintaining the environment. Eco-engineering has been defined as a long-term ecological strategy to manage a site with regards to natural or man-made hazards. Conference sessions will focus on an area where such engineering techniques are used increasingly frequently, i.e. natural and man-made slopes. Papers will be presented on slope instability, erosion, soil hydrology, mountain ecology, land use and restoration and how to mitigate these problems using vegetation. The mechanics of root-soil interaction are of utmost importance, along with the modelling of root reinforcement and the development of decision-support systems, areas where significant advances have been made in recent years. Proceedings will be published in a special edition of an international journal. We hope that you will be able to join us at this meeting, to be held in exciting Beijing, 2008's Olympic City.

The Organizing Committee:

T. FOURCAUD, CIRAD, Montpellier, France / LIAMA-CASIA, Beijing, China

L. JOUNEAU, INRA Jouy / LIAMA-CASIA, Beijing, China

H. LU, WASWC, Beijing, China

Y. LU, Chinese Academy of Forestry, Beijing, China

T. LUO, Institute of Tibetan Plateau Research CAS, Beijing, China

J. NORRIS, Nottingham Trent University, Nottingham, UK

I. SPANOS, NAGREF, Thessaloniki, Greece

***A. STOKES**, INRA, Montpellier, France / LIAMA-CASIA, Beijing, China

X. ZHANG, LIAMA-CASIA Beijing, China.

***Conference Chair and for further information, please contact:**

Alexia Stokes

LIAMA-CASIA, P.O. Box 2728,

Zhonguancun Dong Lu 95, Hadian,

Beijing 100080

P.R. China

E-mail: stokes@liama.ia.ac.cn

Tel: 00 86 10 82614528

Fax: 00 8610 62647458

CONFERENCE THEMES

Root-soil interaction

Root anchorage, root architecture, root/soil interface, root growth, modelling.

Root reinforcement

Root strength, soil cohesion, root density, root morphology.

Slope degradation

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

Soil erosion and conservation

Soil loss, runoff, sub-surface erosion, soil quality, soil sealing, desertification.

Riverbank and coastline protection measures

Flow mitigation, torrent control, hydrological structures, up- and down-scaling, sustainable planning, soil bioengineering techniques.

Slope hydrology

Infiltration, flooding, sustainability of agricultural crop systems, plant interception and evapotranspiration, land use change, land abandonment.

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, plant establishment, plant management, bioremediation, species selection, soil ecology, influence of climate change.

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.

Ground bioengineering, earth stabilizing and retaining techniques

New soil fixing techniques, protective techniques, cuttings and embankments, mulches, geotextiles, soil nailing, chemical stabilizers, 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.

Benefits and liabilities in slope and erosion control

Economic factors, resource sustainability, legislation, cost analysis.

ROMANIAN NATIONAL SOCIETY OF SOIL SCIENCE

Bd. Mărăști 61, 011464 București 32, ROMÂNIA

Bank account lei: RO 58 RZBR 0000 0600 0066 7291

Bank account USD: RO 77 RZBR 0000 0600 0423 8780

RAIFFEISENBANK - AG. DOROBANȚI

Tel: +40-21-224.17.90/128

Fiscal code: 5.441.911

Fax: +40-21-2225979

E-mail: snrss2000@yahoo.com

The XVIIIth Conference of the Romanian National Society of Soil Science '100 years of Soil Science in Romania' will focus on complex management and multipurpose use of soil resources, environmental protection and rural development in the north-north western part of Transylvania, Romania.

The National Romanian Society of Soil Science has the pleasure of inviting you to attend our XVIIIth National Soil Conference to be held in Cluj, Romania from 21 – 26 August 2006.

The contact persons are:

Executive President SNRSS: Professor Dr Guș Petrul: petru.gus@email.ro

Tel: 00 40 264 596384/206; 204

Fax: 00 40 264 443467

Dr Rusu Teodor E-mail: rusuteodor@yahoo.com

Tel: 00 40 264 596384/204

Conference Secretary: Dr Valentina Coteș E-mail: snrss2000@yahoo.com

Fax: 00 40 21 2225979

Dr dr h. c. Ioan Munteanu

President of the Romanian National Society of Soil Science.



International ESSC Conference on

**'Soil and Water Conservation under Changing Land Use'
Lleida (Catalonia, Spain)**

September 12 – 15, 2006

Host Institution

Department of Environment and Soil Sciences, University of Lleida, Lleida, Spain

Organizing Committee

- Chairman:** Ildefonso Pla Sentís, Universitat de Lleida, Spain
ipla@macs.udl.es
- Vice-Chairman:** José A. Martínez-Casasnovas, Universitat de Lleida, Spain
j.martinez@macs.udl.es
- Secretary:** M. Concepción Ramos Martín, Universitat de Lleida, Spain
cramos@macs.udl.es
- Members:** J. Carles Balasch, Universitat de Lleida, Spain
Roser Cots Folch, Universitat de Lleida, Spain
Francisco Fonseca, Universitat de Lleida, Spain
- Logistics:** Fundació Universitat de Lleida
- Scientific Committee:** Winfried E.H. Blum
President of ECSSS (Vienna, Austria)
José Luis Rubio
President of ESSC (Valencia, Spain)
Samran Sombatpanit
President of WASWC (Bangkok, Thailand)
Mohamed Sabir
President of ISCO (Marrakech, Morocco)
Antonio Rodríguez
President of CCS-SECS (La Laguna, Tenerife, Spain)

Carmelo Dazzi
Vice-President of ESSC (Palermo, Italy)
Eric Roose
President of Reseau Erosion (Montpellier, France)
Julian Dumansky
Consultant World Bank (Ottawa, Canada)
Paul Bielek
Secretary ESSC (Bratislava, Slovakia)
Jaume Porta Casanellas
Universitat de Lleida (Lleida, Spain)
Samir A. El-Swaify
University of Hawaii (Honolulu, USA)
Don Gabriels
University of Ghent (Ghent, Belgium)
Marc Nearing
USDA-ARS (Tucson, USA)
Mike Fullen
University of Wolverhampton (Wolverhampton, UK)

Background

Land degradation directly or indirectly affects all the vital processes on the earth's surface, which mainly depend on the conservation of soil and water in adequate places, amounts and qualities. Economic and social problems, associated with changes in population, markets and the costs of products and technology may induce drastic and sudden changes in land use and management, which may increase the hazard of land degradation and environmental side-effects. Global climate changes may increase negative influences of these changes. This is especially true in the South European countries, where the recent abrupt and widespread changes in land use and management, involving in some cases abandonment of previous agricultural lands, and in others intensification of agricultural land use or utilization of land for other purposes, is leading to different environmental impacts, with immediate or future negative effects. These effects include problems of loss of biodiversity, decreased supply and quality of available water and increases in surface erosion, landslides and flooding. All these have strong social and economic effects in both the short and long-term. In arid and semi-arid regions these effects may lead to irreversible desertification.

Objectives and topics of the Conference

The objectives of the Conference are to analyse and discuss the most recent cases and results of studies and research in relation to soil and water conservation problems associated with changes in land use and management. The main topics will be related to the evaluation, prediction, diagnosis and prevention of the environmental impacts derived from specific cases of changes in land use and management.

Preliminary Programme

All activities, except the Conference Dinner, will take place in the Conference Centre: **Edifici Centre de Cultures i Cooperació Transfronterera**, (Campus Universitari de Cappont), Jaume II, 67 (bis), 25001 Lleida.

Tuesday 12 September

- 8.⁰⁰ – 10.⁰⁰ h **Registration**
- 10.⁰⁰ – 11.⁰⁰ h **Opening Ceremony**
- 11.⁰⁰ – 12.⁰⁰ h **Keynote Presentation**
Dr Julian Dumansky (Ottawa, Canada):
'Changing Course: Soil Conservation in a Changing World'.
- 12.⁰⁰ – 13.⁰⁰ h **Welcome cocktail**
- 13.⁰⁰ – 15.⁰⁰ h **Lunch**
- 15.⁰⁰ – 19.⁰⁰ h **Session Topic I:**
'Land Use Changes affecting Soil and Water Conservation'
- 15.⁰⁰ – 15.⁴⁵ h **Keynote Lecture**
Dr Ildefonso Pla Sentís (Lleida, Spain):
'Hydrological effects of land use changes under Mediterranean climatic conditions'.
- 15.⁴⁵ – 16.⁰⁰ h Coffee break
- 16.⁰⁰ – 18.⁰⁰ h Oral presentations (6)
- 18.⁰⁰ – 19.⁰⁰ h Poster presentations (Topic I)
- 18.⁰⁰ – 19.⁰⁰ h **ESSC Council Meeting.**

Wednesday 13 September

- 9.⁰⁰ – 13.⁰⁰ h **Session Topic II (1st):**
'Processes of Soil and Water Degradation under Changing Land Use and Management'
- 9.⁰⁰ – 9.⁴⁵ h **Keynote Lecture**
Dr Samir A. El-Swaify (Hawaii, USA) 'Predicting the erosion consequences and conservation needs of changing land use: A case study for transition from plantation agriculture to diversified planting'.
- 9.⁴⁵ – 10.⁴⁵ h Oral presentations (3)
- 10.⁴⁵ – 11.⁰⁰ h Coffee break
- 11.⁰⁰ – 13.⁰⁰ h Oral presentations (6)
- 13.⁰⁰ – 15.⁰⁰ h Lunch
- 15.⁰⁰ – 18.³⁰ h **Session Topic II (2nd)**
- 15.⁰⁰ – 15.⁴⁵ h **Keynote Lecture**

Dr Winfried E.H. Blum (Vienna, Austria)
'Urban and peri-urban environments: emerging frontiers in soil and water conservation.'

- 15.⁴⁵ – 17.⁰⁵ h Oral presentations (4)
17.⁰⁵ – 17.³⁰ h Coffee break
17.³⁰ – 18.³⁰ h Poster presentations (Topic II)
21.⁰⁰ h **Conference Dinner.**

Thursday 14 September

- 7.⁰⁰ – 21.⁰⁰ h **Field Trip (Priorat Region)**

Friday 15 September

- 9.⁰⁰ – 13.⁰⁰ h **Session Topic III:**
'Soil and Water Conservation Practices under Changing Land Use and Management'
- 9.⁰⁰ – 9.⁴⁵ h **Keynote Lecture**
Dr Eric Roose (Montpellier, France)
'Evolution of anti-erosive strategies with changing land uses.'
- 9.⁴⁵ – 10.⁴⁵ h Oral presentations (3)
10.⁴⁵ – 11.⁰⁰ h Coffee break
11.⁰⁰ – 13.⁰⁰ h Oral presentations (6)
13.⁰⁰ – 15.⁰⁰ h Lunch
15.⁰⁰ – 16.⁰⁰ h **Poster presentations (Topic III)**
15.⁰⁰ – 16.⁰⁰ h **ESSC Council Meeting**
16.⁰⁰ – 18.⁰⁰ h **Conclusions and Closing Ceremony**

(Oral presentations: 15 minutes presentation + 5 minutes discussion)

(Poster Exhibition (maximum size: 100 cm x 120 cm): From 09.⁰⁰ – 19.⁰⁰ h on the day corresponding to the topic of the poster).

Key dates

- 30 September 2005:** Intention to participate
15 January 2006: Deadline for reception of abstracts and pre-registration form
15 February 2006: 2nd Announcement.
28 February 2006: Notice of acceptance of abstracts.
31 March 2006: Deadline for registration with reduced fee.
31 May 2006: Deadline for reception of extended abstracts and registration fee for accepted participations.
30 June 2006: Publication of the preliminary programme.

Registration fees (€)

	<u>Before March 31, 2006</u>	<u>After March 31, 2006</u>
Participant	€ 300	€ 350
Members ESSC	€ 270	€ 320
Students (ID required)	€ 150	€ 200

(Registration fee includes: Welcome cocktail, coffee breaks, conference book of abstracts, proceedings in CD, access to all sessions, conference dinner and field tour).

Payment:

Registration fee must be paid in Euro currency (€) by bank transfer through the following bank account:

Account number (IBAN code): ES16 2100 2464 6902 0003 1462

SWIFT code: CAIXESBB

Bank name and address: LA CAIXA
Oficina Universitat
C/ Maragall 17
25003 Lleida (Spain)

If the bank transfer is made from Spain:

Account number: 2100-2464-69-0200031462

VERY IMPORTANT: The transfer concept must specify:

- Registration fee – ESSC Soil&Water Conservation Int. Conference
- The NAME of the person to which the registration corresponds

A **copy of the transfer voucher**, together with the registration form, must be sent by Fax: 00 34 973003552 or e-mail (JPEG or PDF format) to fundacio@700.udl.es

Extended abstracts

The **deadline for** reception of extended abstracts of accepted presentations (oral and poster) and payment of registration fee (required for inclusion of the participations in the final Conference programme) is **31 May 2006**.

Hotel reservation

The Organizing Committee has agreed special rates for the ESSC Conference in the following hotels. Hotel reservation must be done directly by the participants through the facilitated contact information. To achieve these special rates, you must mention your participation in the 'International ESSC Conference on Soil and Water Conservation under Changing Land Use'.

Hotel	Cat.	Address and contact information	Rates
Hotel AC Lleida	4*	C/ Unió 8 - 25002 Lleida Tel. 00 34 973283910 Fax. 00 34 973283911 direc.aclleida@ac-hotels.com aclleida@ac-hotels.com www.ac-hotels.com/lleida.htm	Double room single use + breakfast: €80 (7% VAT not included).
Hotel Zenit Lleida (located near the railway station).	4*	C/ General Britos, 21 25002 Lleida Tel. 00 34 973229191 Fax. 00 34 973229190 dirlleida@zenithoteles.com www.zenithoteles.com	Double room single use + breakfast: €68 (7% VAT not included).
Hotel Real	3*	Avenida. Blondel, 22-25002 Lleida Tel. 00 34 973239405 Fax. 00 34 973239407 hotreal.lleida@eizasa.com www.hotelreallleida.com	Double room single use (standard): €54 Double room single use (high standard): €62 Double room (standard): €72 Double room single use (high standard): €80 Breakfast: €7.50/pax (7% VAT not included).
Hotel Transit Catalonia (located near the railway station).	3*	Pl. Ramon Berenguer IV, s/n 25007 Lleida Tel. 00 34 973230008 Fax. 00 34 973222785 transit@hoteles-catalonia.es www.hoteles-catalonia.es	Double room single use: €54 Double room: €59 Breakfast: €5/pax (7% VAT not included).
Apartamentos Campus (Campus University Apartments; (located near the Conference Centre).		C/ Jaume II, 75 - 25001 Lleida Tel. 00 34 973208290 lleida@apartamentoscampus.com www.apartamentoscampus.com	Double room single use: €24.36 Breakfast not included (7% VAT not included).

Information about the City of Lleida:

Lleida is a city of 120,000 inhabitants situated 155 km west of Barcelona, located on a fertile plain mainly devoted to horticulture and fruit growing. It is surrounded by varied landscapes, from the Pyrenees to the banks of the Ebro River. Over recent decades it has become a prosperous industrial area, essentially based on processing industries of vegetable and animal products, as well as on services derived from agriculture. The atmosphere is suitable for study and research in the fields of agriculture, stockbreeding, food technology and environmental and forest sciences. Lleida is a 1000-year-old city

made up of a great variety of cultures, which all through their history have shaped a warm, lively and easily accessible city, situated in a unique and balanced natural environment. More information about the City and Province of Lleida can be found in the following web pages:

<http://www.paeria.es/ang/ciutatLleida.asp>

<http://turisme.paeria.es/index.nou.asp>

<http://www.lleidatur.com/ing/>

How to get to Lleida

Lleida is located in an important communication and transportation crossroads connecting Spanish roads with the rest of Europe and the Mediterranean. The City of Lleida can be easily reached from Barcelona by highway and railway. Moreover, there are high-speed trains (AVE and ALTARIA) connecting Madrid and Lleida.

Depending on the airport you choose to arrive in Spain, the best way to get to Lleida is:

- From **Barcelona Airport (el Prat)** (<http://www.aena.es>) to Sants Station (Barcelona) by train. From this railway station you can take another train to Lleida. There is also a bus line (**Eurolines – Rapid Aeroport:** <http://www.eurolines.es/>) from Barcelona Airport to Lleida (two daily buses), leaving from Terminal B.
- From **Reus** (<http://www.aena.es>) to Lleida by train.
- From **Girona** (<http://www.aena.es>) to Lleida by bus ('Eix bus').
- From **Madrid** (<http://www.renfe.es/>) to Lleida by high-speed trains (AVE or ALTARIA).

For those arriving by car, there are several alternatives:

From the French frontier at La Jonquera the easiest route is to follow the AP-7 (toll) motorway to Girona and then follow the 'Eix Transversal' (C-25), a new fast road, to Cervera and from there by A-2 (free motorway) to Lleida.

The alternative from Girona or from Barcelona is to follow the AP-7 (toll) and then take AP-2 (toll) (direction Lleida/Zaragoza).

In Lleida it is easy to move around on foot, because of the layout of the City. Most hotels are located in the city centre and can be reached on foot or by public transport. Information about bus lines and timetables are available on the webpage:

Autobusos de Lleida (<http://www.autobusoslleida.com/>).

Other interesting and useful links for mobility information are:

AENA (Spanish Airports): <http://www.aena.es>

RENFE (Spanish Railway): <http://www.renfe.es/>

Map of Spanish roads:

<http://www.geocities.com/elcomercial/mapacarreteras.htm>

Access roads to Lleida: http://www.paeria.es/img/mapa_acces.gif



Universitat de Lleida



**International ESSC Conference on
'Soil and Water Conservation under Changing Land Use'
Lleida (Catalonia, Spain)**

September 12 – 15, 2006

REGISTRATION FORM¹

Name & Passport Number	Name:		
	Passport number:		
Institution			
Address	Mail address:		
	Zip code:		
	City and country:		
	Telephone:	Fax:	
E-mail			
Presentation	<input type="checkbox"/> Oral	<input type="checkbox"/> Poster	Title of the presentation:
Type of participant and fee paid	<input type="checkbox"/> Normal participant	Before March 31, 2006	After March 31, 2006
	<input type="checkbox"/> ESSC member	<input type="checkbox"/> €300	<input type="checkbox"/> €350
	<input type="checkbox"/> Student (ID required)	<input type="checkbox"/> €270	<input type="checkbox"/> €320
		<input type="checkbox"/> €150	<input type="checkbox"/> €200
Type of registration	<input type="checkbox"/> By bank transfer		
Signature and date			
Receipt	Please, indicate the name of the institution (if different from above) to which a receipt of the registration fee must be issued.		

All participants to this Conference are welcome as Guest members in the WASWC for one year.

¹⁾ The registration form accompanied by the copy of the transfer voucher must be send to fundacio@700.udl.es or Fax 'Fundació de la Universitat de Lleida' on: 00 34 973003552.



**Environmental change,
geomorphic processes,
land degradation and
rehabilitation in tropical and
subtropical highlands**

19 – 25 September 2006

Mekelle University, Mekelle, Ethiopia

Symposium organized by

Professor J. Poesen

Physical and Regional Geography Research Group

E-mail: jean.poesen@geo.kuleuven.ac.be

Professor Mitiku Haile

Mekelle University

E-mail: mekelle.university@ethionet.et

Professor J. Deckers

Laboratory for Soil and Water Management

E-mail: seppe.deckers@biw.kuleuven.be

Themes to be discussed

1. Changing environments and geomorphic process intensities in tropical and subtropical mountains since late Pleistocene times; changes in vegetation cover, climate, hydrology, hillslope and fluvial processes, tufa dam development and landsliding.
2. Land degradation in tropical and subtropical mountains: natural and anthropogenic controls; on-site and off-site consequences (soil erosion, landsliding, degradation of vegetation cover, hydrological processes and reservoir siltation).
3. Soil and water conservation in tropical and subtropical mountains; effectiveness and efficiency of traditional and recently introduced techniques and their implementation in rural societies.

Aims

This **scientific congress** aims to show to the international science community the excellent research work that has been conducted at Mekelle University and in the Tigray hinterland in the field of land degradation and rehabilitation. Much of this research has already alerted the international community through peer-reviewed publications and congress presentations. By hosting this international congress on the theme at Mekelle, we aim to exchange views with international experts in the farmers' field and to provide international scientists an opportunity to discuss in the field with Ethiopian farmers themes which have been published in formal journal papers.

The **stakeholders' forum** brings under one roof all actors (scientists, stakeholders and beneficiaries) with the following aims:

- To discuss project and conference findings with stakeholders.
- To bring stakeholders in contact with international scientists for mutual benefit.
- To formulate recommendations from stakeholders towards future research.

Invited participants are international scientists, leading farmers and experts from governmental and non-government organizations. Scientists, representatives of donor organizations and decision-makers are particularly invited to exchange views with the farmers and experts.

Objectives

- Evaluate past research efforts in land degradation and rehabilitation in Northern Ethiopia.
- Streamline future scientific efforts in support of sustainable livelihoods in the Tigray Region.
- Draw recommendations for capacity building in land management throughout the Tigray Region.

Questions to be addressed

1. How have changing environments impacted the type and intensity of geomorphic processes in tropical and subtropical mountains since the late Pleistocene?
2. Which factors control land degradation, its on-site and off-site impacts in tropical mountains?
3. What is the effectiveness and efficiency of traditionally and recently introduced soil and water conservation techniques?

Submission of abstracts

An abstract should not be more than 250 words and must include objectives, materials and methods, results and conclusions. The abstract could be for a paper or poster presentation.

Accepted abstracts will be published in the Book of Abstracts, which will serve as the Conference Proceedings.

Accepted papers will be peer-reviewed and submitted to a refereed journal as a special issue.

- **Deadline submission of titles:** 15 September 2005
- **Deadline submission of abstracts:** 15 December 2005.

Feedback

Please inform Mrs. Sofie Bruneel, by e-mail (sofie.bruneel@biw.kuleuven.be) or fax, (00 32 16 329760), your intention to participate in the Symposium and the tentative title of your paper or poster as soon as possible. Based on replies, the organizing committee will try to secure travel grants for African researchers.

More information:

<http://www.kuleuven.ac.be/geografie/frg/>

<http://www.agr.kuleuven.ac.be/lbh/>

The total number of participants will be limited to 50; persons will be admitted on a first come first served basis.

Fourth Announcements

Dear Colleague,

I am pleased to announce that the '5th **International Congress of the EUROPEAN SOCIETY for SOIL CONSERVATION**' will be held in Palermo (Italy), 25 – 30 June 2007.

The general subject of the congress will be: '**Changing Soils in a Changing World: the Soils of Tomorrow**'. The objective is to promote exchange and discussion about the problems that affect soils due to the pressure of Man on Soils and the Landscape, that year after year is becoming increasingly evident, and to stimulate soil awareness in civil society. The Congress is open for soil scientists, educators and policymakers. It will consist of invited lectures, scientific sessions with oral and poster presentations and field excursions and will attempt to advocate interest in soil awareness at all societal levels.

The main topics of the Congress are indicated below. However, we welcome suggestions from prospective participants that may be of general interest:

Soil erosion; Soil contamination; Soil sealing by construction activities; Soil compaction; Soil biodiversity; Soil salinization; Soil consumption; Soil policy; Anthropogenic soils.

The Congress will take place in Palermo, at the University Campus. Palermo, whose history dates back to the Phoenicians, is located on the north coast of Sicily and is one of the main cities of Italy. It has a beautiful beach area (Mondello) and can be reached by air, rail and bus from the major cities of Europe. The region has a Mediterranean climate with hot and dry summers and mild and rainy winters and shows many unique historical and tourist attractions with artistic and natural beauties. As a result of these, Sicily receives many tourists.

Take note, A WEB PAGE WITH THE FIRST CIRCULAR AND ALL THE INFORMATION REGARDING THE CONGRESS is being circulated.

In the meantime all correspondence should be sent to:

Professor Carmelo Dazzi

Dipartimento di Agronomia Ambientale e Territoriale

Facoltà di Agraria

Università di Palermo

Viale delle Scienze

90128 Palermo

Italy

Tel.: 00 39 091 6650247

Fax: 00 39 091 6650229

E-mail: dazzi@unipa.it

We look forward to seeing you in Palermo!

Professor Carmelo Dazzi

ESSC Vice-President

Reminder for the next issue:

Articles, reports, letters, views or comments on any aspect of soil erosion and conservation in Europe are always welcome.

We welcome any comments on the ESSC Newsletter and suggestions on how it can be improved and developed.

Do not forget to send in your details of the following information:

- (i) Reviews of recent conferences.
- (ii) Recent grant awards.
- (iii) The citation details and abstracts of completed Ph.D. and M.Sc. theses.
- (iv) Newly enrolled Ph.D. research students, title of their research topic and names of research supervisors.
- (v) Recent staff institutional movements/promotions.
- (iv) A reference list of your 'new' international refereed scientific journal papers, which have been published recently (since and including the year 2000).

Send these details to either:

Professor Mike Fullen: m.fullen@wlv.ac.uk

or

Dr Colin Booth: c.booth@wlv.ac.uk

and they will include this information in the next issue.

PLEASE NOTE: The deadlines for submission of material for future issues are:

1 October 2006

10 January 2007

1 April 2007.

We are progressively developing to four Newsletter issues per year.

The deadlines for 2007 onwards will be:

10 January

1 April

1 July

1 October

AIMS OF THE SOCIETY

The ESSC is an interdisciplinary, non-political association, which is dedicated to investigating and realizing soil conservation in Europe. The ESSC pursues its aims in the scientific, educational and applied sectors by:

Supporting investigations on soil degradation, soil erosion and soil conservation in Europe,

Informing the public about major questions of soil conservation in Europe,

Collaborating with institutions and persons involved in practical conservation work in Europe.

The ESSC aims at co-ordinating the efforts of all parties involved in the above cited subjects: research institutions; teachers and students of geosciences, agriculture and ecology; farmers; agricultural planning and advisory boards; industries and government institutions.

ZWECK DER VEREINIGUNG

Die ESSC ist einer interdisziplinäre, nicht politische Vereinigung. Ihr Ziel ist die Erforschung und Durchführung des Schutzes der Böden in Europa. Die ESSC verfolgt dieses Ziel auf wissenschaftlichem, erzieherischen und angewandtem Gebiet:

durch Unterstützung der Forschung auf den Gebieten der Boden-Degradierung, der Bodenerosion und des Bodenschutzes in Europa,

durch Information der Öffentlichkeit über wichtige Fragen des Bodenschutzes in Europa,

durch Zusammenarbeit mit Institutionen und Personen, die an der Praxis des Bodenschutzes in Europa beteiligt sind.

Die ESSC will alle Personen und Institutionen zusammenführen, die sich für die genannten Ziele einsetzen: Forschungsinstitutionen, Lehrer und Studenten der Geowissenschaften, der Landwirtschaftswissenschaften und der Ökologie, Bauern, landwirtschaftliche Planungs- und Beratungsstellen, Industrieunternehmen und Einrichtungen der öffentlichen Hand.

BUTS DE L'ASSOCIATION

L'ESSC est une association interdisciplinaire et non politique. Le but de l'association est la recherche et les réalisations concernant la conservation du sol en Europe. L'ESSC poursuit cette finalité dans les domaines de la recherche scientifique, de l'éducation et de l'application:

en encourageant la recherche sur la dégradation, l'érosion et la conservation du sol en Europe,

en informant le public des problèmes majeurs de la conservation du sol en Europe,

par la collaboration avec des institutions et des personnes impliquées dans la pratique de la conservation du sol en Europe.

L'ESSC souhaite favoriser la collaboration de toutes les personnes et institutions poursuivant les buts définis cidessus, en particulier: institutions de recherche, professeurs et étudiants en géosciences, des agriculteurs, des institutions de planification et des conseil agricole, de l'industrie, et des institutions gouvernementales.

OBJECTIVOS DE LA SOCIEDAD

La ESSC es una asociación interdisciplinar, no-política, dedicada a la investigación y a la realización de acciones orientadas a la conservación del suelo en Europa. La ESSC persigue sus objetivos en los sectores científicos, educacionales y aplicados, en al ámbito europeo:

promocionando la investigación sobre degradación, erosión y conservación de suelos,

informando al público sobre los principales aspectos de conservación de suelos,

colaborando con instituciones y personas implicadas en la práctica de la conservación de suelos.

La ESSC aspira a coordinar los esfuerzos, en los temas arriba mencionados, de todas las partes implicadas: centros de investigación, profesores y estudiantes de geo-ciencias, agricultura, selvicultura y ecología, agricultores, servicios de extensión agraria, industrias e instituciones gubernamentales.

Visit the ESSC Website: <http://www.essc.sk>

MEMBERSHIP FEES

I wish to (please mark appropriate box):

- Join the ESSC
- Renew my membership of the ESSC
- Know whether I have outstanding membership contributions to pay

Membership rates:

Standard Rates:

- One year € 25.00
- Three years € 70.00

Members in Albania, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia and Ukraine:

- One year € 10.00
- Three years € 25.00

Students:

50 % reduction on above rates for three years

Your supervisor must provide written confirmation of student status

I wish to pay my membership contribution by (please mark appropriate box):

- Eurocard / Mastercard
- American Express Card
- Visa Card
- Bank Transfer

Branch address: Fortis Bank, Zonnestraat 2, B-9000 Gent, Belgium;

International transaction codes:

IBAN - BE29 0014 5139 8064 and BIC - GEBABEBB;

Account name: European Society for Soil Conservation;

Account number 001-4513980-64

CARD NO. EXPIRY

Amount: € Date: Signature:

NAME:

ADDRESS:

E-MAIL:

MEMBERSHIP NUMBER (if known): M0

Please send this form to: ESSC Treasurer, Dr Wim Cornelis, Department of Soil Management and Soil Care, Coupure links 653, B-9000 Gent, BELGIUM.

wim.cornelis@UGent.be