WASWAC

WORLD ASSOCIATION OF SOIL AND WATER CONSERVATION

HOT NEWS

Issue 01, 2016

WASWAC HOT NEWS No. 01, January, 2016

Contents

Cover photo: Danxia Lake in Xingguo County in Jiangxi Province.

Editors: Dr. Du Pengfei, Contributors include Prof. Li Rui and Dr Amir Kassam.

IRTCES Building

(Where the Secretariat of WASWAC is located)

The Secretariat of WASWAC

No. 20 Chegongzhuang Road West, Beijing 100048, P. R. China

Tel: +86-10-68786579

Fax: +86-10-68411174

Email: waswac@foxmail.com waswac@163.com

For ISWCR paper submission:

http://www.journals.elsevier.com/international-soil-and-water-conservation-research/

WASWAC Website: www.waswac.org

Happy Chinese New Year

Dear colleagues, friends and members of WASWAC,

The most important festival, Chinese New Year is around the corner, we would like to take this opportunity to introduce you the year of 2016 in Chinese calendar.

Chinese New Year, also known as Spring Festival, has more than 4,000 years of history. It is the grandest and the most important annual event for Chinese people.

2015 is the Year of the monkey according to Chinese zodiac. The Year of the Monkey will start from Feb. 8, 2016 and last to Jan. 27, 2017. As the ninth in the 12-year cycle of Chinese zodiac, the Years of the Monkey include 1920, 1932, 1944, 1956, 1968, 1980, 1992, 2004, 2016, 2028...

The monkey is a clever animal. It is usually compared to a smart person. During the Spring and Autumn Period (770 - 476 BC), the dignified Chinese official title of marquis was pronounced 'Hou', the same as the pronunciation of ‘monkey’ in Chinese. The animal was thereby bestowed with an auspicious meaning.

Before the Spring Festival, every Chinese family will have a thorough house cleanup and go for festival items shopping. The spring couplets, Fu Character, and animal paper cut are pasted for decoration. Also, new clothes must be bought, especially for children. At the reunion dinner on New Year's Eve, people from north will eat dumplings, which southern people are used to have Niangao (glutinous rice cake). Red Envelopes are given to kids and elders to share the blessing.

Eating Dumplings

Pasting Spring Festival Couplets

Giving Red Envelopes

The secretariat of WASWAC wish all of our members a very happy and prosperous Chinese New Year!

Welcome to Serbia to Attend the WASWAC World Conference III

WASWAC World Conference III

August 22-26, 2016

Belgrade, Serbia

WASWAC Outstanding

Youth Paper Award 2016 (DATUM)

DEADLINES

- **Abstract submission: March 31, 2016.**
- Abstracts Acceptance: April 15, 2016.
- Full paper submission: May 31, 2016.
- **Registration fee** (Registration fee up to May 31, 2016; after May 31, 2016):

  - For non WASWAC and ESSC members: 300 EUR; after May: 350 EUR

  - For WASWAC and ESSC members: 200 EUR; after May: 250 EUR

  - For students: 100 EUR; after May: 150 EUR

  - For accompanying persons: 100 EUR; after May: 150 EUR

CONFERENCE VENUE

The Conference is planned to be held in the capital of Serbia, in Belgrade.

GLOBAL CONFERENCE TOPICS

- New challenges to soil and water resources in condition of climate change

- Land degradation processes and mechanism

- Soil and water conservation strategies to adapt and mitigate climate change

- Soil and water conservation measures benefits assessment

- Sustainable watershed management

- Social and economic aspects and policies related to soil and water conservation

- Inovations and implemented global/regional/national projects in land conservation

- Education in soil and water conservation

CONTACTS

Dr. Katarina Lazarevic, katarinalazarevic001@gmail.com

Ms. Natalija Momirovic, natalijamomirovic@rocketmail.com

DETAILS

English Announcement here:

http://www.waswac.org/newsShow.asp?id=302&fileSort=20

Chinese Announcement here:

http://www.waswac.org/newsShow.asp?fileSort=20&id=307#

WASWAC Outstanding Youth Paper Award Announcement here:

http://www.waswac.org/newsShow.asp?fileSort=20&id=303

WASWAC World Conference III official website here:

http://3rdwaswacconference.sfb.bg.ac.rs/index.html

"Farming Forward for Climate Change" – A Manifesto for Action

Global decision makers need to adopt sensible action plans for sustainable food production in a changing climate. Conservation Agriculture systems provide an appropriate response with proven technology and farmer support.

COP21 provides an opportunity to create the impetus for Conservation Agriculture (CA) to move conventional agriculture toward more sustainable systems that are environmentally responsible. CA is practiced on about 160 million hectares around the world. It can spread much further with the help of networked farmer organizations willing to integrate their expertise and pragmatic experiences across nations.

Global Issues:

- ✧ Climate is changing everywhere in the world. Agriculture is dependent upon climate and exposed to climate change.
- ✧ Agriculture needs to adapt and be resilient to a changing climate.
- ✧ Agriculture can also contribute to greenhouse gas emission reductions even though it is only 14% of global emissions.
- ✧ Agriculture produces food for a growing global population with expectations of a safe and secure food supply.

Conservation Agriculture (CA) is an operational and integrated approach of agro-ecology to manage agro-ecosystems for improved and sustained productivity, increased profits and food security while preserving and enhancing the resource base and the environment. CA is characterized by three linked principles:

- ✧ Minimum mechanical soil disturbance.
- ✧ Permanent soil cover.
- ✧ Diversification of crop species grown in sequences and/or associations.

CA principles are universally applicable to all agricultural landscapes and land uses with locally adapted practices. CA enhances biodiversity and natural biological processes above and below the ground surface. Detrimental interventions such as mechanical soil disturbance are reduced to an absolute minimum or avoided, and external inputs such as agrochemicals and plant nutrients of mineral or organic origin are applied optimally and in ways and quantities that do not interfere with,

or disrupt, the biological processes. CA is compatible with a wide range of agriculture production systems and farm types.

Conservation agriculture is a best practice for food security, provides resilience to cope with pending climate extremes, protects environmental quality, and stores carbon in the soil reducing agriculture's global carbon footprint.

Current situation

- CA systems and their derivatives have largely been developed by farmers.
- Innovative researchers have definitely contributed but many research institutions have lagged behind farmers and the agriculture industry as they pushed forward with on farm experimentation and development.
- The researcher – farmer divide. Complex farming systems like CA are difficult for researchers to tackle as it is contrary to their drivers.
  - Researchers are often linked to short term projects.
  - Affordable research tends to gravitate to simpler, single factor or limited multi-factor experiments. Medium to longer term systems research is ignored
  - CA takes time for new soil/plant ecosystems to develop.
  - Appropriate equipment for research level plots was slow in arriving.
  - Researchers farm uniform plots of good soil. Farmers farm complex landscapes.
- Researchers need to publish and often publish with data based upon the first few years of changing the cropping systems – the transitional 'bumpy years' of variable results.
- Researchers are caught in historic paradigms of research methodologies, tools, extension. Perhaps also this applies to more of the population than just researchers. Technology, Internet, media have all come together to enable new paradigms, perhaps at a rate beyond the capacity or preference of current institutions.
- To adapt to climate change and reduce emissions, agriculture has been seeking developments around the edges of conventional production systems. A larger step is needed.
- Farmers are an adaptive species. They see opportunities of both better farming systems and the changing paradigms that can allow them to adapt to changing climates – be it gradual

changes or extreme weather.

- ✧ Farmers are a social specie. They would like to work with collaboration and support from researchers and governments.

Is there a better way forward?

Farmers need to be convinced with credible information and prefer to be engaged with other farmers to learn how to successfully adopt new farm practices. Farmers perceive other farmers experiences and learnings with credibility, often beyond that of researchers and academics. Farmers are willing to share but need to be enabled to help other farmers.

- ✧ Researchers need to develop new research methodologies and engage with innovative farm groups to learn the issues of scaling and systems approaches of CA and related systems.
- ✧ The private sector that supplies farm inputs, markets, finances and contract services need to be engaged to learn CA and develop new opportunities.
- ✧ Public society trusts farmer communications more than those of academics or governments. Farmers have a role to assure the public that the best farming practices are being adopted.
- ✧ Governments need to tackle the complex issues of climate change along with the need for food security and environmental sustainability. Stacking blunt, static policies will not provide long term solutions. Adaptive policies need to be creative using principles such as multi-stakeholder deliberations, enabling self-organization and social networking and promoting variation.
- ✧ Farmers can be the linkage between governments, researchers and the private industry. Farmer organizations stretch their resources efficiently to serve the needs of their groups. There are no resources left for linkages and initiatives across borders and continents.

We conservation agriculture farmer organizations are willing to help:

- ✧ We are willing to spearhead synergistic collaborations with all players to design an adaptive path forward to provide overdue impetus to develop more climate smart and environmentally friendly agriculture systems that make sense to farmers.
- ✧ We call policy makers and global world leaders in COP21 to create the conditions to develop

global adoption of Conservation Agriculture:

- sign international agreements on climate change mitigation and sustainable development of agricultural production,
- use adequate and enabling policies consistent across geographies,
- include incentive mechanisms for farmers organizations, based on payment for ecosystem services, as carbon offset trade mechanisms, aligned with the Sustainable Development Goals of United Nations.

Document supported by:

European Conservation Agriculture Federation

Association pour la Promotion d'une Agriculture Durable

Confederation of American Associations for the Production of Sustainable Agriculture

Western Australian No-Tillage Farmers Association

Conservation Tillage Research Centre (China)

African Conservation Tillage Network

PR China Scholarships for Chinese Students

China Scholarship Council (CSC) is providing Scholarships for Chinese applicants interested to study master and Ph.D. Program at the Asian Institute of Technology, Thailand for August 2016 semester. The scholarship covers pure tuition fee, registration fee and research fee, living stipend (health insurance included) and a return international airfare to China by the most economical route, as well as visa application fee. For a better understanding of CSC requirements, please refer to URL: http://www.csc.edu.cn

And

http://www.serd.ait.ac.th/wpserd/pr-china-scholarships-for-chinese-students/.

To apply to study MSc or PhD courses in Natural Resources Management Program, please refer ur study program at http://www.nrm.ait.ac.th/studyprogram.html**.**

Entry Criteria:

- Candidates will be citizens and permanent resident of the People's Republic of China at the time of application and under 35 years age;
- Candidates must not be currently working or studying abroad (i.e. Currently living in China, application from outside will not considered).
- The awardees must return to China upon their completion of their studies and/or research;
- Doctoral candidates must receive a written confirmation from AIT/SERD that a faculty member is available and willing to supervise them.
- Candidate should satisfy the selection criteria set out by CSC by completing the CSC Application Form and the CSC Employer Reference Form at http://apply.csc.edu.cn/. This includes:
    - Bachelor Degree with 2.75/4 CGPA for Master program
    - Master Degree with 2.75/4 as minimum CGPA and 3 years working experience in the relevant field
    - ILETS score: 4.5 for Master and 5.5 for Doctoral program or TOEFL score with 61 for Master and 76 for Doctoral program (AIT requirement is IELTS 6.0)

Send **Two sets** of applications with two recommendations

- Photo
- Copies of the Passport, Degree certificate and transcript
- Original Admission offer letter from AIT

In order to distinguish that the candidate is applying for admission with scholarship under the present Program, the application should be indicated by writing **"CSC/AIT".**

The funding for each PHD program awardee will be up to 36 months. The funding for each Master degree program awardee will be up to 24 months.

Timetable for 2016

- *For this year, the announcement of scholarship has been announced since 10 Dec 2015 for 10 scholarships.*
- By 28 February 2016, all applicants can apply to AIT/SERD and seek the admission offer letter provided to qualification as per AIT requirements
- If applying online, submit the applications online and send the required documents to CSC by 15 March 2016,

- Between 5 – 15 April, CSC will go through all application and send by post mail to AIT a list of applicants who meet the requirements together with their application documents.
- First round processing will be done in May followed by the second round in June. Final result will be out in July.

For further enquiries on AIT Admissions Requirements and Procedures, applicant can visit the AIT Admissions website

http://www.ait.asia/AIT/admissions/#.VpX7l_l96M8.

Application forms can also be downloaded from the site

http://www.serd.ait.ac.th/wpserd/how-to-apply/.

Followings are contact details for China and AIT.

CSC contact details:	AIT contact details:
Mr. Wang Zeyu Deputy Director Division of European, Asian and African Affairs China Scholarship Council Level 13, A3 Building, No. 9 Chegongzhuang Avenue Beijing 100044, P.R. China Email: zywang@csc.edu.cn	Mrs. Wannapa Pliansri Coordinator, RTG External Relations & Communication Office Email: wannapa@ait.asia Tel: + 66(2) 524-5071 Fax: + 66(2) 524-5069
Mr. Meng Lijun Project Officer Division European, Asian and African Affairs China Scholarship Council Level 13, A3 Building, No. 9 Chegongzhuang Avenue Beijing 100044, P.R. China Email: ljmeng@csc.edu.cn Tel: +86-10-66093939 Fax: +86-10-66093929	Dr. Tenzin Rabgyal Coordinator Admissions and Scholarship Office Email: tenzin@ait.asia, admissions@ait.asia Tel: +66(2)524-5024; (662) 524 5031-33 Fax: +66(2)524-5069; (662) 524 6326

COMMING MEETINGS

'Third World Encounter on Terraced Landscapes'

World Conference, 6-15 October 2016 in Padua/Padova, Italy

Dear Friends of Terraced Landscapes and Cultures

We wish you all the best and successes for the New Year 2016.

Herewith the Organising Committee of the 'Third World Encounter on Terraced Landscapes' announces the next World Conference to be held from 6-15 October 2016 in Padua/Padova, Italy.

The 'Third World Meeting on Terraced Landscapes' is organized by the Italian Branch of the 'International Terraced Landscape Alliance,' which was legally founded in November 2011 in Arnasco (Savona), following the First International Conference held in Honghe, P.R. China in 2010. The five founder bodies are the Cooperativa Olivicola di Arnasco (SV), Arnasco Municipality, Consorzio della Quarantina (GE), Veneto Region and the University of Padova.

The design of the format of this unique international encounter and the 10 day programme is a sequence of interactive spaces in Venice (two days), 10 different field sites all over Italy (five days) and at the University of Padua (three days):

http://www.terracedlandscapes2016.it/en/programme

We trust in the powerful energy/inspiration/synergy coming from sharing experiences and knowledge with different actors who are concerned and have made their choice regarding the continuity of terraces in the future. For that purpose we offer an inspiring selection of field sites and topics that you can choose, according to your knowledge and experience and where you want to learn and contribute most.

We shall start the 'Third Encounter' on 6 October 2016 in Venice with the exchange of experiences from terraced landscapes world-wide, will learn about the programme and prepare our field trips on 7 October, then from 8-12 October will be in the field attending thematic workshops, where everybody registered can present their testimony, research, experience and discuss them with local farmers, stone-masons, leaders and activists. From 13-15 October, we re-join the 'Conference on Terraced Landscapes in Padua' to listen to keynote speakers, attend the Food and Culture Fair, participate in thematic workshops and contribute to the Action Plan to protect, preserve and promote terraced landscapes and cultures in the immediate future. We also aim to organise a 'Farmers' Forum' of the guardians of terraced landscapes from all over the world.

Now the registration for the three parts of the Third World Encounter is open. Revised details of the programme and field sites with workshops will be updated on our web-site:

http://www.terracedlandscapes2016.it

We invite all participants to be active and choose one of the 10 thematic workshops which will simultaneously take place in 10 different Italian terraced areas between 8-12 October 2016. It is possible to participate at the thematic session as listeners or observers or as speakers, presenting a paper on the specific theme of the field trip. We will select the most outstanding papers for a book publication, to be edited after the Encounter. Due to logistical needs, participation is limited to 20 persons for each field trip. It is not possible to participate at more than one thematic workshop.

The outcome of the scientific speeches, fieldtrips, workshops with stakeholders and fora developed in the thematic session will be presented at the Plenary Session in Padua, from 13-15 October.

There are several side events associated with the Third World Encounter, including a video competition, a photo concourse to be included in a '2017 Terraced Landscapes and Cultures Calendar,' photo exhibition, mapping and book project. For further information, please visit:

http://www.terracedlandscapes2016.it/en/progetti/

AAG Annual Meeting

Join the Association of American Geographers at the AAG Annual Meeting in Boston, April 3 - 8, 2017, for the latest in research and applications in geography, sustainability, and GIScience. The AAG Annual Meeting is an interdisciplinary forum open to anyone with an interest in geography and related disciplines. All scholars, researchers, and students are welcome. The five-day conference will host more than 7,000 geographers from around the world and feature over 5,000 presentations, posters, workshops, and field trips by leading scholars, experts, and researchers. Sessions will be organized around many subfields, special tracks, and featured themes.

The meeting program will also feature:

The Latest Research - Presentations and posters by leading scholars and researchers

Exhibit Hall - Booths and exhibits showcasing recent publications and new geographic technologies

Career and Networking Opportunities - An international networking reception, a Jobs & Careers Center highlighting the latest employment opportunities for geographers, and career development sessions

Special Events - Keynote presentations from distinguished speakers from inside and outside of geography, World Geography Bowl, and Awards Luncheon

Workshops - Training sessions and workshops to help further your professional and academic career

Field Trips - Attendees also will have several options to explore the rich cultural and physical geography of Tampa and the Tampa Bay Area through informative field trips and excursions

For more information, visit www.aag.org/annualmeeting

Enhanced Living Environments: From Models to Technologies

Editors of the IET Book “Enhanced Living Environments: From Models to Technologies" invite submissions containing Original, High Quality Ideas that are relevant to the SCOPE OF THE BOOK. The chapter proposal may kindly be sent in PDF or Word format.

Introduction

The increase in medical expenses due to societal issues like demographic ageing puts strong pressure on the sustainability of health and social care systems, on labour participation, and on quality of life for elderly

and/or people with disabilities. The Enhanced Living Environment (ELE) paradigm encompasses all information and communication technological achievements (ICT) supporting true Ambient Assisted Living (AAL). ELE promotes the provision of infrastructures and services for independent or more autonomous living, via the seamless integration of ICT within homes and residences, thus increasing their quality of life and autonomy, maintaining one's home the preferable living environment for as long as possible, therefore not causing disruption in the web of social and family interactions.

Objective of the Book

A revolution is occurring today in terms of how AAL/ELE technology is being designed, prototyped, and manufactured, as a broad set of researchers and users now have access to a host of digital fabrication tools and techniques that empower them to create new devices and realise new concepts more quickly, cheaply, and easily. Still, many fundamental issues remain open. Most efforts towards the realisation of AAL systems are based on developing pervasive devices and use Ambient Intelligence to integrate these devices together to construct a safety environment. Many fundamental issues in ELE remain open. Most of the current efforts still do not fully express the power of human being and the importance of social connections. Therefore, the societal activities are less noticed. Effective ELE solutions require appropriate ICT algorithms, architectures and platforms, having in view the advance of science in this area and the development of new and innovative networking solutions (particularly in the area of pervasive and mobile systems). This book aims to provide, in this sense, a platform for the dissemination of research efforts and presentation of advances in the ELE area by addressing these challenges. The objective is to constitute a flagship driver towards presenting and supporting advance research in the area of Enhanced Living Environments.

The book's mission is to make readers familiar with those concepts and technologies that are successfully used in the implementation of today's AAL/ELE systems, or have a good chance to be used in future developments. The approach is to not separate the theoretical concepts concerning the design of such systems from their real-world implementations. For each important topic that one should master, the book aims to play the role of a bridge between theory and practice, and of an instrument needed by professionals in their activity. For this aim, the topics will be presented in a logical sequence, and the introduction of each topic will be motivated by the need to respond to claims and requirements coming from a wide range of AAL/ELE applications. The advantages and limitations of each model or technology in terms of capabilities and areas of applicability will be presented through practical case studies for AAL/ELE systems and

applications.

TOPICS OF INTEREST

Chapters should be written in a manner readable for both specialists and non-specialists.

Recommended topic areas include, but are not limited to:

- Introduction to the AAL and ELE systems: an introduction to the area and topics covered by these subjects.

- Sensing and Monitoring: identification and sensing technologies, activity recognition, risks and accidents detection, tele-mobile monitoring, diet and exercise monitoring, drugs monitoring, vital signs supervision, identification of daily activities, etc.

- ICT instrumentation, middleware and cloud support for smart environments: Body Area Networks (BANs), Mobile Ad Hoc Networks (MANETs) and Wireless Sensor Networks (WSNs), Radio-Frequency IDentification (RFID) and 2D codes for real-world labelling, smart sensors, wearable computing, custom made Internet-connected objects, semantic middleware infrastructure (semantic web, OSGi, DLNA, DPWS, home automation standards), mobile cloud, etc.

- Human-Computer Interaction within AAL environments: ubiquitous and mobile interfaces, multi-modal interaction, context-aware frameworks and sensing (context modelling, user-centricity, automatic-generation of user interfaces, sentient computing, knowledge-based approach, affective and social interfaces, etc.).

- Environment adaptation based on intelligence: knowledge representation and management for user- and environment modelling and understanding (ontologies, semantic web, logic, expert systems, cognitive systems, non-logical reasoning, multi-agent systems), autonomic computing, responsive, proactive and dynamically reconfigurable systems, ontologies for user and environment modelling and understanding, learning, reasoning and adaptation techniques over context models, collaborative smart objects.

- Intelligent healthcare and homecare environments: ambient intelligence for AAL, e-Learning/m-Learning for AAL, artificial intelligence techniques for AAL, context-awareness in assistive environments, modelling of human activity and behaviour for providing timely assistance, collaborative systems for AAL, decision support systems.

- ELE architectures and platforms: smart and supervised homes, medical remote monitoring, hospital communication management for AAL, living labs.

- Key applications domains: Ambient and Assisted Living, smart devices and intelligent products, smart environments, assistive environments, e-Care, e-Health/m-Health, environmental control systems, technology to realize smart and assistive environments, experiences with existing smart and assistive environments.

Chapter Proposal Submission

Academics, researchers and practitioners are invited to submit, by email:

- chapter proposal (max. 2 pages) with title, authors, chapter mission and topic(s) addressed by 20 February, 2016 and
- full chapters by 19 June 2016.

Chapters should be of around 20-25 pages in length. Authors may submit extended versions of their recent conference publication, however, it is required that the chapter submission will have additional research contribution of at least 30% new content.

Please follow the manuscript formatting guidelines below to submit the original version in Microsoft Word or LaTex format:

- http://cipsm.hpc.pub.ro/IET/AuthorGuidev1.0.pdfexternal
- http://cipsm.hpc.pub.ro/IET/IETLaTex_Readme.docxexternal
- http://cipsm.hpc.pub.ro/IET/IETLaTex_template.zipexternal

Each final manuscript should be 20-25 pages long (formatted). Depending on the number of submissions, longer manuscripts will be also accepted.

The Chapter Proposal for the book may kindly be sent to the editors, by email. All chapters will be reviewed on a double-blind basis. The book is to be published in by IET- publication is expected to be released in first semester of 2017.

Important Dates

20 February 2016: Submission of Proposal (max. 2 pages)

20 March 2016:Notification of Acceptance

19 June 2016: Full Chapter Submission (in Word or PDF)

11 September 2016: Notification of Full Chapter Acceptance

27 October 2016: Revised Chapter Submission

Editors Contact Information

Ciprian Dobre

E-Mail: ciprian.dobreatcs.pub.ro

University Politehnica of Bucharest, Romania

Carlos Valderrama

E-Mail: carlos.valderramaatumons.ac.be

University of Mons, Belgium

Ivan Ganchev

E-Mail: Ivan.Ganchevatul.ie

University of Limerick, Ireland

Nuno Garcia

E-Mail: ngarciaatdi.ubi.pt

Instituto de Telecomunicações, Universidade da Beira Interior, Portugal

Rossitza Ivanova Goleva

E-Mail: rigattu-sofia.bg

Technical University of Sofia, Bulgaria

Chapter Proposal Submission

Due Date: 20 February 2016.

Please see details here: http://conference.researchbib.com/view/event/57619

Introduction to RUSLE2 Applications for Construction Site Erosion Control

Presenters: Terrence Toy, Ph.D., CPESC & David Lightle, CPESC Wednesday, Feb. 24th, 2016

Do you know your RUSLE2?

Join Terry Toy and David Lightle as they discuss the Revised Universal Soil Loss Equation (RUSLE2) and how you can utilize RUSLE2 to estimate erosion on construction sites based upon the climate, soils, topography, surface cover, and management practices.

The Revised Universal Soil Loss Equation (RUSLE, ver. 2) offers you the ability to predict the long-term average rate of rill and interrill erosion by taking into account the climate, soils, topography, surface cover, and management practices at a construction site. Once determined,

RUSLE2 offers the ability to manipulate these site characteristics to achieve the desired soil-erosion rate during the erosion-control planning process thus enabling erosion-control professionals to determine the optimum effective and cost-effective erosion-control design. That is, IF you're using the program correctly.

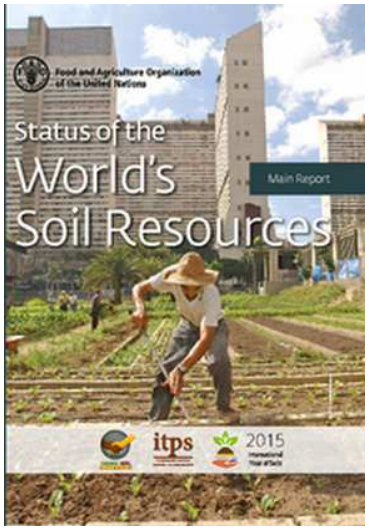
In this presentation, we'll cover the concepts behind and basic operation of the Revised Universal Soil Loss Equation (RUSLE, ver. 2) program, and demonstrate how to navigate through and use RUSLE2 to calculate erosion estimates for a site. Within this discussion, we'll review the elements necessary for an accurate erosion estimate, where these are located within the RUSLE2 interface, and how to input these to characterize the erosional environment of the construction site. Additionally, Toy and Lightle will demonstrate how to quickly calculate erosion estimates for various scenarios, interpret the soil loss and sediment-yield outputs, and compare the erosion-control effectiveness of each practice and practice combination, as well as the cost and cost-effectiveness of each.

Learning Objectives:

- ✧ Understand crowdsourcing, its key elements, opportunities, challenges, and applications.
- ✧ Learn to navigate through the RUSLE2 program in a step-by-step fashion as the instructors demonstrate the operation of the program to calculate erosion estimates for a specific site.
- ✧ Learn the site characteristics that are necessary to make an erosion estimate for a site and which of these characteristics can be found within the program menus and which must be provided by the program user.
- ✧ Learn (through instructor demonstration) the contribution of RUSLE2 to erosion-control planning by quickly calculating erosion estimates for numerous erosion-control scenarios at a particular site. Understanding that these scenarios, then, allow the user to compare the erosion-control effectiveness of various practices, and practice combinations, with the cost of these practices.
- ✧ Learn the versatility of RUSLE2 in providing erosion estimates tailored to their specific site characteristics through the use of management and practice menus especially prepared for construction sites and contained within the program.

Status of the World's Soil Resource

The much awaited report on the Status of the World's Soil Resources (SWSR) was launched on the 4th December in FAO headquarters, Rome during the World Soil Day celebration and the official closure of the 2015 International Year of Soil.



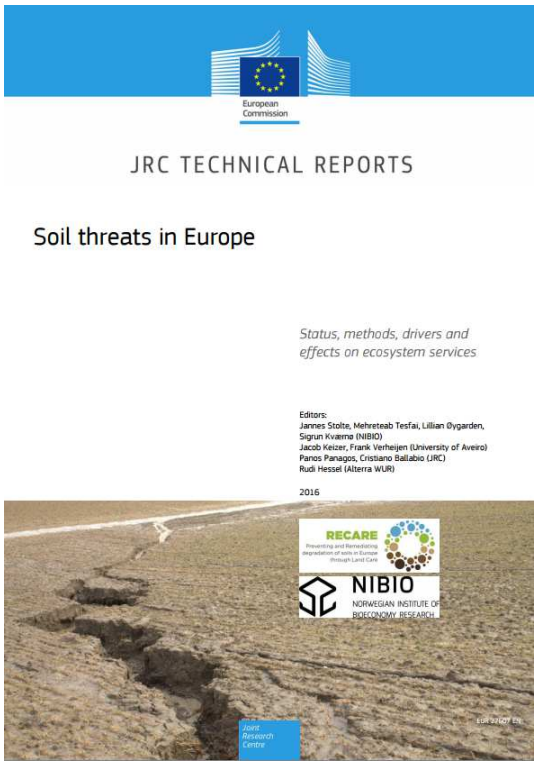
The report is based on the assessments of more than 200 environmental scientists of the state-of-knowledge on soil resources and soil change. It reports on the major soil changes globally and in more detail on regional changes. The report provides documented scientific data on soil erosion, soil organic carbon change, soil biodiversity changes, soil acidification, soil compaction, soil sealing, soil salinization and sodification, soil contamination, soil nutrient changes and water logging.

Yet the overwhelming conclusion of the report is that the majority of the world's soil resources are in only fair, poor or very poor condition and that conditions are getting worse in far more cases than they are improving. In particular, 33 percent of land is moderately to highly degraded due to erosion, salinization, compaction, acidification, and chemical pollution of soils. "Further loss of productive soils would severely damage food production and food security, amplify food-price volatility, and potentially plunge millions of people into hunger and poverty. But the report also offers evidence that this loss of soil resources and functions can be avoided," said FAO Director-General José Graziano da Silva. Writing the foreword to the 650 page-long report, he expressed the conviction that the contents will "greatly assist in galvanizing action at all levels towards more sustainable soil management," adding that this was in line with the international community's commitment to achieve the Sustainable Development Goals.

Free download here: http://www.fao.org/documents/card/en/c/c6814873-efc3-41db-b7d3-2081a10ede50/

Soil threats in Europe: Status, methods, drivers and effects on ecosystem services

This report presents the result of WP2 of the RECARE project. One of the objectives of WP2 (Base for RECARE data collection and methods) is to provide an improved overview of existing information on soil threats and degradation at the European scale. The report is written by a group of experts from the RECARE team, coordinated by Bioforsk. In total, 60 persons were included in the process of writing, reviewing and editing the report. Eleven soil threats were identified for the report. These soil threats are soil erosion by water, soil erosion by wind, decline of organic matter (OM) in peat, decline of OM in minerals soils, soil compaction, soil sealing, soil contamination, soil salinization, desertification, flooding and landslides and decline in soil biodiversity.



Editors: Jannes Stolte, Mehreteab Tesfai, Lillian Øygarden, Sigrun Kværnø (NIBIO), Jacob Keizer, Frank Verheijen (University of Aveiro), Panos Panagos, Cristiano Ballabio (JRC), Rudi Hessel (Alterra WUR)

Resource Type: Maps & Documents, Documents, Scientific-Technical Reports

Download here:

http://esdac.jrc.ec.europa.eu/content/soil-threats-europe-status-methods-drivers-and-effects-ecosystem-services

NOAA National Water Center University of Alabama campus, Tuscaloosa

UCAR COMMUNITY PROGRAMS | VSP UCAR Visiting Scientist Programs

The UCAR Visiting Scientist Program is pleased to announce a Scientific Resources Manager career opportunity at the NOAA National Water Center (NWC), a state-of-the-art collaborative facility located on the University of Alabama campus in Tuscaloosa. The NWC's mission is to deliver state-of-the-science hydrologic analyses, forecast information, and decision support services to address our Nations' growing water resources challenges.

Duties Include:

- ✧ Supervise and manage UCAR employees at all three NWC locations.
- ✧ Coordinate with NWC management teams and project leads to manage and coordinate UCAR staff resources on individual project tasks and program activities.
- ✧ Interact with NWC project teams and peers, and technical and upper level management personnel at the NWC on issues related to UCAR staff and activity.
- ✧ Manage all vacancies and hiring processes for UCAR staff in collaboration with the UCAR VSP management team.
- ✧ Develop and oversee UCAR National Water Center individual employee yearly performance plans and periodic performance reviews.
- ✧ Serve as a liaison between UCAR and the NOAA National Water Center.

Education and Experience

- ✧ Bachelor's Degree in business or scientific discipline and at least three years of business and/or program management experience.
- ✧ Demonstrated ability to successfully manage scientific or technical teams and staff.

OTHER REQUIREMENTS

- ✧ Thorough knowledge of National Water Center scientific mission. Should be highly self-motivated.

Decision Making & Problem solving

The successful candidate will have the overall responsibility for ensuring compliance of UCAR personnel with all project and program policies and procedures (e.g., following NWC project management process, etc.) and has overall responsibility for supervising and managing UCAR personnel for successful and timely execution of UCAR tasks and activities.

DESIRED Knowledge, Skills & Abilities

This position is responsible for supporting NWC scientific research-to-operations projects and ongoing program activities. It requires demonstrated experience in planning and managing complex project goals and objectives.

- ✧ The incumbent should have advanced knowledge of scientific and technical practices and methods overall, and of scientific disciplines relevant to the collaborative missions of UCAR and the NWC.
- ✧ In-depth knowledge of UCAR Human Resources practices, with a focus on benefits and compensation.
- ✧ Strong ability to motivate, lead, manage, and develop teams of individuals.
- ✧ Demonstrated ability to manage and supervise diverse scientific and technical personnel.
- ✧ Good oral and written communication skills.
- ✧ Ability to travel as needed. Typically, travel would include trips to the other two NWC facilities (Silver Spring, MD and Chanhassen, MN) approximately semi-annually and to the UCAR offices in Boulder, CO as required.

UCAR pays a competitive salary and offers an excellent benefits package. Positions are classified within the UCAR system based upon job skills and level of responsibility. A relocation allowance (maximum $10,000) is provided, and UCAR/NCAR will sponsor a work visa to fill this position.

Applications for this position will be accepted on a continuous basis until the position is filled.

The selected candidate will be an employee of the University Corporation for Atmospheric Research (UCAR), Boulder, CO, and subject to and covered by UCAR policies with respect to all personnel matters. UCAR will provide a salary that is commensurate with education and experience. UCAR benefits include group health and dental insurance, paid time off, paid holidays, mandatory participation in a retirement fund (TIAA/CREF), and life insurance.

How to Apply

http://www.vsp.ucar.edu/opportunities/

WASWAC MEMBERSHIP APPLICATION/RENEWAL FORM (Issued 120501)

(For applicants from all countries)

Name: (Ms./Mrs./Mr./Prof./Dr.)..... Gender: □F □M

Institution:.....

Postal address:.....

State/Province:..... Zip/Postal code:..... Country:.....

Phone:..... Fax:.....

Emails (Please give at least 2 addresses to ensure uninterrupted contact): (1).....

(2)..... (3).....

My specialized field(s):.....

Please sign me up for the WASWAC membership in category*: □1(IM)□2(LM)□3(OM)□4(SM&GM)

Membership for the year(s)..... @US$..... = US$ .....

Donation for developing country membership, etc. US$ .....

Donation to the Moldenhauer Fund US$ .....

Total US$ .....

***Membership categories & rates** from July 18, 2005, amended March 3, 2007 and March 4, 2010.

1. IM (Individual membership): US$20 for 5 years for developing countries (In China, members pay 130 yuan RMB); US$40 for 5 years for developed countries and persons working in international organizations worldwide.

2. LM (Life membership): US$80 for developing countries (In China, members pay 520 yuan RMB); US$160 for developed countries and persons working in international organizations worldwide. Persons who have passed their 60th birthday pay only half of these LM rates.

3. OM (Organization membership): For universities, research and implemental institutions, government agencies, NGOs, societies, associations and international organizations, etc. Persons belonging to an Organization member will receive the same online products and services as the other two above categories: $100/year for an organization with up to 150 persons; $150/year for an organization with up to 300 persons: $200/year for an organization with up to 500 persons; and $10/year for an additional 100 persons or part thereof.

4. SM&GM (Student membership & Gift membership): US$5/year worldwide, to be purchased to give to colleagues, friends, students, etc.

▲ **How and where to submit this form and the money**: You may send this form by e-mail (preferred), fax or post – and membership due – to:

Dr. Xiaoying Liu. WASWAC Treasurer, c/o IRTCES. No. 20 Chegongzhuang Road West, Beijing 100048, China. Tel: +86 10 68786413; Fax: +86 10 68411174; Email: waswac@foxmail.com; waswac@163.com . Membership fee can be sent through **Check, Bank Draft, Bank Transfer** and **WESTERN UNION**.

For sending money by foreign wires through a bank, please give the following information to your bank:

Name of Receiver (A/C Holder's Name): World Association of Soil and Water Conservation

Bank Name and Address: China Construction Bank, Shoutinanlu Branch, Beijing, China, No. 9 Shoutinanlu Street, Haidian District, Beijing, P R China

A/C NO.: 1100 1042 7000 5301 6996

Message to write on the Bank Sheet: WASWAC Membership due for Ms./Mrs./Mr./Prof./Dr. ....., Country .....

NOTE: 1. Do not deduct the bank fee from the amount of money to send. **2.** For sending money by wire/bank transfer or check please add US$7 per transaction to compensate for the charge at the receiving bank in Beijing. This additional charge does not apply for **WESTERN UNION** or any payment of US$50 or more.