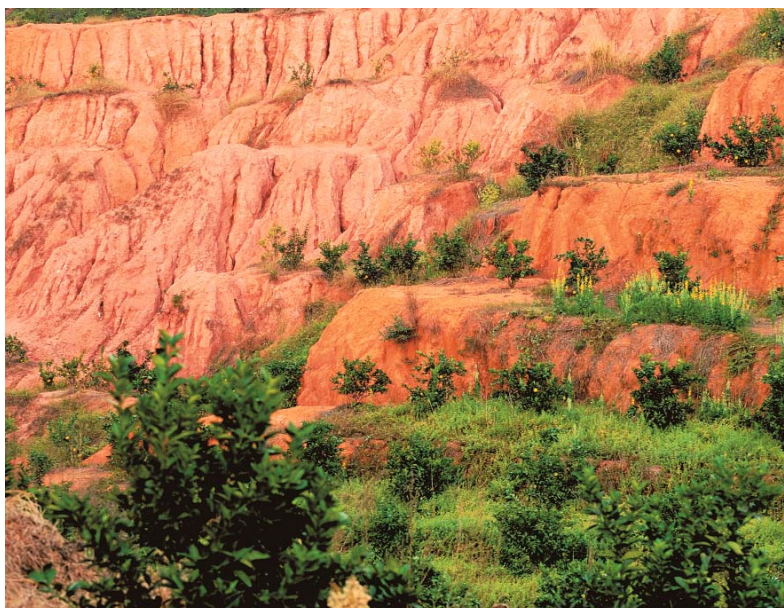




**WORLD ASSOCIATION OF SOIL AND WATER CONSERVATION**

# **HOT NEWS**

Issue 07, 2015



---

## WASWAC HOT NEWS No. 07, July, 2015

### Contents

International Youth Forum of Soil and Water Conservation (IYFSWC)	
Preparation Works are Going Well	1-2
CASCADE GLOSSARY	3
Meetings	4-8
Jobs	9-12
Policy Conference Produces Recommendations to	
Support Action on Adaptation	13-15
Make a short film about soils, raise awareness and win US\$1500	16-17
New initiative looks to bring soils into classrooms around the globe	18-19
What do Soils do for us?	20
WASWAC Application Form	21

---

Cover photo: Comparison between collapsing hills with treatments to control soil erosion and without, Ganzhou, Jiangxi Province, China.

Editors: Ms. Mao Juan, Contributors include Dr. Qu Liqin, Dr Nira Gurung, Panos Panagos, and Dr. Du Pengfei.

---



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](mailto:waswac@foxmail.com)    [waswac@163.com](mailto:waswac@163.com)

For ISWCR paper submission:

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

WASWAC Website: [www.waswac.org](http://www.waswac.org)

---

## International Youth Forum of Soil and Water

### Conservation (IYFSWC) Preparation Works are Going Well

Under all member's full support, the IYFSWC preparation works are going well.

All papers we have received for this coming forum are being evaluated by the invited experts distributed over the world. We are grateful for the member's efforts that play a very important role for this event. We are pleased to announce the name list of paper's evaluation group members:

Ning Duihu	Gustavo Merten
Winfried Blum	Carmelo Dazzi
Julian Dumanski	Ildefonso Pla Sentís
S.S. Kukal	Mohammed H. Golabi
Franco Obando	Lei Tingwu
Shabbir Shahid	Chinapat Sukvibool
Jin Zhinong	T. Francis Shaxson
Fan Houbao	Rachid Mrabet
Miodrag Zlatic	Yu Xinxiao
José Rubio	John Laflen
Chi-hua Huang	Kwong Fai Andrew Lo
Syaiful Anwar	Cai Qiangguo
James Owino	Michael Fullen

By the end of August, all comments will be back to the award committee. According to the expert's evaluation, the first 10 papers will be selected as the best papers for this forum.

During this forum, many famous scientists will be Nanchang to give presentation, this will be a good chance for young researchers to study and communication, we will try to provide as many as possible opportunities to all participants. So, if you are interested in this forum, if you are look forward to communicate with famous

scientists, if you are eager to know more young researchers, please feel free to contact with us, we will be very happy to make you registered to this forum. One thing should be noticed, any participants who have not submitted full papers before the deadline of May 31 will not have the qualification to win the award. However, all participants will have the same occasion to share information, to study each other, to approach the famous scientists coming from all over the world.

Looking forward to seeing you in beautiful Nanchang in this coming October!

If you want to attend this forum, please fill the following application form and return it to us through [IYFSWCinf@nit.edu.cn](mailto:IYFSWCinf@nit.edu.cn) or [liqin.qu@iwhr.com](mailto:liqin.qu@iwhr.com), any queries please contact our staff at the time you are convenient.

Tel.: Dr. Zhang, Haina +86 15180468813

Dr Qu, Liqin +86-10-68786416

### IYFSWC Application Form

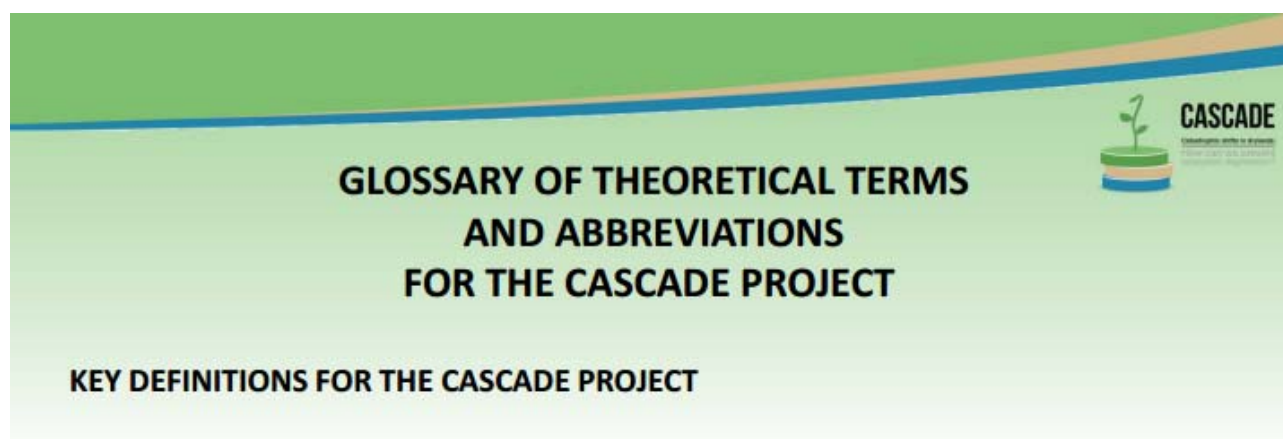
Please send back to [IYFSWCinf@nit.edu.cn](mailto:IYFSWCinf@nit.edu.cn)

<b>Given Name</b>		<b>Surname</b>	
<b>Gender</b>	<b>Female</b> <input type="checkbox"/> <b>male</b> <input type="checkbox"/>	<b>Birth of Date</b>	
<b>Country</b>		<b>Email</b>	
<b>Address</b>			
<b>Cell Phone Number</b>			
<b>Are you enrolled student?</b>	<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/>		
<b>Apply for an oral Presentation</b>	<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/>		
<b>Title of Presentation</b> <b>(If Yes for the above question)</b>			



## CASCADE GLOSSARY

CASCADE GLOSSARY was released, in which some often use words were provided detailed explanation. As CASCADE is an interdisciplinary project, the Glossary helps researchers and other scientists to make sure there is a common understanding of the more complex terms and ideas. The CASCADE team has proposed the definitions of the main terms in ecosystem services and Catastrophic shifts in ecosystems.



**Ecosystem:** “an open ecological system that includes all the organisms that function together in a given area (ranging in scale from very small to the whole globe) interacting with the physical environment so that a flow of energy leads to clearly defined biotic structures and cycling of materials between living and non-living parts” (Odum, 1983).

**Catastrophic shifts in ecosystems:** An ecosystem may suddenly shift to a new state, characterized by a different structure, species composition and/or functioning. This phenomenon is referred to as a “**catastrophic shift**” in ecology. Such shifts to a degraded state (e.g. occurring in drylands) can lead to dramatic economic as well as ecological consequences. A catastrophic shift, according to the mathematician René Thom’s catastrophe theory, is an abrupt change in the state of a system, which suddenly shifts from one stable state to another stable state, separated by a **tipping point**.

Catastrophic shifts are usually associated with **hysteresis**. **Catastrophic shifts** may either have positive consequences (shifts to the “healthy” state) or negative consequences (shifts to the “degraded” state) for the ecosystem functioning and related services. In physics **catastrophic shifts** are known as first-order phase transitions, and in mathematics they are subcritical bifurcations.

**Ecological threshold:** Limit or amount of external pressure/change at which there is an abrupt change in an ecosystem property, or phenomenon. At this point small changes in one or more external conditions produce large and persistent responses in an ecosystem. A threshold is not necessarily associated with a tipping point, and thresholds can be passed without feedback or hysteresis.

**Critical transition:** large and persistent response in an ecosystem corresponding to a change in ecosystem property/state occurring because an ecological threshold has been reached and because **positive feedbacks**, or nonlinear instabilities in the system cause changes to propagate in a CASCADE-like fashion that is potentially irreversible. Once such a critical transition has occurred, the ecosystem in question is not likely to spontaneously return to its previous state.

Download at: [http://eusoils.jrc.ec.europa.eu/projects/cascade/Resources/CASCADE\\_Glossary.pdf](http://eusoils.jrc.ec.europa.eu/projects/cascade/Resources/CASCADE_Glossary.pdf)

# MEETINGS

## **The 4th Meeting of ENSA (European Network on Soil Awareness)**

The European Network on Soil Awareness will hold its forth meeting in **Milan October 21-22, 2015**.

The meeting will take place directly at the EXPO October 21, 2015. The second part of the conference will be at the JRC of the EU in Ispra close to Milan October 22, 2015.

The conference is open to both soil specialists with interest in raising awareness of soils as well as other interest groups whose role involves an understanding of specific aspects of soil, for example, planners, teachers, and local authorities. The conference offers the opportunity for exchanging ideas and experiences in raising soil awareness.



Introduction on ENSA: The European Network on Soil Awareness (ENSA) has been established in September 2009 in Osnabrück, Germany. The goal of the network is to bring soil scientists together with other experts working on soil in Europe to enlarge the group of people interested in soil awareness in one or the other way. ENSA, kindly supported by the European Land and Soil Alliance (ELSA) and the European Commission, will help the public to become more familiar with soil and soil protection.

Details at: <http://www.bodenbuendnis.org/ensa/>



## **Soil Science Society of East Africa (SSSEA) Bi-annual Conference**

The 28th bi-Annual Conference of the Soil Science Society of East Africa and African celebration meeting of the International Year of Soil will be held in **Morogoro, Tanzania** from **23rd to 27th November 2015**. The event will draw scientists from Research Organizations, Universities, Non Governmental Organizations, Community-based Organizations, farmers' groups and International

Soil-Related Organizations operating in the East African region, Africa and beyond. The conference will join the World to celebrate the International Year of Soil (IYS). ABSTRACT/PAPERS: Full papers in electronic version submitted by 30th October 2015 to: The Organizing Committee SSSEA C/O Dr. Nyambilila Amuri Secretary General Sokoine university of Agriculture Box 3008, Morogoro – Tanzania [amurnyambilila@yahoo.com](mailto:amurnyambilila@yahoo.com)

Details at:

<http://www.cta.int/en/event/morogoro-tanzania/soil-science-society-of-east-africa-sssea-bi-annual-conference.html>

### **Regional Training Workshop for Journalists: Strengthening reporting on adaptation to climate change for relevant policy approaches**



**Date:** 28 Sep 2015 to 03 Oct 2015

**Venue:** Kathmandu

**Contact Persons:** HICAP Media Grants

**Type:** Training

**Programmes:** Adaptation to Change, HICAP

The Himalayan Climate Change Adaptation Programme (HICAP) is a pioneering collaboration among three organizations – CICERO, ICIMOD, and GRID-Arendal – aimed at contributing to enhanced resilience of mountain communities, particularly women, through improved understanding of vulnerabilities, opportunities, and potentials for adaptation. Under HICAP's communications and outreach component, GRID-Arendal and ICIMOD will hold a training workshop for journalists from 28 September to 3 October 2015 in Kathmandu and the surrounding foothills of Nepal.

## Objective





To improve creative thinking, scientific accuracy, and effective communication on adaptation to climate change in a local and national context.

The primary focus will be on vulnerability and adaptation to climate change, including a focus on water, food security, ecosystems services, vulnerability, and the role of women in climate change adaptation. As media can play a critical role in influencing public opinion and triggering debate on policy issues, the training will also focus on interacting and engaging with senior policy advisors and policy makers on relevant themes. In light of the earthquake in Nepal, which caused over 8,500 deaths and widespread damage to housing, infrastructure, and agricultural systems, the workshop will also incorporate disaster risk reduction as one of the key elements for discussion.

## Tentative programme

The workshop will bring together highly motivated journalists from China, India, Nepal, and Pakistan who are currently working with various media, including broadcast, print, web, video, and photo journalism. Special attention will be given to photo and radio journalists. The workshop will be conducted by two experienced trainers, both international senior reporters.

Over the six-day workshop in Kathmandu and Kavre Palanchowk District in Nepal, the trainers will guide participants in the art of formulating, compiling, and editing compelling stories. Through the training, it is expected that participants will:

-  Hone their knowledge and skills in reporting about climate change and its impacts at the local level
-  Achieve a critical understanding of the policy options available for adaptation to climate change and disaster risk reduction
-  Develop innovative articles, to be published through their existing and/or new networks
-  Network and exchange views with fellow journalists and local editors

One day in Kathmandu will be dedicated to familiarization and discussion of journalistic techniques and information gathering. This will continue with a three-day field trip, bringing the journalists to destinations than they may not be familiar with from their everyday reporting. The final two days will be spent interacting with senior policy advisers and finalizing the stories. A dedicated session



with senior policy advisors and social scientists will focus on identifying key local issues and their possible implications in appropriate policy formulations.

By the end of the workshop, journalists will have prepared relevant stories ready for publication and shared these with the facilitators. After the workshop, three participating journalists will be awarded with a grant for developing other stories.

### **Guidelines for application**

Interested journalists may apply using the online application form no later than 11 August 2015.

Please make sure that you provide the following information while submitting the form:

- A written statement (in English, no more than 150 words) indicating the reason for applying and why you should be considered
- A list of 3 relevant stories (up to 5 permitted) authored by the applicant including title, category, published/broadcast date, name of the publisher/broadcaster, weblink to stories
- A signed and stamped letter from the editor of a reputable publishing or broadcast agency indicating an interest in broadcasting your story
- An updated curriculum vitae (maximum 2 pages) in English

### **Eligibility**

- ✓ Journalists working in all forms of media (broadcast, print, web, radio, video, and photojournalism) may apply.
- ✓ Only journalists who have reported in China, India, Nepal, and Pakistan are eligible.
- ✓ Applicants can be either full-time journalists or freelancers with a minimum of five years of experience.
- ✓ Demonstrated good investigative reporting skills.
- ✓ Experience in reporting on environmental issues is an advantage, but is not essential for the workshop.
- ✓ Personal motivation for reporting on adaptation to climate change and its socioeconomic implications.
- ✓ Journalists working in non-English media are welcome to apply, but must indicate a proficiency in English, as English is the working language of the training workshop.

- ✓ Experience in reporting on policy issues specific to the HICAP study region will be an added advantage.

### Selection Process

All applications will be reviewed by a selection committee. Only successful applicants will be notified by email by 1 September 2015.

If you have problems in submitting the form or have questions specific to the workshop, please write to [hicapmediagrants@icimod.org](mailto:hicapmediagrants@icimod.org)

Details at: <http://www.icimod.org/?q=18884>

[SOUND PRINCIPLE NO. 31]

Even grown-ups  
play with cool new toys.



**RiverSurveyor**

and the new RiverSurveyor could well be  
your favorite new toy too.

- ◆ Continuous shallow-to-deep discharge measurements
- ◆ Ideal for extreme flood or drought conditions
- ◆ Instant data from your mobile device
- ◆ Use in canals, streams and rivers
- ◆ Small, portable and easy to use

**M9**  
**S5**

Complete 3-D actual  
profiling, bathymetric  
measurement and  
discharge calculation as  
you transect the channel

FREE Technical notes, web-based training and product information at [www.sontek.com](http://www.sontek.com)  
Questions? E-mail: [inquiry@sontek.com](mailto:inquiry@sontek.com) or call +1.858.546.8327  
See the RiverSurveyor-S5 in action! [youtube.com/SonTekYSI](http://youtube.com/SonTekYSI)

**SonTek**  
YSI incorporated

Sound Principles. Good Advice.

# JOBS

## 1. Research Associate - Soil Molecular Ecologist



### Description of specific work to be undertaken and skills to be gained

The post will be within the Molecular Ecology group based at CEH Wallingford. Here we are examining the effects of above ground change on soil biodiversity and associated ecosystem services across a range of projects covering multiple geographic scales. In particular you will work alongside a large NERC funded consortia project under the Soil Security Programme, led by CEH and involving a team of researchers from across the UK including molecular biologists, biogeochemists and modellers. This project will be assessing soil responses to changes in land management across the UK, but you will also have the opportunity to work alongside similar projects based in the tropics, funded under the NERC Human Modified Tropical Forest Programme. A key area of work in these projects is the design of surveys and experiments to quantify change in soil biodiversity (microbes to fauna) using high throughput sequencing. However within these and other projects we are also exploring novel methods, for instance using metagenomic and isotopic techniques to understand the functional relevance of change in biodiversity for soil services. We are therefore wishing to train someone in any of these areas, but wish to appoint someone with specialist understanding which can complement and advance our current understanding.

### Skills Required Upon Appointment

- ✚ A PhD in a relevant scientific discipline (soil, molecular ecology, ecology, biogeochemistry)
- ✚ Good lab skills and advanced aptitude for statistical and/or bioinformatic analysis
- ✚ Experience of molecular approaches to assess microbial diversity (particularly high throughput sequencing) would be a distinct advantage, but applicants with specialist skills in measuring or modelling soil functions related to ecosystem services are also encourage to apply
- ✚ Very good written and oral communication skills, evidence by publications and talks to

scientific audiences

- ✚ Good team working skills, flexible research approach and the ability to develop effective internal and external collaborations within the scientific area
- ✚ Good organisational and time management skills, with an ability to work independently and to deadlines

### Benefits

In addition NERC offer a public sector pension scheme, 30 days' annual leave and 10½ days' public and privilege holiday per annum. We offer a flexible and supportive working environment and will encourage your continuing professional development as part of our career support. NERC has an equal opportunities policy and welcomes applications from all sections of the community. People with disabilities and those from ethnic minorities are currently under represented and their applications are particularly welcomed. Guaranteed interview scheme for applicants with disabilities.

Applications are handled by UK SBS Shared Services Centre; to apply please visit our job board at [http://www.topcareer.jobs/Vacancy/irc200113\\_5590.aspx](http://www.topcareer.jobs/Vacancy/irc200113_5590.aspx)

Applicants who are unable to apply online should contact us by telephone on 01793 867000. Please quote reference number IRC200113.

Copy from: <http://www.earthworks-jobs.com/ecology/cehl5081.html>

## 2. Assistant Professor - Soil Water Processes



**TITLE:** Soil Water Processes, 70% Research and 30% Teaching appointment

**RANK:** Assistant Professor (Tenure track, 12 month position)

**LOCATION:** Department of Agronomy, Kansas State University Manhattan, KS 66506-5501

**DATE AVAILABLE:** December 2015

**RESPONSIBILITIES:** The successful candidate will conduct research in soil water management in dryland and irrigated agriculture. Specific topic areas may include irrigation management and cropping systems that maximize crop water use efficiency in water-limited environments, development of



sensor-based monitoring of soil water status, working with crop breeders and physiologists to identify and develop drought tolerant crop genetics, and the interaction between global climate change and soil-water relationships. The successful candidate will be expected to develop a strong, grant-funded research program, including the training of graduate students and publication of research results in high-impact journals and to work as part of an interdisciplinary team of soil and crop scientists, climatologists, and engineers on crop water and environmental stresses with the overall goal of improving productivity of crops. Teaching duties will include a dual level course on the physical properties of soils, an additional course to be identified after the completion of a curriculum review, participation in student extracurricular activities and relevant academic committees. The candidate must be able to work in a multi-cultural setting and create an environment that fosters collegiality, diversity, and teamwork.

#### **TRAINING AND EXPERIENCE:**

Required: Ph.D. in soil physics, soil water management, or related discipline with a demonstrated potential for achievement in research in soil/water relationships in limited rainfall areas. Demonstrated potential for effectiveness in teaching including a strong desire to work with and advise undergraduate and graduate students. Excellent interpersonal skills and the ability to work in an interdisciplinary team of scientists. Excellent oral and written communication skills in English.

Desirable: Demonstrated publication record, experience in obtaining extramural funding, and effective teaching skills. Field research experience and knowledge of irrigation practices. Development and use of relevant models.

**SALARY:** Salary will be commensurate with qualifications and experience. An excellent fringe benefits package includes: retirement program, medical, life and disability insurance and sabbatical leave program.

**APPLICATION PROCEDURE:** Screening of candidates will begin September 15, 2015 and will continue until a suitable candidate is selected. Qualified persons are requested to send an application which must include a resume, copies of transcripts from all university degrees, statement of research interests and goals, and a statement of teaching philosophy. The applicant must also arrange to have (and we must receive) three letters of reference. All materials should be sent to:

Ms. Brittany Green, Senior Administrative Assistant

Dept. of Agronomy, Kansas State University

2004 Throckmorton Plant Sciences Center

Manhattan, KS 66506-5501

E-mail: [bdgreen@ksu.edu](mailto:bdgreen@ksu.edu)

Please refer to position #W0007433 when applying.

For additional information about this position contact Dr. Ganga Hettiarachchi at 785-532-7209 (ganga@ksu.edu) or Dr. Gary Pierzynski at 785-532-6101 (gmp@ksu.edu). Additional information about the Department of Agronomy may be obtained at the home page for the department:

<http://www.k-state.edu/agronomy/>

Details at: <http://www.earthworks-jobs.com/soil/kansas15081.html>

## ICT International Standing Wave Technology Soil Moisture Measurement

MPkit



MP306



MP406



<http://www.ictinternational.com/soils.html#soilmoisture>



INTERNATIONAL

### Applications:

- Volumetric soil moisture content • Forest and catchment hydrology
- Soil columns and geo-engineering • Landfill cover and mine closures
- Irrigation scheduling

**Solutions for soil, plant & environmental monitoring**

[www.ictinternational.com](http://www.ictinternational.com)

Ph: +61 2 6772 6770 [sales@ictinternational.com.au](mailto:sales@ictinternational.com.au)

## Policy Conference Produces Recommendations to Support Action on Adaptation

*Political leaders, scientists, and people from the Indus basin stress the need for knowledge sharing and the promotion of local solutions in policy conference on climate change adaptation in Pakistan*  
**Islamabad, Pakistan, 24 July 2015**

At a time when the mountain provinces of Khyber Pakhtunkhwa, Gilgit Baltistan and Balochistan are again being ravaged by floods, experts working across the Indus River Basin came together during a three-day policy conference in Islamabad to discuss and share their knowledge on a highly relevant issue: the impacts of climate change on mountain people and the challenges and opportunities for policy and action to help people adapt to these changes. The conference 'Action for Adaptation: Bringing climate change science to policy makers' was jointly organized by the Ministry of National Food Security and Research Pakistan, the Ministry of Climate Change, the Pakistan Agricultural Research Council (PARC), WWF Pakistan, the Sustainable Development Policy Institute (SDPI), and the International Centre for Integrated Mountain Development (ICIMOD).



Guests of Honour Farzana Yaqoob, Minister for Social Welfare and Women's Development of Azad Jammu and Kashmir, and Haji Muhammad Wakeel, Minister for Forest, Wildlife and Environment of Gilgit Baltistan, discussed the challenges and opportunities for translating knowledge into policy and action with high-level technical experts and policy makers during a high-level leadership panel. A strong message emerged from the panel discussion: leaders and people must take the impacts of climate change on mountain people seriously, and the political leadership and organizations need to work with

communities to develop solutions for adaptation.

“This is the time to actually do something”, said the Honourable Minister for Women Development and Social Welfare for Azad Jammu and Kashmir, Farzana Yaqoob, stressing the need for greater recognition of the urgency of issues caused by climate change and the suffering of mountain people in the face of floods that wash away infrastructure and cause wide-scale destruction.

Director General of the International Centre for Integrated Mountain Development (ICIMOD) Dr David Molden said that people tend to create artificial barriers – between different academic disciplines; between scientists, practitioners and policymakers; between the mountains and the plains; and between different countries and regions –that make communication and knowledge sharing difficult. The solution, said Dr. Molden, is to view boundaries in a different way. “Instead of viewing boundaries as barriers separating people, we need to view them as meeting places to develop solutions”, he said.

The conference on Action for Adaptation was one such meeting place. More than 160 researchers, policy makers, journalists, students, and practitioners from across Pakistan, as well as abroad, working on issues related to climate change and adaptation in the Indus River basin participated in dynamic discussions at the conference, which spanned topics from climate projections and water availability to food security, ecosystem-based adaptation, and community vulnerability.

Underlying the discussions was a focus on how science and knowledge on climate change can be used by, and made useful for, those that have to take decisions and action for adaptation, particularly the people of the Upper Indus basin, practitioners, and policy makers. Ifthikhar Ahmad of the Pakistan Agriculture Research Council said, “We have sufficient knowledge – now we need to implement that knowledge.” Inspector General of Forests Syed Mahmood Nasir noted that consistency in policies for climate change adaptation is very important for Pakistan.

Research shared in a technical session on climate change and water availability revealed the serious impacts climate change will have on both upstream and downstream areas of Pakistan. Dr Arun Bhakta Shrestha, Senior Climate Change Specialist at ICIMOD, said the change in rainfall and temperature in the Indus Basin will have large consequences for agricultural productivity and, as a result, for the region’s economy and people’s lives. “With high climate variability, there are more chances of extreme events, both in terms of droughts and floods”, he said. “Therefore, there is an urgent need to share information and data, and strengthen monitoring systems to manage these events.”









There was a large focus throughout the conference on the crucial role of women as resource managers, particularly with respect to high rates of male outmigration in mountain areas, which leaves women as the custodians of natural resources and agricultural productivity. Unfortunately, however, women are yet to be seen as equal partners in decision making. “Women, although they play a key role in agriculture and the household, have been marginalized and given an invisible status in decision-making forums”, said Nusrat Nasab of FOCUS Pakistan.

The conference gave a strong message that in addition to sharing learning and knowledge between different areas, there is a need to develop local solutions that make use of already existing biodiversity and adaptation solutions, and that work with and learn from local people.

In the session on community vulnerability, adaptation, and gender there was a clear message that climate change impacts should not be seen in isolation, and that any action for adaptation needs to take into account the different issues mountain communities are facing. “Insecurity breeds insecurity”, said Abid Suleri of the Sustainable Development Policy Institute (SDPI), highlighting that vulnerability in one area often leads to vulnerability in another. Data shared by ICIMOD supports this, showing that not a single household faced environmental problems or shocks in isolation of other challenges.

The conference produced several strong recommendations for action for adaptation in Pakistan:

-  Provide adequate funds and give mandates to provincial and local institutions to implement climate change adaptation strategies.
-  Implement flood zoning and impose a strict ban on settlements next to vulnerable waterways.
-  Strong measures should be put into place to protect the existing environment through mechanisms like REDD+ and the control of construction and tree-cutting which damages ecosystems.
-  Institutions and governments need to prepare for more extreme events and a higher incidence of floods and droughts as a result of climate change.
-  Women must be given an equal role in decision-making forums to reflect their key role as resource managers.
-  Actions and strategies for adaptation must be context-specific and must take into account multiple sources of vulnerability.

## Make a short film about soils, raise awareness and win US\$1500

Do you have an idea for a short film to report or inspire others on soils?

FAO is collaborating with TVE (Television for the Environment) on the tvebiomovies film competition.

This year, the International Year of Soils will be a category in the Short Films Proposal competition.

Are you passionate about soils? Are you or your friends doing something to preserve soil? Do you have a story to tell? Your film can be funny or serious, an animation, a drama or a documentary.

Submit your proposal and you could receive US\$300 to help you make your film a reality!

The films will be uploaded to TVE's YouTube channel [tveinspiringchange](#) and the two films that receive the most views between 16 October and 18 December 2015 will each receive a US\$1500 prize!



### The International Year of Soils 2015 prize

Soil is irreplaceable! It can take up to 1 000 years to produce just 2-3 cm of soil, and yet up to 50 000 square kilometres of soil, an area around the size of Costa Rica, is lost every year due to deforestation, unsustainable land use and management practices, overgrazing and climate change. 11 hectares of soil are sealed under expanding cities every hour in Europe.

We all depend on soils in one way or another: it is estimated that 95% of our food comes from soils, our soils are the foundation for vegetation which we use for feed, fibre, fuel and medicinal products. They support our planet's biodiversity and they host a quarter of the total; in fact, there are more organisms in one tablespoon of healthy soil than there are people on earth! Soils also do a lot of things that are not visible to the human eye. For example, they play a role in climate change mitigation by capturing carbon and reducing green house gas emissions. They also store and filter water, improving our resilience to floods and droughts.

Despite the vital role soil plays, we take it for granted. With a global population expected to exceed 9 billion by 2050, soils are under increasing pressure. Already one third of global soil is moderately to

highly degraded and time is running out. If we go on neglecting the importance of soil, and of looking after it, we will not be able to meet the needs of future generations.

Submit your proposal, turn your ideas into a snappy one-minute video and start speaking out for soils!

Some key questions and themes to think about are:

Soil is a precious and irreplaceable resource

How do soils sustain life?

What can people/society/your friends do to preserve soil?

Are you and your friends already doing something to preserve soil? Do you know someone who is? What are they doing?

Soils are under increasing pressure to satisfy the demands of a growing population: how can we reverse the trend of soil degradation while ensuring current and future global food security?

Soils in the city

How do I enter?

Think about how you might make a one-minute film about soils. Send a proposal about the film you would like to make using the TVE online form before 23.00 GMT 17 August 2015. Pitches will only be accepted in English, Arabic, French, Russian or Spanish.

A judging panel, including representatives from FAO, will select the best three proposals in each category and provide funding of US\$300 to help you make your film. Funding will only be awarded on delivery of the film.

The deadline for the delivery of the final films is 14 October 2015.

The films will be uploaded to TVE's YouTube channel [tveinspiringchange](https://www.youtube.com/channel/UCtveinspiringchange) and the two films that receive the most views between 16 October and 18 December 2015 will each receive a US\$1500 prize!



Please visit: <http://www.fao.org/soils-2015/news/news-detail/en/c/296117/>

## New initiative looks to bring soils into classrooms around the globe

FAO partnership launches series of educational materials on the critical role of healthy soils

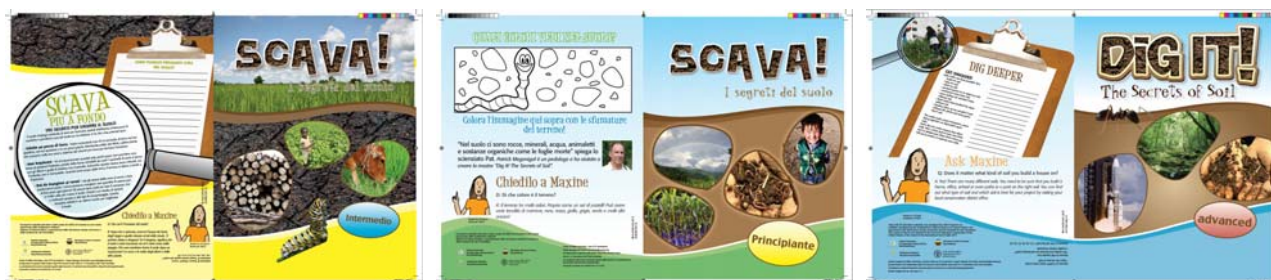


*The series "Dig It: The Secrets of Soils" is available in multiple languages*

24 July 2015, Rome - A new series of educational materials is teaching children the importance of healthy soils for our food, environment, livelihoods and well-being.

Developed by FAO and the Washington D.C.-based National Association of Conservation Districts (NACD) as part of the 2015 International Year of Soils (IYS2015), the materials target children aged 5 to 14, using word games, puzzles, drawing activities and other interactive elements.

The four educational booklets are separately designed for beginner, intermediate, advanced and young adult students, with an accompanying educator's guide for teachers.



*Various versions for different levels*

Originally produced in English to complement the exhibit on soils at the Smithsonian National Museum of Natural History, the materials have been translated into French, Spanish, Italian, Chinese, Arabic and Russian, and the content has been slightly adapted to suit the needs of different FAO member countries. All of the booklets are available for download on the FAO International Year of Soils website. FAO is now collaborating with governments who wish to translate the materials into additional languages to be used in primary and secondary school curricula. Once finalized, all of the materials will be available online for free use by member countries, teachers and students, just in time for the



beginning of the new school year in the Northern Hemisphere.

"Our collaboration with NACD helps us accomplish one of the main objectives of the IYS, which is to raise awareness about the profound importance of soil for human life. The materials produced will help FAO to educate the public about the crucial role soil plays in food security, climate change adaptation and mitigation, essential ecosystem services, poverty alleviation and sustainable development," said Mario Lubetkin, Director of FAO's Office for Corporate Communication.

"The 'DIG IT - Secrets of Soil' project -- developed by NACD in collaboration with the Smithsonian National Museum of Natural History and the Soil Science Society of America -- has been highly successful in reaching U.S. students to help them gain an appreciation for soil and the food and other products that come from it," said NACD President Lee McDaniel. "We are proud to partner with FAO to expand the reach of these quality educational resources across the globe."

NACD is a nonprofit organization that represents America's 3 000 conservation districts that carry out natural resource management programs at the local level to protect land and water resources. These districts work with millions of cooperating landowners and operators to help them manage and protect land and water resources on all private lands and many public lands in the United States. In addition to its work supporting conservation districts, NACD also works closely with soil scientists to produce a wealth of educational materials to teach students about the importance of conserving and protecting our soils. For more information, visit: [www.nacdnet.org](http://www.nacdnet.org)

Details at: <http://www.fao.org/news/story/en/item/317340/icode/>



## What do Soils do for us?

The former President of the United States of America, Franklin Delano Roosevelt, said “The nation that destroys its soil, destroys itself”.

There are a wide variety of different soils across the world providing a range of environmental, economic and social benefits to the local human population. Soils are largely hidden from sight and as such can be taken for granted by large sectors of society.

Did you know?

**Soils provide not only the surface on which we live but also a building material.** Across the world soil has been and is still used as a primary building material from cob. Houses on the west coast of England, adobe built Pueblo homes in the south western United States of America to rammed earth huts in Africa. One half of the world population (~ 3 billion people) live or work in buildings constructed of soil.

**Soils provide the basis of the agricultural and forestry industries.** The world’s population is expected to expand by 50% to more than 9 billion within the lifespan of today’s children – feeding all these people will rely on good soil management and care of our soil resources.

**Soils can act as a giant sponge storing water and preventing flooding.** Some soils can store in excess of 400 mm of rainfall in the 1st m of soil this information helps engineers control and assess flooding risk, however poor management resulting in compaction can lead to unexpected flooding.

**Soils are efficient ‘cleansing agents’ and help protect water and air from the worst effects of many pollutants.** All the water we drink will have passed through soil, however, we need to take care that we are not exceeding the capacity of some soils to absorb and “lock away” harmful pollutants and thereby become damaged themselves.

**Some soils store huge amounts of carbon.** It is estimated that there are 15 gigatonnes (15 thousand million) of carbon in the world’s soils – three times more than in all vegetation and forests. Current climate warming may accelerate the release of soil carbon into the atmosphere therefore speeding up the climate warming process.

**Soils make a substantial contribution to biodiversity.** Soil provides a vital habitat for many forms of life ranging from microbes to earthworms and moles. It also provides an interface for all other forms of life.

**Soil is essentially a non renewable resource!**

Copy from: <http://www.soils.org.uk/what-do-soils-do-us>



**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 60<sup>th</sup> 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](mailto:waswac@foxmail.com); [waswac@163.com](mailto: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):** Liu Xiaoying

**Bank Name and Address:** Bank of China Beijing Branch, No. 2 Chao Yang Men Nei Da Jie, Dongcheng District, Beijing, 100010, P R China

**A/C NO.:** 3467 5879 1740; **Swift code:** BKCH CN BJ 110

**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.