



# HOT NEWS

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# HOT NEWS

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**Editor: Pengfei DU**



**Make registration to attend the WASWAC 4th International Youth Forum on Soil and Water Conservation (IYFSWC) in September**



*The WASWAC 4th International  
Youth Forum on Soil and  
Water Conservation*

**Bringing Youth Together - Leading the  
Future of Soil and Water Conservation**

Shenyang, China  
September 21-24, 2024



#### TIME & VENUE

September 21-24, 2024, Shenyang Agricultural University, Shenyang, China

#### THEME

Bringing Youth Together - Leading the Future of Soil and Water Conservation

#### TOPICS

- ◇ Soil and water conservation under climate change
- ◇ Soil erosion mechanisms and modeling

- ◇ Evaluation of soil erosion at regional scale
- ◇ New technology of soil and water conservation
- ◇ Soil and water conservation in production and construction projects
- ◇ Intelligent soil and water conservation
- ◇ Carbon sinks for soil and water conservation
- ◇ Soil and water conservation biodiversity
- ◇ Soil and Water Conservation Policy, Education and Popularization of Science

## PROGRAM

- ◇ Plenary Lectures by [Keynote Speakers](#)



Pasquale Borrelli



Michael Maerker



Baoyuan Liu



Carmelo Dazzi



Seyed Hamidreza



José Luis Rubio



Valentin Golosov



Philippa J. Benson



Faouzi Bekkaoui



Miodrag Zlatic



### ◇ Oral and Poster Sessions

Academic reports including oral and poster sessions will be both arranged. The youth will be a large percentage of the reporters.

### ◇ Field Trips (Mid- and Post- Forum)

Two trips including the first field trip (Mid-forum) and the second field trip (Post-forum) will be arranged.

The destinations for the first field trip include the research base of Shenyang Agricultural University and the Shenyang Imperial Palace.



The destination for the second field trip is the Panjin Red Beach.



### ◇ Youth Academic Enlightenment Session

The keynote speakers will be invited to be guiders, to help the young researchers who are willing to get a guidance on the ongoing or upcoming research subjects. During this session, each enrolled young person who passed evaluation, can give a 10 minutes presentation to introduce research proposal. Suggestions and comments will be given by the guider group.

### ◇ Outstanding Youth Paper Evaluation

To encourage early-career scientists to contribute to soil and water conservation in the world, the WASWAC has evaluated the WASWAC Youth Outstanding Paper 4 times since 2015. This award will be presented to early-career scientists of outstanding research papers on soil and water conservation. The award consists of a Certificate from the WASWAC and a \$1000 (USD) honorarium financially supported by the Beijing Datum Technology Company. In the case of multi-author papers, the award will be presented only to the first author. Details see [Appendix 1](#).

## FEES

**The fees include registration fee and the second field trip fees. Participants who do not want to take part in the second field trip, only pay the registration fee.**

### ◇ Registration fee

Participants	Early bird (Before April 15, 2024)	Regular (April 16-July 31, 2024)	Onsite (September 20-24, 2024)
Regular	USD 260	USD 280	USD 300
Student	USD 150	USD 170	USD 200
Accompanying person	USD 150	USD 150	USD 150

*The fee covers conference lunches, dinners, refreshment breaks, gala dinner, and the first field trip.*

### ◇ The second field trip fee : USD 50

## Registration Fee Payment Information (Bank Account via wire transfer)

When making a payment online, please note 'TYFSWC + AFFILIATION + NAME'.

Conference Registration Payment Institution: Shenyang Agricultural University

Bank Name: Bank of China Shenyang Branch Dadong Sub-Branch

Bank Address: No. 2, Jinqiao Road, Dadong District, Shenyang, China

Bank account (in US Dollar): 306467954773

SWIFT CODE: BKCH CNBJ 82A



## ACCOMMODATION

Accommodation need to be booked by the participants themselves, and make payment to the hotels directly.

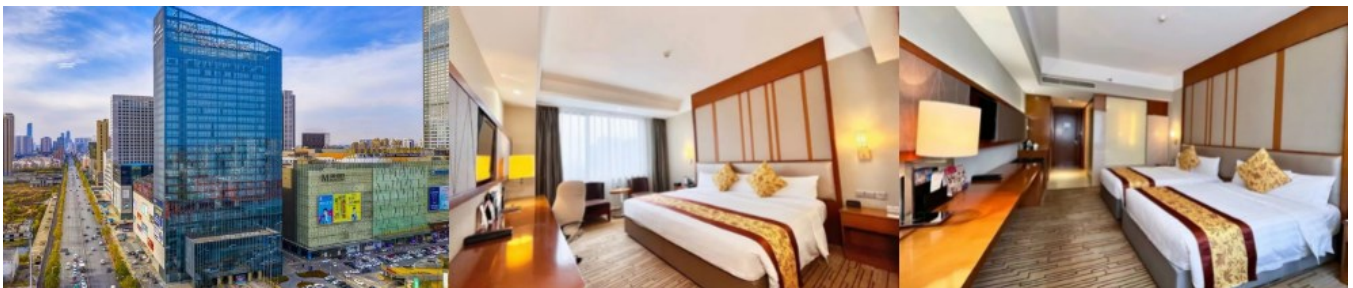
Since there are several kilometers between the venue and the hotels, there will be a shuttle to pick up and drop off. The information of cooperative hotels can be found on the official website of the Forum here:

<https://4th-iyfswc-2024syau.scievent.com/hotel/booking/>

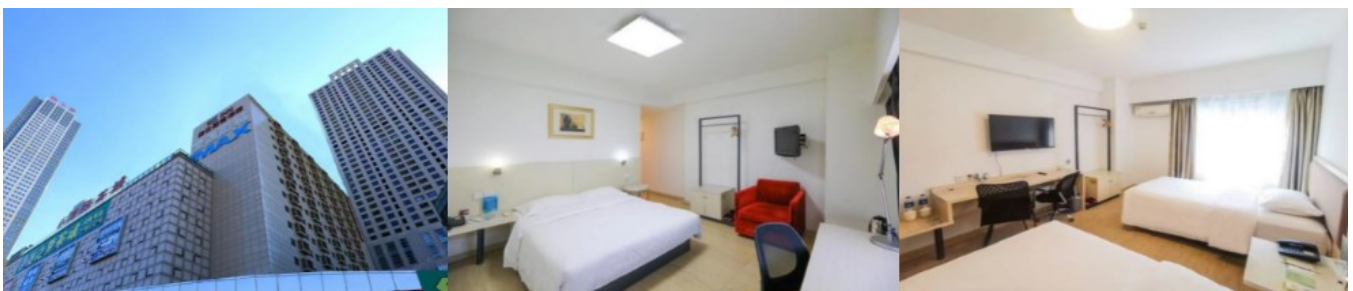
### Hotel 1: LONGEMENT HOTELS



### Hotel 2: Shenyang Rayfont International Hotel



### Hotel 3: YES INN-Zhongjie



## VISA

For international participants who have already submitted the registration form, will be able to receive an official invitation letter that can be used for visa application before May 15, 2024.

Any problem please contact Dr Donghao Huang at [IYFSWC\\_4th@syau.edu.cn](mailto:IYFSWC_4th@syau.edu.cn)

Know more about Chinese Visa here: <http://cs.mfa.gov.cn/wgrlh/lhqz/lhqzjjs/>

## IMPORTANT DATES

- ◇ All participants should submit the registration form and abstract by April 15, 2024 (fill in [Appendix 2](#)).
- ◇ Participants who attend the Forum and apply for Outstanding Young Paper Evaluation should submit the registration form and abstract (fill in [Appendix 2](#)) before April 15, 2024, and submit the full paper before May 15, 2024.
- ◇ For those who participate in the Forum and apply for on-site reporting for the Youth Academic Enlightenment Session, they should submit the registration form and Abstract (fill in [Appendix 2](#)) before April 15, 2024, and submit the Application Form for On-site Reporting for the Youth Academic Enlightenment Session (fill in [Appendix 3](#)) before May 15, 2024.
- ◇ Invitation letters to the Forum will be issued by May 15, 2024.
- ◇ The specific schedule of the forum will be sent to the participants by email before September 15, 2024.
- ◇ On-site registration: September 20, 2024.

## INFORMATION

- ◇ The official website of the forum: <https://4th-iyfswc-2024syau.scievent.com>
- ◇ The official website of WASWAC:  
<http://www.waswac.org.cn/waswac/LatestNews/webinfo/2024/01/1707278857530013.htm>

## CONTACTS

- ◇ The WASWAC Secretariat: Dr. Pengfei DU, [waswac@foxmail.com](mailto:waswac@foxmail.com)
- ◇ The Forum Secretariat: Dr. Donghao HUANG, Dr. Hui LIU, Dr. Huazheng LIU, [IYFSWC\\_4th@syau.edu.cn](mailto:IYFSWC_4th@syau.edu.cn)
- ◇ The WASWAC Youth Outstanding Paper Evaluation Secretariat: Dr. Paige Chyu, [waswac-yopa@foxmail.com](mailto:waswac-yopa@foxmail.com)



北京华夏山川生态环境科技有限公司





Beautiful Shenyang:



Welcome to join us in Shenyang, China during September 21-24, 2024

## Announcement of the International Soil and Water Conservation Research journal's 10th Anniversary Outstanding Papers

We are delighted to announce the winners of the "ISWCR 10th Anniversary Outstanding Papers", marking a decade of excellence in soil and water conservation research. This list has been established to honor the authors whose groundbreaking work has significantly influenced the field.

Our selection process was meticulously crafted, adhering to stringent criteria including citation impact, novelty, relevance, and quality of scientific writing for papers published in the International Soil and Water Conservation Research journal from 2012 to 2022. A special committee, including 6 outstanding members from Spain, Iran, China, USA, Australia and Brazil, dedicated their expertise to a fair and comprehensive evaluation.

We extend our deepest gratitude to the award committee for their diligent work in making

the selection rules supervised by the team of Editors-in-chief and reviewing the submissions. Their commitment to upholding the highest standards of excellence has been instrumental in the selection process.

Congratulations to all the authors who have contributed to the journal's success over the past ten years. Your work has not only advanced the frontiers of our field but also upheld the integrity and intellectual vigor that our community cherishes.

Stay tuned for the official list of awarded papers, which will soon be available on our website. These exemplary papers will serve as beacons of knowledge, inspiring future research, and innovation.

Once again, we congratulate the authors for their outstanding contributions and thank our committee for their invaluable service.

### ISWCR High Influence Papers in 2013-2022 (Ordered by date of publication)

Des E. Walling, Paolo Porto, Yunsheng Zhang, Pengfei Du. Upscaling the use of fallout radionuclides in soil erosion and sediment budget investigations: Addressing the challenge

[https://doi.org/10.1016/S2095-6339\(15\)30019-8](https://doi.org/10.1016/S2095-6339(15)30019-8)

Rattan Lal. Soil conservation and ecosystem services

[https://doi.org/10.1016/S2095-6339\(15\)30021-6](https://doi.org/10.1016/S2095-6339(15)30021-6)



Wang Tao. Aeolian desertification and its control in Northern China

[https://doi.org/10.1016/S2095-6339\(15\)30056-3](https://doi.org/10.1016/S2095-6339(15)30056-3)

Bin Wang, Fenli Zheng, Yinghui Guan.

Improved USLE-K factor prediction: A case study on water erosion areas in China

<https://doi.org/10.1016/j.iswcr.2016.08.003>

Ahmed Barakat, Mohamed El Baghdadi, Jamila Rais, Brahim Aghezzaf, Mohamed Slassi.

Assessment of spatial and seasonal water quality variation of Oum Er Rbia River (Morocco) using multivariate statistical techniques

<https://doi.org/10.1016/j.iswcr.2016.11.002>

Mark A. Nearing, Yun Xie, Baoyuan Liu, Yu Ye.

Natural and anthropogenic rates of soil erosion

<https://doi.org/10.1016/j.iswcr.2017.04.001>

Nelson Mango, Clifton Makate, Lulseged Tamene, Powell Mponela, Gift Ndengu.

Awareness and adoption of land, soil and water conservation practices in the Chinyanja Triangle, Southern Africa

<https://doi.org/10.1016/j.iswcr.2017.04.003>

Swapan Talukdar, Swades Pal.

Impact of dam on inundation regime of flood plain wetland of punarbhaba river basin of barind tract of Indo-Bangladesh

<https://doi.org/10.1016/j.iswcr.2017.05.003>

Xiaoyu Lu, Yingkui Li, Robert A. Washington-Allen, Yanan Li, Haidong Li, Qingwu Hu.

The effect of grid size on the quantification of erosion, deposition, and rill network

<https://doi.org/10.1016/j.iswcr.2017.06.002>

Hemant Balwant Wakode, Klaus Baier, Ramakar Jha, Rafiq Azzam.

Impact of urbanization on groundwater recharge and urban water balance for the city of Hyderabad, India

<https://doi.org/10.1016/j.iswcr.2017.10.003>

Tung Gia Pham, Jan Degener, Martin Kappas.

Integrated universal soil loss equation (USLE) and Geographical Information System (GIS) for soil erosion estimation in A Sap basin: Central Vietnam

<https://doi.org/10.1016/j.iswcr.2018.01.001>

Mohammad Ghorbani, Hossein Asadi, Sepideh Abrishamkesh.

Effects of rice husk biochar on selected soil properties and nitrate leaching in loamy sand and clay soil

<https://doi.org/10.1016/j.iswcr.2019.05.005>

André Almagro, Thais Caregnatto Thomé, Carina Barbosa Colman, Rodrigo Bahia Pereira, José Marcato Junior, Dulce Buchala Bicca Rodrigues, Paulo Tarso Sanches Oliveira.

Improving cover and management factor (C-factor) estimation using remote sensing approaches for tropical regions

<https://doi.org/10.1016/j.iswcr.2019.08.005>

Baoyuan Liu, Yun Xie, Zhiguang Li, Yin Liang, Wenbo Zhang, Suhua Fu, Shuiqing Yin, Xin Wei, Keli Zhang, Zhiqiang Wang, Yingna Liu, Ying Zhao, Qiankun Guo.

The assessment of soil loss by water erosion in China

<https://doi.org/10.1016/j.iswcr.2020.07.002>



## Land suitability in temperate Europe



The Romanian methodology (named as Land suitability assessment) of land suitability for crops and land use is an ecological (or biophysical) method that takes into account the natural conditions of the land, without human interventions, land improvement actions, and use of socioeconomic data.

**Spatial Coverage:** The study area covers 2,667,537 km<sup>2</sup> across

- ◇ 14 EU (38.2% of the EU territory): Denmark, Austria, Croatia, Slovenia, Czech Republic, Slovakia, Poland, Hungary, Romania, Bulgaria, Germany, Lithuania, Lat-

via, Estonia

- ◇ 7 non-EU countries (most of them are EU candidate countries): Belarus, Bosnia & Herzegovina, North Macedonia, Moldova, Serbia, Switzerland, and Ukraine.

**Description:** Land suitability assessment is used in conjunction with geographic information systems to spatially model diverse aspects of soil functions, having the potential to facilitate a sustainable increase in agricultural production, reduce land degradation, or aid humans in adapting to climate change. Compared to the existing datasets, this study pro-

vides a new higher resolution geospatial assessment of the agricultural land suitability for several crops and land uses in the temperate continental climate across Europe. To model the land suitability we used geospatial data depicting seventeen eco-pedological indicators (e.g. soil texture, pH, porosity, temperature, precipitation, slope). To evaluate how the land is utilized, the suitability maps have been spatially cross-tabulated with a crop map. Over the entire study area, wheat and barley showed significant suitable land in the southern part, potatoes, and sugar beet exhibited the highest extent of suitable land in the northern parts, while corn and sunflower exhibited a much lower extent of suitable land. Water table depth, precipitation, temperature, terrain slope, soil porosity, SOC, and topsoil texture emerged as the limiting factors for agricultural suitability in the study area. Our results show that the suitable arable land does not have space left for the expansion of crops, however, we have identified regions with extensive cultivation of wheat and corn on unsuitable land with the potential for cultivation of more suitable crops such as barley, sunflower, sugar beet, and potato. It seems that one action that can enhance agricultural practices in the study area is to better allocate each cultivated crop across more suitable lands.

Suitability maps were created for 14 crops (wheat, barley, corn, sunflower, potato, sugar beet, soy, pea-bean, linseed for oil, linseed for fiber (tow), hemp, alfalfa-lucerne, clover, vegetables), 7 fruit trees (apple, pear, plum, cherry, apricot, peach, grapes) and 3 land-use types (arable, pasture, and hayfield).

Limitations imposed by soil and ecological (environmental) parameters (below).

**Environmental indicators (climate, terrain, water/moisture):** Average annual temperature, Total annual precipitation, Slope gradient, Water table depth, Floods frequency, Landslides, Surface moisture excess

**Soil indicators:** Topsoil texture class, pH, Soil organic carbon (SOC) stock, Edaphic volume, Soil porosity, Gleyzation, Stagnogleyization, Carbonates content, Salinization/alkalinization, Soil pollution

**Scale:** 250m pixel size

**Time Reference:** 2020

**Format:** Tiff

*Reference: Dornik, A., Chețan, M.A., Crișan, T.E., Heciko, R., Gora, A., Drăguț, L. and Panagos, P., 2024. Geospatial evaluation of the agricultural suitability and land use compatibility in Europe's temperate continental climate region. International Soil and Water Conservation Research. DOI: 10.1016/j.iswcr.2024.01.002*



## A brief report on 18th National Conference on Watershed Management Sciences and Engineering of Iran

Prepared by:

*Prof. Dr. Seyed Hamidreza Sadeghi, Dr. Mahin Kalehhouei, and Dr. Morteza Gheysouri*

The 18th National Conference on Watershed Management Sciences and Engineering of Iran, with the main theme of "Watershed management, reclamation and restoration of water and soil resources," was held on March 6 and 7, 2024, with the cooperation of the University of Kashan and the Watershed Management Society of Iran in the historical and cultural city of Kashan, Isfahan Province, IRAN.

This conference took place during the Natural Resources Week in Iran. The conference began with the speech of national officials, the honorable president of the university, the organizers of the conference, and virtual speaker Prof. Dr. Michael Maerker. More than 350 participants participated in the conference.

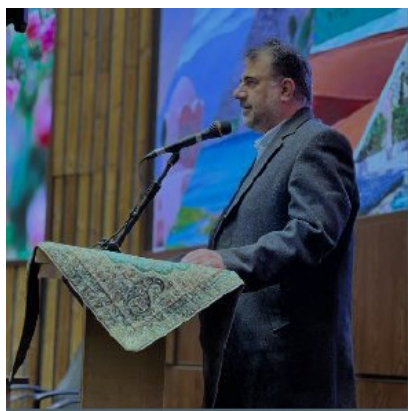


*Speech of Prof. Michael Maerker, the editor-in-chief of ISWCR, the official journal of WASWAC  
and Prof. Dr. Seyed Hamidreza Sadeghi, the Vice President of WASWAC*

The following themes were discussed during two days.:

- ◇ Watershed management and land degradation,
- ◇ Integrated watershed management, nature restoration, and supporting laws and policies,
- ◇ Participation of stakeholders in improving the health and sustainability of watersheds,
- ◇ Watershed management and natural hazard (flood, dust, drought, desertification, and land degradation) management,

- ◇ Explanation of the situation and the ideal school of thought of watershed management for the reclamation and restoration of water and soil resources,
- ◇ Adaptive watershed management and aquifer components of the water cycle,
- ◇ Watershed and aquifer management in solving economic-social challenges,
- ◇ Issues and limitations of watershed management and aquifer,
- ◇ Role of new technologies and indigenous knowledge in the reclamation and restoration of the country's water and soil resources,
- ◇ Use of medicinal plants in biological watershed restoration and
- ◇ Integrated watershed management and people's plan to plant one billion trees.



(a)



(b)



(c)



(d)



(e)



(f)

*Speech of Prof. Dr. Abbas Ketabi, President of Kashan University (a), Dr. Seyyed Javad Sadatinejad, Chairman of the conference (b), Prof. Dr. Reza Ghazavi, Conference General Secretary and Dean of the Faculty of Natural Resources of University of Kashan (c), Dr. Ebrahim Omidvar, Scientific Secretary of the conference (d), Prof. Dr. Ali Talebi, President of the Watershed Management Society of Iran, Professor, Department of Watershed Management Engineering, Faculty of Natural Resources, Yazd University, (e) and Dr. Hamid Nouri, Director General of Watershed Management and Soil Conservation of Iran's Natural Resources and Watershed Management Organization and Director of the International Center for Integrated Management of Watersheds under the supervision of UNESCO (f)*

Based on the recommendations from various aspects and scientific achievements, the participants emphasized the following minutes in the form of the "Conference Statement":

- ◇ Explaining the pillars and dimensions of watershed governance with a focus on the establishment of institutions at the local level and highlighting environmental risks and water resource management issues
- ◇ Explanation of nature-based solutions in different ecosystems with a focus on policies, strategies, and index-based programs to improve watershed health and move towards sustainable conditions
- ◇ Marketing and valuation of watershed services for the reclamation and restoration of water and soil resources of the country while emphasizing the promotion and development of watershed management measures and the preservation of the country's national security
- ◇ Legal formation and launching of Watershed Council Organization with the provision of appropriate financial support and formation of support funds based on local institutions to provide technical and specialized services in times of need and the occurrence of accidents and disasters at the watershed scale
- ◇ Necessitating studies on the combined processes of soil erosion at an appropriate temporal and spatial scale in erosion units and consider different climate change scenarios and socio-economic issues to achieve sustainable development
- ◇ Emphasis on the development of integrated watershed management based on the simultaneous management of biological and non-biological resources of the watershed in line with the integrated management of problems in the country, especially dust storms, floods, and droughts, with the ultimate goal of improving the economic and social status of farmers and restoring and developing different ecosystems and including in the provisions legalization of the seventh development program of the country
- ◇ Promoting research in the field of economic valuation of erosion damage following Article 4 of the Soil Conservation Law and Article 11 of the Executive Regulations of the Soil Conservation Law
- ◇ Clarification of governance thinking in the country's research and executive organization with an approach of adaptation to natural disasters and, of course, the priority of preventing drivers affecting land-use change and land degradation



- ◇ There is a need to revise and update documents and develop guidelines and executive regulations to preserve environmental water rights and local exploitation in agricultural projects and water resource management at the level of the watershed
- ◇ The necessity of public participation in various watershed projects (i.e., implementation, maintenance, and exploitation) and the various guidelines for operationalizing public participation and co-management through convergence and synergy between the implementation, research, and education departments

## WASWAC Advisors

Chi-hua Huang	Jean Poesen	Samran Sombatpanit
Des E. Walling	Machito Mihara	William Critchley
Dingqiang Li	Rattan Lal	Winfried Blum
Hans Hurni	Rosa M. Poch	
James Owino	Samir El-Swaify	

## WASWAC Councilors

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Annie Melinda Pas-Alberto	Jorge A Delgado	Sergey Chalov
Arora Sanjay	José Alfonso Gomez	Sevilay Hacıyakupoglu
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Ian Hannam	Qin Chen	Zachary Gichuru Mainuri

(Names are arranged in alphabetical order)



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