



HOT NEWS

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HOT NEWS

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The First Announcement of The 6th WASWAC World Conference



Resilient Landscapes: Innovations and Traditions in Climate-Adaptive Soil and Water Conservation (RISE-SWC)

Rabat, Morocco, September 15th-17th, 2025

Organized by The World Association of Soil and Water Conservation (WASWAC) and
Institut National de la Recherche Agronomique (INRA)

ABOUT THE CONFERENCE

As global climate change continues to intensify, soil and water resources are facing unprecedented challenges. The frequent occurrence of extreme weather events due to climate change, such as heavy rainfall, droughts and floods, crop growth cycles and yields are affected, challenging agricultural production, water availability is threatened

and water scarcity is a growing problem are putting tremendous pressure on soil and water resource systems. Soil erosion can have a significant impact on agricultural production, water availability and ecosystem health. Therefore, in the context of climate change, how to effectively manage and protect soil and water resources has become a hot issue of global concern.

To join hands in addressing this global challenge, the World Association for Soil and Water Conservation (WASWAC), in collaboration with the Institut National de la Recherche Agronomique (INRA), is organizing on the 6th WASWAC World Conference on "Resilient Landscapes: Innovations and Traditions in Climate-Adaptive Soil and Water Conservation" (RISE-SWC), **scheduled from 15 to 17 September 2025 in Rabat, Morocco**. The conference will provide an exchange platform for soil and water resources conservation on a global scale, fostering collaboration among scientists, experts, policymakers, and practitioners from around the world.

The RISE-SWC conference will explore cutting-edge strategies in the context of climate change, practical solutions will be proposed to provide strong support for addressing global climate change challenges. Participants will engage in discussions on innovative practices, integrating traditional wisdom with modern technologies, and addressing social and economic challenges. The conference aims to propose actionable solutions that can strengthen global efforts to combat climate change impacts on soil and water systems, support sustainable de-

velopment, and promote technological and scientific advancements in these critical fields.



Morocco

THEMES AND SUB-THEMES

1. Impact of climate change on soil erosion and coping strategies

- a. Soil erosion and its trends on a global scale
- b. The role of soil health and ecosystem services in addressing climate change
- c. Greenhouse gas emissions and soil carbon management

2. The role of water resources management in addressing climate change

- a. Conservation irrigation techniques for higher water productivity
- b. Technologies for the utilization and treatment of poor quality water resources
- c. Groundwater resource management and sustainable use strategies
- d. Urban rainwater/runoff water collection and utilization
- e. Wastewater recycling and resource utilization technologies

3. Challenges and opportunities of land use planning and management in the context of climate change

- a. Land management strategies in different geographical regions (mountains, plains, deserts, etc.)
- b. Impacts and management of crop rotation systems on soil carbon sequestration and climate change
- c. Ecosystem services and climate resilience considerations in land use planning

4. Integration of traditional wisdom and modern technology in soil and water management

- a. Remote sensing, GIS and intelligent decision-making systems in water resources

management

- b. Innovative and sustainable strategies in soil and water management

5. Social and economic considerations in soil and water management

- a. Sustainable agricultural development and socio-economic impacts in the context of climate change
- b. Socio-economic constraints and policy responses in soil and water management
- c. Policy and economic incentives in soil and water management
- d. The role of public participation and co-operation in soil and water management

6. Strategic shifts in soil and water conservation practices and technologies to address climate change

- a. Agricultural cropping systems and technological innovations for climate change adaptation
- b. Strategies for synergizing agro-ecosystem services and soil health
- c. Application of sustainable agricultural practices and technologies to improve water use efficiency

7. Monitoring and early warning mechanisms in soil and water management

- a. Monitoring technologies for soil and water management
- b. Early warning mechanisms in drought and flood management
- c. Application of monitoring and early warning mechanisms in agricultural water resources management

8. Soil and water conservation in production and construction projects

- a. Mechanisms of soil erosion in production and construction projects
- b. Measurement and calculation of soil erosion in production and construction projects

CALL FOR ABSTRACTS

Abstracts are invited on any of the above theme areas or other related areas. The abstracts should not exceed 300 words, should be typed follow the template in attached file. The abstract and the registration form (download here

<http://www.waswac.org.cn/waswac/uploadfile/2024/10/30/20241030154338658.docx>)

should be sent through e-mail at **RISE-SWC@inra.ma** and make a copy to **waswac@vip.163.com** in MS word format. Author(s) will be intimated regarding the acceptance of the abstracts.





IMPORTANT DATES

- ◇ Abstract submission begin:
January 1, 2025
- ◇ Last date of abstract
submission: May 30, 2025
- ◇ Intimation of acceptance of
abstracts: June 30, 2025
- ◇ Registration fee payment
begin: January 1, 2025

REGISTRATION

Conference is open only for the registered participants. Registration fee is as follows:

Delegates (Non-members): USD 350

WASWAC Members: USD 300

Councilors of WASWAC or Editorial Members of ISWCR: USD 250

Students: USD 250

Accompany Person: USD 200

Registration fee includes: Conference kit, access to Conference sessions, daily Conference lunches and specified dinners. Also half day local site seeing tour is complimentary.

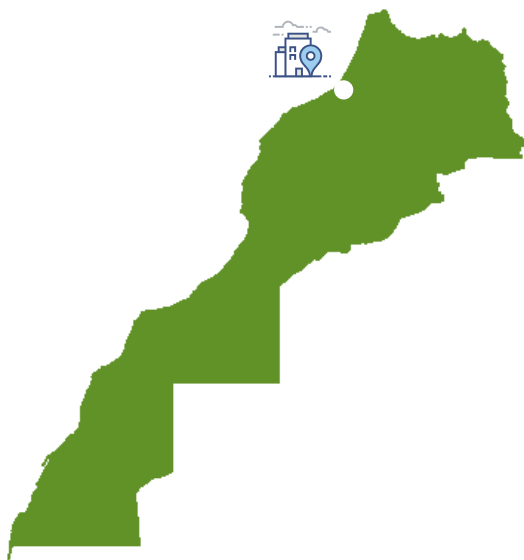
The members of WASWAC and students are required to provide a valid certificate released by WASWAC Secretariat and the Supervisor/ Institute, respectively, for availing the discount.

Payment completed by April 30, 2025 can get USD 50 off discount for delegates (Non-members).

OTHER INFORMATION

Venue

**Institut National de la Recherche
Agronomique (INRA), Avenue de la
Victoire BP 415, 10090 Rabat, Morocco.**



Language

The Official Language of the Conference will be English.

Tour

Technical mid conference tour will be organized during the Conference for the participants to know about the city scenery and representative soil and water related techniques.

Visa Information

In accordance with Morocco policy, whether you need a visa for Morocco depends on your nationality. You'll fall into 1 of these 3 categories:

1. Visa-exempt: Passport holders from certain countries can enter Morocco without a visa and stay for up to 90 days.
2. Visa required: All other nationalities must have a valid visa for Morocco.
3. eTA required: Citizens of the following countries do not need a visa for Morocco, but they must have an Electronic Travel Authorization. This permit is also known as the Electronic Voyage Morocco (AEVM). For details please visit Morocco e-Visa Requirements and Entry Documents moroc-covisa.com.

A letter from organizers for visa shall be issued on request from individual after acceptance of abstract or confirmation of participant intending to participate in conference. The participant should provide complete address with proof and copy of passport/passport number etc.

Insurance

The organizers are not responsible for individual medical, travel or personal insurance. Participants are strongly advised to take their own insurance policies.

Opportunities for Co-Sponsors

Co-sponsors of the conference are offered with multiple opportunities including placement of their organization/company logo/emblem in the backdrop, advertisement in souvenir, etc. For more information, please contact Dr. Tarik Benabdelouahab at

tarik.benabdelouahab@inra.ma

Conference Updates

The special conference website will be established before January, 2025. Any information contained in the notice and all updates are also available on the WASWAC and INRA websites at

www.waswac.org.cn and **www.inra.org.ma**

Contacts

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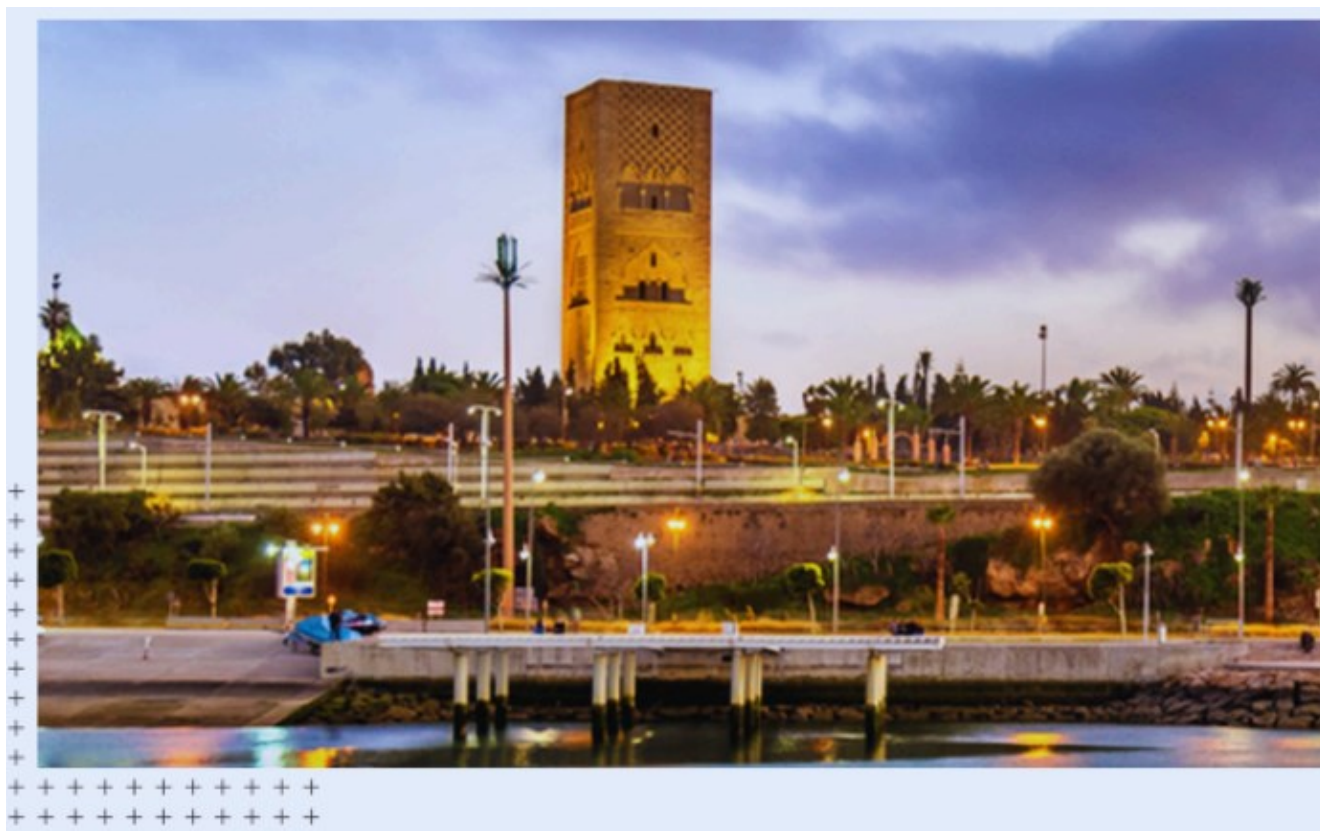
The Conference Secretariat:

BENABDELOUAHAB Tarik:

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Training Announcement of "Youth Capacity for Resilient Soil and Water Conservation In A Changing Climate"



Rabat, Morocco, September 18th-19th, 2025

Organized by The World Association of Soil and Water Conservation (WASWAC), International Research and Training Center on Erosion and Sedimentation (IRTCES) and Institut National de la Recherche Agronomique (INRA)

TRAINING OVERVIEW

In response to the growing challenges posed by climate change on soil and water resources, the World Association for Soil and Water Conservation (WASWAC) and the Institut National de la Recherche Agronomique (INRA) are proud to present

a specialized training program designed for young scientists, from 18th to 19th September 2025 in Rabat. This training, held in conjunction with the 6th WASWAC World Conference, aims to equip participants with the knowledge and practical skills to face soil erosion and wa-

ter scarcity, two of the most pressing environmental challenges of our time.

Title of the Training

"Empowering Youth Scientists for Climate-Resilient Soil and Water Conservation: Erosion, Climate Change, and Sustainable Solutions"

The training will bring together young (below <45 years old) researchers and professionals to engage in a two-day program combining lectures and interactive work group sessions. The thematic focus will be on understanding the impacts of climate change on soil and water systems, identifying local challenges, and developing actionable solutions tailored to African regions. Through this collaborative platform, participants will learn to apply cutting-edge technologies, integrate traditional knowledge, and develop climate-adaptive conservation strategies.

Key Topics Covered Will Include

The impacts of climate change on soil erosion and water resources.

Innovative soil conservation techniques and erosion control strategies.

Sustainable water management practices for drought- and flood-prone regions.

Integrating traditional knowledge with mod-

ern solutions for climate-resilient landscapes.

The training will culminate in the development of actionable projects, designed by participants to address the unique soil and water challenges they face in their home countries.

IMPORTANT DATES

- ◇ Inscription: March 31, 2025
- ◇ Confirmation: June 30, 2025

REGISTRATION

Training is open only for the registered participants. Registration fee is as follows:

- ◇ Delegates (Non-members): USD 350
- ◇ WASWAC Members: USD 300
- ◇ Councillors of WASWAC or Editorial Members of ISWCR: USD 250
- ◇ Students: USD 250



Boats In Taghazout

Academic activities for the 40th Anniversary of IRTCES held on September 23rd in Beijing, China



The Opening Ceremony

On the morning of September 23rd, Academic activities for the 40th Anniversary of International Research and Training Center on Erosion and Sedimentation (hereinafter referred to as IRTCES) were held in Beijing. IRTCES was the first Category II Center established by UNESCO in the world. The theme of the meeting was "Work together to build a clean and beautiful world". Mr. Li Liangsheng, Vice Minister of Water Resources of P.R. China, and Mr. Siddharth Chatterjee, United Nations Resident Coordinator in China, attended the opening ceremony and delivered speeches. Ms. Lidia Bri-

to, Assistant Director-General for Natural Sciences of UNESCO, delivered a speech through video. Ms. Peng Jing, Director General of IRTCES and President of the China Institute of Water Resources and Hydro-power Research (IWHR), presided over the meeting and summarized.

Mr. Li Liangsheng pointed out in his speech that after 40 years of development, the IRTCES has become a communication and cooperation platform with strong professional strength and great influence in the international sediment research field, and has achieved a leading position, making im-

portant contributions to the development and progress of world sediment science. As a world leader in the field of erosion and sedimentation, IRTCES is expected to further fulfill its leading role in this field and as a UNESCO category II center in accordance with the requirements of UNESCO and the Chinese Government, and to continue to support the realization of the objectives of the strategic plan of the ninth phase of the IHP of UNESCO. It will make new and greater contributions to solving global water security problems and building a global community for a shared future!

Mr. Siddharth Chatterjee expressed his congratulations to IRTCES on its 40th anniversary, emphasizing that this milestone event represents decades of global cooperation to address the most serious environmental challenges. As a leader in the field of erosion and sedimentation, IRTCES has been at the forefront of sediment management and has become a model for global international cooperation, providing experts and contributions to research and capacity building in the field of erosion and sedimentation management worldwide. It looks forward to continuing to capitalize on existing knowledge and partnerships to contribute to a more secure and sustainable future.

Ms. Lidia Brito pointed out that IRTCES was the first UNESCO Category II Center to be established in 1984 and has provided a role model for the 29 water-related Category II Centers that have been established subsequently in other parts of the world. It plays an important role in promoting the sustainable management of soil and sediment resources locally, regionally and globally, among other aspects. She thanked the Chinese Government for its long-term and fruitful cooperation with UNESCO and looked forward to further deepening cooperation with Chinese scientist.

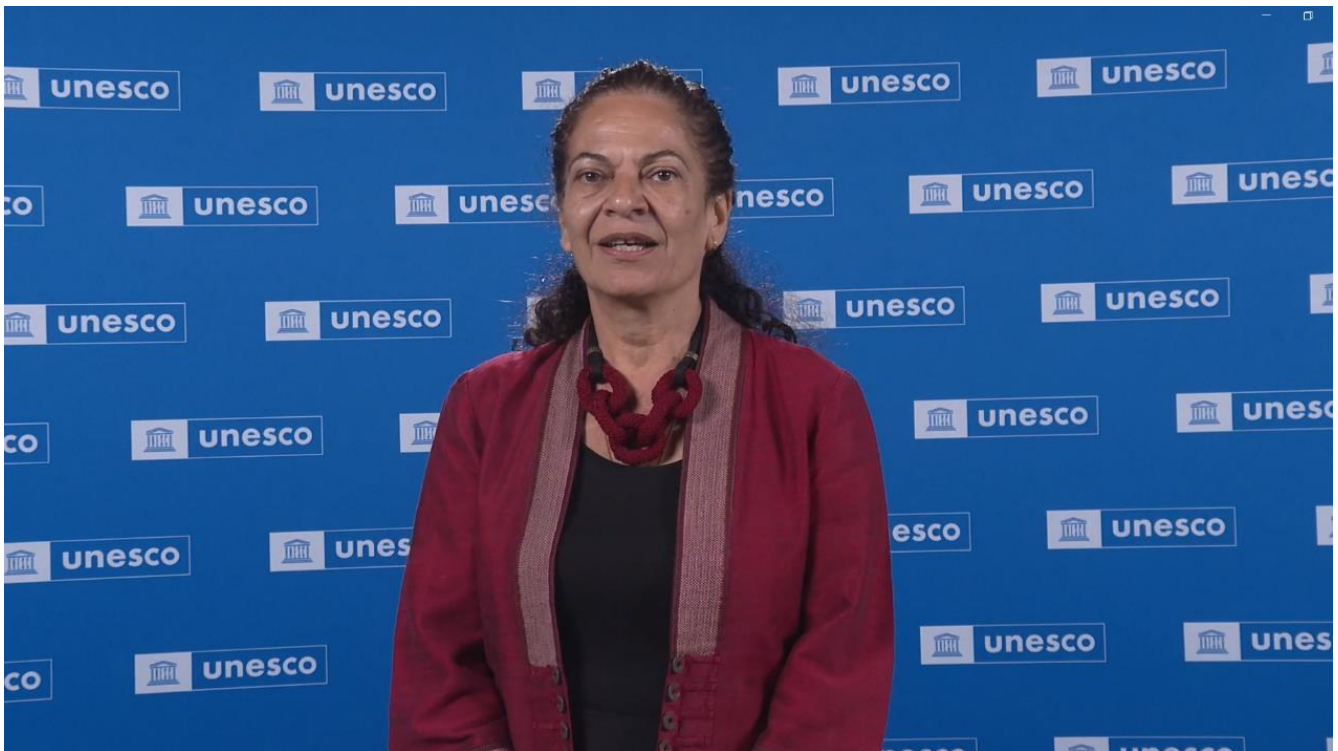
Representatives from the UNESCO Regional Office for East Asia, the Chinese National Commission for UNESCO, the International Association for Hydro-Environment Engineering and Research (IAHR), the International Sediment Initiative, other UNESCO Category II water-related Centers, and UNESCO Chairs made exchanges. More than 150 participants from more than 20 countries and regions attended the meeting.



Ms. Peng Jing, Director General of IRTCES and President of the China Institute of Water Resources and Hydropower Research (IWHR), presided over the meeting and summarized



Mr. Siddharth Chatterjee, United Nations Resident Coordinator in China, attended the opening ceremony and delivered speeches



Ms. Lidia Brito, Assistant Director-General for Natural Sciences of UNESCO, delivered a speech through video

Plant Diversity Enhances Soil Carbon Retention

A new study shows that increasing plant diversity in agriculture can be used to improve the carbon sequestration potential of agricultural soils. As the agricultural sector strives to reduce its carbon footprint, promoting biodiversity in agricultural practices could be the key to more sustainable and climate-friendly food production systems.



The new study explores ways to improve the ability of soils to store carbon, a key factor in mitigating climate change. (Image: iStock.com/VR19)

As agricultural expansion and intensive farming practices continues to degrade soils and release carbon into the atmosphere, finding ways to enhance soil carbon storage is critical. Given that over 40% of the planet's land is used for farming, agroecosystems need to play a major role in climate mitigation strategies.

However, the limited understanding of plant-microbe interactions has so far hindered efforts to maximize soil carbon storage. A team of researchers led by Luiz Domegnoz-Horta from the University of Zurich has uncovered new insights into how increasing plant diversity in agriculture can significantly improve soil carbon retention.

Barley interplanted with up to eight other plant species

The researchers conducted their study using the TwinWin experiment, located in Finland, which explores how different levels of plant diversity, combined with barley, affect microbial processes in the soil. Barley was grown either alone or undersown with up to eight different plant species, including nitrogen-fixing and deep-rooting varieties selected for their potential to improve soil health.

As a measure of how effectively microbes convert carbon inputs into new biomass rather than releasing it as CO₂, the researchers measured microbial carbon use efficiency. By analyzing microbial growth, soil respiration and community dynamics through molecular sequencing and stable isotope tracking, they traced the movement of carbon through the soil microbial communities. “We found that higher plant diversity fostered stronger positive interactions between microbes in the rhizosphere – the area around plant roots – which ultimately improved the community carbon use efficiency,” explains first author Luiz Domeignoz-Horta.

Understanding the relationship between plasticity of muddy soil and earth pressure can be crucial to maintaining tunnel stability and predicting ground behavior during earth pressure balance (EPB) shield tunneling, a common underground excavation method. Researchers from Shibaura Institute of Technology developed small-scale model experimentation combined with moving particle simulation-based computer-aided engineering analysis that reliably predicted soil's plasticity and its correlating factors without having to deal with the cost and time of on-ground field analysis.

Plant biomass improves with biodiversity

Notably, plant diversity also increased overall plant biomass production without reducing barley yields, making the practice viable for maintaining crop output while simultaneously improving soil carbon retention. The findings highlight the critical role that plant diversity plays in influencing microbial physiology in the soil. Increasing diversity not only promotes healthier, more resilient ecosystems but also offers a sustainable approach to agricultural carbon sequestration.

“The implementation of plant diversity in farming systems is labor-intensive, particularly for small-scale farmers who are the key to sustainability,” concedes Domeignoz-Horta. “Nevertheless, our results suggest that with the right policy support, encouraging diverse crop mixtures could become a key component of ‘carbon farming,’ helping to sequester more carbon in soils while maintaining agricultural productivity. This could pave the way for new climate-resilient farming practices that benefit both the environment and farmers.”



The TwinWin site in Finland, where Barley was grown either alone or undersown with up to eight different plant species. (Image: Seraina Cappelli)

Story Source: <https://www.enn.com/articles/75467-plant-diversity-enhances-soil-carbon-retention>

Conservation Farming Strategies Shared At Economic Event in Jilin Province, China



Wang Guiman (middle) conducts research on black soil protection in Lishu county, Jilin province.

Wang Guiman's speech on black soil protection drew warm applause at the Northeast China Economic and Trade Promotion Event on Monday in Changchun, Jilin province.

The event's theme was "striving for new breakthroughs in the full revitalization of Northeast China". It attracted over 200 political party

leaders, foreign diplomatic envoys and representatives of foreign business communities in China from more than 50 countries and regions.

Wang, director of Lishu county's agricultural technology extension station, drew comparisons between the land using the Lishu model and traditional farming over the past 15 years.

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Wang, director of Lishu county's agricultural technology extension station, drew comparisons between the land using the Lishu model and traditional farming over the past 15 years.

"It's evident that the land using the Lishu model has darkened, the root mass has increased and the organic matter in the soil has risen from 1.7 to 3.4 percent, resulting in better soil and increased grain production," he said. "The yield per hectare in the areas using the Lishu model has reached over 16,500 kilograms while neighboring plots without the model typically yield around

10,500 kg."

He added that Jilin would welcome a bountiful harvest with a historic grain output this year.

Jilin is an important national grain producer and one of the main locations of black soil, which is rich in organic matter and ideal for growing crops.

“ In the past, farmers usually plowed the land three or four times when they planted maize, which can destroy the structure of black soil layers. Now, with mechanized planting, the processes of making straw, ditches, fertilizing, sowing and covering can be completed simultaneously. ”

Wang, director of Lishu county's agricultural technology extension station.

According to data from the National Plan for Soil and Water Conservation (2015-30), 109 million hectares of the soil, including around 29 million hectares of farmland, are in the northeast region of China, spanning the provinces of Heilongjiang, Jilin, Liaoning and the eastern part of the Inner Mon-

golia autonomous of the Inner Mongolia autonomous region.

According to the Guideline on Protecting Black Soil in Northeast China (2017-30), excessive exploitation in recent decades has resulted in the erosion of black soil, threatening biological diversity and sustainable food production.

Long-term farming and the overuse of fertilizers and pesticides have destroyed the soil's micro-ecosystem, and expanded rice cultivation has depleted underground water reserves.

In 2009, China Agricultural University professor Li Baoguo and his students established a black soil protection workstation in Lishu.

After years of research and cooperation with the Chinese Academy of Sciences and the county's agricultural technology station, they devised a unique model of conservation farming.

Wang said that one key to conservation farming is to plow less frequently by adopting no-tillage and stalk mulching practices.



Read More: https://www.chinadaily.com.cn/a/202410/15/WS670e2cd3a310f1265a1c7ba6_1.html

WASWAC Advisors

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(Names are arranged in alphabetical order)



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