HOT NEWS

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WASWAC

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WASWAC Council Working Committees 2020-2022

To provide better services to our members, WASWAC has updated the council working committees including Academic Meeting Committee, Award Committee, Financial Committee, International Cooperation and Development Committee, Publication Committee, and Youth Committee. To deal with the relevant affairs smoothly and effectively, our councilors have been involved the committee deeply. The Youth Committee has been paid more attentions to play greater roles in encouraging the young generation to undertake the historical responsibility entrusted by the times. We believe that our service must be more efficient with the efforts from these committees, we also believe that our association must be stronger and stronger with the support of all our all members.

Academic Meeting Committee (AMC)	
Chairman	Miodrag Zlatic
Co-Chairman	Seyed Hamidreza Sadeghi
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	Ian Hannam
	Moshood Tijani
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	Valentin Golosov
	Wanwisa.Pansak

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WASWAC Council Working Committees 2020-2022

International Cooperation and Development Committee (ICDC)	
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	Clemencia Licona Manzur
	Fenli Zheng
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	Jorge A Delgado
	Kingshuk Roy
	Mahmoud A. Abdelfattah
	Panos Panagos
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	Don Reicosky
	Ivan Blinkov
	Shabbir Shahid
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	Syaiful Anwar

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Co-Chairman	Tingwu Lei
Members	Annie Melinda Paz-Alberto
	Borivoj Sarapatka
	Ildefonso Pla Sentis
	Mike Fullen
	Sanjay Arora
	Ted Napier

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Co-Chairman	Chiyuan Miao, China (Asia)
	Ísis Scott,USA (America)
	Nikola Zivanovic, Serbia (Europe)
	Shachi Pandey, India (Asia)
Members	Abdessalam Ouallali, Morocco (Africa)
	Ales Bychta, Czech Republic (Europe)
	Benli Liu,China (Asia)
	Devraj Chalise, Australia (Australia)
	Li Li, USA (North America)
	Lucas Emanuel Servidoni, Brazil (South America)
	Paul Sestras, Romania (Europe)
	Petar Neskovic, Serbia (Europe)
	Zeinab Hazbavi, Iran (Asia)

Virtual Workshop and Demonstration on Integrated Management of Straw Residue

Friday, 16 Oct 2020 (14:00 – 16:30 hrs Beijing time/GMT+8)

I. Background

CSAM is implementing a regional initiative on Integrated Straw Management which aims to identify, test and promote an integrated model of straw management using agricultural machinery in three pilot countries, namely, China, Nepal and Vietnam representing East Asia, South Asia and Southeast Asia. The regional pilot project contributes to the attainment of SDG 2 (Zero Hunger) as well as SDG 1 (No Poverty), SDG 12 (Sustainable Production and Consumption) and SDG 13 (Climate Action).

II. Objectives

The Virtual Workshop and Demonstration on Integrated Management of Straw Residue aims 1) to share the good practices and experiences on integrated management of straw residue from participating countries in Asia and the Pacific; 2) to demonstrate relevant machinery and their application at the China pilot site for integrated straw management.

III. Target audience

Decision-makers, researchers and practitioners from government agencies and departments, universities and research institutions, civil society organizations and private enterprises working in the area of integrated management of straw residue in particular, and sustainable agricultural mechanization in general, in the Asia-Pacific region.

IV. Format

The virtual workshop and demonstration will be conducted online and broadcasted live via MS Teams.

For more information, please contact:

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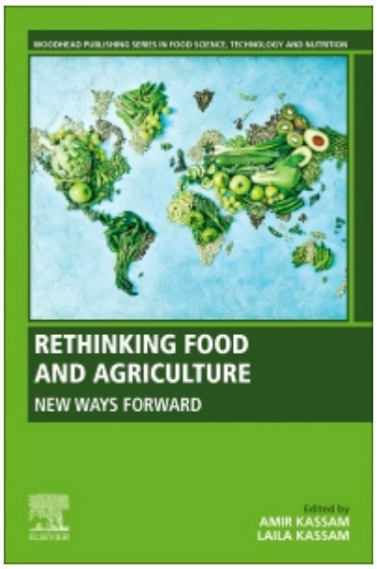
Rethinking Food and Agriculture 1st Edition



Rethinking Food and Agriculture

1st Edition

New Ways Forward

Editors: Amir Kassam Laila Kassam

Paperback ISBN: 9780128164105

Imprint: Woodhead Publishing

Published Date: 30th October 2020

Page Count: 444

Description

Given the central role of the food and agriculture system in driving so many of the connected ecological, social and economic threats and challenges we currently face, Rethinking Food and Agriculture reviews, reassesses and reimagines the current food and agriculture system and the narrow paradigm in which it operates.

Rethinking Food and Agriculture explores and uncovers some of the key historical, ethical, economic, social, cultural, political, and structural drivers and root causes of unsustainability, degradation of the agricultural environment, destruction of nature, short-comings in science and knowledge systems, inequality, hunger and food insecurity, and disharmony. It reviews efforts towards 'sustainable development', and reassesses whether these efforts have been implemented with adequate responsibility, acceptable societal and environmental costs and optimal engagement to secure sustainability, equity and justice. The book highlights the many ways that farmers and their communities, civil society groups, social movements, development experts, scientists and others have been raising awareness of these issues, implementing solutions and forging 'new ways forward', for example towards paradigms of agriculture, natural resource management and human nutrition which are more sustainable and just.

Key Features

- Explores some of the key drivers and root causes of unsustainability , degradation of the agricultural environment and destruction of nature
- Highlights the many ways that different stakeholders have been forging 'new ways forward' towards alternative paradigms of agriculture, human nutrition and political economy, which are more sustainable and just
- Proposes ways to move beyong the current unsustainable exploitation of natural resources towards agroecological sustainability and overall sustainability of the food and agriculture system based on 'inclusive responsibility'

Readership

Students, academics, professionals, researchers, educationalists, activists, service providers and decision-makers in the public, private and civil sectors, extension staff of development agencies, staff of international and national development and technical assistance agencies

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Choosing the right cover crop to protect the soil

By Eric Hamilton

Farmers around the world are keen to protect their most important asset: their soil. The soil supports and enriches their crops. But the relatively thin layer of topsoil can readily wash away into streams, carrying unwanted nutrients with it.

Enter cover crops. Cover crops are inedible plants grown during the off-season. Their roots help keep soil in place, preventing erosion. Cover crops can even absorb excess nutrients like nitrogen to keep them from polluting streams. Farmers are increasingly interested in using cover crops to help their farms. But with a dizzying array of plants to choose from and complex crop rotations, making the right choice is no easy feat.

"I believe cover crops are a very important tool for both retaining soil and keeping nutrients on the farm," says María Villamil, a researcher at the University of Illinois and a member of the American Society of Agronomy. "In the Midwest, we are very lucky to have high fertility soils, making us big providers of food worldwide. The protection of our soils is critical."

To help farmers in Illinois choose the right cover crop, Villamil and her team decided to test several potential cover crops. They planted different cover crops between the common Midwestern rotation of corn and soybeans. The researchers worked closely with farmers to choose which cover crops to test.

"They wanted to test different cover crops, especially ones that don't generate extra work in the spring and others that will not compete with the corn for resources," says Villamil.

Farmers preferred growing cereal rye as a cover crop before soybeans were planted. The rye captured the nitrogen remaining in the soil after the previous year's corn crop season. But, when farmers were planning to grow corn, they preferred using a vetch cover crop.

Aerial drone image showing two months of cover crop growth in Monmouth, Illinois in November, 2016. Credit: Dennis Bowman

Vetch is a legume crop, which means it can provide nitrogen for the corn to use later in the season. Vetch also uses less water than cereal rye, which means the corn crop will not

need to work as hard to compete for limited water resources.

Villamil's team set up experimental plots at six locations around the state. Toward the end of the growing season for corn or soybeans, researchers walked through the crop fields to spread cover crop seeds among the plants. This mimics seeding by airplane. Aerial seeding has been a popular idea to plant cover crops in a timely manner over existing crops in fields. The cover crops they tested included spring oats, red clover, annual ryegrass and radishes, among others.

Then the researchers tracked how well the

cover crops grew, how soil properties changed over time, and the yield of future food crops.

Surprisingly, the cover crops didn't have a big effect on the soil. "There was not much improvement of the soil properties with using a cover crop, except for maybe the rotation using the annual ryegrass," says Villamil.

The biggest reason most of the cover crops didn't affect the soil very much is that most of them died over the winter. That's largely because of the weather. Midwestern states like Illinois are subject to potentially harsh winters, especially in the northern part of the state. The broadcast seeding the researchers did also meant that the seeds simply sat on top of the soil. That meant the cover crops had a harder time germinating than if the seeds had been buried in the ground.

But cover crops that die over winter can be a good thing. Dead cover crops mean farmers will have less work killing them in the spring. But they're also less effective at protecting the soil or absorbing nutrients.

Annual ryegrass and cereal rye, both grasses, largely survived the winter, as did hairy vetch, a legume like soybeans. The grasses slightly reduced future corn yields. That's probably because they compete with corn for water in the spring.

"The yields of soybeans were not affected at all. Soybeans grow very well with cover crops, so we need to take advantage of that," says Villamil.

The team also tested how tilling the fields affected the soil and yields, but saw only modest effects.

"The lesson is that wringing benefits from cover crops requires a bigger commitment to using them to protect the soil," says Villamil.

"That means choosing cover crops that can survive the winter, grow a lot in the spring, and hold onto soil that whole time. Some cover crops might slightly decrease future crop yields, but in the long-term, protecting our soil is worth it."

"If we want to see benefits from cover crops, we need to focus on managing our cropping systems for cover crops, giving them room to grow, and using them strategically following corn crops, or silage corn or even wheat, if we are lucky to have this crop in the rotation" she says. "Our main goal when using cover crops should be protecting the soil and leaving the soil nutrients in place."

Interseeding of cover crops (shown) into corn and soybean is a common method used by growers to apply seeds at the optimal time. In this study, researchers simulated aerial seeding using a handheld spreader and walking between the cash crop rows. Credit: Gevan Behnke

Learn more about this work in Agronomy Journal, a publication of the American Society of Agronomy. This research was supported by the Illinois Nutrient Research and Education Council. *Source:* https://www.soils.org/news/choosing-right-cover-crop-protect-soil

Data: Global soil erosion by water in 2070

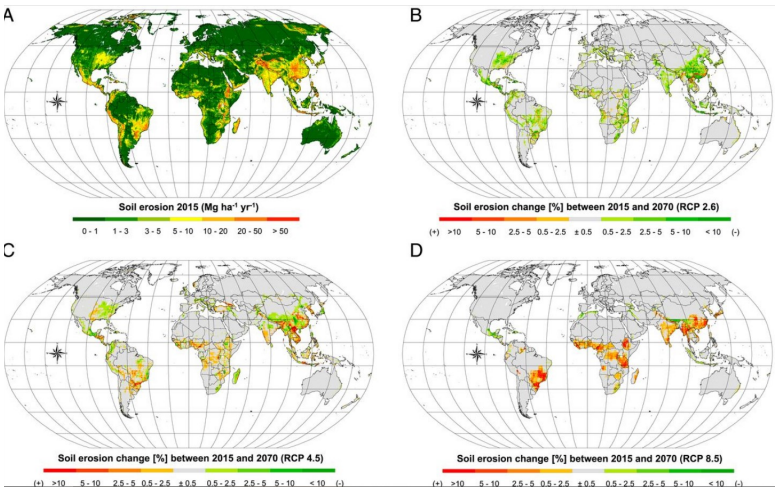
Land use and climate change impacts on global soil erosion by water (2015-2070). This dataset includes the baseline scenario (2015) and the future projections (2070) of soil erosion based on land use changes and climate change effects.

Resource Type: Datasets, Soil threats data

Registration is requested: Yes

Year: 2020

Language: English



Land use and climate change impacts on global soil erosion by water (2015-2070)

We use the latest projections of climate and land use change to assess potential global soil erosion rates by water to address policy questions; working towards the goals of the United Nations working groups under the Inter-Governmental Technical Panel on Soils of the Global Soil Partnership. This effort will enable policy makers to explore erosion extent, identify possible hotspots, and work with stakeholders to mitigate potential impacts. In addition, we also provide insight into the potential mitigating effects attributable to conservation agriculture and the need for more effective policy instruments for soil protection. Scientifically, the modeling framework presented adopts a series of methodological advances and standardized data to communicate with adjacent disciplines and move towards robust, reproducible and open data science.

Main highlights

Modelled area: 143 million Km^2 which is about ~95.5% of Earth's land

Resolution: $25Km^2$ x $25Km^2$

Global Coverage: 202 countries included in the study

Three alternative (2.6, 4.5 & 8.5) Shared Socioeconomic Pathway and Representative Concentration Pathway (SSP-RCP) scenarios

14 General Climate Circulation Models (GCMs) used to assess future rainfall erosivity scenarios

The baseline model (2015) predicts global potential soil erosion rates of 43 (-7, +9.2) Pg yr^{-1}

Climate projections indicate an overall trend moving towards a more vigorous hydrological cycle, which could increase global water erosion up to more than +60% (SSP5-RCP8.5).

Reference:

Borrelli P., Robinson D.A., Panagos P., Lugato E., Yang J.E., Alewell C., Wuepper D., Montanarella L., Ballabio C. 2020. Land use and climate change impacts on global soil erosion by water (2015-2070). Proceedings of the National Academy of Sciences (PNAS), 117(36), 21994–22001; doi: 10.1073/pnas.2001403117

More information: *https://esdac.jrc.ec.europa.eu/content/global-soil-erosion-water-2070*

Data: LUCAS 2015 TOPSOIL

Data from the 2015 LUCAS campaign soil component containing soil properties data (clay, silt and sand content, coarse fragments, pH (CaCl2 and H2O), organic carbon content, CaCO3, nitrogen, phosphorous, potassium, EC (Electrical conductivity) and multispectral reflectance data for 21,859 samples. These primary data are supplemented by reference ancillary data describing a range of environmental conditions for the LUCAS Soil locations.

Resource Type: Datasets, Soil threats data

Registration is requested: Yes

Year: 2020

Language: English

Study area: European Union (EU-27) plus UK. Data from Albania, Bosnia and Herzegovina, North Maccedonia, Montenegro, Serbia will be available soon. Data from samples collected during 2015 in Switzerland using the same methodology are already available from here.

Format: CSV files; To facilitate use of the data, .XLS and ESRI shapefile formats are also available;

Pixel size: Point data. 21,859 data points. 4,246 are at new locations when compared with the 2009/2012.

Measured properties: Coarse fragments, clay, silt, sand (Texture), pH(CaCl2), pH(H2O), Electrical conductivity, Organic carbon content, Carbonates content, Phosphorus content, Total nitrogen content, Extractable potassium content

Reference Year: 2015 . Past LUCAS campaign (2009/2012) is available here.

In order to access the data, please register using the Request Form tab from the website:

https://esdac.jrc.ec.europa.eu/content/lucas2015-topsoil-data#tabs-0-description=1

When making reference to the ESDAC

- Panagos P., Van Liedekerke M., Jones A., Montanarella L., "European Soil Data Centre: Response to European policy support and public data requirements"; (2012) Land Use Policy, 29 (2), pp. 329-338. doi:10.1016/j.landusepol.2011.07.003
- European Soil Data Centre (ESDAC), esdac.jrc.ec.europa.eu, European Commission, Joint Research Centre

Updated CiteScore of ISWCR in September 2020

Calculating the CiteScore is based on the number of citations to documents (articles, reviews, conference papers, book chapters, and data papers) by a journal over **four years**, divided by the number of the same document types indexed in Scopus and published in those same **four years**. Below is the updated information on Scopus website:

International Soil and Water Conservation Research

Open Access

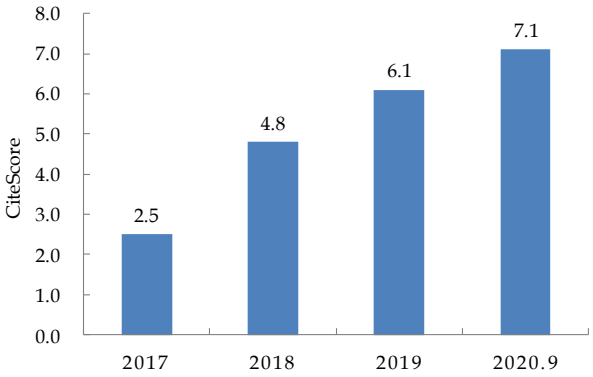
Scopus coverage years: from 2013 to present

Publisher: International Research and Training Center on Erosion and Sedimentation & China Water and Power Press

ISSN: 2095-6339

Subject area: Environmental Science: Water Science and Technology
Environmental Science: Nature and Landscape Conservation
Agricultural and Biological Sciences: Agronomy and Crop Science
Agricultural and Biological Sciences: Soil Science

Category	Rank	Percentile
Environmental Science └ Water Science and Technology	#17/217	92nd
Agricultural and Biological Sciences └ Agronomy and Crop Science	#28/334	91st
Environmental Science └ Nature and Landscape Conservation	#14/160	91st
Agricultural and Biological Sciences └ Soil Science	#17/126	86th



CiteScoreTracker 2020

7.1 = 1,014 Citations to date / 143 Documents to date

Last updated on 07 September, 2020 • Updated monthly

Contents of Issue 3, 2020 for ISWCR

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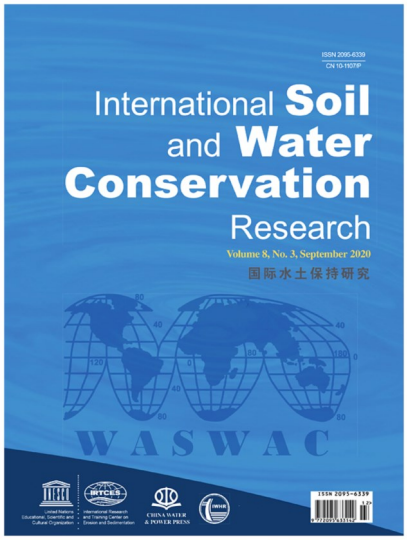

Contents of Issue 6, 2020 for IJSR

Papers Published in the ***International Journal of Sediment Research*** Volume 35, No. 6, 2020
Pages 563–678 (December 2020)

Contents of Issue 6, 2020 for IJSR

Full papers are available at ScienceDirect:
https://www.sciencedirect.com/journal/international-journal-of-sediment-research with free access to the paper abstracts.

International Journal of Sediment Research (IJSR), the Official Journal of The International Research and Training Center on Erosion and Sedimentation and The World Association for Sedimentation and Erosion Research, publishes scientific and technical papers on all aspects of erosion and sedimentation interpreted in its widest sense.

The subject matter is to include not only the mechanics of sediment transport and fluvial processes, but also what is related to geography, geomorphology, soil erosion, watershed management, sedimentology, environmental and ecological impacts of sedimentation, social and economical effects of sedimentation and its assessment, etc. Special attention is paid to engineering problems related to sedimentation and erosion.

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