HOT NEWS

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WASWAC

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Message from the WASWAC president: working together to combat COVID-19

The global pandemic COVID-19 has impacted many aspects in our daily lives all around the world. There are already more than two million confirmed cases and hundreds of thousands deaths globally, and these numbers perhaps will increase further as the spread of the virus worldwide. The World Health Organization (WHO) has called upon every country and every partner to cooperate together and combat this disease, without distinction of race, religion, and political belief, economic or social condition. As the president of an international association, I am deeply concerned about every member of our WASWAC family in all countries. I wish every one of you and your families safe and healthy. At this time, I hope every WASWAC member can stay together to tide over the crisis in the difficult time, and to follow the protection instructions and suggestions of the WHO:

- Wash your hands frequently. Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water.
- Maintain social distancing. Maintain at least 1 meter (3 feet) distance between yourself and anyone who is coughing or sneezing.
- Avoid touching eyes, nose and mouth before cleaning your hands. Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth which makes you sick.
- Practice respiratory hygiene. Make sure you, and the people around you, follow good respiratory hygiene. This means covering your mouth and nose with your bent elbow or tissue when you cough or sneeze. Then dispose of the used tissue immediately.
- If you have fever, cough and difficulty breathing, seek medical care early. Follow the directions of your local health authority.
- Stay informed and follow advice given by your healthcare provider.

Please take care and protect yourself, your families, your communities, and be supportive for the people working in frontlines of this pandemic. We should believe in science, and do not need to have extra anxious. We should stay together in the global health emergency. We should be strong-minded and have confidence to overcome the virus, a brighter future is await us in the near future. Again, I wish every member safe and healthy!

Prof. Duihu Ning

President of WASWAC

Thoughts, opinions, and recommendations for post-COVID-19 time

This year, COVID-19 creates one of the biggest global crisis on both human and socio-economic aspects. As a world association focusing on protecting our natural resources, we understand the importance of water and soil resources in supporting our society during and after this pandemic. Here we invite WASWAC councilors, advisors, and all members to express their thoughts, opinions, and recommendations about WASWAC development strategies, activities etc. in the post-COVID-19 time.

A MOMENT FOR CHANGE: SOIL CONSERVATION IS INVESTMENT, NOT EXPENSE

José Luis Rubio, Deputy President of WASWAC

"Stretching his hand out to catch the stars, he forgets the flowers at his feet"

(Jeremy Bentham, 1748-1832).

Without a doubt, we will pass this crisis and return to relative normality. But in no way should we return to the situation and circumstances that have turned the COVID-19 pandemic into a global shock. We should learn from our mistakes and take advantage of this situation by making many improvements. Among others, we need to redefine our relationships with the natural environment, to achieve more intelligent and sustainable attitudes. Of course, we must be much more careful in the aspects affecting our health, now that we have seen the high price of negligence in a painful and extreme way.

A mistreated natural environment favors processes that threaten our well-being. In the area of protecting soil and water resources, we must work to guarantee the provision of many of the goods and services we need for survival. The ability of the soil to neutralize toxic compounds and infectious processes is well known and should be enhanced. The therapeutic value of soil microorganisms has produced enormous benefits to humanity (penicillin is just one example) and it highly plausible that there may be a health remedy to COVID-19 yet undiscovered in the billions of soil microorganisms that remain unknown to science. This is part of the functioning of the soil as a global biological reactor and purifier. It is undoubtedly the central processing unit of the Earth ecosystem. The sanitary role of soil is

critical in nature and this role cannot be replaced by any human activities.

Throughout history, humanity has witnessed great environmental crises. Some of them, due to the misuse of land resources, led to situations of food scarcity, famine, social destabilization and serious conflicts and wars. These crises even led to the collapse and disappearance of civilizations. But humanity has not fully learnt the lessons of its mistakes. In the case of soil, the feeling is that we have lost recent decades in ignoring and belittling the crucial role of soil in food security and in the functioning of terrestrial ecosystems. Despite the good words, no concrete measures or global strategies are adopted to help alleviate future crises of food insecurity or scarcity of water resources, which will surely come. Yet, despite this blindness, history clearly tells us that the destruction or mismanagement of natural spaces, water resources and fertile soils compromises the sustainability of our society and renders it vulnerable to future crises.

The current crisis is unexpected and dramatic and has exposed the vulnerability and fragility of the arrogant advanced society of the 21st Century. What will we do to be better prepared for the next crisis? What will this next crisis be? Nobody knows! However, today we are immersed in changes in our climate that do not bode well for our common future. The evidence is as well known to science as they are ignored by public authorities and by most of society. Are we going to allow a great climatic catastrophe to occur, which among many other calamities, can bring about the destruction of vital soil and water resources?

The soil has been our faithful and essential

companion in the long adventure of humanity. Soil has been defined as the "*upper layer of the Earth's surface, formed by the weathering of rocks and sediments.*" However, it is so much more! According to a definition by Daniel Richter "*soil is the biologically excited layer of the earth's crust. It is an organized mixture of organic and mineral matter. Soil is created by and responsive to organisms, climate, geologic processes, and the chemistry of the aboveground atmosphere. Soil is the rooting zone for terrestrial plants and the filtration medium that influences the quality and quan-*

tity of Earth's waters. Soil supports the nearly unexplored communities of microorganisms that decompose organic matter and recirculate many of the biosphere's chemical elements." The soil is often referred to as 'earth,' as the name of our planet. No wonder this significant assimilation of designations, in which the name of only one of its natural systems is assigned to a whole world.

Soil conservation is investment, not expense. Investing in land and water resources benefits everyone. A healthy and fertile land ensures a

healthy society and economy. The terrestrial ecosystem in balance with its natural environment guarantees the proper functioning and the greatest resilience of society.

At present, the enormous health dimension, the serious socio-economic consequences and the impact on the entire world community of the coronavirus pandemic, must have the impact of shaking our consciences to truly force us to radically change our relationship and attitude towards the natural environment. Now is the historic opportunity to consider more intelligent relationships with nature, based on attitudes more in harmony with natural systems and that are truly sustainable. We should consider aspects, such as accelerating the change of the energy model towards renewable energies, reviewing abusive and polluting industrial processes, promoting circular economies, achieving more habitable and healthy cities and protecting basic resources for survival, specifically soil, air and water. We must advance a model of economic development and progress which accords with the limitations imposed by our finite environment, that is, our world. There really is no alternative! A global attitude of respect for the planet and sensible management of natural resources is the only valid option to ensure both our well-being and survival.

Note: English revision by Mike Fullen

Further Reading

Baskin, Y. 2005. Underground. SCOPE. Washington, DC Island Press

Richtert, D. D. and D. Markewítz. 1995. How deep is soil? Bio-Science 45: 600-609. Quote p. 600

FOOD AND WATER SUPPLY UNDER COVID-19 : ROLE OF SOIL AND WATER MANAGEMENT AND CONSERVATION

Ildefonso Pla Sentís, Lleida (Spain)

We are all aware that under the increasing global changes, mainly associated to the growing world population and development, the lands and soil resources for the required agricultural food production, may become limiting in the near future. The same may occur, probably with limitations in a shorter time, with the good quality water resource, both for direct consumption, and specially for irrigated agriculture, increasingly required for a sustainable provision of food products in many parts of the world.

With the present trends on the soil and water degradation processes, it is previewed that even the considered "guaranteed" provision of food and water may be limited in a relatively shorter time, for most of the world population, independently of their development or location. This could only be prevented with an increasing sustainable use and management of soil and water resources in the whole world, integrated to other environmental, social and economic measures related with the population growth and development. Here is where we have to learn from the present problem and crisis related with the COVID-19 infection, which has reached worldwide dimensions, with very important health, social and economic consequences.

In both cases, COVID-19 and soil and water degradation processes, the focus, research, solutions, etc. must have global dimensions, taking into consideration particular and local technical, social and economic conditions for the immediate measures to be taken. In the same direction, prevention activities would have to concentrate more in the present or previewed near close direct effects of global change, on health and on food and water provision for an increasing population, which nowadays are still predominant and may become critical in a shorter time, than the more publicized potential future effects of global climate changes.

The proposal would be that the activities of our soil and water conservation organizations would have to focus and concentrate on those aspects of soil and water use, management and conservation related to future food and water provision, and mainly in the evaluation and analysis of the processes and problems, and on the promotion of scientific research, publications and actions with more integral

and worldwide approaches. Those activities and promotion must not be limited to general comments, declarations and documents about it, but additionally they have to be able to identify some critical up to date problems with worldwide consequences. The final objective would be to find ways to promote a critical analysis, research and actions to prevent or solve them, through specific oriented conferences and workshops, with the participation of all the involved sectors and organizations. A well oriented, open minded and clear promotion of the activities and objectives of the meetings, directed to solve well identified and critical problems and their environmental, production, social and economic consequences, would increase the possibilities to find and attract official or private sponsors for their organization.

Up to now, the solidarity and collaboration among the different countries in relation to the control of the COVID-19 infection and social and economical consequences, has not been as it would be expected, but as the problem progresses in most of the world there are observed some actions directed to improve that situation. The hope would be, that in our case, we will be able to find the way for a real, not only declarative, integration of our regional and worldwide organizations, with joint activities following the previously mentioned orientation and objectives. This probably would require some structural and administrative changes in the present organizations, with new wider and more flexible objectives, where the personal or geopolitical interests are set aside.

UPDATING THE SOIL PARADIGM TO GO THROUGH THE POST COVID-19 WORLD ECONOMY

Carmelo Dazzi, President of the ESSC, University of Palermo (Italy)

The coronavirus (COVID-19) outbreak has already brought considerable human suffering and major economic disruption.

As far as Europe is concerned, a dramatically divided European Union emerged from the European Council (26 March 2020) dedicated to the measures to be taken to manage the most serious crisis from 1929 to today, much worse than the crisis of 2012-2017.

The coronavirus pandemic and the economic and social crises that are emerging push humankind to reflect on the importance of economy at a worldwide level, stressing like never before that we live in a "*global village*".

So, the question for humankind is as follows: Is there still a common sense of belonging based on strong common interests? In my opinion the answer is YES, if the common interest is economy; the answer is NO, if the common interest is sustainable use of the soil.

Undoubtedly, in the economic scenario after coronavirus, huge fluxes of money will be assigned to support the economy of many social and economic sectors, and only crumbs of money will be allocated to the scientific research in soil science.

So, the question for Soil Scientists is as follows: Is there the possibility to prove that soil heath is of primary importance for humankind?

We know that healthy soils are of paramount importance for a healthy humankind. With the beginning of the Anthropocene we started to live in a "*global village*" where "*money makes the world go round*" and in which economic production and dissemination of knowledge play key-roles in the creation of wealth. Such considerations led humanity to a view of soil on a broader and more appropriate scale, one that better reflects its economic importance. With the beginning of the Anthropocene, soil scientists have long been talking about the importance of soil in meeting our growing demands for food, water and energy, as well as in providing ecosystem services that affect climate change, human health and biodiversity.

The inter-relationships between soils and social issues – such as food safety, sustainability, climate change, carbon sequestration, greenhouse gas emissions, degradation by erosion, loss of organic matter and nutrients – are fundamental elements of the recently proposed soil security concept that relies on the soil's ecosystem services i.e. the benefit that people derive from soils.

In order to ensure that soil security and ecosystem services are not merely abstractions, I believe it mandatory to consider soils as a media that supports a major part of the economy. Such consideration should be aligned with policy to help ensure soil security by encouraging sound and sustainable soil management practices.

Thus, Soil Scientists should reflect on this now. Since politicians and administrators traditionally show a lack of consideration on the importance of soils in the consideration of environmental equilibria, how do we ensure soil security and save soil's ecosystem services after the COVID-19 outbreak?

I am strongly convinced that a new way forward for Soil Scientists could be to assign an

"*economic value*" to the services offered by the soils. This would require that, in coping the predictable future limitations for studying and researching soil degradation processes and in the application of prevention and remediation practices, we should change the soil paradigm, providing an up-to-date, effective and to-the-purpose definition of soil: "***Soil is an economic resource! It develops naturally and deeply influences social systems and public policy***".

Such definition focus the attention on the economic value of the soil, the only aspect that truly attracts the attention of politicians, economists and administrators!

POST-COVID19 PERCEPTIONS FOR SOIL AND WATER RESOURCES CONSERVATION

Seyed Hamidreza Sadeghi[1] and Padidehsadat Sadeghi[2]
([1]Professor and [2]MSc Student, Department of Watershed Management Engineering, Tarbiat Modares University, and [1]President and [2]Member of Watershed Management Society of Iran)

Due to the COVID-19 world crisis, we surely face new issues regarding quantity and quality of resources.

Unexpected Benefits: Changes in social behaviors and experiencing a new life style of working, servicing and provision of needs; Mutation in pharmaceutical and health industries and products, Interconnection of international bodies for better servicing to infectious people and countries; Severe reduction in fuel and energy consumption; Showing of empathy and sympathy between the people and the governments; Reducing CO_2 emission and effects of greenhouse gases; Temporary revival of flora and fauna communities and ecosystems rehabilitation.

Unwished Outcomes: Huge consumption of water for cleaning and pursuing precautionary hygienic instructions; Suspension of almost all navigation services; Limitation in journeys and movement of seasonal workers, family visits and friends, and social activities (Clubs, restaurants, group matches); Threatening both lives and livelihoods mainly due to border closures, quarantines, and market, supply chain and trade disruptions; Closing academic centers; Millions became unemployed; Redirection of huge investments in pacifying the pandemic; Overburdening and consequent fatigue of hundred thousands of physicians, nurses and staffs of hospitals and health centers; Shortfalls in medicines and medical equip-

ment, with associated increase in black markets and mafia; Irregularities in imports and exports; Discharging and releasing large quantities of detergents and pollutants to soil and water resources; Increasing political games through imposition of some severe sanctions on some governments; Severe psychological trauma of the people throughout the globe; The irreparable damage to and deflationary shock for the global economy; All of these ultimately leading to many other unexpected issues.

Foreseen Consequences: Inadequate and inappropriate food production; High inflation and expenses; More consumption of available water and other resources; Overexploitation of biologic and non-organic resources; Social conflicts; Migrations, More pollutants and consequent soil and water pollution.

Suggestions: We must start working on all above-mentioned issues immediately and seek out the most environmentally friendly, economically efficient, and technically sound measures to return the world to a natural situation within a reasonable period. Towards this, all NGOs, Societies, Academicians and even individuals have to work. This is more serious in developing countries due to the need for faster progress and the fact that often fewer precautions are taken in utilization of resources.

Some of the main approaches and solutions for handling the consequences of the COVID-19 outbreak should include: close monitoring of ecosystem behavior and detailed evaluation of the outcomes; meeting the immediate food needs of the vulnerable populations; boosting social protection plans; increased efficiencies and improved productivity, and reduced trade -related costs. In brief, the ***1) monitoring based approaches***, and ***2) adaptive management of the resources*** should be regarded as the best sustainable remedies for addressing these human-created and expected issues across the globe. Towards this, a close and strong cooperation among data collection centers, executive, education, research and governance bodies is crucial to develop people-centered strategies and adopt practical measures worldwide.

NATURE'S FRONT LINE DEMONSTRATION: BETTER AIR AND WATER QUALITY

Surinder Singh Kukal, Dean, Faculty of Agriculture

Punjab Agricultural University, Ludhiana

The pollution levels, both air and water in the country have been on rise every year, thanks to increasing population of automobiles, in some cases surpassing human population. Smog and smoke from automobiles and industries have been the common features of our day to day life, leading to increased levels of pollutants in air and water. The general population including the upper and upper middle class never respond to the advice of environmentalists to help lower air and water pollution levels especially in bigger cities by reducing the use of automobiles and treating the industrial effluents before letting them into the natural sources of water. The air quality index in major cities of the country has been alarming leading to unsafe levels at most of the times, but still the population has continued its race against time for its lust to be ahead of others in terms of wealth, stature, etc. little bothering about the deteriorating health of its fellow citizens. It seems that the people will exhaust all the natural resources considered to be the feeding bottles for them. In other words, man is bent upon cutting the branches of the trees on which he is sitting and feeding himself. Such is the greed of humans, which is not understandable.

The law of Science that "Energy can neither be created nor destroyed" indicates that the Nature, a type of energy of and on uses this energy in the form of tsunamis, floods, earthquakes, etc. to warn the people of consequences of their greed, but in vain. This time a stronger energy in the form of a virus called "Corona virus" leading to pandemic, has spread like anything throughout the world without differentiating the global boundaries. To protect this disastrous energy, the mankind went for a complete lockdown, meaning that all air, rail, road traffic and industrial activities have come to a standstill. This standstill has prevented the burning of 581 million liters of petrol, 254 million liters of diesel and 25 million liters of air turbine fuel (ATF) every day, leading to non-emission of huge amount of poisonous gases into the atmosphere. With the result reports are abuzz in the media that sky was never so blue in past. The PM 2.5 has decreased in many cities by more than 70%. The

people have reported to clearly see the snow-clad Dhauladhar range from Jalandhar city, about 160 km away. Reports are there that the river waters of Yamuna and Ganga have improved in quality, due to grinding halt of industries in the periphery of these rivers. Another important observation is the changing colour of famous "*budda naala*" or "*gandha naala*" in Ludhiana ultimately joining Sutlej River. The water colour in the *naala* has been observed to be lighter compared to black earlier, thanks to the cessation of industrial effluents falling into the *naala* due to stoppage of industrial activities in the city.

Perhaps this is a 'Frontline Demonstration (FLD)" by the Nature to showcase to the human beings that how their misdeeds have harmed the atmosphere in which we live and how can it be reversed. The Nature has made it very clear that it is still not too late to learn from our misdeeds. The agencies responsible for cleaning the air and river waters need to wake up and try to make the masses understand by any means that if Nature gets furious, nothing is going to save us from her anger, but at the same time Nature is kind enough to get the things on the right path if man learns the lessons in this time of disaster. The Nature has demonstrated twin lessons to humans through the incidence of Krona virus at global level. One that Nature can be too furious for the humans to defend themselves and two that it can be kind enough provided we learn from these demonstrations.

COVID-19: THE WORLD IS ONE FAMILY

Rattan Lal, Carbon Management and Sequestration Center
The Ohio State University, Columbus, OH, USA

The Sanskrit phrase "Vasudhaiva Kutumbakam" (the world is one family) is more relevant now than ever before. The virus pandemic has spread rapidly throughout the world in developed and developing countries, rich and poor nations, advanced and emerging economies, and among friends and foes alike. It is the formidable enemy of all of humanity, regardless of differences in race, language, culture, religion, ethnicity, gender and political ideology.

Therefore, its effective and swift mitigation demands a united approach of helping one another, maintaining a strict code of social distancing, adopting high standards of hygiene and cleanliness, and taking care of others in need of help. We must salute and appreciate the services of health-giver professionals who are on the frontline of the World War against an invisible and a microscopic enemy of the

human race. The global tragedy of COVID-19 necessitates a paradigm shift in the thinking of the scientific community towards addressing future research and education priorities. Obviously, international cooperation on issues of global significance is a high priority. The daunting challenge of the sustainable management of finite and fragile natural resources must be based on strong international cooperation. The global soil resource, and its management for food and nutritional security through adoption of nutrition-sensitive agriculture, is an example of the need for protecting and managing a precious resource, which must never be taken for granted. Not only should food be produced by using conservation-effective strategies of "producing more from less," the waste must also be minimized.

The food waste, equivalent to one-third produced globally, may be exacerbated by COVID -19 because of unnecessary hoarding and panic buying. Wastage of prime soil, through degradation of its quality by indiscriminate and inappropriate use of inputs and by conversion to other land uses (rapid and ad-hoc urbanization), must be addressed by adopting the concept of the "Rights-of-Soil" and global soil protection policy.

The focus of the world community on COVID-19 will adversely affect the progress of the Sustainable Development Goals (SDGs) or the Agenda 2030. Yet, sustainable management of soil is essential to achieving SDG #2 (Zero Hunger), #3 (Good Health and Wellbeing), #4 (Clean Water and Sanitation), #13 (Climate Action) and #15 (Life on Land). The tragedy of COVID-19 has refocused the attention on restoration and management of soil health as stated in SDG #3 (Global Health and Wellbeing) and SDG #15 (Life on Land). The general education curricula, at all levels (from primary school to the college and graduate level), must be revisited to enhance focus on the "One Health" concept: the health of soil, plants, animal, people and environment is one and indivisible. The need for soil protection also necessitates formulation and implementation of the "Soil Quality Act" to complement the two existing acts of US-EPA as Water Quality Act (1965) and Air Quality Act (1967).

The food waste, equivalent to one-third produced globally, may be exacerbated by COVID -19 because of unnecessary hoarding and panic buying. Wastage of prime soil, through degradation of its quality by indiscriminate and inappropriate use of inputs and by conversion to other land uses (rapid and ad-hoc urbanization), must be addressed by adopting the concept of the "Rights-of-Soil" and global soil protection policy.

A MOMENT TO GO FORWARD

Miodrag Zlatic, Immediate Past President of WASWAC

Belgrade University, Faculty of Forestry

Reflections Post Covid-19 prepared up till now from WASWAC officers are in the realm of thinking about establishing global soil protection policies/prioritization of soil economic value/soil investment/waste minimization/ the health of soil/…./, to follow in the period after the virus.

I start this reflection with the citation of Tickell, which simply goes into the present and future necessities, written about three decades before: "We need a value system which enshrines the principle of sustainability over generations. Sustainable development may mean different things to different people, but the idea itself is simple. We must work out models for a relatively steady state society, with population in broad balance with resources and the environment" (Tickell, 1993).

At this moment of global and enormous crisis, the involvement of the entire population in the use of natural resources is needed in terms of their conservation. WASWAC Vision is a world in which all soil and water resources are used in a productive, sustainable and ecologically sound manner.

How to go forward

WASWAC members, and especially WASWAC officers have been gathered in the main mission and main WASWAC role: to work through the different ways on protection of the great natural resources such as water and soils. In this respect, in the period of coming time, I see WASWAC role through the gathering us in some global project of soil and water management for sustainability. It is desirable for this initiative to involve as many young people as possible. A key role in this regard would be the activity of IYFSWC - the International Youth Forum of WASWAC.

Wang Bin (China), President of International Youth Forum of Soil and Water Conservation

I see the functioning of IYFSWC through the ability to form Student Forums, as core units. In this sense, the WASWC Student Fo-

rum was established at the Faculty of Forestry in Belgrade in 2006 as the unique and first unit of its kind within the WASWAC. In October 2019 this Forum was updated. It gathers B. SC. M. Sc. and Ph. D. students. The current President of this Forum is Master Student Petar Neskovic, who is in the Master's Course in "Protecting the Water Resources of Mountainous Areas" at the Department of Environmental Engineering in the Protection of Soil and Water Resources within the Faculty of Forestry, Belgrade University.

Petar Nešković, President of Student's WASWAC Forum – Serbian Branche

The fourth WASWAC conference held in India in 2019 saw significant youth participation, not only in the youth session, but also in other sessions/topics. During the conference, through discussions and contacts, their interest in WASWC membership as well as in IYFSWC and Student Forums was expressed. I particularly emphasize here the interest of Shachi Pandey, a PhD student in the Dehra Dun - Institute of Forestry in India, in establishing a Student Forum in India, or in the aforementioned part of India. So, this young lady is taking the first steps in this regard today. Also important is the fact that Shachi Pandey, a female person, runs establishing a major Forum in this part of the world. This fits in with present and future programs of current women's participation.

Shachi Pandey, Ph. D. candidate from Forestry Institute from Dehra Dun/India: initiator for the establishment Student's WASWAC Forum in India

Professor Velibor Spalevic, who successfully leads Young Researchers at the University of Podgorica/Montenegro, has also highlighted the importance of forming a Student's WASWAC Forum. In Northern Macedonia, this Student's Forum was formed at the Faculty of Forestry in Skopje, shortly after the formation of Belgrade Forum. Now it needs to be updated/reformed.

This review shows the significant interest of young people in membership of WASWC

units for young researchers. Significant steps in the formation of these units can be seen in the Balkans. Certainly, IYFSWC's role, as the leading youth unit at WASWC, is to disseminate and help in forming these forums worldwide.

I am happy to have youngers - our future experts of natural resources protection in our Association. This is for sure that their membership will not be only on paper. Their future involvement in Faculty/Institute/Department activities, as well as other activities mentioned in the aims of the Forum can contribute to them becoming our future experts.

In this respect very important is the next IYFSWC Conference, to be held in Iran, that is prepared by Seyed Sadeghi. Also it is very important to participate at this meeting, and support youngers.

Once again, "**A moment to go forward"** I see through WASWAC activities in establishing a global project on sustainable land management, as well as engaging young researchers with the WASWAC unit(s).

Tips for active learning at home during COVID-19

As COVID-19 continues spreading in many countries of world, how to keep learning in disruption has become a major challenge to the global education community. As stated by UNESCO Director-General Audrey Azoulay:

"We are entering uncharted territory and working with countries to find hi-tech, low-tech and no-tech solutions to assure the continuity of learning."

At this critical moment, UNESCO International Research and Training Centre for Rural Education (UNESCO INRULED) and Smart Learning Institute of Beijing Normal University (SLIBNU) are releasing a special publication entitled "Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak" together with our collaboration partners.

During the COVID-19 outbreak, the Chinese Ministry of Education has launched the "Disrupted classes, Undisrupted Learning" initiative, providing flexible online learning to over 270 million students from their homes. Inspired by the united solidarity and innovative experiences of millions of teachers and students, this handbook aims to define the term "flexible learning" with vivid examples and touching stories. It describes several implemented flexible online learning strate-

gies during the COVID-19 outbreak. These strategies are presented based on six dimensions, namely (a) infrastructure, (b) learning tools, (c) learning resources, (d) teaching and learning methods, (e) services for teachers and students, and (f) cooperation between government, enterprises, and schools.

You can download the guidebooks through the following link:

http://sli.bnu.edu.cn/en/Download/Promotional/Research_Report/2020/0407/1113.html

http://sli.bnu.edu.cn/en/Download/Promotional/Research_Report/2020/0315/901.html

New editorial board member of ISWCR

This month we have a new member in the editorial board of ISWCR. Welcome!

We encourage our associate editors make him involved in reviewing of related papers.

Dr.U.Surendran (India), M.Sc(Ag.).,Ph.D

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Senior Scientist-Soil Science

Centre for Water Resource Management (CWRDM), Kerala

Editorial Board Member - Agricultural Water Management, Elsevier

Research Interest

- Decision Support systems for soil nutrient budgeting and its impact on crop yield, Adsorption of nutrient / Modeling nutrient behavior in soils and its chemistry
- Carbon Sequestration in soils, Climate change and its impact in agriculture
- Crop Simulation modeling – Nutrient, Irrigation interaction
- Agronomic package for agricultural crops viz., Maize, rice, sugarcane, turmeric, tapioca and vegetables etc.
- Precision farming using drip fertigation technologies based on STCR
- Development of package for sugarcane under waterlogged conditions
- Crop Water Requirement and Irrigation Scheduling using CROPWAT

Updated CiteScore of ISWCR in March 2020

CiteScore is a metric for measuring journal impact in Scopus. The calculation of CiteScore for the current year is based on the number of citations received by a journal in that year for the documents published in the journal in the past three years, divided by the documents indexed in Scopus published in those three 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

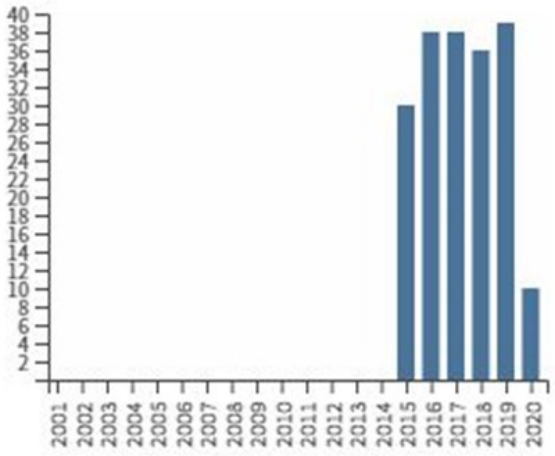
Subject area: Environmental Science: Water Science and Technology
Environmental Science: Nature and Landscape Conservation
Agricultural and Biological Sciences: Agronomy and Crop Science
Agricultural and Biological Sciences: Soil Science

CiteScoreTracker 2019 ⓘ

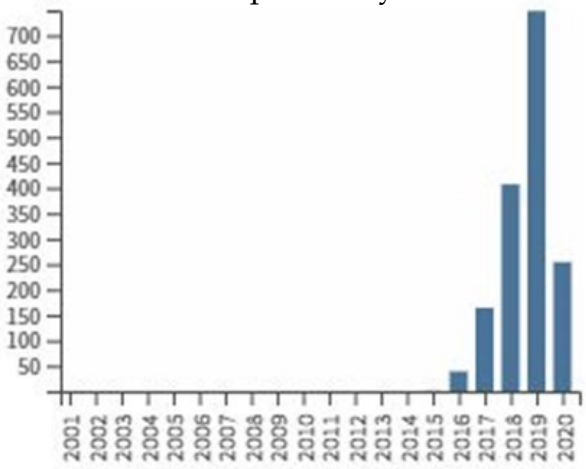
Last updated on *16 March, 2020*
Updated monthly

$$4.83 = \frac{\text{Citation Count 2019}}{\text{Documents 2016 - 2018}} = \frac{\text{541 Citations to date}}{\text{112 Documents to date}}$$

Numbers of paper published in the past five years



Numbers of paper cited in the past five years



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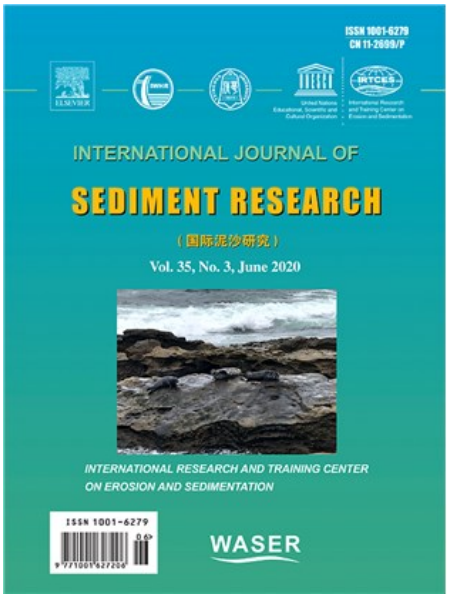
The subject matter is to include not only the mechanics of sediment transport and fluvial processes, but also what is related to geography, geomorphology, soil erosion, watershed management, sedimentology, environmental and ecological impacts of sedimentation, social and economical effects of sedimentation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



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