

#### WORLD ASSOCIATION OF SOIL AND WATER CONSERVATION

# HOT NEWS

Issue 12, 2017



#### WASWAC HOT NEWS No. 12, December, 2017

#### **Contents**

Happy Chinese New Year	1-2				
WASWAC World Conference IV will be held in 2019					
The Second International Youth Forum on Soil and Water					
Conservation (2nd IYFSWC)	4				
LUCAS: Land Use/Cover Area Frame Statistical Survey	5-7				
New Publication	8-10				
Coming meetings	11-14				
PRIMA Foundation announced the PRIMA Calls for proposals for 2018	15-17				
Tyler Prize Honors Two Leaders in Marine and Climate Science	18-19				
WASWAC MEMBERSHIP APPLICATION/RENEWAL FORM	20				

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IRTCES Building (Where the Secretariat of WASWAC is located)

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WASWAC Website: www.waswac.org





Dear colleagues, friends and members of WASWAC,

The most important festival of China - Chinese New Year is coming soon, we would like to take this opportunity to introduce you the year of 2018 in Chinese calendar. Chinese New Year, also known as Spring Festival, has more than 4,000 years of history. It is the grandest and the most important annual event for Chinese people. 2018 is the Year of the dog according to Chinese zodiac. As the tenth in the 12-year cycle of Chinese zodiac, the Years of the Rooster include 1910, 1922, 1934, 1946, 1958, 1970, 1982, 1994, 2006, 2018,...

	Years Corr	responding	to Chinese	Zodiac Signs
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Rat	1900	1912	1924	1936	1948	1960	1972	1984	1996	2008	2020
Ox	1901	1913	1925	1937	1949	1961	1973	1985	1997	2009	2021
Tiger	1902	1914	1926	1938	1950	1962	1974	1986	1998	2010	2022
Rabbit	1903	1915	1927	1939	1951	1963	1975	1987	1999	2011	2023
Dragon	1904	1916	1928	1940	1952	1964	1976	1988	2000	2012	2024
Snake	1905	1917	1929	1941	1953	1965	1977	1989	2001	2013	2025
Horse	1906	1918	1930	1942	1954	1966	1978	1990	2002	2014	2026
Sheep	1907	1919	1931	1943	1955	1967	1979	1991	2003	2015	2027
Monkey	1908	1920	1932	1944	1956	1968	1980	1992	2004	2016	2028
Rooster	1909	1921	1933	1945	1957	1969	1981	1993	2005	2017	2029
Dog	1910	1922	1934	1946	1958	1970	1982	1994	2006	2018	2030
Boar	1911	1923	1935	1947	1959	1971	1983	1995	2007	2019	2031

## WASWAC

Chinese traditionally believe that years begin and end at Chinese New Year, rather than January 1. 2018 is a year of the Dog.

In China, traditions and celebrations vary greatly across the country. In the North, Chinese dumplings are the must-eat food on Chinese New Year's Eve, but south of the Yangtze River most people eat spring rolls or sticky rice cake.

Chinese New Year is a time for families to be together. Wherever they are, people are expected to be home to celebrate the festival with their families.

The New Year's Eve dinner is called 'reunion dinner', and is believed to be the most important meal of the year. Big families of several generations sit around round tables and enjoy the food and time together. Dishes with lucky meanings must be included in the dinner such as fish, dumplings, and spring rolls.

The main traditions include eating reunion dinner with family, giving red envelopes, firecrackers, new clothes, and decorations.

In many Chinese cities, from New Year's Day, traditional performances can be seen: dragon dances, lion dances, and imperial performances like an emperor's wedding. A great variety of traditional Chinese products are on offer, and strange Chinese snacks.

In the Gregorian calendar, the Chinese New Year falls on different dates each year, on a date between January 21 and February 21. The Chinese New Year in 2018 will be on February 16.

The secretariat of WASWAC wish all of our members a very happy and prosperous Chinese New Year!





### WASWAC World Conference IV will be held in 2019

Managing Soil and Water Resources for Climate-Smart Agriculture Toward Global Food and Livelihood Security

At New Delhi, India, November 5<sup>th</sup>-9<sup>th</sup>, 2019



The conference will focus on the protection and conservation of land and natural resources for sustainable use and development. The target groups include scientists, researchers and academicians with multidisciplinary expertise, outreach and extension professionals, engineers, land users including farmers, planners and policy makers, students, NGO's, and other stakeholders who are active or interested in the states of art and science of natural resources management. We feel proud in inviting your active participation and valued deliberations to make this international conference a successful event.

Welcome to be New Delhi to attend The WASWAC World Conference IV in November 2019



# The Second International Youth Forum on Soil and Water Conservation (2<sup>nd</sup> IYFSWC)

The Second International Youth Forum on Soil and Water Conservation (2<sup>nd</sup> IYFSWC) Moscow, Russia, 27-31, August, 2018









**Outstanding Youth Paper Award:** 

To encourage early-career scientists to contribute to soil and water conservation in the world, the WASWAC has launched the WASWAC Youth Outstanding Paper Award (DATUM) 2018. The application for the award is open from now.

#### Key dates of the Forum:

Registration opens - December 2017 Abstract submission deadline - 15 March 2018 Registration & fee payment deadline (early bird) - 01 May 2018 Notice of abstract acceptance - 15 April 2018 More details please go to the official website http://www.eng.geogr.msu.ru/IYFSWC or our association's website www.waswac.org



#### LUCAS: Land Use/Cover Area Frame Statistical Survey

Following a decision of the European Parliament, the European Statistical Office (EUROSTAT) in close cooperation with the Directorate General responsible for Agriculture and the technical support of the JRC, is organising regular, harmonised surveys across all Member States to gather information on land cover and land use. This survey is known as LUCAS (Land Use/Cover Area frame statistical Survey). The name reflects the methodology used to collect the information. Estimates of the area occupied by different land use or land cover types are computed on the basis of observations taken at more than 250,000 sample points throughout the EU rather than mapping the entire area under investigation. By repeating the survey every few years, changes to land use can be identified.

In 2009, the European Commission extended the periodic Land Use/Land Cover Area Frame Survey (LUCAS) to sample and analyse the main properties of topsoil in 23 Member States of the European Union (EU). This topsoil survey represents the first attempt to build a consistent spatial database of the soil cover across the EU based on standard sampling and analytical procedures, with the analysis of all soil samples being carried out in a single laboratory. Approximately 20,000 points were selected out of the main LUCAS grid for the collection of soil samples. A standardised sampling procedure was used to collect around 0.5 kg of topsoil (0-20 cm). The samples were dispatched to a central laboratory for physical and chemical analyses. Subsequently, Malta and Cyprus provided soil samples even though the main LUCAS survey was not carried out on their territories. Cyprus has adapted the sampling methodology of LUCAS-Topsoil for (the southern part of the island) while Malta adjusted its national sampling grid to correspond to the LUCAS standards. Bulgaria and Romania have been sampled in 2012. However, the analysis is ongoing and the results are not included in this data collection. The final database contains 19,967 geo-referenced samples distributed in 25 countries. The data are freely available and can be downloaded after prior registration from the Data section.

The report "LUCAS Topsoil Survey: methodology, data and results" provides a



detailed insight to the design and methodology of the data collection and laboratory analysis.



LUCAS Soil workflow from sampling to database generation

While the LUCAS approach is designed for monitoring land use/land cover change, potential bias in the sampling design may not necessarily capture all soil characteristics in a country. Finally, a customised application has been developed for web browsers that allow users to view and query the LUCAS dataset in a variety of ways.

#### **LUCAS 2015**

The LUCAS 2015 the LUCAS soil survey targeted physicochemical properties, including pH, organic carbon, nutrient concentrations and cation exchange capacity. Analyses of samples collected during 2015 are ongoing and data will be available at the middle of 2018. The latest LUCAS survey was undertaken in 2015 and covered the 28 EU Member States (MS). In 2015, sampling was expanded to cover locations at altitudes above 1000 m. Furthermore, the geographical extent was extended to Albania, Bosnia-Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Switzerland. Approximately 26 000 locations were selected.



Because of technical and environmental issues, however, samples were actually taken in about 22,000 locations (over 23 000 if we consider countries outside the EU). Electrical conductivity was added to the laboratory analysis.

#### LUCAS 2018

In 2018, the LUCAS Soil survey will include the additional analyses (components 2, 3 and 4) for the first time: a) Bulk density (i.e. weight of dry soil in a given soil volume). b) Soil biodiversity c) Visual assessment of soil erosion and d) Measurement of the thickness of the organic horizon in organic-rich soil.

**Soil biodiversity analysis:** The most extensive EU assessment of soil biodiversity, based on DNA metabarcoding will be included as part of the LUCAS Soil survey. For this, 1000 points were selected. Analysis will target the following attributes: Bacteria and Archaea (16S rDNA), Fungi (ITS), Eukaryotes (18S rDNA), Microfauna (nematodes), Mesofauna (arthropods), Macrofauna (earthworms), Metagenomics.

**Bulk density** will be measured at 9000 points. Points were selected from the total set based on the heterogeneity of soil texture and organic carbon content, land use and land cover, topography and soil type. A CLHS approach was used to select candidate points, as for the biodiversity. Bulk density data points coincided with soil biodiversity points to explore possible correlation between these properties.

**Visual assessment of erosion**. Surveyors will provide a qualitative assessment of soil erosion by indicating the type of erosion (i.e. sheet, rill, gully, mass movement, re-deposition and wind erosion), and the distance and direction from the LUCAS point, together with an estimate of the number of rills or gullies observed.

**Measurement of thickness of organic horizon in organic-rich soil**. The thickness of the organic horizon in effectively or potentially organic-rich soil will be measured at 1470 locations.

The LUCAS 2009 topsoil database is available for download since September 2013. This database has extensively used for modelling purposes and the development or validation of ten datasets in European scale.

Details here: https://esdac.jrc.ec.europa.eu/projects/lucas



### **New Publication**

# Training manual on application of remote sensing and geographic information systems for mapping and monitoring of glaciers



#### Part 1 – Glacier mapping using eCognition

This manual provides detailed information on a customized methodology for glacier mapping using a remote sensing based semi-automatic technique for quick delivery. Based on this methodology, studies on the status of the glaciers of the Hindu Kush Himalaya and decadal glacier change since the 1980s have been carried out in selected areas and basins. The data and results derived from this methodology have been published in several journals, book chapters, and reports. A summary of the results and publications is presented here, and in global level glacier mapping initiatives. Reviews of the methodologies adopted by global initiatives like World Glacier Monitoring Service (WGMS), Global Land Ice Measurement from Space (GLIMS), and GlobGlacier are also presented in this manual. The methodology can be applied with little knowledge of remote sensing and geographic information systems. This is true not only for glacier mapping, but also for mapping the earth's physical features.

The methodology relies on the "eCognition" software, and post processing database management is done in an ArcGIS environment. A short introductory tour of the software is included here to facilitate the beginner's understanding of image processing and data handling.

#### Part 2 Glacier Database Generation using ArcGIS

This manual provides an introduction to Geographic Information Systems (GIS) and ArcGIS software. The ArcGIS platform and tools are explained so that they can be used for



generating glacier database, analysis on glacier database and preparing glacier maps. The manual is divided into three parts – first part includes the introduction of GIS and descriptions of some of the fundamental terms used in GIS. The second part includes the hands-on exercise on ArcGIS to make you familiar on the software and the third part includes the detail exercise for generating different attribute of the glacier polygon with some analysis.

Details at:

https://icimod.us10.list-manage.com/track/click?u=3a534d9cefa275a13e577ad8f&id=ced86b298e&e=71cbdc5148 https://icimod.us10.list-manage.com/track/click?u=3a534d9cefa275a13e577ad8f&id=93c77c4258&e=71cbdc5148

#### Thin on the Ground: Soil Science in the Tropics



SOIL SCIENCE IN THE TROPICS SECOND EDITION

ANTHONY YOUNG

Paperback: 374 pages

Language: English

Publisher: Land Resources Books; 2 edition (11 Nov. 2017)

ISBN-10: 0995656606

ISBN-13: 978-0995656604

World population is increasing by some 80 million a year, largely in developing countries. Can the food requirements of this growing population be met? How can the limited

resources of available land be sustainably managed? Where are the worst areas of land degradation to be found? Why are soils a major element of the environment?

Thin on the Ground seeks to answer these questions by reviewing the successive stages of tropical soils research: soil survey, land evaluation, land use planning, and the evolution of earlier attempts the check soil erosion into the current approach of conservation agriculture. Priorities for today should be soil health monitoring, and linking modern methods of conservation with agricultural advisory services. The author's contention that population policy should be an integral part of agricultural development will not pass unchallenged. Includes 38 photographs, many of historical importance.

An authoritative and informative overview of soil survey activities in the developing world. WOSSAC: World Soil Survey Archive and Catalogue.

From reviews of the First Edition: "A well-documented, lively and informative description.....The author has a magnificent capacity to synthesize large amounts of information from different disciplines.....Gives a strong sense of excitement....A remarkable and valuable book for anyone concerned with third world development."

#### About the Author

Born London 1932. He won 1972 Cuthbert Peek Award, Royal Geographical Society, 1995 Leverhulme Emeritus Fellowship, 1995 Rockefeller Residency.

In a career of over 40 years, Professor Anthony Young has worked in all aspects of land resources development: survey, evaluation, conservation, planning and development. His career has been divided between university-based research and practical contributions to the development of land resources, through work with FAO, the World Bank, international research institutions and consultant companies. He was a founding staff member of the School of Environmental Sciences at the University of East Anglia, UK, and subsequently Principal Scientist at the World Agroforestry Centre (formerly ICRAF), Nairobi, where he established the potential of agroforestry for sustainable soil management. He has published 150 scientific papers and 18 books, and has received doctorates from the Universities of Sheffield and East Anglia.





Imola (Italy) 6-8 June 2018

#### Soil and Water Security challenges for the next 30 years!

Distinguished Colleagues and Dear Friends,

On behalf of the ESSC and the organizing committee, we are pleased to invite you to attend the next ESSC International conference on "Soil and water security: challenges for the next 30 years!" The conference will be hosted in Imola from 6 to 8 June 2018. The objective is to simulate reflections on the importance of environmental resources for humankind, paying special attention to the new challenges and opportunities concerning soil and water security and conservation for the next 30 years. The conference is open to soil scientists, educators and policy makers. It will consist of invited lectures, scientific sessions with oral and poster presentations, and will be subdivided into four main topics.

Further information on the conference (registration, logistics, accommodation), will be distributed soon.

We look forward to meeting you in Imola!

Carmelo Dazzi President of ESSC

*Livia Vittori Antisari President of the Organizing Committee* 

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#### **Global Symposium on Soil Pollution**

Soil pollution implies the presence of chemicals and materials in soil that have a significant adverse effect on any organisms or soil functions. Soil pollutants include inorganic and organic compounds, some organic wastes and the so-called "chemicals of emerging concern" in amendments added to soils.

Soil pollution has a direct impact on food security and there is a direct link between the quality and safety of the food we eat and the level of soil pollutants. Because some pollutants are taken up by plants through different pathways, they accumulate in the food chain, compromising the safety of the food consumed by both humans and animals. Additionally, soil pollution affects food availability by reducing crop yields due to toxic levels of pollutants that hamper crop growth and reduce soil biodiversity, thus increasing the problem of food security.

In addition, soil contamination may facilitate and accelerate other degradation processes. It leads to losses of biodiversity and, therefore, to the loss of soil carbon and to a lower aggregates stability, which increase soil erodibility and accelerates soil erosion. Soil pollution affects not only food production, but also the quality of groundwater and endangers the ecosystem services provided by the soil.

The Global Symposium on Soil Pollution, to be held from 2 to 4 May 2018 at FAO headquarters is the first step in implementing the Voluntary Guidelines for Sustainable Soil Management in terms of preventing and reducing harmful substances in soil as a way to



maintain healthy soils and food safety in accordance with the Sustainable Development Goals.

Specifically, the symposium outcomes should provide scientific evidence to support actions and decisions to prevent and reduce soil pollution for increased food security and nutrition, and ecosystem services, and promote the remediation of polluted sites.

The specific objectives of the symposium are to:

- Examine the current scientific and technical understanding of soil pollution and its effects on food production and safety;
- Critically reflect on the impact of land use decisions at the national level (e.g. related to mining, and intensive agriculture and livestock production) on soil pollution and eventually, air and water where polluted soil or its pollutants can be transported by erosion processes or water runoff;
- Identify limitations and prioritize key challenges related to restoring polluted sites;
- Review existing international policies, agreements and frameworks addressing sources of pollution to agricultural land in order to assess their effectiveness and propose ways to improve them; and
- Survey and review the use of soil thresholds for pollutants globally and explore additional research and policy needs

#### Co-organizers



Details at: http://www.fao.org/about/meetings/global-symposium-on-soil-pollution/en/





Please feel free to contact the secretariat anytime with your inquiries (beem2018@beem2018.org). We look forward to seeing you all in Gangwon Province, Korea!



### PRIMA Foundation announced the PRIMA Calls for proposals for 2018

The PRIMA Foundation announced the PRIMA Calls for proposals for 2018. PRIMA stands for The Partnership for Research and Innovation in the Mediterranean Area.

#### Section 1 Calls 2018

PRIMA-IS will launch calls for research and innovation proposals to mobilize the Euro-Mediterranean scientific communities, stakeholders and private entities and to support a wide range of research and innovation projects expected to produce a socio-economic impact in the near future.



Detailed supporting information about the challenge, scope and the expected impacts for each topic is provided in the guidelines for applicants available on the prima-med.org website. The guidelines also provide all the necessary information to apply to the call (eligibility and admissibility criteria, evaluation criteria, selection, granting process). PLEASE NOTE THAT EACH TOPIC HAS ITS OWN GUIDELINES FOR APPLICANTS (rules of participation and evaluation are different between RIA and IA and between section 1 and 2).

#### Evaluation, Selection and monitoring of proposal

Participants to these calls will have to submit a scientific proposal to the PRIMA-IS that will be evaluated in a peer review process according to the H2020 standards. The successful projects will be funded directly by the PRIMA-IS through the signature of a grant agreement between the selected consortia and the PRIMA-IS. The grant agreements will be based on the Horizon 2020 Model Grant Agreement. The evaluation and selection of proposals as well as the monitoring of the projects will be done according to H2020 rules.



PRIMA-IS will be responsible for the evaluation of proposals. Participation of private entities (in their diversity, e.g. including companies/enterprises, SMEs, start-ups, non-profit organisations, NGOs...) will be encouraged in the research consortia, jointly with public research organisations, universities and end-users. The eligibility check of proposals will be done by the PRIMA-IS in line with eligibility criteria set forth in the Decision (EU) 2017/1324 of the European Parliament and of the Council of 4 July 2017 (PRIMA Decision). Section 2 Call 2018

PRIMA Section 2 call will fund collaborative research projects that should have an impact and contribute to demand and policy driven research.

Section 2 will focus on a unique call for Research and innovation Action RIA, addressing the 9 topics reported below (according to national priorities) and the cross cutting issues among them. In fact, several topics are strongly interrelated (leading to several cross-cutting themes such as soil sustainability and food security and enabling technologies e.g digital revolution, highlighted in the PRIMA SRIA.



Topic 1

- **1.1** Water resource availability and quality within catchments and aquifers.
- 1.2 Sustainable, integrated water management.
- 1.3 Irrigation technologies and practice.



#### Topic 2

- 2.1 Adaptation of agriculture to climate change.
- 2.2 Preventing emergence of animal and plant pests and diseases.
- 2.3 Farming Systems able to create employment and territorial development.





- 3.1 Valorising food products from traditional Mediterranean diet.
- 3.2 Food safety and quality in local food chains
- 3.3 Health effectts of the dietary shifts and promotion of healthy and sustainable diets for the Med populations.



The projects could include the use of innovative technologies, such as smart digital technologies, space data and related data and technologies. When explicitly allowed by the national regulations of the funding bodies, innovation actions should involve the private sector in the project Consortium, and particularly relevant SMEs.

Detailed supporting information about the challenge, scope and the expected impacts for each topic is provided in the guidelines for applicants available on the prima-med.org website. The guidelines also provide all the necessary information to apply to the call (eligibility and admissibility criteria, evaluation criteria, selection, granting process). PLEASE NOTE THAT EACH TOPIC HAS ITS OWN GUIDELINES FOR APPLICANTS.

#### Evaluation, Selection and monitoring of proposal

Eligibility of proposals will be first checked by the PRIMA-IS having regard to the eligibility criteria for participation set forth in the PRIMA Decision.

PRIMA-IS will be responsible for the evaluation of proposals, which will be conducted with analogous rules of H2020 rules in a peer review process with a panel that will rank the proposals.

Beneficiaries will have to sign a grant agreement directly with their national funding bodies. Thus, a second eligibility check will be performed by the national funding bodies, aimed at the verification of eligibility for funding. In this context proposals that are considered eligible for participation by PRIMA-IS (at the consortium level) will enter into the evaluation process. However, in the event of a negative outcome of the verification of eligibility for funding of any participant in the applicant consortium by a PS, PRIMA-IS may require additional information from a consortium or the participant concerned, such as an attestation that the funds to cover their participation in the project will be available.

At the end of the evaluation a unique ranking list will be produced by the panel in order to guarantee that high quality projects will be funded. As some funding bodies allocated a budget to one or more specific topic, and in the event that one or more projects cannot be funded (in case that a funding body runs out of money), the projects following directly in the ranking may be selected.

Details at: <u>http://prima-med.org/calls-for-proposals/general-information/</u>



### Tyler Prize Honors Two Leaders in Marine and Climate Science



NASA's Moderate Resolution Imaging Spectroradiometer instrument snapped this image of a phytoplankton bloom off the coast of Iceland in 2010. Scientists didn't always think of organisms like these as being connected to a whole Earth system. Research conducted by the two Tyler Prize recipients focuses on Earth as an intricately connected network, rather than as separate, isolated realms. Credit: NASA Goddard Space Flight Center

The 2018 Tyler Prize—known as the "Nobel Prize for the environment"—has been awarded to Paul Falkowski of Rutgers University in New Brunswick, N.J., and James McCarthy of Harvard University in Cambridge, Mass. The prize recognizes them for pioneering research and leadership in scientific understanding of the oceans and climate change and for communicating the impacts of a warming world.

"Climate change poses a great challenge to global communities. We are recognizing these two great scientists for their enormous contributions to fighting climate change through increasing our scientific understanding of how Earth's climate works, as well as bringing



together that knowledge for the purpose of policy change," said Julia Marton-Lefèvre, chair of the Tyler Prize Committee.

Falkowski is a professor of geological and marine science. His influential research on the critical role of Earth's smallest organisms in its evolving climate helped bring together fields such as biophysics, evolutionary biology, marine ecology, and paleontology, among others. With this interdisciplinary work, Falkowski improved scientists' understanding of climate change by building a picture of Earth's changing climate across enormous timescales.

James McCarthy is a professor of biological oceanography and was the first editor of the American Geophysical Union's (AGU) journal Global Biogeochemical Cycles. His research on marine nutrient cycles added significantly to our understanding of human influence on Earth's climate. McCarthy engaged with the world's environmental research and policy leaders, developing the International Geosphere-Biosphere Programme in 1987 (the program ended in 2015). McCarthy was also a cochair of the Nobel Peace Prize–winning Intergovernmental Panel on Climate Change in 2001.

The Tyler Prize was established in 1973 by the late John and Alice Tyler and is one of the first international premier awards for environmental science, environmental health, and energy. Falkowski and McCarthy will receive Tyler Prize medallions and share the accompanying \$200,000 monetary award.



James McCarthy. Credit: Katie Voss



Dr. Paul Falkowski. Credit: Katie Voss

Wendel, J. (2018), Tyler Prize honors two leaders in marine and climate science, Eos, 99, <u>https://doi.org/10.1029/2018EO092509</u>.



#### WASWAC MEMBERSHIP APPLICATION/RENEWAL FORM (Issued 120501)

#### (For applicants from all countries)

Name: (Ms./Mrs./Mr./Prof./Dr.)	)		Gender: $\Box F \Box M$			
Institution:						
Postal address:						
State/Province:	Zip/Postal code:		Country:			
Phone:	Fax:					
Emails (Please give at least 2 addresses to ensure uninterrupted contact): (1)						
(2)	(3)					
My specialized field(s):						
Please sign me up for the WASWAC m	embership in category*: □1(	[IM)□2(L	M)□3(OM)□4(SM&GM)			
Membership for the year(s)	@US\$	=	US\$			
Donation for developing country	membership, etc.		US\$			
Donation to the Moldenhauer Fu	ınd		US\$			
		Total	US\$			

\*Membership categories & rates from July 18, 2005, amended March 3, 2007 and March 4, 2010.

**1.** IM (Individual membership): US\$20 for 5 years for developing countries (In China, members pay 130 yuan RMB); US\$40 for 5 years for developed countries and persons working in international organizations worldwide.

**2.** LM (Life membership): US\$80 for developing countries (In China, members pay 520 yuan RMB); US\$160 for developed countries and persons working in international organizations worldwide. Persons who have passed their 60<sup>th</sup> birthday pay only half of these LM rates.

**3.** OM (Organization membership): For universities, research and implemental institutions, government agencies, NGOs, societies, associations and international organizations, etc. Persons belonging to an Organization member will receive the same online products and services as the other two above categories: \$100/year for an organization with up to 150 persons; \$150/year for an organization with up to 300 persons: \$200/year for an organization with up to 500 persons; and \$10/year for an additional 100 persons or part thereof.

**4.** SM&GM (Student membership & Gift membership): US\$5/year worldwide, to be purchased to give to colleagues, friends, students, etc.

For sending money by foreign wires through a bank, please give the following information to your bank:

Name of Receiver (A/C Holder's Name): World Association of Soil and Water Conservation

**Bank Name and Address:** China Construction Bank, Shoutinanlu Branch, Beijing, China, No. 9 Shoutinanlu Street, Haidian District, Beijing, P R China

A/C NO.: 1100 1042 7000 5301 6996

**Message to write on the Bank Sheet:** WASWAC Membership due for Ms./Mrs./Mr./Prof./Dr. ....., Country ....... **NOTE: 1.** Do not deduct the bank fee from the amount of money to send. **2.** For sending money by wire/bank transfer or check please add US\$7 per transaction to compensate for the charge at the receiving bank in Beijing. This additional charge does not apply for **WESTERN UNION** or any payment of US\$50 or more.