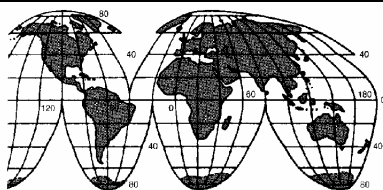


World Association of Soil & Water Conservation–WASWC



NEWSLETTER

Reporting global SWC news to you quarterly

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President: Martin Haigh, UK
Deputy President: Miodrag Zlatić, Serbia & Montenegro
Treasurer: John Lafien, USA
Executive Secretary: Jiao Juren, China
Immediate Past President: Samran Sombatpanit, Thailand

WASWC Secretariat:

ICRTS/DSWC, Ministry of Water Resources
Jia 1, Fuxinglu, Beijing 100038, China
Phone: +86-10-63204370, Fax: +86-10-63204359
wascw@icrts.org, Text website: www.swcc.cn/wascw/

Photo website:
<http://community.websites.com/user/wascw>

WASWC Japan:
<http://homepage3.nifty.com/erecon/WASWCtop.htm>

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Cooperating Institutions:

Asian Institute of Technology, Bangkok, Thailand
WOCAT/ NCCR NORTH-SOUTH/ SLM, Berne, Switzerland
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World Soil Information Centre (ISRIC), Wageningen, Neth.
Int'l Soil Conservation Org. (ISCO), Marrakech, Morocco
National School of Forest Engineers, Salé, Morocco
Soil Conservation Society of India, New Delhi, India
Faculty of Forestry, Univ. of Belgrade, Serbia & Montenegro
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Soil Conservation Service, Gunnarsholt, Hella, Iceland
Nat. Assoc. for Protection of Icelandic Environment, Iceland
Int'l Erosion Control Assoc., Steamboat Springs, CO, USA
Int'l Erosion Control Assoc., Picton, NSW, Australia
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PCARRD, Los Baños, Laguna, Philippines
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Conf. Asoc. Amer. Agric. Sustentable (CAAPAS), Argentina
EMBRAPA Solos (National Soils Center), Rio de Janeiro, Brazil
Instituto Agronomico do Campinas (IAC), SP, Brazil
Institute of Soil & Water Cons., Yangling, Shaanxi, China
Fujian Soil Conservation Office, Fuzhou, Fujian, China
Fujian SWC Association, Fuzhou, Fujian, China
Guangdong Huihua Env. S&T Co., Guangzhou, China
Andy Science & Technology Dev. Ltd., Zuhai, China
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Guangzhou Ecoen Env. Afforestation Co. Ltd. China

WASWC Vision: A world in which all soil and water resources are used in a productive, sustainable and ecologically sound manner.

WASWC Mission: To promote worldwide the application of wise soil and water management practices that will improve and safeguard the quality of land and water resources so that they continue to meet the needs of agriculture, society and nature.

Conserving soil and water worldwide – join WASWC

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The World Association of Soil and Water Conservation Newsletter is sent quarterly to WASWC members. The newsletter seeks to keep conservationists worldwide informed of new developments in the field of soil and water conservation and land management issues.

Message from Outgoing President

Samran Sombatpanit

Dear VPs, NRs, SR, Councillors, Past Presidents and all WASWC Members,

Year 2004 has been good and the WASWC has achieved a lot. You may see what we have accomplished in the Achievements Report of the Association News section. This will be used as a steppingstone for the new council – led by Prof. Martin Haigh of Oxford Brookes University, UK – to jump further to larger and firmer ground.

All these achievements have been made possible because of the cooperation and help received from members, especially our Vice Presidents, National Representatives, Special Representative, the strong support of the Council Members, and often from our Past Presidents. This reflects what we have intended for our organization to be: a member-for-member association.

Running the Association without sufficient funding (traditionally believed to be essential) is not an easy task. There were a number of ideas that were put into practice and enabled us to succeed in working through the year rather satisfactorily:

- There must be a sizable number of members from different countries, since they are both suppliers and beneficiaries of our products and services.
- In recruiting members we have to be patient and able to know what they want, what price they will be able to pay and then cater for them accordingly.
- Our officers have to be watchful for the opportunity to invite-cum-recruit people into our association. Without that, large countries may have only a handful of members while small countries - with good recruiting programs - may have several dozens, causing an unbalanced picture of representation.
- Products and services that we offer our members, as well as non-members, must be good, varied and useful.
- It is essential that, in general, the works generated by WASWC are done on a voluntary basis. The revenue we earn from membership fees is so small - just enough to pay miscellaneous expenses, including the use of internet. Accordingly, we have to limit our activities to those things that we have been doing but we must look forward to doing more.

I believe that if we follow these ideas and practices our association will grow and become more useful. However, introducing more innovative ideas to our association is imperative if we want to catch up with progress in other fields of life sciences. Changing the council every three years assures that we keep ourselves progressive and up to the minute as we are able to tap the ideas and strength of the new Councilors regularly.

Concerning the number of members, even now I cannot say exactly how many members we have because there are several membership categories and the number for each country changes all the time. However, the membership recruiting activity is catching up. When the tenure of this Council was about to end on December 31, 2004 we received several interesting news items.

A fortnight ago, Prof. Fernando García Préchac, NR of Uruguay, informed us that there are now 45 members who will start their membership in 2005 and that they all belong to a newly established Uruguayan Society of Soil Science. At the same time, news came from Indonesia that their frontline soil and water conservationists had agreed on cooperation between the Indonesian Society of Soil Conservation and WASWC and that an initial group of 40 members has signed up. An exciting message from Ghana informed me that our National Representative, Dr. Charles Quansah, has made an agreement with the Ghanaian Society of Soil Science to be the coordinating organization for a Decentralization Program with WASWC, with 72 of their members signing up in the first batch.

We already have Serbia & Montenegro with 60 members, Tanzania, with around 90 members, and Nigeria with 125, being second to the top in the world's list of members. The country that presently tops the list is the USA, with 150 members but this will drop, as many of them are not expected to continue.

It is interesting to note that the first six countries mentioned above, representing L. America, Asia, Africa and Europe, all have Decentralization Programs. With more and more people in more countries seeing our products and activities as useful there should be many more members joining. I would like to urge other WASWC representatives, both VPs and NRs, to develop Decentralization Programs in your country. In so doing, your country will obtain many benefits, both tangible and intangible.

Having finished the WASWC council term I feel I owe a lot to several people. When I agreed to do this job, I considered it as a duty and wanted to do the best I could. Now I am glad to have proved that this kind of charity-type work can be done also from a developing country. Among various essentials needed to undertake this kind of work, the 'will' comes first, followed by cooperation, publicity, financial inputs, etc. etc. Now I feel this three-year job has taught me a lot and, as I have just been told, "No one is too young to start learning and no one is too old to stop learning", I would like to thank the following persons for having enabled me and the other councilors, to bring WASWC up to this point:



I gratefully thank Mr. Sitalarp Vasuvat, formerly of Kasetsart University, Bangkok, who taught me my first course in soil and water conservation right after his return from the United States in 1962. His last post was the Director General of the Land Development Department of Thailand. He retired in 1993.

I graciously thank Prof. Roy Morgan of Silsoe College, Cranfield University, UK, who taught me during the Soil Conservation Short Course in 1986. Through this course I learned about the international movement in SWC and got to know many academics and professionals involved in it. Prof. Morgan was instrumental in organizing the 2nd ISCO Conference in 1980 at Silsoe; he earned international fame from his many research works before retiring in 2003.



I thank all my predecessors in the WASWC (Bill Moldenhauer, Rattan Lal, Hans Hurni and David Sanders) and all members of the last Council (Michael Zoebisch, Maurice Cook, Jiao Juren and David Sanders). As for the former, they had established a practical concept and a broad framework of how soil and water conservation should be handled so that people in every country could connect and learn from each other. The latter, on the other hand, have devoted their time and energy to working together, essentially through the 'rounds of discussion', when we would deliberate on how to improve the performance of our association and make our products and services useful and accessible to members in all corners of the globe. Believe it or not, the present Council held altogether 39 rounds of discussion in the period of 3 years. The outcome of these can be seen in the achievements report. Special thanks in this connection are for David Sanders, the Immediate Past President, who always gave good suggestions on how the association should run and how several matters should be dealt with. Though we sometimes did not agree on some points, the results have led to benefits for the members.

One person I have to mention with great gratitude is Bill Moldenhauer. As everyone knows, he was the one who established the WASWC in 1983, being its Founding President and then Executive Secretary for almost 20 years. During the last 21 months of our tenure, he volunteered to work as a Vice President (Assistant Treasurer) and helped collect the fees from members and disburse funds where needed. We all owe him a lot.

I owe very much to my colleagues and friends who have come to know each other during my work in several projects and in technical meetings during the last 20 years, and who have now taken up the posts of VPs, NRs, SR or just signed up as Individual members. 'Friendship' and 'kindness' have been transformed into 'activities' and 'usefulness' to society. Along with many WASWC members of all categories, their contribution - small or large - has started to make the dream of our originators a reality. With their continued support and involvement, the reality will be fully achieved and will last.

And last, I thank my wife Leticia for having 'released' me from our family and household duties for the entire period of 3 years, thus allowing me to spend long hours each day on WASWC matters.

During the last three months the old and the new councils have held a joint discussion in order to smoothly pass on administration matters for the next term. I am sure all, or almost all VPs, NRs and SR will like to stay on to serve WASWC further. You will be contacted by President Martin Haigh about this in due time. You are all encouraged to give him and his team your support for another milestone of success in WASWC.

As the outgoing President, I would like to extend my thanks and best wishes to all our VPs, NRs, SR, previous Council Members, Past Presidents and all WASWC Members, for success in their work and private lives. You have become a strong force to help push our association to proliferate and function according to its original mandate. I, as the Immediate Past President, will support the new Council as much as I can.

With warmest regards,
Samran Sombatpanit



*Members of the new WASWC Council for 2005-7
(From left: Martin Haigh, Miodrag Zlatić, John Laflen, Jiao Juren and Samran Sombatpanit)*

Important note from the Editors:

Since this newsletter was prepared for publication, our newly elected President, Martin Haigh, has informed the Council that he wishes to resign. In his message, Martin mentions his deteriorating health situation. In January he was placed under strict medical instructions and is currently off work. Among other things, he has been instructed to reduce his work load which, as he points out, "somewhat contradicts any hope of "stepping up" to "move WASWC forward". Martin's resignation will come into effect on 1 April. In line with the rules of our constitution, another election will not be needed and the Council will be responsible for finding a suitable candidate to co-opt in Martin's place.

We are sure that all members will join us in wishing Martin a quick and full recovery.

Message from the new President

Martin Haigh

Sustainability and WASWC: Getting Personal

The 'United Nations Decade of Education for Sustainable Development' commenced in January 2005. Education for Sustainable Development (ESD) is defined in many different ways but UNESCO, the UN's ESD lead agency, talks about "learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities" (UNESCO, 2003, p. 4).

Sustainable development means learning to live on the Earth as if the future matters. This means not reducing our habitat's capacity to sustain life. It means resolving to leave the land

The 3 presidents: Sanders, Sombatpanit & Haigh – K. Herweg



to future generations in a condition that is as good, and preferably better, than it was when received by our own.

These are simple ideas. It is deeply ingrained in us all that we want the best for our children. The problem is that our individual concerns are not reflected by the way our species acts as a whole (Bridges et al., 2001). The challenge of this UN's Decade is to prove that we can live non-destructively upon the Earth. As UN Secretary

General Kofi Annan points out: "Sustainable development will not happen of its own accord. We need a break with the harmful practices of the past ..." (Annan, 2001, p. 2).

Meanwhile, we are hampered by a culture, fostered through the media and by ourselves, which always finds 'someone else' to blame for the world's problems – the rich, the poor, big business, bad government, bad weather, bad luck ... the list is interminable. The truth, of course, is rather less palatable. Each of us contains the root cause of unsustainable development. Sustainability is affected by every thing we do and, in this sense, land degradation is caused by us all. We are, individually, responsible through each lifestyle and work decision we make. Equally, it is a personal duty to try and mitigate our impact.

Kofi Annan summarises: "Our biggest challenge in this new century is to take an idea that sounds abstract – sustainable development – and turn it into reality for all the world's people" (Annan, 2001, p. 2). This is a huge problem in education. However, one technique used to convey the message is 'ecological foot printing'. This technique calculates our share of the Earth's resources and how much more than that share we actually use (Chambers et al., 2001). The technique is extremely crude but it has one important virtue. It expresses the problem of sustainable development in personal terms. The message that it conveys is that 'what I do makes a difference'. Sustainable development is a personal matter and the challenge it poses to every one of us is "what can I do that may make a difference?"

As for the World Association of Soil and Water Conservation, we have a special challenge and responsibility. As professional Soil and Water Conservation (SWC) specialists, we have knowledge and skills that really can make a considerable difference. So, while the world worries far more about other matters, we know that land degradation ranks among the most serious threats to sustainability (and biodiversity) in the global environment. We know that land degradation reduces the productive capacity of existing land resources and that it encourages the inhabitants of affected areas to move on, perhaps to degrade more habitats elsewhere. We know that land degradation is commonly caused by the poor land husbandry that permits soil degradation and that exposes soils to erosion.

We also know that poor land husbandry is exacerbated by an array of factors that often begin with poverty, social exclusion and inequity, conflict, failing social infrastructures, adverse policy environments, globalisation of the economy and also physical factors such as poor organic matter management, poor water management, erratic climate, unfavourable land conditions etc. GLASOD, the Global Assessment of Soil Degradation, proved that these are huge problems affecting every region of our world (Bridges et al., 2001).

Rationally, these problems should be tackled by huge, well-funded, well-organised global organisations of land and soil husbandry professionals and field workers. In fact, the world has us. WASWC is the world's leading non-government organisation (NGO) of professionals devoted to promoting the wise use of soil and water resources and the reconstruction of lands that have become degraded by human action. However, we are only a few thousand, largely unfunded and scattered, soil and water conservation enthusiasts.

This situation is both a challenge and a huge responsibility to carry. Somehow, we need to make sure that soil and water issues receive the attention they merit in discussions of sustainable development at all levels. We understand that better land husbandry should become a deep concern for all of our communities. We know, also, that this means reaching beyond the people who are directly engaged with agriculture, forestry or water resource management and trying to influence those who elect governments and who make policies. Increasingly, these are people who work in offices and live in city streets far away from the lands whose production sustains them.

So, the UN's Decade presents WASWC with a real opportunity and a difficult obligation. It provides both a vehicle and a motivation to take our message out of our papers, laboratories and academies, beyond the bounds of the agricultural extension and development programs that many of us support, and influence people who are far removed from the land in both spirit and aspiration.

To achieve this, WASWC may need 'to sing some new tunes'. In the past, as above, the message of SWC has often been negative. Soil conservationists have often warned the world of the problems that will result because of soils eroded, waters wasted and polluted lands degraded and turned to waste. Our message has joined with those of many other environmentalists. Unfortunately, wider society has grown rather impatient, insensitive and fatalistic about the words of the whole array of doomsayers. It is no longer enough to report what is going wrong, much though there may be. It beholds upon us instead to relay a positive message, to emphasize solutions rather than problems and to stress actions that are within the grasp of every individual. As with all the messages of sustainable development, the message we send about soil and water management must be that there are better ways of working and that each individual has the capacity to make a difference either in person or through the market. As a resolution for this New Year of 2005, we could focus on soil growth instead of soil loss, soil quality enhancement instead of soil degradation, the enhancement of water quality and effectiveness and, not least, the sustainable economic benefit to be had from rehabilitated lands and how better land husbandry may enhance the welfare of the land user (cf. Shaxson, 1999).

Equally, in the past, SWC has emphasized the role of the governmental and intergovernmental organizations that are the main employers of SWC practitioners. Unfortunately, the echo from our education systems has been that SWC is something best left to the prescriptions of the trained government specialist. Yet, as Francis Shaxson has off pointed out, the person who is central to the sustainable and beneficial management of the land is neither the Government nor the SWC Professional, it is the landuser (Shaxson et al., 1997). It is time, not merely to listen to the landuser, but to focus (even more strongly) on empowering local communities to enhance their own land management practices. As the medical profession has found, encouraging a healthy lifestyle in the community is a better investment than merely working to correct the problems that are caused by 'unhealthy living'.

Of course, for many, the word education brings back bad memories of listening to the recitations of teachers, of rote learning, of copying down and memorization. However, education is changing and, like SWC as it matures, its emphasis is shifting. In this case, from the 'ego of the teacher' to 'the needs of the learner'. Its aim is less to impart a body of information but to empower the learner to go out and acquire knowledge for themselves. The task of education has become to instill into learners both the wish and the confidence to learn (cf. Bhavé, 1986, p. 15). Education, from its Latin roots, the word *educō*, means to lead forth. Today's good educator is one who enables learners to take what they need for their life. As SWC professionals, our role could be that of 'good educators'. As Roland Bunch (1982) and others have demonstrated, this is often less a problem of technical soil conservation than of dealing with the socioeconomic and cultural contexts of the land-using

community. Still, we could aim to help landusers take what they need to enhance the quality and productivity of the lands that they use. We could help the balance of society appreciate more the work done by the good landuser.

WASWC was created in an attempt to conserve the fruitful links created amongst soil conservationists from different nations during the biennial conferences of ISCO (International Soil Conservation Organization). This function has persisted as WASWC has developed over the years. It was manifested in our recent search for a slogan, where many options talked about bringing soil conservationists together. In truth, this is a worthy and important task. There is much that we can learn from each other and more that we can do together than we may accomplish separately. This has been demonstrated by the impressive progress made by WOCAT – the World Overview of Conservation Approaches and Technologies – and the WOCATeers (professionals working in the WOCAT Program). However, today, our greater challenge may be to look outside and ask what can be done to awaken others to the needs of the soil and its waters, the need for better land management? WASWC may be able to achieve more but how can this be accomplished? The question is one that I leave for you to reflect upon. It would be good to have your ideas discussed and aired in future issues of this Newsletter.

Thanks go to the outgoing Council for an excellent and successful tour of service. The hard work and dedication of the team led by Samran Sombatpanit (President), Michael Zuebisch (Deputy President), David Sanders (Past President), Maurice Cook (Treasurer), and our Founding President Bill Moldenhauer have transformed the Association. WASWC is a much larger and more vital organization as a result of their activities. Through their efforts, the Newsletter has blossomed, online, into the substantial and useful resource that was the dream at the time of WASWC's foundation and, after 20 years of aspiration, it is at last appearing in more languages than English. Thanks go to the whole team for their hard work and energy and thanks go also to all of those who have assisted them to achieve these developments. Let us hope that the new team will manage to carry forward the torch that has been lighted.

WASWC also looks forward to a new and brighter future as its Secretariat settles in to its home in Beijing, P.R. China. Especial thanks go to (Executive Secretary) Prof Jiao Juren, (Secretary General) Henry Lu Shunguang, (Deputy Secretary General) Zhong Yong and colleagues at the Ministry of Water Resources' International Center for Research and Training for Seabuckthorn. In addition, I send my thanks and best wishes to colleagues Professor Lui Zhen (Director General of Soil and Water Conservation Dept.), Engineer Michael X.J. Shen (Deputy Director), Professor Guo Suo Yan, (Director of the SWC Monitoring Center, Professor Tai Yuanlin (Director of National Administration for Seabuckthorn Development), and Professor Wang Wenshan (Director of Ecosystem Conservation, Yellow River Conservancy Commission), who so kindly came all the way to Wales to discuss the WASWC matters and to plant a tree for its future.

However, the future of WASWC belongs to its supporters. For many years, I served WASWC as Vice President, often working alone and in isolation of the main Association but aware of the major collective role played by the 18 Vice Presidents. I thank all our Vice Presidents for the work you have done for the Association. I dedicate my Presidency to an attempt to help you perform your duties and services for WASWC more effectively and to ensuring that your works do not go unsung or unrecognised. In my view, the Vice Presidents rank as one of our great resources and hopes for the future. In the next few weeks, I will be writing to each of you individually, both to thank you personally for everything you have done and to ask you what more can be done in the future and how WASWC may help.

WASWC's Vice Presidents have been ploughing their various furrows since the earliest days of WASWC. However, one of the most exciting innovations of Samran Sombatpanit's Presidency has been the creation of our network of 73 National and Regional Representatives and of our system of delegated national societies within the WASWC Decentralisation Program. Our Deputy President, Miodrag Zlatic, has organised some of the most successful of these delegacies, not least the one in the Republic of Serbia and Montenegro. Hopefully, under his leadership, the network and number of delegacies will expand and become still more active. Our challenge will be to help these national leaders and groups function more effectively and help them build new and deeper roots for WASWC in their respective regions. The question persists – how may this be accomplished? It is hoped that we can explore this issue, collectively, later in the year.

Of course, there are several problems to overcome. These include WASWC's traditional lack of a secure financial base and the increased volume of work that has come with WASWC's new success. Not least among the hurdles is the problem of how to keep up the standard of the Newsletter? Any views you have on how these problems may be solved and

any volunteers who might help effect the solution would be most welcome.

WASWC owes many debts of gratitude to its officers but the Association belongs to you, its members. Your energy and your personal involvement are the only things that can guarantee WASWC's success. So please do consider this Association to be your own and consider its members your colleagues. Please think of this Newsletter as your personal avenue of communication with the world of SWC. Please share your thoughts, plans, opinions, observations and ideas. Please use WASWC to recruit partners for your projects, delegates for your workshops, and sponsors for your plans.

WASWC dreams of 'a world in which all soil and water resources are used in a productive, sustainable and ecologically sound manner'. WASWC's mission is to promote worldwide the application of wise soil and water management practices that will improve and safeguard the quality of land and water resources so that they will meet the needs of agriculture, society and nature in the future. With your help some of this may be achieved.

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ASSOCIATION NEWS

Report of Achievements of WASWC for the Period 2002-2004

ADMINISTRATION

- Agreement was reached to end the administrative services provided by the Soil and Water Conservation Society (SWCS) after March 31, 2003.
- Agreement was reached with the Chinese Government to host the WASWC Secretariat from April 1, 2003; the Chinese Government agreed to provide financial support for the first three years of the agreement.
- As a result of the above agreement, the WASWC Secretariat was established in Beijing, and has been operating there since April 1, 2003. The Secretariat will keep records of membership and payment of membership fees, undertake general administrative activities and organize international meetings inside and outside China.

MANAGEMENT OF FUNDS

WASWC has established a number of funds as follows:

- MOLDENHAUER FUND – to handle money received from donations specifically for this fund, which will be used to promote soil and water conservation internationally.
- DEVELOPING COUNTRY MEMBERSHIP FUND – to handle money received from donations to help members from developing countries that are not able to pay for themselves.
- INHERITANCE FUND – to handle money donated from bequests or from organizations that are closing.
- LIFE MEMBERSHIP FUND – to handle money received from the fees of Life Members.

All the funds are controlled by the Treasurer and the Committee of Finance and the WASWC

Council decides where these funds will be spent. On the other hand, the proceeds received from the Individual and Organization members are spent on the day to day running of WASWC.

MEMBERSHIP

- Changes were made in the way membership fees are charged to give more flexibility in the way members from developing and developed countries are charged. New charges were introduced for Life Membership and Organization Membership.
- A rule was established for members who are late in paying their membership fees. They will continue to receive all benefits for the year that they have not paid but their names will be removed from the membership list after that.
- A new rule was introduced from 2003 onwards for libraries. They may subscribe to WASWC for free but they will be invited to make donations if they are able to do so.
- With a continued membership drive through the appointment of new VPs and NRs and the use of the Decentralization Program, the number of paying members has climbed steadily, while the offer of complimentary membership for a limited period has broadened the scope of newsletter readership to several thousands in approximately 120 countries.
- A new program has been started under which participants at some meetings related to SWC will become members of WASWC through bulk membership sale agreements with the organizers or as complimentary members in certain cases.
- WASWC has established Group Membership to facilitate the recruiting of members in some areas. Conditions and rates are to be established by the local coordinator as appropriate, in consultation with the Council.
- WASWC has set up a membership strategy to encourage people to buy Individual Membership, as Gift Membership, to give to their friends/ colleagues/ students/ teachers/ relatives during festive seasons like Christmas, New Year, etc.

NETWORKING

- The number of regional Vice Presidents (VP) was increased and the position of National Representative (NR) was established to represent individual countries. By December 2004, 19 VPs and 73 NRs have been appointed.
- WASWC established the post of Special Representative (SR) to appoint certain people to help the WASWC with specific tasks, who are not area-restricted like other VPs. There will only be a limited number of SRs.
- The Council established a Decentralization Program (DP) in January 2003 to distribute duties between Vice Presidents, National Representatives and the Secretariat. By December 2004, 24 countries had joined this program, i.e. Albania, Argentina, Bangladesh, Botswana, Bulgaria, Chile, China, Ethiopia, Ghana, India, Indonesia, Iran, Japan, Kenya, Lithuania, Nepal, Nigeria, Philippines, Romania, Russia, Serbia & Montenegro, Tanzania, Thailand and Uruguay. Under the DP, part of the membership fees in every category (Individual members, 60%; Life and Organization members, 50%) will remain in the country to enable the coordinating organization to perform some useful activities locally.
- WASWC joined the Ecoagriculture Partners (a partnership in WSSD – World Summit for Sustainable Development) as an Institution member.
- WASWC has agreed to be a partner of the International Erosion Control Association (IECA) in USA.
- WASWC has been cooperating closely with ISCO, ESSC, IAHC, IUCN and The Vetiver Network among others.

IDENTITY BUILDING

- The WASWC Constitution, written in 1998, was amended in April 2003. This became necessary because of the move of the Secretariat from USA to China.
- A Vision and Mission (V&M) statement for the WASWC has been developed. The process included a series of discussions at various venues, including Beijing, Belgrade and Sofia. This has resulted in a well-defined vision and mission for WASWC, as can be seen on the newsletter's front page.
- Our abbreviated title was debated to find out what our members would best like to call our organization: WASWC, WASWAC, or WASAWAC? Worldwide discussion has led to an agreement that:
 - For writing, WASWC will remain unchanged.
 - For speech, people may call our Association WAS-WAC if they find this convenient but they are not limited to this usage only. Any pronunciation can be used depending on individual preference.
- Through a worldwide discussion, WASWC members have agreed on the slogan-cum-recruiting

wording for WASWC to be “Conserving soil and water worldwide – join WASWC”.

- An award has been established for distinguished soil and water conservationists. This will be presented to one person each year at the ISCO Conference and other meetings as appropriate. The award bears the name of Dr. Norman Hudson, a well-known British soil and water conservationist. An Award Committee has been appointed to handle the task of selecting a suitable person to receive the Award each year.
- WASWC has been able to issue certificates for all categories of membership: Individual, Life and Organization members.

MEDIA

- WASWC started digital production of the newsletter with help from the facilities and personnel of the Asian Institute of Technology (AIT) in Bangkok. This is sent out by e-mail, with a paper version available until the end of this term, specifically to those without internet access.
- The newsletter was expanded 3-4-fold; sections have been rearranged in order to cater for the needs of members from various countries and to make it more attractive.
- The newsletter has been translated into Spanish, French, Chinese and Portuguese and is available to members in various geographical and linguistic regions.
- WASWC opened its own website (<http://www.swcc.cn/waswc>) based at the WASWC Secretariat in Beijing, China. Another member country that operates a website is Japan, i.e. <http://homepage3.nifty.com/erecon/WASWCtop.htm>. From June 2004 onwards, another website dedicated especially to photographs related to various aspects of soil and water conservation has been operated from Bangkok, i.e. <http://community.webshots.com/user/waswc>.
- WASWC started a quarterly photo competition program in the 3rd quarter of 2004 with three books from Science Publishers each time as prizes. A committee has been appointed to organize this activity.
- The Council has agreed to adopt the conclusions and recommendations of the Sofia Conference, especially those concerning the activities of the WASWC in the future, including publishing media in digital format and to operate the website efficiently.

PUBLICATIONS IN WHICH WASWC HAS BEEN INVOLVED

- The IUCN Environment Law Centre (ELC) in Bonn, Germany published in 2002 the book “Legal and Institutional Frameworks for Sustainable Soils” by Ian Hannam with Ben Boer, as an IUCN Environment Policy and Law Paper No. 45. Also, ELC in 2004 published the book “Drafting Legislation for Sustainable Soils: A Guide” by Ian Hannam and Ben Boer, as an IUCN Environment Policy and Law Paper No. 52 – this time in collaboration with the International Water Management Institute (IWMI).
- Special Publication (SP) has been produced every year to provide to members without cost. The first, “Pioneering Soil Erosion Prediction: The USLE Story,” written by John M. Lafen and William C. Moldenhauer was published and distributed in 2003 as SP I, while the SP II on “Carbon Trading, Poverty and Agriculture” has been published and distributed in 2004.
- A proceedings from the conference “Politics and Future Perspectives for Solving Ecological Problems of SWC in the Balkan Region” held in Sofia, Bulgaria in July 2003 was edited and posted on the website at www.swcc.cn/waswc/.
- From WASWC Europe (Martin Haigh): Spellerberg, I.F. 2002. Ecological Effects of Roads. Land Reconstruction and Management Series 2, [ISBN 1-57808-198-X]. Science Publishers: Enfield, NH. 251 pp.
- From WASWC Europe (Martin Haigh): Mitchell, D.J. and Searle, D.E. (eds). 2004. Stone Deterioration in Polluted Urban Environments: Land Reconstruction and Management Series 3, ISBN 1-57808-295-1, Science Publishers, Enfield, NH. 267 pp.
- WASWC published a 47-pp booklet in 2004 on “Land Cover and Land Use in Syria” in collaboration with AIT and ICARDA, written by Eddy De Pauw, Annette Oberle and Michael Zoebisch.
- The book “Ground and Water Bioengineering for Erosion Control and Slope Stabilization,” resulted from the first Asia-Pacific conference of the same title in Manila, Philippines, in 1999, and was published in 2004.
- Work proceeded on a book, “Monitoring and Evaluation of Soil Conservation and Watershed Development Projects” to be published in 2005.
- WASWC signed a Memorandum of Understanding with the Science Publishers Inc. USA to be our publishing partner. Through this agreement WASWC members will receive several privileges.
- A Publications Committee has been appointed to handle the work on publications

TECHNICAL MEETINGS

- It was agreed that WASWC will organize an international meeting once every two years, during the year that there is no ISCO conference. In the first year WASWC will support the Indian Chapter,

under the directorship of VP D.C. Das, to be organized in December 2005.

- WASWC organized, co-organized, co-sponsored, or cooperated in relevant technical meetings as follows:

- The 12th ISCO Conference in Beijing, China from May 25-31, 2002
- The 17th World Congress of Soil Science of the IUSS in Bangkok, Thailand from August 14-21, 2002
- The V International Conference on Sustainable Management of Headwater Resources in Nairobi, Kenya from September 5-8, 2002
- The International Colloquium – Landuse, Management, Erosion and Carbon Sequestration, in Montpellier, France from September 24-28, 2002
- The International Conference on Preventing and Fighting Hydrological Disasters, in Timișoara, Romania from November 21-22, 2002
- The International Conference on Natural and Socio-economic Effects of Erosion Control in Mountainous Regions, in Belgrade, Yugoslavia from December 11-13, 2002
- The Regional Conference on Politics and Future Perspectives for Solving Ecological Problems of SWC in the Balkan Region, Sofia, Bulgaria from July 1-2, 2003
- The International Symposium on 25 Years of Assessment of Soil Erosion, Gent, Belgium from September 22-26, 2003
- The Second International Conference on Soil Quality Evolution Mechanism and Sustainable Use of Soil Resources, Yingtan, China from September 23-27, 2003
- The III International Conference on Vetiver (ICV-3), in Guangzhou, China from October 6-9, 2003
- The 13th ISCO Conference, in Brisbane, Australia from July 4-9, 2004
- The Conference on Integrated Agricultural Research for Development – Achievements, Lessons Learnt and Best Practice, in Kampala, Uganda from September 1-4, 2004
- The International Symposium on Earth System (ISES 2004), in Istanbul, Turkey from September 8-10, 2004
- The International Conference on Eco-engineering: The Use of Vegetation to Improve Slope Stability, Thessaloniki, Greece from September 13-17, 2004
- The International Conference on Land Resource Management and Ecological Restoration in the Loess Plateau: Rural Development Strategy in China, in Yangling, China from September 20-22, 2004
- The International Conference on Ecoagriculture, in Nairobi, Kenya from September 27-October 1, 2004
- The International Conference “Olympics in Agricultural Engineering”, in Beijing, China from October 11-14, 2004
- The High-Level Roundtable Discussion on Sustainable Development of Soil and Water Conservation, in Nanchang, China, from November 5-7, 2004
- The International Symposium on Participatory Strategy of Soil and Water Conservation, in Tokyo, Japan from November 27-28, 2004

Winners of the 1st photo competition

The winners of the 1st competition were, alphabetically, Tom Goddard (Canada), John Laflen (USA) and Machito Mihara (Japan). Their photos can be seen in the album Waswc9m at <http://community.webshots.com/album/199487009kjbZxj>.

Following are their descriptions of how the photos were taken:

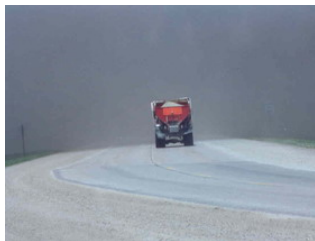
Tom Goddard:



Almost 2 years ago we were designing a bookmark to promote soil quality and needed some photos of children interacting with soil. We didn't have any so I recruited my own children. I took them out to the University of Alberta research farm where there are a few soil pits. At first the children were reluctant ("I want to stay home"; "Soils are boring..."). However I persisted, giving them some hand tools and introduced them to the soil profile. They quickly became engaged and started exploring and comparing their findings. I took my pictures with them hardly noticing. Then it was my turn to say, "I want to go home...!" The soil pit was excavated initially in 1978 for the International Soil Science Society meetings held in Edmonton, Canada. The soil is a Luvic Chernozem. The resulting bookmark can be viewed at <http://community.webshots.com/photo/151775898/236140160JsOoRD>.

John Laflen:

We live in an area that seldom has wind erosion because of the soil qualities, climate, and crops. On this day, I noticed some dust occurring near our home and heard of it in a nearby town. I got my camera and went out for pictures. I stopped at several places to take pictures. This is how the photo was taken: around the small town of Thompson, there were some fields where it was obvious that wind erosion was taking place. I went there to take some pictures, and as I came out, I saw it was blowing across Highway 9. I stopped facing north, and took the picture as the road curved north out of Thompson, as a truck entered this big cloud of dust. I have a number of other pictures taken that day, but none was as good as this one.



Machito Mihara



The Institute of Environment Rehabilitation and Conservation, called ERECON, is a non-profit organization for research and extension in the field of agro-environment. Since it started in 2000, more than 10 development programs have been conducted every year in Mekong River watersheds. The photo was taken during ERECON activities for managing buffer strips between bench terraces at Doi Tung Royal Project, Chiang Rai Province, Thailand. WASWC's Japan secretariat is in the ERECON office. Both operate the following common website: <http://homepage3.nifty.com/erecon/WASWCtop.htm>.

Progress of our photo website <http://community.webshots.com/user/waswc>

There are now almost 3,000 photos posted in around 80 albums on our website, separated into 9 categories, and detailed as a-z. The five most popular albums that people like to view are (with the number of hits up to March 5, 2005):

- Waswc5b_Members (Officers) (1,544)
- Waswc7b_Australia_Brisbane-Toowoomba-Gold Coast (1,101)
- Waswc9a_PHOTOS for CONTEST 2 (992)
- Waswc1a_Soil_Erosion_by_Water (829)
- Waswc2a_Conservation_of_Soil (537)

Surprisingly, the most-hit page was non-conservation-related, it was Waswc8b-1_Miscellaneous: Tropical flowers, with 11,780 hits. You are welcome to browse through these albums.

Members are invited to send in your digital photos concerning any aspect of resources conservation. You may win a prize in the competition, or at least you will have made a good contribution to the archive of photographs for use by members and non-members from all over the world.

Special Publication III on No-Till Agriculture

No-tillage agriculture is proving very popular in South America and many other countries. It is also proving to be a highly effective soil and water conservation measure. We have therefore decided to publish our Special Publication III for 2005 on No-Till Agriculture. This will be provided free to our members. The authors of this publication will be well known WASWC members Rolf Derpsch, Don Reicosky and John Landers. This publication will be A5 size and around 80-100 pages. It will describe the technical background of this practice, geographical distribution and, in a somewhat descriptive narrative, how this practice can be applied on farms of various sizes in different economic conditions and in different parts of the world. We expect that this publication will be of particular practical value to many of our members and will help to spread the no-till agriculture to new parts of the world.

In order to make the publishing and distribution of this SP III possible, we need to raise some funds through advertising in the pages of this very publication as well as in the WASWC Newsletter. The print run will be up to 4,000 copies and will be distributed in over 120 countries. Colleagues and friends may contact the publication's editor at sombatpanit@yahoo.com for the rates and conditions. Any amount of cash contribution towards this project is very welcome. It is encouraging that we have already received a couple of pledges to support this endeavor.

A Number of WASWC Funds have been revived/ established

The last council has both revived and established a number of Funds as follows:

- MOLDENHAUER FUND – to handle money received from donations specifically for this fund, which

will be used to promote soil and water conservation internationally. Presently there are approx. US\$1,350 in this fund.

- DEVELOPING COUNTRY MEMBERSHIP FUND – to handle money received from donations to help members from developing countries who are not able to pay for themselves. Presently there are approx. US\$400 in this fund.
- INHERITANCE FUND – to handle money donated from bequests or from organizations that are closing. The first amount that came in (US\$10,339.02) was the one given by the Australian Association of Natural Resource Management when they closed down at the end of last year.
- LIFE MEMBERSHIP FUND – to handle money received from the fees of Life Members. The amount will be shown later when the account for 2004 is done.

All these funds are handled by the Treasurer and the Committee of Finance while the WASWC Council decides where and when these funds will be spent. On the other hand, the membership fees paid by the Individual and Organization members are spent on the day-to-day running of WASWC.

MEMBERS' FORUM

WASWC Slogan agreed

During the latter half of 2004 we had a wide ranging debate on what the WASWC slogan should be.

We wanted a slogan that will help to recruit members and at the same time to concisely indicate our aim. We received more than 60 contributions altogether and the numbers in favor of the short list of four entries were as follows:

1. "Conserving soil and water together – join WASWC" (7)
2. "Conserving soil and water worldwide – join WASWC" (24)
3. "Help conserve soil and water resources – join WASWC" (4)
4. "The WASWC – bringing soil and water conservationists together – join now!" (9)

A simple analysis shows that, "**Conserving soil and water worldwide - join WASWC**" won by a big majority. This will now be used, although it was agreed that it could be changed later if new circumstances warrant it.

Obituary

Catherine (Kay) Moldenhauer, wife of Bill Moldenhauer, the first president of WASWC, passed away on November 29, 2004, only a few days after their 57th wedding anniversary.

Kay was born on March 29, 1923 in Brookings County, SD and passed away while living in Brookings County. Kay was educated as a schoolteacher, teaching in South Dakota and Wisconsin. During Bill's career with the USDA-Agricultural Research Service, they lived in Big Springs TX, Ft. Collins CO, Ames IA, Morris MN and West Lafayette IN. While in West Lafayette, Kay worked as a secretary at Purdue University. Bill and Kay retired in 1986, returning to Brookings County in South Dakota.

Kay actively supported the work and interests of soil and water conservation. She was a life member of WASWC, a member of the Soil and Water Conservation Society, and had traveled with Bill to over a dozen countries for various meetings related to soil and water conservation.

Kay is survived by Bill, five children, seven grandchildren and three great grandchildren. Funeral services were held at the St. Thomas More Catholic Parish Church, the Parish she attended as a child, and where she was married to Bill in 1947.

REGIONAL NEWS

At Least 14 Killed as Kenyan Tribes Clash over Scarce Water Supplies

NAIROBI, Kenya — Kikuyu and Maasai tribal fighters armed with machetes and spears clashed over scarce water supplies in central Kenya, killing at least 14 people in two days of fighting, police said Monday. Thousands of people fled the fighting that broke out Saturday in Mai Mahiu, about 60 km NW of Nairobi, said police spokesman Jasper Ombati. Scores were injured in the clashes and dozens of houses were burned, he said. An Associated Press reporter saw fighters from both sides walking around Mai Mahiu with machetes, spears, bows and arrows.

At least 14 people were killed in the fighting before reinforcements arrived and restored order Monday, Ombati said, adding that tensions remained high. The fighting started Saturday when Maasai herders destroyed pipes used to pump water from a river into farms belonging to Kikuyu. The Maasai said the irrigation scheme denied them water for their livestock, Ombati said.

In retaliation, Kikuyu farmers attacked the Maasai, sparking the clashes. A drought last year in Kenya dried up seasonal rivers important to cattle, goat and sheep-herders, such as the Maasai. The drought also led to food shortages in parts of the country.

Source: Associated Press and reported in ENN Newsletter January 26, 2005

Disappearing Wetlands: Case of Kabar Tal in Bihar, India, Ashok Ghosh, Rajiv K Sinha, Nupur Bose, Dept. of Environment & Water Management, A.N. College, Patna, Bihar, India. Ghosh51@rediffmail.com

Introduction: Wetlands can be defined as water bodies on the terrain, that sustain long enough to develop specialized biota that is tolerant of the waterlogged conditions. Wetlands are dynamic in nature, waxing and waning with the change of seasons. They play a unique role, not only in the evolution of micro-ecosystems, but as determinants of the economic activities of the local populations in developing communities. Their existence and survival are therefore of prime concern in the field of Environmental Conservation.

Kabar Tal [Tal = colloquial form of lake] is located near the eastern fringe of the North Indian Wetlands, and is sustained by the Ganga drainage system. This wetland is undergoing rapid change through the neotectonic activity of the Mid-Ganga Plains and the activities of the rural population.

Importance of Kabar Tal: Kabar Tal is one of the largest freshwater wetland ecosystems of the Gangetic Plains. It covers an average area of 6,737 ha, its spread changing from 9053 ha in the monsoons to 2031 ha in the dry season. A southern 15 km long irrigation channel, constructed in 1951 to drain the excess water for agricultural purposes, connects the lake to the river Burhi Gandak. But it is not working well as the level of Kabar Lake is about 8 feet higher than the level of the Burhi Gandak so that little water enters the lake from the river except when there are high floods.

Kabar Tal is of great socioeconomic importance in terms of fish, fodder, fuel and water supply and the large local population depends on it for sustenance. The transitional nature of Kabar Tal in terms of overall depth and water quality has favored the evolution of a wide diversity of flora and fauna. Its enormous size and rich biodiversity have resulted in it being one of the 21 wetlands selected for conservation by the National Wetland Committee as a Wetland of National Importance.

Problem: This wetland is highly productive and provides economic support to the local people, especially the Sahnis [landless fishermen], but the lake is changing. The outlet canal has stopped functioning and the water level in the lake is increasing. Extensive deforestation, overgrazing, unsustainable agricultural practices and over exploitation of biomass for fuel, fodder and timber have, over the years, stripped the land of its natural vegetation and resulted in erosion. This, in combination with the sediment load of the Burhi Gandak, is adding silt to the lake.

The lakebed is being encroached on by the rich farmers. There is no boundary demarcating the Bird Sanctuary and Lake Area and this is encouraging illegal poaching. The rich farmers deliberately widened the outlet canal so that water could not stay for long periods and they could practice agriculture. This resulted in social conflict between the Sahnis and the rich farmers. Further, it has been declared as a Bird Sanctuary, "a protected area". Hence, the conflict faced by the Kabar Lake wetlands at two levels:

- Conflict between the primary stakeholders: the fishing rights of Sahnis and the agricultural practices by the rich farmers, and
- Conflict between the people and the Government, regarding ownership and the rights.

In the midst of these, lies the basic truth that Kabar Tal has been shrinking at an abnormally high rate in the dry period, as shown by remote sensing pictures taken in 1984 and in 2002 in the month of March. The lake covered 6,786 ha in 1984, but in 2002 had shrunk to 6,044 ha.

FEATURES

Kyoto Protocol Enters Into Force - February 16, 2005

The Kyoto Protocol, an international climate change agreement, enters into force on February 16th, 2005. The Protocol sets binding targets for developed countries to reduce greenhouse gas emissions an average 5.2 percent below 1990 levels.

With entry into force, Kyoto's emission targets become binding legal commitments for those industrialized countries that have ratified it. The Kyoto Protocol was designed as a first step. The challenge now is forging an international framework that engages all major emitting countries in an effective long-term effort.

The Pew Center on Global Climate Change has created a special section looking at the implications of Kyoto's entry into force, including history, related issues and reports and analyses. The section devotes significant space to the question: What happens next?

To learn more, please visit: <http://ealert.pewclimate.org/ctt.asp?u=439087&l=78466>

- Don Reicosky, Agricultural Research Service, Morris, Mississippi, USA

Agroforestry Highlights

Soil Conservation Strategies That Involve Agroforestry

A risk of accelerated erosion exists on cultivated land from the moment trees, bushes, grass and surface litter are removed. Erosion is exacerbated by attempting to farm slopes that are too steep, cultivating up-and-down hill, continuous use of the land without any rotation of different crops, inadequate input of organic materials, compaction due to footpaths or heavy machinery used for tillage and removal of harvest products, etc. Erosion control depends on good management, which implies establishing sufficient crop cover and selecting appropriate practices to maintain infiltration with or without soil tillage. In other words, soil conservation relies strongly on agronomic methods in combination with a realistic soil management, whilst mechanical measures play only a supporting role.

Agronomic or biological measures utilize the role of vegetation in helping to minimize erosion by increasing soil surface cover, surface roughness, surface depression storage and soil infiltration. Some examples that involve trees are:

- Strip cropping/ alley cropping/ hedgerow intercropping: Contour hedgerow systems using nitrogen fixing trees/shrubs have been widely promoted to minimize soil erosion, restore soil fertility, and improve crop productivity. Hedgerows of trees or shrubs (usually double hedgerows) are grown at intervals of 4-6 m along the contours. The strips or alleys between the hedgerows are planted with food crops. The hedgerow trees are regularly pruned to minimize shading of food crops; the pruned biomass can be used as green manure or as mulch in situ, or as fodder. Through time, natural terraces can form at the base of the hedgerow trees, and thereby minimize soil erosion and surface run-off. Terrace formation can be rapid if the soil is ploughed, but slower in no-till or manual tillage systems.
- Improved fallow systems (IFS): In the uplands, arable areas are planted with food crops for some years and then the land is fallowed for some time to allow the soil to rejuvenate. To shorten the fallow period, the area can be seeded with leguminous trees. Once the soil has been rejuvenated, the trees are cleared for crops. This can be considered as an improved version of the traditional shifting cultivation practice. More information on fallow management, which was initiated, tested, proved and developed by farmers, can be found in the lecture note on Indigenous Fallow Management (IFM) (Burgers et al., 2000).
- Natural Vegetative Strips (NVS): The use of natural vegetative strips (NVS) has proven to be an attractive alternative because they are so simple to establish and maintain. NVS are attractive as they mainly consist of no intervention. When land is ploughed along contour lines, strips 40-50 cm wide are left unploughed across the field on the contour. These strips are spaced at desired intervals down the slope and can be marked beforehand. The recommended practice for spacing contour buffer strips has been to place them at every one-meter drop in elevation, but a wider spacing may be acceptable.

In fact it is the surface litter layer that provides the most direct protection of the soil, rather than tree cover. All agricultural and agroforestry systems that maintain a permanent litter layer are safe, while systems, especially on slopes, without litter (including forests where litter is harvested) are not. With a litter layer there may be surface runoff, but it won't carry much soil, while soil biological activity will enhance the formation of soil macropores for infiltration. Without any litter, any overland flow will carry soil, unless the soil is already strongly compacted.

Source: Meine van Noordwijk and B. Verbist. 2002. Soil and Water Conservation. The Overstory #104, url: <http://www.overstory.org> (We gratefully acknowledge the kind arrangement for producing this excerpt by Craig Elevitch of the Permanent Agriculture Resources (PAR), P.O. Box 428, Holualoa, Hawaii 96725 USA. cre@agroforestry.net)

Soil Fertility/ OM Highlights

Soil Quality Improvement for Crop Production in Semi-arid West Africa, Elisée Ouédraogo, PhD Thesis Dept. of Soil Quality and Dept. of Erosion and Soil and Water Conservation, Wageningen University, And The Netherlands. 2004. Now at Albert Schweitzer Centre for Ecology, Ouagadougou, Burkina Faso. aelisee@hotmail.com, ceas-rb@fasonet.bf

Soil quality maintenance and crop production improvement in semi-arid West Africa requires appropriate cropping technologies, which are ecologically sound and economically viable. Thus, on-farm and on-station experiments have been carried out on the central plateau and in the southern Burkina Faso. The results show that adoption of improved soil fertility technologies, such as composting by farmers, is determined by soil fertility status, access to the markets and social reasons.

The inaccessibility to mineral fertilizers stimulated the adoption of this technology. A relevant point also is that up to 26% of the interviewed farmers adopted compost technology after they had witnessed the experience of other farmers, which underlines the importance of on-farm experimentation and demonstration and farmer-to-farmer approach. The study shows that farmers prefer to put the compost on the fields where they grow the most nutrient-demanding crops such as maize or red sorghum. Organic amendments increased crop production but its effects on soil carbon depend on its quality. Soil tillage improves crop performance as a result of enhanced crop nutrient uptake and water use efficiency but decreases soil carbon with fertilization. The combination of crop residues and urea may reverse this negative effect. Soil fauna accounted for 50% of crop production.

Termites mediated low quality organic amendments disappearance. Soil carbon build-up in the

presence of soil fauna requires the use of easily decomposable organic material or combined low quality organic material with nitrogen fertilizer. Phosphate rock-derived phosphorus availability is four times higher in earthworm casts than in surrounding soil. Single use of nitrogen fertilizer led to its low use efficiency by crop and induced low to negative economic benefit. The combination of organic resource and fertilizer significantly increased crop performance and economic benefit of N fertilizers. Combining organic resources and N fertilizers results in farmers only needing to purchase one-half the quantity of N applied, and still get more yield than when all the N was supplied as urea.

However, the combination of technologies for soil carbon maintenance and crop production does not always pay off financially. Therefore, optimization has to take place in both environmental and economic terms. Without both organic and mineral external inputs, soil quality maintenance and crop production improvement cannot be achieved at the same time in semi-arid West Africa. Improving soil quality and crop performance in semi-arid West Africa is achieved with integrated soil fertility management, including external inputs (organic and mineral), the contribution of soil fauna and soil and water conservation measures and sometimes with tillage.

Vetiver Highlights

Vetiver for the Mitigation of Disaster Impacts from Storm Events, Dick Grimshaw, The Vetiver Network, dickgrimshaw@vetiver.org

Although I referred to this topic in an earlier Vetiver Highlights II, I just have to come back to it in the light of current events.

"Catastrophic floods and landslides occurred throughout the region. When it was over, some 9,200 people had died; almost 270,000 homes were lost; 21,325 miles of roads and 335 bridges were destroyed. Immediately after the storm, some 2,000,000 people were pushed out of their homes. Economic losses were estimated at US\$6 billion".

Except for the lower fatalities this sounds like the impact of the notorious December 26, 2004 tsunami. It was not – it was 1998's Hurricane MITCH – a bad one.

Tsunamis are relatively rare. Cyclones, typhoons, hurricanes and other major rainfall storms are not. These heavy and intense rainfall occurrences cause significant and costly damage to land, water, infrastructure and people. They are nearly always catastrophic, and become more so as population and landuse pressures increase. Unlike tsunamis, damage from such storms is not just confined to the near sea shore areas, but also far inland where the heavy rain damages watersheds and infrastructure, and concentrated water flows pour down into lower catchments and eventually the sea, bringing damage and powerful water and sediment flows. There are many measures that can be used to mitigate such damage in advance, however. The Vetiver System, based on the use of vetiver grass hedgerows, is an increasingly important and documented technology that is well suited for the purpose.

To reduce future damage from extreme flooding, planners and administrators should give special attention to: (i) ensuring proper design and construction of transportation infrastructure; (ii) ensuring the adequate protection and proper maintenance of key roads and access points; (iii) assisting rural households to adequately protect their production systems and housing sites and (iv) in coastal and low lying areas of countries such as India and Bangladesh stabilizing and protecting flood embankments and irrigation and drainage systems from extreme flooding events. Vetiver grass technology could be applied to all of the above including:

- (i) stabilizing soil and slopes. Vetiver's root system is excellent for stabilizing soils. Because of its huge deeply penetrating root mass (particularly in the first meter) and



Vetiver grass root from Vietnam, 3 m long, showing bulk of root in first meter. Photo by Vietnam Vetiver Network

high root tensile strength (1/6 the strength of mild steel – 75Mpa) it greatly increases soil shear strength

(by as much as 40%). Vetiver has the added advantage of light weight and low wind profile, thus avoiding problems associated with greater stress loading on an unstable slope;

- (ii) trapping sediments – all the evidence from many countries concurs on the effectiveness of vetiver hedges to trap sediments. Recent studies in Honduras showed that traditional slash-and-burn sites average 92 tons/ha/year of soil loss compared to 43 tons/ha/yr with crop residues and a "green mulch" cover crop compared to 0.9 ton/ha/year on sites with vetiver grass barriers and the crop residue/mulch. In Colombia soil loss was reduced from 143 tons per ha on bare land to 1.3 tons when protected by vetiver;



Vetiver hedgerows have ability to trap sediment and other trash under flood conditions. Darling Downs, Australia. Photo by Paul Truong

- (iii) reducing runoff velocities - flume studies in the USA and Australia have shown vetiver hedges to be very effective at reducing total head (flow depth and velocity) of water flows. The hedge's

effectiveness at doing so increases with hedge thickness (maturity). It appears that mature hedges can be quite effective at reducing runoff velocities of flows less than 20 cm in depth, moderately effective with flows up to 35 or 40 cm, and have some impact on flows up to possibly 60 to 80 cm; and

- (iv) protecting hard structure/soil interface interfaces - experience has shown that vetiver hedges are excellent at protecting the often vulnerable interface between soil and hard structures. It is here that runoff is concentrated, causing soil to be scoured away. Oftentimes, this is how structures begin to be undermined, leading to the eventual failure of the structure (e.g. gabions along stream channels, bridge footings and 'wings' of approaches, concrete drainage channels along roads, etc.).



concrete (in previous floods, without vetiver protection the crossing was destroyed and had to be rebuilt. Photo by Paul Truong

A 2-m flow of flood water passed over this "Irish Crossing" on a farm in Australia. Vetiver hedgerows were planted upstream and adjacent to the crossing, and as a result the high velocity flood water was unable to undercut and break up the



Vetiver hedgerows planted to protect a spillway of a reservoir in Zimbabwe. Photo by Dick Grimshaw

Although vetiver has been termed by some as a 'miracle grass' it will not save or protect a bad design, and it has to be applied correctly or it will not work. In the latter case the design of layout and purpose of use has to be carefully considered and applied. Because of vetiver's many different applications over a wide range of uses we now refer to the combined applications as the Vetiver System.

Following Hurricane Mitch the Vetiver System has been used extensively in Central America for infrastructure and farmland rehabilitation. It is also being used in many other countries including the US – southern California – for the stabilization of slipping slopes.

It has also been used for disaster mitigation in many other countries where extreme storm events occur, including Bangladesh, China, Madagascar, Philippines, and Vietnam.

The above and more related information is documented at <http://www.vetiver.org>.



Protection of mudslide area in southern California using vetiver grass – photo by Jerry Coyle

Landcare Highlights

Landcare and the challenges ahead: Landcare in Australia has been a success whichever way you look at it, Sue Marriott and Victoria Mack, Phone +61 3 52 505252, smarriott@silc.com.au, vmack@silc.com.au, www.silc.com.au

The challenges facing Landcare as the process continues to grow and mature are considerable. The challenges can be summarized as research, funding and people.

Research challenges: Even though it was built on many well-intentioned ideas and research Landcare often had to adopt a 'best bet' approach to finding lasting solutions to environmental problems. Those who became involved at the grassroots level usually with little guidance, took a pragmatic approach and did the best they could. Today, research develops a greater understanding of the issues and stimulates new and different solutions to on-going environmental problems. Managers of the land often find it difficult to implement research if they feel the bulk of the Landcare work is already done on their farms or that the practicalities of implementation are too daunting with too much funding required for little return.

The research challenge today is to support our scientists and land managers with ongoing funds to find workable solutions.

Funding challenges: The funding for Landcare is well developed in Australia through partnerships with government bodies, the corporate and the volunteering sector. One of the greatest contributions Australia has made to the world is how to engage people across all sectors of the community to support the effort to reverse, or at the very least hold, degradation. The challenge of securing enough funding to remedy all the problems will have to come through an ever increasing awareness by the entire community of the real cost of the big environmental 'fix'. Much more needs to be done by landholders as they allocate specific amounts in their annual budgets for problem areas.

The real cost of sustainable production should be reflected in the prices urban dwellers pay for food and clothing and government should have core funding that reflects the vital importance of a healthy environment, equal to the importance placed on health, education and defense.

The people challenge is how to mobilize the next generation of Landcarers who can build on past works without reinventing the wheel. In all countries of the first world mechanization and a drift of population to the cities of able-bodied people is the norm.

Landcare is about people 'doing things' individually, in small or large communities or at large event programs such as 'Olympic' games plantings or 'Clean up Australia' day. Australia's 'people challenge' is to stop burn out, to mobilize a larger percentage of the population from the cities and towns, enthuse those around us and develop long-term strategic programs that are exciting to work in and that make a long-term positive contribution.

WOCAT Highlights

Hanspeter Liniger, WOCAT Programme, Berne University, Switzerland.
hanspeter.liniger@cde.unibe.ch

At the WWSM9 at Yichang, China from November 8-14, 2004 one of the most important achievements was to define WOCAT's Vision and Mission. It was decided that these would be:

WOCAT Vision: Local SWC knowledge shared and used globally
WOCAT Mission: to support decision making and innovation in the field of SWC by:

- connecting stakeholders and institutions
- enhancing capacity
- developing user-friendly standardized tools
- documenting, monitoring, evaluating, sharing and using knowledge



Group effort towards the Vision and Mission statements, Yichang

RESEARCH ABSTRACT

Abstract: Wind and Rain Interaction in Erosion, Saskia Visser and Wim Cornelis (eds), Tropical Resource Management Paper No. 50, Erosion and Soil & Water Conservation Group. Dept of Environmental Sciences, Wageningen Univ and Research Centre, Wageningen, Netherlands. 2004. 230 pp. ISBN: 90-6754-843X, ISSN: 0926-9495, <http://www.dow.wau.nl/eswc/> Contact: Jolanda Hendriks at jolanda.hendriks@wur.nl

A growing group of researchers have started to realize that the classic paradigm - water and wind erosion have little in common and occur in different climates - is not so in all situations. On the contrary, wind and water erosion may occur almost simultaneously at the same location and a large interaction between the two processes may occur. Consequently, wind erosion models should account for water erosion and vice versa.

The idea for combining knowledge on wind and rain interaction was born during an international two-week course titled: Wind and Water Erosion; Modelling and Measurements, which was held in Ghent, Belgium and Wageningen, The Netherlands. This book brings together all experience and ideas of the course participants. The book starts with a discussion on modelling wind and water erosion, it continues with a description of the various aspects of the interrelationship between wind and water, then farmers' perceptions on wind and water erosion are described. Furthermore the book contains a description of the various techniques for measuring wind and water erosion separately and a description of a wind tunnel in which the interaction between the two processes can be investigated. The book ends with an outlook for future research on wind and rain interaction. Note: A review for this book is expected to be published in the next issue.

ANNOUNCEMENTS

TRAINING

Land Degradation and Desertification - Sustainable Rural Livelihoods in a field setting

19 April – 2 May 2005

Directed by Prof. Michael Stocking in the United Kingdom and co-directed by Dr. Juan Albaladejo Montoro in Spain. Language of instruction: English.

Objective: to update your professional knowledge and field skills in these two important areas of global concern. As of October 2002, land degradation is a new focal area of the Global Environment Facility.

The first week of this two-week short course will be held at the University of East Anglia, covering current theory and perspectives on land degradation assessment in the context of projects to protect the environment and promote human welfare and livelihoods. The course continues for the second week in Spain at CEBAS (Centro de Edafología y Biología Aplicada del Segura - Centre for Soils and Applied Biology) in a drylands and partly degraded environment with field instruction and exercises. Simple visual and semi-quantitative techniques for land degradation assessment will be used, with all course participants gaining hands-on experience. The assessments will be placed within the context of sustainable rural

livelihoods and participants will examine how far technologies and approaches to control land degradation can be applied to the real-life circumstances of land users. ?2,900 per person (including accommodation and return flights UK/Spain). All details of the course and an on-line application form can also be viewed at http://www.uea.ac.uk/dev/odg/pages/course_landdeg2005.html.

Contact: Jane Donaldson, Training Manager, Overseas Development Group, University of East Anglia, Norwich NR4 7TJ, UK. Phone: + 44-1603-592808, Fax: + 44-1603-591170, j.donaldson@uea.ac.uk , www.odg.uea.ac.uk

Training Course: Managing Learning in Development and Social Change Organizations

August 8-20, 2005

The International Institute of Rural Reconstruction (IIRR), Y.C. James Yen Center, Silang, Cavite, Philippines

Course Fee: US\$2,250 (already includes food, shared double-room accommodation, training-related local travel, and accident insurance. Not included are international airfare, laundry, and incidental expenses.)

Development and social change organizations have the potential to generate vast learning. Practice-based learning is the most potent resource for any organization to enhance its effectiveness. But many organizations are not able to make full use of this internally generated knowledge resource. This two-week course addresses the purposive quest for learning within organizations. It requires a mental set of seeing learning as an "integral part of any development organization's plan for sustainable development" (Korten and Klaus). The course will focus on the links between organizational vision, image and learning. It will make use of tools to help participants reflect on their organization's learning potential and provide them with an array of simple and useful tools and methodologies for documenting practice based learning. The action plan that participants prepare at the end of the course will be an attempt to put into practice in their own organizational context specific things learnt from the course.

NGO leaders, managers, trainers as well as development practitioners from government agencies, donors and consultants will find this course valuable.

For more information or to receive a course application form, contact: Training Associate, International Course on "Managing Learning in Development and Social Change Organizations", Education and Training Program, International Institute of Rural Reconstruction, Y.C. James Yen Center, Silang 4118, Cavite, Philippines, Phone: +63-46-4142417, Fax: +63-46-4142417 local 2, Education&Training@iirr.org , www.iirr.org

FUNDING OPPORTUNITY

The Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program (SANREM CRSP) invites applications to conduct research on sustainable agriculture and natural resource management in developing countries. Program objectives and application procedures for Planning Award RFA and associated Long-Term Research Award RFA are available at <http://www.oired.vt.edu/sanremcrsp/>, additional information Email: sanrem@vt.edu (From BIONET Bulletin, February 2005)

MEETINGS

The 5th International Conference on Hani/Akha Culture: The Hani People on the Line of the Tropic of Cancer: Simultaneous Development of Culture and Economy

Mojiang, Yunnan Province, China **April 8-12, 2005**

The Fifth International Conference on Hani/Akha Culture will discuss the following topics:

1. The Tropic of Cancer Culture and its influences on development of the Hani culture.
2. The history and origin of the Hani/Akha culture.
3. The protection, application and development of traditional culture in the Hani/Akha communities, including cultivation of rice on terraces.
4. Research into the Hani/Akha spoken and written language.
5. Modernization and social and economic development in the Hani/Akha communities.

6. Research into the minority ethnic groups along the Honghe River, Lixianjiang and Lancangjiang (Mekong) River valleys.

Registration fee: US\$500 (covers all accommodation and meals during the conference period).

Contact: Bai Bibo at baibibo@hotmail.com and mjteb@163.com, mjteb@sina.com, tomyang@yxtc.net

International Workshop on Drafting Appropriate Policies and Guidelines to Support Sustainable Land Management in the Mediterranean Region

Beirut, Lebanon, **April 13-17, 2005**

This is the 4th workshop organized by the MEDCOASTLAND Thematic Network funded by the European Commission (EC), within the 5th Framework Program for the International Cooperation with Mediterranean countries (INCO-MED). The Network is aiming at the Mediterranean Region and the coordination and dissemination of land conservation to combat land degradation and assist in the sustainable use and management of natural resources in the region with special emphasis on the coastal areas.

There are 13 countries (from southern Europe, North Africa, Middle and Near East) participating in the Network, making a total of 36 partners, of whom 18 are research and educational institutions, 9 represent decision makers and the remaining 9 partners are farmers' associations and/or non governmental organizations (NGOs). The International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) through the Mediterranean Agronomic Institute of Bari (IAM-B), in Italy is coordinating the project.

Topics of the workshop:

- * Reviews of existing Euro-Mediterranean regulatory framework and policies;
- * Impacts of policies in sustainable land management at a regional scale;
- * The role of participation and science in the context of policy development;
- * Guidelines and policies and the wide range of boundary conditions, including national and regional dimensions;
- * The institutional framework and its influence on policy development;
- * Guidelines and indications for the establishment of incentives for landusers (e.g. microcredit) to enhance soil conservation;
- * Development of economically sustainable measures that match environmental quality;
- * Establishing the role and responsibilities of rural communities, scientists, researchers, policy and decision-makers in soil conservation;
- * There is no such thing as an "absolutely perfect policy" universally suitable for all conditions.
- * Policies and guidelines need to be adapted continuously and locally;
- * If not implemented, even the best policies have no impact in combating land degradation and promoting sustainable natural resources management;

Local support is provided by The National Council for Scientific Research's National Center for Remote Sensing-CNRS, P.O. Box 11/8281, Riad El Solh 1107 2260 Beirut, Lebanon, in association with the Agricultural Cooperative Association, Jieh Main Road, Jieh, Lebanon

WASWC members are welcome to attend this workshop; there is no registration fee. Contacts: Dr. Pandi Zdruli, CIHEAM-IAM Bari, Italy pandi@iamb.it and Dr. Talal Darwish, CNRS Soil Science, National Center for Remote Sensing, P.O. Box 11/8281, Riad El Solh, 1107 2260 Beirut, Lebanon. Phone: +961-4-409845/6, Fax: +961-4-409847, tdarwich@cnrs.edu.lb or medcoastland@cnrs.edu.lb

International Conference on Soil Water Erosion in Rural Areas - A special session of the European Geophysical Union

Vienna, Austria, **April, 25-29, 2005**

Convenor: Cerda, A. artemio.cerda@uv.es

Co-Convenors: Poesen, J. Jean.Poesen@geo.kuleuven.ac.be; Imeson, A. a.c.imeson@science.uva.nl

Rural areas are affected worldwide by land use changes. Deforestation, wildfire, overgrazing, agriculture with intense ploughing and chemicals, road and railway construction, urbanization, climate change and global change are threatening the soil quality and function in developed and underdeveloped countries.

Soil is the most fundamental resource for (i) adequate food supply, (ii) water resources, (iii) carbon sequestration, and natural vegetation and fauna depend on productive land. Soil water erosion is threatening natural and cultural environments. The session on Soil Erosion in Rural Areas (SERA) will discuss topics on soil degradation, past and present erosion processes, experimental and laboratory studies, assessment, prediction and conservation policies. All papers on any aspects of soil erosion research in rural areas are welcome. Contact the convenor or co-convenors by e-mail. For more info please click http://www.cosis.net/members/meetings/programme/view.php?p_id=120 or http://www.copernicus.org/EGU/ga/egu05/abstract_submission.htm

Symposium on No-Tillage and Environment, Carbon Sequestration and Water Quality

Rafain Palace Hotel, Iguassu Falls, Parana State, Brazil **May, 18 to 20, 2005**

Organized by the Brazilian Federation of No Tillage on Crop Residues and Itaipu Binational, this event aim is to furnish researchers, professionals and farmers, with information about carbon sequestration and water quality through no-tillage system; to discuss climate changes and greenhouse effect; environmental, economics and social features linked with carbon sequestration and water quality through no-tillage system, and to draw the interest of companies and traders to the new paradigm of trades, that included the respect to environment and the life quality improvement.

Sessions:

- Carbon dynamics and environment impact of atmospheric CO₂ concentration increase;
- No-tillage Systems and carbon sequestration: transforming risks in opportunities;
- No-tillage and water quality “cultivating good water”; and
- Debate Panel on “Carbon as an Exchange Currency”.

International speakers include Rattan Lal (a former WASWC President), Gylvan Meira Filho, Charles Rice and Don Reicosky.

Contact: Federação Brasileira do Plantio Direto na Palha (Brazilian Federation of No Tillage on Crop Residues) at febrapdp@uol.com.br, and more info at <http://www.febrapdp.org.br/simposio>.

Soil Conservation Issues in Nordic Countries

Tartu, Estonia **May 25–26(-28), 2005**

Organized by: Department of Soil Science and Agrochemistry, Estonian Agricultural University (EAU), Tartu, In collaboration with Institute of Geography, University of Tartu (UT), Estonia, European Society for Soil Conservation (ESSC) and Landscape Tomorrow European Research Network (LT)

The conference on soil conservation will precede the conference on the Landscape Tomorrow European Research Network (LT). The title of the succeeding conference is **Multifunctional land use – Meeting future demands for landscape goods and services.**

For more information see: <http://www.essc.sk>, <http://www.eau.ee/~muld> for ESSC Conference; and <http://www.geo.ut.ee/LTconference/> for LT Conference. Contact: Endla Reintam endlareintam@eau.ee

2005 Watershed Management Conference - Sheds Light on Water Issues

Colonial Williamsburg, Virginia, USA **July 9-22, 2005**

The upcoming 2005 Watershed Management Conference, "Managing Watersheds for Human and Natural Impacts: Engineering, Ecological, and Economic Challenges" is sponsored by the Environmental and Water Resources Institute (EWRI) of the American Society of Civil Engineers (ASCE). This will be the ninth in a series of specialty conferences focused on watershed management, the first was held in Billings, Montana in 1965 and this conference has been repeated every five years since. The 2005 Conference will be the first one held east of the Mississippi River, where the problems and challenges of urbanization and sprawl are particularly acute for watershed management.

The conference will bring together a diverse group of attendees including engineers, hydrologists, biologists, ecologists, economists, attorneys, public officials, and governmental planners. As with past Watershed Management Conferences, presentations are especially encouraged from international professionals and experts whose unique perspective is central to the goals of this meeting. The Watershed Management 2005 conference boasts numerous special themes that focus on important and pressing problems facing our society today. A complete draft agenda is available on the conference website at: <http://www.asce.org/conferences/watershedmanagement2005/>.

The themes include:

- Dam Removal – Numerous case studies of specific dam removal projects will be presented along with more general presentations of changes to sediment and channel dynamics upstream and downstream of the removed dams. Those attending these sessions will not want to miss the panel discussion wrapping up this theme.
- Decision Support – Computational tools aimed at helping guide operational and management decisions within watersheds will be presented in two special oral sessions. Tools for making cost-effective ecosystem services decisions and drought management decisions will be discussed along with presentations on tools specifically designed for management of the Colorado River and the Truckee River basins.
- Chesapeake Bay – The Chesapeake Bay is a national treasure. The ecosystem of the Bay is very sensitive to human activities, and thus many different studies and watershed management efforts have been performed to better understand the ecology of the Bay and how best to protect it. Presentations spanning two special oral sessions will focus on such varied issues as wetland restoration, sediment transport, BMPs, Smart Growth, and real-time watershed surveillance in the Chesapeake Bay Watershed.
- Fire – Three special oral sessions will be dedicated to issues of watershed management in the aftermath of fires.

Presentations will examine the impacts of fires on sediment transport, pollutant transport, and changes in flood potential. Approximately 100 posters will be presented over the duration of the conference. These presentations cover topics ranging from low impact development applications through numerical modeling for ecological assessment of streamflow to GIS-based watershed modeling.

Please join us July 19-22, 2005 in Williamsburg, Virginia, for fun, food, and friendship and continue the tradition of the eight previous Watershed Management conferences. Additional information can be found at the 2005 Watershed Management Conference website: <http://www.asce.org/conferences/watershedmanagement2005/>.

Environmental Management Conference of the Soil and Water Conservation Society

Hyatt Regency and Riverside Convention Center, Rochester, New York,
July 30-August 4, 2005

The 60-year-old conference is a combination of workshops, plenary and concurrent sessions, and educational tours. The conference will focus on how conservation of natural resources is linked to local, regional, national, and global concerns. But more specifically, the 2005 conference will focus on four topics: 1) Managing Landscapes for Environmental Quality, 2) Assessing and Communicating the Effectiveness of Conservation and Environmental Programs, 3) The Growing Debate Around Water Use, and 4) Consumer Demand and Policy Effects on Agricultural Resources.

A preliminary program with registration information will be available on the SWCS website and will be sent out in early March. To keep up on the complete information about the conference, check out: http://www.swcs.org/t_what2005conffrontpage.htm

Contact: Deb Happe, Editor/Communications Director, SWCS, 945 SW Ankeny Rd., Ankeny, IA 50021, deb.happe@swcs.org, www.swcs.org, Phone: +1-515-289-2331, Fax: +1-515-289-1227

10th WOCAT Annual Workshop & Steering Meeting (WWSM10)

Serbia & Montenegro *September 5-10, 2005*

Since 1996, WOCAT has organized nine Annual Workshops and Steering Meetings

(known as WWSM) with the goal (a) to bring together the main collaborating and funding institutions and the core collaborators, (b) to assess the progress and to exchange experiences, (c) to further develop the program and (d) to plan for the future and (e) to enhance WOCAT in the host country/ region.

As decided during the WWSM9 in China, the 10th Annual WOCAT Workshop and Steering Meeting will take place in Serbia & Montenegro, from 5-10 September 2005. The exact venue is yet to be confirmed, but will be within easy reach from Europe's major airports.

Invited for this meeting are those involved in the coordination of WOCAT activities at the global, regional or national level, and/or involved in any of the WOCAT Task Forces. Availability of sponsorship to participants for this meeting is very limited and we do urge participants to find their own funding sources. Possible sponsoring will also be dependent on the amount of activities deployed and feedback provided to the WOCAT Secretariat since the previous WWSM.

A formal announcement and registration form will be distributed later among active WOCATeers. However anyone who is interested to participate may contact the WOCAT Secretariat at wocat@cde.unibe.ch and Miodrag Zlatic at mizlatic@yubc.net for more information.

International Conference Regarding Human Impacts on Soil Quality Attributes

Isfahan, Iran **September 12-16, 2005**

An international conference about human impacts on soil quality attributes. All soil and environmental scientists are kindly invited to attend this unique event that will take place from September 12 –16, 2005.

The Conference themes will include: soil degradation and sustainability as related to different land use systems and management techniques; monitoring soil quality attribute changes in time and space; soil management in relation to agro-industrial and urban pollutant and socio-economic aspects of sustainable soil management.

For more information, online registration and details please look at:

<http://www.iut.ac.ir/cesoil/HISQA.htm#arm>

Contact: Mohammad Hajabbasi, Soil Science Center of Excellence, College of Agriculture, Isfahan University of Technology, Isfahan, 84154 Iran, Phone: +98-311-3913477, Fax: +98-311-3913471, cesoil@cc.iut.ac.ir, <http://www.iut.ac.ir/cesoil>, <https://cc.iut.ac.ir/webmail/>

III World Congress on Conservation Agriculture: “Linking production, livelihoods and conservation”

Nairobi, Kenya **October 3-7, 2005**

Organized by The African Conservation Tillage network (ACT), Ministry of Agriculture of the Republic of Kenya, and Kenya Conservation Tillage Initiative (KCTI) in association with New Partnership for Africa's Development (NEPAD)

The global call for improved and environmentally sound practices is becoming an important factor in national and global development agenda. There are numerous efforts to develop, promote and up-scale adoption of practices and systems that would ensure high and sustainable productive capacity of natural resources. This is probably more critical to agriculture than any other industry.

Therefore, in the quest for locally viable options for sustainable agriculture, it has become crucial to share information and experiences on conservation agriculture (CA) across disciplines, economic sectors and geographical locations. This will identify emerging information and facilitate its dissemination, hence contribute to enhanced CA development and adoption. The sharing facilitates integrated and holistic approach, underscoring the fact that CA is not tillage, agronomy, marketing, chemical input, or any other aspect considered in isolation. CA weaves all these aspects together in a form and character dictated by the local circumstances.

Worldwide, partners and stakeholders value the sharing of information and experiences on CA. This has been demonstrated and achieved in the First and Second World Congresses on Conservation Agriculture (Spain, 2001 and Brazil, 2003).

The World Congress on Conservation Agriculture is acknowledged as an effective forum. Hence, the second World Congress gave the mandate to Africa to organize and host the

Third World Congress on Conservation Agriculture (III WCCA).

Congress objectives

To build and strengthen increased role of CA in the attainment of socio-economic development and sustainable natural resource management (millennium goals), the Congress aims to:

- Facilitate exchange of information and experiences.
- Facilitate strategic, multi-disciplinary and cross-sectorial collaboration and partnership in the development and promotion of sustainable farming practices.
- Identify and spotlight the key issues, concerns and trends in the development and implementation of CA support efforts on one end and adoption on the other.
- Showcase the impact of CA at farm/community level and also link CA to sustainable development (including food security and the fight against poverty, on one hand, and natural resource resilience, a cleaner environment and healthy food, on the other).
- Empowering farmer participation in the development and adoption of CA.
- Show evidence of CA contribution to development: poverty alleviation, food security, mitigating impacts of HIV-AIDS, natural resource management, farmers' prosperity; environmentally friendly farming.
- CA in the application of relief interventions for development.
- Multi-discipline/multi-stakeholder approaches, networking and collaboration (e.g. policies to interest/facilitate private sector involvement).
- Showcase CA in water management, labor saving/reducing intervention, means for carbon sequestration, and means to reducing overall external inputs into agriculture.
- Highlight Africa's state of affairs with regard to issues and concerns—including farmers' priorities—for enhanced adoption of CA practices.
- Link CA with other global initiatives on sustainable agriculture and rural development.

The congress aims to provide a highly interactive process for information exchange. This will be achieved through small thematic group presentations, discussions and reports. An information market will provide a forum for farmer organizations, NGOs, private sector companies, etc. to present their work. The overall Congress synthesis shall highlight a collective Congress thrust highlighting among others the key action areas.

There will be events for accompanying persons, special evening functions or interest group discussions, and post-congress tourist visits to game parks and other natural resource destinations that Africa and Kenya are famous for.

The Congress Organizers would like to hear from those that may have ideas/ suggestions on the content of the Congress and how best to realize it. Please complete the attached form and return to the Congress Secretariat with your input also if you need to be continually updated on the IIIWCCA preparations.

Contact: Martin Bwalya, African Conservation Tillage Network (ACT), No. 9 Balmoral Drive, Borrowdale, Harare, Zimbabwe, Tel: (+263) 882107 / 851868, Fax: (+263) 885596
mbwalya@africaonline.co.zw, actsecre@africaonline.co.zw, www.fao.org/act-network

International Conference on FOREST IMPACT ON HYDROLOGICAL PROCESSES AND SOIL EROSION 40 years since the foundation of Experimental Watershed Research Basin (EWRB)

"Y u n d o l a ' 2 0 0 5" October 5-8, 2005 Yundola, Bulgaria

Organized by: University of Forestry; Forest Research Institute; Sofia University "St. Kliment Ohridski"; Ministry of Environment and Water; and Ministry of Agriculture and Forests
In cooperation with: World Association of Soil and Water Conservation (WASWC), Bulgarian National Water Association, European Research Basins Program, Friend-AMHY

Conference Venue: Yundola is 120 km from Sofia, and 15 km from the town of Velingrad, a famous spa resort.

Conference topics:

- Runoff formation in forested areas
- Forest impact on water quality
- Afforestation and deforestation
- Soil erosion and sediment load formation in forested areas
- Erosion control measures, rehabilitation of forest, land and water protection

- Indigenous practice and experience in soil and water conservation, forest management
- Mathematical modeling of the processes by the use of GIS
- Water and soil management practices

The official language will be English. No simultaneous translation will be provided.

Registration fee: €120; Accompanying persons: €80; Students: €50. The fee includes: ice breaker, coffee breaks, conference dinner, transportation costs (Sofia-Yundola), and proceedings.

Contact: E. Rafailova at erfailova@hotmail.com, erfailova@yahoo.com

3rd International Conference on Soils of Urban, Industrial, Traffic, Mining and Military Areas (SUITMA)

Cairo, Egypt **17-25 November 2005**

The SUITMA Working Group of the International Union of Soil Sciences was initiated in Montpellier during the 16th Congress of the IUSS. The objective was to take soils of urban, industrial, traffic, mining and military areas as unconventional soils fit for a new research frontier.

The first and second conferences were held in Essen, Germany (2000) and Nancy, France (2003), respectively and the 3rd conference in Cairo will be under the title SUITMA 2005.

The themes of SUITMA 2005 include:

- * Properties, methodology and classification of unconventional soils.
- * Industrial, traffic and mining pollution of soils.
- * Recycling of city fluid and solid refuse.
- * Desertification, urban expansion, and sectoral competition on land.
- * Rehabilitation of consumed mining and deserted military areas.
- * Soils of historical sites

The presentations will take place in the mornings and afternoons of three days over the period 19 to 21 November 2005. There are two consecutive pre-conference tours in the Delta region around the Greater Cairo area on 17 and 18 Nov 2005 visiting bentonite deposits, sand dunes, and an afforestation project. Two parallel post-conference tours will be organized during 22-25 Nov 2005.

The first visits sites in Siwa Oasis, El-Alamain cemetery and museum, and Alexandria Library. The second visits a soil reclamation project and the historical sites of Luxor and Aswan.

Contact: Prof Salah A. Tahoun, P.O. Box 2893, Heliopolis El-Horria, Cairo 11361, Egypt
stahoun@mail.eun.eg, suitma@mail.eun.eg. More info can be found at www.eun.eg/suitma.

The Organizing Committee of the

14th Conference of the International Soil Conservation Organization (ISCO)

invites you to participate in the ISCO2006 in Marrakech, Morocco **May 14-19, 2006**

The "sustainable management of soil and water in a semi-arid environment", the main topic of the conference, engenders many challenges in terms of sustainable management of natural resources of the planet and adequate food production for a fast growing population. The substantial disturbance of natural habitats, which occurred during the 20th century, reveal the extent of the challenge humanity will face during the third millennium.

Those involved in research, development programs and collaborative activities in relation to the sustainable management of soil and water in a semi-arid environment will come with a common ambition to share experiences and thoughts during the week of the conference in Marrakech.

The following topics will be presented:

1. Water Management in a semi-arid environment
2. Desertification

3. Agro-pastoral transformations and land degradation
4. Indicators, measurements and modeling of the various erosion processes in semi-arid environments
5. Specific erosion processes and erosion control
6. Management, preservation and rehabilitation of soils
7. Economic evaluation of land degradation, efficiency and cost of anti-erosive structures
8. Environmental effects of soil degradation
9. Institutional, legislative and socioeconomic aspects of soil and water conservation.

The languages during the conference will be English and French.

Key Dates:

- > Date for receipt of the intention to participate: February 28, 2005,
- > Deadline for receipt of abstracts and registration bulletin: June 30, 2005,
- > Notice of acceptance of abstracts: September 30, 2005,
- > Deadline for registration at reduced fee: November 30, 2005,
- > Deadline for receipt of accepted articles: December 31, 2005,
- > Publication of preliminary program: February 28, 2006.

Registration Fees:

- > North countries: Early registration: 455 euros, Late registration: 545 euros
- > South countries: 270 euros
- > North country students: 200 euros
- > South country students: 100 euros

The fees cover: Welcome cocktail, conference proceedings (abstracts of papers), proceedings on CD-rom, access to the different sessions of the conference, four lunches (on site buffet), coffee breaks, mid-conference excursion (bus, meal, documentation), translation (English/French/English).

Excursions:

- > A mid-conference excursion, included in the program, will be made on May 17, 2006. This excursion will address aspects related to water, soil fertility, and watershed management and desertification in semi-arid environments.
- > Pre- and post-conference excursions, payable by the participants will be organized during May 8-12 and May 22-26, 2006. The pre-conference excursion (Marrakech-Taroudant-Agadir-Massa through Tizi N'Test) will tackle the conservation of nature in the High Atlas and Souss regions. The post-conference excursion (Marrakech-Ouarzazate-Zagora-Mhamid through Tizi N'Tichka) will concentrate on water management and desertification in arid environments (valleys of southern flanks of the High Atlas).

Prof Mohamed Sabir (sabirenfi@wanadoo.net.ma), President of 14th ISCO

Contact: The organizing committee: isco2006@wanadoo.net.ma;

Phone & Fax: +212-37861149

Information about Marrakech: cherifi@ucam.ac.ma

(Advertisement)

SEMEATO: Agricultural Machinery for No-Till Drills and Planters

No-Till technology has been the solution for sustainable agriculture, soil preservation, lower cost and increasing productivity rates. The no-till system is environmentally friendly, reduces soil erosion rates and increases soil moisture retention, consequently increasing crop productivity.

SEMEATO's goals are to fulfill farmers' needs. Originally, Semeato was created to supply parts and small machinery. The company grew up around 1970 introducing one of the first lines of agricultural implements manufactured in Brazil. By 1976, SEMEATO had begun to develop the first steps to adapt the machines for no-till systems.

Nowadays, SEMEATO is a market-leader in Brazil, Latin America and Europe, launching no-till market seeders and planters that work with accuracy and efficiency, seeding and fertilizing for a large variety of seeds, such as sunflower, cotton, beans, soybeans, wheat, barley, rice and pasture.

The experience from all these years with large, medium and small farmers, gives SEMEATO recognition from the agricultural chain and specialist organizations involved with environment research and with profitable and economically sustainable agricultural practices.

SEMEATO has full production capabilities, including no-till seeders and planters, hay implements, original replacement parts, forged parts, disc blades, gray & ductile iron casting parts and plastic items.

All products are manufactured according to engineering specifications and under a rigid quality control process.

Address: SEMEATO S/A INDÚSTRIA E COMÉRCIO, Rua Camilo Ribeiro 190, Bairro São Cristóvão, 99060-000, Passo Fundo, RS, Brazil. comex@semeato.com.br, www.semeato.com.br

SUMMARY REPORTS

Ecoagriculture Partners: Activities during the Convention on Biodiversity (CBD), Kuala Lumpur, Malaysia, February 9-20, 2004. Claire Rhodes, clairelrhodes@hotmail.com

The 7th meeting of Conference of the Parties (COP-7) to the Convention on Biological Diversity (CBD) took place from 9-20th February 2004, in Kuala Lumpur, Malaysia.

The Convention on Biodiversity (CBD) constitutes a framework for action to achieve three overarching objectives: the conservation of biological diversity; the sustainable use of its components; and the equitable sharing of benefits arising from the utilization of genetic resources. Attended by over 2,300 participants from a variety of stakeholder groups, official negotiations were complemented by an array of additional activities, including side-events, exhibition booths and the Community Kampung, a community-focused dialogue space.

CBD negotiations were centered upon developing work programs to achieve the CBD's three main objectives and therefore attain the international target to significantly reduce biodiversity loss by 2010. This was the first CBD Conference of the Parties since the World Summit on Sustainable Development (WSSD) in 2002.

Therefore emphasis was placed on integrating WSSD decisions within on-going CBD activities. There are currently five CBD thematic work programs (Marine and coastal biodiversity; Agricultural biodiversity; Forest biodiversity; Biodiversity of inland waters; Biodiversity of dry and sub-humid land) with a sixth, Mountain biodiversity, to be initiated. The CBD also addresses an array of cross cutting thematic issues. Issues particularly relevant to ecoagriculture include: protected areas; the ecosystem approach; principles for the sustainable use of biodiversity; access to genetic resources and benefit sharing (ABS); technology transfer and cooperation; traditional knowledge, innovation and practices.

Official negotiations were followed by a Ministerial Segment (18-19 February) attended by approximately 123 ministers and heads of delegations. The segment took three issues into particular consideration: access to genetic resources and benefit sharing; technology transfer and cooperation; and facilitating the input of scientific assessment into the CBD. The outcome was the adoption of the Kuala Lumpur Ministerial Declaration. Key elements of the Declaration recognized the significant role of indigenous and local communities in implementing CBD objectives; committed to developing an international access and benefit sharing regime; called for governments to adopt an integrated approach to biodiversity conservation, sustainable use and socioeconomic development; urged the further establishment of protected area networks; and emphasized the need for strengthened partnerships to achieve such objectives.

Ecoagriculture Partners focused on four main objectives during the CBD:

- * Co-hosting 'Agriculture and Biodiversity Day' at the Community Kampung - Thursday 12th February
- * Hosting the side event 'Ecoagriculture: Opportunities for conserving biodiversity within working landscapes' – Thursday 19th February
- * Tracking official CBD negotiations and decisions on issues of particular relevance to Ecoagriculture Partners.
- * Engaging with ecoagriculture innovators and exploring further opportunities for collaboration.

Further information on the activities of Ecoagriculture Partners during the Convention on Biodiversity can be found on the Events section of Ecoagriculture Partners website: www.ecoagriculturepartners.org/events.htm

Further information and analysis on CBD outcomes can be found at: i) The CBD's home page: www.biodiv.org, ii) The Earth Negotiations Bulletin's reporting of COP7: <http://www.iisd.ca/biodiv/cop7/>

International Conference on Sustainable Management of Natural Resources (Land, Water and Forest), Varanasi, India, **February 11-14, 2004.**

The conference was organized by the Department of Geography, Banaras Hindu University (BHU), Varanasi, India, under the chairmanship of Prof M.B. Singh. The WASWC Vice President for Asia, Mr. D.C. Das, and Dr. S.P. Gawande, President, Soil Conservation Society of India (SCSI) attended the conference.

About 200 delegates participated in the Conference, which was conducted in 10 technical sessions besides the Inaugural and Valedictory sessions.

The Keynote address stressed on the integrated approach to the natural resources management (NRM) and the need for the reliable assessment of potential and risk for optimum and sustainable

management for planning and development and use of various natural resources specially for water- the key input to the sustainable development planning of the country. The inaugural address highlighted the social perspective in sustainable management and recalled the prophetic statement of Mahatma Gandhi that this Earth has enough to meet every body's need but not the greed of any body. It was further observed that to make NRM sustainable the planning should take into account the principle of symbiosis that the natural ecosystems follow and development planning should not use the linear projections.

The presidential address defined that sustainable NRM would mean leaving the natural resources scenario for the future at the same level of utility.

In subsequent 10 technical sessions a number of presentations were made covering the areas of:

- Natural Resources, Technology and Sustainable Development, sources-Availability, Utilization and Constraints: The lead paper highlighted the need for conservation techniques and alternate planning tools to assess the potential and risks involved.
- Population Growth, Poverty, Land Productivity and Environment: The consensus was that without serious attempts to lower population growth rate developing countries like India may not reverse the imbalances.
- Role of Stakeholders, Indigenous Knowledge and Women in Natural Resource Management and Environment: Modern tools and technology help the planners to move fast and achieve the targeted acceleration in the physical achievement. But these are distant from the traditional perception and some practices, which are consistent to current definition of sustainability.
- Use of Remote Sensing and GIS in Natural Resource Management: These inputs and tools are definitely immediate needs but their application at micro level has to be more cost effective and understandable to the actual stakeholders.
- Soils Management: The thrust of presentation was on the role of soil characteristics in the assessment of risk and potential of hydrologic status and performance, eco-communities' health and survival etc. Land as an integrating natural resource includes soil, water and forest as all these are there if land is there. Soil being the unique natural laboratory should be viewed as the key to sustain desirable land quality.
- Water Resources: Appraisal and Management: During discussions the stress was on the need to consider the on land /watershed hydrology along with the channel and reservoir flow and storage dynamics that prolongs the availability of rainwater coming over 2 to 4 months in the tropical and sub-tropical countries like India.
- Management of Forest Resources: There was an interesting presentation on the assessment of the extent and quality of forests with the help of modern tools.

Another presentation highlighted the potential of rationales like land use alienation, gross green area and equivalent effective green area based on eco-attributes of a standing green stock, watershed eco-index along with tools like adequacy rating scales and performance scales specially developed based on geo-hydrologic conditions and broad national forest policy already in place in many countries like India.

The sessions were enlivened by a large number of case studies and results from the field on methodology, analysis and application options.

Mr. D.C. Das chaired the second technical session and presented a paper on behalf of WASWC entitled 'Land Use Alienation, Green Area and Eco-Index in Watershed Development Projects'. Dr. S.P. Gawande chaired the Session on special lectures and also presented a paper on Sustainable Land Resource Management Policy of India.

The deliberations revealed that there are quite a number of areas where professionals from the field of soil and water conservation can fruitfully interact and collaborate with the geographers to further the cause of conservation and utilization of the country's land, soil and water in a sustainable manner.

- D.C. Das, VP for Asia, dinesh_ranu2003@yahoo.com

PUBLICATION REVIEWS

Wind Erosion and Dust Dynamics: Observations Simulations and Modeling, Dirk Goossens and Michel Riksen (eds), Wageningen University and Research Centre, The Netherlands. 2004. ISBN 90-6754-813-8, 197 pp. Contact: jolanda.hendriks@wur.nl, www.dow.wau.nl/eswc/

If you are looking for an understanding of the state-of-the-art in the science of wind erosion from a select group of recognized experts, this is the book for you. This collection of articles by scientists from Western Europe reads like a highly focused journal issue on research results from scientific studies of wind erosion. Yet, in addition to being densely packed with good science, the book also does a surprisingly good job of educating the general reader regarding the major issues and processes related to wind erosion.

It is also well written and relatively easy to read. Various sections of the book provide a good overview of the off-site environmental and health issues related to wind erosion, including the increasing recognition of the impacts of atmospheric dust on climate change. One can also get a good overview of the factors such as soil characteristics, vegetation, landscape, cultivation, and climate that most affect the generation of windborne sediments. Topics range from field measurements to models and GIS. Even though the work reported here is focused largely on Western Europe, anyone in the world who cares about wind erosion will find the material useful and interesting, and specialists in wind

erosion will find it essential. Don't expect it to be a definitive work. You won't read much, for example, about erosion control technology. Other than windbreaks, which were evaluated using models in the last two articles of the book, very little is said regarding advances in erosion control practices. You also won't read about the dust storms originating in Mongolia and northwestern China that turn the skies in Beijing yellow each spring of the year. However, if you are working on wind erosion problems in China or any other part of the world, you will certainly find the techniques described in this book useful to your work.

– Mark Nearing, USDA ARS Southwest Watershed Research Center, 2000 E Allen Rd., Tucson, AZ 85719, USA mnearing@tucson.ars.ag.gov, www.tucson.ars.ag.gov/

El Gran Libro de la Siembra Directa (in Spanish), Carina R. Álvarez and Eduardo Mulin, Faculty of Agronomy, University of Buenos Aires and Clarín Newspaper, Argentina. ISBN 950-782-364-6. 2004. 232 pp. Full color. US\$35/ Euro30
Contact: sdirecta@agro.uba.ar, efauba@agro.uba.ar.
More info in <http://www.agro.uba.ar/editorial/publi.htm#otra>

This book is devoted to no-tillage practices in Argentina. Most of us usually associate Argentina with wide plains and deep and dark soils, and huge grasslands that produce large quantities of high quality grains and meat. However, Argentina is more than the humid Pampa. Due to aridity and the human misuse of soil, land degradation processes have been and are taking place. No-tillage is one strategy for erosion control and an environmentally friendly method of farm management. Moreover, it reduces the work and investment on the farm, improves the quality of life and reduces expenses. Right now, close to one hundred million hectares of land in the world are under no-tillage. Since 1987, no-tillage areas have increased 59-fold. Close to half of the world's no-tillage areas are located in Latin America, with Argentina (11.6 m ha) ranking third in the world after Brazil (12 m ha) and the USA (close to 20 m ha).

This book describes the history of the no-tillage movement within farming groups in Argentina, and also gives information about machinery, herbicides, pesticides, sowing techniques, crops, regional production etc. in Argentina.

It is extremely well designed. Every page follows the same layout in which the reader is informed by means of abstracts, drawings, tables, graphs and maps about the main topics presented in the book. Selected photographs give a quick and accurate view of the topic treated in each chapter.

The book is a complete encyclopaedia of no-tillage, and more: production of crops and their geographical characteristics, new and old techniques, Argentinean environmental information, etc.

There are chapters about soil characteristics and functioning, soil types, hydrological cycle, soil erosion processes, Argentinean climate, agriculture and environment, soil biota, biogeochemical cycles, and land management to improve the soil, amongst others. It describes the decades of experience on Argentinean farms in managing stubble, rotations, the development of sowing machinery, wheel and tyre design, harvesting, spraying systems, soil fertility improvements, weeds and pest control.

Information is also given about the main crops: wheat, soya, sunflower, maize, barley, cotton, sorghum and grassland for cattle. Their production and productivity has increased with no-tillage agriculture, and with the accurate selection of fertilizers. Soya is the most successful crop, and as with maize, genetically modified varieties (maize Bt and soya RR) are used. In 2000-2001 more than 90% of the soya sown was soya RR.

I recommend this book to everyone interested in soil and water conservation - also for anyone interested in the history of the agriculture and environment of Argentina, modern agriculture, pest remediation or the latest machinery innovation. This is a veritable encyclopaedia of no-tillage agriculture.

- Artemi Cerda, University of Valencia, Valencia, Spain acerda@uv.es

INFORMATION SOURCES

Announcements or reviews for the WASWC newsletter may be sent to the President or any other Council member. Please state clearly if a publication is available free or priced (including or excluding delivery). Also please indicate the e-mail address and website.

Books, Proceedings & Reports

Participatory Strategy for Soil and Water Conservation (Editors: M. Mihara and E. Yamaji), a 304-page proceedings from the International Symposium of the same title in Tokyo, Japan, November 27-28, 2004, organized by the Institute of Environment Rehabilitation and Conservation (ERECON). ISBN 4-196174-03-8. Available from ERECON at erecon@nifty.com. US\$30/copy, including delivery.

Integrated Watershed Management for Land and Water Conservation and Sustainable Agricultural Production in Asia (Editors: S.P. Wani, A.R. Maglinao, A. Ramakrishna and T.J. Rego), a 259-page proceedings of the ADB-ICRISAT-IWMI Project Review and Planning Meeting, 10-14 December 2001, Vietnam. ISBN 92-9066-466-5. Available from ICRISAT, Patancheru 502 324, Andhra Pradesh, India. icrisat@cgiar.org, www.icrisat.org.

Journals, Magazines & Newsletters

Environment News Network (ENN) Newsletter, an e-newsletter, 11-year old, with lots of information, can be accessed at www.enn.com, and anyone can subscribe for free. Interestingly there is an 'ENN Magazine' coming within the newsletter, the present issue (October 2004) contains the following articles:

- Emissions Free Country
- EarthTalk: Do urban trees really help reduce pollution and clean the air?
- Is Agribusiness Making Food Less Nutritious?
- Revealing Dhaka: The Hope of Bangladesh

An interesting feature of this newsletter at this time is that it has a special section presenting the Rolex Awards for Enterprise, showing in video all award winners (in natural science, conservation, etc.) and how they had achieved them, as well as the award presentation ceremony in Paris. We highly recommend WASWC members to subscribe to this newsletter

LEISA Magazine, special issue on Ecoagriculture. Sara Scherr, Ecoagriculture Partners Director, announced the publication of a special issue on ecoagriculture of LEISA (Low-External-Input and Sustainable Agriculture) magazine, 20(4): "Farming with Nature." ILEIA (the Institute for Low External Input Agriculture) worked with Ecoagriculture Partners and with participants at the International Ecoagriculture Conference and Practitioners' Fair in Nairobi to identify cases of ecoagriculture highlighted in the special issue. Sara worked with Anita Ingevall and Electra van Campen of ILEIA to write the lead editorial and identify resource materials. The special issue presents diverse and inspiring examples of ecoagriculture practiced by farming communities at a landscape scale. The cases are prepared for field practitioners and the language is very accessible. You may write to Anne Thiel at athiel@ecoagriculturepartners.org and ask for your copy. More info in <http://www.leisa.info> and contact for subscription at ileia@ileia.nl.

ESSC Newsletter, with the start of the new term of the **European Society for Soil Conservation (ESSC)**, an improved format of the Society's Newsletter (Mike Fullen – Editor-in-Chief, m.fullen@wlv.ac.uk) has appeared with the recently received issue 2/2004.

The ESSC Newsletter also appears on the web at www.essc.sk where you can access it from 2001 onward. Membership in ESSC (costs €25/year or €70 for 3 years) will furnish you with information on the soil erosion and soil conservation movement in many European countries. Apply for membership to the ESSC Treasurer, Wim Cornelis, at wim.cornelis@ugent.be.

Institutions and Websites

<http://geoimages.berkeley.edu/wwp304/index.html>

The Original World Wide Panorama Event (March 20, 2004) and World Heritage – a World Wide Panorama (June 19-21, 2004)

On Saturday, March 20, more than 180 photographers in 40 countries around the world celebrated the Equinox by creating VR panoramas that are interactive. This site showcases the results of their efforts. The event was sponsored by the Geography Computing Facility at the University of California Berkeley. This is a non-commercial project, done simply to create enthusiasm for VR photography, and provide an outlet for our collective creativity.

You can use your mouse to rotate the panorama and zoom in and out with the shift and control keys. Some panorama pictures are cylinders, 360° around. Others are cubic or spherical with a view that can go straight up or straight down, as well as all the way around. There are some VR objects that the viewer circles around an object of interest.

You can browse images using a thumbnail index, or choose by location or the photographer. Surround yourself with cherry blossoms in Los Angeles, USA or sunset in Perth, Australia. There are landscapes and cityscapes. It is intriguing that anyone with a digital camera can do this by using panorama-making software. – *Excerpt taken partly from The Bangkok Post, May 19, 2004*

NEWS IN BRIEF

MEETINGS

The organizers of meetings in the field of SWC and related subjects are invited to send announcements for publishing in the WASWC Newsletter.

2005

- January 18-20, 2005 Int'l Conference "Education for a Sustainable Future (ESF), Ahmedabad, India. Contact: ESF Secretariat, Phone: +91-79-26858002, Fax: +91-79-26858010, esf@ceeindia.org, www.ceeindia.org/esf
- January 24-29, 2005. Global NGO Forum on Women's Progress on Agroforestry since Beijing 1995, Kampala, Uganda. Contact: ruthmubiru@yahoo.com
- February 23-25, 2005. Int'l Conference on Integrated Assessment of Water Resources and Global Change: A North-South Analysis, Bonn, Germany. Contact: Eric Craswell, Global Water System Project (GWSP), Walter-

- Flex-Str. 3, D-53113 Bonn, Germany, eric.craswell@uni-bonn.de, waterconference@uni-bonn.de, www.giwa.net. See more details in Announcement section, 20(2) issue.
- March 7-9, 2005. The East African Integrated River Basin Management Conference. Morogoro, Tanzania. Contact: swmrg@suanet.ac.tz, <http://eng.suanet.ac.tz/swmrg/rbmconference.htm>
 - March 20-23, 2005. 9th Int'l Symposium on Biogeochemistry of Wetlands, Louisiana State Univ., Baton Rouge LA, USA. Contact: Robert R. Twilley at rtwilley@lsu.edu.
 - March 29-April 6, 2005. Int'l Conference on Global Soil Change: Time-scale and Rates of Pedogenic Processes, Montecillo, Mexico. Contact: Elizabeth Solleiro-Rebolledo, solleiro@geologia.umam.mx
 - April 2-9, 2005. Int'l Symposium on Regional Hydrologic Impacts of Climate Variability and Change With an Emphasis on Less-developed Countries, Foz do Iguacu, Brazil. More information on the symposium at <http://iahs.info>, and on the organizer, ICCLAS, at www.hwr.arizona.edu/icclas/.
 - April 8-12, 2005. 5th Int'l Conference on Hani/ Akha Culture, Mojiang County, Yunnan Province, China. Contact: Messrs Zhao Dewen, Mr. Minta Minji and Bai Bibo, The Hani Culture Institute, Ethnic & Religious Affairs Bureau, Mojiang County, Yunnan Province 654800, China. Phone: +86-(0)879-4233955, Fax: +86-(0)879-4238299, mjiteb@163.com, baibibo@hotmail.com. See more details in Announcement section issue 21(1).
 - April 13-17, 2005. Int'l Workshop on Drafting Appropriate Policies and Guidelines to Support Sustainable Land Management in the Mediterranean Region, Beirut, Lebanon. Contact: Pandi Zdruli, CIHEAM-IAM Bari, Italy pandi@iamb.it and Talal Darwish, CNRS Soil Science, National Center for Remote Sensing, Beirut, Lebanon. Phone: +961-4-409845/6, Fax: +961-4-409847, tdarwich@cnrs.edu.lb or medcoastland@cnrs.edu.lb. See more details in Announcement section issue 21(1).
 - April 19-21, 2005. The 16th Global Warming International Conference, New York City, USA. Submission deadline: October 30, 2004. Contact: gw16@globalwarming.net
 - April 25-27, 2005. Int'l Study Forum on Managing Saline Soils and Water: Science, Technology and Social Issues, Riverside, CA, USA. Contact: Donald Suarez, Phone: +1-909-3694815, dsuarez@ussl.ars.usda.gov
 - April, 25-29, 2005. Int'l Conference on Soil Water Erosion in Rural Areas – A special session of the European Geophysical Union, Vienna, Austria. Contact: Cerda, A. artemio.cerda@uv.es, Poesen, J. Jean.Poesen@geo.kuleuven.ac.be and Imeson, A. a.c.imeson@science.uva.nl. See more details in Announcement section issue 21(1).
 - May 16-22, 2005. Int'l Symposium on Land Degradation and Desertification (Simpósio de Degradação de Terras e desertificação), Uberlândia, Brazil. Contact: Sílvia Carlos Rodrigues, Instituto de Geografia, Universidade Federal de Uberlândia, Brazil, silgel@ufu.br, comland2005@ig.ufu.br, www.ig.ufu.br/comland/index.htm
 - May, 18 to 20, 2005. Symposium on No-Tillage and Environment, Carbon Sequestration and Water Quality, Iguassu Falls, Parana, Brazil. Contact: Federação Brasileira do Plantio Direto na Palha (Brazilian Federation of No Tillage on Crop Residues) at febrapdp@uol.com.br, <http://www.febrapdp.org.br/simposio>. See more details in the Announcement section issue 21(1).
 - May 25–26(-28), 2005. Int'l Conference on Soil Conservation Issues in Nordic Countries, Tartu, Estonia. Contact: Endla Reintam endla@eau.ee, <http://www.essc.sk>, <http://www.eau.ee/~muld>, <http://www.geo.ut.ee/LTconference/>. See more details in Announcement section issue 21(1).
 - June 6-10, 2005. Int'l Conference on Modeling Tools for Environment and Resources Management Conference 2005, Bangkok, Thailand. Contact: mterm@ait.ac.th, <http://www.mterm.ait.ac.th>
 - June 12-15, 2005, 9th North American Agroforestry Conference, Rochester, MN, USA. Contact: Dean Current, 612-624-4299, curre002@umn.edu.
 - June 20-23, 2005. VI Headwater Control Conference: Hydrology, Ecology and Water Resources in Headwaters, Bergen, Norway. Contact: Martin Haigh (mhaigh@brookes.ac.uk) and Josef Krecek (krecek@cesnet.cz). See more details in Announcement section issue 20/2.
 - June 20-25, 2005. Int'l Symposium on "Sustainability of Paddy Farming Systems", Manila, Philippines. Contact: Jose Rondal at joserondal@yahoo.com
 - July 9-22, 2005. 2005 Watershed Management Conference - Sheds Light on Water Issues, Colonial Williamsburg, Virginia, USA. More info at <http://www.asce.org/conferences/watershedmanagement2005/>. See more details in Announcement section issue 21(1).
 - July 30-August 4, 2005. Soil and Water Conservation Annual and International Conference. Rochester, New York, USA. Contact: Contact: Nancy Herselius, Phone: +1-515-2892331, nancy.herselius@swcs.org, www.swcs.org
 - September 2005, Int'l SWC Conference, Ghana. To be announced.
 - September 5-10, 2005. 10th WOCAT Annual Workshop & Steering Meeting (WWSM10), Serbia & Montenegro. Contact: WOCAT Secretariat at wocat@cde.unibe.ch and Miodrag Zlatic at mizlatic@yubc.net.
 - September 7-11, 2005. 6th Int'l Conference on Geomorphology: Geomorphology in regions of environmental contrasts, Zaragoza, Spain. Contact: Organizing Secretary, Geomorphologia, Edificio C. Facultad de Ciencias, Univ. de Zaragoza, Zaragoza, Spain. Fax: +34-976-761106, iaq2005@posta.unizar.es, <http://wzar.unizar.es/actos/SEG>
 - September 10-18, 2005. 19th Int'l Congress on Irrigation and Drainage (ICID), Beijing, China. Contact the Chinese National Committee on Irrigation and Drainage, Phone: +86-10-68415522/ 68416506, www.icid.org/index_e.html
 - September 12-16, 2005. Int'l Conference Regarding Human Impacts on Soil Quality Attributes, Isfahan, Iran. Contact: Mohammad Hajabbasi, Soil Science Center of Excellence, College of Agriculture, Isfahan University of Technology, Isfahan, Iran, Phone: +98-311-3913477, Fax: +98-311-3913471, cesoil@cc.iut.ac.ir, <http://www.iut.ac.ir/cesoil>, <https://cc.iut.ac.ir/webmail/>, <http://www.iut.ac.ir/cesoil/HISQA.htm#arm>. See more details in Announcement section issue 21(1).
 - September 19-21, 2005. XXXI CIOSTA-CIGR V Congress on Increasing Work Efficiency in Agriculture, Horticulture and Forestry. University of Hohenheim, Stuttgart, Germany, www.uni-hohenheim.de/ciosta-cigr.
 - October 3-7, 2005. III World Congress on Conservation Agriculture, with a theme, "Linking Production, Livelihoods and Conservation", Nairobi, Kenya. Contact: Melanie Mostert, Phone: +263-4-882107, Fax: +263-4-885596, actnetwork@africaonline.co.zw, www.act.org.zw, www.fao/act-network. See more details in the Announcement section issue 20(4).
 - October 5-8, 2005. "Yundola 2005", Forest Impact on Hydrological Processes and Soil Erosion: 40 years of the foundation of Experimental Watershed Research Basin, Yundola, Bulgaria. Contact: Elena Rafailova, erfailova@hotmail.com, Georgi Gergov, g.gergov@internet-bg.net. See more details in Announcement section issue 20(2) and 21(1).
 - November 17-25, 2005. 3rd Int'l Conference on Soils of Urban, Industrial, Traffic, Mining and Military Areas (SUITMA), Cairo, Egypt. Contact: Salah A. Tahoun, P.O. Box 2893, Heliopolis El-Horria, Cairo 11361, Egypt

- stahoun@mail.eun.eg, suitma@mail.eun.eg. More info at www.eun.eg/suitma. See more details in Announcement section issue 21(1).
- November 28-Dec 2, 2005. First int'l symposium on the Management of Tropical Sandy Soils for Sustainable Agriculture: a holistic approach for sustainable development of problem soils in the tropics, Khon Kaen, Thailand. Contact: Andrew Noble at a.noble@cgiar.org and see details in <http://203.209.62.252/tropicalsandsoils/>. See details in Announcement section issue 20(4).
 - December 2005. 1st Int'l WASWC Meeting, New Delhi, India.

2006

- March 16-22, 2006. 4th World Water Forum: Local Actions for a Global Challenge, Mexico City, Mexico. See http://www.cna.gob.mx/publica/doctos/eventos/Cuarto_Foro_Mundial/Paginas/Inicio_ingles.htm and www.worldwatercouncil.org.
- May 14-19, 2006, 14th ISCO Conference, "Sustainable management of soil and water in a semi-arid environment", Marrakesh, Morocco. Contact: Mohamed Sabir at sabireni@wanadoo.net.ma. See more details in the Announcement section issue 21(1).
- July 9-15, 2006. 18th World Congress of Soil Science. Frontiers of Soil Science: Technology and the Information Age, Philadelphia, Pennsylvania, USA. Contact The Organizing Executive Committee at 18wcsc@soils.org, www.18wcsc.org. First Announcement is available at http://www7.nationalacademies.org/usncss/WCSS_First_Announcement.html.

2008

- Summer. 2nd Int'l Eco-Engineering Conference, Beijing, China. Contact Alexia Stokes at stokes@liama.ia.ac.cn

2010

- July 2010. 19th World Congress of Soil Science. Brisbane, Australia. Contact: Neil McKenzie at neil.mckenzie@csiro.au

The list of officers at the end of 2004 and the application/ renewal form can be found at our website www.swcc.cn/waswc/. We can also send them out by e-mail upon request.