

DesertNet International



DesertNet International Newsletter n. 2/2017

This quarterly electronic newsletter is intended to inform the scientific community about dryland-relevant research matters. The **deadline** for receipt of material for the next issue is **30.06.2017**. Please send your contributions (1000 characters max, including spaces) to nrd@uniss.it and czanolla@uniss.it

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1. Information relevant to DesertNet members

External review of the IPBES second order draft of the thematic assessment report on land degradation and restoration will start in the beginning of May 2017!

On 16 March 2017, the secretariat of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) announced that as part of the open, transparent and collaborative process, the external review of the second order draft of the thematic assessment report on land degradation and restoration, and its associated first order draft of the Summary for Policymakers (SPM), will take place over eight weeks, from 1 May until 26 June 2017.

DesertNet International has an observer status in the IPBES, and will be providing more information on this process closer to the start of the external review process.

Information provided by the DNI Bureau

Decision of the Intergovernmental Panel on Climate Change (IPCC) to produce a Special Report on “climate change, desertification, land degradation, sustainable land management, food security, and green house gas fluxes in terrestrial ecosystems

At its 45th Session (28 – 31 March 2017, Guadalajara, Mexico), the Intergovernmental Panel on Climate Change (IPCC) decided to produce a Special Report on “climate change, desertification, land degradation, sustainable land management, food security, and green house gas fluxes in terrestrial ecosystems” (short title “climate change and land”).

For more information on the Decision and the outline see:

http://www.ipcc.ch/meetings/session45/Decision_Outline_SR_LandUseFINAL.pdf

An Information Document with an annotated indicative chapter outline for the special report was prepared at a 4-day expert scoping meeting that took place in Dublin in February 2017. This document is available at:

<http://ipcc.ch/apps/eventmanager/documents/43/090320170624-INF.7-SRLandUse.pdf>

A call for nominations of Coordinating Lead Authors (CLAs), Lead Authors (LAs) and Review Editors (REs) will be issued by the IPCC on 10 April 2017 and will be open until 21 May 2017. More information on the nomination process will be provided shortly.

Information provided by the DNI Bureau

2. Researchers' Updates

Call for research & innovation proposals to the African-European ERA-NET Cofund (LEAP-Agri)

In spite of the agricultural potential in EU and Africa there are limiting factors like arable and pasture degradation or deforestation that hamper food security in both regions. The *Long term EU- Africa research and innovation Partnership on food and nutrition security and sustainable Agriculture* (LEAP-Agri) launches this call to improve sustainable food systems and nutrition through Sustainable Intensification, and Agriculture and food systems for nutrition calls.

Applications can be submitted by consortia of at least four partners from four of the following countries participating in the call. At least 2 African institutions and 2 European institutions in different countries must be part of the consortium.

African countries: Algeria (DGRSTD-MESRS), Burkina Faso (FONRID), Cameroon (MINRESI), Egypt (MHESR), Ghana (STEPRI-CSIR), Kenya (MOEST), Senegal (MESR), South Africa (NRF), Uganda(UNCST);

European countries: Belgium (FWO, FNRS, BELSPO), Finland (AKA), France (ANR, AFD), Germany (BLE, DLR-PT), The Netherlands (NWO, MINEZ), Norway (RCN), Portugal (FCT), Spain (MINECO), Turkey (TUBITAK);

The four partners (institutions) in a consortium have to be located/working in four of the aforementioned countries (two from each continent).

The Call will follow a two step-procedure:

Step 1) Preliminary proposal stage to be submitted by the call deadline on 15 June 2017 | 14:00 CEST.

Step 2) Full proposal stage, that will be launched in early December 2017

More information at: <http://www.leap-agri.com/index.php/2014-10-27-15-56-42/pre-proposal-submission>

Information provided by: María José Marqués. Universidad Autónoma de Madrid



News from the CASCADE Project

In February 2017 CASCADE Project partners (<http://www.cascade-project.eu/>) met for their final plenary meeting in Matera, southern Italy. This was an opportunity to consolidate research findings and find ways to present an integrated response to key questions about shifts in semi-natural dryland ecosystems across southern Europe, especially relating to the processes, and to provide recommendations for management.

For answers, see our website and CASCADiS information system <http://www.cascadis-project.eu/>

A field day demonstrated the challenges of agriculture around highly-erodible badland areas. The climax to the week was a Policy Forum where a wide range of invited policy makers from multiple levels, including UNCCD, EU, FAO and local stakeholders, outlined their needs for policy making, and a Round Table session provided feedback on CASCADE recommendations from our research. In particular CASCADE results are pertinent to the UNCCD's Scientific Conceptual Framework for Land Degradation Neutrality, and FAO's plans for Climate-Smart Agriculture.

Information provided by: Dr. Nichola Geeson, MEDES Foundation, Italy

Economics of Land Degradation Initiative (ELD) – the way ahead

ELD succeeded in raising awareness on the importance of the economics of land degradation and in promoting the practice of sustainable land management. The Initiative has established a global network of partner organizations and contributing institutions from the research, policy and private sector. Worldwide a number of case studies have been conducted and their outcomes merged within the core ELD target group reports. The work of ELD further continues to generate economic arguments, thus creating widespread interest and contributing to discussions around establishing an enabling political environment for sustainable land management. ELD further commands attention from international development discussions, e.g., in the SDGs (Land Degradation Neutrality; Natural Capital) and the UNCCD COP 12 decisions, which recognize the need for economic assessments of desertification, sustainable land management, and the resilience of rural areas. In the upcoming phase, the Initiative will focus on bringing to bear the results of its scientific work and implementing the ELD methodology. The regional focus will be on sub-Saharan-African countries at national level, closely linking scientific studies with dialogues between decision makers and land managers, but also with capacity development activities in cooperation with national and local partners.

Information provided by: Mark Schauer, ELD - Coordinator at Sector Project to Combat Desertification, GIZ, Germany

Internship Programme at FAO



**Food and Agriculture Organization
of the United Nations**

The Food and Agriculture Organisation offers different options worldwide for students or young graduates (no more than 30 years old) to learn about what FAO does. Assignments range from 3 to 6 months receiving a monthly stipend.

The selection process is open throughout the year.

More information at:

<http://www.fao.org/employment/opportunities-for-young-talents/internship-programme/en/>

Information provided by: María José Marqués. Universidad Autónoma de Madrid

MENA Scholarship Programme (MSP)

The scholarships Programme, funded by Dutch Ministry of Foreign Affairs, can be used for short courses in the Netherlands in several fields of study, for example: agriculture and environment, or social sciences. The duration can be between two and twelve weeks for applicants who must not be over 45 years of age at the time of the grant submission. These scholarships are targeted to professionals from Algeria, Egypt, Iraq, Jordan, Lebanon, Libya, Morocco, Tunisia and to Syrians residing and working in one of the other selected MSP countries.



More information at

<https://www.studyinholland.nl/scholarships/highlighted-scholarships/mena-scholarship-programme>

Information provided by: María José Marqués. Universidad Autónoma de Madrid

The iLEAPS International Project Office (IPO) comes to the UK

The UK Centre for Ecology & Hydrology (CEH) is the new host of the international project office for iLEAPS - the Integrated Land Ecosystem Atmosphere Process Study. The IPO will be led by Dr Eleanor Blyth, with support from CEH scientists, Dr Garry Hayman and Dr Toby Marthews.



iLEAPS provides support and networking opportunities to scientists from across the world who study interactions between the land and the atmosphere. The iLEAPS website (www.ileaps.org) has been revamped and the iLEAPS team is now looking to us for contributions.

CEH will organise the 5th iLEAPS Science Conference in Oxford in 2017, with the theme 'Understanding the impact of land-atmosphere exchanges'

Source: <http://www.ileaps.org/>

Information provided by: Gerard Begni, DNI – CSFD/CAC

2nd Sahara Scientists Summit („3S”) at Esztergom, Hungary

The 2nd Sahara Scientists Summit („3S”) was organized by 165 yr old Budapest Chamber of Commerce and Industry Energy and Biotechnology Section (BCCI-EBTS) at Esztergom in Hotel Bellevue****, Hungary from 07.03.2017 to 09.03.2017. The 2nd „3S” made a second most important step towards a „fundamentally new approach (FNA) to climate mitigation and energy sustainability”. Speakers emphasized that scientific approach with innovative and progressive new solutions developed for climate mitigation could offer multidimensional responses on the most important questions facing humanity, such as migration (which has become a global key security issue nowadays), unemployment, food and feedstock supply against qualitative and quantitative starvation, reforestation and renewable energy supply. As a summary of the summit, speakers agreed that application of such types of complex solution could increase overall national security. Prof. Dr. Jozsef Steier was chairman of Organizing Committee (President of the Budapest Chamber of Commerce and Industry Energy and Biotechnology Section (BCCI-EBTS) 1016 H-Budapest, Krisztina krt. 99. Tel.: +36 1 4424720. E-mail: j.drsteier@sunwo.eu). Plenary speakers included Dr. Norbert Kroo (Hungarian Academy of Sciences, H-Budapest), Dr. Janos Mika (College of Eszterházy Károly, H-Eger), Dr. Kornel Kovacs (Hungarian Biogas Association, H-Budapest), Dr. Pal Kovacs (Nuclear Power Plant, H-Paks), Marton Steier (BCCI-EBTS, H-Budapest), and Dr. Laszlo Csernai (University of Bergen, Norway).

Information provided by: Laszlo Marton, ISSAC CAR HAS 1022, Hungary. Mobile: [+36 30 341 8702](tel:+36303418702), e-mail: laszlo.marton@gmail.com

Morocco: What is the national program for water saving in irrigation?

The extension of areas equipped with localized irrigation techniques is encouraged by public authorities, thanks to a proactive policy which is reflected in the "Green Morocco Plan" (PMV) in the framework of the National Program for Water Saving in Irrigation (PNEEI), which aims to convert 550,000 ha of irrigated land into localized irrigation. Several mechanisms have been adopted by the PMV in order to achieve the objectives set out in the PNEEI, notably through the modernization of public irrigation networks with a progressive adoption of localized irrigation. Financial aid ranging from 80 to 100% of the cost of equipment is provided to farmers, in addition to strengthening the capacities of agricultural executives and farmers.

Source : <http://www.lesiteinfo.com/economie/en-quoi-consiste-le-programme-national-deconomie-deau-en-irrigation-video/>

Information provided by: Gerard Begni, DNI – CSFD/CAC

Tomatoes grown in Australian desert from sunshine and seawater

Using salt water and sunlight, Sundrop Farms are able to produce 15 million kilograms of tomatoes a year from the Australian desert. Here is how it works: A solar tower standing 115 metres high with 23,000 mirrors pointed at it provides all the power the farm requires, for heating and cooling. It also powers a desalination plant, which converts seawater into freshwater to keep the plants irrigated.

Source : <http://www.campagnesetenvironnement.fr/des-tomates-irrigu-es-l-eau-de-mer-dans-le-8684.html>

Information provided by: Gerard Begni, DNI – CSFD/CAC

3. Important upcoming events

List of links to next meetings regarding land degradation, desertification, and water conservation.

2017		
23–28 April	European Geosciences Union http://www.egu2017.eu/	Vienna, Austria
22-24 May	Global Soil Week (GSW) 2017 http://globalsoilweek.org	Berlin, Germany
12-16 June	1st World Conference on Soil and Water Conservation Under Global Change (CONSOWA) http://www.soilconservation.eu/assets/20160503consowaannouncement.pdf	Lleida, Spain
20-22 Jun	Fifth Session of the Global Soil Partnership Plenary Assembly http://www.fao.org/soils-portal/events/detail/en/c/462873/	Rome, Italy
7-9 Jul	The European Conference on Sustainability, Energy & the Environment 2017 https://ecsee.iafor.org/	Brighton, UK

16-19Jul	3rd NDSU Annual Conference on "Food for Health" https://www.ag.ndsu.edu/GIFSIA/2nd-ndsu-annual-conference-on-food-for-health	North Dakota USA
5-8 Sept	4th International Conference on Research for Development (ICRD) www.icrd.ch	Bern, Switzerland
6-7 Sep	ICSD 2017: 5th International Conference on Sustainable Development http://www.ecsdev.org/index.php/conference	Rome, Italy
4-15 Sept	UNCCD COP 13 http://www2.unccd.int/cop13	Ordos, Inner Mongolia
7-11 Oct	International Conference on Water Management In Arid And Semi-Arid Land (WMAL2017) http://www.just.edu.jo/Conferences/water-management/Pages/default.aspx	Amman, Dead Sea, Jordan
6-9 Nov	6th International Conference on Deserts, Drylands & Desertification (DDD) http://in.bgu.ac.il/en/desertification/Pages/default.aspx	Negev, Israel
28-30 Nov	Sustainable Intensification http://www.aab.org.uk/contentok.php?id=196&basket=wssshowconfdets	Harpenden, Herts UK

Information provided by DNI Bureau

European Geosciences Union General Assembly. Vienna, 2017

The meeting holds several sessions related to land degradation and desertification.

SSS2.1 Land Degradation and Development. A State-of-the-Art

SSS2.3/HS11.46 The use of check dams for soil restoration at watershed level: resolving or generating hydrological, soil and environmental problems?

SSS2.8/BG9.44 Soil quality assessment in degraded ecosystems: Global advances and challenges

SSS2.10 Soils of marginal lands – definition, assessment and land use options

SSS2.18 New challenges in Land Degradation and Restoration research

SSS2.20/HS11.51 Innovation and new challenges in sharing research results and knowledge of soil and water resources: experiences on strategic thinking, technologies and collaborative work.

SSS2.23 Salt affected soils: monitoring, risk assessment and effects on plants

GM6.4/CL1.16/SSS3.10 Palaeoenvironmental evolution, connectivity and geomorphological dynamics in dryland areas: New approaches, challenges, pros and cons

GM7.3/CL1.09/SSS3.11 Geoarchaeology: Human impact, adaptation and response to climatic and environmental change from the past to the present

SSS9.7/CL5.21/GM7.8/HS11.55 Soil Erosion, Land Use and Climate Change: mapping, measuring, modelling, and societal challenges

SSS9.14/BG9.46/CL3.13 Carbon sequestration in soils for mitigation, adaptation and food security: making the '4 per 1000' goal a reality and studying soils based negative emissions technologies (NETs)

SSS10.1 The impact of grazing on land degradation: Identifying problems, causes and solutions from a global perspective

More information at: <http://meetingorganizer.copernicus.org/EGU2017/sessionprogramme>

Information provided by: DNI Bureau

WOCAT Symposium and 18th WOCAT Network Meeting



The WOCAT Symposium and the 18th WOCAT Network Meeting will take place in Cali, Colombia, from 13 to 16 June 2017.

The event will be hosted by CIAT in Cali, Colombia, and brings a wide range of WOCAT members and stakeholders together and will focus on:

The role of SLM in contributing to achieve the SDGs

Part 1: WOCAT Symposium (open to a broad range of SLM stakeholders) (Tuesday, 13 June)

Part 2: Field day in the surroundings of Cali (Wednesday, 14 June)

Part 3: 18th WOCAT Network Meeting (Thursday 15 June - Friday 16 June)

Please find the detailed announcement of the event at:

https://www.wocat.net/fileadmin/user_upload/documents/Workshops/WWSM/18th_WNM_announcement_20170228_EN.pdf

It is also available in Spanish at:

https://www.wocat.net/fileadmin/user_upload/documents/Workshops/WWSM/18th_WNM_announcement_20170228_ES.pdf

Deadline for registration is April 14, 2017. Please use the on-line registration form at:

<https://www.wocat.net/en/news-events/events/registration/steering-meeting-cali-2017> or

<https://www.wocat.net/es/news-events/events/registration/steering-meeting-cali-2017.html>

Information Provided by: WOCAT Secretariat, Centre for Development and Environment, University of Berne, Switzerland

4. Publications and Special Issues

1. Bezerra-Alves, T. L., P. V. de Azevedo & C. A. Costa dos Santos. 2017. Influence of climate variability on land degradation (desertification) in the watershed of the upper Paraíba River. *Theoretical and Applied Climatology*, 127, 741-751.

2. Boulay, R., S. Aron, X. Cerda, C. Doums, P. Graham, A. Hefetz & T. Monnin. 2017. Social Life in Arid Environments: The Case Study of Cataglyphis Ants. In Annual Review of Entomology, Vol 62, ed. M. R. Berenbaum, 305-321.
3. Chakhchar, A., M. Haworth, C. El Modafar, M. Lauteri, C. Mattioni, S. Wahbi & M. Centritto. 2017. An Assessment of Genetic Diversity and Drought Tolerance in Argan Tree (*Arganiaspinosa*) Populations: Potential for the Development of Improved Drought Tolerance. *Frontiers in Plant Science*, 8, 1-11.
4. Favretto N; Luedeling E; Stringer LC; Dougill AJ (2017) Valuing Ecosystem Services in Semi-arid Rangelands through Stochastic Simulation, *Land Degradation and Development*, 28, pp.65-73. [doi: 10.1002/ldr.2590](https://doi.org/10.1002/ldr.2590)
5. Jafari, R. & S. Hasheminasab. 2017. Assessing the effects of dam building on land degradation in central Iran with Landsat LST and LULC time series. *Environmental Monitoring and Assessment*, 189.
6. Kundu, A., N. R. Patel, S. K. Saha & D. Dutta. 2017. Desertification in western Rajasthan (India): an assessment using remote sensing derived rain-use efficiency and residual trend methods. *Natural Hazards*, 86, 297-313.
7. Lai, Z., J. Liu, Y. Zhang, B. Wu, S. Qin, Y. Sun, J. Zhang, W. Feng, K. Fa & Y. Bai. 2017. Introducing a shrub species in a degraded steppe shifts fine root dynamics and soil organic carbon accumulations, in northwest China. *Ecological Engineering*, 100, 277-285.
8. Lebre, P. H., P. De Maayer & D. A. Cowan. 2017. Xerotolerant bacteria: surviving through a dry spell. *Nature reviews. Microbiology*.
9. Londono, A. C., P. R. Williams & M. L. Hart. 2017. A change in landscape: Lessons learned from abandonment of ancient Wari agricultural terraces in Southern Peru. *Journal of environmental management*.
10. Lorenz, K. and Lal R. 2016. Soil Organic Carbon – An Appropriate Indicator to Monitor Trends of Land and Soil Degradation within the SDG Framework? Downloadable at: <https://www.umweltbundesamt.de/en/publikationen/soil-organic-carbon-an-appropriate-indicator-to>
11. Okpara UT; Stringer LC; Dougill AJ (2017) [Using a novel climate-water conflict vulnerability index to capture double exposures in Lake Chad](https://doi.org/10.1007/s10113-016-1003-6), *Regional Environmental Change*, 17, pp.351-366. [doi: 10.1007/s10113-016-1003-6](https://doi.org/10.1007/s10113-016-1003-6)
12. Orchard SE; Stringer LC; Manyatsi AM (2017) [Farmer Perceptions and Responses to Soil Degradation in Swaziland](https://doi.org/10.1002/ldr.2595), *Land Degradation and Development*, 28, pp.46-56. [doi: 10.1002/ldr.2595](https://doi.org/10.1002/ldr.2595)
13. Tong, X., K. Wang, Y. Yue, M. Brandt, B. Liu, C. Zhang, C. Liao & R. Fensholt. 2017. Quantifying the effectiveness of ecological restoration projects on long-term vegetation dynamics in the karst regions of Southwest China. *International Journal of Applied Earth Observation and Geoinformation*, 54, 105-113.
14. Wolff, F. and Kaphengst, T. 2016. The UN Convention on Biological Diversity and Soils: Status and Future Options. - In: *International Yearbook of Soil Law and Policy 2016*. Vol. 2016 of the series of *International Yearbook of Soil Law and Policy*, pp 129-148
Available at: http://link.springer.com/chapter/10.1007/978-3-319-42508-5_11
15. Zhou, D., X. Wang & M. Shi. 2017. Human driving forces of oasis expansion in northwestern China during the last decade-a case study of the Heihe River Basin. *Land Degradation & Development*, 28, 412-420.

Information provided by: DNI Bureau

New publication on "Making sense of research for sustainable land management"

"Making sense of research for sustainable land management" is a unique publication based on the work of more than 600 scientists. It reflects on 7 years of implementation-oriented research and carefully describes dozens of sustainable land management practices.

The book compiles practice-relevant results and syntheses of research for sustainable land management and demonstrates lessons learned from bridging gaps between science and practice. It is based on the results of an international research programme on interactions between land management, climate change, and ecosystems and their services, funded by the Federal Ministry of Education and Research, Germany.

The book is co-published by the Centre for Development and Environment (CDE), University of Bern, Switzerland and Helmholtz-Centre for Environmental Research GmbH – UFZ, Leipzig, Germany. It was cooperatively developed by WOCAT, the coordination project GLUES, and the 12 regional projects of the sustainable land management research programme.

Order hardcopy, download pdf version, watch the videos, find SLM practices in the WOCAT database at:

www.ufz.de/makingsense or www.wocat.net/makingsense

Information provided by: Ute Zander, Lernprozesse für Nachhaltige Entwicklung

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