

DesertNet International



DesertNet International Newsletter n. 2/2016

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 **22.07.2016**. 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

Monique BARBUT: Climate – Our inaction increases migrations and conflicts in Africa.

On March 30, 2016, Monique BARBUT was interviewed by the French newspaper 'Le Monde'. She blamed global inaction as a key factor that is exacerbating climate problems and causing land degradation and productivity decreases. She considered the example of El Nino, a well-known phenomenon against which no specific international mitigation programme has been set up. She underlined that land degradation and production decreases - and hence food insecurity - increase African migrations and internal conflicts, for instance in Darfur.

Source : http://www.lemonde.fr/afrique/article/2016/03/30/climat-notre-inaction-alimente-les-migrations-et-les-conflits-en-afrique_4892510_3212.html

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

EuroMed-France network: a workshop about climate hazards and access to water in the Mediterranean.

On Sept. 17, 2015, the EuroMed-France network in partnership with pS-Eau and the platform of the French NGO for Palestine organized a workshop about climate hazards and access to water in the Mediterranean with the support of AFD, the French Agency for Development, in the framework of UNFCCC COP 21. Four major topics were addressed: drinking water and sanitization, food security, migrations and governance. The conclusions and recommendations of the workshop can be found (in French) in the reference hereunder. The target stakeholders of these analyses and conclusions are local, national and international policy makers, but also civil society, which needs to be organized and properly informed.

Source: http://www.euromed-france.org/IMG/pdf/ref-les_recommandations_eau-cop21_2015-pdf.pdf

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

External Review of the First Order Draft of the IPBES thematic assessment on land degradation and restoration

On 20th April 2016 the secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) informed stakeholders that the external First Order Draft by experts of the IPBES thematic assessment on land degradation and restoration will be open for review from 30 May to 11 July 2016 (6 weeks). This review process is part of an open, transparent and collaborative process in the development of IPBES assessment reports. The names of reviewers will be published on the IPBES website and acknowledged in the Annex of the report.

Experts with relevant knowledge and/or experience on the issue of land degradation and restoration will be invited to fill the registration form that will be made available on 30 May. We will circulate any new information on the registration process to take part in the review process the moment this information is available.

Information provided by: DNI Bureau

ELD Initiative reports launched in Africa

The United Nations Environmental Programme (UNEP) and Stockholm Environment Institute (SEI), as partners to the Economics of Land Degradation (ELD) Initiative launched two key reports *The Economics of Land Degradation in Africa - Benefits of Action Outweigh the Costs* and a shorter report for policy- and decision-makers *Reaping economic and environmental benefits from sustainable land management*.

The high level event took place at the margins of the African Ministerial Conference on the Environment (AMCEN) on 17 April 2016, in Cairo, Egypt. The key presenters included Juliette Biao (Director, UNEP ROA), Stacey Noel (Director, SEI Africa) and Mesfin Tilahun (Assistant Professor, University of Mekelle and Norwegian University).

These two reports launched are complementary to the main ELD Initiative report *The value of land, prosperous lands and positive rewards through sustainable land management*. The reports provide solid scientific evidence of the profitability of investing in sustainable land management (SLM) and guidance for actions against land degradation in general and reference has been included in the final outcome document of the AMCEN meeting.

The ELD in Africa study serves as a good starting point and evidence for individual countries to take different SLM activities into action.

More information at: <http://eld-initiative.org/index.php?id=31>

Information provided by: Mark Schauer, Coordinator for the ELD Initiative's Secretariat at GIZ

3. Researchers' Updates

According to a Nature-COMMUNICATIONS paper, it is possible to feed the world without deforestation!

In this paper, the authors assess the biophysical option space for feeding the world in 2050 in a hypothetical zero-deforestation world. They combine realistic assumptions on future yields, agricultural areas, livestock feed and human diets. For each scenario, they determine whether the supply of crop products meets the demand and whether the grazing intensity stays within plausible limits. They find that many options exist to meet the global food supply in 2050 without deforestation, even at low crop-yield levels.

This is a very important result considering that deforestation lowers the global carbon sinks and that it is very often a major driver of desertification processes.

Source: <http://www.nature.com/ncomms/2016/160419/ncomms11382/full/ncomms11382.html>

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

IIED interviews the UNFCCC CoP 21 LDC group negotiator

Most of the areas prone to desertification belong to the least developing countries (LDC). Their environmental resilience and food security are dramatically affected by climate change. The International Institute for Environment and Development (IIED) undertook a long interview of the lead LDC group climate negotiator in UNFCCC CoP 21, M. Giza Gaspar-Martins.

The negotiator underlined that a 1.5-degree global temperature limit is imperative. All specific goals from the international SDGs to other local, national and regional goals, critically depend upon that preliminary objective.

The detailed interview can be found at the address quoted hereunder.

Source: http://www.iied.org/climate-negotiator?utm_source=IIED&utm_campaign=831da4f7ec-Feb_newsletter3_1_2016&utm_medium=email&utm_term=0_4c206cf0b2-831da4f7ec-89858413

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

WADIS MAR Interregional Workshop on good practices for sustainable water resources management in arid and semi-arid Regions. Summary and Recommendations

On March 22nd, on the occasion of the World Water day, the Desertification Research Centre (NRD-UNISS) and the Observatoire du Sahara et du Sahel (OSS), in collaboration with DesertNet International (DNI) and supported by Mediterranean Universities Union (UNIMED), organized the WADIS MAR Interregional Workshop on good practices for sustainable water resources management in arid and semi-arid regions in Tunis. The workshop aimed at showing to the national and international authorities the effective implementation of projects in the

field of sustainable water management taking into account the technical scientific results achieved by the SWIM DEMO projects besides other success stories carried out in arid and semi-arid environments by relevant institutions involved in water management.

More information at: <http://en.uniss.it/about-uniss/unisspress/wadis-mar-interregional-workshop-tunis-22nd-march-2016-reccomandations>

Information provided by: DNI Bureau

BFW and CNSF project on combating Climate change in Burkina Faso through Technical cooperation and Knowledge transfer in the Agro-forestry sector

The Austrian Research Centre for Forest (BFW) and the Burkinabe National Tree Seed Centre (CNSF) work together to mitigate climate change effects and desertification through technical cooperation and knowledge transfer in the agro-forestry sector. The issue they seek to address is low knowledge on how agro-forestry in connection with local forest genetics and sustainable management of parklands can contribute to combat desertification in arid and semi-arid zones of West Africa. For this reason, both institutions have focused their project on the improvement of forest genetic resources of *Prosopis africana*, threatened by extinction due to its overexploitation by metal workers and local communities. BFW and CNSF have put into place a drought experiment, three provenance trials (one provenance per climatic zone) and a study on the genetic diversity of this species in order to conserve it and to identify appropriate plant material to be used for afforestation purposes.

Christina Bouissou, Thomas Geburek, Heino Konrad, Ernst Leitgeb, Karl Gartner and Michael Englisch, (BFW), Moussa Ouédraogo, Cléophas Guibien Zerbo, Vincent Feniabavo Tianhoun and Abdoul Cader Kafando (CNSF)

Information provided by: Christina Bouissou, Austrian Research Centre for Forest

European Long-Term Ecosystem and Socio-ecological Research Infrastructure

Long term research projects have often been sought by the scientific community. Certain questions need long term research to be answered.



- How are ecosystems and biodiversity changing or adapting to global-change stresses?
- What are the determinants of ecosystem resilience?
- What are the threshold interactions resulting in system shifts?

The overall aim of the eLTER project is to advance development of the Long-term Ecosystem Research infrastructure and community in Europe. eLTER offers in-person (physical) Transnational Access (TA) to 18 well-equipped, long-term ecosystem research sites across major European socioeconomic and environmental gradients in 17 countries. Sites range from arid zones like Negev, Israel, to wetlands like Doñana, Spain.

Successful applicants will receive funding to cover travel expenses and can expect to benefit from the free use of eLTER facilities, services and support. They may use the sites' instruments and may access past data measured at the sites.

The first call is now closed, but watch for announcements of future calls.

More information at <http://www.lter-europe.net/elter/ta/ta-details>

Information provided by: Maria Jose Marques. Universidad Autónoma de Madrid

Kick-off meeting of ILHAM-EC project (Erasmus+) – 7, 8 March 2016 – Cairo, Egypt

The ILHAM-EC project was officially launched on 7th and 8th of March 2016 at the Faculty of Agriculture of the University of Cairo (which has 9,000 students enrolled in the Faculty and 400,000 total across the University). ILHAM-EC is a new project funded by the European Commission under the Erasmus + KA2 Capacity Building program. The University of Sassari, through the coordination of the Desertification Research Centre (NRD-UNISS), manages the project.



The project, called **Interuniversity Learning in Higher Education on Advanced Land Management - Egyptian Country (ILHAM-EC)**, aims to establish a master's degree in Egypt on Sustainable Land Management putting together four Egyptian universities: the University of Alexandria, Cairo University, the University of Damanhour and the University of Zagazig.

The project sees also the participation of the School of Earth and Environment of the University of Leeds, the Department of Food and Agriculture of the University of Thessaloniki, Mediterranean Universities Union (UNIMED), and a company, Advanced Computer System, which will develop computer applications dedicated to the introduction of new teaching tools. The project has a duration of three years.

More information at <http://en.uniss.it/about-uniss/unisspress/kick-meeting-ilham-ec-erasmus-7-8-march-2016-cairo>

Information provided by: Luciano Gutierrez, NRD-UNISS

Yousef Jameel Doctoral Scholarships for Arabic Countries

With support of the Yousef Jameel Scholarship Fund Humboldt-University will annually award five scholarships to doctoral candidates in the natural science fields. This year will be a special Focus on: Sustainable/ecologic (Desert) Agriculture (including: PGPR – Plant Growth Promoting Rhizobacteria – & Mycorrhizae, Irrigation Technology, Reduction of Water Consumption Micronutrients); Plant based Medicine/Pharmacy; Renewable & sustainable Energy Production.

Deadline: 15th July 2016

More information at: https://www.hu-berlin.de/en/research/szf/wiss_nachwuchs/jameel/Jameel-EN.pdf

Information provided by: Maria Jose Marques. Universidad Autónoma de Madrid

Marie Skłodowska-Curie Actions (MSCA) - Research Fellowship Programme

MSCA support researchers at all stages of their careers, working across all disciplines, and irrespective of nationality.

MSCA also support industrial doctorates, combining academic research study with work in companies, and other innovative training that enhances employability and career development.

MSCA-IF-2016 Deadline: 14th September 2016

More information at: <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2226-msca-if-2016.html>

Information provided by: Maria Jose Marques. Universidad Autónoma de Madrid

4. Important upcoming events

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

31 May –2 June	International Conference on Conservation Agriculture and Sustainable Land Use http://caslu2016.mtafki.hu/venue.html	Budapest, Hungary
31 May - 6 Jun	Conservation Agriculture and Sustainable Land Use http://caslu2016.mtafki.hu/	Budapest, Hungary
1–4 June	2nd EWaS International Conference: Efficient & Sustainable Water Systems Management toward Worth Living Development http://www.ewas2.tuc.gr/5709.html	Chania, Greece
16-17 June	Wadis Mar Final International Conference http://en.uniss.it/about-uniss/unisspress/wadis-mar-project-final-conference-sassari-16th-17th-june-2016	Sassari, Italy
10–14 July	8th International Congress on Environmental Modelling and Software (iEMSs 2016) http://www.iemss.org/sites/iemss2016/	Toulouse, France
13–15 Jul	22nd International Sustainable Development Research Society Conference http://www.isdrsconference.org/	Lisbon, Portugal
17-22 Jul	EUROSOIL 2016 Congress * http://www.eurosoil2016istanbul.org/	Istanbul, Turkey
14-16 Aug	2016 3rd Journal Conference on Environmental Science and Development http://www.ijesd.org/jcesd/3rd/	Porto, Portugal
22–26 Aug	10th European Conference on Ecological Restoration Best Practice in Restoration www.ser2016.org	Freising, Germany
29 Aug – 1 Sep	EcoSummit 2016 http://www.ecosummit2016.org/	Montpellier, France
12–15 Sep	8th International Conference on Scour and Erosion http://www.icse2016.com/topics/	Oxford, United Kingdom
13-16 Sep	4th International Conference on Biohydrology, 2016. Walking on Drylands http://www.soilconservation.eu/assets/20160215biohydrology2016-1stanouncement.pdf	Almeria, Spain
13-16 Sep	Soil – Our Common Future http://essc2016.conference.ubbcluj.ro/	Cluj-Napoca, Romania
26-28 Oct	4th International Conference on Sustainable Environment and Agriculture (ICSEA 2016) http://www.icsea.org/cfp.html	San Francisco, USA
2017		
12-16 June	1st World Conference on Soil and Water Conservation Under Global Change (CONSOWA) http://www.soilconservation.eu/assets/20160503consowaannouncement.pdf	Lleida, Spain

Information provided by: DNI Bureau

5. Publications and Special Issues

1. Andersen, D. C., C. A. Stricker, and S. M. Nelson, 2016, Wood decay in desert riverine environments: Forest Ecology and Management, v. 365, p. 83-95.
2. Andreassian, V., U. Mander, and T. Pae, 2016, The Budyko hypothesis before Budyko: The hydrological legacy of Evald Oldekop: Journal of Hydrology, v. 535, p. 386-391.
3. Balsiger, J., and M. Prys, 2016, Regional agreements in international environmental politics: International Environmental Agreements-Politics Law and Economics, v. 16, p. 239-260.
4. Chen, H., D. Lopez-Carr, Y. Tan, J. Xi, and X. Y. Liang, 2016, China's Grain for Green policy and farm dynamics: simulating household land-use responses: Regional Environmental Change, v. 16, p. 1147-1159.
5. Costantini, E. A. C., and G. L'Abate, 2016, Beyond the concept of dominant soil: Preserving pedodiversity in upscaling soil maps: Geoderma, v. 271, p. 243-253.
6. Dougill AJ; Akanyang L; Perkins JS; Eckardt FD; Stringer LC; Favretto N; Athlapheng J; Mulale K (2016) Land use, rangeland degradation and ecological changes in the southern Kalahari, Botswana, *African Journal of Ecology*, **54**, pp.59-67. doi: 10.1111/aje.12265
7. Favretto N; Stringer LC; Dougill AJ; Dallimer M; Perkins JS; Reed MS; Athlapheng JR; Mulale K (2016) Multi-Criteria Decision Analysis to identify dryland ecosystem service trade-offs under different rangeland land uses, *Ecosystem Services*, **17**, pp.142-151. doi: 10.1016/j.ecoser.2015.12.0058.
8. Ghiglieri, G., Carletti, A., Da Pelo, S., Cocco, F., Funedda, A., Loi, A., ... & Pittalis, D. (2016). Three-dimensional hydrogeological reconstruction based on geological depositional model: A case study from the coastal plain of Arborea (Sardinia, Italy). *Engineering Geology*, 207, 103-114.
9. Hereher, M. E., and H. Ismael, 2016, The application of remote sensing data to diagnose soil degradation in the Dakhla depression - Western Desert, Egypt: Geocarto International, v. 31, p. 527-543.
10. Lampurlanes, J., D. Plaza-Bonilla, J. Alvaro-Fuentes, and C. Cantero-Martinez, 2016, Long-term analysis of soil water conservation and crop yield under different tillage systems in Mediterranean rainfed conditions: Field Crops Research, v. 189, p. 59-67.
11. Li, F., J. J. Zheng, H. Wang, J. H. Luo, Y. Zhao, and R. B. Zhao, 2016, Mapping grazing intensity using remote sensing in the Xilingol steppe region, Inner Mongolia, China: Remote Sensing Letters, v. 7, p. 328-337.
12. Mandakh, N., J. Tsogtbaatar, D. Dash, and S. Khudulmur, 2016, Spatial assessment of soil wind erosion using WEQ approach in Mongolia: Journal of Geographical Sciences, v. 26, p. 473-483.
13. Ocampo-Melgar, A., and B. J. Orr, 2016, Participatory Criteria Selection: Finding Conflictive Positions in Environmental Postassessment of Land Management and Restoration Actions: Society & Natural Resources, v. 29, p. 119-130.
14. Okpara UT; Stringer LC; Dougill AJ (2016) Perspectives on contextual vulnerability in discourses of climate conflict, *Earth System Dynamics*, **7**, pp.89-102. doi: 10.5194/esd-7-89-2016
15. Reed, M. S., & Stringer, L. C. (2016). Land degradation, desertification and climate change: Anticipating, assessing and adapting to future change. Routledge. [This book is the extended version of the Impulse Report developed for the 3rd UNCCD Scientific Conference, held in Cancun, Mexico in March 2015]

---- Editorial Board ----

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