

DesertNet International



DesertNet International Newsletter n. 3/2016

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 **02.12.2016**. 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

ICoN SLM meets for a two-day workshop in Hamburg.

At the 11th Session of the UNCCD Conference of the Parties (UNCCD COP.11) in Windhoek in Autumn 2013 the chairs of three international independent science and knowledge networks DesertNet International, the World Overview of Conservation Approaches and Technologies and (WOCAT) and the Global Network of Dryland Research Institutes (GNDRI) had signed a collaboration agreement to strengthen synergies between the three networks through joint activities to combat desertification and support sustainable land management. Since then several meetings and joint activities of DNI, WOCAT and GNDRI have successfully taken place under the umbrella of the *International Consortium of Science and Knowledge Networks on Sustainable Land Management (ICoN SLM)*.

The most recent meeting of ICoN SLM took place at the University of Hamburg in Germany on 19th and 20th July 2016, where members of ICoN SLM discussed future activities based on the jointly developed document titled "policy-oriented research to achieve Land Degradation Neutrality", which had been presented at the ICoN SLM Side Event at

UNCCD COP.12 in Ankara, Turkey in Autumn 2015 (see: http://desertnet-international.org/docs/ICoN_SLM_Policy-oriented_research_to_achieve_Land_Degradation_Neutrality.pdf).



It became clear at the two-day meeting in Hamburg that any activities of ICoN SLM will consider the Sustainable Development Goals (SDGs), and specifically its target 15.3 on achieving Land Degradation Neutrality (LDN).

From left: DNI co-chair Dr. Richard Escadafal discussing future ICoN SLM activities with Dr. Dalel Ouerchefani Bouzaida and Pr. Dr. Hamed Daly-Hassen from Tunisia

Information provided by: DNI Bureau

The National International Platforms for Nutrition (NIPN).



The National International Platforms for Nutrition (NIPN) initiative is part of the European Union Nutrition Action Plan to combat malnutrition in the world, in line with the targets set for 2025 by the World Health Assembly. The developed approach involves building capacity of the EU partner countries hit by malnutrition, with the support of EC delegations, to make the most efficient use of existing nutrition-related data and information, thus enabling them to implement efficient policies and programmes, and pinpoint resources allocation priorities. The EC has entrusted the Agrinatura EEIG consortium with the task of coordinating the Global Support Facility

(GSF) in charge of setting up information in pilot countries. Agropolis international (Montpellier, France) hosts the GSF and ensures its operational management.

Source: <http://www.agropolis.org/project-management/NIPN-project.php>

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

Union for the Mediterranean (UfM): From CoP 21 to CoP 22 - Building a common regional Mediterranean agenda to achieve climate targets

Keeping the global temperature rise below 2°C, the target set by the Paris agreement, calls for actions that cannot only rely on nationally determined contributions. A coordinated regional approach on Climate Action is needed to successfully achieve this target in the Mediterranean, one of the most sensitive areas in terms of the impact of climate change.

Over 50 climate experts from UfM member representatives from organizations working in the field of climate action (UNEP, EBRD, etc.) and civil society



representatives gathered on 12/05/2016 under the auspices of the French Ministry for Environment, Energy and the Sea, as CoP 21 Presidency, to agree on a work programme for a regional agenda on climate action in the Mediterranean.

Source : <http://ufmsecretariat.org/from-cop21-to-cop22-building-a-common-regional-mediterranean-agenda-to-achieve-climate-targets/>

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

Four Billion People face severe water scarcity

Two-thirds of the planet's population, or 4 billion people, lives at least one month per year with water scarcity, according to the most detailed water scarcity assessment to date.

Previous studies — which estimated between 1.7 billion and 3.1 billion in water-scarce areas — were too broad for an accurate depiction of the problem, the study claims. Those assessments looked at annual averages over whole watersheds and did not account for ecosystem needs.

The study from researchers at the University of Twente, in the Netherlands, looked more closely. They used monthly averages of water availability, analyzed water supply and consumption at a scale that included municipal, industrial, and agriculture data, and apportioned water to maintain ecosystem health (see reference hereunder). The researchers defined water scarcity as consuming more fresh groundwater and surface water than is available, after subtracting upstream use and water required for ecosystems, estimated at 60 percent to 80 percent of natural runoff.

Under these conditions many more people than previously thought live with water scarcity at least one month per year.

Source: <http://www.circleofblue.org/2016/water-policy-politics/four-billion-people-face-severe-water-scarcity/>

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

Montenegro commits to maintain enough water for nature in its rivers

A new by-law, requiring that enough water is left in rivers to sustain ecosystems, was passed in Montenegro recently (Official Gazette RCG 2/2016 -14.01.2016). The result follows years of work with the Ministry of Agriculture and Rural Development, under the leadership of the NGO Green Home and WWF. The law concerns the “ecologically acceptable surface water flow”, which is the amount of water left in an aquatic ecosystem, or released into it, for the specific purpose of maintaining or achieving a good ecological condition.

“The concept of ecologically acceptable surface water flow is a way of including nature itself as a user of water. This is to secure the services that those ecosystems usually provide for free and that are often neglected, like water purification and flood protection”, said Nataša Kovacevic, NGO Green Home executive director. To establish the best methodology for Montenegro and develop a ‘Rulebook’ Green Home and WWF engaged a multidisciplinary team of experts.



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Sources: adria.panda.org/vijesti/?262932/Montenegro-commits-to-maintain-enough-water-for-nature-in-its-rivers

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

WADIS MAR Project Final Conference

On June 16th -17th 2016, Wafa Essahli, Chair of DesertNet International, participated in the final conference of the WADIS-MAR project (Water harvesting and Agricultural techniques in Dry lands: An Integrated and Sustainable model in the Maghreb Region) organized by the Desertification Research Centre (NRD-UNISS), at the University of Sassari. The conference, held on the occasion of the 2016 celebration of the World Day to Combat Desertification (WDCD), focused on the results achieved by the project and discussions on the 6th Sustainable Development Goals "Ensure availability and sustainable management of water and sanitation for all".

The event brought to the city in the north of the Sardinia a wide range of internationally renowned scientific personalities and institutions to discuss problems related not only to water scarcity, but also to the necessity of putting in place coordinated and multidisciplinary research and education, on the importance of stressing local and traditional knowledge, on the involvement of stakeholders in scientific research and policy-making, in-depth debate on the economic value of water and the increased awareness through local actions and the intervention of mass media.

Conference program, presentations and posters are available on the WADIS-MAR website (http://www.wadismar.eu/Activities6_FW.htm).

Information provided by: DNI Bureau

2. Researchers' Updates

IDDRI debates the case of so-called "green bonds"

The investment needs for deep decarbonization (compatible with the below 2°C target the international community committed to) are estimated to several trillions per year. In a context of stringent public budget constraint and low cost of borrowing in capital markets, much of the discussion on the financing of deep decarbonization now focuses on ways to maximize the leverage effect of public financing on long-term capital. Green bonds are one of the promising vehicles to tap long-term savings. Genuine promise or pipe dream?

Sources : <http://www.blog-iddri.org/en/2016/06/02/mobilizing-long-term-private-capital-debating-the-case-of-green-bonds/>

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

Cooperation project to fight soil erosion and deforestation in Peru

NRD UNISS and AVSI Peru are working together in a two-year technical cooperation project financed by the Italian Peruvian Fund (FIP) in the Region of Amazonas Peru, in the Utcubamba River area. The action promotes forest enrichment practices among the local population based on *guadua angustifolia* (commonly known as bamboo) in order to reduce the environmental and socio economic vulnerability of the area, in a climate change context. Thanks to its roots system, bamboo helps to bind the soil, contributing to stabilize river banks and slopes and together with the foliage, it prevents soil erosion. Bamboo is also known for its excellent carbon sequestration properties, representing an important measure for climate change mitigation. At the same time the *guadua angustifolia* that is one of the fastest growing plants of the planet, can be exploited for the market and utilized for multiple purposes, offering an important additional source of income for local communities. Within the Project, both institutions are also working to raise awareness and strengthening skills among local population and institutions on natural resource management and sustainable agriculture practices, providing training courses and creating new spaces for dialogue and action which are more inclusive and participatory.

Information provided by: Luciano Gutierrez, NRD-UNISS

Funds for film projects focused on increasing Environmental Awareness and Action

Redford Center provides grant funds and networking support to filmmakers focused on environmental topics. Short original videos (5 to 15 minutes) can be accepted online only, applications started in June 22 2016, and deadline is August 10, 2016. Once selected as one of the Program Grant recipients, one or more members of the team may attend a Program Summit for all Program Grant recipients at the Sundance Mountain Resort, Sundance, Utah from November 18-20, 2016.

More information at: <http://www.redfordcenter.org/for-filmmakers/grants-program>

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

The June 2016 Newsletter from the CASCADE Project is now available

The June 2016 Newsletter from the CASCADE Project is available to download at <http://www.cascade-project.eu/index.php/downloads/cascade-documents/category/1-public-documents?download=115:newsletter-june-2016&start=20>

CASCADE is examining a range of dryland ecosystems in southern Europe to obtain a better understanding of sudden shifts that may lead to major losses in biodiversity and concomitant ecosystem services. This Newsletter reports on the recent plenary project meeting in Ispra, Italy and highlights progress made in Work Package 3 (Identification of critical changes preceding catastrophic shifts in ecosystems affected by increasing wildfire recurrence), Work Package 4 (The potential for sudden shifts in dryland ecosystems), Work Package 5 (Regime shifts in the CASCADE dryland sites), and Workpackage 7 (Recommendations for management practices).

See: <http://www.cascade-project.eu/>

Information provided by Dr. Nichola Geeson, MEDES, nicky.geeson@googlemail.com

Global Biodiversity Atlas

The first Global Soil Biodiversity Atlas has been published by the Joint Research Centre, Institute for Environment and Sustainability (JRC IES). The work was coordinated by the JRC and the Global Soil Biodiversity Initiative.

For more information see: www.globalsoilbiodiversity.org

Information provided by: DNI Bureau

Internship Programme at FAO

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. Assignment ranges from 3 to 6 months receiving a monthly stipend. The selection process is open throughout the year.



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

More info at: www.fao.org/employment/opportunities-for-young-talents/internship-programme/en/

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

3. Important upcoming events

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

2016		
14-16 Aug	2016 3rd Journal Conference on Environmental Science and Development http://www.ijesd.org/icesd/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
5-8 Sep	16 th Biennial Conference ERB 2016 – Hydrological behavior in small basins under changing conditions	Bucharest, Romania
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
19-23 Sep	European Ecosystem Services Conference – Helping nature to help us http://www.esconference2016.eu/86157/wiki/163022/session%20overview#.V6CkbE8aBCp	University of Antwerp, Belgium
26-28 Oct	4th International Conference on Sustainable Environment and Agriculture (ICSEA 2016) http://www.icsea.org/cfp.html	San Francisco, USA
21-25 Nov	Ecosystem Services Partnership Africa Conference	Nairobi, Kenya
5-6 Dec	2 nd Global Soil Security Conference https://gssparisen.wordpress.com/	Paris, France

2017		
27-28 Jan	WSF2017 The 6 th World Sustainable Forum	Cape Town, South Africa
26-28 Mar	2 nd Agriculture and Climate Change Conference: Climate ready resource use-efficient crops to sustain food and nutritional security	Sitges, Spain
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

4. Publications and Special Issues

1. Akhtar-Schuster, M., F. Amiraslani, C.F. Diaz Morejon, R. Escadafal, E. Fulajtar, A. Grainger, K. Kellner, S.I. Khan, O. Perez Pardo, U. Sauchanka, L.C. Stringer, Fasil Reda, R.J. Thomas (2016), Designing a new science-policy communication mechanism for the UN Convention to Combat Desertification, *Environmental Science & Policy* 63: 122-131- (open access) <http://www.sciencedirect.com/science/article/pii/S1462901116300600>
2. Coscarelli, R., T. Caloiero, I. Minervino & M. Sorriso-Valvo (2016) Sensitivity to desertification of a high productivity area in Southern Italy. *Journal of Maps*, 12, 573-581.
3. Fick, S. E., C. Decker, M. C. Duniway & M. E. Miller (2016) Small-scale barriers mitigate desertification processes and enhance plant recruitment in a degraded semiarid grassland. *Ecosphere*, 7.
4. Gao, L. P., H. W. Kinnucan, Y. Q. Zhang & G. H. Qiao (2016) The effects of a subsidy for grassland protection on livestock numbers, grazing intensity, and herders' income in inner Mongolia. *Land Use Policy*, 54, 302-312.
5. Li, A. T. (2016) Forests or grasslands: conflicts over environmental conservation in arid and semiarid regions of China. *Regional Environmental Change*, 16, 1535-1539.
6. Martinez-Valderrama, J., J. Ibanez, G. Del Barrio, M. E. Sanjuan, F. J. Alcala, S. Martinez-Vicente, A. Ruiz & J. Puigdefabregas (2016) Present and future of desertification in Spain: Implementation of a surveillance system to prevent land degradation. *Science of the Total Environment*, 563, 169-178.
7. Mayer, A. L., B. Buma, A. Davis, S. A. Gagne, E. L. Loudermilk, R. M. Scheller, F. K. A. Schmiegelow, Y. F. Wiersma & J. Franklin (2016) How Landscape Ecology Informs Global Land-Change Science and Policy. *Bioscience*, 66, 458-469.
8. Tang, Z. S., H. An, L. Deng, Y. Y. Wang, G. Y. Zhu & Z. P. Shangguan (2016) Effect of desertification on productivity in a desert steppe. *Scientific Reports*, 6.
9. Wang, Y. H. & B. X. Wang (2016) Multidimensional poverty measure and analysis: a case study from Hechi City, China. *Springerplus*, 5.
10. Weissmann, H. & N. M. Shnerb (2016) Predicting catastrophic shifts. *Journal of Theoretical Biology*, 397, 128-134.
11. Zhang, Y., C. B. Zhang, Z. Q. Wang, Y. Z. Chen, C. C. Gang, R. An & J. L. Li (2016) Vegetation dynamics and its driving forces from climate change and human activities in the Three-River Source Region, China from 1982 to 2012. *Science of the Total Environment*, 563, 210-220.

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