

# DesertNet International



## DesertNet International Newsletter n. 1/2014

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 **15.06.2014**. Please send your contributions (1000 characters max, including spaces) to [czanolla@uniss.it](mailto:czanolla@uniss.it)

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### 1. DesertNet updates

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#### Towards the next UNCCD International Scientific Conference

*Combating drought, land degradation and desertification for poverty reduction and sustainable development: the contribution of science, technology, traditional knowledge and practices*: this is the theme of the next Scientific Conference to be organized at the beginning of 2015 by the "Scientific and Traditional Knowledge for Sustainable Development" (STK4SD) Consortium, within the framework of the United Nations Convention to Combat Desertification (UNCCD).

The STK4SD Consortium brings together five organizations with a high level of scientific expertise and practical skills in the organization of international conferences alongside a long established commitment to the operations of the UNCCD: Agropolis International, DesertNet International, the Consultative Group for International Agricultural Research (CGIAR), L'Observatoire du Sahara et du Sahel (OSS), and the Instituto Argentino des Investigaciones de las Zonas Aridas (IADIZA).

The UNCCD has published the 1<sup>st</sup> announcement of the UNCCD 3<sup>rd</sup> Scientific Conference "Combating DLDD for poverty reduction and sustainable development: the contribution of science, technology, traditional knowledge and practices"

Upon decision of UNCCD COP11, the 3<sup>rd</sup> Scientific Conference shall take place at the 4<sup>th</sup> special session of the CST at the latest by the end of April 2015.

The Government of Mexico has offered to host the Conference.

For more information: <http://www.unccd.int/en/programmes/Science/Conferences/Pages/3rd-Scientific-Conference.aspx>

*Information contributed by: DNI Bureau*

### **First meeting of the Scientific Advisory Committee (SAC) in preparation of the 3rd UNCCD scientific conference**

On the 11 and 12<sup>th</sup> of March 2014, members of the SAC in preparation for the UNCCD's 3rd scientific conference met in Montpellier, France, at Agropolis International, in order to discuss the contents and the format of the UNCCD conference titled "Combating drought, land degradation and desertification for poverty reduction and sustainable development".

The SAC agreed that the outcomes of the conference should also be provided to the next United Nations Framework Convention on Climate Change (UNFCCC) conference of Parties (CoP) to be held in France in 2015. Based on the lessons learnt from the previous UNCCD conferences, the SAC also discussed organizational aspects and the format of the third scientific conference.

The SAC agreed on the following items: An impulse report will synthesize major issues, in particular scientific, traditional and local knowledge on the conference topic. This report will be circulated widely among an international panel of experts, so as to be completed, illustrated and commented. The SAC will help to identify which experts will be included, considering regional and gender balance. Voluntary contributions will also be encouraged. The final report will consider all feedback in an integrated way, and will be presented at the conference.

In addition, an open call will allow additional and more specific contributions from researchers, which will also be delivered at the conference during parallel sessions.

*Information provided by the SAC: William Payne (Chair) and Mélanie Requier-Desjardins (Co-Chair)*

## **2. Information relevant to DesertNet members**

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### **IPBES Call for Experts**

Beginning of April 2014, the Intergovernmental Platform on Biodiversity and Ecosystem Services announced the nomination procedure for nominations for an expert group to scope a thematic assessment of land degradation and restoration. Deadline for responses is 8 June 2014.

For more information see: <http://www.ipbes.net/news-centre11/444-second-call-for-nominations-of-experts-deadline-for-response-is-8-june-2014.html>

DesertNet International is accredited to the IPBES and is thus an officially recognized observer organization to the IPBES.

*Information contributed by: DNI Bureau*

### **New "Scientific Advisory Board of the UN Secretary-General" established**

The new "Scientific Advisory Board" (SAB) is a newly created body of the UN Secretary –General. It will advise the United Nations on a science and sustainable development agenda, especially with regards to the post-2015 development agenda. For this reason, the SAB should also strengthen the interface between science, policy and society.

Its first meeting took place in Berlin on 30 and 31 January 2014. The SAB consists of 26 members, including Nobel laureates, presidents of National Academies of Science and the chairpersons of IPCC and IPBES. The Secretariat is hosted by UNESCO.

More information at the website of the first meeting [www.sab-2014-berlin.de](http://www.sab-2014-berlin.de)

*Information contributed by: DNI Bureau*

### 3. Researchers Updates

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#### Proposal of two land indicators for inclusion in the post-2015 development agenda

An expert group organized by the Global Land Indicator Initiative (GLII) proposes “a land target and two land indicators for inclusion in the post-2015 development agenda.

For more: <http://land-iiid.org/news/expert-meeting-proposes-land-target-for-post-2015-agenda/>

*Information contributed by: DNI Bureau*

#### CASCADE Project



Partners in the CASCADE Project (on catastrophic shifts in drylands) have recently returned from a plenary meeting in Paphos, Cyprus, where we were able to explore and discuss the Randi forest study site. Once a pine forest, there is now only a patchy vegetation of low, thorny shrubs, with bare rock and soil in some places. Overgrazing by goats has contributed to land degradation, but can we define the tipping point to degradation, and is it reversible? Field experiments are now in place

to provide some answers. For example, rainfall exclusion plots will tell us more about the role of micro-climates.

We now have a number of video clips and a film, see <http://www.cascade-project.eu/> where researchers explain about the ecology associated with land degradation processes, dangers some dryland areas are currently facing, and the ways of preventing these catastrophes.

*Information contributed by: Nichola Geeson, CASCADE dissemination*

#### Do Biofuels Actually Contribute To The Development Of Africa? Some Pros and Cons.



Bringing a final answer to this key question is absolutely hopeless today, considering the wide range of arguments exchanged both for and against biofuels within the civil and institutional society, often backed up by opposite interests.



Governments consider biofuels as a key source for energy independence, especially in Africa. But whether they contribute to African development is a disputed issue addressed by the first World Food Security Conference (Rome, Sept. 2013). The final resolution draws a careful picture, acknowledging that the balance is context and good practice dependent. However, representatives from civil

society declined to sign the declaration, considering that food scarcity, price rising and land grabbing impacts were underestimated.

Indeed, some experiences such as the JatroREF network and some local voluntary experiences with biofuels in Brazil exhibit positive impacts on local development. However, much is still to be done to bring them from experiences to large-scale benefits. Negative impacts on food supply have been noted. Africa cannot cope with that key challenge without strong political willingness, proactive administrations and industrial sectors, institutional regulations about land property rights, and relevant budgets.

SOURCES: <http://www.globalfoodsecurityconference.com/>

*Information contributed by: Gerard Begni, CNES; DNI AB member; CSFD, France*

### **Sino-German Joint Research Center for the Management of Ecosystems and Environmental Changes in Arid Lands (MEECAL)**

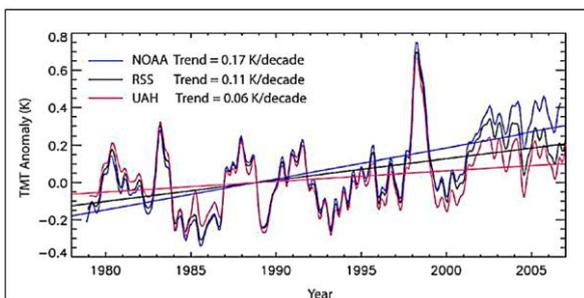
The Sino-German Joint research Center for the Management of Ecosystems and Environmental Changes in Arid Lands (MEECAL) was established by scientists of the Technische Universität München, Universität der Bundeswehr München and the Xinjiang Institute of Geography and Ecology, Chinese Academy of Sciences. The Joint Research Center MEECAL addresses the sustainable water and land management with regard to the maintenance of ecosystems. Research collaboration, academic exchange and training are undertaken to research the impacts of human activities and climate change on ecosystems.

In the frame of the joint research center the first MEECAL conference “Management of Ecosystems and Environmental Changes in Arid Lands in Central Asia” will take place in Urumqi, Xinjiang Province, China from 22nd September to 27th September 2014.

More information at: [www.sinogermanmeecal.de](http://www.sinogermanmeecal.de)

*Information contributed by: Christian Rumbaer, Technische Universität München and Yu Ruide, Xinjiang Institute of Geography and Ecology, Chinese Academy of Sciences.*

### **Nature Climate Change presents a synthesis paper about the role of satellite remote sensing in climate change studies.**



*Temperature trends derived from space observations.*

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Both the official UNCCD wording and the IPCC reports show that Climate Change (CC) is due to highly interacting natural and anthropogenic factors. Even when restricting focus to the impacts of natural CC on desertification processes, it could be considered that a hotter climate trend could extend desert areas, but the interference with the water cycle could bring more precipitation, hence blocking desertification processes. Remote sensing is a key technology for collecting observational data and improving simulation models. This Sept. 2013 paper and its impressive bibliography authoritatively discuss the actual and potential role of space remote sensing systems to

address such issues. It could be the Bible of the ‘great fear of the 2000’s’: adverse impact of CC.

More information at: <http://www.nature.com/natureclimatechange>

*Information contributed by: Gerard Begni, CNES; DNI AB member; CSFD, France*

## The “SPOT world heritage” programme: some 400,000 spot images made freely available to non-profit users



Today, the 28-year SPOT archive includes over 30 million images and is highly underused, especially by scientists in several disciplines, while its commercial value decreases with time. Wasting this key resource was considered as no longer acceptable.



CNES and Airbus Defence and Space (formerly Spot image) decided to jointly launch “SpotWorld Heritage”, a huge reprocessing and free delivery programme for non-profit use.

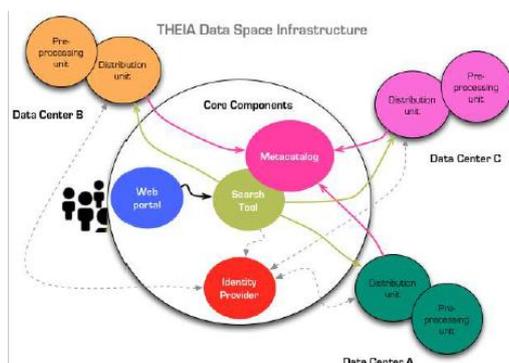
Some 400,000 images should be reprocessed in 4 years through the so-called ‘THEIA’ Web portal, one of the ‘pôles thématiques’ (thematic data centers – see hereunder) initially built up for the French scientific communities. This programme was officially announced at the GEO plenary assembly in Geneva, January 17, 2014, and was enthusiastically welcomed by the participants.

Photos: *Left: SPOT-1, an artist’s view. Right: the site of Chernobyl after the nuclear tragic accident (observed on May 6<sup>th</sup>, 1986.*

More information at: <http://www.cnes.fr/web/CNES-fr/6115-communiqués-de-presse.php?item=8193>;  
<http://hackedtime.com/2014/01/28/spot-world-heritage-cnes-provides-images/>

Information contributed by: Gerard Begni, CNES; DNI AB member; CSFD, France

### ... by the way, what is “THEIA”?



The THEIA Land Data Centre is a national inter-agency organization designed to foster the use of images coming from the space observation of land surfaces ([www.ptsc.fr](http://www.ptsc.fr)).

THEIA is thus offering national and international scientific communities as well as public policymakers involve in the monitoring and management of environmental resources, a broad range of images at different scales, methods and services related to the land surface observation from space. The products and services offered by THEIA are quality controlled and cover large territories and long time periods: annual satellite coverage of the national territory, time

series of bio geophysical products on a global scale (e.g. biomass, water heights, surface moisture...).

The objectives are to measure more easily the impact of human pressures and to assess the impact of the climate on the ecosystems and territories, to observe, quantify and model the cycles of water and carbon, to monitor societies’ evolutions and activities, in particular regarding their urban, farming and forestry practices, and to understand biodiversity dynamics.

THEIA relies on a distributed space data infrastructure and on scientific expertise centres located in different areas.

More information at: <http://tetis.teledetection.fr/index.php/fr/component/jdownloads/finish/3/256>

Information contributed by: Gerard Begni, CNES; DNI AB member; CSFD, France

#### 4. Important upcoming events

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

2014		
27 Apr-2 May	General Assembly of the European Geosciences Union <a href="http://www.egu2014.eu/">http://www.egu2014.eu/</a>	Vienna, Austria
15-17 May	Building Resilience for Food and Nutrition Security <a href="http://www.2020resilience.ifpri.info/">http://www.2020resilience.ifpri.info/</a>	Adis Abeba, Ethiopia
4-5 Jun	International Conference on Agriculture, Environment and Biological Sciences (ICFAE'14). <a href="http://iaast.org/2014/06/05/43">http://iaast.org/2014/06/05/43</a>	Antalya, Turkey
8-13 Jun	20th World Congress of Soil Science <a href="http://www.20wcsc.org/">http://www.20wcsc.org/</a>	Jeju, Korea
12-15 Jun	ACSEE2014 - The Fourth Asian Conference on Sustainability, Energy and the Environment <a href="http://acsee.iafor.org/">http://acsee.iafor.org/</a>	Osaka, Japan
23-26 Jun	Biogeochemical processes at Air-Soil-Water Interfaces and Environmental Protection. <a href="http://aswep-essc.unibo.it/">http://aswep-essc.unibo.it/</a>	Imola, Italy
21-25 Jul	Eight International Conference on Aeolian Research (ICAR VIII) <a href="http://www.2014icar8.com/">http://www.2014icar8.com/</a>	Lanzhou, China
3-8 Aug	Restoration, Ecosystem Services and Land Use Policy <a href="http://www.ser2014.org/">http://www.ser2014.org/</a>	Oulu, Finland
17-19 Sep	Tropentag 2014: 'Bridging the gap between increasing knowledge and decreasing resources' <a href="http://www.tropentag.de">http://www.tropentag.de</a>	Prague, Czech Republic
22-25 Sep	The Earth Living Skin: Soil, Life and Climate Changes <a href="http://www.els2014.eu/d/98/Invitation_to_attend/">http://www.els2014.eu/d/98/Invitation_to_attend/</a>	Bari, Italy
14-16 Oct	9th International Soil Science Congress on "The Soul of Soil and Civilization". <a href="http://www.soil2014.com/">http://www.soil2014.com/</a>	Side, Antalya, Turkey
9-15 Nov	XX Latinoamerican Soil Science Congress <a href="http://www.xxcongresolatinoamericanodesuelosperu.org/index_e.php">http://www.xxcongresolatinoamericanodesuelosperu.org/index_e.php</a>	Cusco, Peru
12-13 Nov	International Symposium on the Post 2015 Agenda & The Sustainable Development Goals. <a href="http://www.sdgp2015.com/">http://www.sdgp2015.com/</a>	Sydney, Australia
17-20 Nov	Drylands, Deserts and Desertification <a href="http://in.bgu.ac.il/en/desertification/">http://in.bgu.ac.il/en/desertification/</a>	Negev, Israel
2-5 Dec	First Global Soil Biodiversity Conference <a href="http://www.gsbiconference.elsevier.com/index.html">http://www.gsbiconference.elsevier.com/index.html</a>	Dijon, France

**Focusing on DLDD to close the gap from science to practice**

Desertification, Land Degradation and Drought DLDD is a major global threat to the development, stability and the well-being of societies as well as to ecosystems and goods and services that support them. The [Global Risk Forum GRF Davos](#) is supporting the fight against DLDD with two international conferences, the [5th International Disaster and Risk Conference IDRC Davos 2014](#) and the [3rd GRF One Health Summit 2014](#).

The [IDRC Davos 2014](#) will be held under the theme "Integrative Risk Management - The role of science, technology & practice" from 24 - 28 August 2014 in Davos, Switzerland. A special call for abstracts on DLDD is open until 15 April 2014. Submit your abstracts online at: <http://idrc.info/programme/call-for-abstracts/>

The [3rd GRF One Health Summit 2014](#) from 05 – 08 October will focus on DLDD related matters such as food security, water, agriculture and healthy ecosystems. Abstract submission is open online at: <http://onehealth.grforum.org/programme/call-for-abstracts/>

*Information contributed by: Jill Portmann, Communications & Conferences, Global Risk Forum GRF Davos, Switzerland*

**XLIII Annual Meeting of the European Society for New Methods in Agricultural Research (ESNA)**

The XLIII Annual Meeting of the European Society for New Methods in Agricultural Research (ESNA) will be held in Bolzano, Italy, 3<sup>rd</sup>- 6<sup>th</sup> September 2014. The Conference will focus on "Feeding the world: the importance of sustainable Agriculture and innovative methods". Registration and Abstract Submission is now possible. Please visit the web site [www.esna2014.it](http://www.esna2014.it) and/or request information at [esna2014@unibz.it](mailto:esna2014@unibz.it)

*Information contributed by: Stefano Grego, University of Tuscia, Viterbo, Italy, DNI AB member*

**5. Publications and Special Issues**

1. Allington, G. R. H., and T. J. Valone, 2014, Islands of Fertility: A Byproduct of Grazing?: Ecosystems, v. 17, p. 127-141.
2. Bisaro, A., M. Kirk, P. Zdruli, and W. Zimmermann, 2014, Global drivers setting desertification research priorities: Insights from a stakeholder consultation forum: Land Degradation & Development, v. 25, p. 5-16.
3. Dardel, C., L. Kergoat, P. Hiernaux, E. Mougin, M. Grippa, and C. J. Tucker, 2014, Re-greening Sahel: 30 years of remote sensing data and field observations (Mali, Niger): Remote Sensing of Environment, v. 140, p. 350-364.
4. DeMalach, N., J. Kigel, H. Voet, and E. D. Ungar, 2014, Are semiarid shrubs resilient to drought and grazing? Differences and similarities among species and habitats in a long-term study: Journal of Arid Environments, v. 102, p. 1-8.
5. Dixon JL; Stringer LC; Challinor AJ (2014) [Farming System Evolution and Adaptive Capacity: Insights for Adaptation Support](#), *Resources*, 3, pp.182-214. doi: [10.3390/resources3010182](https://doi.org/10.3390/resources3010182)
6. Dyer J; Stringer LC; Dougill AJ; Leventon J; Nshimbi M; Chama F; Kafwifwi A; Muledi JI; Kaumbu JM; Falcao M; Muhorro S; Munyemba F; Kalaba GM; Syampungani S (2014) [Assessing participatory practices in community-based natural resource management: Experiences in community engagement from southern Africa.](#), *J Environ Manage*, 137C, pp.137-145. doi: [10.1016/j.jenvman.2013.11.057](https://doi.org/10.1016/j.jenvman.2013.11.057)
7. Fleskens, L., and L. C. Stringer, 2014, Land management and policy responses to mitigate desertification and land degradation: Land Degradation & Development, v. 25, p. 1-4.
8. Hadi, S. J., H. Z. M. Shafri, and M. D. Mahir, 2014, Factors Affecting the Eco-Environment Identification Through Change Detection Analysis by Using Remote Sensing and GIS: A Case Study of Tikrit, Iraq: Arabian Journal for Science and Engineering, v. 39, p. 395-405.
9. Hilker, T., E. Natsagdorj, R. H. Waring, A. Lyapustin, and Y. J. Wang, 2014, Satellite observed widespread decline in Mongolian grasslands largely due to overgrazing: Global Change Biology, v. 20, p. 418-428.
10. Lambin, E. F., S. A. L. D'Haen, O. Mertz, J. O. Nielsen, and K. Rasmussen, 2014, Scenarios on future land changes in the West African Sahel: Geografisk Tidsskrift-Danish Journal of Geography, v. 114, p. 76-83.

11. Mathur V; Afionis S; Paavola J; Dougill AJ; Stringer LC (2014) Experiences of host communities with carbon market projects: towards multi-level climate justice, *Climate Policy*, 14, pp.42-62. [doi: 10.1080/14693062.2013.861728](https://doi.org/10.1080/14693062.2013.861728)
12. Pravalie, R., I. Sirodoev, and D. Peptenatu, 2014, Changes in the forest ecosystems in areas impacted by aridization in south-western Romania: *Journal of Environmental Health Science and Engineering*, v. 12.
13. Salvati, L., 2014, A socioeconomic profile of vulnerable land to desertification in Italy: *Science of the Total Environment*, v. 466, p. 287-299.
14. Science for Environment Policy . 2014. Stepping stone patches of habitat help reduce effects of fragmentation. News Alert, Issue 368, 3 April 2014 - <http://ec.europa.eu/environment/integration/research/newsalert/pdf/368na5.pdf>
15. Suckall N; Tompkins E; Stringer L (2014) Identifying trade-offs between adaptation, mitigation and development in community responses to climate and socio-economic stresses: Evidence from Zanzibar, Tanzania, *Applied Geography*, 46, pp.111-121. [doi: 10.1016/j.apgeog.2013.11.005](https://doi.org/10.1016/j.apgeog.2013.11.005)
16. Stringer LC; Harris A (2014) Land degradation in Dolj County, southern Romania: Environmental changes, impacts and responses, *Land Degradation and Development*, 25, 17-28. [doi: 10.1002/ldr.2260](https://doi.org/10.1002/ldr.2260)
17. UNCCD (eds.). 2014: Desertification - The invisible frontline. - <http://bit.ly/DLDDsecurity>
18. UNEP (eds.). 2014: Assessing Global Land Use: Balancing consumption with sustainability supply. [http://www.unep.org/resourcepanel/Portals/24102/PDFs//Full\\_Report-Assessing\\_Global\\_Land\\_UseEnglish\\_\(PDF\).pdf](http://www.unep.org/resourcepanel/Portals/24102/PDFs//Full_Report-Assessing_Global_Land_UseEnglish_(PDF).pdf)
19. Velazquez Gomar JO; Stringer LC; Paavola J (2014) Regime complexes and national policy coherence: experiences in the biodiversity cluster, *Global Governance*, 20, pp.119-145. [doi: 10.5555/1075-2846-20.1.119](https://doi.org/10.5555/1075-2846-20.1.119)

## 6. Other Information

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### Let's talk about soil

Let's talk about soil is an animated short film developed by the *Institute for Advanced Sustainability Studies* in Potsdam, German (IASS) that covers issues on land degradation, urbanization and overexploitation.

English <http://www.youtube.com/watch?v=oa5Rga1Qwyc>

Deutsch: <http://www.youtube.com/watch?v=pSQxO43CRsk>

### EXPO2015: open call for applications for Best Sustainable Development Practices on Food Security

The Universal International Exhibition EXPO2015 Milano, Italy (<http://en.expo2015.org/>) through the Feeding Knowledge programme (<https://www.feedingknowledge.net/>) is calling for applications for Best Sustainable Development Practices on Food Security in 5 priority themes that include sustainable management of natural resources, Quantitative & qualitative enhancement of crop growing products, Socio-economic dynamics and global markets, Sustainable development of small rural communities, and Food consumption patterns: diet, environment, society, economy and health. Three winners for each priority will be selected and invited to show their practices at EXPO2015 Milan and for the price winner a professional movie will be produced and showed for the 6-months duration of EXPO. An estimated 30 million of visitors are expected to visit the Exhibition. The deadline for applications has been extended until 15 September 2014.

*Information contributed by: Pandi Zdruli, CIHEAM Bari, DNI SC member*

**Funding for Short Term Scientific Missions**

The COST Action ES1104 – Desert Restoration Hub - enters its third year of operation in June 2014, funding will be made available for Short-Term Scientific Missions that contribute to

the scientific objectives of this COST Action. Missions are aimed at strengthening the Action network by, for example, allowing scientists to go to an institution or laboratory in another COST country to foster collaboration, to learn a new technique, or to take measurements using instruments and/or methods not available in their own institution/laboratory. The next deadline for open call applications is **15 July 2014**.

For further details see <http://desertrestorationhub.com/funding-for-short-term-scientific-missions/>

*Information contributed by: Maria Jose Marques. The Autonomous University of Madrid, DNI SC member*

**---- Editorial Board ----**

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