

# DesertNet International



## DesertNet International Newsletter n. 4/2010

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 **15.03.2011**. Please send your contributions (1000 characters max, including spaces) to [czanolla@uniss.it](mailto:czanolla@uniss.it)

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### 1. Achievements of DesertNet in 2010

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Dear Members of DesertNet International,

This year has been very successful for DesertNet International. In the first half of 2010 members of the Steering Committee and the Advisory Board finalised all legal steps and transferred European DesertNet into the Association of DesertNet International (DNI) which is registered in Illkirch/Strasbourg, France as a legal body. By summer 2010, the majority of the members of the former European DesertNet had already transferred their membership to DNI. A logo was developed for DNI, and the work for converting the website of European DesertNet into the website for DNI was started.

During the first half of 2010, DNI, as one former member of the Consortium Dryland Science for Development (DSD), also finalised scientific reports and papers for publishing the outcomes of the first scientific UNCCD conference held in Buenos Aires, Argentina in autumn 2009.

Immediately after its transformation into a CSO, DNI started designing the election process for electing the new Steering Committee and Advisory Board. This was the time, when you were invited to consider nominating yourself as a candidate for the election of the new Steering Committee and Advisory Board. We were very happy to receive many nominations from different countries and continents. During the 3-day elections in September (7 to 9 September 2010), 44% of the members of DNI cast their electronic ballots. This was an impressive result, and the election process ended with the inauguration of a very international and multi-disciplinary Steering Committee and Advisory Board at the General Assembly of DNI on 30 September 2010 at IFAD in Rome, Italy. The establishment of the DNI bank account was the final structural measure which was discussed at the General Assembly in Rome. In November 2010, the DNI bank account was opened in France. As members of DNI you received all details about the bank account a few weeks ago in order to pay your annual membership fees.



*General Assembly of DesertNet International at IFAD in Rome, Italy on 30 September 2010.  
(Photo courtesy: Pandi Zdruli)*

After the extensive legal, structural and election processes had been successfully completed by autumn 2010, the newly inaugurated Steering Committee and Advisory Board could start focusing on the scientific work of the network. As members of DNI you were invited to submit proposals for establishing thematic working groups or task forces.

We are very pleased to announce that since the beginning of October 2010, DNI Bureau has already received nine proposals from its members for the continuation or the establishment of new working groups. Work plans and work products were outlined for each working group. During the past weeks you already received descriptions of five working groups. The scientific topics are very interesting and we hope that you are interested to join at least one of the working groups. With this newsletter we would again like to provide you with the details on these working groups (see below).

We would also like to inform you that in the beginning of 2011 we will be sending you more proposals for setting working groups. We look forward to the scientific outcomes of the working groups of DesertNet International in 2011. On behalf of the Steering Committee, the Advisory Board and the DNI Bureau, we would like to thank you for the excellent collaboration in 2010. We most warmly thank the members of the previous Steering Committee and Advisory Board for their continuous and valuable support to create the legal frame for DesertNet International and to prepare the design of the elections and the logo.

In 2011, we look forward to the continuation of the rich and diverse scientific work and events amongst our members which will further consolidate our profile as an international and interdisciplinary network for promoting cutting edge science and as a think tank for supporting the science-policy dialogues to successfully combat land degradation and desertification worldwide.

Dr. Mariam Akhtar-Schuster  
DNI Chair

Prof. Elena Abraham  
DNI Co-chair

## **2. Updates on the establishment of DNI Working Groups**

Nine proposals for setting up new working groups or continue with working groups of European DesertNet were submitted to the DNI Steering Committee and Advisory Board. So far, 5 working groups have been officially established and are currently starting their work. The short titles of the working group are: "Economics", "Environmental Management", "Livestock", "Modelling" and "Science/Policy Interface".

Hereunder the description of the tasks and products of the working groups are provided. DNI as well as non-DNI members interested in any of them, are invited to join by contacting directly the respective WG leader(s). Documents of the working groups will be put online at [www.desertnet-international.org](http://www.desertnet-international.org)

*Information contributed by: DNI Bureau*

### **Working Group on ECONOMICS**

<b>Title of the Working Group / Task Force</b>	Economics of Sustainable Land Management
<b>Name of the leader(s)</b>	Bhim Adhikari and Richard Thomas (email: <a href="mailto:rthomas@inweh.unu.edu">rthomas@inweh.unu.edu</a> )
<b>Institute(s)</b>	United Nations University- Institute for Water, Environment and Health
<b>Theme (max. 300 words)</b>	<p>Agriculture and forest landscapes are vital for food security and poverty alleviation in many parts of the developing world. However, they are under enormous pressure from soil degradation, deforestation, inappropriate farming and grazing practices, population growth, fuelwood storage, land tenure conflicts and other institutional and policy failures (World Bank, 1997). Further, the importance of the benefits as well the services emanating from the land-based economic activities is not formally recognized and they remain unaccounted for and un-priced, therefore remaining outside the domain of the traditional market. Concern with land degradation has therefore heightened in recent years due to the increasing focus in policy circles on sustainability.</p> <p>Land management techniques, such as sustainable land management (SLM), are gaining growing attention in recent years due to their potential for providing a number of livelihood benefits to farmers while also contributing positively to fundamental ecosystem services such as regulating water cycles, conserving biodiversity, and sequestering carbon. SLM is a knowledge-based procedure that helps integrate land, water, biodiversity and environmental management (including input and output externalities) to meet rising food and fibre demands while sustaining ecosystem services and livelihoods (World Bank, 2006). However, a system for methodically quantifying and monitoring the impacts and benefits from SLM remains a fundamental gap. One reason for this paradox is that policies for and investments in SLM have not been perceived as a priority for the allocation of scarce institutional and financial resources in many countries. This signals the need for research on how the combination of non-market and market-based mechanisms can be used to implement SLM and how economic incentives will promote SLM-based livelihoods, thus alleviating the stress on natural resources and therefore with the potential to be used as effective policy tools for poverty reduction.</p> <p>This panel will undertake research activities that aim to increase public and private investments in SLM by demonstrating the economic benefits of SLM and facilitating the valuation of ecosystem services. Further, it will document the role of SLM in order to provide the tools for decision-makers to make decisions regarding SLM. In other words, the panel will produce a scientifically rigorous evidence base targeted to policymakers and other related SLM stakeholders that quantifies the economic values of land resources and the benefits of SLM practices, including detailed examples of the costs and benefits of SLM while recognizing the spatial heterogeneity in biophysical and economic conditions of the regions. In doing so, the panel will review the state of the art on the valuation of different types of ecosystem services generated from SLM, and ways in which the value of SLM may be changing relative to the value of other capital stocks. The panel will further undertake an in-depth examination of the potential for linking SLM to market-based approaches and ecosystem management, such as payment for environmental services. It is hoped that the economic valuation of SLM services will make it possible to identify the opportunity costs of using SLM in particular ways which will help inform policy decisions.</p>
<b>Target group(s) and institution(s)</b>	SLM related donors, practitioners and local stakeholders; UNCCD and broader environment and development communities

<b>Members of the Groups (DNI as well as non-DNI members)</b>	Interested individuals
<b>Communication structure (electronically, physical meeting(s))</b>	Electronic and physical discussions
<b>Funding concept</b>	The group will produce research proposals via consortium building and will seek funding via donor contacts.
<b>Products (publications, presentations, ...)</b>	Working papers, journal articles and policy briefs

**Working Group on ENVIRONMENTAL MANAGEMENT**

<b>Title of the Working Group / Task Force</b>	<b>CLIMATE CHANGE, DESERTIFICATION AND AGRICULTURAL PRODUCTION</b>
<b>Name of the leader(s)</b>	Laszlo Marton (e-mail: <a href="mailto:marton@rissac.hu">marton@rissac.hu</a> )
<b>Institute(s)</b>	Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences (RISSAC)
<b>Theme (max. 300 words)</b>	Fragile arid and semi-arid ecosystems are in urgent need of integrated conservation approaches that can contribute significantly to prevent and reduce the widespread ongoing land degradation and desertification processes, such as erosion, flooding, overgrazing, drought, and salinization. RISSAC can establish promising alternative land use and management conservation strategies based on a close participation of scientists with stakeholder groups in the degradation and desertification hotspots. This integrative participatory approach ensures both the acceptability and feasibility of conservation techniques, and a sound scientific basis for the effectiveness at various scales. RISSAC employs a bottom up approach such as i) degradation and desertification hotspots and stakeholder groups can identify in different countries facing similar environmental problems, ii) desertification indicator sets can define in a participatory approach and a harmonized information system can construct to organize socio-economic and geoinformation data and tools for active dissemination; iii) new and existing conservation strategies can define with the stakeholder communities; iv) these strategies can implement in the field, and monitored and modeled to quantify their effectiveness at various scales; v) the results can extrapolate using indicator sets, geoinformation data, and integrated modeling systems combining socio-economic and environmental aspects; vi) finally the results can translate to a series of practical guidelines for good agricultural practices and environmental management, which can disseminate to practitioners, agricultural extensionists, governmental authorities, policy makers, NGOs, land users, land owners, and local communities in line with.
<b>Target group(s) and institution(s)</b>	Research Institutes
<b>Members of the Groups (DNI as well as non-DNI members)</b>	Call to all members
<b>Communication structure (electronically, physical meeting(s))</b>	Electronically, meetings
<b>Funding concept</b>	Open
<b>Products</b>	Publications, presentations

(publications, presentations, ...)	
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**Working Group on LIVESTOCK**

<b>Title of the Working Group / Task Force</b>	Indigenous Livestock Breeds and Indigenous Knowledge
<b>Name of the leader(s)</b>	Dr Abdul Raziq Kakar (e-mail: <a href="mailto:raziq2007@gmail.com">raziq2007@gmail.com</a> )
<b>Institute(s)</b>	SAVES
<b>Theme (max. 300 words)</b>	<p>Farm animal genetic resources (FAnGR) are crucial for livelihood in the dry lands of the world. The pastoral people are the custodians of the FAnGR in that difficult environment. FAnGR are the building blocks for future livestock development that will enable animal producers to respond to environmental changes. The ability of pastoral livestock breeds to survive natural calamities (droughts, climatic extremes) is necessarily more important than high productivity. Such animals are generally close to their wild ancestors, enabling them to resist diseases and feed/water scarcity. The need of modern veterinary care is thus limited. Unfortunately the State of the World Report on FAnGR predicted that 20% of livestock breeds are at risk of extinction and the average breed loss is 1 breed per month. The pastoral livestock breeds are more prone to this erosion. These issues demanded efforts to bring them in the minds of scientists and policy makers.</p> <ol style="list-style-type: none"> <li>I. Conservation of FAnGR and Indigenous knowledge through the strengthening of the pastoral peoples</li> <li>II. Characterization and documentation of FAnGR with the perspectives of the livestock keepers</li> <li>III. Documentation and validation of the Indigenous knowledge with the participation of the communities</li> <li>IV. Research projects on the pastoral livestock production systems, products, culture and ecosystems</li> <li>V. Value additions to the local livestock products for the wellbeing of the livestock keepers and conservation of the breeds</li> </ol>
<b>Target group(s) and institution(s)</b>	Pastoral people, indigenous/local communities, breeders associations and agricultural institutions.
<b>Members of the Groups (DNI as well as non-DNI members)</b>	
<b>Communication structure (electronically, physical meeting(s))</b>	Both electronically and physical meetings
<b>Funding concept</b>	International donor agencies
<b>Products (publications, presentations, ...)</b>	Publications and presentation both

**Working Group on MODELLING**

<b>Title of the Working Group / Task Force</b>	Working Group: Dry lands Biomass modelling with GIS and Remote Sensing
<b>Name of the leader(s)</b>	Martin Kappas (e-mail: <a href="mailto:mkappas@gwdg.de">mkappas@gwdg.de</a> )

<b>Institute(s)</b>	Institute of Geography , Goettingen University, Germany
<b>Theme (max. 300 words)</b>	<p>Satellite-based remote sensing and GIS have been evolved as a successful tool to assess geo-information on different temporal and spatial scales. Satellite technology is currently changing from an experimental status towards operational systems with a long-term perspective of delivering data and information products.</p> <p>Prominent examples are the Global Monitoring for Environment and Security (GMES) initiative supported by the European Commission and the European Space Agency (ESA) in order to establish a network for co-ordinating and monitoring biomass in Drylands.</p> <p>The objective of this Working Group is to analyse existing and future use of remote sensing data and GIS for deriving biomass from a local to global scale. Not only summary values on biomass potentials e.g. on certain spatial levels are needed, but also a spatially resolved mapping and continuous monitoring of biomass potentials and their spatio-temporal variability.</p>
<b>Target group(s) and institution(s)</b>	NGO's and political decision maker
<b>Members of the Groups (DNI as well as non-DNI members)</b>	Open
<b>Communication structure (electronically, physical meeting(s))</b>	Electronically and physical meetings
<b>Funding concept</b>	Open
<b>Products (publications, presentations, ...)</b>	Continuous products of biomass for certain Drylands (e.g. Central Asia, Sub-Saharan Africa)

#### **Working Group SCIENCE/POLICY INTERFACE**

<b>Title of the Working Group / Task Force</b>	Science/Policy Interface (S/P IF)
<b>Name of the leader(s)</b>	Gérard BEGNI (e-mail: <a href="mailto:Gerard.Begni@cnes.fr">Gerard.Begni@cnes.fr</a> )
<b>Institute(s)</b>	CNES, France
<b>Theme (max. 300 words)</b>	<p>The objectives are threefold:</p> <p><b>1 – Act as an observer:</b> Address from a scientific point of view the issue of operational linkages between science and policy makers (and other actors which interact with them) in order</p> <p>(i) to best integrate consolidated knowledge into decision making processes and</p> <p>(ii) to better understand how political decisions and subsequent actors can impact desertification and livelihood of people living on threatened areas.</p> <p>This is mainly a matter of political , sociologic and (macro/micro) economic sciences but has to interact with other sciences (esp. physical ones: botanic, soil sciences climatology). The standard objective is to generate comprehensive cutting-edge reports understandable by non specialist and information sheets.</p> <p><b>2 – Act as an analyst:</b> Upon request, analyze such issues as:</p> <p>(i) the situation of international policy decisions, whether they have been successful or not and lessons to be learnt (past deadlines), whether they are likely to be achieved or not (future deadlines), bottlenecks and hindering factors.</p> <p>(ii) draft policy documents that need a critical scientific review</p> <p>(iii) any similar activity as needs (and requests) may arise.</p> <p><b>3 – Act as an actor.</b> Assist the Bureau, SC and AB in any action (expertise of 'political' documents or drafts, lobbying, etc...) with the political world, under control of the SC</p>

	<p>and Bureau and jointly with him. In 'lighter' cases the WG could act by itself under a formal SC agreement (attending ad hoc Task Forces, etc.). This rule has to be applied in a flexible way, depending upon the 'political weight' of the event.</p> <p>It should be understood that:</p> <p>1 – Usually, there are no direct connections between scientists and policy makers but a long chain and/or networking (including at least people living in threatened areas) so the actors of this long chain and/or complex network should be addressed as far as possible by the WG in a comprehensive way.</p> <p>2 – Desertification is a complex phenomenon intertwining physical and anthropic issues so (i) some specific aspects and/or integrated aspects can be analyzed well (ii) in any case the WG will need cooperation on other WG's on a case-by-case basis.</p>
<b>Target group(s) and institution(s)</b>	<ul style="list-style-type: none"> <li>· Social sciences researchers can be useful in some specific cases, but the knowledge needed by the WG is rather excellent but standard economic and political sciences (excellent specialists) that a research work to fill up any lack of knowledge in these domains</li> <li>· In that kind of cutting-edge research domain, the most fruitful exchanges would certainly be with those involved in large global change programmes, especially IHDP. Their concerns are rather close to WG1 concerns. Mutual exchanges could prove fruitful.</li> </ul> <p>Exchanges with more targeted and more applied international scientific institutions such as CGIAR is absolutely mandatory.</p> <ul style="list-style-type: none"> <li>· People in charge of international and national policies related to desertification, or better those who are in charge to provide them with advice. This may be people from the UNCCD secretariat, the GM, the FAO, etc. at global level. Many organizations of interest exist at regional and sub-regional level such as OSS, CIHEAM, CILSS. For specific issues at national and/or local scales, NAP PoC's, Ministries, local authorities have to be addressed. But the WG should not have a too fragmented activity, unless specific request or need.</li> <li>· Quite different but dedicated institutions can be of highest interest. They provide information which may prove unique for the WG studies. Ex: IFPRI, IDDRI, etc.</li> <li>· The political side should be balanced by civil society. Proper counterparts heavily depend upon the addressed topics. Most often, carefully chosen NGO's or NGO clusters can be addressed. Drynet is a good example. Whatever the counterpart may be, having the voices of citizens heard and taken into due account is a must.</li> <li>· The WG has to receive and deliver information. Outreach activity has to be tailored with the ambitions of the operation at stake. In many cases, cooperating with "education" WG may prove quite fruitful (see hereunder)</li> </ul>
<b>Members of the Groups (DNI as well as non-DNI members)</b>	
<b>Communication structure (electronically, physical meeting(s))</b>	<p>For <b>objectives 1 and 2</b> – Electronic communication – Representation in key meetings, symposia, workshops.... whenever needs arise.</p> <p>For <b>objective 3</b>: TBD with SC for common actions. Electronic communication for careful preparation.</p> <p>In all cases, as mentioned above, cooperating with "education" WG may prove quite fruitful.</p>
<b>Funding concept</b>	<p>Except in very few and dedicated cases, no funding sources appear available outside the institutes of the members. Nevertheless, the WG will have to look for direct or indirect funding sources on a case-by-case basis (indirect can mean for instance that a work led under an external funding source could provide results that could be adapted to the WG/DNI needs with marginal human effort. It also could mean that advantage could be taken from a professional travel to visit an institution or attend an event for</p>

	<p>WG needs). To get flexibility, each member of the WG will be entitled to represent the WG in line with formally endorsed guidelines. (Remembering that WG members are DNI members).</p>
<p><b>Products (publications, presentations, ...)</b></p>	<ul style="list-style-type: none"> <li>· Provide any report that should be ordered to the WG (in cooperation with other WG's whenever mandatory).</li> <li>· Provide some 'fact sheets' (typically 2-8 pages) which should be both scientifically authoritative and easy to understand by non specialists upon internal initiative of WG members and WG leader approval. Utmost attention will be paid to references – not only scientific, but I also and mainly 'political'. These factsheets should be free of any personal consideration, conviction or judgement. Innovative conclusions are more than welcomed but they have to be proven scientifically using existing literature. No political or religious propaganda will be tolerated (except quoting existing literature in a balanced way whenever needed, for instance comparing different policy solutions that were actually applied to a concrete ground situation based on documented facts).</li> <li>· Any action led under the control of the SC (see above) will be concluded by the documents requested by the SC</li> <li>· The WG ambitions to conclude its two years mission by an ambitious report addressing a major issue linking desertification, high level societal issues and political challenges. The topic has to be discussed (i) internally, (ii) with other WG's since such a report will necessarily need inputs from issues addressed by these WG's and (iii) with the SC for obvious reasons. An idea would be to consider the issue of the MDG in areas prone to desertification, which would make sense since a MDG deadline is 2015. Since the first MDG is about food security, the report could also be a joint report between WG1 and the 'food security' report. Any suggestion would be welcome.</li> <li>· <b>As told above, it seems difficult and counterproductive for the reputation of DNI as a whole to start working (except perhaps some bureaucratic tasks or one fact sheet as proof of concept, etc.) as long as the WG1 remains quite entirely "eurocentric". The WG needs an effort from the whole SC to switch from "Eurocentric" to international democracy. The WG chairperson cannot and will not accept such a political bias in a WG dedicated to Science/Policy Interface.</b></li> </ul> <p>In any cases and well beyond the work of WG1, we suggested that one of the consequences of the DNI mission could be to build up a sources of information included in the so-called 'grey literature'. Having access to such information (using keywords) is essential for a 'think tank (and for the work od WG1 in particular, which would so act as a supplier of some kind of information and user of other ones. This policy should be pushed by the SC/AB. It was suggested by a member of the Bureau that the WG1 could behave as a 'proof of concept' in that issue. This can be considered within the framework of its mission, but the documents should be more visible than in the page of the WG. In our opinion, the needs reach far beyond the WG1 action field.</p>

### 3. Information relevant to DesertNet members

#### Extension of deadline of e-forum on sub-set impact indicators

The CST Bureau has agreed to extend the deadline of the e.forum for reviewing the consultancy reports on the subset of the UNCCD impact indicators. In this regard the CST Bureau wishes to renew their invitation to the DNI members to go to <http://eforum.unccd.int> and register for the e.consultation, and participate with comments in the ongoing discussions.

For more information directly contact: Victor M. Castillo, Programme Officer - KMST Unit, UNCCD, [VCastillo@unccd.int](mailto:VCastillo@unccd.int)



### Assessment of the outcomes of the UNCCD 1<sup>st</sup> Scientific Conference

The assessment of the organization and the outcomes of the UNCCD 1<sup>st</sup> Scientific Conference can be found at:  
<http://www.unccd.int/cop/officialdocs/cst-s2/pdf/2eng.pdf>

## 4. Researchers Updates

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### Resources on the 2dRUE methodology for assessing and monitoring land condition

2dRUE is a low cost and flexible method taking full advantage of readily available data from Global Environmental Monitoring satellites and geodata bases.

A video animation describing the tool and its benchmarking applications (Iberia, Maghreb, N Senegal, Chile IV Region and Naiman in China) can be found at [http://nostromo.eeza.csic.es/media/desurvey\\_2dRue.htm](http://nostromo.eeza.csic.es/media/desurvey_2dRue.htm). The associated *r2dRue* software package can be downloaded from <http://cran.r-project.org/web/packages/r2dRue/index.html>. A scientific paper was published in <http://dx.doi.org/10.1016/j.rse.2010.03.009>. Finally, an earlier presentation with the basics is available at [http://www.isde-summit-2008.org/upload/presentations/28\\_del\\_Barrio\\_ISDE08.pdf](http://www.isde-summit-2008.org/upload/presentations/28_del_Barrio_ISDE08.pdf).

2dRUE is currently being applied to NE Brazil, Mozambique and a new Iberian run. The team is now seeking a suitable framework for its application to Central and West Asia and North Africa, in partnership with CGIAR-ICARDA.

Contact: Dr Gabriel del Barrio ([gabriel@eeza.csic.es](mailto:gabriel@eeza.csic.es)).

*Information contributed by: G. Del Barrio, CSIC, Spain*

### A recent scientific report about Land Grab in Africa.

The Global land Project (GLP) is a joint research agenda of IGBP and IHDP. GLP issued a recent scientific report examining international investments in agricultural lands in Africa. The results of the analysis confirm on a scientific interdisciplinary basis that the magnitude of these land deals is significant. Major consequences for local populations and the environment are expected. These land investments have emerged as a new significant driver of land system change. Among others, land grabbing changes the socioeconomic drivers of desertification and actions to stop and reverse it.

More information:

Document downloading: [http://www.globallandproject.org/Documents/GLP\\_report\\_01.pdf](http://www.globallandproject.org/Documents/GLP_report_01.pdf)

About GLP: <http://www.globallandproject.org/>

About IGBP: <http://www.igbp.kva.se/>

About IHDP: <http://www.ihdp.unu.edu/>

*Information contributed by: G. Begni, CNES, France*

### GEOSS targets desertification

At the recent GEOSS meeting held in Beijing (China) on 5 November 2010, desertification was targeted among the priorities to be addressed in the areas of natural and human-induced disasters. The related press release is available at the following address:

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1464&format=HTML&aged=0&language=EN&guiLanguage=en>

*Information contributed by: Richard Escadafal, DNI Board member, CESBIO, France*

### The World Bank has released the tenth edition of its 'Little Green Data Book'



The World Bank has just released the tenth edition of its 'little Green Data Book'. At a time when reaching the Millennium Development Goals in 2015 appears more and more challenging, the book addresses the evolution of sustainable development during the last decade. "Environmental data helps us to understand whether countries are on a sustainable development path or not," said Warren Evans, Director of the Environment Department, World Bank. During this decade, the world globally became drier, while the water resource per capita has decreased mainly due to the pressure of a quickly growing population.

Water availability is told to be below scarcity levels in the Middle East and North Africa and South Asia. Such issues as agriculture in drylands, forests and intense deforestation, biodiversity, energy, emissions and pollution, water and sanitization are carefully and quantitatively addressed. Most of the book is made of tables delivering information per country.

More information: *WB press release:*

<http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:22663355~pagePK:34370~piPK:34424~theSitePK:4607,00.html>

*WB environment economics and indicators:*

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTEEI/0,,menuPK:408056~pagePK:149018~piPK:149093~theSitePK:408050,00.html>

Downloading the book: [http://www.semide.net/media\\_server/files/semide/thematicdirs/news/2010/08/world-bank-launches-tenth-edition-little-green/GreenDataBook2010\\_WorldBank.1.pdf](http://www.semide.net/media_server/files/semide/thematicdirs/news/2010/08/world-bank-launches-tenth-edition-little-green/GreenDataBook2010_WorldBank.1.pdf)

*Information contributed by: G. Begni, CNES, France*

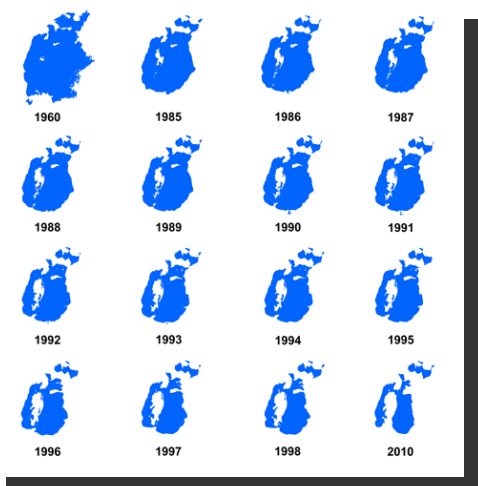
### The Aral Sea environmental tragedy



The Aral Sea used to be one of the largest inland water reservoirs in the world covering more than 40,000 square miles. It was an abundant source of food for generations of farmers, merchants, hunters and craftsmen, who came to trade and buy fish from local fishermen who plied their trade in the river deltas, lagoons and shallow straits. The Aral Sea was home to more than 38 species of fish and its surrounding forests and hinterland teemed with a rich diversity of birds and wildlife.

All of that has gone. Now a salty desert stretches further than the eye can see. The searing summer temperatures and sharp winds have whipped up dust storms which can regularly deposit millions of tons of sand across hundreds of miles of neighbouring farmland. The disappearance of the Aral Sea has had a huge impact on climate change in the area. The rapidly extending desert has caused temperatures to rise in summer, while rainfall has decreased. In winter, severe frosts, which can see temperatures falling to minus 40 degrees centigrade, cause untold damage to agricultural crops.

*Information contributed by: Struan Stevenson, Conservative Euro MP for Scotland - President of the European Parliament's Intergroup on Climate Change, Biodiversity and Sustainable Development and currently Personal Representative on Ecology & the Environment for the Chairman in Office of the OSCE – Kazakhstan.*

**Desertification issues in Kazakhstan**

Ecology System of Kazakhstan is subject to man caused impacts. In accordance to the Ministry of Environment of Kazakhstan ¼ of the huge territory of the Republic is suffered because of the desertification. The soil degradation is observed in any parts of Kazakhstan, including northern regions, which are traditionally grain growing areas. It is determined by geographical location of the Republic and by specificities of the ecological conditions. Desertification process is most active in arid and semiarid regions. We are all witnesses of death of the Aral Sea.

The Aral Sea is closed basin with internal drainage. Shrinkage of the Sea is direct result of enlargement of the irrigated areas in the basin. As the Sea is dried up to 80-100 km, now it almost became as a part of the deserts. It calls disappearance of the local biodiversity.

Information contributed by: E. Tulekbayev, Inst. of Ecology and Climate, Kazakhstan and K. Magzieva, InExCB-Kz, FP7 NCP-Kz, member of the DNI AB

**5. Important upcoming events**

List of links to next meetings regarding desertification, water conservation and land degradation in 2011-12.

2011		
4-8 Jan	Second International Conference on the Soil and Water Assessment Tool- Southeast Asia (SWAT-SEA Workshop) <a href="http://ssc.hcmuaf.edu.vn">http://ssc.hcmuaf.edu.vn</a>	Ho Chi Minh City (former Saigon), Vietnam
18-21 Jan	Geospatial World Forum <a href="http://www.geospatialworldforum.org">www.geospatialworldforum.org</a>	Hyderabad, India
16-25 Feb	2 <sup>nd</sup> Special Session of the CST. Review of the Implementation of the Convention (CRIC9) <a href="http://www.unccd.int/cop/cric9/invitation.php">http://www.unccd.int/cop/cric9/invitation.php</a>	Bonn, Germany
3-4 Mar	Climate Change: Vulnerability, Impacts and Adaptation <a href="http://www.ncl.ac.uk/cegs.cpd/cpd/ccvuln.php">http://www.ncl.ac.uk/cegs.cpd/cpd/ccvuln.php</a>	Newcastle upon Tyne, UK
26-28 Apr	Conference on Renewable Energy and Energy Efficiency for Desert Regions <a href="http://www.visbdev.net/visbdev/fe/Docs/gcreeder_2011.pdf">http://www.visbdev.net/visbdev/fe/Docs/gcreeder_2011.pdf</a>	Amman, Jordan
6-8 May	3 <sup>rd</sup> International geography congress. Sustainable natural resources management under climatic Scenarios <a href="http://www.cwrmdm.org">www.cwrmdm.org</a> .	Kozhikode, Kerala, India
9-12 May	Managed forests in future landscapes: implications for Water and Carbon cycles. COST Action FORMAN <a href="http://www2.montes.upm.es/Dptos/DptoSilvopascicultura/seep2011/inicio.html">http://www2.montes.upm.es/Dptos/DptoSilvopascicultura/seep2011/inicio.html</a>	Toledo, Spain
9-14 May	6 <sup>th</sup> international Congress of the European Society for Soil Conservation "innovative strategies and Policies for Soil Conservation." <a href="http://www.esscthessalonikicongress.gr">www.esscthessalonikicongress.gr</a>	Thessaloniki, Greece

17-19 May	Stakeholder Forum. Preparatory meeting for Earth Summit 2012. Non-Governmental Liaison Service <a href="http://www.earthsummit2012.org">www.earthsummit2012.org</a>	New York, US
20 May	Sustainable Land Use Planning: Balancing Economic, Social and Ecosystem Functions <a href="http://sustain.uoregon.edu/workshops/schedule.php">http://sustain.uoregon.edu/workshops/schedule.php</a>	Portland, OR, USA
26-27 May	Land Quality and Land Use Information in the EU <a href="http://landq2011.uni-pannon.hu/">http://landq2011.uni-pannon.hu/</a>	Keszthely, Hungary
1-3 June	4 <sup>th</sup> EARSel Workshop on Land Use & Land Cover, accompanying the 31 <sup>st</sup> EARSel Annual Symposium <a href="http://www.earsel.org/SIG/LULC/workshops.php">http://www.earsel.org/SIG/LULC/workshops.php</a>	Prague, Czech Republic
5-11 Jun	Water governance meeting the challenges of global change <a href="http://cordis.europa.eu/search/index.cfm?fuseaction=events.document&amp;V_LANG=EN&amp;EV_RCN=32855&amp;pid=0">http://cordis.europa.eu/search/index.cfm?fuseaction=events.document&amp;V_LANG=EN&amp;EV_RCN=32855&amp;pid=0</a>	Obergurgl, Austria
19-25 Jun	11th International Multidisciplinary Scientific GeoConference & EXPO – SGEM <a href="http://www.sgem.org/">http://www.sgem.org/</a>	Albena, Bulgaria
18-22 Jul	6th International Conference on Environmental Science and Technology <a href="http://www.aasci.org/conference/env/2011/index.html">http://www.aasci.org/conference/env/2011/index.html</a>	Houston, TX, USA
18-22 Sep	Soil Science in a Changing world <a href="http://www.wageningensoilmeeting.wur.nl">http://www.wageningensoilmeeting.wur.nl</a>	Wageningen, the Netherlands
26-29 Sep	5th World Congress of Conservation Agriculture <i>incorporating</i> 3rd Farming Systems Design Conference <a href="http://www.wcca2011.org/">http://www.wcca2011.org/</a>	Brisbane, Australia
15-17 Nov	WATEC. 6 <sup>th</sup> International Exhibition & 3 <sup>rd</sup> International Conference on Water Technologies, Renewable Energy & Environmental Control <a href="http://www.watec-israel.com/index.php?dir=site&amp;page=index&amp;pitem=3001&amp;pitem=3004">http://www.watec-israel.com/index.php?dir=site&amp;page=index&amp;pitem=3001&amp;pitem=3004</a>	Tel Aviv, Israel
2012		
2-6 Jul	EUROSOIL 2012 <a href="http://www.eurosoil2012.eu/d/12/News/">http://www.eurosoil2012.eu/d/12/News/</a>	Bari, Italy

*Information contributed by: Maria Jose Marques Perez, DesertNet Brd Univ. Autónoma de Madrid, Spain*

#### **CSFD announces its next Research Seminar**

The French Scientific Committee on Desertification (CSFD) announces its next Research Seminar entitled: " Politiques, programmes et projets de lutte contre la désertification: quelles évaluations?".

This seminar will take place on 29 & 30 June 2011 in the Institut Agronomique Méditerranéen de Montpellier (IAMM, France) gathering scientists involved in research on these topics. Whereas this seminar will be held in French without translation, communications in English are also welcome.

Please visit the link below for more information, and do not hesitate to contact the CSFD secretariat if you are interested in participating.

More information: <http://www.csf-desertification.org/seminaire-2011>

*Information contributed by: Richard Escadafal, CSFD Chair, CESBIO, France*

**Extended deadline for Conference on Land Quality and Land Use Information in the EU**

The conference 'Land Quality and Land Use Information in the European Union' has extended its deadline for paper submission until 10 January 2011. The conference is associated to the Hungarian EU presidency, co-organized by the Hungarian Academy of Sciences, University of Pannonia and the European Commission (Eurostat, DG Environment, JRC). It will take place in Keszthely, Hungary on 26-27 May 2011.

For more information: <http://landq2011.uni-pannon.hu/>

**Soil System Sciences - SSS1.2. Environmental impact of wind erosion at field and landscape scale**

Although it is viewed as the second most important process of land degradation, estimates of the rates of soil erosion by wind are particularly scarce, both at field and landscape scale. This is largely due to methodological difficulties in quantifying aeolian sediment fluxes across scales. Indeed, aeolian sediment fluxes are almost exclusively based on point measurements of sediment fluxes which are highly variable in space, both the point measurements and the spatial interpolation procedures being affected by severe uncertainty. We invite presentations and posters that deal with the quantification of aeolian sediment fluxes at different spatial and temporal scales through measurements and modelling, and the evaluation of their impact on soils and other environmental aspects. The deadline for the receipt of abstracts is 10 Jan 2011.

For more details and abstract submission: <http://meetingorganizer.copernicus.org/EGU2011/session/7766>

*Information contributed by: Charles Bielders, Université Catholique de Louvain, Belgium.*

**Workshop on Sustainable use of Soil in Drylands**

In the framework of the EUROSIL Congress (Bari (Italy) 2-6 July 2012), Prof. Stefano Grego wishes to organize a workshop on "Sustainable Use of Soil in Drylands". DNI members who want to provide support to the organization of this event, are kindly invited to contact Prof. Grego for further information ([grego@unitus.it](mailto:grego@unitus.it))

*Information contributed by: Stefano Grego, University of Tuscia, Italy.*

**6. Publications and Special Issues**

1. Akhtar-Schuster, M., Thomas, R., J. Stringer, L. C., Chasek, P. & Seely, M. 2010: Improving the enabling environment to combat land degradation: institutional, financial, legal and science-policy challenges and solutions. In: Article first published online: 21 Nov 2010 in Land Degradation & Development Online. Early View at: <http://onlinelibrary.wiley.com/doi/10.1002/ldr.1058/abstract>
2. Amiraslani F., Dragovich D. 2010. Cross-sectoral and participatory approaches to combating desertification: The Iranian experience. Natural Resources Forum 34(2), 140-154.
3. Anjum S.A., Wang L.C., Xue L.L., et al. 2010. Desertification in Pakistan: Causes, impacts and management. Journal of Food Agriculture & Environment 8(2), 1203-1208.
4. Brabant, P. 2010. Land degradation assessment and mapping method, a standard guideline proposal. CSFD, 'Cahiers thématiques' #8, Nov. 2010. Downloadable at: [http://www.csf-desertification.org/index.php/bibliotheque/publications-csfd/les-dossiers-du-csfd-english/doc\\_details/141-brabant-pierre-2010-a-land-degradation-assessment-and-mapping-method](http://www.csf-desertification.org/index.php/bibliotheque/publications-csfd/les-dossiers-du-csfd-english/doc_details/141-brabant-pierre-2010-a-land-degradation-assessment-and-mapping-method)
5. Cao S.X., Tian T., Chen L, et al. 2010. Damage Caused to the Environment by Reforestation Policies in Arid and Semi-Arid Areas of China. Ambio 39(4), 279-283.

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7. Creamer R.E., Brennan F., Fenton O., et al. 2010. Implications of the proposed Soil Framework Directive on agricultural systems in Atlantic Europe - a review. *Soil Use and Management* 26(3), 198-211.
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9. Iglesias A, Garrote L, Cancelliere A, Cubillo F, Wilhite D (eds). 2010. Coping with drought risk in agriculture and water supply systems. *Drought management and policy development in the mediterranean. Advances in natural and technological hazards research (Vol. 26)*, Springer Science and Business Media B.V. 2009. ISBN 978-1-4020-9044-8, xvii + 320 pp. Article first published online: 29 OCT 2010 | DOI: 10.1002/ldr.1059
10. Leroy M., Palpacuer F., Naro, G. 2010. Management, mondialization and ecology. Ed. Hermès/Lavoisier \* 408 pages. ISBN : 978-2-7462-2144-4
11. Marais L., Cloete J., Matebesi Z., et al. (2010). Low-income housing policy in practice in arid and semi-arid South Africa. *Journal of Arid Environments* 74(10), 1340-1344.
12. Omuto C.T., Vargas R.R., Alim M.S., et al. 2010. Mixed-effects modelling of time series NDVI-rainfall relationship for detecting human-induced loss of vegetation cover in drylands. *Journal of Arid Environments* 74(11), 1552-1563.
13. Reynolds, J.F., Stafford Smith D.M., Lambin E. L., Turner II B.L., Mortimore M., Batterbury S. P. J., Downing T.E., Dowlatabadi H., Fernandez R.J., Herrick J.E., Huber-Sannwald E., Jiang H., Leemans R., Lynam T., Maestre F.T., Ayarza M., Walker B. 2007. Global Desertification : Building a Science for Dryland Development – *Science* 316, 847 (2007).
14. Stringer, LC, Thomas, RJ, & Akhtar-Schuster, M. 2010: Expand scientific input to address environmental effects. *Nature* 465, 869.
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## 7. Other Information

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### ICID Conference and DNI

The 2 International Conference on Climate, Sustainability and Development in Semi-arid Regions (ICID) was convened in Fortaleza, Brazil, from 16 to 20 August 2010. The Conference brought together participants to discuss climate change and sustainable development in arid and semi-arid regions and sought to raise the priority of these issues in the agenda of the 2012 UN Conference on Sustainable Development (Rio+20 Earth Summit), in Rio de Janeiro, Brazil. ICID 2010 began with the launching of the UN Decade on Deserts and the Fight Against Desertification.

Elena Abraham and Richard Escadafal participated in this meeting and took the opportunity to introduce the DNI that was very well received by the audience, due to the possibility for researchers to become part of an international network.

ICID+19 will be held in Mendoza, Argentina, next year and IADIZA is one of the organizers. Elena Abraham take this opportunity to warmly offer the organization of a special session to continue to spread the work of our Network.

*Information contributed by: E. Abraham, IADIZA-CONICET, Mendoza, Argentina, and R. Escadafal, CSFD Chair, CESBIO, France*

### The Committee on World Food Security works for a better food security governance



Bringing together FAO, IFAD and WFP, the Committee on World Food Security (CFS) has undergone a major reform in 2009 to become the most comprehensive international and intergovernmental platform for all important stakeholders to unite towards ensuring food security for all. The CFS held a high-level intergovernmental meeting from October 11 to 16, 2010 in Rome. More stakeholders, i.e. NGO's, civil society organizations, other UN bodies, the private sector, and philanthropic representatives participated in the Committee's discussions. CFS also got advice from High-Level Panel of Experts in various fields concerning food security and nutrition.

"This week marks the launch of a strategically coordinated global effort to draw on the combined strengths of all stakeholders engaged in the fight against global hunger," said WFP Executive Director Josette Sheeran. "With recent volatility in commodity prices and increased global demand for food this comes not a moment too soon. The reformed CFS has an opportunity and a responsibility to rally nations of the world to respond effectively, efficiently and coherently to provide vital humanitarian assistance when disasters strike and build long-term food security."

More information: <http://www.fao.org/news/story/en/item/46353/icode/>

*Information contributed by: G. Begni, CNES, France*

### International Conference of LANDCON1010 held in Xi'an, China



The International Conference on Combating Land Degradation in Agricultural Areas and the First Annual Councilor Meeting of WASWAC (LANDCON1010) was held in Xi'an, Shaanxi Province, China from October 11th to 15th, 2010.

The conference was initiated by World Association of Soil and Water Conservation (WASWAC) and Soil and Water Conservation Society of China (CSWCS), and hosted by Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources (ISWC, CAS&MWR). The co-sponsors were Chinese Academy of Sciences (CAS), Ministry of Water Resources, China (MWR) and Shaanxi Provincial People's Government. More

than 270 scientists from 32 countries participated and shared more than 120 presentations in the conference on situation, mechanism, control measures, evaluation of land degradation, desertification, global change and other relative topics. Further information: <http://159.226.153.2/index.html>; or contact Dr. Wang Fei: [wafe@ms.iswc.ac.cn](mailto:wafe@ms.iswc.ac.cn)

*Information contributed by: Fei Wang, Northwest A&F University, China*

### The Camel: a unique and fascinating creature

Camel is a very special and unique animal of the dry lands. Camel is the only animal domesticated for milk in dry lands and can produce up to 40 liter milk per day and the lengthy days without water do not depress the camel's milk quantity or quality. Camel milk contains five times more vitamin C compared to cow milk and also contains insulin like protein and is therefore used to treat Diabetes. It has higher levels of potassium, magnesium, iron, copper, manganese, sodium and zinc than cow milk. Camel milk is used for treatment of different ailments, i.e. allergies, asthma, diabetes, liver disorders, rheumatism, inflammatory conditions, etc.

Unfortunately camel is under threat in its original habitats. Value addition to camel products, ecotourism and niche marketing can be useful tools for camel conservation and development.

For further information, please contact: [raziq2007@gmail.com](mailto:raziq2007@gmail.com)

*Information contributed by: Dr. Abdul Raziq, Camel Association of Pakistan*

**CORRIGENDUM**

We have to apologize for two mistakes mentioned by a reader in our previous issue (3/2010):

1. The image about Afghanistan has been shifted in the paper 'West Africa: encouraging agricultural forecast' by mistake.
2. According to this reader, the represented lake is not man-made but natural. For sure, the *Band-e-Amir* region in Afghanistan includes six natural lakes. The source of information in the 'grey literature' explains that here a natural feature had been reinforced by human works to store (more?) water. Whether this original natural feature could retain water or not is unclear. No independent documents could be found to cross-check information. Our reader appears to know the site very well, so he is certainly right. Anyway, the picture was just an illustration, so this mistake does not affect the content of the text itself.

Chiara ZANOLLA & Gérard BEGNI.

**---- Editorial Staff ----**

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