

## **No. 6**

August 2009

## **News from Drynet**

A global initiative giving future to drylands

Drynet is a project of 14 organisations from all over the world. They work together to combat land degradation

## **GLOBAL NEWS**

#### CONTENT

#### **GLOBAL NEWS**

Drynet update 1
Evolutionary-participatory plant breeding 2/3
International Agenda 3
Excerpt from Inspiring
Initiative 4

#### **REGIONAL NEWS**

Launching a South African
Network on Climate Change
Adaptation 5
Africa's New Green Revolution:
Who really stands to gain? 6
South Africa Celebrates World
Desertification Day 7
Networking for Sustainable Land
Management 8/9
Off the Shelf 9/10
News 10/11
Events 11

#### **PUBLISHED BY**





## **Drynet Update**

Welcome to the sixth issue of "News from Drynet", a newsletter from the Drynet network on global concerns for drylands from local perspectives. This issue highlights the topic of agriculture in the drylands of the world.

One of the areas in which people find themselves most affected by changing climate patterns is agriculture. Farmers all over the world are confronted with unstable rainfall, increasing drought or flash floods, new pests, temperature fluctuations and thus increased instability for their crops and income. While bigger industrialised agriculturalists can generally fend off some of the effects, small scale subsistence farmers can be completely ruined by one or two years of bad yields. In the volatile regions of the world, such as drylands, this can have far reaching consequences for the entire area, such as mounting poverty which can lead to humanitarian crisis, a mass exodus to cities, and the further degradation and desertification of lands. However, increasingly people have begun to find ways of adapting to harsh circumstances and changing weather patterns.

Through stronger cooperation within communities, by using innovative irrigation methods or by experimenting with variations in seeds and plant breeding, many people in drylands have begun to create new spaces of adaption and survival. In this issue we would like to discuss the situation of agriculture in drylands and present some initiatives and alternatives which have sprung up.

The Drynet group is at the moment actively drafting proposals for the follow-up for the current project which will terminate in December 2009. Furthermore, some Drynet partners are presently working on bringing attention to the participative processes during the COP 9 in Buenos Aires in September this year.

## By Drynet partner: Both ENDS, the Netherlands - drynet@bothends.org



Alternative agricultural production in Drylands: Quinoa Plantation in Bolivia



A global initiative giving future to drylands

## **GLOBAL NEWS**

## **Evolutionary- participatory plant breeding:**

## A HOLISTIC APPROACH TO ADAPT CROPS TO AGRONOMY, CLIMATE AND PEOPLE

The massive and rapid decline in agricultural biodiversity is caused in part by the success of modern plant breeding especially in wheat, rice and maize which make up 60% of the calories in human diets. As a result the most widely grown varieties of these three crops are closely related and genetically uniform. The major consequence is that our main sources of food are more vulnerable than ever before, and that, as the well known cases of the potato famine in Ireland in the mid 1800, the reduction of corn production in 1970 in USA due to the southern corn leaf blight, and more recently the rapid spreading of UG99 from Uganda, to Kenya, Ethiopia, Yemen and Iran, by favouring the spreading of new virulence type of pathogens, genetic uniformity puts food security in danger. Genetic uniformity has very much the same effects on reaction to abiotic stresses such as temperature extremes and drought.

It is widely recognized that traditional varieties (landraces) have much greater resilience to drought and other stresses. Some of the landraces that have been lost due to the introduction of Green Revolution technologies are available in national and international gene banks. These gene bank collections serve a very important purpose - avoiding the loss of



Women planting seedlings in Iran. - Photo by Mohsen Yosefi

individuals and species, and of the genes, which may be unique, they carry. On the other hand by "freezing" seeds they also "freeze" evolution at the time of the collection. Therefore, many scientists and policy makers advocate that together with conservation in gene banks - ex situ -, the diversity should also be conserved in its original locations - in situ -, where the plant populations can continue to evolve. In addition, the high-yielding varieties introduced through the Green Revolution require optimal growing conditions which are created through heavy use of chemical pesticides, fertilizers and water. Creating such an optimal environment has caused on the one hand farmers in favourable environments to go into debt to purchase these expensive inputs and to pollute the land and water and overuse scarce water sources, and on the other, farmers in marginal environments have been bypassed by a research philosophy that do not take their special needs into account. It is now unequivocal that the climate is warming, as it is evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice,

and rising global average sea level. It is also very likely that in several areas the frequency and the intensity of drought as well as the variability of the climate are increasing.

To cope with the challenges posed by genetic uniformity, climate change and dependence on chemical inputs, it is urgent to deploy on the ground a dynamic and inexpensive strategy which will quickly enhance the adaptation of crops to climate change and hence mitigate the impact of climate change. Such a strategy is based on four components: locally adapted genetic resources (landraces), farmer's knowledge and participation, integration of plant breeding and crop management (agronomy, soil management, disease and pests management), and respect of farmers' rights.

These four components are used in a multi-country program of evolutionary plant breeding consisting of deploying populations with large genetic variability into the hands of the farmers and letting them gradually evolve and



A global initiative giving future to drylands

## **GLOBAL NEWS**

## **Evolutionary- participatory plant breeding:**

continued

>> adapt to both climate and management changes including organic conditions.

At the moment one population made up by mixing an equal number of seed of nearly 1600 barley F2 is grown in 5 locations in Iran, 4 in Jordan, 4 in Syria and will soon be grown in 3 locations in Algeria. The locations were chosen together with farmers for being affected by one or more of the abiotic and biotic stresses affecting crop yield and quality. In each location the populations will be left to evolve under the joint forces of natural and artificial selection operated by the farmers (with the skills developed through their participation in the breeding programs), and eventually by breeders (evolutionary-participatory plant breeding). These populations can be used for a short term objective to develop specifically adapted varieties to the different areas and to the current levels of abiotic and biotic stresses. At the same time, as recombination and natural selection will continue to occur, new gene and gene combination not even present in gene banks may appear. Therefore, these populations will slowly become better and better adapted and will also be used for the long term objective to develop varieties resistant to the future levels of climate and agronomic changes. As the populations evolve farmers will use a small part of the seed produced every year to plant and harvest the evolving population to allow a progressive adaptation to the prevailing stresses. After the first years and with the availability of an increased amount of seed the population can be shared with other farmers and evolve under a number of combinations of agronomic management and climatic conditions. The remnant seed can be shared with other farmers who can start their own evolutionary populations adjusting its size to the land and resources available, or to plant their crop.

In some selected locations we will start experimenting on combining conservation tillage, improved rotations and varieties. The integration of rotation, tillage and breeding requires that at each selected location in a farmer's field a given piece of land will be allocated to these experiments for the duration of the project. The experimental approach will be to initiate with the agronomic treatment in either a 2 factor or a 3 factor experiment. In the 2 factor experiment we will have in the first year alternate strips of either the two types of tillage or two types of rotations. In the second year the participatory trials, but also the evolutionary populations, will be planted orthogonally to the direction of the agronomic treatment in a way that half of each plot (=1 variety) will be on one treatment and the other half on the second treatment. These types of trials, if repeated in at least three locations will give information on genotype x agronomic treatment x years x locations interactions. A similar approach can easily be used to adapt crops to organic agriculture.

By Salvatore Ceccarelli, ICARDA.

Presented by Drynet partner CENESTA,
Iran

## **International Agenda 2009**

25 - 28 August 2009 - 1st International IFOAM Conference on Organic Animal and Plant Breeding: Breeding Diversity in Santa Fe, New Mexico, USA. The conference aims to encourage the dialogue between commercial and subsistence farmers, scientists and practitioners, professional farmers and hobby gardeners/animal keepers to promote the lively exchange of experiences and perspectives on organic breeding.

More information: www.ifoam.org

#### 31 August 2009 - 04 September 2009

The World Climate Conference - 3 in Geneva, Switzerland. Conference organised by World Meteorological Organization. WCC-3 will build on the achievements of the First and Second World Climate Conferences and focus on how humankind can benefit from the huge advances in climate prediction and knowledge. WCC-3 will contribute to the outcomes of the 15th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, to be held in Copenhagen, Denmark, in December 2009.

More information: www.wmo.int/wcc3

#### 07 - 11 September 2009 - SADC

Sustainable Land Management Drylands
Conference in Windhoek, Namibia. The
MET in collaboration with the UNDP and
other partners are organizing a
conference that will serve as a platform
for practitioners to demonstrate best
practices as well as to share lessons
learned in pursuant of integrated
sustainable land management (ISLM).
More information: www.sadc.int



A global initiative giving future to drylands

## **GLOBAL NEWS**

# Excerpt from Inspiring Initiative: Partnerships for Sustainable Agriculture

AN INTEGRATED MULTIINSTITUTIONAL APPROACH TO
IMPROVED WATER MANAGEMENT
IN COMMUNAL LANDS: A CASE OF
POTSHINI IN KWAZULU-NATAL,
SOUTH AFRICA.

A densely populated rural community in the foothills of South Africa's Drakensberg is refusing to give in to land degradation and poverty. Most people practice subsistence agriculture, growing mainly maize and beans for home consumption. Cattle are grazed in communal lands in summer when the crops are in the fields. In winter, after harvesting, cattle are allowed to graze on crop residues in the crops fields. However, decades of overcrowding - an artefact of discriminatory Apartheid land policies and the resultant poor land-use practices are largely to blame for excessive soil erosion and the nutrient degradation of the farmers' fields.

With the help of the Farmer Support Group (FSG), farmers, especially women have been developing more sustainable and productive systems of natural resource management. Using participatory action research, cross visits and participatory monitoring and evaluation by the farmers themselves, FSG and approximately 60 farmers shared and experimented with new technologies in farming, including water conservation measures such as trench beds, cover crops and tower gardens. In Farmer Life Schools, farmers and facilitators interacted as co-learners in sessions held regularly to deal with specific issues. People considered to be knowledgeable on various topics were invited to address specialised topics as and when necessary. Farmers were encouraged to take up some of the ideas from cross visits and to implement them on their farmers, even on an experimental basis. In addition, field days were held periodically to share information on the innovations that were being experimented with in the project.

The successes of this joint initiative include reduced soil erosion, recharged water tables, increased access to water for agriculture, enhanced food security, increased food nutrition and health, increased crop yields and increased ability to finance household expenses. For example, the project demonstrated that the minimum tillage technique, which the project assessed against conventional tillage, resulted in maize yield increases of 168% above those of the conventional treatments.

One of the major reasons for the success of this project was the participatory, collaborative manner in which this initiative was managed. Engagement with the project deepened the understanding of the various stakeholders of multistakeholder partnerships and what is necessary for them to be fruitful. The project also facilitated their mutual support for one another in promoting longer term sustainability of development in the area.

## >> International Agenda continued

21 September to 2 October 2009, Buenos Aires, Argentina. The ninth session of the Conference of the Parties to the United Nations Convention to Combat Desertification (COP 9). The UNCCD Secretariat has posted the advance versions of several documents for the upcoming ninth session of the Conference of the Parties, including information for participants and the agenda and annotations.

More information:

www.unccd.int/cop/cop9/menu.php

The project allowed an understanding of the breadth of issues that have to be dealt with when supporting the efforts of farmers to improve their situation. Stakeholders thus realized the need to work together and acted upon this.

As Potshini is typical of rain-fed communal farming areas in South Africa, the approaches and technologies used in this project can be applied in many areas in South Africa and elsewhere in sub-Saharan Africa.

By Drynet partner: EMG, South Africa.
For more information about this
initiative please check www.dry-net.org



Dryland farmers learning new technologies and methods as part of the 'Partnership for Sustainable Agriculture'. – Photo by Michael Malinga



A global initiative giving future to drylands

## **REGIONAL NEWS**

# Launching a South African Network on Climate Change Adaptation

The issue of adapting to climate change has long taken a backseat while the world focused on first clarifying the scientific evidence of climate change, and then debating who should do what to mitigate the impacts by reducing greenhouse gas emissions. The same can be said at the national level, where South Africa's focus, in terms of national and local policy, research and project funding, has been primarily on the greenhouse gas reduction debate. While climate change mitigation issues are no less significant (or hotly debated), perhaps the time has come to start focusing on equipping ourselves to adapt to some of the now inevitable changes we will see in our climate system due to global warming.

In June this year adaptation practitioners took an important step towards fostering climate change adaptation work in South Africa by launching a network to facilitate sharing of experiences and practical approaches, and to add value to national and international policy processes. The idea of developing a network or platform for those involved in adaptation work was born at the National Climate Change Summit held earlier this year.

I worked with the Environmental Monitoring Group (EMG), in its role as host of Drynet, South Africa, and Indigo development & change to organise a successful and well-attended networking workshop in Johannesburg on 18th June.

Practitioners from academia, civil society, government and the private sector attended the workshop to discuss how best to foster collaboration in adaptation practice. Bettina Koelle of Indigo dc led a dynamic participatory process to identify and locate some current adaptation activities in South Africa, some of the methodologies currently in use, and to identify some of the gaps in this work. The key workshop outcome was the decision to form a network, or "network of networks" on climate change adaptation. In addition to encouraging further collaboration, the network will also aim to respond to policy documents such as the Second National Communication, to lobby, advocate and to contribute to the National Climate Change Committee (NCCC). The organization "90 by 2030" volunteered to host the network secretariat, and plans were discussed to host a two-day networking workshop before the end of the year. In the interim, a task-team

has been established to take forward the establishment of a robust and representative network.

In addition to this independent initiative, interest in adaptation work has been steadily growing in our national government. The new Department of Water and Environmental Affairs (DWEA), previously Department of Environmental Affairs and Tourism (DEAT) has recently established an adaptation unit, which is investigating the formation of a formal stakeholder forum to contribute to national policy formulation. For example, this forum might feed into the NCCC and provide input on the drafting of national climate change policy, the development of adaptation sector plans and proposed scenario work on climate change adaptation similar to that undertaken by the Long Term Mitigation Scenarios (LTMS) process of 2006-2008.

For more information please contact Elin Lorimer: 083 399 8332 or elin@iburst.co.za.

By Elin Lorimer, Climate Change Consultant, edited by Drynet Partner: Noel Oettlé, EMG



Workshop participants map their adaptation activities. - Photo by Elin Lorimer



A global initiative giving future to drylands

### **REGIONAL NEWS**

## Africa's New Green Revolution: Who really stands to gain?

In response to the "New Green Revolution in Africa" which threatens to further entrench chemical-intensive and large-scale monoculture farming on the continent, a number of NGOs and rural people's movements gathered together for an education and strategy workshop on 15th May under the slogan: "Food not Profit".

The main focus of the workshop was to educate farm-workers and small-scale, subsistence farmers about genetically modified organisms (GMOs) and the Alliance for a Green Revolution in Africa (AGRA) which was launched in 2007 by the Rockefeller and Bill and Melinda Gates Foundations. AGRA's work in "spearheading efforts to achieve a sustainable green revolution" has been hailed by African Ministers of agriculture and development. However, what is being promoted can hardly be described as "sustainable", as it is based on expensive industrial inputs and seed that cannot be reproduced by farmers, but must be bought from traders (who are also receiving massive support from AGRA).

Although, as yet, AGRA has not incorporated GM crops into its projects, organisations like The Trust for Community Outreach and Education (TCOE) and African Centre for Biosafety are concerned

by the fact that the alliance includes former employees of GM corporate giant Monsanto as well as corporate-driven U.S. groups such as the International Fertiliser Development Centre. AGRA has been at pains to conceal its designs to introduce GMOs in Africa, but this is clearly intended. The Bill & Melinda Gates Foundation has even provided funding of \$767,800 to the University of California at Berkeley's Graduate School of Journalism to support positive reporting about "the role of genetically modified food in addressing global hunger and poverty". This propaganda effort is intended to sweeten palates for the inevitable delivery of GMOs to African farmers via AGRA.

Genetic modification of crops is something most South Africans are unaware of, and even fewer understand. The workshop participants were no exception. Wearing t-shirts bearing slogans like: "farm workers feed the nation" and "Why do our children starve?", it was clear that most participants in the workshop had not been aware that they had most likely been buying and eating GM maize and soya for some time. "Now that I know I'm eating pap made from maize that has pesticide in it, I am worried about what this means for my health", said Sophia Mbuliswana from the Rawsonville Women Co-operative. According to Haidee Swanby of the African Centre for Biosafety, 60% of maize in South Africa has been genetically modified but there is very little independent research on the impact that GMOs may have on human health. Some farm-workers were particularly worried that the introduction of GM crops resistant to herbicides like Roundup meant that commercial farmers would no longer employ them to remove weeds and others were shocked by the knowledge that GMO seeds are patented and owned by multi-national corporations. South Africa, so far, is the only African

country that has commercialised GMOs. "Other African countries have been extremely cautious about GMOs and are concerned about the impact that it will have on subsistence farmers and the environment", says Swanby who recently attended a meeting of the African Union and found it encouraging that other countries had not followed South Africa's lead when it came to GM policies. However under the leadership of Kofi Annan, AGRA's promotion of a Green Revolution to address the problem of rural poverty and famine in Africa, this might all change. The rollout of an industrial-agricultural model that is heavily reliant on chemical fertilisers and designed to integrate small-scale farmers into the global, free market economy has already received endorsement of the African Union and the New Partnership for Africa's Development (NEPAD) as a way for farmers to lift themselves out of poverty.

The workshop was organised by The Trust for Community Outreach and Education (TCOE), Biowatch, African Centre for Biosafety and Women on Farms with the assistance of the Trade Strategy Group (TSG) whose focus is on sustainable and equitable development of the Southern African region.

#### By Raffaella Delle Donne, Freelance writer; edited by Karen Goldberg and Noel Oettle, EMG



AGRA and GMOs threaten traditional farming methods and crop varieties. – Photo by Haidee Swanby



A global initiative giving future to drylands

### **REGIONAL NEWS**

## South Africa Celebrates World Desertification Day

Over 50 South Africans from many parts of the country and from a number of national and provincial government departments gathered in Johannesburg on 17th and 18th June this year to review our progress as a nation towards fully implementing the United Nations convention to Combat Desertification (UNCCD) and to generate ideas for the way forward. The two-day event including a gala dinner was organised by the Department of Water and Environmental Affairs (DWEA to commemorate the World Day to Combat Desertification (WDCD). The Deputy Director General Mr Fundisile Mketeni graced the first day of the workshop, reminding the audience that desertification, land degradation and drought threaten the fight against poverty and human security by reducing food production and limiting access to water.

The Gabomoto Cultural Dance group gave provided some light relief in at the gala event by giving a wholehearted performance, which included coaxing several members of the audience onto the stage...!

Good and bad news emerged from the workshop.

The bad news is that our country is lagging far behind in terms of

implementing our National Action
Programme (NAP), which is our
national instrument for achieving a
coordinated approach to sustainable land
management and poverty alleviation in
the dryland areas of South Africa. One of
the main stumbling blocks has been the
extraordinary delay in establishing South
Africa's National Coordinating Body (NCB)
and the intended harmonisation of efforts
and budgets through this body.

In line with the requirements of the UNCCD, the Cabinet-approved South African National Action Programme calls for the South African Focal Point (previously DEAT, now DWEA) to constitute an NCB. South Africa's third country report to the Seventh Conference of the Parties of the UNCCD in 2005 indicated that the NCB was functional. However, to date the NCB has still not yet been established, more than 4 years after the NAP was approved by Cabinet. Thus it is little wonder that the UNCCD is the "forgotten convention" in this country, while the causes of biodiversity conservation and climate change issues feature so prominently in the public discourse. Furthermore, there are diverse and inspiring initiatives and research projects underway that are not being coordinated effectively, resulting in potential duplication of efforts and a missed opportunity in terms of learning from each other's experiences. These initiatives are also not being effectively monitored or evaluated.

On the positive side, many stakeholders presented insightful cases of successful local implementation of the Convention in the course of the event. And most significant, DEAT/DWEA committed itself to fast-tracking the appointment of the NCB in the coming months, and to

ensuring that the National Desertification Fund (NDF), known as "Rehabilitating Drylands for Poverty Alleviation" is funded and operational through the Development Bank of South Africa (DBSA). DEAT/DWEA and DBSA are currently in the process of finalising a much-delayed memorandum of understanding to establish the operational framework for the fund.

The workshop was an important step towards a more coordinated and collaborative approach to dealing with SLM issues in South Africa and in an honest assessment of the current reality, challenges and opportunities of the UNCCD processes in South Africa.

EMG expects to be attending the forthcoming Ninth Conference of the Parties of the UNCCD in Buenos Aires in September this year, and would like to be able to share the news that South Africa has moved beyond rhetoric towards action, and has finally established an NCD and an NDF, and that these bodies are contributing effectively to promoting co-operative governance in South Africa.

For a detailed report of the workshop, please contact Mr Muleso Kharika: 012 310 3578 or jkharika@deat.gov.za.

#### By Karen Goldberg and Noel Oettlé, EMG



WDCD delegates review South Africa's progress in meeting the strategic objectives of the NAP. – Photo by Karen Goldberg





A global initiative giving future to drylands

### **REGIONAL NEWS**

## Networking for Sustainable Land Management:

A SOUTH AFRICAN INITIATIVE FOR KNOWLEDGE SHARING AND ENGAGEMENT

#### THE GLOBAL CONTEXT

South Africa is signatory to the **United Nation Convention to Combat** Desertification and Mitigate the Effects of Drought (UNCCD), an international agreement drawn up following the 1992 Earth Summit in Rio de Janeiro. The UNCCD was initially primarily an African initiative to promote a peoplecentred approach to sustainable land use that could address the large-scale loss of productive land in Africa, and the resultant poverty of its land users. The UNCCD emphasises the importance of people's participation in developing and implementing plans to sustain the land in order to ensure that any actions have a good chance of success, and also addresses the livelihood needs of rural people.

#### **SOUTH AFRICA AND THE UNCCD**

As a signatory to the Convention, South Africa in 2004 adopted a National Action Programme (NAP) to guide the implementation of the UNCCD. The NAP is intended to promote efficient coordination and cooperation in a spirit of partnership, with focused but differentiated roles for the different stakeholders. In accordance with its obligations under the UNCCD, and in collaboration with a number

of research institutes, universities, NGOs and international partners, the government of South Africa has undertaken a number of initiatives to promote sustainable land management. These include programmes such as Land Care, Working for Wetlands, the **Desert Margins Programme and many** others. As a nation we have a rich experience of promoting sustainable land use, as well as insight into what has not been successful, and why. In accordance with our constitution and the policies of our government, the UNCCD and our NAP are an opportunity to deepen co-operative governance and to mobilise our people to save our precious natural resources.

#### **PROMOTING SLM**

One of the key stakeholder groups within the UNCCD, and the NAP is civil society. Unlike the other stakeholders, civil society in South Africa has not benefitted from having a uniting organisation that can promote its views in the context of the NAP and government policy that relates to sustainable land use. In order to address this deficiency, and to facilitate knowledge sharing amongst practitioners who work in rural communities and have real insight into sustainable land use, civil society organisations in South Africa have expressed an interest in forming a network.

#### STRENGTHENING LINKS WITHIN AFRICA

At a continental level there is also a need for a vibrant civil society network to engage in the official processes of the UNCCD and to invigorate work that takes place at local and national level. Not only are there on-going opportunities for civil society to engage with the official UNCCD processes, but

there are also programmes such as TerrAfrica which have been designed to implement the UNCCD and require inputs and guidance from civil society. TerrAfrica is a sub-Saharan Africa-wide programme that is funded by the Global Environmental Facility (GEF) to support sustainable land management. Following a consultative meeting held in Pretoria in March this year, African civil society representatives decided to form a new network on sustainable land management. This network will be based on national and regional networks, and it is intended to establish a SADC-wide network with national members in some or all of the SADC countries. This meeting was supported by the United Nations Development Programme and TerrAfrica.

#### **TOWARDS ESTABLISHING A NETWORK**

A large number of individuals and organisations have expressed an interest in joining the network, and at an informal consultation during the recent LandCare Conference in Polokwane, over 50 interested persons asked to be put on a mailing list and informed when a founding meeting will be held.

Drynet is playing a co-ordinating role in the establishment of the network in South Africa, and welcomes any other organisations that would like to contribute their energy and vision.

We intend to call a national launch workshop for the network in the coming months, and invite you to put your name forward if you would like to be informed of the details of the meeting.

For more information please contact Noel Oettle dryland@global.co.za or Karen Goldberg karen@emg.org.za



A global initiative giving future to drylands

### **REGIONAL NEWS**

### Off the Shelf

#### **AGRICULTURE AT A CROSSROADS 2009**

ISBN: 978-15-9-726538-6 Published by IAASTD Website: www.islandpress.com/ bookstore/details.php?prod\_id=1832

The International Assessment of Agricultural Knowledge, Science, and Technology for Development (IAASTD) was initiated by the World Bank and the United Nations Food and Agricultural Organization. Its goal is to analyze the potential of agricultural knowledge, science, and technology (AKST) for reducing hunger and poverty, improving rural livelihoods, and working toward environmentally, socially, and economically sustainable development. The IAASTD involved more than 400 authors in 110 countries. The results of the project are contained in seven reports: a Global Report, five regional Sub-Global Assessments, and a Synthesis Report. The Global Report gives the key findings of the Assessment, and the five Sub-Global Assessments address regional challenges.

## ENVIRONMENTAL POLICY INTEGRATION IN PRACTICE: SHAPING INSTITUTIONS FOR LEARNING 2009

Editors: Nilsson, Mans and Eckerberg, Katarina Published by Earthscane ISBN: 978-18-4-407815-8 Website: www.earthscan.co.uk/?tabid=74786 This groundbreaking volume presents the first ever detailed examination of EPI at the national policy level, focusing on the key sectors of energy and agriculture within Sweden, a country that is widely recognized as a front runner in environmental management. The final section of the book lays out the major findings and presents key lessons for international application, including institutional recommendations on how to enhance the potential for EPI. The book answers the questions of what works for EPI, why it works, and how it can be achieved in practice across sectors. The result is a rich and indispensable guide for all those involved in environmental and sustainable development policy issues.

## CLIMATE CHANGE AND AGRICULTURE IN AFRICA: IMPACT ASSESSMENT AND ADAPTATION STRATEGIES 2008

Authors: Dinar, Ariel, Hassan, Rashid, Mendelsohn, Robert and Benhin, James Published by Earthscan ISBN: 978-18-4-407547-8 Website: www.earthscan.co.uk/?tabid=1497

This book encompasses a comprehensive assessment of the potential economic impacts of future climate change, and the value of adaptation measures in Africa for different zones, regions, countries and farm types. This book provides vital knowledge about the impacts of climate change on Africa, serving as a guide to policy intervention strategies and investment in adaptation measures. It makes a major contribution to the analysis of climate change impacts and developing

adaptation strategies, especially in the highly vulnerable farming communities in the developing world.

## CARING FOR NATURAL RANGELANDS 2006

Author: Coetzee, Ken Published by the University of KwaZulu-Natal Press ISBN 1-86914-071-0

This book fills a unique niche in terms of managing soil and water resources in rangelands, and as such makes an excellent companion to other resource books focused on vegetation management. It provides a highly practical guide to "bottomup" restoration of rangelands that is a rich resource for land managers, environmental biologists, educationalists and students. The book's point of departure is a sound land ethic, and why the conservation of soil and water resources in rangelands is of vital importance to society. Illustrations by the author demonstrate clearly how erosive processes take place, and what practical measures can be implemented by the land manager to arrest erosion, stabilise the land and promote re-vegetation. Relatively "high-tech" approaches are presented as well as cheaper ways of supporting more natural restoration processes. The book is indexed and contains a useful bibliography.

If you like to receive this newsletter electronically or for more details on the articles published, contact us at drynet@bothends.org or check our website www.dry-net.org



A global initiative giving future to drylands

### **REGIONAL NEWS**

#### **News and Notices**

The new Minister of Agriculture Forestry and Fisheries (DAFF) Hon Tina Joemat-Pettersson ushered in a new era for agriculture, during her landmark budget vote speech on the 18 June 2009. For the first time, sound agro-ecological principles are being emphasised by government, as are the needs and rights of rural communities and small-scale farmers. Food security as well as food sovereignty featured clearly in her speech and she resolved "to support local food production in communities, by communities, for communities." The Minister further committed her Department to formulating practical programmes to address the high rates of unemployment in rural areas and enable rural people to play a meaningful role in an inclusive economy, dealing with poverty through productive use and management of natural resources. The Minister also indicated that there would be a coordinated strategy to Agrarian Transformation, Rural Development, and Land Reform with her Department leading the first. The effects of agriculture on climate change as well as the effects of climate change on agriculture will be investigated.

For more information go to: www.pmg.org.za/print/16692

Climate change could cost the African continent up to 1 million square kilometers of farmland by 2050 as climate change makes many areas too hot and dry for growing crops. Under these conditions, maize, the most widely grown staple crop in Africa, will no longer be possible to cultivate in these areas. Even millet, a staple grain in Africa considered to be a drought-tolerant crop, would be at risk of crop failure in areas. Areas in southern Africa that will potentially be affected include the north-eastern and eastern part of South Africa, as well as Angola, Mozambique, Zambia and Zimbabwe. Though unsuitable for crops, the land could still sustain livestock, which are more tolerant to heat and drought. Boosting livestock production could provide the 20 million to 35 million people living in these areas with a means to stay on their land and make an income.

For more information go to: www.reuters.com/article/latestCrisis/ idUSN02530991 For a copy of the research article, go to:

www.ilri.org/ILRIPubAware/ Uploaded%20Files/croppers-tolivestock-keepers-paper\_final.pdf To mark World Day to Combat
Desertification, the UN Environment
Programme (UNEP) announced
the findings of the US\$10 million
Desert Margins Programme (DMP),
led by UNEP in partnership with the
International Crops Research Institute
for Semi-Arid Tropics and with
support from the GEF. This project
has involved nine pilot countries in
Africa and has employed technologies
that combine modern science
with traditional and indigenous
knowledge in an effort to identify
anti-desertification strategies.

www.unep.org/Documents.
Multilingual/Default.asp?DocumentID
=589&ArticleID=6219&I=en



- Photo by Noel Oettlé



A global initiative giving future to drylands

## **REGIONAL NEWS**

#### **Events**

24 - 27 August 2009, Vredefort Dome, North West Province.

IECA-SA Annual National Conference: Synergism in erosion control.

Annual National Conference of the International Erosion Control Association Southern Africa Chapter (IECA-SA).

For more information, contact Samantha Winson, Natural Bridge Communications, Tel: 012-460-7818, Fax: 012-460-7821, Email: Samantha@ naturalbridge.co.za 7 – 11 September 2009, Windhoek, Namibia.

SADC Regional Conference on Sustainable Land Management: Sustainable Land Management in the Dry lands of Southern Africa: The Practicalities.

This conference will serve as a platform for practititioners to demonstrate best practices as well as to share lessons learned in pursuant of integrated sustainable land management. Hosted by the Ministry of Environment and Tourism (MET) Namibia - Country Pilot Partnership Programme for Integrated Sustainable Land Management (CPP-NAM: ISLM Programme) in partnership with the United Nations Development Programme (UNDP), Namibia.

For more information, contact Ms. Birga Ndombo, Directorate of Environmental Affairs, MET, Namibia. Tel: (+264 61) 284 2701/2810/2811/2730, Email: bndombo@cppnam.net. 18-20 September, Walter Sisulu National Botanical Garden on the West Rand, Gauteng.

Biodiversity Expo & Rare Fair. The Biodiversity Expo & Rare Fair came about as a result of collaboration between BirdLife South Africa and SANBI, who are major role players in environmental research, conservation of wildlife and advocating environmental conservation practices. Exhibitors ranging from independent plant growers to NGOs and major corporates will be in attendance to demonstrate their contributions to address biodiversity issues. Plants and wildlife (live animals) will be on show, as well as machinery used in the green industry, enviro-friendly gadgets and designs.

www.sanbi.org/whatson/whatonsisulu.

5 – 8 October 2009, Graaff-Reinet, Eastern Cape Arid Zone Ecology

Biodiversity conservation in arid zones: people, species and landscapes.

Who should attend? Scientists, students, engineers, planners, and educators working in arid areas; Managers, particularly those in conservation, forestry, agriculture, and local government; Policy makers from government; NGOs and the private sector; Landowners & EIA consultants.

www.azef.co.za/conferences.htm

For more details on the articles published, contact us at drynet@ bothends.org or check our website www.dry-net.org.



– Photo by Karen Goldberg