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October/November 2012 newsletter

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New dossier and lead articles

RETHINKING THE RICE VALUE CHAIN

Investments in science and engineering as well as the optimization of research results and indigenous knowledge can catalyze agricultural innovation as well as enhance the performance of agricultural value chains. Capitalizing on the potential of science and technology, traditional knowledge and entrepreneurship to produce high-quality rice that benefit farmers, consumers and national economies is the focus of this new dossier. Two new lead articles as well as documents and links that provide details of the rice value chain and ways of using science and technology to boost yields and incomes are featured in this new K4D folder.

Increasing rice yields and saving water: Lessons for Policy and Practice – The System of Rice Intensification (SRI)

By Dr Erika Styger of SRI International Network and Resources Center (SRI-Rice) at Cornell University.

This lead article outlines the benefits of the SRI system, in particular alternate wetting and drying irrigation (AWD), which allows a 20-50% direct reduction of irrigation water applied to the rice paddy. Under the current practice of continuously-flooded rice paddies, rice crops receive two to three times more water than other irrigated cereal crops, even though rice has a similar transpiration rate. Developing methodologies that improve water-use efficiency or water productivity in rice production will allow for saving water and for its reallocation to other uses.

The SRI system is co-responsible for saving water and increasing yields. SRI also focuses on improving plant establishment, significantly reducing plant population and improving soil conditions. To follow SRI practices, farmers are prompted to pay attention to land levelling, so as to avoid drowning the small transplants with irrigation water. Land levelling is thus an important water-saving practice, as it allows even distribution of water throughout the plot, and the depth of the irrigation water can be precisely controlled. Changes in production cost and labour allocations occur with SRI compared to the conventional system; however, there are challenges. An effective extension and advisory system is key.

Click to read the article.

Click to visit the SRI-Rice Online Network.

Knowledge along traditional rice value chains – a practice-based approach: are there lessons for Sub-Saharan Africa?

By Nico Janssen and Ranjan Shrestha of the SNV Netherlands Development Organisation

This lead article describes the experiences of SNV in strengthening the rice value chains in Vietnam, Lao PDR and Cambodia. It especially considers the role of the traditional knowledge system and the changes and adaptations associated with responding to market developments and private sector involvement. It also analyses how the actors in the value chain use both traditional and scientific and technological knowledge in a changing environment.

Through natural selection and farmer knowledge, a wide collection of rice varieties has been preserved. However, since the introduction of intensive irrigation combined with intensive use of chemical fertilisers and high-yielding varieties, farmers have become increasingly dependent on external knowledge sources, but are not receiving adequate advisory services. Improving interaction between farmers and the private sector is considered crucial for meeting demands of international markets, given the need for delivering homogeneous quality on a consistent basis and in a cost effective manner.

Click to read the article.

Visit the homepage of the new K4D dossier and explore its content.

Selected resources: 'Rethinking the rice value chain'

Global Rice Science Partnership (GRiSP)

The Global Rice Science Partnership (GRiSP), the CGIAR Research Programme on Rice, provides a single strategic plan and unique new partnership platform for impact-oriented rice research for development – it is designed to more effectively solve development challenges. It streamlines current rice research for development activities of the CGIAR and aligns it with more than 900 rice research and development partners worldwide to:

- increase rice productivity and value for the poor
- foster more sustainable rice-based production
- help rice farmers adapt to climate change
- improve the efficiency and equity of the rice sector

GRiSP research is organised into six themes to maximize collaboration, innovation, and impact:

- harnessing genetic diversity to chart new productivity, quality, and health horizons
- accelerating the development, delivery, and adoption of improved rice varieties
- ecological and sustainable management of rice-based production systems
- extracting more value from rice harvests through improved quality, processing, market systems, and new products
- technology evaluations, targeting, and policy options for enhanced impact
- supporting the growth of the global rice sector

Visit the GRiSP website.

Rice Knowledge Management Portal of the Indian Council for Agricultural Research

The Indian Council of Agricultural Research (ICAR) uses information and communication technologies (ICT) to develop national level knowledge management portals. Its flagship initiative, the Rice Knowledge Management Portal (RKMP) is dedicated exclusively to rice. It serves as a platform for sharing rice knowledge: using the latest ICT tools, including mobile telephony, it helps agricultural departments reach out to farmers through extension services. Provided in English and local languages, the extensive and varied information found on the site include FAQs, best practices, communities of practices, software, research repositories and bibliographies, e-learning platforms, etc. It is possible for rice practitioners in the country to upload content to the site once it has been approved by scientists from State Agricultural Universities. Every national or regional research bodies would benefit from a similar portal that would bring together, streamline and distribute freely the rice knowledge of each rice growing region.
Visit the RKM portal.

African Agricultural Technology Foundation's Rice Improvement Project

The African Agricultural Technology Foundation (AATF) is coordinating a multiple-partner collaboration to develop genetically improved African rice varieties with enhanced agronomic traits, specifically Nitrogen-Use Efficiency (NUE), Water-Use Efficiency (WUE) and Salt Tolerance (ST). Four parties are collaborating to achieve this goal: Arcadia Biosciences which is donating the trait technologies, producing transgenic plants and providing technical support; Public Intellectual Property Resource for Agriculture (PIPRA) which is donating the enabling technologies for plant transformation; International Centre for Tropical Agriculture (CIAT) and African National Agricultural Research Systems which are involved in field testing for trait gain; and AATF which is overseeing the management of the project.
Visit the AATF Rice project page.

Rice value chain in Metema district, north Gondar, Ethiopia: challenges and opportunities for innovation

Rice is a new crop for Ethiopia in general and the study area, Metema, in particular. There is an immense potential rice production area and high consumer demand. However, the rice sector is underdeveloped. Many institutional, organisational and technological factors were attributed to existing inefficiencies in rice production and utilization. There are multiple public and non-public actors involved along the rice value chain, upstream from input supply to downstream consumers, playing different roles but little coordination or linkage. Lack of post-harvest processing technology (rice polisher), limited access to and supply of inputs, severe termite attack, non-availability of well-developed rice market, high labour demand for crop management, absence of coordinating responsible body are challenges to innovation. On the contrary, increased farmer's awareness about and availability of improved rice varieties, existence of favourable land and climatic condition, presence of high consumer demand, and increased institutional support from different governmental departments and NGOs were mentioned as opportunities for innovation. Platforms and partnerships have to be created between value chain actors to create an enabling environment for sharing of information, knowledge and solving existing problems such as shortage of rice polisher technology and input supply services.
B. K. Gebremeskel (2010). M.A. thesis submitted to Addis Ababa University, Ethiopia.

Food quality changes and implications: evidence from the rice value chain of Bangladesh

In Bangladesh, where rice accounts for almost 70% of consumers' caloric intake, the share of the less expensive coarse rice is shown to be rapidly decreasing in rice markets and the quality premium for the fine rice has been consistently on the rise in

the last decades. It thus seems that the role of rice as only a cheap staple food is being redefined. The increasing demand for the more expensive varieties is seemingly associated with a more important off-farm food sector – in particular, milling, retailing, and branding – as well as a transformed milling industry. Research further found that the labour rewards for growing different rice varieties are not significantly different and that farmers do not benefit directly from consumers' increased willingness to pay for rice. From the 2012 Conference of the International Association of Agricultural Economists.

New upland rice variety now available to growers in the highlands of Madagascar

The new rice variety is the fruit of a partnership between FOFIFA (The Island's national centre for rural development) and CIRAD, and is tailored to the agro-climatic conditions in the region. In particular, it is tolerant of the cold temperatures over 1200 m above sea level. Varietal creation needs to continue, to support this development and broaden the range of available varieties so as to ensure the sustainability of high-altitude upland rice production by taking on board several objectives such as resistance to rice blast fungus, nitrogen uptake efficiency, diversification of grain quality, cold tolerance and adaptation to farming systems developed as part of a conservation agriculture strategy.
(CIRAD, 13/06/2012)

Boosting Africa's rice sector: a research for development strategy 2011-2020 (Africa Rice Centre)

The Africa Rice Centre's strategy for 2011-2020 identifies the importance of the following science and technology focused elements: (1) Conserving rice genetic resources and providing smallholder farmers with climate-resilient rice varieties that are better adapted to production environments and consumer preferences, (2) Sustainable intensification of rice-based systems (3) Facilitating the development of the rice value chain through improved technology targeting, and (4) Mobilising investment to stimulate uptake of rice knowledge and technologies.
Download the Plan (PDF).

Learning alliances in Sawah rice technology development and dissemination in Nigeria and Ghana

Millions of dollars are spent each year on R&D to improve the livelihood of farmers and other stakeholders in the rice value chain; however, there has been little impact. Major reasons include the limited collective learning that occurs between various stakeholders and the neglect of building a multi-stakeholder innovation system for rice in West Africa. This has made research results less relevant and so they have less positive impact on farmers. This paper describes how Sawah rice production technology has evolved through learning alliances that involve social learning and innovation systems and brings Japanese institutions, research institutes, Ministry of Agriculture, extension agencies, farmers groups, Millennium Village, marketers, and universities in Nigeria and Ghana together on a platform with clear objectives, shared responsibilities, cost and benefits, using research outputs to refine future technological approaches, differentiated learning mechanisms, long term and trust-based relationships. The process is increasingly leading to increased learning and effectiveness in rural entrepreneurial development and improved livelihoods. The paper gives a description of the scenarios based on experience in the sawah rice technology development and concludes with its application in other parts of West African region.
O.I. Oladele and T. Wakatsuki (2011) (PDF). *Life Science Journal* 8(2)622-627.

The rice 'technology trajectory' in history and the recent genetic technologies in developing GM rice in China

Applying analytical perspectives from science and technology studies (STS), this paper examines the socio-technical specificity of rice technology in China. As an agricultural technology, rice technology has an extremely close relationship with both the social setting and the natural environment. The paper looks into the historical development of the socio-technical system of rice technology, and discusses the changes involved in the adoption of hybridisation as a rice breeding technology. It argues that in China, the subsequent application of genetic modification and related technologies in rice variety development can be seen as an extension of traditional rice breeding technologies, rather than the radical discontinuity it is frequently portrayed as. Some problems associated with GM organisms also arose with the earlier technology of rice hybridisation. The paper suggests that China's current regulatory regime – established to align with Western regulatory practices and shaped by a particular history of controversy in the West – may not be suitable for China to deal with her own pressing issues.
XiaoBai Shen (2007) (PDF). *Innogen Working Paper* No. 52.

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CTA S&T Programme updates

Key Messages – CTA/WUR ACP-EU Think Tank on Science & Technology – GCARD 2 Briefing Paper: 'Partnerships for research, capacity building, innovation and foresighting: Managing water for agriculture and food in ACP countries' [Side Event on 28 October 2012]

As a lead up to the GCARD 2 in Uruguay, the CTA in partnership with Wageningen University and Research Centre (WUR) hosted an ACP-EU S&T think tank meeting to determine policy recommendations on water. Participants consisted of ACP-EU members of the Advisory Committee on Science, Technology and Innovation (ST&I) for ACP Agricultural and Rural Development. The meeting provided expertise in the Management of Water for Agriculture and Food. As per the objectives of the meeting, the majority of cases focussed on the ACP countries.

Topics discussed included: Integrating agribusiness innovation and capacity building for greening rural development (presented by J. Froebrich of WUR, The Netherlands); Efficient water management for agriculture in the Caribbean context (presented by A. Trotman of CIMH, Barbados); Women and youth (by O. Liwewe of SOTMACS, Malawi); Sustainable Rice Intensification (by N. Uphoff of Cornell U, USA); Innovative on-farm water management in Jamaica (by L. Simpson of CARDI, Jamaica); Climate change, food security and water in the Pacific Island countries (by V. Iese of USP, Fiji).

One of the key messages that the ACP-EU Think Tank made to GCARD 2 was that successful implementation of strategies for 'green growth', sustainable production, food security, and economic development in the face of the changing climate must consider water availability and consumption as not only central to finding solutions for these challenges, but also within the broader context of land resources management and agro-ecological sustainability, considering whole river basins or catchment areas as the locus of analysis and action.
Get the key messages, download the presentations and read a review of the event on the K4D website.

Report: CTA/WUR Inception Workshop on 'Mainstreaming Tertiary Education in ACP ARD Policy Processes: Increasing Food Supply and Reducing Hunger'

Several regional policy frameworks have been launched in the African, Caribbean and Pacific (ACP) Group of States to improve agricultural performance as well as the food and nutrition situation. At the continental level in Africa, the Comprehensive Agricultural Development Programme (CAADP) provides a framework for African countries to develop their national agricultural development policies and strategies and investment plans. In the Caribbean, the Jagdeo Initiative for transforming Caribbean regional agriculture, the Caribbean Community Agricultural Policy and the Caribbean Regional Food and Nutrition Security Policy and Action Plan have been endorsed at the highest political level. The Pacific Plan was drawn up to guide the developments in the Pacific region.

CTA and WUR in collaboration with ACP partner networks, organisations and universities have chosen food security as the initial content domain to determine the extent of engagement of ACP tertiary education institutes in ARD policy processes. The report of the inception workshop held at CTA Headquarters on 18-21 September 2012 to generate consensus, understanding and commitment with respect to the methods for mainstreaming tertiary education in ACP ARD policy processes with a focus on 'Increasing Food Supply and Reducing Hunger' is now available. A key message from the workshop is that TAE's see and recognize the urgency for changes so that they can fulfil a more relevant, leading role in food security, as well as create and retain a new generation of agricultural scientists.
Download the report and browse through the presentations.

Launch of the Pacific Islands Universities Research Network (PIURN)

CTA, UNESCO, USP, UNPG and PACENet hosted a three day workshop at the University of the South Pacific, Suva, Fiji, between 5-7 November 2012 entitled 'Pacific Islands Regional Universities Network and Science Policy Dialogue: Networking universities and defining a regional science policy framework'. During the meeting, vice-chancellors and senior level representatives of interested universities and stakeholders discussed the formation of a network of universities from the Pacific Islands countries and territories to support intra- and inter- regional knowledge creation and sharing, and to prepare succinct recommendations for the development of a regional Science, Technology and Innovation (ST&I) Policy framework. The delegates discussed the capacity of universities to contribute to a collaborative network which would help foster research links and strengthen the policy processes in the region. Potential identified benefits from establishing a universities' research network included a capacity to:

- Generate new knowledge for addressing priority challenges in the Pacific region
- Share physical and intellectual resources to facilitate quality research
- Strengthen scientific research content in the curriculum and in teaching
- Develop shared research training initiatives
- Collectively work with regional and international organisations to strengthen the quantity and quality of research conducted in fields of major importance
- Protect and build on local and indigenous knowledge systems in research programmes
- Provide ST&I policy advice at the regional and national level

The meeting resolved:

- 'That a Pacific Islands Universities Research Network (PIURN) be established with the principal purpose of building upon the quality educational capacity of these universities, for enhancing research and development collaboration in science, technology and innovation, to better serve the needs and aspirations of Pacific communities.
- To seek prominent inclusion of ST&I initiatives in the updated Pacific Plan and to further advance the development of the regional ST&I policy framework.'

To successfully implement these resolutions, the meeting appointed an interim coordinator and an assistant interim coordinator and established a PIURN working group. USP agreed to host the PIURN Secretariat for three years. The working group is expected to report to prospective member universities within a 6-month period.
Click to read the November 2012 communiqué.

CTA/CCST/NCST/CARDI/UWI Caribbean workshop: 'Adding value to local foods for food and nutrition security: myth or strategic option'

The Caribbean region is a net importer of food. According to the Regional Food and Nutrition Security Policy (RPNSP), the Caribbean imported US$ 3.5 billion in both fresh and processed foods, primarily from outside the region and this is trending upwards. Changing dietary patterns and more sedentary lifestyles over the years have contributed to the high prevalence of non-communicable chronic nutrition related diseases such as diabetes, cancers and hypertension. However, pockets of malnutrition and under-nutrition still exist in some countries, particularly Haiti and Jamaica. Within the last 20 years or more, marketing boards and small and medium-scale food processing enterprises have expanded but they face several challenges; technological, logistical and financial, in accessing and processing locally grown foods e.g. root crops, fruits and vegetables,

dairy, fish, poultry and other livestock. At the same time, consumers have been confronted with higher food prices for local and imported foods.

In 2010, the Caribbean Research Innovation and Entrepreneurship Network (RIENet – www.rienet.net) was launched following a joint CTA/CCST workshop in Jamaica in 2009. It presently comprises over 400 members and includes an online facility. About 50% of the content on the website is generated by network members from the small and medium scale enterprises, industry and public sector associations and the research and academic community. The goal of this present initiative is to leverage the RIENet and its alliances to act as a catalyst for strengthening value-addition capability and improving the food and nutrition situation in the Caribbean.

- Event programme
- Cassava transformation and alternative products (presentation by Ian Thompson, UWI Mona campus)
- Role and impact of state marketing boards (presentation by Ian Ivey, NEXT)

Read the draft report on **State marketing boards and agencies**.

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Selected developments and publications | RSS

Using Science as Evidence in Public Policy

knowledge.cta.int/en/content/view/full/17268

This book encourages scientists to think differently about the use of scientific evidence in policy making. This report investigates why scientific evidence is important to policy making and argues that an extensive body of research on knowledge utilisation has not led to any widely accepted explanation of what it means to use science in public policy. For social scientists in a number of specialised fields, whether established scholars or PhD students, this book shows how to bring their expertise to bear on the study of using science to inform public policy. More generally, this report will be of special interest to scientists who want to see their research used in policy making, offering guidance on what is required beyond producing quality research, beyond translating results into more understandable terms, and beyond brokering the results through intermediaries, such as think tanks, lobbyists, and advocacy groups. For administrators and faculty in public policy programmes and schools, *Using Science as Evidence in Public Policy* identifies critical elements of instruction that will better equip graduates to promote the use of science in policy making.
(NAP, 10/2012)

Information Ecosystems of Policy Actors – Reviewing the Landscape

knowledge.cta.int/en/content/view/full/17270

This report is part of a study conducted by the Institute of Development Study (IDS), UK meant to understand how policy actors engage with information systems, and where knowledge intermediaries could best add value. Questions about what information and communication technology policy actors have access to (the elite they represent enjoys good access), how traditional media is used by them (used but not trusted), how they search for information (in poorer countries, they rely on forwarded information), how do they engage with the internet (no direct participation, private correspondence), and how do they value different origins of research (more trust in international research).
The study's findings show that 'policy actors' as part of society's elite do have access to the latest information technology. This includes ipads, tablets PCs, and smartphones: the sample of policy actors as a whole have a very similar profile of technology access to the average UK or USA household. In light of this, knowledge intermediaries need to adapt their mechanisms and pathways to ensure they contend for these emerging patterns of behaviour. About 40% of policy actors are already using smartphones, so the development of mobile apps which assist research communications would seem appropriate. There is often an assumption in knowledge intermediary work that senior policy actors may not be searching for information directly themselves, and that they are simply 'presented' with information. While this may remain the case in the poorer and/or more formally organised countries, it is less so in the mid-range countries. The implication is that where connectivity is improving, policy actors will look for information themselves. They will spend a significant amount of time looking for information, and they will be 'persistent and curious'. Finally the findings also offer an insight into 'traditional media' (radio, TV and print). Policy actors do engage with the traditional media and while we have seen that they currently have very negative perceptions of the media's performance, nevertheless a significant proportion of them are engaging with the media day by day. There is therefore a role for the knowledge intermediary to assist the 'translation' of research and evidence into the media.
Read the author's blog post here. (Eldis, 2/10/2012)

Research Uptake: The role of the university communicator

knowledge.cta.int/en/content/view/full/17271

The DRUSSA programme (Development Research Uptake in Sub-Saharan Africa) makes the case for an enhanced role for the communications office in universities, with a focus on this capacity in Sub-Saharan Africa. Author Lynda Cilliers argues for adding activities such as research, research management, extension and community outreach to the mandate of the 'university communicator' (the term is used to encompass a broad category of university communication services). Enhanced communication offices are to make sure a university's research is communicated far and wide to achieve as much research uptake as possible. Effective research uptake relies on research getting to the public via traditional (print and broadcast) and new media (online and mobile channels), publications and events. Communicating the significance of research to the right policymaker (whether at local, provincial, national or regional level), or to targeted NGOs or international agencies, at the right time, in the right manner and style, and with appropriate policy recommendations, can hold profoundly significant implications for African communities (the ultimate beneficiaries are the public). To learn more about research uptake management, visit DRUSSA.

World Science Academies release report to promote research integrity
knowledge.cta.int/en/content/view/full/17273

To encourage researchers around the world to adhere to universal science values and ethical behaviour, a new report on responsible science has been issued by the InterAcademy Council and the IAP – the global network of science academies. The report is the first product of the IAC and IAP's project on scientific integrity, initiated in response to several major trends reshaping the research enterprise, including the increasingly global and interdisciplinary nature of science, its heightened role in policy debates, and the continued emergence of high-profile cases of irresponsible research behaviour in many countries. To read UK's DFID comments on the report, click here.
(IAP, 10/2012)

Access barriers relegating Africa to invisible research contributor
knowledge.cta.int/en/content/view/full/17275

Talking to *Engineering News Online*, the South African Minister of Science and Technology, Derek Hanekom, at the Berlin 10 Open Access Conference, in Stellenbosch said that the growth of research in Africa and the ability to find solutions to the continent's problems will remain limited if African academic libraries continue to have restricted access to official research information. The expense of many academic journals, particularly in science and medicine, limited countries' access to essential research information. 'Access barriers sometimes even result in critical, relevant knowledge and research outputs generated in Africa being published in journals overseas, journals that are not affordable to African academic libraries'. He believed that the adoption of open access principles to allow scientific information to be more freely available on the Internet and by removing the financial barriers to accessing scientific information 'is one of the most progressive ways of growing and showcasing African research'. Read the complete article on *Engineering News Online* (8/11/2012)

Opening access to agriculture research products: the experience of CGIAR
knowledge.cta.int/en/content/view/full/17279

This presentation given during the AIMS Open Access Week (October 2012) identified the current barriers to opening access faced by the CGIAR consortium. The main ones are: Lack of common and consistently-applied standards, too few specialised professional staff, inadequate technical infrastructure, and too few incentives to curate and share data and knowledge. The key activities that led the consortium to start opening access to its data and knowledge products included the CGIAR Principles on Management of Intellectual Assets, which provided a good legal framework and enabling environment. This policy recognised the CGIAR research outputs (including data and data sets) as international public goods. The Triple-A framework (Availability, Accessibility and Applicability of the CGIAR Research Outputs) provided a strategy of making CGIAR research available widely, with a certain success.
(via FAO AIMS, 23/10/2012)

Institutional repository development: A case study of KARI and KAINet
knowledge.cta.int/en/content/view/full/17282

This presentation illustrates the advantages of the employment of AgriDrupal and AgriOceanDSpace for the two repositories: KAINet (Kenya Agricultural Information Network) and the institutional repository of the Kenya Agricultural Research Institute (KARI). KAINet is a national repository of scientific publications with a focus on agriculture and forestry. It was modelled on WebAGRIS and includes around 35,000 records from which most documents are not openly available. The initial problems with the setup, the service provider server and limited functionalities could be solved by the implementation of secure and manageable tools such as AgriOceanDSpace and AgriDrupal that are available on the AIMS platform. For this reason KAINet was moved to AgriDrupal and the KARI repository was facilitated by the implementation of AgriOceanDSpace. The KAINet team also faced challenges during the implementations, for example, the absence of institutional policies that support open access and the low awareness of copyright issues within the organisation. Another obstacle was the absence of appropriate information management skills. As a preparation for other organisations who want to implement a repository, the speaker underlined the importance of system comparability, technical ICT skills and collaboration within the organisation.

East African Community (EAC) countries challenged to support science research
knowledge.cta.int/en/content/view/full/17285

East African Community (EAC) countries have been challenged to invest more resources in science, technology and innovation to enable scientists to carry out research aimed at enhancing economic development. Scientists who met in Kampala during the 3rd Scientific Conference on Development Innovations said if science research and innovations are supported, it will reduce pressure on the Lake Victoria basin. According to Professor Shaukat Abdulrazil, the Executive Secretary of National Council for Science and Technology Kenya, science technology and innovation play vital roles towards economic development for the community. He argues that less support has been provided by the member states despite having many institutions that can carry out research development and innovations.
(AllAfrica, 29/10/2012).

'Delivering the change together' – Reflections on GCARD 2 by Mark Holderness, GFAR Executive Secretary
knowledge.cta.int/en/content/view/full/17286

The GCARD 2 has specifically explored the practical implications of partnership and pathways to impact around the themes addressed by the new CGIAR Research Programmes, helping CRP leaders to now reshape their programmes to meet the needs and expectations of partners. This has led to a range of new commitments to partnership, capacity development and foresight

in the CGIAR, as voiced by Frank Rijsberman, CGIAR Consortium CEO.
Through the GCARD 2 participants have, among others:

- Considered how AR4D systems can align with major development policies being drafted by the G8, G20 and the post-2015 objectives.
- Repositioned women farmers' needs firmly at the centre of AR4D processes.
- Directly engaged the voices of youth into consideration of the issues involved.
- Developed and agreed collective actions that will bring together diverse foresight analyses, particularly exploring the future for smallholder farming.
- Brought a range of innovative agricultural research-for-development agendas to centre stage: household nutrition, gender-based needs, attracting young people into agriculture, meeting the needs of communities shattered by protracted crises, linking farmers to markets, adapting to climate change impacts and fostering community-centred innovation were all addressed as key agendas alongside actions generating productive, sustainable and resilient agricultural production systems.
- Set out what is required for solid actions to track and stimulate investments and returns and make these more effective and comprehensive, linking public, private and civil mechanisms.
- Agreed practical concerted actions to develop required capacities at national, regional and global levels, providing a launch pad for a wide range of new partnerships and collective actions to deliver change, including the CRPs, the Tropical Agriculture Platform of FAO and partners, the Global Confederation of Higher Education Associations for the Agricultural and Life Sciences, the Gender in Agriculture Partnership and the New Extensionist focus of GFRAS.

Click to read the reflections by Mark Holderness.

GCARD 2 Briefing paper: 'Learning and the Empowerment of Youth and Women' [GCARD 2 Breakout session C2.2]

knowledge.cta.int/en/content/view/full/17287

In 2012, GFAR and partners launched a new mechanism 'Gender in Agriculture Partnership 2 (GAP2)' while continuing to provide support to the Young Professionals Platform for Agricultural Research and Development (YPARD). In Africa for example, there are several programs e.g. the ANAFE-SASACID, FARA UniBRAIN, TEAM Africa, AWARD, and USAID's Borlaug Fellowships, which aim to build up a cadre of professionals who are sufficiently well-prepared, committed and motivated.
More specifically, the expected outcome of the session was to agree on collective action and measures to attract, inspire and empower young people and women for transformative agriculture including AR4D systems and agri-enterprise development. The guiding questions were the following: What are the success factors for empowering youth in ARD? And for empowering women in ARD? How different or similar are these factors? What tools can be used for tracking progress? What programs, projects and networks could be linked to help ensure the greatest degree of learning, and impact? What two to three collective actions should we propose for 2012- 2014? What changes and results do we want to share when we return to GCARD in two years' time? Through a series of presentations this session detailed a number of answers, in the form of lessons and innovations, for moving the GCARD youth and women agenda forward and, therefore, strengthening the foundations for transformative agriculture. It was chaired by Vicki Wilde, AWARD and facilitated by Judith Francis, CTA.
Click to read the briefing paper.

GCARD 2 breakout session 'Innovations for Better Livelihoods'

knowledge.cta.int/en/content/view/full/17288

A diversity of approaches grounded on participatory action research have been developed including notably the concept of Integrated Agricultural Research for Development (IAR4D). Despite the conceptual agreement around these approaches and the promise they hold, there are also concerns, not only regarding how these approaches can have impact, but also how they can they do so at scale. Participatory approaches to agricultural research have often been judged to be slow and costly 'boutique solutions' confined to the sites where they work directly. As a result their impact on poverty is considered by some to be marginal when compared with commodity research targeting many millions of people. This link loads a webpage prepared by PAEPARD that list all the presentations given during the GCARD 2 breakout session on 'Innovations for Better Livelihoods', including 'Direct investment by farmer-led research' by Ann Waters-Bayer of the Prolinnova Secretariat, 'Establishing effective livelihood research partnerships for impact at scale' by Patrick Dugan of CGIAR's Aquatic Agricultural Systems research programme, and 'Working with national innovation pilot learning sites and inter-regional innovation platforms' by Wale Adekunle, Director, Partnerships and Strategic Alliances, at the Forum for Agricultural Research in Africa (FARA).
Click to browse all the presentations produced for the GCARD 2 conference.
(PAEPARD, 6/11/2012)

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Putting farmers first: reshaping agricultural research in West Africa

knowledge.cta.int/en/content/view/full/17291

How agricultural research is funded, organised, controlled and practised can have a huge impact on small-scale producers in the global South. In many countries, such research is driven by external funds, priorities and technological fixes, such as hybrid seeds, which can erode crop diversity. But food producers across the world are beginning to raise their voices to ensure that agricultural research better meets their needs and priorities.
This briefing authored by Michel Pimbert, Research Director at the International Institute for Environment and Development (IIED), explains how a series of farmer assessments and citizens' juries in West Africa has helped farmers assess existing approaches and articulate recommendations for policy and practice to achieve their own vision of agricultural research.

(IIED, 01/2012)

New CABI database drives mobile delivery of agricultural research

knowledge.cta.int/en/content/view/full/17294

Sauti ya Mkulima, Swahili for voice of the farmer, will deliver agricultural information to farmers through their mobile phones. Approximately 250,000 small-holder farmers in Kenya will receive up-to-date, reliable agricultural information to help them increase the productivity of their yields and improve their incomes. In addition to delivering key information the project will also help create a farmer community to share experiences and exchange information about social gatherings, events, and job opportunities. Initially, Sauti ya Mkulima will focus on small-holder Kenyan farmers engaged in maize, banana, mango, rice, beans and horticulture (tomato and black night shade) crops. Information on more crops will be added on a quarterly basis. (CABI ezine, 10/2012)

Crop Genetic Resources as a Global Commons – Challenges in International Law and Governance

knowledge.cta.int/en/content/view/full/17296

This book, by Michael Halewood of Bioversity International and colleagues, addresses how the collective pooling and management of shared plant genetic resources for food and agriculture can be supported through laws regulating access to genetic resources and the sharing of benefits arising from their use. Since the most important recent development in the field has been the creation of the multilateral system of access and benefit-sharing under the International Treaty on Plant Genetic Resources for Food and Agriculture, many of the chapters in this book will focus on the architecture and functioning of that system. The book analyzes tensions that are threatening to undermine the potential of access and benefit-sharing laws to support the collective pooling of plant genetic resources, and identifies opportunities to address those tensions in ways that could increase the scope, utility and sustainability of the global crop commons.

Consent and conservation: getting the most from community protocols

knowledge.cta.int/en/content/view/full/17300

A wealth of traditional crop varieties, medicinal plants and other genetic resources are under the care of indigenous people and local communities – who need legal rights to manage them. New legal backing comes from the 2010 Nagoya Protocol to the UN Convention on Biological Diversity, which requires prior informed consent for access to traditional knowledge and genetic resources, and calls for support of 'community protocols' that set out rules for access and benefit sharing. Community protocols are not just about indigenous rights: they clarify expectations for business and government, preserve irreplaceable biological resources, and support climate change adaptation and sustainable development. But to get these benefits, governments must back up the Nagoya Protocol with national laws and institutions, and support community-led participatory processes. Community Protocols are a vital way forward for negotiating agreements that are equitable, and conserve their local biodiversity and traditional knowledge. (IIED, 10/2012)

GBIF publishes new guide for creating national species checklists

knowledge.cta.int/en/content/view/full/17305

The Global Biodiversity Information Facility (GBIF) has released a report providing guidance for policy and procedures related to accessing and capturing information for national species checklists. Noting that such checklists are invaluable resources for research and biodiversity-related activities, the report says they should be integrated, coordinated and disseminated from a single platform and compiled by expert taxonomists, but this is not always the case. The report titled 'Best Practice Guide for Compiling, Maintaining and Disseminating National Species Checklists' was produced by the South African National Biodiversity Institute (SANBI) through funding from GBIF. (via IISD Reporting Services, 10/2012)

Danforth Center expands work to improve crop productivity with new institute for international crop improvement

knowledge.cta.int/en/content/view/full/17309

The Donald Danforth Plant Science Center's Institute for International Crop Improvement (IICI), has been established to expand research efforts, trait improvements, product development and biosafety to include a greater range of food security crops. The overall aim of the IICI is to bring improved crops that yield more per acre, are richer in essential nutrients and resistant to disease, insects and drought to small farmers in developing countries in Africa, Asia and Latin America. The IICI, directed by Dr. Paul Anderson, will expand and assist partnerships to focus on staple crops, such as sweet potato, banana, cassava, sorghum, maize, rice, groundnuts, millet and cowpea that are typically not the focus of commercial entities but are extremely important to the livelihood of subsistence farmers.
The problem now is that this will take subcontracted / private crop research to outside the developing countries and their research facilities. Can national labs in the ACP regions compete with these ultra high tech research labs for private contracts? For this new centre to be relevant to ACP agrorealities, it will have to gather and acquire knowledge of local conditions and practices (if deemed necessary by research directors) and that may exacerbate brain drain. (Danforth Center, 22/10/2012)

Land Use and Biodiversity in Unprotected Landscapes: The Case of Noncultivated Plant Use and Management by Rural Communities in Benin and Togo

knowledge.cta.int/en/content/view/full/17310

To contribute to the development of strategies for sustainable agricultural land use and biodiversity conservation in landscapes without formal protection status, researchers from AfricaRice and Wageningen UR, among others, investigated the local use and management of non-cultivated plants as important ecosystem functions of inland valleys in south Benin and Togo, and local perceptions on changes in plant biodiversity and causes for these changes. Local users of non-cultivated plants perceived

agriculture and construction as major factors contributing to the reduction of (non-cultivated) plant biodiversity. However, they also collect many useful species from agricultural fields and the village. A small community forest reserve and a 2-ha community garden were the only organised forms of conservation management. Observed ad hoc conservation initiatives were selective harvesting of plant parts, preserving trees during land clearing, and allowing useful weed species in the field. Future development and conservation efforts in unprotected landscapes with multiple ecosystem functions should acknowledge knowledge, interests, and needs of local communities.
(*Society and Natural Resources: An International Journal*, Vol. 25, No. 12, 2012)

From agrosystem surveys to field sampling: Fonio and sorghum in Guinea

knowledge.cta.int/en/content/view/full/17313

In the frame of ARCAD (Agropolis Resource Center for Crop Conservation, Adaptation and Diversity) project Cereals in Africa, agrosystem surveys have been conducted on a sample of farms located in three administrative regions of Guinea with a focus on sorghum and fonio landraces. Based on the analysis of the survey, 18 villages were visited on August 2012 and fonio samples of early varieties were collected for further genotyping. Those activities were jointly undertaken by researchers of AGAP and DIADE research units with the Institut de Recherche agronomique de Guinée (IRAG) as the African scientific partner and the major contributor for the organisation of the training and field activities. (ARCAD, 12/10/2012)

Monocropping Cultures into Ruin: The Loss of Food Varieties and Cultural Diversity

knowledge.cta.int/en/content/view/full/17314

The loss of genetic diversity of thousands of plants and crops has been well documented at least since the 1970s, and has been understood as a result of epistemological and political economic conditions of the Green Revolution. The political economic arrangement of the Green Revolution, alongside a post-war focus on economies of scale and export-oriented growth, replace high-yield single varieties of crops for a diverse array of varieties that may not have the same yield, but may be able to resist pests, disease, and changing climatic conditions. Also, the harvest does not flow in all directions equally: Whereas smallholder subsistence farming uses a large variety of crops as a food source and small-scale trade, the industrial economic system requires simplified, machine harvested ship-loads of one variety of maize, for example. Diverse varieties of different crops confound the machines, whereas one variety of wheat can be harvested with one setting on a machine. However, none of this is new. The purpose of this article is to analyze how the twin concerns of lost varietals and lost cultures are bound together in the socio-political process of standardization, and to explain some areas of resistance. (*Sustainability* 2012, 4(11) via Agricultural Biodiversity Weblog, 7/11/2012)

The Global Diversity of Taro: Ethnobotany and Conservation

knowledge.cta.int/en/content/view/full/17319

This book on taro (*Colocasia esculenta*), published by Bioversity International, is among the first to offer a global approach, covering all regions, disciplinary perspectives and uses of the plant. Contributors from different disciplines and geographic regions offer the reader a multidisciplinary and evolutionary perspective on taro that shows how one of the world's oldest domesticated plant species continues to evolve and acquire new uses. The book also demonstrates how the story of taro can serve as a model for the in situ conservation and use of a staple crop whose global importance is evidenced at the local level in traditional food systems, and not in global commodity markets or trade. Due to the ease with which it adapts to diverse farming systems and food cultures, taro has played a central role in the evolution of agro-ecosystems in many countries, and has helped maintain food security in continuously-evolving rice production systems. As in other crops, genetic diversity in taro has facilitated evolution of the crop. Scientific understanding of taro's genetic diversity and management will further facilitate its use in providing global food security. (Bioversity International, 2010)

Making barley less thirsty

knowledge.cta.int/en/content/view/full/17321

Scientists at Wageningen University & Research Centre, the Netherlands, have discovered a genetic factor that makes barley plants resistant to salt. Salinity in agricultural lands is a global problem aggravated by climate change. Researchers and plant breeders around the world are looking for opportunities to develop salt-tolerant crops. Nguyen Viet Long, a PhD student, in his research, studied the growth of barley plants in high salt conditions, with the aim of adapting barley to saline environments. He found two sequence regions in the chromosomes of barley that are both less sensitive to high concentrations of salt ions, as well as more resistant to osmotic stress caused by saline soil. Nguyen hopes barley varieties that can be cultivated in saline soils will be commercially available within five years. (Wageningen University & Research Centre via Meridian Institute, 30/10/2012)

New sweet potato variety triples yields in Gakenke, Rwanda

knowledge.cta.int/en/content/view/full/17323

A new variety of potatoes introduced in the Gakenke District in Rwanda has increased output from 4 tonnes to 12 tonnes per hectare. The new variety of orange-fleshed sweet potatoes was introduced by Sweet Potato Action for Security and Health in Africa (SASHA), in conjunction with Rwanda Agriculture Board (RAB) which multiplied 875800 sweet potato vine cuttings and distributed them among farmers. Besides cultivation of the sweet potatoes, SASHA has been training farmers to bake sweet potato doughnuts from their produce as a form of value addition. AllAfrica has the story (15/10/2012).

Tapping sorghum's potential for cold tolerance

knowledge.cta.int/en/content/view/full/ 17327

Sorghum is part of the human diet in India, Africa and parts of Japan. It is used in the United States primarily in animal feed,

but it is a major US export and is sold domestically to make gluten-free flour. Sorghum was originally a tropical plant, but US Department of Agriculture (USDA) scientists are looking to Asia to increase sorghum's cold tolerance and expand its production range. They have found cold-tolerance genes in Chinese cultivars and are using them to develop lines that breeders can use to produce hardy commercial varieties. This research is considered to support the USDA priority of promoting international food security. Extending sorghum's range also would benefit growers overseas. The scientists have released the 171 inbred lines to breeders and research groups through the ARS Germplasm Resources Information Network, and at least two research groups have requested additional information on that population so far. They also published a genetic map of 141 genetic markers in Molecular Breeding that will make it easier for breeders to identify cold tolerance. (USDA ARS, 17/10/2012)

Vegetable breeding in Africa: Constraints, complexity and contributions toward achieving food and nutritional security

knowledge.cta.int/en/content/view/full/17329

Many Africans are presently confronted with nutritional insecurity as their diets are often deficient in essential vitamins and minerals owing to lack of sufficient consumption of fruit and vegetables. This results from problems of availability, affordability and lack of knowledge. There has been a substantive, long-term underinvestment in research and development of the horticultural sector in Africa with particular reference to those indigenous crops which are naturally high in nutritious vitamins and minerals. Lack of breeding effort, ineffective seed supply systems and an inadequate information, regulatory and policy framework have all contributed to the widespread occurrence of malnutrition on the continent. However, public sector research, development and policy amelioration efforts supported by a nascent private seed supply sector are now showing progress. Many new, improved, nutrient-dense indigenous and standard vegetable varieties are being released for which smallholder farmers are finding growing markets in both rural and urban settings. If such developments continue favourably for the next decade, it is expected that progress towards a reduction in poverty and malnutrition in Africa will be marked. (*Food Security* 4:115-127, 2012 via AVRDC)

Diversity and production methods of fluted pumpkin (*Telfairia occidentalis* Hook F.): Experience with vegetable farmers in Makurdi, Nigeria

knowledge.cta.int/en/content/view/full/17332

Telfairia occidentalis is an indigenous vegetable consumed by millions of people in Nigeria. The seeds are in high demand as they serve as food oil for making margarine. However, commercial growers in the middle belt zone of Nigeria, source telfairia seeds from south-eastern states of Nigeria. The growers claimed that seeds of the accessions grown in the area are not as viable as those from southeast Nigeria. Thus, seeds are scarce and expensive at time of planting. This survey sought to examine farmers' perception of diversity and determine the status of fluted pumpkin production as a basis for facilitating further studies, in order to help resolve the constraints to telfairia seed production. The results showed that the farmers, predominantly female (78%), were able to identify two cultivars 'Ugwu-elu' and 'Ugwu-ala' by their distinctive characteristics – leaves, stem, fruit and seed. The crop was produced on low ridges, with two seeds planted in a hole about 6 cm deep, at a spacing of 31 x 45 cm, giving a population of approximately 71,700 plants/ha. Mulching and fertilizer use were not practised but weeding and irrigation were undertaken. Apparently, seed production is possible in Makurdi and breeders can breed for telfairia seed. (*African Journal of Biotechnology*, Vol. 7, No. 8, 17/04/2008)

Diversify rice production with vegetables – what is needed in Tanzania

knowledge.cta.int/en/content/view/full/17335

The AVRDC *Fresh* newsletter of 25 October 2012 discusses the results from a survey conducted in Tanzania among rice farmers. The survey reveals that the farmers need to diversify crop production with vegetables. In Morogoro, one of the major rice production areas of Tanzania, farmers use residue water from rice irrigation to grow vegetables for additional income. While irrigation water may be readily available, other inputs for vegetable production are not so easy to obtain, the survey reveals. It identified constraints to the production, marketing and consumption of tomato, pepper, and African eggplant and assessed common crop pests and diseases in the area and the contamination of vegetables on farms and in markets by microbes, pesticides and heavy metals. The survey found that to boost vegetable production in this region, farmers will need better access to credit and inputs such as fertiliser and seed of improved, high yielding varieties with better resistance to pest and diseases. Extension services also must be strengthened to provide farmers with a reliable source of information on integrated crop and pest management practices. The survey identified the need to build more robust marketing information systems to open opportunities for farmers to access larger, more lucrative markets such as supermarket chains and food processors. Skills development is another area in need of attention; it was noted farmers would benefit from training in recordkeeping and business management. (AVRDC *Fresh*, 25/10/2012)

Managing the nexus of supply and demand for wild harvested natural products: the lipid oils of Namibia

knowledge.cta.int/en/content/view/full/17338

Lipid oils extracted from plants are particularly good for use in cosmetics because they are very stable and can therefore carry other oils without going rancid. Two oils extracted from seeds of sustainably wild harvested plants in Northern Namibia show great commercial promise, according to the Natural Resources Institute (NRI) at University of Greenwich. Marula kernel oil from the common fruit tree *Sclerocarya birrea*, and ximenia seed oil from the sourplum tree (*Ximenia caffra*), both have exciting commercial potential as cosmetic oils. Marula oil is high in anti-oxidants. Ximenia oil has particularly long fatty acids essential for making night cosmetics. The challenges this project faces are numerous: there is competition on the international market from cheaper synthetic equivalent, postharvest and extraction technique are rudimentary and further R&D could improve volume and quality of lipid oils extracted from the wild trees. Also, climate variability in the long term could threaten growth and harvest of the fruits. This is a textbook example of how scientists, rural communities and regional trade organisations come together to solve anaemic local economies in developing countries. (NRI, 24/10/2012)

Wick irrigation for tree establishment
knowledge.cta.int/en/content/view/full/17341

Small farmers around the world urgently need to increase water use efficiency. Despite the need for low cost, simple, improved irrigation systems that could increase yields, scientific research and international development programmes have largely neglected this challenge. This is primarily due to the lack of money in these resource-limited communities. Even with increased water use efficiency, many farmers will still struggle to meet their basic food needs. Deep pipe, buried clay pot and other traditional systems work well but are often too expensive. Wick irrigation is a low cost alternative that may help many of these small farmers. A wettable fabric or rope is used to carry water from a reservoir or pipe to the roots of the plant. In its simplest form it can be done with rags and recycled bottles at almost no cost. The wicks help move the water further from the clay pot to encourage greater root development. Subsequent tests and research have demonstrated the value of wicks for irrigation even in very severe environments. These wicks can be gravity flow down (fast), capillary flow up (slow), or a hybrid.
(*The Overstory*, 17/9/2012)

Local knowledge and adaptation to climate change in Ouémé valley, Bénin
knowledge.cta.int/en/content/view/full/17344

This paper highlights the local dimension of adaptation to climate change and the importance of local knowledge in adaptation planning. A case study of farmers' strategies for adapting to climate vulnerability in the low valley of Ouémé showed that local people have developed a remarkable ability to adapt to climate threats, or in some cases have turned threats into opportunities. Using finger ponds around irrigated farms and building cropping dikes following an indigenous design, farmers in the region could protect their crop from stronger rains or water scarcity depending on the season.
From fishing practices to agricultural techniques and through agro-fishing practices, people of low valley of Ouémé managed to take advantage of their natural vulnerability mainly based on local knowledge. In fact, the trend in applying these local strategies confirms the dynamic nature of adaptation to climate change mainly determined by the extent of vulnerability caused by continued depletion of the environment. Given that this dynamic can sometimes lead to mal-adaptation, it is necessary that local people are assisted in their coping strategies. (*African Crop Science Journal*, Vol. 20, 11/10/2012)

The Paradoxes of Transparency: Science and the Ecosystem Approach to Fisheries Management in Europe
knowledge.cta.int/en/content/view/full/17348

The International Council for the Exploration of the Sea (ICES) is the central scientific network within the massive set of bureaucracies that is responsible for Europe's Common Fisheries Policy (CFP). While spending the past 25 years failing to sustain Europe's fish stocks, this management system also became adept at making the lives of its scientists miserable. Now it is being confronted by the complex challenge of an ecosystem-based approach to fisheries management. If this combination of a multi-national bureaucracy, hard politics, and scientific uncertainty has made it impossible to maintain many individual fish stocks, how are decisions going to be made that consider everything from sea birds to climate change? The old political saw that 'if you can't solve a problem, make it bigger' has never been put to a test like this! Yet ICES has begun to rise in an impressive way to the scientific challenge of providing advice for an ecosystem approach within the world's most cumbersome fisheries management system. This book (PDF) lays out the results of extensive sociological research on ICES and the decision making systems into which it feeds. ICES is finding ways to provide effective advice in the many situations where scientific advice is needed but a clear, simple answer is out of reach. In spite of the difficulties, scientists are beginning to help the various parties concerned with management to deal with facts about nature in ways that are more useful and transparent. (Douglas C. Wilson, 2009)

Towards Marine Ecosystem-based Management in the Wider Caribbean
knowledge.cta.int/en/content/view/full/17352

An approach that encompasses the human and natural dimensions of ecosystems is one that the Wider Caribbean Region knows it must adopt and implement, in order to ensure the sustainable use of the region's shared marine resources. This volume contributes towards that vision, bringing together the collective knowledge and experience of scholars and practitioners within the Caribbean region to begin the process of assembling a road map towards marine ecosystem-based management (EBM) for the region. It also serves a broader purpose of providing stakeholders and policy actors in each of the world's sixty-four Large Marine Ecosystems, with a comparative example of the challenges and information needs required to implement principled ocean governance generally and marine EBM in particular, at multiple levels. Additionally, the volume serves to supplement the training of graduate level students in the marine sciences by enhancing interdisciplinary understanding of challenges in implementing marine EBM.

India puts GM food crops under microscope
knowledge.cta.int/en/content/view/full/17355

Developing countries are currently building their capacity in food-/biosafety standards and procedures while also looking into the legal frameworks that would best address and tackle the potential risks posed by new, untested technologies like genetic modification of food crops. While West Africa (ECOWAS) is drafting a strategic biosafety document, and South Africa is being criticised internally for not having a well-thought-out biosafety legislation (according to the Africa Biosafety Centre), India has decided to impose a moratorium on GM food crops cultivation in the country until its own scientists have conducted the necessary tests and analysis and established whatever there is to establish about GM food crops. IPS News reports on India's move (27/10/2012).

New genes in traditional seed systems: diffusion, detectability and persistence of transgenes in a maize metapopulation

knowledge.cta.int/en/content/view/full/17358

Gene flow of transgenes into non-target populations is an important biosafety concern. The case of genetically modified (GM) maize in Mexico has been of particular interest because of the country's status as centre of origin and landrace diversity. In contrast to maize in the US and Europe, Mexican landraces form part of an evolving metapopulation in which new genes are subject to evolutionary processes of drift, gene flow and selection. There has been little study into the population genetics of transgenes under traditional seed management.
Here, recently compiled data on seed management practices are combined with a spatially explicit population genetic model to evaluate the importance of seed flow as a determinant of the long-term fate of transgenes in traditional seed systems. Our results have important implications concerning the feasibility of long term transgene monitoring and control in traditional seed systems. (Bioversity International, 2012)

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Scaling up climate services for farmers in Africa and South Asia

knowledge.cta.int/en/content/view/full/17255

Dates: 10-12 December 2012
Venue: Dakar, Senegal
The workshop is sponsored jointly by the CGIAR Research Programme on Climate Change, Agriculture and Food Security (CCAFS), the World Meteorological organisation (WMO), the United States Agency for International Development (USAID) and the Climate Services Partnership (CSP). The main objective of the workshop is to identify critical gaps in the design, delivery and effective use of climate-related information for risk management among smallholder farmers in sub-Saharan Africa and South Asia; and to identify and foster institutional linkages that could address those gaps. Click for more information.

Global Forum for Food and Agriculture

knowledge.cta.int/en/content/view/full/17373

Dates: 17-19 January 2013
Venue: Potsdam, Germany
The meeting will discuss responsible investment in the food and agriculture sectors – Another key factor for food security and rural development. Click for more information.

Political Economy of Agricultural Policy in Africa

knowledge.cta.int/en/content/view/full/17372

Dates: 18-20 March 2013
Venue: Pretoria, South Africa
This Future Agricultures conference brings together key figures from research, politics, donor organisations and civil society to ask: What motivates African governments to invest in different kinds of agricultural development? Click for more information.

R&D course: Postharvest Physiology, Pathology and Handling of Fresh Commodities

knowledge.cta.int/en/content/view/full/17251

Dates: 11 February – 7 March 2013
Venue: CINADCO's Training Centre, Volcani Agricultural Complex, Israel
The aims of this course is to help further the participant's understanding of the physiological, pathological and environmental factors involved in the deterioration of fresh agricultural produce, to learn post-harvest technologies and best practices associated with the post-harvest handling of fresh fruits and vegetables, to assist in the delay of senescence, reduce loss and maintain the best possible quality of the produce, and to initiate, research, teach and transfer knowledge to extension workers and farmers. Click for more information.

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Call for proposals: Doctoral Regional Research Grants

knowledge.cta.int/en/content/view/full/17254

Deadline: 31 January 2013
The Doctoral Regional Research Grants (DoGs) are a new initiative by the Ruforum secretariat and partners to support doctoral training. The DoGs fall under different categories: the PhD Research Grant, the Doctoral Regional Scholarship, the Doctoral Regional Research Grant and the Doctoral Finalisation Support. Relevant information can be found on this webpage.

Strauss Center's Climate Change and African Political Stability Pre-doctoral Fellowship

knowledge.cta.int/en/content/view/full/17253

Deadline: 15 February 2013
The Climate Change and African Political Stability (CCAPS) programme offers up to three pre-doctoral fellowships each academic year. This fellowship programme aims to support the development of the next generation of researchers and thought leaders on the topic of climate change and political stability in Africa. The application material for the pre-doctoral fellowship is posted on this webpage.

Call for Proposals of the ACP Science and Technology Programme launched

knowledge.cta.int/en/content/view/full/16976

Deadline for the submission of applications: 7 February 2013.
The ACP S&T Programme launched the new open Call for Proposals of the Programme (08/10/2012). This second Call builds upon the lessons learnt from the first call that was launched in 2008. Three main actions have been identified: (i) actions aimed at the formulation, revision, and/or evaluation of regional and/or national S&T policies; (ii) actions aimed at strengthening the capacities of government agencies, research institutions, the private sector and civil society in Science, Technology and Innovation in ACP countries and communities; (iii) actions aimed at increasing awareness on the importance of Science Technology and Innovation for development. Click for more information.

25 Positions as Postdoctoral Research Fellow at Stockholm University

knowledge.cta.int/en/content/view/full/17252

Deadline: 17 December 2012
The positions are open in subject areas within the Faculties of Science, Humanities, Law, and Social Sciences. Click for more information.

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New vacancies open at the FAO

knowledge.cta.int/en/content/view/full/17263

Deadlines: 7 to 13 December 2012, depending on the position.
The FAO has a number of professional vacancies open. Among the current crop of available positions are: Food Security Officer, Agribusiness Officer, Agri-Food Systems Officer, Technical Officer (Soil and Water), Economist (Commodities), Programme Specialist (Vegetable Crops), Information Officer (Livestock). Click for more information.

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