

Knowledge for Development

Observatory on Science, Technology and Innovation for ACP Agricultural and Rural Development

April-May 2011 newsletter

Highlighting the latest additions to the site
Knowledge for Development

Follow us also on **Twitter** and **Facebook**

Stay up-to-date with the **K4D RSS feeds**

CTA's S&T Programme updates
New dossier on phosphorus depletion
Developments
Publications
Events
Organisations

CTA's S&T

K4D Users to have more say

knowledge.cta.int/en/user/register

K4D visitors, users and e-newsletter subscribers are satisfied with the K4D website but they want to have more say. We have improved our registration facility to increase our knowledge and understanding of the K4D users and your needs. By becoming a registered user, you can contribute articles, post comments and initiate and coordinate discussions on science, technology and innovation (ST&I) issues to our [facebook discussion pages](#). We will continue to provide up to date and relevant information on ST&I issues, but at the same time our new motto is :

'K4D lets scientists and policymakers express themselves'

Update your [K4D registration](#) or [become a new registered user](#).
Join the [K4D facebook](#) and [Twitter](#) communities.

Update: International Conference on Innovations in Extension and Advisory Services

knowledge.cta.int/en/content/view/full/13469

Visit the conference website extensionconference2011.cta.int and register online to attend the conference. Post documents, photos and videos on extension and advisory services to the website. Submit abstracts in response to the calls for papers, case studies, videos, photocollages and posters. Deadline for receipt of abstracts is July 15. Decisions on sponsorship and abstracts will be communicated by August 15. The countdown for calls has begun. Join our extension and advisory services community.

Latest blog topic on K4D: 'Reducing Postharvest Losses: Reducing Food Waste'

knowledge.cta.int/en/Blogs/



'Reducing Postharvest Losses: Reducing Food Waste' is the latest blog topic on our website.

For 50 years or more, researchers and engineers have looked for and found solutions for reducing food waste. The knowledge and technologies are available but they are apparently insufficiently used to tackle the problem. The K4D website would like our users to dialogue and take stock of what we know and could be applied without delay by ACP, EU and international scientists, other stakeholders including policymakers and the private sector.

Please send us your views and suggestions and share documents on reducing post-harvest losses and food waste in general. Which existing knowledge and technology in postharvest treatments, processing, storage, packaging and transport infrastructure could be deployed without further delays? Which regulations in the 'from field to fork' value chain could be introduced and how could their compliance be enforced? We will compile all your suggestions in a brief report that will be published on the website in July 2011.

New Dossier on the K4D website: phosphorus depletion

Why focus on phosphorous depletion?

knowledge.cta.int/en/Dossiers/S-T-Issues-in-Perspective/Phosphorus-depletion/



Phosphorus (P) is an essential resource for global food production. However, crop production, especially in acid soils, is hampered by poor P-use efficiency, creating a demand for P fertilizers. The increased demand for food to feed a growing human population, estimated to reach 9 billion by 2050, has in turn increased demand for P fertilizers. There is significant concern about the depletion of phosphate rock (PR) resources, but also uncertainty about how long the existing deposits will last and whether further deposits can be found.

Lead Article 1: Phosphorus depletion – should the ACP countries be concerned?

P.O. Kisinyo et al., Chepkoilel University College, Kenya in their lead article, '*Phosphorus depletion – should the ACP countries be concerned? What are the current issues for future research and policy?*' examine the extent of the problem and propose options for the ACP region. They note that phosphorus deficiency limits crop production in many acid soils of the African, Caribbean and Pacific countries, mainly because of its fixation and the inherently low P levels in soils of these regions. In addition to using inorganic and organic sources for improving availability, they suggest that using crop germplasm that is tolerant to aluminium (Al) toxicity and is P-use efficient is important. However, the contradictory information on how long the existing phosphorus rock (PR) deposits will last makes it difficult to plan for its long-term utilization. Given the current state of knowledge on location of PR, the authors highlight the need for more information on the extent of and location of resources.

Lead Article 2: Phosphorus depletion: an invisible crisis?

knowledge.cta.int/en/content/view/full/13716

A lead article by Bert Smit, Plant Research Institute, Wageningen University and Research Centre, '*Phosphorus depletion: an invisible crisis?*' considers the evidence on the current status of depletion. Smit notes that the return flow of phosphorus from society to agriculture is decreasing and that the use and governance of the remaining reserves is far from sustainable. He highlights the scarcity of P management and the economic, institutional and geopolitical scarcity and expresses a hope that the world will realize some fundamental changes and reverse the downward trends before a physical scarcity of P becomes apparent. Smit suggests that future research must monitor baseline data for global PR reserves and trade, include a country-level analysis of P inputs and outputs to identify the most effective measures and policies, (agricultural) valorisation and reuse of societal waste products and plant breeding for rooting characteristics that would lead to a better use of the available P in the soil profile.

Our latest dossier also contains links to documentary resources, which provide more insights on the following; assessing phosphorus levels, phosphorus depletion and application of phosphorus as well as information on the industry, geology and sustainability issues:

knowledge.cta.int/en/Dossiers/S-T-Issues-in-Perspective/Phosphorus-depletion/Links

knowledge.cta.int/en/Dossiers/S-T-Issues-in-Perspective/Phosphorus-depletion/Documents

This dossier was compiled and edited by D. Hemming, CABI and J. Francis, CTA, May 2011.

Links to selected resources on phosphorus

Phosphorus in agriculture

knowledge.cta.int/en/content/view/full/13744

Soil Quality Institute Technical Pamphlet No. 2.

A brief overview of the role of phosphorus in agriculture is given, including: Importance to Plant Growth, Livestock and Phosphorus, Environmental Impacts of Agricultural Phosphorus, Harmful Effects of Eutrophication: The Phosphorus Cycle, Managing Agricultural Phosphorus: The Role and Value of Soil Testing and What are the critical soil test levels for Phosphorus?

Phosphorus demand for the 1970–2100 period: A scenario analysis of resource

knowledge.cta.int/en/content/view/full/13752

D.P. Van Vuuren, A.F. Bouwman and A.H.W. Beusen; *Global Environmental Change* 20: 428-439. 2010
The phosphorus (P) cycle has been significantly altered by human activities. For this paper, the sustainability of current P flows in terms of resource depletion and the ultimate fate of these flows, are explored. The analysis shows that rapid depletion of extractable phosphate rock is not very likely, in the near term. Under best estimates, depletion would be around 20–35%. In worst case scenarios, about 40–60% of the current resource base would be extracted by 2100. At the same time, production will concentrate in Asia, Africa and West Asia, and production costs will likely have increased. As there are no substitutes for phosphorus plant nutrients in agriculture, arguably even partial depletion of P resources may in the long run be relevant for the sustainability of agriculture. Consumption trends lead to large flows of phosphorus to surface water and a considerable build-up of phosphorus in agricultural soils in arable lands. This may allow a reduction in future P fertiliser application rates in crop production. Results also indicate a global depletion of P pools in soils under grassland, which may be a threat to ruminant production.

Centre Européen d'Études sur les Polyphosphates (CEEP)

knowledge.cta.int/en/content/view/full/13727

CEEP is the joint research association of the European detergent and industrial polyphosphates industry, sponsors research into phosphates and the environment and into phosphate recycling, and publishes SCOPE Newsletter. CEEP provides a forum for scientific research and the circulation of information concerning the impact of phosphates on the environment, their properties and the performance of polyphosphate products. CEEP has pioneered research on sustainable development through the recovery and recycling of phosphates from sewage and animal wastes. It has also developed studies concerning sewage treatment, eutrophication and life-cycle analysis.

Global Phosphorus Research Initiative

knowledge.cta.int/en/content/view/full/13556

The Global Phosphorus Research Initiative (GPRI) is a collaboration between independent research institutes in Europe, Australia and North America. The main objective of the GPRI is to facilitate quality interdisciplinary research on global phosphorus security for future food production. In addition to research, the GPRI also facilitates networking, dialogue and awareness raising among policy makers, industry, scientists and the community on the implications of global phosphorus scarcity and possible solutions.

The GPRI was co-founded in early 2008 by researchers at the Institute for Sustainable Futures at the University of Technology, Sydney (UTS), and the Department of Water and Environmental Studies at Linköping University, Sweden. Today, GPRI members also include the Stockholm Environment Institute (SEI) in Sweden, the University of British Columbia (UBC) in Canada and Wageningen University in The Netherlands.

[Back To Top](#)

Developments | [Follow the latest RSS feeds for this section](#)

[Policy options for improving regional fertilizer markets in West Africa](#)

knowledge.cta.int/en/content/view/full/13786



Many governments are tempted to impose fertilizer subsidies to reduce fertilizer prices, but in an environment riddled with inefficiencies that contribute to the high costs of using fertilizers, the introduction of subsidies only adds more fiscal burden. This new publication from the International Food Policy Research Institute (IFPRI) and the International Fertilizer Development Center (IFDC) is a study that identifies a key set of policy options for improving the efficiency of regional markets and lowering the transaction costs and fiscal burdens of fertilizer use in West Africa. The authors undertook four country case studies (Ghana, Mali, Nigeria, and Senegal) to review the key constraints and bottlenecks along the fertilizer supply chain. This paper is based on the country case study results, complemented by a literature review and analysis of secondary data sources. Reference: Bumb, Balu L.; Johnson, Michael E. and Fuentes, Porfirio A.; [IFPRI Discussion paper 01084](#); May 2011.

[Building a regional response to locusts: The PALUCP project](#)

knowledge.cta.int/en/content/view/full/13791



Efforts to limit the devastation usually following the arrival of swarms of locusts in the West African Sahel will be strengthened by coordination across the region thanks to the 'Africa Project to Combat Locust Invasions'. The project is known by its French acronym, PALUCP (for 'Projet Africain de Lutte d'Urgence contre le Criquet Pèlerin'), and includes Mali, Burkina Faso, Gambia, Mauritania, Niger, Senegal and Chad. This regional project depends on the sharing of information and experiences in the fight against the locust threat; identifying strategies for managing the fight and establishing the basis for better collaboration between the various role-players and small-holder farmers. Eradication strategies differ in each country and techniques to identify and decimate locusts' population cradles, sharing of knowledge and cross border strategies are therefore crucial for the action's success. 'It's about predicting, anticipating and knowing where they [the locusts] are to prevent them from multiplying exponentially and then decimating them where they reproduce,' said the agricultural minister from Senegal at the PALUCP workshop that took place in Dakar in March 2011. The 'Centre National de Lutte Contre le Criquet Pèlerin' (CNLCP, Mali, www.cnlcp.net/palucp.php) coordinates the project. (IPS, 28/4/2011)

[Africa-Europe research collaboration to be transformed by EC-funded research infrastructure](#)

knowledge.cta.int/en/content/view/full/13795



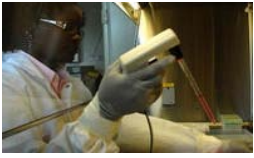
The EC's EuropeAid Cooperation Office announced (on 11/5/2011) the signature of a €14.75M contract for support to a sub-Saharan African intra-regional research networking infrastructure which is already interconnected to the pan-European research network, GÉANT. The contract represents a significant injection of capital to develop research networking infrastructure across sub-Saharan Africa and with Europe. The AfricaConnect project will establish a high-capacity Internet network for research and education in Southern and Eastern Africa to provide the region with a gateway to global research collaboration, the objective of which is to overcome the current limitations of international research collaboration within sub-Saharan Africa and towards Europe, and to foster research and education collaboration and advancement within and between these regions. The project will be strongly collaborative, so whilst DANTE, the international research network operator that got the contract, will coordinate AfricaConnect, they will be partnered by DANTE's regional counterpart organisations in Africa – UbuntuNet Alliance covering Eastern and Southern Africa, and WACREN covering Western and Central Africa – as well as the Association of African Universities; existing National Research and Education Networks (NRENs) in Africa (DRC, Ethiopia, Kenya, Malawi, Mozambique, Namibia, Rwanda, Somalia, Sudan, South Africa, Tanzania, Uganda and Zambia); and several European NRENs (Germany, Ireland, Italy, the Netherlands, Portugal and the UK).

In April 2010, Knowledge for development mentioned the publication of the final report on the Feasibility Study on the AfricaConnect Initiative ([FEAST project](#)).

[African Innovation Outlook 2010 - Executive Summary](#)

knowledge.cta.int/en/content/view/full/13800

The African Union Ministerial Conference in charge of Science and Technology



(AMCOST) has repeatedly called for better understanding of, and improvement in, the state of ST&I (science, technology and innovation) on the continent. These recurrent calls have been embodied in the outcomes of AMCOST decisions over the last decade. The African Science, Technology and Innovation Indicators (ASTII) initiative is a response to AMCOST calls to address the lack of evidence-based policy processes. The African Innovation Outlook is an outcome of the implementation of the ASTII initiative. It is published as the first in a series, intended to inform the people of Africa and other interested parties about ST&I activities in African countries. The report has six chapters, dealing with economic and human development challenges for ST&I; research and development (R&D) activities; innovation; bibliometric analysis of scientific output; and recommendations to address the challenges identified in it. The report can be found [here](#). (AU-NEPAD, 23/5/2011)

Caribbean ministers call for strengthened regional approach to manage and conserve fisheries resources

knowledge.cta.int/en/content/view/full/13693



Fisheries ministers from across the Caribbean region were in Antigua on May 20th, 2011 for the Fourth Caribbean Regional Fisheries Mechanism (CRFM) Ministerial Council, to review the draft agreement establishing the Caribbean Community Common Fisheries Policy. Ministers have endorsed the need to strengthen regional cooperation for the effective conservation and management of fisheries resources in the Caribbean. Visit our website to read the full press release dating 23 May 2011.

Agreement on a common African position on animal health standards

knowledge.cta.int/en/content/view/full/13803



African delegates to the OIE ([World Organisation for Animal Health](#)) agreed on a common position on animal health standards. The Interafrican Bureau for Animal Resources of the African Union (AU-IBAR), under the scope of the project Participation of African Nations in Sanitary and Phytosanitary Standard Setting Organizations ([PAN-SPSO](#)), convened the third meeting for OIE delegates, Directors of Veterinary Services (DVS) and Chief Veterinary Officers (CVOs) from 2nd to 4th May 2011 in Nairobi, Kenya. The Pan-African meeting examined the proposed changes of the OIE Terrestrial and Aquatic Codes submitted for adoption at the 79th General Session of the World Assembly of OIE Delegates scheduled for Paris, France from 22nd to 27th May 2011. The African OIE Delegates and the representatives of RECs agreed on common positions that the 52 African member countries of OIE will present in Paris.

New tool for weighing pros and cons of bioenergy

knowledge.cta.int/en/content/view/full/13807



As interest in bioenergy production continues to grow, FAO is promoting the use of a new methodology designed to help policymakers weigh the pros and cons of investing in the sector. FAO's 'Bioenergy and Food Security (BEFS) Analytical Framework' was created to help governments evaluate the potential of bioenergy as well as assess its possible food security impacts. The framework was recently finalized following a three year development and field test phase in which it was applied in Peru, Tanzania and Thailand. It consists of a series of step-by-step evaluations that seek to answer critical questions regarding the feasibility of bioenergy development and the impacts on food availability and household food security. Social and environmental dimensions are also considered. The UN agency is following up on the framework via its Bioenergy and Food Security Criteria and Indicators ([BEFSCI](#)) project, which aims to develop a risk prevention and management tool as well as an impact assessment and policy response tool, based on good practices. (FAO, May 2011)

Water efficient methods revolutionise sugarcane growing

knowledge.cta.int/en/content/view/full/13810



Proof that innovation pays off. In 2007, the India branch of the Worldwide fund for nature (WWF-India) launched the [project entitled](#) 'Reducing the Impact of Water-intensive and Polluting Crops: Securing sustainable sources of freshwater to support the livelihoods of poor communities in the Godavari Basin' in India (http://www.wwfindia.org/news_facts/?1940). Inter Press Services [now reports](#) that farmers who have adopted the water efficient measures witnessed water savings to up to 30% of normal water usage. The project is centred on promoting better management practices (BMP), agricultural practices that optimise the three pillars of sustainability – social responsibility, environmental integrity and economic viability. These practices include improvement of planting techniques such as time and method of planting, selection of a suitable variety and appropriate soil, optimum spacing and seed treatment; fertiliser application, type of irrigation and soil drainage and weed control techniques. Sustainable practices are much needed for sugarcane which, according to WWF-India figures, occupies just four per cent of the land in Maharashtra state but consumes nearly two-thirds of the state irrigation supply. (IPS, 10/5/2011).

Designing impact evaluations for agricultural projects

knowledge.cta.int/en/content/view/full/13814



The purpose of this guideline (published by the Inter-American Development Bank) is to provide suggestions on designing impact evaluations for agricultural projects, particularly projects that directly target farmers, and seek to improve agricultural production, productivity and profitability. Specific issues in evaluating agricultural projects are addressed, including the need to use production-based indicators and to carefully consider indirect or spillover effects that are common in agricultural projects. The guideline considers the challenges of conducting impact evaluations of agricultural projects as well as the methods for assessing impact. Issues of collecting agricultural data for an impact evaluation and how to put together the overall design strategy in an evaluation plan are also covered. The guideline concludes with three case studies of impact evaluations designed for a technology adoption project in the Dominican Republic, a forestry/technology project in Nicaragua, and a crop insurance project in Peru. (Inter-American Development Bank, 1/4/2011)

Rainwatch keeps eye on rainfall for West African farmers

knowledge.cta.int/en/content/view/full/13819



NOAA-funded researchers hope a new climate information system they developed will help West African farmers help themselves. **Rainwatch** is a prototype geographic information system (GIS) that monitors monsoon rainfall and tracks season rainfall attributes. This information is crucial because sub-Saharan Africa depends more strongly and directly on rainfall than any other region on Earth, yet the area has the fewest rainfall monitoring stations and significant delays that occur between data collection and its availability for users. Rainwatch automates and streamlines key aspects of rainfall data management, processing and visualization.

A major appeal is its simplicity – all interactive interfaces, symbols and names used are unpretentious and self explanatory. In addition, the system can be used by Africans without any outside assistance such as satellite information.

In a successful 2009 demonstration involving seven rain gauge stations in Niger, Rainwatch was shown to directly address the area's need for better rainfall data acquisition, management, representation and rapid dissemination. The programme continued in 2010, when it dramatically showed the return of abundant rainfall. It is expected to expand beyond Niger. Because Rainwatch is simple to operate and more streamlined in design and scope than existing systems, the researchers hope the programme will be adopted and used more widely throughout West Africa where other more complicated rainfall data dissemination systems have had limited success. (NOAA, 12/5/2011)

First annual dialogue of ministers of agriculture, science and technology

knowledge.cta.int/en/content/view/full/13824



Following the recommendation of the Ministers of Agriculture, Science and Technology at the FARA General Assembly in July 2010, FARA invited African Ministers to a special Dialogue on 28-29 April 2011 at the Secretariat in Accra. The delegates agreed on the way forward for agricultural research, education and extension in Africa, including a financial commitment to FARA's agenda and mechanism to ensure FARA's accountability to the Ministers. The recommendations emanating from the Dialogue are enumerated in a special Communiqué.

UNIDO study outlines opportunities and challenges for African agribusiness and agro-industries

knowledge.cta.int/en/content/view/full/13828



This 2011 study by the UN Industrial Development Organization (UNIDO) titled 'Agribusiness for Africa's Prosperity' focuses on the opportunities for diversified growth in Africa, and assesses the existing and potential sources of demand growth for agribusiness development on the continent. It includes case studies of countries in their development of agribusiness and agro-industries, identifies innovative financing methods and describes the countries' internal responses to various challenges. An agenda for action and a framework to guide the efforts of stakeholders, with a key focus on visions, policies, strategies and institutions for Africa's agribusiness development, is also outlined.

A key part of the study is the identification and analysis of the seven development pillars for agribusiness development, which are the actions needed to transform subsistence agriculture into productive agribusiness, as follows: enhancing agricultural productivity; upgrading value chains; exploiting local, regional and international demand; strengthening technological effort and innovation capabilities; promoting effective and innovative financing; stimulating private participation; and improving infrastructure and energy access. (IISD, 13/5/2011)

Nitrate fertiliser wasted on sugarcane

knowledge.cta.int/en/content/view/full/13833



Dr Nicole Robinson, Research Fellow at the School of Agriculture and Food Science, University of Queensland (Australia), shows in her study on nitrogen assimilation by the sugarcane plant, that, given the choice of different forms of nitrogen, sugarcane strongly prefers ammonium over nitrate and that nitrate fertiliser is an inefficient source of nitrogen for commercial sugarcane crops. The study results indicate that grower management practices should aim to

reduce nitrate content in soils in favour of ammonium and organic forms of nitrogen. Dr Robinson said further work was required to breed new sugarcane varieties that have an enhanced ability to use nitrate. She said erianthus, a closely related giant grass, currently used in the breeding programme, showed promising results and would provide an avenue for further investigation. (UQ News via ScienceAlert, 9/5/2011)

[Back To Top](#)

[The 'Crop Intensification Program' in Rwanda: A sustainability analysis](#)

knowledge.cta.int/en/content/view/full/13837



The recent 'Crop Intensification Program' represents a great opportunity for Rwanda to guarantee food security and strengthen the country's agricultural productivity. However overwhelming evidence is arising that a sustained growth path will be preserved over time only if the production process incorporates sustainability issues. Through qualitative interviews, a quantitative analysis and findings from the literature [this report](#) assesses the sustainability of the current Rwanda 'Crop Intensification Program' formulation and analyzes the interventions that are needed to reconcile immediate food security needs and long run environment proof methods of crops production. (Nicola Cantore, Overseas Development Institute, Background paper, April 2011)

[Invasive lionfish \(*Pterois volitans*\) sighted in Antigua waters](#)

knowledge.cta.int/en/content/view/full/13841



The Fisheries Division of Antigua and Barbuda has its [first confirmed sighting](#) of the invasive Lionfish (*Pterois volitans*). The confirmation of this species in Antigua's waters (it was spotted near neighbouring St. Kitts in October 2010) is troubling because of the negative impact that such invasive species can have on the fragile coral reef ecosystems, local fish populations and fishing communities. The lionfish is a voracious predator feeding on a variety of fish species including many commercially caught demersal fish (living near or on the bottom of the sea) and reef species that help maintain healthy coral reefs. With few natural predators in the area, the species has been allowed to proliferate and establish itself in coral and rocky reefs around the Caribbean.

[MAPFORGEN: An online atlas for the conservation of forest genetic resources](#)

knowledge.cta.int/en/content/view/full/13844



MAPFORGEN (Mapping Forest Genetic Resources) is a project to evaluate the conservation status of 100 socio-economically important woody species (trees, palms, shrubs and bamboos) from different eco-regions of Latin America and the Caribbean. The final product with all the gathered information will be a publicly available on-line Atlas with GIS-based threat, distribution and in situ conservation analyses. Additionally, with the help of experts the main risks faced by the prioritized species will be described and threatened populations and distribution of high-vulnerability areas identified. The information in this Atlas will not only increase the visibility of the conservation status of forest genetic resources native to Latin America and the Caribbean but will be a useful resource to support national and international forest and conservation programmes. It will also be the basis for further studies on the intra-specific level.

[MAPFORGEN](#) is a joint initiative of Bioversity International and the Centro de Investigación Forestal of the Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (CIFOR-INIA, Spain) in close collaboration with the Latin American Forest Genetic Resources Network (LAFORGEN).

[Building the foundation of agro-meteorology services in the Pacific](#)

knowledge.cta.int/en/content/view/full/13850



A three-week long training and workshop, organized by the UN Development Programme and others, through its 'South-South Cooperation between Pacific and Caribbean Small Islands Developing States (SIDS) on Climate Change Adaptation and Disaster Risk Management', covered the processes involved in agro-meteorology and provided weather specialists and agriculture officers with knowledge, tools and skills to interpret the impact of changing weather patterns on crop and livestock production. The workshop participants identified climate and crop data gaps that existed in their countries and pointed out that this would impact on the implementation of agro-meteorology. It provided the participants with an opportunity to map the next steps in building stronger agro-meteorology services in their countries. ([Pacific Island News Association](#), 20/5/2011)

[Back To Top](#)

Selected publications | Follow the latest RSS feeds for this section

[ST&I Global Forum Action Plan: CP-building partnerships for sustainable development](#)

knowledge.cta.int/en/content/view/full/13852

By the World Bank's STI Global Expert Team (STI GET). The World Bank, in collaboration with a number of partners, convened a 'Global Forum on Science, Technology and Innovation (ST&I) Capacity Building Partnerships for Sustainable Development' in Washington, D.C. in December 2009. The objectives of the Forum were to (i) explore how well designed partnerships could promote inclusive globalization by helping developing countries build the

ST&I capacity they need to address their social and economic objectives; and (ii) develop an Action Plan outlining how the World Bank, in collaboration with other stakeholders and development partners, could design, finance, and implement the new game-changing partnership ideas emerging from the Forum.

The [Action Plan](#) explains how the Bank and its development partners can help developing countries build the ST&I capacity they need to: 1) Foster 'inclusive innovations' focused on the needs of the three or four billion people at the Bottom of the Pyramid (BOP); 2) Convert ST&I capacity into business opportunities and move ideas from the lab to the market via the establishment of Innovation and Technology Entrepreneurship Centers; 3) Train the next generation of knowledge workers and teachers for the global and local knowledge economy

Participatory research and on-farm management of agricultural biodiversity in Europe

knowledge.cta.int/en/content/view/full/13860

By Michel Pimpert, International Institute for Environment and Development (IIED), May 2011. Drawing on experience in Europe and the wider literature, [this paper](#), by Michel Pimpert at the International Institute for Environment and Development (IIED), offers some critical reflections on how—and under what conditions—the EU might support the development of innovative participatory approaches for the management of agricultural biodiversity in Europe. Recommendations are offered on how to address three challenges in particular: 1) Transforming knowledge and ways of knowing for the local adaptive management of agricultural biodiversity and resilience in the face of climate change and uncertainty; 2) Scaling up and institutionalising participatory research and innovation in plant breeding, varietal selection, and agroecological research; and 3) Policy reversals for the participatory management of agricultural biodiversity.

Cutting waste food to feed the world

knowledge.cta.int/en/content/view/full/13864

By the Swedish Institute for Food and Biotechnology for the FAO, May 2011.

[This document](#) was commissioned by the FAO from the Swedish Institute for Food and Biotechnology (SIK) for *Save Food!*, an international congress held in May 2011 at the trade fair of the international packaging industry *Interpack2011*. [Key findings](#) include:

- Industrialized and developing countries fool away roughly the same quantities of food – respectively 670 and 630 million tonnes.
- Every year, consumers in rich countries waste almost as much food (222 million tonnes) as the entire net food production of sub-Saharan Africa (230 million tonnes).
- Fruits and vegetables, plus roots and tubers have the highest wastage rates of any food.
- The amount of food lost or wasted every year is equivalent to more than half of the world's annual cereals crop (2.3 billion tonnes in 2009/2010).

The report distinguishes between food loss and food waste. Food losses – occurring at the production, harvest, post-harvest and processing phases – are most important in developing countries, due to poor infrastructure, low levels of technology and low investment in the food production systems. A separate report on food packaging for developing countries, also prepared for the *Save Food!* Congress, noted that appropriate packaging is a key factor impacting on losses occurring at almost every stage of the food chain.

Related and of interest to this issue is the *Foresight 2011. The Future of Food and Farming* by the UK Government Office for Science.

Global honey bee colony disorder and other threats to insect pollinators

knowledge.cta.int/en/content/view/full/13867

By UNEP Division of Early Warning Assessment, 2010.

[This bulletin](#) published by UNEP considers the latest scientific findings and analyses possible answers to the threats faced by insect pollinators. It asks the question: Has a 'pollinator crisis' really been occurring during recent decades, or are these concerns just another sign of global biodiversity decline? As the bee group is the most important pollinator worldwide, this bulletin focuses on the instability of wild and managed bee populations, the driving forces, potential mitigating measures and recommendations. Currently available global data and knowledge on the decline of pollinators are not sufficiently conclusive to demonstrate that there is a worldwide pollinator and related crop production crisis. Data indicate that global agriculture has become increasingly pollinator dependant over the last 50 years and pollination is not just a free service but one that requires investment and stewardship to protect and sustain it.

[Back To Top](#)

Events | Follow the latest RSS feeds for this section

Science Forum 2011: 'The Agriculture-Environment Nexus'

knowledge.cta.int/en/content/view/full/13875

Dates: 17-19 October 2011

Location: Beijing China

The theme of Science Forum 2011, 'The Agriculture-Environment Nexus,' will cover new opportunities to adapt the agricultural research landscape to meet these emerging challenges.

The debate at the Science Forum will be structured around the following topics:

- Land saving and land transformation
- Resource scarcity and the ecological intensification of agriculture
- Metrics and monitoring

- Agro-biodiversity; can biodiverse systems compete in a global market?
- Sustainability Science
- Multifunctional landscapes

Science Forum 2011 will be hosted by the Chinese Academy of Agricultural Sciences (CAAS) and is organized by a steering committee led by the Independent Science and Partnership Council (ISPC) of the CGIAR. The announcement is available [here](#).

'Increasing Agricultural Productivity and Enhancing Food Security in Africa'

knowledge.cta.int/en/content/view/full/13876

Dates: 1-3 November 2011

Location: UNECA, Addis Abeba, Ethiopia

Organized by IFPRI, in conjunction with the African Union Commission and UNECA, the subthemes for this conference on agricultural productivity are:

- Science, technology and innovation in agriculture
- Rural service provision and access to factors and inputs for production
- Food reserves, markets, trade, and regional integration
- Investments, institutions, and policies for supporting agriculture
- Agriculture, nutrition, and health linkages
- Agriculture and climate change mitigation and adaptation
- Capacity development for agriculture through education and training
- Role of agriculture and the rural nonfarm sector in economic growth and national poverty reduction
- Regional value chains development as a pathway for increased agricultural productivity

A call for papers has been issued for this conference, setting a deadline for abstract on June 30, 2011 (the deadline for articles is August 31, 2011 and the last date to register is September 15, 2011). More information is available [on the IFPRI website](#). Download the [conference flyer](#) and the [concept note](#).

'YouMaRes 2011: Oceans amidst science, innovation and society'

knowledge.cta.int/en/content/view/full/13690

Dates: 7-9 September 2011

Location: Bremerhaven, Germany

This is the announcement for the Young Marine Research (YOUNMARES) network-meeting and conference event, organized by the Working Group Studies and Education of the German Society for Marine Research (DGM). Follow [this link](#) to register for the 2nd international network of young marine researchers. Conference topics and sessions:

- Human impacts on the oceans and subsequent environmental responses
- Remote sensing: Higher orbits for deeper understanding
- Living with the sea: coastal livelihoods and management
- Aquaculture: Main research priorities to fulfill our need for sustainable seafood
- Marine Technology: The art of engineering in synergy with natural sciences
- Ocean of diversity: From micro scales to macro results

YOUNMARES is going to take place in close proximity to the Marine Resources and Beyond ([MRB2011](#)) event.

Registration has started and the abstract deadline is 1st July 2011.

[Back To Top](#)

Organisations | Find more organisations on our website

Pacific Biodiversity Information Forum

knowledge.cta.int/en/content/view/full/13878



The Pacific Biodiversity Information Forum ([PBIF](#)) seeks to develop a complete, scientifically sound, and electronically accessible Pacific biological knowledge base and make it widely available to local, national, regional and global users for decision-making.

PBIF's geographic scope includes the countries of Polynesia, Micronesia and Melanesia, as well as the Australasian countries bordering these regions.

PBIF has a number of databases and bibliographies on issues related to biodiversity, and it maintains a list of organisations working in the field.

[Back To Top](#)

To unsubscribe, send a blank email to leave-knowledge-en@lists.cta.int

If you have been forwarded this newsletter and would like to receive it, please visit the Knowledge for Development website and register for the email newsletter; or send a blank email to join-knowledge-en@lists.cta.int

Publisher: CTA

Coordinating editors: Judith Francis, CTA and Rutger Engelhard, Contactivity bv.

Research: Cédric Jeanneret



CTA is an institution of the ACP Group of States (Africa, Caribbean and Pacific) and the EU (European Union), in the framework of the Cotonou Agreement and is financed by the EU.