

SPORE

The magazine
for agricultural and
rural development
in ACP countries

<http://spore.cta.int>



N°178
OCTOBER-NOVEMBER 2015

GIANT SNAILS
**A winning
combination**

PROTECTIONISM IN AGRICULTURE
**The ongoing
debate**

REGIONAL TRADE
**The customers
next door**



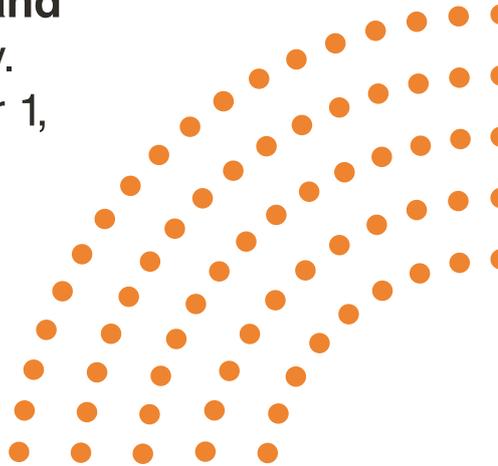


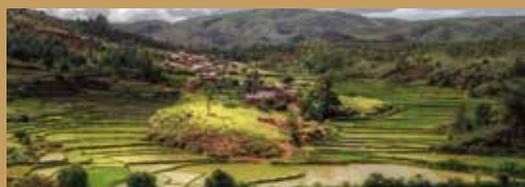
techsoup

Supporting organizations like yours since 1987.

TechSoup has helped more than **600,000 NGOs and libraries** around the world get and use technology. We're excited to announce that beginning October 1, we'll be able to serve you, too.

Learn more at www.techsoup.global.

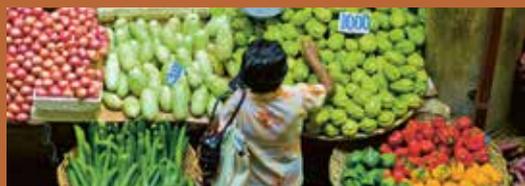




PROTECTIONISM IN AGRICULTURE
The ongoing debate

4

TRENDS



REGIONAL TRADE
The customers next door

13

DOSSIER

- 4 | Trends
- 6 | Agricultural production
- 7 | Environment
- 8 | Business
- 9 | Trade
- 10 | Blue economy
- 11 | Nutrition & health
- 12 | Research

- 13 | Dossier
Regional trade: the customers next door
Thriving agribusiness and effective infrastructure are key to exporting regionally
- 17 | Viewpoint
Ousmane Badiane: Africa's increasing competitiveness
Accelerating agricultural growth
- 18 | Field report
Fiji: regional trade takes root
Overcoming technical and quality challenges

- 20 | Value chains
Giant snails: a winning combination
- 21 | Publications
- 25 | Get on board with CTA

SPORE is the bi-monthly magazine of the Technical Centre for Agricultural and Rural Cooperation (CTA). CTA operates under the Cotonou Agreement between the countries of the Africa, Caribbean and Pacific (ACP) group and the European Union and is financed by the EU. • CTA • Postbus 380 • 6700 AJ Wageningen, The Netherlands • Tel: +31 317 467 100 • Fax: +31 317 460 067 • Email: cta@cta.int • Website: www.cta.int • PUBLISHER: Michael Hailu • CHAIRMAN OF THE EDITORIAL BOARD: Stéphane Gambier • COORDINATION OF THE EDITORIAL BOARD: Anne Legroscolard • EDITORIAL BOARD: Krishan Bheenick, Isolina Boto, Juan Cheaz, Thierry Doudet, Vincent Fautrel, Philippe Lhoste, Andrew Shepherd • MARKETING: Thérèse Burke • EDITORIAL STAFF: Executive editor: Joshua Massarenti, Vita Società Editoriale S.p.A., Via Marco d'Agate 43, 20139 Milan, Italy • Editor of English version: Susanna Cartmell-Thorp, WRENmedia Ltd, Fressingfield, Eye, Suffolk, IP21 5SA, UK • Editor of French version: Bénédicte Chatel, 12 avenue de Wagram, 75008 Paris, France • Editor of Portuguese version: Ricardo Bordalo, Tapada da Carvalha, Cabanões, São João de Lourosa, 3500 – 885 Viseu, Portugal • CORRESPONDENTS: The following contributed to this issue: N Ackbarally (Mauritius), O Alawode (Nigeria), M Andriatiana (Madagascar), B Bafana (Zimbabwe), B H Carreon (Palau), A Carvalho Santos (Cabo Verde), T P Cox (Denmark), G Kamadi (Kenya), J Karuga (Kenya), M Makoni (South Africa), C Mkoka (Malawi), C Muasya (Kenya), C Njeru (Kenya), S Norte (Moçambique), E Ntungwe (Cameroon), M Waruru (Kenya) • OTHER CONTRIBUTORS: N Brynaert, A Guillaume-Gentil, ISO Translation & Publishing, D Juchault, D Manley, A Perrin, M Protz, C Pusceddu, O Spaggiari, J Summers, Tradcats • DESIGN: Intactile DESIGN, France • LAYOUT: Vita, Italy • PRINTER: Latimer Trend & Company, UK • © CTA 2015 – ISSN 1011-0054

Editorial

Public private partnerships in agriculture



In recent years, ACP governments and donors have recognised the key role that the private sector can play in transforming agriculture from a largely subsistence undertaking to a dynamic and productive sector creating decent jobs particularly for young people. For their part, agribusinesses, local and multinational alike, are increasingly realising that they must engage with small-scale producers if they are to ensure long-term supply of safe, high-quality food for their customers. One of the most effective ways to engage the private sector in the agricultural sector is through public-private partnerships (PPPs) that enable access to technology and link farmers to profitable markets.

PPPs were first used in infrastructure development in 17th century France, but regained popularity in the 1980s. Success stories in infrastructure development inspired the adaptation of the model to other sectors, including agriculture.

Early PPP applications in agriculture followed the infrastructure model – the government provides the physical resources (including, in this case, the land) and investors the money and the expertise to develop and then operate the project. This quickly raised complaints of 'land grabbing' in many ACP countries. Whether or not these were justified, it is clear that the PPP model has to be adapted to the realities of agriculture in the ACP, including the dominance of small-scale producers and the many constraints from 'farm to fork'.

PPPs in agriculture depend on many factors: governments providing proper conditions; farmers being able and willing to move up the value chain; engagement of a diversity of private-sector stakeholders (from input suppliers to processors, and including service providers); support to help farmers adapt to the modern market place; and development partners to carry some of the initial burdens of modernising the sector. CTA has documented best practices in this approach and applied them with its partners in the field.

Agriculture has great potential. I hope this issue of *Spore* will inspire new PPPs to convert the wealth of agricultural potential into the welfare of smallholder farmers.

Michal Hailu
Director – CTA

The ongoing debate

World trade liberalisation has progressed considerably with regard to agricultural commodities over the last 20 years, but protectionism still prevails. Should ACP countries also protect their agriculture to complement their agricultural policy, expand production and provide income for farmers?

World Trade Organisation negotiations on the agricultural reform process – initiated in 2000 in the framework of the Doha Round – are now more or less at a standstill, whereas bilateral trade negotiations with the European Union (EU) have led to the signing of several Economic Partnership Agreements. The negotiations have generally focused on measures in three main areas: market access and the issue of tariff and non-tariff barriers, domestic support, and export subsidies. These measures have direct impacts on ACP countries.

Differentiated support for farmers

The Organisation for Economic Co-operation and Development (OECD), in its report 'Agricultural Policy Monitoring and Evaluation 2014', notes that over a sixth of gross farm receipts across OECD countries still go to supporting farmers – this amounted to €194 billion in 2013 as measured by the OECD Producer Support Estimate. The levels and forms of support vary substantially between countries, with Australia, Chile and New Zealand providing the least support and Iceland, Japan, Korea, Norway and Switzerland contributing the most. But headway is being made in improving the situation as several countries are reshaping their agricultural policies.

Over the last decade, the major shift observed is that rich countries are now not the only ones protecting their agriculture. The trend indicates that emerging countries are increasing their level of support as their agricultural commodity trade increases. China accounts for a major share of subsidies for the cotton production sector, which is highly symbolic. Indeed, levels of support to agricultural producers in OECD countries and emerging countries are converging. That said, prices of several agricultural commodities have soared since the mid-2000s, which has automatically led to reduced support as prices become more favourable for farmers on the international market. Agricultural support is nevertheless still low in least developed countries, including many African countries. The sharp rise in prices of some agricultural products has challenged the relevance of the model based on promoting cheap food imports to meet the needs of domestic populations. Some ACP governments have thus been actively

fostering and investing in their agriculture to ensure greater food security and even sovereignty.

Should ACP countries use trade policy instruments to protect and develop their agricultural production sectors? A glance at the situation in the rice production sector could provide clues.

Everyone plays a part

Consumption of rice – a staple food for Africans – is booming. Average annual per-capita consumption has more than doubled in 40 years, rising from 11 to 25 kg. In some countries like Côte d'Ivoire, Mali and Senegal, this consumption rate is currently over 90 kg. Africa barely meets 10% of its rice needs and absorbs a third of the world's rice exports.

Developing domestic production to reduce imports is the aim of most governments. This was especially



Non-tariff measures – a new form of protectionism?

Although agricultural protection rates have declined worldwide without being totally eliminated, non-tariff measures (NTMs) – including sanitary, phytosanitary and technical measures, as well as certificates of conformity – have been increasing in recent years and represent a real obstacle to trade for ACP countries.

According to studies carried out by the International Trade Centre, 60% of exporting companies in Burkina Faso are affected by NTMs, 65% in Malawi and 63% of Senegal.

The latest report published in June 2014 by the European Union Notification System for Plant Health Interceptions, which is devoted to intercepting pests that could be harmful to plants, revealed that the EU and Switzerland notified around 7,000 interceptions for non-conformity in 2013, with over 70% of these cases concerning fruits and vegetables. The main exporters of intercepted goods were Bangladesh, Cambodia, China, the Dominican Republic, Ghana, India, Kenya, Pakistan and Sri Lanka.

Standards often change and inspections are more frequent and longer in the EU. Hence, NTMs generate market access costs for ACP countries and threaten their exports.

Some recent cases have concerned horticultural exports from Kenya, pineapples from Mauritius, beef from Namibia and citrus fruits from South Africa. Fears about high pesticide residue levels have also led to increased controls of Kenyan horticultural exports by European authorities. These controls have resulted in increased costs for the country and reduced the shelf life of their commodities.

Moreover, supplies coming from small producers have been called into question due to the complexity of commodity traceability.

evident after food prices skyrocketed in 2007/08, when large-scale rice crop development programmes were launched to reduce dependence on imports, which at the time were fulfilling 40-50% of demand. Should domestic production be sheltered from international price fluctuations? This question is especially relevant since rice prices are the lowest in 7 years, and the stockpiling policy of Thailand – the world's top exporter – is weighing heavily on the market. Is protection warranted, at consumers' expense, when domestic production is not in a position to currently meet the demand in ACP countries? This is a challenging question and the answers vary from country to country.

Nigeria – the giant of West Africa and the continent's largest rice importer (about 3 million t/year) – has always played its part, often without consulting other states in the sub-region. Abuja varies the country's import duties but with little impact given the scale of informal flows with neighbouring Benin. The country changed its stance in 2014 by deciding to allocate import quotas at preferential rates to rice importers and traders who invest in rice production and processing.

In Côte d'Ivoire, the National Rice Development Strategy encourages farmers to use improved seeds and better equipment, while also promoting the creation of processing units and private investment. The country has not adopted import protectionist measures, but reserves the right to do so. Price regulation mechanisms, however, secure farmers' income. Elsewhere, the East African Community regularly adjusts its trade policy in the light of market and price patterns, especially by controlling the level of import duties.

Protection measures may also be necessary in other sectors such as poultry and dairy production in order to enhance and guarantee farmers' income. "They should be supplemented by domestic market regulation measures by encouraging cooperation between stakeholders, providing adequate funding and ensuring effective linkages between stakeholders, farmers and local and regional markets," says Bio Goura Soulé from the Laboratory for Regional Analysis and Social Expertise in Benin. Soulé advocates implementing targeted tariff measures, or additional rates for key sectors, while stressing the importance of ensuring that these measures remain flexible and adaptable to avoid creating distorted and rigid situations. Distortions could be limited if protection is applied at the regional level, as is happening in Eastern Africa. Under the Common External Tariff strategy, the Economic Community of West African States has adopted tariff measures, particularly regarding milk and rice, but Soulé believes that border protection rates are too low and should thus be increased.

"Should a question as strategic as food security, not to mention food sovereignty, be left to the mercy of the market?" asks Soulé. If protective measures are intelligently applied and accompanied by investments in productive systems, production and productivity could be significantly improved in strategic sectors such as cereal, meat and milk production concludes the researcher. ■



Average rice consumption has more than doubled in 40 years, rising from 11 to 25 kg per capita

© M. Kuzniak

AGRICULTURAL PRODUCTION

RICE

A successful combination

Growing rice alongside vegetables, such as beans or peas, has increased irrigated-rice yields from 2 t to 5-6 t per ha in the Madagascan highlands. Pioneered by FOFIFA, the main national agriculture research institution, the technique uses a combination of improved rice varieties, innovative farming methods, and better water and nutrition management.

FOOD SECURITY

Reducing food shortages

New production and processing techniques have reduced the food shortage period in the Oio region of northern Guinea-Bissau from four months to just one month per year. A joint EU/CIRAD-funded project has overcome poor agricultural practices and the adverse climate through the use of improved seeds, mechanisation and technical support to 600 farmers.

SUGAR

Better performing varieties

Four new sugarcane varieties have been introduced by the Mauritius Sugarcane Industry Research Institute (MSIRI). The improved varieties' yields are 10 to 15% higher than the varieties currently cultivated. Increased yields will compensate for the decrease in land used to grow sugar cane, according to MSIRI.

PROTEIN

Insects for animal feed

An 'INSFEED' project is enabling fish and poultry farmers in Kenya to use insect-based feeds to mitigate the rising costs of animal feeds and to cope with high demand for food and animal feed. Edible insects provide superior protein to that obtained from plant supplements, a good source of vitamins and amino acids for livestock.



A climate-smart farm in Kenya. Systems that integrate climate-resilient practices are being introduced in Africa

FOOD PRODUCTION

'Shocks' set to rise

Agricultural production supply chains will need to be more resilient in ACP countries to cope with increasing climate-related global "shocks" predicted over the next 25 years, according to an independent report.

Major disturbances to global food production will increase threefold by 2040 because of extreme weather caused by global warming, warns a new report by the UK-US Taskforce on Extreme Weather and Global Food System Resilience.

The likelihood of such a shock, where production of the world's four major commodity crops – maize, rice, soybean and wheat – falls by 5-7%, is currently once-in-a-century. But such an event will occur every 30 years or more by 2040, according to the study.

The report states that the hardest impacts would be felt by import-dependent developing countries, particularly in sub-Saharan Africa. It states: "These countries would be expected to experience the most pronounced short-term deteriorations in poverty rates and nutrition security. At the economy level, impacts would likely include inflation, deteriorations in the balance of payments and budgetary pressures arising

from higher food subsidies and social transfers." The UN's Food and Agriculture Organisation has also predicted that increasing population will increase demand for food by 60% by 2050. So how will ACP countries cope with this significant pressure on agricultural production?

Productivity – a global challenge

A key recommendation of the report is to adapt agricultural production systems for a changing climate. Demand for food, at a global level, is increasing faster than agricultural yields are growing. Agriculture therefore faces a triple challenge.

"Productivity – at a global level - must be increased by reversing declines in yield growth and closing the gap between actual and attainable yields in the developing world, whilst also reducing its environmental impact" according to the report.

However, given the increasing risk of extreme weather, this cannot come at the expense of production resilience. Increases in productivity, sustainability and resilience to climate change are thus required.

Production resilience-building measures are already being put in place across ACP countries, starting with smallholders. In West Africa for example, farming systems that integrate tree planting, livestock rearing and crop rotation are being introduced in Burkina Faso, Ghana, Niger and Senegal. ■

Jessica Summers

ENERGY

A Mauritian carbon-footprint calculator

The “Mauritius 2050 Pathways Calculator” is the first carbon-footprint calculator developed for a small island state. This decision-making tool will enable Mauritius to improve its long-term energy strategy and minimise greenhouse gas (GHG) emissions.

The “Mauritius 2050 Pathways Calculator”, which measures carbon footprint, was launched in mid-June. The tool, developed by the UK’s Department of Energy and Climate Change, will support the island’s long-term strategy to reduce CO₂ emissions and meet its increasing energy requirements set to rise threefold by 2050.

This carbon-footprint calculator helps analyse energy supply and demand, and measures GHG emissions. The interactive computer program allows users to explore

GHG emission scenarios up to 2050, based on decisions taken today or over the next few years. The tool has many other important functions including: to determine how renewable energy can meet overall demand over the medium- and long-terms; measuring the impact of individual behaviour changes on emissions; calculating the volume of fossil fuels before importation; and, the best ways to reduce GHG emissions in the context of economic growth. However, the calculator does not determine the impact of a carbon tax on the economy, or the most effective way of subsidising solar energy, or the impact of energy bills on consumers.

Mauritius aims to increase renewable energy to at least 35% of its total energy by 2025. Currently, 85% of the island’s energy requirements are met by fossil fuels, accounting for around 20% of its imports. The calculator will help reduce this dependency and the soon-to-be-launched Mauritius Renewable Energies Agency will also promote more renewable sources. ■

Nasseem Ackbarally

More information:
<http://tinyurl.com/q674u8w>

BIOGAS POWER

Getting connected

Africa’s first on-grid biogas plant has begun operation in Kenya’s rift valley. Up to 2.2 MW of power will be produced using 50,000 t of crop residue annually, a process which will generate 35,000 t of natural fertiliser. Up to 6,000 rural homes in Kenya will benefit from the power. This project will reduce up to 7,000 t of carbon emissions per year.

REDUCING DEFORESTATION

Converting waste into paper

Sugar companies in western Kenya are diversifying their activities by making paper. Companies are currently selling 150 t of paper and are aiming to buy 470,000 t of sugarcane waste from farmers for processing into paper. The initiative has reduced illegal logging and deforestation in the area as many sugarcane farmers now sell additional waste and extra jobs are created.

WATER

Reducing losses by remote control

A new remote control system has enabled the company Águas de Ponta Preta, on the Cape Verdean island of Sal, to reduce water and energy losses by more than 20%. Combating losses is one of the major challenges to the sustainability of Cape Verde’s water and energy supply systems, where losses from networks currently exceed 30% in the archipelago as a whole.

CLIMATE CHANGE

Positive impact on bananas

Climate change will have a positive impact on the cultivation of the world’s most consumed fruit: bananas. Land suitable for growing bananas will increase by 50% as rising temperatures provide more conducive conditions in sub-tropical and tropical regions, according to Bioversity International.



The carbon-footprint calculator can measure the impact of individual behaviour changes, in transport for example, on emissions

CONTRACT FARMING

Increasing incomes

Businesses are able to control quality whilst providing farmers with good inputs and a ready market - thereby increasing farmers' productivity. In Alayide village, southwest Nigeria, 500 cassava farmers' total annual income has increased 96% to €225,000 because of direct contracts with the company Psaltery International, which produces food-grade starch and high quality cassava flour.

WILD FRUITS

Adding value

37,000 farmers in Kenya's drylands are increasing their incomes from juice, jam and wine extracted from edible wild fruits. Products from baobab, *tamarindus indica* and *vitex payos* tree species are now being sold in supermarkets after receiving quality certification from Kenya's Bureau of Standards.

SERICULTURE

A growth sector

In Rwanda around 100 women groups in 15 different regions have increased incomes as a result of the country's drive to establish a modern sericulture industry. The initiative focuses on rearing silkworms and distributing seeds and plants, such as mulberries, to feed them. Rwandan silk is now exported to Canada, India and the US.

STANDARDS

Responsible sector

In Uganda, the horticultural sector will stop exports to Europe as a precautionary measure to improve traceability to comply with European standards; and to carry out an evaluation of its agricultural companies. The cost of these measures is an estimated €63 million. Agricultural exports from Kampala to Europe are around €731 million.

MARKET ACCESS

SMEs complying with standards

Adhering to food safety and plant protection standards is vital for any company exporting agricultural and food products to the European market. As part of the 10th European Development Fund, the EU has been helping SMEs in Benin to improve the quality of their products since 2012.

Whilst global agriculture protection rates are falling; non-tariff measures are on the rise, such as food safety, plant protection, technical standards and certificates of conformity. These new measures are the main trade barrier for ACP countries.

Following the termination of prawn exports to the European market in 2002 owing to non-conformity with EU regulations, Benin's government decided to establish the Benin National Food Safety Agency (ABSSA) and a laboratory to check food safety (LCSSA).

Since 2012, an EU project in partnership with the Belgium Development Agency, has improved food safety and increased plant protection of agricultural and food products in Benin. A five-year €2.8 million initiative, the project's goal is to support the government and SMEs in improving the quality of food products, enhancing access to international markets, and safeguarding consumer health.

At the halfway point, the project has achieved impressive results in the private sector. Around 50 SMEs have drawn up their own food safety plans and 11 large companies have obtained Hazard Analysis and Critical Control Points certification - the main international legislation focusing on production in the agro-food industry, including all stakeholders and enabling optimal management of food safety issues.

Furthermore, 90 women's groups were trained in best hygiene practices in Benin. Awareness-raising campaigns about food safety have also been effective in local communities with information broadcast on national TV and community radio stations. A programme to train and monitor ABSSA control staff has been set up and the LCSSA has been strengthened as a result. ■

Anne Guillaume-Gentil



New global non-tariff measures, such as food safety and technical standards, are the main barrier for ACP countries



© Getty Images/C. Somodevilla

President Obama at a reception celebrating the reauthorisation of the African Growth and Opportunity Act

US MARKETS

African agreement renewed

The African Growth and Opportunity Act (AGOA), which gives sub-Saharan African nations preferential access to US markets, has been renewed for another 10 years. Beneficiary countries have warmly welcomed this decision.

This June, American President Barack Obama renewed the African Growth and Opportunity Act (AGOA) until 2025, following favourable votes from the US Congress and Senate. Enacted in 2000 during the Clinton administration, the act gives African nations duty-free access to the US market for approximately 7,000 product tariff lines.

To date, 39 of 49 sub-Saharan African countries are profiting from AGOA. In order to be eligible, each country must comply with a set of requirements regarding governance, labour standards and human rights.

According to a study carried out in April 2015 by the US Congressional Research Service, imports from the AGOA beneficiary countries account for only 1% of US total imports. Imported items mainly consist of hydrocarbon (67% of total imports in 2014), textile products – mostly from Kenya, Lesotho and Mauritius – and vehicles, primarily made in South Africa.

For agriculture and agribusiness, AGOA is showing weak results. According to a study conducted in 2012 by the Brookings Institution, agricultural products account for less than 1% of the AGOA exports (mainly citrus fruits, cocoa and wine). This poor trade is due to quotas set out prior to 2000 and the high level of custom duties on some items such as cocoa, cotton, dairy products and sugar. Furthermore, in some cases, it is difficult for beneficiary countries and their products to comply with US phytosanitary standards.

The chairwoman of the African Union Commission, Nkosazana Dlamini-Zuma, was glad to hear the news of the renewal of AGOA, which has created more than 1.5 million jobs all over the continent. ■

Anne Guillaume-Gentil

TRADING

Ghana Commodity Exchange launched

The Ghana Commodity Exchange (GCX) was launched at the end of June and will become fully operational in 2016. Based on warehouse receipts, the GCX will enable the standardisation of products, helping to market them whilst reducing losses. It will start with trading maize, rice, beans and groundnuts.

AFRICAN COTTON

Hits the heights

The initiative Cotton made in Africa (CimA), launched in 2006, is based on the principle of helping through trade by integrating sustainable cotton into the textile sector. CimA is now working with 10 African countries and 650,000 small producers whose incomes have increased by 20%. In 10 years, 100 million pieces of clothing have been labelled CimA.

LIVESTOCK

Upgraded facilities

New processing and refrigerated warehouse facilities at the Etoudi cattle market in Yaoundé will provide up to 5,000 jobs by 2016. Similar facilities are to be built at three other sites in Cameroon to help meet increasing demand for livestock products across the Central African region.

COMMODITY EXCHANGE

An effective market platform

Since 2013, the Auction Holdings Commodity Exchange (AHCX) in Malawi has interacted with over 10,000 farmers offering warehouse receipt financing and storage facilities. ACHX now has 12 warehouses, as well as a number of community warehouses to help store commodities during the peak season.

SEAFOOD

Farming giant clams

An initiative in Palau is providing farmers with seedlings to culture giant clams to access ornamental trade export markets (e.g. China and the US). The next step is to gain certification for exporting clams as a food delicacy. Clam farmers are currently earning up to €5,500 a year.

FISHERIES

Local processing replaces exports

Tuna caught in the Cape Verde archipelago is helping to improve the lives of local fishermen and increase the turnover of the country's companies thanks to the change from export to local processing. A new tuna loin production line has created 420 direct and 1,600 indirect new jobs and increased the turnover of Frescomar, the company responsible for the investment, by €10 million a year.

LOBSTER

Protecting local species and ecosystems

A set of fishing standards has been agreed by 17 Caribbean countries to manage and conserve the local Caribbean spiny lobster species, following scientific evidence of its decline. Lobster plays a critical role in maintaining the ecological balance of the coral reef ecosystem and other marine life.

FISH FARMING

Farmers converting backyards into ponds

Smallholders in Malawi and Zimbabwe are increasing incomes from sustainable, environmentally-friendly 'backyard' fishing. Faced with nutritional deficits, over 30,000 people in Malawi and 20,000 in Zimbabwe have turned to fish farming even in towns and cities to complement their diets.



A fishing vessel suspected of illegal fishing in Ghana

ILLEGAL FISHING

A collaborative approach

Cutting edge satellite technology is being used to track down and act against illegal fishing vessels. Seven African countries are working together, as part of FISH-i Africa, to share information and resources for an effective, collaborative approach to eradicate illegal fishing.

Momentum is gathering in the fight against illegal, unreported and unregulated (IUU) fishing, which is estimated to cost between €9 billion and €21 billion to the global economy. In 2015, over half of the required 25 countries have ratified an international agreement to combat IUU fishing. FAO has also convened a series of workshops in West Africa, which loses an estimated €1.2 billion annually, to assist countries in implementing the agreement. A new initiative by the EU, Who Fishes Far, is a fishing transparency website identifying EU vessels authorised to fish outside the EU. This information ensures greater accountability and closes loopholes that enable IUU fishing.

IUU fishing is a huge problem in the West Indian Ocean; threatening not only the marine environment, but food security in the region, employment, and vital revenue for governments. As home to the world's second largest tuna fishery, the area has

been a target area for illegal fishers keen to profit from weaknesses in regional protection systems. As many as one in four fish are caught illegally.

Seven African coastal countries at the forefront of efforts to stop large-scale illegal fishing are Comoros, Kenya, Madagascar, Mauritius, Mozambique, the Seychelles and Tanzania, pooling together resources for surveillance, information-sharing and intelligence under an innovative network known as FISH-i Africa, supported by the Stop Illegal Fishing working group, the New Partnership for Africa's Development, the Pew Charitable Trusts and Nordenfeldtske Development Services.

The innovative initiative is making it increasingly difficult for vessels to profit from illegal fishing. FISH-i Africa uses an advanced tracking system to gather information on vessel licensing, movements and suspected illegal activities, which enables countries to build evidence and take action against illegal operators.

The successes to date are impressive; over €2.75 million in fines have been successfully collected. Notorious illegal fishing operators have had their licenses and port access denied. Those operating under false licences or identities have also been exposed and charged. Wallace Cosgrow, the Seychelles minister of Fisheries and Agriculture, hopes that in the future a global network of regional FISH-i initiatives will ensure illegal fishing is no longer an option. However, there is still a long way to go in safeguarding coastal livelihoods, global fish stocks and marine environments. ■

Jessica Summers

CHILD MALNUTRITION

Confronting the roots of the problem

In Madagascar, providing free healthcare and nutritional services for mothers and children for 18 months is significantly reducing chronic child malnutrition.

The first thousand days of a child's life are crucial in the fight against child malnutrition. The National Nutrition Office (ONN) is striving to reduce chronic child malnutrition in Madagascar, which regularly affects as many as one in two children. Nutrition is often unbalanced from 6 months old; in 2012, there were 1.3 million children under the age of 5 suffering from chronic malnutrition. Mothers are also affected; malnutrition is the leading cause of death amongst pregnant women.

To tackle this, a project has been launched by the Ministry of Public Health and the

ONN in collaboration with the World Food Programme and the United Nations Population Fund. The initiative provides mothers and children under the age of two, with free healthcare and nutritional services for 18 months. This includes: prenatal and postnatal consultations; childbirth at a healthcare centre; monitoring of growth; nutritional education; and distributing nutritional supplements.

Within a few years, the prevalence of chronic malnutrition has fallen from 56% to 53.2%; severe malnutrition from 12% to 5.5%; whilst low weight-for-age has dropped from 47% to 34% amongst children under 5 years.

However, with a poverty rate of over 90%, almost 22% of households rely on one meal a day. The situation is worse in rural areas – a third of the rural population is affected by food insecurity owing to a lack of financial resources. To address this, the ONN joined Scaling up Nutrition, a global movement which brings together 55 countries working together to eliminate any form of malnutrition based on the principle that everyone is entitled to food and proper nutrition. ■

Mamy Andriantiana



In Madagascar, an initiative is providing mothers and children under 2 with nutritional services

RAISING AWARENESS

Organic gardening in school

Primary schools in Mauritius are teaching pupils aged 6 to 12 about organic gardening. Children are learning about nature, plants, soil, and fauna and flora. Children make their own compost and grow organic vegetables using containers, seeds and agricultural tools provided free of charge.

SWEET POTATO

Improving childhood health

Research has found that children who had eaten orange sweet potato the previous week were 42% less likely to contract diarrhoea. This increased to 52% for children below three years old. For children below five years, already diagnosed with diarrhoea, the illness duration was reduced by 10% and over 25% for children below three years of age.

POLICIES

Reducing hunger awards

The FAO has presented awards to Angola and Mozambique, among 72 countries that have halved the number of citizens affected by hunger in 25 years by introducing new policies. At the beginning of the 1990s, hunger in Angola affected 60% of the population. Today this figure has fallen to 14%. Mozambique has seen the number fall from 56% to 25% over the same period.

BLUE FLAGS

Targeting tsetse flies

Small blue cloth flags dipped in insecticide have reduced tsetse flies by 90% and as a result "African sleeping sickness" prevalence in northern Uganda. The blue colour attracts and kills the flies, which carry the disease parasite *Trypanosoma brucei*. Researchers estimate 1 year's blue-flag vector control costs approximately €36,600, whereas screening programmes (screening cattle and serological tests) cost around €368,400.

HYBRID MAIZE

Maize Lethal Necrosis

Four hybrid maize varieties tolerant to Maize Lethal Necrosis (MLN) have been released by the Kenya Agricultural and Livestock Research Organisation. Over 14 million t of maize is grown in Eastern Africa. MLN is the most lethal of all maize diseases, affecting crop in Democratic Republic of Congo, Ethiopia, Kenya, Rwanda, Tanzania, South Sudan and Uganda.

PRODUCTION BOOST

Lab focusing on local vegetables

The Vegetables Innovation Laboratory is a regional research lab specialised in vegetables, launched at the end of June in Ghana by the West Africa Centre for Crop Improvement. The lab aims to boost vegetable production especially through genetic improvement, quality control and processing.

WEAVER ANTS

Boosting cashew yields in Benin

Research in Benin has shown cashew nut trees patrolled by weaver ants produce between 78% and 151% more harvestable cashew nuts than ant-free trees. According to the 2-year Danish-funded study, the ants provided protection against pests, increasing yields by 151% on plants with ants that were sprayed with pesticide.

ECOLOGICAL

Rice variety

Chuanxin Sun, a researcher at the Swedish University of Agricultural Sciences, has developed a new genetically modified rice variety, SUSIBA2, that reduces methane fluxes while increasing productivity. This is an important innovation as rice paddies currently produce 7-17% of atmospheric methane.

See more: <http://tinyurl.com/oqq5p43>

These pages were produced with contributions from: **N Ackbarally** (Mauritius), **O Alawode** (Nigeria), **M Andriatiana** (Madagascar), **B Bafana** (Zimbabwe), **B H Carreon** (Palau), **A Carvalho Santos** (Cabo Verde), **G Kamadi** (Kenya), **J Karuga** (Kenya), **M Makoni** (South Africa), **C Mkoka** (Malawi), **C Muasya** (Kenya), **C Njeru** (Kenya), **S Norte** (Moçambique), **E Ntungwe** (Cameroon), **M Waruru** (Kenya)

ADAPTATION

Climate-resilient crops

Global warming is placing unprecedented pressure on food producers, particularly smallholders reliant on traditional crops under threat from changing environmental conditions. Researchers are developing new climate-resilient crop varieties – but are these a realistic solution for smallholders?

International plant breeders at CIAT have developed 30 new heat-resistant bean varieties for rising temperatures in Africa and other developing countries to help overcome predictions that, by 2050, climate change could reduce areas suitable for growing beans by 50% (see Spore 177, *Drought-resistant beans*). Generally, bean yields start to falter when temperatures exceed 19°C but the new varieties remain productive even when night-time temperatures exceed 22°C.

To help overcome climate-related challenges in rice growing ecosystems, the International Rice Research Institute and partners also announced in early 2015 the release of 28 new rice varieties

with high-yielding and stress-tolerance traits to help farmers maintain yields. New varieties include salinity-tolerant rice for Gambia, cold-tolerant rice for Mali and Senegal, and iron-tolerant rice for Burkina Faso, Ghana and Guinea.

According to recent findings by the International Crops Research for Semi-Arid Tropics, hybrid crop varieties perform two times better under heat and water stress than ordinary crops.

However, despite the clear potential of hybrid varieties, there is a need for context- and local-specific climate change adaptation solutions. For staple food crops in the South, hybrids may place a strain on smallholders' resources and be difficult to cultivate under increasingly unpredictable weather conditions. For example, in maize-growing regions in Kenya and Mozambique, farmers are rejecting new hybrid maize varieties in favour of existing traditional varieties due to insufficient rainfall and the difficulty of obtaining the necessary inputs for growing hybrid seed.

Farmers also preferred the taste of traditional maize and the ability to generate their own seed rather than having to buy new hybrid seed each season. If research is to develop further climate-resilient crops, distribution systems and access to inputs must also be viable for smallholders and farmer preferences for specific crop qualities taken into account. ■

Munya Makoni and Maina Waruru



28 new rice varieties have been introduced to overcome climate-related challenges in rice growing ecosystems

Regional trade deals are a first step towards linking up agricultural markets – but only a first step. Not just an easy alternative to global trade, the regional approach depends on agribusiness and infrastructure that works.

REGIONAL TRADE

The customers next door



© M Colantoni

17 | VIEWPOINT
Ousmane Badiane:
Africa's increasing
competitiveness

18 | FIELD REPORT FROM FIJI
Regional trade takes root

After the creation of Africa's largest open market, the Tripartite Free Trade Area (TFTA) in 2015, hopes are high for the mutual benefits of regional agricultural trade. Yet, in all ACP regions, regional trade policy is slow to translate into implementation, and implementation is even slower to translate into increased regional trade. While 70% of exports in Europe are between the region's countries, and 50% of those in developing Asia, regional trade is only 11% in Africa, 20% in Latin America and the Caribbean and less than 4% in the island countries of Oceania. Clearly, a lot needs to happen beyond the agreements, including real engagement with agribusinesses and their needs.

The TFTA, agreed in Sharm el-Sheikh in June 2015, was also launched simultaneously at the African Union Summit in Johannesburg. This was fitting, as Egypt and South Africa represent the northern and southern limits of the trade area and its two largest economies.

The TFTA will combine the continent's three largest regional economic communities – the East African Community (EAC), the Southern African Development Community and the Common Market for Eastern and Southern Africa – into an integrated market of 600 million people and €1 trillion in production. The architects hope that the effect of the TFTA will be to push intra-regional trade up to 30% of African exports (from 11%). Nevertheless, 26 African parliaments still have to approve the agreement individually, and they won't necessarily be convinced by this promising forecast. Along with two of Africa's richest countries the TFTA area contains some of its poorest, where small local economies with little to export may not be eager to open up to more competition. However, at the Johannesburg summit, AU heads of state also launched ambitious negotiations on a Continental Free Trade Area, which aims to launch in just two years, despite bringing together more than twice as many countries as the TFTA. The UN Economic



Borderless alliance

West Africa's traders face some of the highest transport costs in the world. To advocate for all those suffering from border checkpoint costs, taxes, delays, and the occasional bribe, the Borderless Alliance has, since 2011, been working with 79 private-sector members along the region's supply chains, including farmers, traders, freight forwarders and port authorities.

Working with the USAID West Africa Trade Hub, the Alliance has established information centres

at six border posts to advise stakeholders on regional agreements that, while introduced to streamline procedures, were not well understood. Clearance at these posts has sped up by 27% on average.

The Alliance has also pursued transport inefficiencies. In 2015, it secured a directive from Ghanaian police to prohibit stopping trucks along the Tema-Paga Corridor, and arranged trucking professionalisation workshops in Ghana and Mali.

Agribusiness will play a pivotal role in shaping regional trade which is now only 11% in Africa, compared to 70% in Europe and 50% in developing Asia



© G Guerria

Commission for Africa predicts that such a deal would speed up growth of intra-African trade by 52% in just a few years – if aided, crucially, by improvements in infrastructure and other trade bottlenecks.

United on paper

In the Caribbean, free intra-regional trade already exists through CARICOM's common market, which began in the 1960s with CARICOM's predecessor, the Caribbean Free Trade Association. In the Pacific, after a 1990s agreement between Fiji, Papua New Guinea, Solomon Islands and Vanuatu, a more expansive Pacific Island Countries Trade Agreement was signed by 14 states in 2001. But thus far, only six of these countries have announced readiness to trade under the deal, and

A taste of success

For agribusiness companies in small island states, achieving economies of scale is a constraint to cost-effective regional trade. But a more limiting factor is infrequent shipping or air freight. To overcome these challenges, Baron Foods Limited, a Caribbean business established in 1991 and now producing over 150 award-winning gourmet condiments, sauces and beverages has plants in St Lucia and Grenada and is currently establishing a hub in Trinidad for regional and global markets. The company currently exports not only to markets worldwide but also to all Caribbean islands; 45% of annual sales of over €55 million are within the region. "Trinidad has the advantage of economies of scale. The cost of production is expected to be lower in the long-term and there are more shipping lines providing greater opportunities for trade," says the company's executive director, Chris Persaud.

the impact is not easily visible. The same sluggish follow-through can be seen across Africa's 14 overlapping trading blocs, which trace their lineage back more than a century.

The Southern African Customs Union, still in existence, was the world's first such group. Currently, the EAC appears to be the front-runner in regional integration. Since its revival in 2000, it has rapidly worked towards a common market (now achieved), monetary union (on the horizon) and even full federation (perhaps more distant). Member state Rwanda, in particular, is sourcing 60% of its food imports regionally.

Yet even in nominally integrated regions, there is much to hamper the real implementation of agreements. Governments are concerned about giving up sovereignty and revenue, stretched between membership in multiple groups (most African countries belong to at least two), and increasingly concerned that free trade could generate losers as well as winners. Meanwhile agricultural trade – most of it small-scale and informal – is still a tricky business. Differences in quality standards and trade policies persist; crossing borders and clearing customs remains slow and perilous; and production levels of in-demand crops don't necessarily provide what the market wants. Regional trade will only flow if countries produce things their neighbours need and want things their neighbours grow. This is a challenge in the Pacific, where islands share production of a limited set of agricultural products and import everything else from distant lands. Limitations are also apparent in Africa, where exports are concentrated in a small number of products.

Agribusiness with a regional flavour

Ventures and initiatives to catalyse markets are proliferating across ACP regions, bringing potential ►

DOSSIER

► to fill regional niches. Agribusiness will play a prominent role in shaping regional markets and given the currently small scale of regional trade and the number of even smaller unfilled niches, this is an area where targeted investment can go a long way.

For example, in March 2015, the Africa Trade Fund approved €1.25 million for trade development projects that will start with honey in Zambia and cashew in several other countries. The fund picked these products for their potential in global value chains – but also for their potential for trade within Africa. In fact, the category of sugar, molasses and honey holds the single largest share of intra-African food trade. The funds will help Zambian producers and traders upgrade from bulk to table-ready honey, promising more value from the coming TFTA.

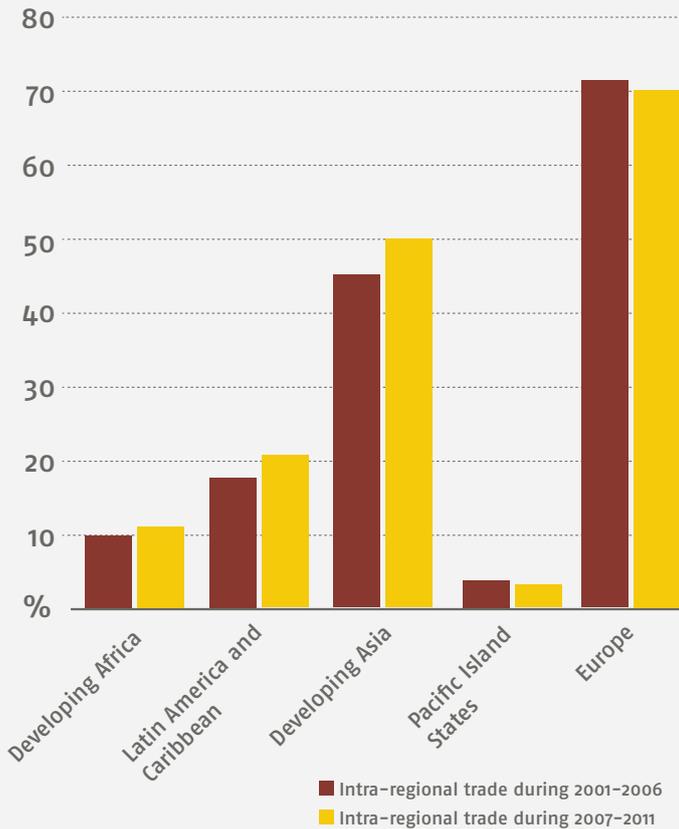
Fiji's new wave of agribusiness is also bringing the country's products to its neighbours. Kaiming Agro Processing Limited, engaged in exporting processed ginger products to Australia, New Zealand and the United States (see Field Report, *Regional trade takes root*), is also shipping root crops to other Pacific Island states. It is joined in this venture by the Rotuma Export Marketing Company (REMCOL), set up by Fiji's Prime



Regional trade will only flow if countries produce commodities their neighbours need and want commodities their neighbours grow

INTRA-REGIONAL TRADE WORLDWIDE

Despite its enormous potential to create employment, catalyse investment and foster growth in Africa and Pacific Island States, intra-regional trade remains lowest in these regions at around 11% and 3% respectively, compared to 70% in Europe. However, the importance of intra-African trade varies significantly between national economies.



COMPARING AFRICA'S COMPETITIVENESS IN PRODUCTION AND TRADE

Limiting factors to boosting Africa's trade include road density, internet penetration and use, electricity production and transaction costs. To date, approaches to regional integration on the continent have focused more on the elimination of trade barriers and less on the development of the productive capacities necessary for trade.



ROAD DENSITY

7.2 km per 100 km² of arable land in Africa compared to 127 km per 100 km² outside of Africa.



INTERNET PENETRATION

3% in Africa compared to 14% global average.



ELECTRICITY PRODUCTION

398 MW per million people in Africa compared to 2,475 MW per million people outside of Africa.



TRANSACTION COSTS

€0.10 in Central Africa compared to €0.04 in Western Europe and €0.02 in Pakistan.

Minister to bring taro, sweet potatoes and cassava from Rotuma Island to the relatively nearby Tuvalu. In May 2015, REMCOL transported the first shipment since an earlier bilateral trade agreement broke down in 2011, raising hopes for sustained trade.

Pacific producers could also increase their trade if they tapped into tourism-related markets. Tourism's share of GDP in the Pacific Islands is growing by around 3.5% a year, but the demanding industry still imports up to 80% of its food. The first Agribusiness Forum on Linking the agrifood sector to tourism-related markets, organised by CTA, the Pacific Islands Private Sector Organisation and the Secretariat of Pacific Community (SPC) in July 2015 in Nadi, Fiji, aimed to reverse this trend. One big success story, Fiji Crab, has grown in four years to supply 2,000 crabs per month to Fijian hotels and restaurants and is looking for more customers across the region.

Similar successes could multiply if sectors drew closer together. "In many cases, the problems we face can be resolved through better communication between buyers and sellers in the agriculture and tourism sectors," says Ken Cokanasiga, deputy director of the Land Resources Division of SPC. And importantly, it is more than just tourism: "The promotion of local food is also linked to showcasing healthy food choices and increasing regional trade."

Roads, rails and handshakes

In Africa, border controls, road blocks and the roads themselves hold back regional trade. A study in 2005 showed that the eight countries of the West African Economic and Monetary Union – already well integrated and sharing a common currency – could increase their mutual trade threefold simply by paving all connecting roads.

Rail is another option, and it is encouraging that Benin and Niger recently agreed to a €1bn deal for a 2,800 km rail network linking them together via Côte d'Ivoire and Burkina Faso.

The lesson from recent agricultural trade experiences within Africa, the Caribbean and the Pacific is that developing regional trade is not necessarily cheaper, quicker or safer than engaging with global markets. Success is achieved where coordination is strong – between all of the region's nations; between agriculture, trade and tourism; and between deal-makers and the public sector. Agribusinesses looking to 'go regional' need to be included in the coordination, but credit facilities and financial support for producing and transporting goods is key.

Large trade areas with diverse economies, like the TFTA, are likely to face opposition from smaller and less developed economies unless financial commitments are made by wealthier partners for developing the necessary regional infrastructure. It is well understood that South Africa for example, with its high productive capacity, will benefit first from the deal. Some of the fruits of these benefits should be committed to building capacity in other countries so the region can prosper together. ■

T. Paul Cox

Viewpoint

Ousmane Badiane is the Africa Director for the International Food Policy Research Institute (IFPRI) and oversees the Africa regional offices in Addis Ababa and Dakar. He is also responsible for coordinating IFPRI's work in food policy research and policy communications in Africa.



Africa's increasing competitiveness

What do you think will be the impact of the changing trade environment and the continental and regional free trade agreement, in terms of intra-regional trade in Africa?

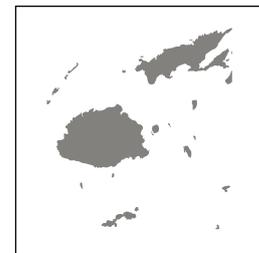
The trading environment has improved compared to the 80s and 90s but what hasn't changed much is the ease of crossing borders with merchandise: the harassment of traders and transporters, the myriad of controls, the conflicting regulations. Infrastructure is another issue that needs to be resolved. Beyond the intention expressed by heads of state in the 2014 Malabo Declaration on accelerating agricultural growth, action has to follow. If it does, the goal of tripling intra-African trade should be within reach.

Will these changes then generate meaningful growth and employment, in particular for local SMEs and for increased industrialisation?

Yes, work commissioned when I worked at the NEPAD secretariat projected regional demand for food staples to increase by an additional €92 billion between 2005 and 2030. Growth of the urban middle class creates opportunity for small-scale entrepreneurs processing cassava, maize, millet and sorghum based meals, and dairy. The way that people eat cassava or millet in West Africa, or maize meal in East and Southern Africa, is now totally different from what it used to be traditionally. It's now processed, packaged food at quite an advanced stage of processing and that creates an opportunity for small-scale entrepreneurs and indigenous industrialisation. There is an amazing level of energy out there that is just waiting to be unleashed.

Are there examples of resilient domestic food markets which have expanded in Africa?

Resilience and expansion are not necessarily related but if you want resilience to mean that markets have expanded despite the crisis we had in the past, then the answer is yes. If you look at all traded commodities regionally, they have increased quite a bit. Most staples have increased in terms of volumes traded, both domestic and across border, particularly millet, fruits and vegetables, cassava and maize. The one product that hasn't seen much progress is rice, particularly in West Africa where demand is met by imports from non-African sources and production has only increased timidly although this may change with the recent regional rice initiative.



Regional trade takes root

Whilst it is generally easier for Pacific Island companies to export to Australia and New Zealand than to neighbouring island states, Fiji-based Kaiming Agro Processing Limited (KAPL) has overcome technical and quality challenges to successfully trade cassava, ginger and taro to Kiribati and Tuvalu.

Established in 2005, KAPL launched its business in the semi-processing and export of ginger, helping to boost an ailing but once vibrant ginger industry in Fiji. With naturally fertile soils, pristine and regular high rainfall, Fiji produces some of the world's finest quality ginger due to its low

heavy metal content and lack of chemical residues. The nutritional and flavour attributes are also considered to be superior to ginger produced in Asia.

However, despite a demand for ginger in export markets, the revival of production was not without its challenges. "In the beginning, we only produced brined



ginger in an old lean-to shed,” says Calvin Kaiming Qui, owner and managing director of KAPL. “Lack of good quality equipment was a problem and regular supply of raw ginger, as well as good technical support and quality control.”

With Fiji’s ginger farmers struggling to make a living, the Ministry of Agriculture realised that it needed to step in and provide some assistance to the sector. At the same time, in 2009, the EU funded Facilitating Agricultural Commodity Trade (FACT) project was launched by the Secretariat of the Pacific community (SPC) to provide support for a variety of agribusinesses across the Pacific.

For KAPL, FACT was instrumental in supporting the procurement of second hand processing equipment worth around €68,000 from a ginger factory that was closing down. “With this set of equipment, a whole new processing line was set up. As soon as the equipment was installed, KAPL was able to start processing, train the workers, identify markets and broaden their contacts,” says Apiame Cegumalua, SPC export processing officer.

Keeping up with market demands

KAPL has continued to grow and expand its product lines. In October 2011, the first batch of crystallised ginger was produced and products now include ginger in syrup, sugar coated ginger, ginger puré and juice. Around 1,300 t of ginger are now processed and exported to Australia, New Zealand and the United States with 70% supplied by around 400 contracted growers and the balance bought from the open market.

Ninety staff are employed in the processing factory.

Despite this success, Qui knows that in order to keep the factory and products to international standards there is always much to do to keep up with the demands of the market. “We have to keep on upgrading our facilities, maintain and improve the quality, and to brand our products.”

With support from a follow-on EU programme, Increasing Agricultural Commodity Trade (IACT), KAPL acquired Hazard Analysis and Critical Control Points (HACCP) and ISO 22000 certification in 2012 in order to comply with food safety regulations in importing countries.

“Meeting these international standards helps benchmark our products in international markets and assures overseas buyers that our exported products are safe for consumption and are of high quality,” continues Qui. More recently, KAPL has also gained organic certification, which has opened up new markets for his organic ginger in Europe.

Pacific potential

As well as now producing a range of ginger products, KAPL also exports frozen taro and cassava to South Pacific island communities in Australia and New Zealand, as well as 40 t to Kiribati and Tuvalu. Potential to increase the amount of root crops exported to these islands exists but is dependent on shipping services becoming more regular. “At the moment, it seems to be easier for Pacific Island companies to export to Australia and New Zealand, than to a neighbouring Pacific Island. This is due to many factors, including higher freight costs, irregular shipping, poor port infrastructure for warehousing and refrigeration, as well as a limited number of distributors in many Pacific Island countries,” says Sally-Ann Hughes, SPC export marketing officer.

She continues that many Pacific countries produce the same type of products, which limits intra-regional trade. However, adding value to fresh produce makes it more attractive to consumers in other Pacific island markets. Processing also adds advantages for retail shelf life, for building up inventories in times of supply shortage, and for shipping larger volumes at lower prices. “Kaiming Agro has successfully branded its products and built consumer demand because the products are processed and packaged,” Hughes states. In the case of Kaiming Ginger, the fact that the company is able to offer processed ginger in many different forms (glace, crystallised, puree and juice) automatically differentiates it from the fresh ginger sold locally and makes it attractive to consumers in other Pacific Island markets.”

Qui is naturally proud of his achievements as an industry leader as well as appreciative of the support he has received to help revitalise the Fiji ginger industry. “I am proud to be part of a growing network of ginger farmers and by developing synergies with our regional as well as international partners, this should help to profile Pacific products to lucrative markets in the years ahead,” he concludes. ■

Ginger processing equipment enabled KAPL to expand its product lines, train workers, identify markets and broaden contracts



© Secretariat of the Pacific Community

A winning combination

Highly prized by communities in Central and West Africa, giant snails can also help combat malnutrition and poverty. Gathered only during the wet season, they are in short supply so farming these gastropods is becoming increasingly necessary.

Eating giant African snails, predominantly the *Achatina achatina* and *Archachatina marginata* species in Central and West Africa, has outstanding health benefits. They are rich in protein, low in fat and contain amino acids and iron. They also help to combat anaemia. With demand for snails generally outstripping supply, agricultural development, deforestation, slash-and-burn farming and over-harvesting are presenting an increasing threat to the wild population.

Development of farming

The development of small-scale giant snail farming is therefore beneficial in more ways than one. It can help combat malnutrition but also generates additional revenue for those practicing it, thus contributing to poverty reduction. A study carried out in Nigeria (Reducing poverty through snail farming in Nigeria by O. Mary Agbogidi and B.C. Okonta) has illustrated that snails not only contribute to diet but are also a significant source of income for farmers living in and close to rainforests. Collected in the wild during the rainy season, they are sold along roadsides and at rural and urban markets.

The study concludes that Nigeria would benefit from domesticating these gastropods to make them available year-round and to reduce prices. During the dry season when the snails hibernate, revenues generated from sales are 1.5 times higher than during the rainy season. Commercial



Small-scale giant snail farming is an important source of income for farmers

farming is still underdeveloped.

However, investment requirements are relatively low in terms of capital, equipment, labour and financing. Farming can be carried out outside houses as long as the snails are kept in a well-enclosed space; the only real restriction is that gastropods require a constant temperature and relatively high humidity.

These shelled creatures can cause significant damage to crops if they escape; as herbivores, they eat all kinds of leaves, fruit and roots. But these foodstuffs are much less costly than for other farmed animals, such as poultry.

Facilitating consumption

Fried, grilled, dried, buttered or cooked in stock, giant snails are found in many dishes and sauces throughout West Africa. While the shells can be sold in souvenir shops, when ground, they can be used as food for poultry. Professor Daniel Zongo from the Graduate School of Agronomy in Yamoussoukro in Côte d'Ivoire has developed a powder from snail flesh and shells.

Easily smoked or dried, the flesh can also be frozen or canned, which requires more

significant investment.

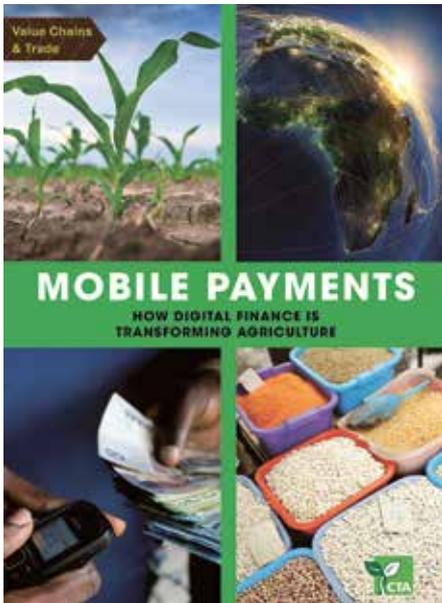
Angelo Beni from the company ODAS in Cotonou, Benin entered the sector in 2014: "The younger generations like snails but are often not familiar with how to prepare them and have less time than older people. Our aim is to ensure that snail meat is ready to use like any other kind of meat, to enable rapid cooking and to make it available in the frozen product aisles."

With an initial investment of 60 million CFA francs (around €92,000), the plant processes 800,000 snails per year which amounts to around 30 t of meat packaged in 300g and 500g sachets and 3kg cartons. ODAS buys the snails from a network of individual pickers, who gather them in the wild, and cooperatives practising snail farming throughout the sub-region. Today, ODAS primarily distributes its frozen products in Cotonou as well as small quantities in Nigeria and Togo.

The company eventually plans to expand throughout the entire sub-region. Giant snails are a resource for the future if they can be successfully protected through farming. ■

Anne Guillaume-Gentil

Digital finance



Mobile Payments: How Digital Finance is Transforming Agriculture

By L H Babcock
CTA, 2015; 53 pp.
ISBN 978-92-9081-584-6
CTA No. **1849**
10 credit points
Downloadable as a PDF file from:
<http://tinyurl.com/ndk2l3v>

@ This insightful report looks at the role that digital finance can play in providing a more cost-effective and secure method for financial transactions in the agricultural sector, particularly for rural smallholders. For many developing countries, agriculture plays a major role in the economy, with numerous cash transactions taking place throughout the farm-to-fork agriculture value chain. Prior to the 2014 Fin4Ag – Revolutionising finance for agri-value chains international conference, CTA commissioned a study to explore the role of digital and mobile payments in ACP agriculture. *Mobile payments: How digital finance is transforming agriculture* is the culmination

of that research, focusing on three mobile payments for crop income initiatives that sought to transition the cash payments of large commodity buyers to smallholder farmers using mobile payments. The three featured African case studies are: Rice Mobile Finance from Ghana, SmartMoney from Uganda, and NWK Agri-Services from Zambia. In each case, farmers perceived four barriers to rolling out digital crop income payment schemes in rural areas: illiteracy, financial and digital illiteracy and lack of trust. This report outlines three steps to expand the usage of mobile finance by farmers: case usage behaviour research, strategic alliance formation, and embedded mobile finance. The report argues these steps will reduce safety risks for rural farmers, removing the need to carry large amounts of cash. Farmers' productivity will also increase as payments go directly to farmers' mobile wallets, saving time spent travelling to collect or deposit cash. In transitioning to digital finance, rural farmers will access the security of the formal economy rather than the non-transparent, cash-based economy.

Eating insects



Edible Insects in Africa: An Introduction to Finding, Using and Eating Insects
Edited by J Cloutier
Agromisa Foundation and CTA, 2015; 84 pp.
ISBN 978-92-9081-577-8
CTA No. **1846**
5 credit points
Downloadable as a PDF file from:
<http://tinyurl.com/okuzgbq>

@ This practical Agrodok presents a compelling case for 'entomophagy' or eating insects as a contribution to food and nutritional security. The idea that insects, a high-protein food source, can be eaten by humans is not a new concept. In fact according to the authors, edible insects are a common ingredient in traditional dishes in many parts of Africa, a continent with more than 250 potentially edible insect species. As the world's population continues to grow, there is a renewed interest in the use of insects as human food in response to growing demand for meat. This book explores the anatomy and life cycles of insects; how they can provide good quality animal protein; and when and how to cook and eat them. This Agrodok shows where to find, and how to collect and prepare 10 different insect species from five groups: caterpillars, beetles, termites, grasshoppers and crickets. Clear and persuasive, the argument that insects as food also provide extra income and are environmentally less damaging than conventional meat is convincing.

▼ Accessing knowledge

@ Free access to high quality data is vitally important for agriculture. The latest edition of ICT4Ag explores how ICTs are used to intensify the use of knowledge through 'open data'. Innovations highlighted include participatory 3D modelling, a water productivity model, mobile platforms that connect farmers to buyers, and an application that promotes access to credit and financial services.

ICT4Ag: Data Revolution for Agriculture

By CTA
CTA, 2015; 24 pp.
CTA no. **ICT079E**
Downloadable as a PDF file from:
<http://tinyurl.com/pgvdcun>

▼ Value chains

@ Although half of all global fish exports originate in developing countries, relations between different stakeholders within the small-scale fisheries sector are often strained and progress from 'hook to cook' has languished. This report maps the complex system of policy, legislation and practice that often constrain small-scale fishers and identifies how ICTs could be used to rejuvenate the sector.

Rejuvenating ACP Small-Scale Fisheries Using ICTs

By K I Mallalieu
CTA, 2015; 52 pp.
CTA no. **1850**
Downloadable as a PDF file from:
<http://tinyurl.com/q84eefv>

▼ MDGs

This annual report specifically focuses on achieving Millennium Development Goal and World Food Summit hunger targets. Progress is assessed for every country and region by reviewing hunger and the prevalence of underweight children under 5 years of age. The report identifies remaining problems and suggests which policies should be implemented to eradicate hunger and achieve food security.

The State of Food Insecurity in the World 2015

By FAO, IFAD & WFP
FAO, 2015; 61 pp.
ISBN 978-92-5108-785-5
Downloadable as a PDF file from:
<http://tinyurl.com/ply4l72>

Pioneering progress



2014 – A Year in Review: Realising the Promise of Agriculture
By CTA
CTA, 2015; 44 pp.
CTA No. **1845**
0 credit points
Downloadable as a PDF file from:
<http://tinyurl.com/orhvg19>

@ This review ties in CTA's numerous activities with key events and milestones throughout 2014 for smallholder agriculture. And 2014 certainly was a landmark year for smallholder agriculture and CTA alike. 2014 was the UN's International Year of Family Farming and the African Union's Year of Agriculture and Food Security, as well as CTA's 30th anniversary. Notable achievements at CTA include: the publication of 65 print and digital new books; the participation of 807 individuals from 81 countries in CTA's Fin4Ag conference in Nairobi, Kenya; 59% of participants in the 2014 Youth in Agriculture CTA competition found a job or had new professional opportunities after the competition; and eight hackathons were held in six Caribbean countries involving over 150 youth. Another highlight featured in the review is how participatory 3-D modelling, pioneered by CTA, has benefitted indigenous societies in ACP countries, enabling local communities to document the areas where they live and to influence the way decisions are made for land use and tenure.

▼ Policy

The 2010 Constitution of Kenya sought to address longstanding grievances over land by guaranteeing equitable access to it, transparent administration and the elimination of gender discrimination. This publication outlines how translating these principles into law failed, leaving Kenyans with incoherent land laws that threaten to perpetuate the country's land conflict, injustices and inequalities.

Whose Land is it Anyway? The Failure of Land Law Reform in Kenya

By A Manji
Africa Research Institute, 2015; 13 pp.
Downloadable as a PDF file from:
<http://tinyurl.com/ppn3gyk>

Land grabs



Africa's Land Rush
Edited by R Hall, I Scoones & D Tsikata
James Currey, 2015; 224 pp.
ISBN 978-1-84701-130-5
£19.99
James Currey
an imprint of Boydell & Brewer
Bridge Farm Business Park
Top Street
Martlesham IP12 4RB
Suffolk, UK

■ This eye-opening book sheds light on how Africa has been at the centre of a "land grab" in recent years, with investors lured by projections of rising food prices, growing demand for green energy, and cheap land and water rights. But what do corporate takeovers of community and state land mean for Africa? In what ways are rural people's lives and livelihoods being transformed as a result? And who will control its land and agricultural futures? Analytical and insightful case studies explore the processes through which land deals are being made; the implications for agrarian structure, rural livelihoods and food security; and the historical context of changing land uses, revealing that these land grabs may even resurrect forms of large-scale production associated with colonial eras. The book depicts the striking diversity of deals: white Zimbabwean farmers in northern Nigeria, Dutch and American joint ventures in Ghana, an Indian agricultural company in Ethiopia's hinterland, and European investors in Kenya's drylands.

▼ Investment

Developed for the Third International Conference on Financing for Development, this paper highlights 10 key pieces of information about financing climate change mitigation and adaptation. One point highlighted is the importance of protecting forests that contribute to people's income, health, food and energy security, and reduce vulnerability to climate change.

10 Things to Know About Climate Change and Financing for Development

By S Nakhoda & C Watson
ODI, 2015; 24 pp.
Downloadable as a PDF file from:
<http://tinyurl.com/nggs7sr>

Women's innovations



100 Under \$100: One Hundred Tools for Empowering Global Women
By B Teutsch
She Writes Press, 2015; 153 pp.
ISBN 978-1-63152-934-4
€16.60
She Writes Press
1563 Solano Ave #546
Berkeley, CA 94707
<http://shewritespress.com/>

■ An accessible 'toolbox' of clearly-explained innovations women in low-resource regions use in agriculture, nutrition, energy, sanitation, health and finance; Teutsch's comprehensive book demonstrates how "women are powerful agents of development." According to Teutsch, "investing in low-income girls and women is not just a moral imperative; it is excellent policy for poverty alleviation." Directed at lay audiences, the 100 entries are relatively affordable, replicable, end user-focused and have proven results. Sectors include subsistence farming, ICTS and financial inclusion. 100 Under \$100 also looks at women's innovations with environmental benefits, for example, replacing open-fire cooking with improved cookstoves. This easy-to-read book uses helpful colour-coded indicators and action-orientated notes at the bottom of each entry to highlight key points and guide readers to further information. The subsistence farming section is particularly relevant for Spore readers looking at agroforestry, beekeeping, climate-adapted crops and intercropping.

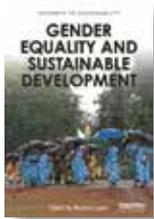
▼ Healthy and safe

Concerns about the safety of meat, milk, eggs and fish in developing countries reduces consumption of these nutritious foods and reduces market access for smallholders. This paper analyses a training, certification and branding scheme from the International Livestock Research Institute that is working to improve the safety of animal-source foods sold in informal markets.

How Will Training Traders Contribute to Improved Food Safety in Informal Markets for Meat and Milk?

By N L Johnson, J Mayne, D Grace et al.
IFPRI, 2015; 36 pp.
Downloadable as a PDF file from:
<http://tinyurl.com/qh5q0lq>

Recognising intersectionality



Gender Equality and Sustainable Development
 Edited by Melissa Leach
 Routledge, 2015; 209 pp.
 ISBN 978-1-138-92131-3
 £31.99 • €43.75
 Routledge
 2 Park Square,
 Milton Park
 Abingdon, Oxon
 OX14 4RN, UK
www.routledge.com

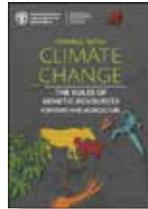
■ This important book highlights the vital interconnections between gender, environment and development. *Gender Equality and Sustainable Development* calls for policies, investments and initiatives in sustainable development that recognise women’s knowledge, agency and decision-making as fundamental. Four key sets of issues – work and industrial production; population and reproduction; food and agriculture, and water, sanitation and energy provide focal lenses through which these challenges are considered. Perspectives from new feminist political ecology and economy are integrated, alongside issues of rights, relations and power. The book untangles the complex interactions between different dimensions of gender relations and of sustainability, and explores how policy and activism can build synergies between them. Finally, this book demonstrates how plural pathways are possible; underpinned by different narratives about gender and sustainability, and how the choices between these are ultimately political.

▼ Cooperation

Markets are central to agriculture and rural development but making them work for the poor is a challenge. This research focuses on examples from Ghana (maize), Indonesia (cocoa), Rwanda (tea) and Uganda (oil palm) to understand how public-private-producer partnerships in agricultural value chains can be designed and implemented to achieve sustainable increases in income for smallholder farmers.

Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains
 By J Thorpe & M Maestre
 IDS & IFAD, 2015; 52 pp.
 Downloadable as PDF file from:
<http://tinyurl.com/nuythrz>

Genetic resources



Coping with Climate Change: The Roles of Genetic Resources for Food and Agriculture
 By FAO
 FAO, 2015; 130 pp.
 ISBN 978-92-5-108441-0
 Downloadable as a pdf file from:
<http://www.fao.org/3/a-i3866e.pdf>

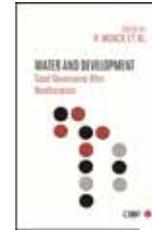
■ This publication summarises the results of thematic studies on the interactions between climate change and plant, animal, forest, aquatic, invertebrate and micro-organism genetic resources. The book looks at the crucial role that genetic resources for food and agriculture play in food security, nutrition and livelihoods, and in the provision of environmental services. It argues that genetic resources are key components of sustainability, resilience and adaptability in production systems; underpinning the ability of crops, livestock, aquatic organisms and forests to withstand a range of harsh climatic conditions. The authors argue that although climate change poses new challenges to the management of the world’s genetic resources for food and agriculture, it also underlines their importance in coping with changing climates. This publication argues for the conservation and proper use of genetic resources. The authors recognise that change is inevitable, and there is a need to monitor trends and adapt accordingly.

▼ Biodiversity

With more than 6,000 documented species, East Africa’s coastal habitats host diverse marine biodiversity. From river deltas and mangrove forests, to coral reefs and small-scale fisheries, this paper describes the complexity of coastal systems and their human populations in Kenya, Mozambique and Tanzania to stimulate effective strategies that enhance the resilience of marine and coastal systems and reduce coastal poverty.

Resilience of Coastal Systems and their Human Partners
 By M Samoilys, M Pabari & T Andrew
 IUCN/ESARO/WIOMSA/CORDIO/UNEP Nairobi Convention,
 2015; 74 pp
 ISBN 978-28-3171-724-1
 Downloadable as PDF file from:
<http://tinyurl.com/poz7b8k>

Sustainable management



Water and Development: Good Governance after Neoliberalism
 By R Munck, N Asingwire,
 H Fagan & C Kabonesa
 Zed Books, 2015; 288 pp.
 ISBN 978-1-78360-492-0
 £24.99 • €34
 Zed Books
 7 Cynthia Street
 London
 N1 9JF, UK

■ As an underlying enabler for many of the MDGs, sustainable development cannot be achieved without free access to potable water. From this standpoint, this publication critically examines the Integrated Water Resource Management framework as part of the wider debates around water, development and ‘good governance’ from an African perspective. The authors argue that to secure sustainable water for all, governance must be inclusive and participatory. Positioning their research ‘after’ neoliberalism is an interesting angle for critiquing Western-centric ideas of water governance. Part One of the book brings to light colonial contexts and political histories of water. In Part Two, six case studies look in detail at specific examples from Africa, including gender perspectives. The third and final section looks beyond the MDGs and asks, “Can the water crisis for the poor finally be resolved?” The book argues that a post-MDG strategy must focus on achieving the historical target of universal access to water and improved sanitation; looking to strategise water initiatives to drive new rural and urban developments.

▼ Funding issues

Ending poverty and hunger by 2030 is possible, this report states. *Achieving Zero Hunger* estimates the cost of social protection required to enable the hungry to afford sufficient food and targeted pro-poor investments to stimulate and sustain rural growth of incomes and employment.

Achieving Zero Hunger: The Critical Role of Investments in Social Protection and Agriculture
 By FAO, IFAD & WFP
 FAO, 2015; 56 pp.
 ISBN 978-92-5108-818-0
 Downloadable as PDF file from:
<http://tinyurl.com/ndaa33j>

Offset approaches



Carbon Conflicts and Forest Landscapes in Africa
 Edited by M Leach & I Scoones
 Routledge, 2015; 230 pp.
 ISBN 978-1-138-82483-6
 £31.99 • €43.50
 For Routledge's address, see p23

■ This 'grounded' book looks at the reality of carbon offset approaches in Africa. Carbon offset schemes, mediated by carbon markets and facilitated by global climate finance have become increasingly popular, allowing carbon emissions in one part of the world (usually the industrialised north) to be offset by initiatives that reduce emissions in another region with plentiful forests and opportunities for carbon sequestration (such as Africa). However, the so-called 'win-win' scenario often unfolds differently in practice. This elucidating set of case studies from seven African countries looks in detail at what actually occurs when these projects arrive and subsequent consequences. What political and ecological dynamics are unleashed by these new forms of commodified, market-based approaches? Overall, this book makes a compelling case for the importance of taking into consideration local livelihoods and landscapes in the design and implementation of forest carbon projects; how and why carbon conflicts are emerging, and how they might be avoided in the future.

▼ Vibrant economies

Drylands are seen as areas that lack sufficient rainfall for plant growth but they provide 44% of the world's cultivated systems, 50% of the world's livestock and contain a variety of important habitats for vegetable species. This publication argues that improving agricultural productivity is possible by working with climate uncertainty, rather than seeking to control it.

Valuing Variability: New Perspectives on Climate Resilient Drylands Development
 By S Krätli
 IIED, 2015; 90 pp.
 ISBN 978-17-8431-157-5
 Downloadable as a PDF file from:
<http://tinyurl.com/nbalk9j>

Private extension



Knowledge Driven Development: Private Extension and Global Lessons
 Edited by Y Zhou & S Babu
 Elsevier, 2015; 292 pp.
 ISBN 978-0-128-02231-3
 £58.78 • €80.40
www.elsevier.com

■ This extensive book understands that, globally, agriculture is heavily knowledge-driven and that the main conduit for knowledge sharing is extension. New climate change related challenges are putting public extension systems under pressure and therefore, the private sector is increasingly a source of two-way extension benefitting from interaction and knowledge-sharing with farmers. The 10 case studies presented seek to understand the motivation, cost, benefits, efficiency, effectiveness and sustainability of private sector extension. Covering a wide range of agro-ecological conditions, crop choices and institutional mechanisms across Africa, as well as Asia and Latin America, the book will be useful for policymakers and development practitioners interested in understanding the differences between public and private extension systems. For example, what are the objectives of private extension activities and what are the incentives for undertaking private extension? Should smallholders be protected through regulatory mechanisms for private extension agents?

▼ Irrigation

Supply of agricultural advisory services is not meeting demand around large dams in West Africa, which is keeping productivity and incomes low on smallholder farms. Among its main recommendations, this policy brief calls for changes in the roles, capacities and management systems of both farmer organisations and dam management agencies.

Making Agricultural Advice Work for Smallholder Farmers
 By B Adolph
 Global Water Initiative in West Africa/IUCN/IIED, 2015; 4 pp.
 Downloadable as a PDF file from:
<http://tinyurl.com/q3g8vtw>

TO OBTAIN PUBLICATIONS

Publications marked @ may be downloaded from the following website:
<http://publications.cta.int>

Titles marked with the logo  can be obtained as follows:

If you are a subscriber to CTA publications:
 Use one of these options.

- If you have an account with <http://publications.cta.int>, go on-line and select your books depending on the credit points you have, then click on 'Add to shopping cart' and 'Proceed to checkout'.
- If you do not have Internet access, you can continue using the order form supplied by CTA.

If you are an ACP organisation involved in agriculture but are not yet a subscriber to CTA publications, you can:

Request a subscription online at <http://publications.cta.int>, by email to pdsorders@cta.int or by mail to CTA - PDS, PO Box 173, 6700 AD Wageningen, the Netherlands.

Organisations that subscribe in 2015 will receive 200 credit points. Those already subscribed will receive 200 credit points plus half of the amount of credit points spent in 2014, i.e. a maximum of 400 credit points.

If you are not an ACP organisation involved in agriculture:

You can either buy the publications from the publisher or in a book shop. Alternatively you can download certain titles on the website <http://publications.cta.int>.

More than half of our publications are downloadable free of charge.

Titles marked with the symbol ■ can be purchased from the publishers cited or from bookstores.

Local to global: linking agriculture and tourism markets in island states

The importance of linking local agribusiness to tourism markets is clear. Yet in the hotel sector for example – especially in island states – local food is overlooked in favour of imported foods putting local producers at a disadvantage. Isolina Boto, manager of CTA's Brussels office, explains how CTA will promote closer links between the agrifood sector and tourism markets.



1 *At the Pacific Community Agritourism Week in July, CTA held an agribusiness forum on the links between the food industry and tourism. Can you tell us about the forum and CTA's conclusions from the event?*

The first agribusiness forum, *Linking the agrifood sector to tourism-related markets*, was held on 1-3 July 2015 in Fiji, organised by CTA, the Pacific Islands Private Sector Organisation and the Secretariat of the Pacific Community. Most of the 100 participants were from the Pacific region's private sector, with representatives from the Caribbean and the Indian Ocean. The forum raised awareness about the need to strengthen linkages between agriculture and the growing tourism industry, in particular sustainable sourcing of food from local farmers and agribusiness companies. Successful agriculture and fishery business case studies demonstrated

how to meet tourism standards and quality requirements. However, much more has to be done to ensure that local agriculture producers can meet tourism demand; also helping to reduce high food import bills.

In conclusion, a number of steps should be taken: resources are needed to facilitate product development, product differentiation, marketing and branding, as well as training in quality standards; gaps in business data should be filled (such as trade regulations, volumes, and prices) and access to finance for SMEs should be easier. Affordable ICTs are also essential for business development. To improve access to finance, schemes need to be innovative and continue to promote financial literacy programmes and business mentoring. The trade policy environment should be favourable for private sector, supporting local entrepreneurs and SMEs.

2 *How is CTA building on this work in the Pacific region and then in other ACP regions?*

In the Pacific and the Caribbean, we are documenting successful businesses linking fisheries to tourism markets. We support feasibility studies for business expansion through increasing local sourcing from farmers groups, linking them with financial institutions. Business exchanges and trade visits will be conducted later in the year between agribusiness actors in the Pacific and the Caribbean.

CTA is also providing support to agribusiness organisations for business data development. As a result of the Fiji forum, the Melanesian Spearhead Group is developing an agritourism strategy in collaboration with CTA. Furthermore, CTA and the Inter-American Institute for Cooperation on Agriculture are collaborating with the Government of Vanuatu to design a policy framework

which promotes cross-sectoral linkages between agriculture and tourism. This will be then expanded to other countries.

3 *CTA launched "Chefs for development" at the forum in Fiji. What is the aim of this initiative?*

Chefs have a unique part to play in development: they connect local producers with consumers, understand the origins and history of food, promote local cuisine and provide consumers and tourists with the best of local products. Chefs for development is a platform developed by CTA in collaboration with renowned chefs from the Pacific and the Caribbean to share successes, promote linkages with local farmers, and show best culinary practices using local products. We are also conducting a chef-led study to identify good examples of chefs linking with the agrifood sector to illustrate win-win market relationships which increase local sourcing and value addition. We will also analyse what key institutional steps and policies are needed to upscale successes.

4 *How did those directly involved in "Chefs for Development" react to the initiative? What results are you expecting in the short- and long-term?*

There is a lot of interest in the food tourism sector from partners in ACP countries. Gastronomy is a central part of the tourism experience; a chefs' network will enable the sharing of experiences across regions, promoting local cuisine and farmers to build stronger relations amongst food chain actors. In the long-term, for islands to become known as food destinations will increase economic opportunities and promote local culture.

Reader services

Write to *Spore*

CTA - *Spore* redaction
PO Box 380
6700 AJ Wageningen
The Netherlands
Fax: +31 317 460067
Email: spore@cta.int

Subscribe to *Spore*

SUBSCRIPTIONS FOR
THE PRINTED VERSION ARE:

- Free for organisations and individuals involved in rural development and residing in an ACP country (African, Caribbean and Pacific):

- via <http://publications.cta.int> by clicking on 'Apply for a free subscription'

- by post (PO Box 173, 6700 AD Wageningen, the Netherlands) or send an email to spore@cta.int

- for other individuals and organisations:

€36 annually (6 issues) from:

Earthprint Ltd
Cavendish Road
Cavendish House
Stevenage, Hertfordshire
SG1 2EQ

United Kingdom

E-mail: CTA@earthprint.co.uk

SUBSCRIBE TO *SPORE*
E-NOUNCEMENT

Subscribe to the free *Spore* email summary (90 Kb) at:

<http://spore.cta.int>

or send a blank email to

join-spore-en@lists.cta.int

For text-only:

join-spore-text-en@lists.cta.int

Further information

available from: spore@cta.int

READ *SPORE* ON-LINE

- Internet: see spore.cta.int

Reproduce *Spore*

- Articles in *Spore* can be freely reproduced for non-commercial use, if credited as coming from *Spore*. Please send a copy to the editors.

- Reproduction for commercial use requires prior permission.

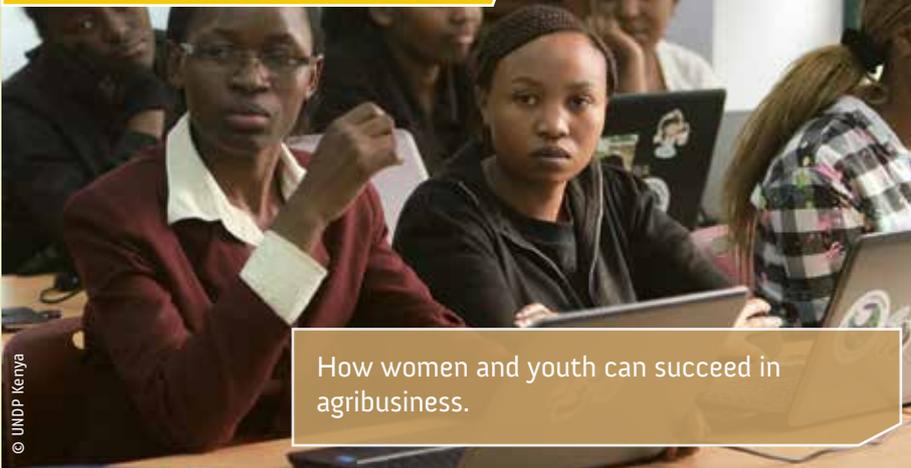
TRENDS: The rise of farmers' power



© CTAIN Palme

Farmers' groups at national and regional level are having an increasing impact on changes in agricultural policy.

DOSSIER | Agricultural incubation



© UNDP Kenya

How women and youth can succeed in agribusiness.

VALUE CHAIN | Millets



© DFID/P Lewis

Considered a neglected crop, but with wide adaptability and high nutritional qualities, millets have big potential.



RURAL DEVELOPMENT FOR A BETTER WORLD



Brussels Development Briefings

Sensitising the development community
on current and emerging ACP-EU policy
relating to rural development issues

www.brusselsbriefings.net



THE WORLD'S
MOST INFLUENTIAL
EXHIBITION AND
CONFERENCE
FOR SUSTAINABLE
AGRICULTURE
IS COMING TO
SOUTH AFRICA

1-2
DECEMBER
2015

DURBAN SOUTH AFRICA

In association with:



WANTED: SUSTAINABLE AGRICULTURE INNOVATIONS
DOES YOUR COMPANY SUPPLY A PRODUCT THAT CAN IMPROVE
AGRICULTURAL PRODUCTIVITY IN AFRICA?



Global **forum**
for **innovations**
in **agriculture**

1-2 December 2015 | Durban, South Africa
AFRICA Edition

For more information and
to book your stand contact:

Grant Mills, Event Director

T: +27 (0)32 947 0204

C: +27 (0)76 562 8205

E: grant@gfiaafrica.co.za

www.gfiaafrica.com

1,473 orders for sustainable agriculture products were made at the last GFIA event in Abu Dhabi

**DON'T MISS THIS OPPORTUNITY TO EXHIBIT AND INCREASE YOUR SALES TO
BUYERS THROUGHOUT AFRICA**