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Website: www.cta.nl



In this issue

As this issue of Spore goes out to subscribers, representatives of the African, Caribbean and Pacific Group of States and of the Member States of the European Union are preparing to sign the successor agreement to the Lomé Convention which will guide their cooperation over the next 20 years. More of that in Spore 88. One way to describe the new agreement's agricultural focus could be 'the conservation and management of natural resources for sustainable agricultural production for greater food security and nutrition'. That phrase emerged from a CTA exercise on priority setting, reported on in this issue. Priority setting – and underlying values – are at the heart of a reader's letter, the main article and the dossier on women. We also review fish farming and offer you the usual favourites of news, views and reviews, plus a reader's essay on the common sense of the farmer.

Illustration Lukino



Millennium markets and morals

New economy, new agriculture

This first year of the new millennium is full of excited talk about the "New Economy", with its new approaches to fame and fortune, if not happiness. But that isn't all that's on the move: isn't it also time for a "New Agriculture"?

Maybe you have not seen it, but they say there is a revolution going on out there. Maybe you have not seen it because "there" isn't where you are. Maybe you don't believe that the world is in any greater state of turmoil, hope and despair than at any other time in history, and maybe you are right. But it would be wise to avoid asking "what revolution?" since the word conjures up so many memories of political leaders who have, over the years, made the same comment just before an abrupt and enforced change of career.

Take a look at some recent events. Some say they point to a rate of change—in developing and developed countries alike—that is so fast that it can only be described as a revolution. Revolutions, perhaps. The

African continent with all its diversity is the region with the fastest rate of people connecting to the Internet. The digital divide is closing gradually, if not quickly enough. In early 2000, the participation of individuals and organisations from Africa in the global exchange of knowledge is really growing. In terms of agriculture, it is growing across a spectrum ranging from debates about genetic modification of plants, through dedicated research networks and key inputs to such world events as the UN commission on sustainable agricultural development, to grass-roots exchanges between community-based women's saving and credit projects. Yes, one in eight Spore subscribers in ACP countries now has an email address and, by the end of the year 2000, maybe one in two will.

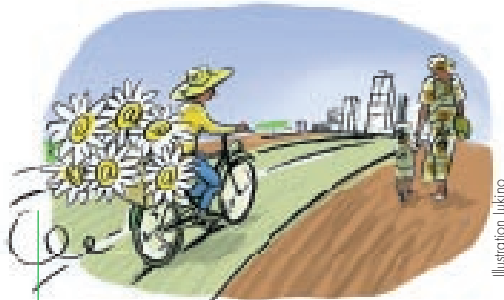


Illustration Lukino

Get on your cycle! The new economy - symbolised by the @ sign used in electronic mail addresses - allows new exchanges between producers and consumers.

In Guyana, the computer revolution recently offered new moneymaking opportunities to a group of Wapishana and Macushi women, through a project started by the state telephone company in late 1998. They set up rural businesses to market their handicrafts over the World Wide Web—a splendid example of an agricultural community conquering the world market. But their success threatened the traditional regional leadership and by early 2000 it took over the business from these enterprising young women. Their group fell apart, provoking the comment that “economic advancement is not just about technology and markets; more fundamentally, it is about human relationships”.

Bringing back the good times

The human touch is coming back, it would seem, after a long cold exile from the soulless world of monetarism and structural adjustment. Human interventions, sometimes misguided, often ill informed, but human and hopeful nonetheless, have recently brought some fairly big endeavours to their senses and, to an extent, to a grinding halt. The negotiations of the World Trade Organization collapsed in December 1999 in disarray in Seattle, United States, under the pressure of a united Third World front, massive street demonstrations and internal political incompetence.

In April 2000, in Washington DC, the joint meeting of the World Bank and the International Monetary Fund found itself seriously challenged by an outburst of popular resentment on the streets that these institutions,

seduced by their own rhetoric of glossy charm, never saw coming. Sharp-eyed observers say that such demands as “Make love, not loans” signal a new wave of youthful idealism that is sweeping the world, rural and urban alike. It is worth remembering that these uprisings of hope were organised through the Internet, enabling the greater involvement of Southern groups and governments as well.

Something new is surely happening: the ever-accelerating expansion of the Internet has created a notion called the ‘new economy’ where small local traders suddenly have access beyond their neighbourhood to a world market, and where small can become big overnight and big, small. Where regional and international transactions—whether import-export deals or exchanges between ACP research communities or farmers’ organisations—that used to take weeks or months can now be set up in hours. The new economy can mean a new agriculture too.

What the papers said

The sense of change in the air is also very present in the “visions” about agriculture that have been circulating in recent months. The special *Spore* supplement “Scenarios for ACP Agriculture: Joining the Circles of Life?” has been welcomed for its combination of future key issues, listed in the box below. Other turn-of-the-millennium publications recently surveyed by *Spore* often use the term ‘revolution’. There is, for instance, the ‘livestock revolution’ foreseen by the Washington-based International Food Policy Research Institute (IFPRI), which predicts a doubling of meat consumption across developing countries, alongside an associated increase in demand for cereals.

IFPRI’s enthusiastic expectation that an agro-ecological cultivation will take root was shared by *The Economist* magazine, which stresses that much of Southern agriculture is ready for the holistic approach to agriculture that agro-ecology represents. But in many reviews there has been a consensus that basic operations like composting and mulching must make way for new components of agro-ecology, since they are often labour- and space-intensive. There is a challenge here for more focussed research on certain benign forms of biotechnology that can maximise the productivity of such methods. Similarly, organic agriculture was widely mentioned, more as something that makes sense in terms of natural resource management and good, healthy food, than as a sector promising great financial returns in the future. That is the effect of the market place: soon organic produce will move out of the realm of fad and fashion, and become mainstream; and bang will go the premium profit margins!

Across the millennial statements, the most frequently predicted key issues are the ones mentioned by *Spore*, plus a few that we chose not to mention, or even put down a bit. Our plea, for example, for strategies that are respectful of “indigenous knowledge” but call

for a “beyond indigenous” approach was not echoed elsewhere by a media apparently besotted by the local and the indigenous. Was it wrong, or premature?

Adding values to agriculture

And we missed out on a new approach to cultivation that will undoubtedly permeate parts of ACP agriculture during the next decade, though perhaps not in the next year. Precision farming is the next big thing. Using land-surveying techniques and appropriate geographic information systems, farmers are expected to better select which lands to farm, so that they can better manage scarce inputs of water and seeds and better organise harvesting and storage. For ACP farmers to adopt precision farming, many issues need solutions in terms of infrastructure, capacity building and institutional support. There too *The Economist* agrees, concluding its special survey with the remark that for “agricultural research to flourish, it needs strong institutions to deliver the goods”.

There is clearly a need for institutions that have learned—at least this is the suggestion of more than one millennial vision piece by M S Swaminathan, holder of the World Food Prize and fervent advocate of precision farming for



Illustration Lukino

We cannot eat words. We sell to buy, we buy to live. So we need the world's best market information systems.

the poor—to become “pro-poor, pro-nature and pro-women”. And, dare we add, proactive. The resilient *Communautés Africaines* journal published by APICA, a development NGO in Douala, Cameroon, celebrated its twentieth year and the Millennium with a stirring call to action: “We want to encourage participatory communication for sustainable development, shared knowledge and a consensus. As a development magazine, we propose a contract with our readers at the grassroots and in civil society. We call on everyone to pool their efforts, and to bring together that which is special to one person, and that which is universal.”

Herein lies an attitude of quality and commitment underlying most of the events and attitudes that have emerged early in the new Millennium. People clearly feel it is time to emphasise values and not just talk monetarily about adding value. There is a change of spirit, as well as a change of pace. Let’s keep it that way.

To know more:

World Food Prospects: Critical issues for the early twenty-first century. P Pinstrup-Andersen et al. International Food Policy Research Institute, Washington, 1999. 32pp. Free on request. IFPRI, 2033 K St NW, Washington DC 20006 USA. Fax: + 1 202 467 4439, Email: ifpri@cgiar.org

Spore surveyed more than 500 journals to identify consensus of ‘millennial statements’ on major agricultural themes. Among those who made such statements, these are the key issues for the start of the new millennium (areas not proposed in *Spore* are marked *):

- land productivity
- irrigation and water conservation
- energy conservation
- organisation and multi-stakeholder dialogue
- governance
- information and communication technologies.
- increased meat consumption *
- agro-ecological cultivation *
- moving “beyond indigenous”
- precision farming *
- “pro-poor, pro-nature and pro-women”.

Fish farming

The uncertain future of a big promise

Remember those slogans from the 1970s? “*Fish farming for all*” and “*Fishing is good for you and fish is good for you*” were the enthusiastic messages of family fish-farming campaigns. Small-scale fish rearing was easy, or so we thought then, and a simple way to feed a family. And so, encouraged by the FAO and development agencies, African farmers set about digging holes in the ground, filling them with water and putting in the fish ... but in vain. There is much more to feeding a family than throwing a few tilapia into a pond.

“There is no such thing as easy fish farming!” proclaim the indignant research duo of Jérôme Lazard and Olivier Mikolasek, in the livestock department of the French Centre of International Cooperation in Agricultural Research for Development (CIRAD). “At each level you will find models which do work, from the family pond to an industrial size complex, from extensive to intensive. But the ones that work well are all shaped to fit into the local natural, social and economic environment. It just does not work to throw tilapia into a hole full of water.” In a simple system where there is no proper feed, no proper sexing (with species like tilapia, young female fish should be excluded, since the males will grow better) and no predator, fish will find a way to multiply. They will, however, remain too small to appeal to the consumer.

Africa is rife with models of fish farming which have failed in recent years. Most family fish farms lasted until the hurried departure of extension workers. Models of intensive large-scale fish rearing have also flopped badly, because of inappropriate design and poor follow-up in training and investment, as witnessed by the failures of fish lakes in Ébrié and Aghien in Côte d’Ivoire, Banfora in Burkina Faso, Brazzaville in the Congo, to mention but a few. Some large projects have continued, but only with the support of large forestry companies such as Improbos in Adzopé (Côte d’Ivoire) or mining companies like Comilog in Bakoumba (Gabon) or Bamburi Cement (Kenya). They have equipment such as bulldozers and pumps permanently on hand

and have the trained staff required for operating semi-intensive models of production.

Getting the right size

Nestling between the excess fragility of small family operations and over-ambitious large-scale projects, mid-scale suburban and peri-urban plants are offering a more hopeful perspective, with their focus on commercial sales. Jérôme Lazard: “The plants have several fish ponds of a few ares (about one-tenth of an acre) each; they are populated with tilapia (*Oreochromis niloticus*), a predator (*Hemichromis fasciatus*), mixed with catfish (*Heterobranchus isopterus*) or *Heterotis niloticus*, and fed with whatever feed is available locally such as slaughterhouse waste, chicken droppings or brewery sediment – this is what works best”.

In varying forms, integrated or not, extensive or intensive, fish farming has developed spectacularly in Madagascar, Kenya and Zambia, driven by small entrepreneurs. The FAO has underlined this trend in its recent reports on the state of world fish farming. Nigeria could well be added to this list, although even this country, a phenomenal producer on the

African scale, looks tiny with its 15,000 tonnes of fish compared with China’s 25 million (at 1995 levels). In all, African fish farming represents about 0.2 % of world production.

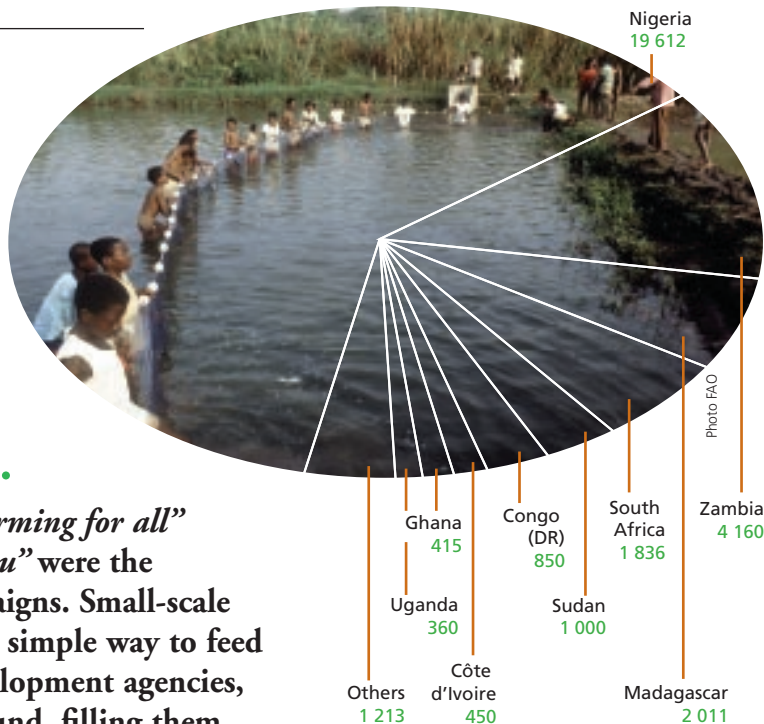
A recent study in Côte d’Ivoire, where peri-urban and rural fish farming is starting to catch on, has shown that successful models of artisanal fish farming has a higher return from the land than irrigated rice or market gardening. These new entrepreneurs are spearheading the growth of this sector, but they still need support, training and information. As the participants in a recent CTA study visit on fish farming in Malawi (see *Spore* 86) noted, much remains to be done before one can talk seriously of this being a sustainable sector.

At this point in time one cannot talk at all of self-sustaining or endogenous fish farm production, especially in West Africa. To attain such levels, fish farmers need a basic set of technical skills and must have the means to invest. Above all, they must not be isolated. What peri-urban and rural fish farming needs to become a competitive sector is a veritable breeding ground of fish farmers. There should be synergies and exchanges between fish farmers and agricultural farmers, plus steps towards specialised services (such as fish nurseries) and a modicum of sector organisation, in the form of professional associations. Is that just another fishing story?

To know more:

The state of world fisheries and aquaculture. FAO, Rome, 1998. ISSN 0429-9329. Also on the FAO website: www.fao.org/fil
See page 10 for detailed information sources

Hydrobiological aspects of fisheries in small reservoirs in the Sahel region
E Baijot, J Moreau & S Bouda, CTA, 1997.
252 pp. ISBN 92 9081 138 2
CTA number 828. 80 credit points.



Fresh water fish farm production in sub-Saharan Africa, tonnes per country. FAO, 1998



More protein and profit per hectare than rice or vegetables, but easy it is not



Illustration J. Florentin

There's nothing new in women entrepreneurs, but there's more to genderisation than income-generation

First get the recognition



Safiétou Diop

"In Senegal there is a tremendous growth of women's organisations and associations in community neighbourhoods. Women are organising themselves to alleviate poverty, since it affects them more than it does men. Illiteracy, lack of training and education, isolation, and ignorance about their rights in particular all contribute towards women's poverty." Safiétou is the president of the Siggil Jigeen network of 16 associations active in promoting and defending women's rights in Senegal. "I was born in 1964", she continues. "I come from a backward background; my father is an imam and my mother a housewife. I studied until advanced level at school, and went on to teacher training school. I have always been revolted by the exploitation of women by men. When I became aware of my own situation, I realised that women do not know their rights. That's why I'm in the struggle now. One quarter of our members are women farmers, and they benefit from 80% of our activities. We focus on advocacy work for legislation on gender equality, and the surveys we conduct in this field are targeted at decision makers and opinion leaders. What's important here, and this is our major goal, is that the woman's right to work and participate in decisions is recognised, and that this recognition brings women in from out of the shadows."

Women and power

"United she stand, divided she fall"

There are many steps for ACP women to climb on the stairway to empowerment or, put simply, to enabling them to run their own lives. They include access to education and finance, and grasping the use of new information and communication technologies. Many women have already opened up the traditional mindsets which have denied even the principle of gender equality and have thus condemned women to a secondary position in society. Others are following suit, and more will join them.

Across the ACP countries, women are coming out of their enforced 'invisibility'. Through a tide of conference resolutions, commissions and fora over the decades, an awareness has grown of their economic and social role. Gender is now mentioned in all the speeches about development, and the notion of gender, which embraces a strategy to integrate women in development, is sowing its seeds just about everywhere. The Year of the Woman in 1975 triggered off a movement which the international women's conference in Beijing in 1995 transformed into an unstoppable force.

Women are, literally, on the march. True, they are not all marching to the same drum, and although many are lagging behind, more and more women are coming out of isolation and holding hands behind slogans, in the belief that power comes through unity.

Or so, at least, it would appear. There are still flagrant differences between urban

and rural women, between wives and widows, between secretaries in the office and the self-effacing 'just housewives' in the village, and between women in Africa and their sisters in the Caribbean or the Pacific. These disparities are pinned down by the weight of traditions, often with the complicity of women, and of history, religion and culture. Even the terminology used to discuss women in the context of development or power says a lot about the different mentalities and the degree of dynamism at play in gender issues. In the English-speaking world, the favoured term seems to be 'Women in development' whereas French-speaking stakeholders talk more of 'Femmes et développement' (women and development). Some talk of empowerment, others of access to power. It is more than a question of the subtleties of language: are women really *in* power or do they just skirt around it, stuck in governmental bodies which are usually seen as mere coordination mechanisms?

"Learning to use ICTs is a great way for women to advance"



Gisèle Mankamte Yitamben

She got her passion for communication and her activist-like interest for information and communication technologies (ICTs) from her father, a telecommunications engineer. Currently completing her PhD in international economics at Strasbourg university in France, Gisèle is also the executive secretary of ASAFE, the Support Association for Women Entrepreneurs, with 4,000 members in Cameroon and beyond. For her the new millennium is that of telecommunications, and so it is essential that women fully learn how to manipulate ICTs. In November 1999, she headed the ASAFE delegation to the 'First Cyberforum for Women Entrepreneurs from Africa and the Diaspora', held in Douala, Cameroon, which brought together more than 100 women from all over the world for six days to exchange their knowledge and experiences. "Power", Gisèle asserts, "is not a personal issue. Maybe I do have an aura because I have a certain level of education but it is only together that we have the power to change things, so that parents have the means to provide a basic education for their children and so that women, including those in rural areas, have got access to information. For example, this first-ever cyberforum meant a breakthrough for a woman from Benin who produces dried cashew nuts manually with six people. Thanks to the Internet, she found a market in the United States. Sure, she will need funding for more modern equipment, and more personnel: but the diaspora will help her there."

There has been, it must be said, a blossoming of ministries for Women's Affairs, and for the Family, or Social action or National solidarity in some ACP countries. They are headed by women, of course, but surely women, and rural women above all, should be present, or at least represented, in all ministries and all areas of economic and political decision-making. Clearly, progress has to be made.

Spreading the word

Whether they are farmers, traders or food processors, we know that ACP women are rightly seen as one of the essential 'levers' of development; and yet they are, paradoxically, faced with major barriers such as access to credit and land. Take the case of Honduras and Costa Rica, where 28% of women's applications for land rights have been granted, compared with 61% for men. In Jamaica only 5% of loans made by the agricultural bank go to women, although in fairness private credit operations such as the Self-Start Fund and Solidarity are more responsive to women's requests. In Suriname, women do not have the right to receive loans directly, and transactions have to pass through their husband or a relation. In Africa, women are still often regarded as an item to be inherited: like the land they toil, they are passed down from the hands of a deceased husband to the hands of a brother-in-law. Not content with waiting for fundamental reforms, some women are already following another, parallel route alongside that of public bodies. These women have graduated from secondary school or higher education. They often come from 'well-placed' families. They know their way around the world of NGOs and donor agencies, and have become journalists, company directors and heads of local radio stations. Their efforts are slowly spreading into the villages, where women are coming to appreciate the meaning of "united we stand, divided we fall".



Franceline Oubda, creator and presenter of the television show "Femmes et développement", now re-titled "Paroles de femmes" ('Women's words') in Burkina Faso. In 1993 FAO awarded her the Boerma Prize, which

is given to communicators who have sensitised international opinion on world food problems.

"Part of having power is knowing. When you've got information, whether through the press, radio or television, you have the power to inform, to speak and to have others speak, to pass on a message and to communicate. The most convincing messenger is the image. I am part of the women's struggle. But if they are to succeed, women should not treat men as antagonists. So I let everyone have their say."



Illustration J. Florentin

Training is the key to empowerment

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Website: www.famafrique.org/sjigee.html

Association des femmes Pag-la-Yiri
09 BP 335
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*Famafrique is the network of online networks of (francophone) African women's groups:
www.famafrique.org*

See also:

*Women's Information Services and Networks (book reviewed in Spore 84)
S Cummings, H van Dam & M Valk,
Royal Tropical Institute (KIT), 1999. 176 pp.
ISBN 90 6832 711 9, NLG 35 • € 15.90
KIT Press
PO Box 95001
1090 HA Amsterdam, Netherlands
Fax: +31 20 568 8286
Email: kitpress@kit.nl*



*Who milks the cow? Gender and Development in Livestock Farming
M Richter, CTA/GTZ, 1997. 202 pp.
ISBN 3 88085 518 8
CTA number 824. 20 credit points.*

Opening up credit lines

"In the Caribbean, there are very few rural finance programmes for small farmers. Women face constraints both in applying for and obtaining credit. Some efforts have been made to extend loan facilities for women, micro-enterprises and for the informal sector. They have focused, however, on removing the barriers to providing finance, and they have not dealt with the obstacles in applying for credit. Official statistics point to the very low level of access of women to formal credit systems in central America, in the range of 14% to 30%."

Maria Randriamananjy, Women in Development service, FAO, translated from Femmes rurales et sécurité alimentaire, FAO, 1999.



Jeanne-Agnès Bado, director of a small enterprise in local construction materials in Ouagadougou, Burkina Faso

"You either have or you don't have money to start off with, but one thing is sure: it's easier to get finance if you know your rights, can draw up a project and can put it in writing. For funding my equipment, I got support from people's savings banks and the ILO. If you are going to put together a credible proposal, and get the endorsement of an institution or backing

from any organisation, you need to have some education. Illiteracy is the major barrier to funds for most women."

Some salt on your rice?

■ A weed killer based on cooking salt has been developed by paddy farmers in northern Thailand, with a mixture of 60g NaCl per litre of water). Research workers have confirmed that this is indeed an effective treatment which prevents growth of the major weeds *Asteraceae* and *Compositae* and which helps biomass volume to grow. To be applied sparingly, only once per cultivation cycle, and not to be repeated the next year, this 'household' weed killer has the advantages of not damaging the environment and reducing the need for manpower.

To know more:
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Natural resource management online in Caribbean

■ Two new resources have been announced to help people working on research programmes and field operations in the field of natural resource management. Making use of the World Wide Web to share and validate information, the Online Proposal Appraisal (OPAL) programme has made available two management support programmes for use in the Caribbean context: "Small Grants Program on Collaboration and Conflict in NRM" and the "Small Grants Program on Collaborative Management of Coastal Resources in the Caribbean". Their respective coordinators are the University for Peace in Costa-Rica and Calico's office in Belize. IDRC, a donor agency based in Canada, is supporting the technical and financial side of the operation, and the Bellanet network of donors is bankrolling the Website.

Website: www.bellanet.org

Organic "islands"

■ With demand for organic foods nudging 40% in British supermarkets, the Sainsbury's chain launched plans early 2000 for partnerships with landowners in Grenada and St Lucia to start biological cultivation on around 300 ha initially. Easier said than done. Much of the land needs a transition period of several years to recover from previous applications of fertilisers and pest control chemicals. Poor, small-scale producers, who form the majority of farmers on the islands, cannot afford the switch to biological production.

Citrus fruits through looking glass

■ Interested in the potential of citrus fruits? The Active Citrus Germplasm bank at the Sylvio Moreira Centre, in Cordeiropolis (Brazil) is one of the world's leading citrus centres, covering 1,800 varieties. The Bank is first and foremost a reservoir of plants and seeds for use by local producers, but its researchers also study fruit quality, their productivity and resistance to disease and pests. Their gene bank provides the material for experiments with hybridisation, in the search for new solutions for citrus growers.

To know more:

Centro de Citricultura Sylvio Moreira
Rod. Anhanguera, km 158, CP 04,
Cordeiropolis SP - 13490-970
Brazil
Fax: + 55 19 546 1399
Website: www.centrodecitricultura.br



Photo © Japack/Sunset

Originally from China, the orange gets its name from the Sanskrit *nāraṅga*

IAALD shakes itself up

■ The once-tame community of agricultural librarians and documentalists, through its international association IAALD, has been changing itself for several years, helping its members to adjust to the needs of their users. Where they used to talk shyly of 'indexing terms' and 'abstracting components', and of 'dissemination' as if it were a dirty word, they now use up-beat statements like "Technology has changed the way we do business".

This is all good news for agricultural practitioners, who stand to gain from having direct access to responsive 'information professionals', as former librarians call themselves today. Feedback from the field and clients was high on the agenda of the Tenth IAALD World Congress held in Dakar, Senegal, in late January 2000, with support from CABI, CSE Dakar, InfoDev Washington and CTA. Delegates were berated, in a positive way, by a representative of FENOP, a farmers' organisation in Burkina Faso, who discussed the non-availability of the type of information that farmers need. Another notion introduced to the Congress was that information services users should provide intensive training to information professionals—

the equivalent of farmers providing training to extension workers!

The major consensus of the 85 participants was that in promoting worldwide food security "the information professional in the new millennium needs to be a planner". To be able to plan, the professional needs to know users better, and to implement a plan means managing change. "To know where we are going", they

concluded, "we have to know where we have been", which means assessing impact. It sounds like they have something to tell, maybe even something to sell.

To know more:

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Website: www.iaaldcee.hu/dakar2000/index.html

Ready to eat, ready to wear

■ One day, you could eat your hat - and more! An American company is currently developing a new line of textile fibres, based on maize starch, which can be used just like petroleum-based synthetic fibres. Cargill Dow Polymers is preparing to launch a new family of polymers on the market known as "polylactic acid polymers" or PLA for short, which are made from renewable resources such as maize. They have the appearance and texture of natural fibres, and the resilience of synthetics. In the textile industry, they can be used separately, or can be blended with cotton, silk or wool. The main elements in PLA are the

sugars from maize, which incidentally is now the major crop of Africa. This may not be a priority in food security strategies, but researchers are keen to identify other sorts of polymers from other plants or root crops with high sugar content such as sorghum, cassava, sugar-cane and even agricultural wastes. These polymers have a much wider use than in textiles alone: in the agri-food business they can be used in canned and packaged foods - soups, flours, pastries and dairy products - and in other areas such as pharmaceuticals, cosmetics, chemical products (paper, glues, explosives), mining, metallurgy and construction.

One programme too many?

■ At the end of March 2000 the BBC World Service weekly radio programme "The Farming World" ended its record-breaking 40-year run. Not that this widely respected programme had run out of steam. No, it simply ran up against the BBC programme planners, who have to constantly juggle the many demands for programmes from a global English-language audience of 60 million, whilst fitting as much as possible into the available broadcasting time of, you got it, no more than 24 hours a day. "The Farming World" may have stopped, but the world hasn't stopped farming.

Stories linked to agriculture and food security are now being incorporated into other programmes on the World Service, notably the environmentally focussed "One Planet" and "Science in Action".

The compilers of "The Farming World" over the last few years, WRENMedia, will continue their work on agricultural information through their article syndication services, rural radio support and the popular CTA-supported website New Agriculturist. The pro-

gramme compiler who preceded them, David Dixon, is still involved in the same field, managing the journal *Appropriate Technology* mentioned in the Publications section of this issue of *Spore*.

The world is forever changing, but we know that many *Spore* readers regret the passing of "The

Farming World", as do many other development professionals. To those who made it happen for all those years, Thank You.

To know more:

WRENMedia

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Email: post@wrenmedia.co.uk

Website: www.wrenmedia.co.uk/

Beware those flip-flopping Europeans!

■ We had some alienated responses from European readers about recent articles in *Spore* about the growing market for insects as a food. 'So what?', we said to ourselves; insects are a regular part of the ACP diet and informal economy, with a US\$ 2 million market in South Africa alone.

And now, the Rabobank Group, a leading cooperative bank based in the Netherlands, has launched a national advertising campaign looking at future trends: "Imagine, it's 2016. Insects are now part of our daily diet. Your client, the restaurant

chain 'La Sauterelle' [The Cricket], serves beetles, locusts and grasshoppers as *haute cuisine*". Insects are obviously going to be in. The Rabobank told a *Spore* editor it was joking: "oh no, you were serious", we replied.

With such early warning of market trends, surely ACP producers can conquer this market? Perhaps even help to create it? But be warned of fashions: as the European public's fear of mad cow disease has waned and beef is coming back, the markets for crocodile, emu and ostrich meats have all shrunk.

Sweets for my sweet



Photo © V. Audet/Sunset

■ Ever wondered if dried fruits taste twice as nice when exported? Well, several African companies are happily finding sweet success on the world's markets and are pushing ahead with production. One Togolese firm, Safleg, itself a member of the Fadoul trading group, markets dried pineapple rings, chunks and pieces, and sells them, under an organic label, exclusively on the German market. It processes 22 tonnes of fresh pineapple each week, and is moving into new markets with dried mangoes and bananas. In Guinea, Nabekam-Bio exports dried 'organic' pine-



Photo Cirod

Cut and dried : a sure market winner

apples, mangoes and bananas to France. Its export volume, a mere 20 tonnes each year, is far below the requirements of the importer who currently handles 1,000 tonnes annually; Nabekam-Bio aim to expand their drying plant and to triple production.

On a larger scale, the Ivoirian Desiccated Coconut Company (SICOR, of the AfricIndustry group) is the leading African company in this sector and exports all its 13,000 tonnes of annual production – representing 6% of the world market – to high-profile European processors such as Mars and Ferrero. The company's 13,000 hectares of plantations have, for the time being, missed out on the dreaded "Cap Saint-Paul" disease which is afflicting neighbouring countries. Their desiccated coconut, the product of drying, crushing and sifting the copra, is highly valued for its quality (it is very white) and its freshness which, unlike Asian exports, is not affected by excessively long shipping.



Drying foodstuffs

J FJ Rozis,

CF/CTA/FAO/GERESINEDA,

1997. 442 pp.

ISBN 0 85199 210 2

CTA number 844.

40 credit points.

Tanzania: stop that chain saw!

■ Uncontrolled and illegal felling of Tanzania's forests is costing the government USD 20 million in lost revenue, equivalent to half the sector's potential profits. Of the country's 33 million hectares of forest, two-thirds belong to the public sector, and are under-exploited. The lack of involvement of local stakeholders is the reason why an estimated 500,000 hectares are exploited illegally.

PanAfrica News Agency,
February 2000

Over a barrel?

■ In Madagascar questions have been asked in the leading periodical *Dans les Médias Demain* about what is to be done with the 10,000 barrels that carried the Fipronil insecticide that was widely used to fight the locust plagues of 1998 and 1999. Some barrels have been sold off and are being used by private citizens who are largely unaware of the dangers of these containers of toxic products.

Expired pesticides taken in hand

■ Tuareg villages in northern Mali, where water was polluted by leaking pesticides, will get safe water thanks to a € 50,000 project of the Spanish NGO Acción Contra el Hambre co-funded by the European Union. ACH will construct new wells, clean up storage depots of expired pesticides and seal contaminated wells. The project deals with 9400 litres of pesticides but at least 85,000 litres are present throughout northern Mali, especially in Gao and Aguelhoc. These pesticides could either not be applied due to civil unrest in the early 1990s or were left behind after a locust control programme ended 20 years ago.

Angolan coffee revival

■ Angola's civil war saw its famous coffee sector fall from a production level of 204,000 tonnes in 1970 to 5,200 tonnes in 1999, barely enough for local consumption; it even had to import its beloved beans. Now the International Coffee Organisation is starting a pilot project to revive the war-ravaged sector, starting in Kwanza Sul province. Plantations are to be rehabilitated, and former producers will receive financial and technical assistance. The project, valued at USD 8 million (€ 8 million), is funded by the United Nations Common Commodities Fund.

Insect wars

■ The hibiscus cochineal insect (*Maconellicoccus hirsutus*), a native of Asia, has been invading the Caribbean, the southern part of the United States and the north of Latin America (including Guyana) since 1994. It has wrought massive damage to plants through attacking leaves, flowers and fruits. Resistant to chemical measures, it has spread fast. After massive trial drops in Guadeloupe, a Caribbean island, it appears that biological control is the only solution: an Australian cochineal (*Cryptolaemus montrouzieri*) and a Chinese hymenopteran insect (*Anagyrus kamali*) appear to be winning.

To know more:
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West Indies
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Frost destroys Kenyan tea

■ More than 4000 ha of tea crops were destroyed by frost in Kenya early in 2000. Small-scale tea growers also reported lost crops and a dozen processing plants had to be closed down indefinitely. Kenya is the world's fourth tea producer after China, India and Sri Lanka. The area affected covers over 4 % of the Kenya's total tea-producing area.

Postharvest forum launched

■ PhAction, a new worldwide forum, aims to raise the profile of postharvest research and development by fostering better links between all who have an interest in postharvest products. PhAction was established at the initiative of the Group for Assistance on Systems relating to Grain After harvest (GASGA) and five international agricultural research centres. It was launched at the Natural Resources Institute (NRI), United Kingdom. Its secretariat is hosted by the German technical cooperation organisation GTZ. PhAction publishes a newsletter by the same name.

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Postfach 5180
65726 Eschborn, Germany
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Email: albert.bell@gtz.de
Website: www.fao.org/inpho
To receive the newsletter in print,
contact:
Email: s.ferris@imul.com

Ghana yam exports surge ahead

■ Ghana's efforts to increase yam exports are paying off. With yam one of its principal crops, Ghana is the world's second largest producer of the root, with 3.25 million tonnes grown in 1999. In 1998 it exported 7,500 tonnes of

yam, mainly to the United Kingdom and the United States, for USD 5 million, accounting for 36% of world yam exports.

Between 1997 and 1998, the area under cultivation grew by almost 13%. The Ghana Yam



Shippers prefer smaller yams – but do diaspora customers?

Producers and Exporters Association provides its members with technical support with emphasis being given to certain varieties (with tubers weighing between 2 and 3 kg, which is better for the export market), and to post-harvest handling, storage, packaging, quality control and shipping, with details strictly described on the wrappings. These steps have been taken to meet the requirements of the international markets, and thus to increase sales. They are steps worth taking, since the export yam earns six times more than the domestic market yam.

Ghana's yam exports have now outpaced those of Jamaica, Brazil and Côte d'Ivoire. Nigeria is the leading world producer with more than 25 million tonnes in 1999, but it consumes the entire crop on the domestic market.

Ghana's neighbours - Togo, Benin and Nigeria - also sell their yams in dried baton shapes known as 'cossettes'. These peeled yams are blanched and solar-dried and keep better than fresh yam. At present they are sold on national and regional markets, but they could spread to other markets in the Gulf of Guinea and Europe, where the diaspora has created a potential market.

To know more:

Ghana Yam Producers and Exporters
Association
PO Box 5233, Accra
Ghana
Fax: +233 21 66 82 63

Photo FAO

Waving the CTA Web flag

■ The CTA site on the World Wide Web (see *Spore* 76) is starting to reap the benefits of a remodelling exercise held in late 1999. By the end of February 2000, almost 20,000 pages of information were being consulted each month—a volume of visits typical of international agricultural information agencies. The most visited area of the website is the *Spore* section, which contains full versions of *Spore* from issue 72 onwards. Other often visited sections include CTA publications, which can be copied (downloaded) free of charge to the user's computer,

and information from ACP partners, whose presence on the Web is managed by CTA. Among the ACP visitors to the site are readers in Botswana, Burkina Faso, Fiji, Mali, Mauritius and South Africa.

However, not everything on the Web is an immediate runaway success. The CTA electronic forum Afagrict-l, launched on the Internet in March 1999 (see *Spore* 83) to encourage exchanges between practitioners in information and communication technologies (ICTs) in African agriculture, has been reviewing its first year of activity. More than

150 people, mainly from Africa and the postgraduate diaspora, including several *Spore* writers, have signed up to receive messages and (this is the idea) to send information, raise questions and discuss issues. But so far only about one hundred messages have been sent (two a week) and next to no discussion has been generated. The organisers sigh that the volume of traffic has probably been less than expected. Maybe, but they should be patient before despairing. The first man in the world to have a telephone probably felt lonelier.

Website: www.cta.nl

Beetle heads down south

■ It may be that only the sea at the Cape of Good Hope can halt the inexorable advance of the larger grain borer (LGB), *Prostephanus truncatus*, in southern Africa. Even that might not help, since it arrived from the Americas by boat, in a food relief shipment to Tanzania in the late 1970s. The dark coloured beetles, around 4 mm long, are

extremely damaging to dried maize stored on the cob. Losses can reach more than 30% after six months of storage. Since its arrival, the borer has spread relentlessly throughout sub-Saharan Africa. It was reported to have entered South Africa and Namibia in 1999.

Chemical insecticides, such as Actellic Super Dust, are effective


in controlling LGB. Alternative storage techniques and hygienic measures around the storage sites are also important.

According to Peter Golob of the Natural Resources Institute, United Kingdom, the key to good non-chemical control may be a predator of LGB discovered in Central America, the beetle *Teretrius nigrescens* (TN). After successful laboratory trials, TN was released in Ghana, Kenya, Togo, Uganda and Zambia where it established itself widely. Unfortunately, it will never be adequate to contain LGB, which breeds more quickly than TN and can multiply rapidly, even when TN is present. Various measures therefore need to be combined to control the pest.

To know more:

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See "Postharvest Forum Launched" in this section for address of the new postharvest forum, phAction, or visit FAO's website: www.fao.org/inpho
FAO Sales and Marketing Group
Viale delle Terme di Caracalla
00100 Rome, Italy
Fax: +39 06 57 05 33 60
Email: publications-sales@fao.org

 Larger grain borer: *Prostephanus truncatus*. CTA/GASCA. 1997.
14 pp. CTA number 575,
5 credit points

There's a kind of hush all over the world

■ Privatisation of agricultural research over recent years may have brought some benefits in terms of the resources available to researchers, but it has ushered in an insidious silence among the research community.

African research networks, which used to hum with endeavour and ambition, if not with an equal amount of finance, have been falling silent. Over the past three years, researchers from Ghana to Zimbabwe have complained about how private ownership has forced them to cut down their exchanges with peers. In recent months, the signs have multiplied. In Côte d'Ivoire, for example, the national centre for agricultural research CNRA has become a private com-

pany in which private capital holds a majority stake and votes on the Board.

At least one international research newsletter has fallen victim to the sounds of silence. The *Apomixis Newsletter*, set up in 1989 to encourage exchanges between researchers working on non-sexual (unfertilised) seed production in plants, announced its closure in late 1999. The editor, Yves Savidan explains: "New barriers have been raised. Most of the major groups working on apomixis have suddenly found themselves in a new environment of proprietary information and confidentiality rules. Let us wait for better times. We had a wonderful time together." Amen.

Making sandy soils fertile

■ Growing demand for land in dry tropical zones is increasing pressure to use sandy soils, despite their low fertility which is due to a lack of organic matter, minerals and moisture. Now scientists in Thailand have developed a new method to increase their fertility.

The simple method involves digging grooves 10 cm wide in between a crop's planting rows, and digging deep enough to break through the compacted layer which is normally found at 25 cm depth in sandy soils. The grooves, 40 cm apart, are then filled with the decompacted soil. This allows the plant's root system to grow in the grooves and to draw sustenance from the minerals and moisture that often lie below the compacted layer.



Break through the impermeable hardpan layer, and give plants more chance

Trials have shown significant increases in yield of such crops as cowpea (*Vigna unguiculata*), maize (*Zea mays*) and Brazilian lucerne grass (*Styloxanthes guianensis*).

To know more:

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Email: hartmann@ksc.th.com

Chocolate without cocoa butter

■ Cocoa producers and critical consumers are up in arms about the European Parliament's changes to the rules for making chocolate. By the end of 2001, confectioners all over the European Union will be allowed to substitute cocoa butter partly with cheaper vegetal fats. These measures are expected to force down the demand for cocoa, and hence the market price, and mar the taste of chocolate. A study from the International Cocoa Organisation showed that the demand in Côte d'Ivoire, an important producer, will fall by 14 %. Since cocoa is a perennial crop, supply cannot be reduced immediately to adjust to lower demand, and this will suppress the world market price by about 5%.

The building blocks of farming

■ An international conference 'Tropical agriculture technology for better health and environment' will be held from November 29 to December 2, 2000 at Kasetsart University in Thailand. It will address links between tropical farming systems and agricultural biotechnologies, through linking topics like agricultural resource management, farming impacts on environment and food security with specific technical aspects like DNA markers, gene cloning and tissue and cell culture.

V Siripholvat

Central laboratory and greenhouse complex
Kasetsart university,
kamphaeng saen
Nakhon Pathom 73140, Thailand
Email: rdi.tat@nontri.ku.ac.th
Website: www.rdi.ku.ac.th/
announce/doc/Health_Environment/First-Announcement.htm

Vegetables galore in Kiribati

■ Positive changes in diet have been reported by a programme addressing vitamin A deficiencies, a major health problem in Kiribati and Tuvalu. The Pacific Regional Agricultural Project (PRAP) has noted a change of attitude towards vegetables over the past five years. To promote the inclusion of vegetables in the national diet, the project helped set up family plots for growing root crops and green vegetables.

Ms R Kaumati
PRAP 6
PO Box 206
Bikenibeu, Tarawa, Kiribati
Fax: +686 28 02 09

Fish farming: A net full of information

The flagship of all information on fish farming is the International Center for Living Aquatic Resources Management (ICLARM), which moved from its original headquarters in the Philippines to Malaysia in February 2000. It runs question-and-answer and SDI (customised bibliographic) services and publishes an annual encyclopedic database FishBase on CD-ROM. *Contact: ICLARM, PO Box 500, GPO 10670, Penang, Malaysia. Fax: +604 643 4463 - Email: ICLARM@cgiar.org - Website: www.cgiar.org/iclarm/*.

Among the many regional information centres supported by ICLARM are two in Kenya (*Library and Information Ser-*

vices, Kenya Marine Fisheries Research Institute, PO Box 81651, Mombasa, Kenya. Fax: +254 11 472215) and in Fiji (*PIMRIS, c/o University of South Pacific Library, PO Box 1168, Suva, Fiji. Fax: +679 300830 - Email: library@usp.ac.fj*).

At Stirling University in Scotland, the Institute of Aquaculture has a widely-recognised scientific reputation. It runs training courses at all levels, publishes the biannual *Aquaculture News* (free on request) and reference works. The Institute maintains the excellent 'Fishing for information' list with 400+ links, all checked, annotated, and categorised: universities, research centres, producers, equipment and feed

suppliers, trade associations, etc. *Contact: Institute of Aquaculture, Pathfoot Building, University of Stirling FK9 4LA, Scotland. Fax: +44 1786 472133 - Email: kim.jauncey@stir.ac.uk - Website: www.stir.ac.uk/aqual*

At Rhodes University in South Africa, the Department of Ichthyology and Fisheries Science has country datasets of statistics on fish farming in Africa, online manuals and conventional university courses: *DIFS, Rhodes University, PO Box 94, Grahamstown 6140, South Africa. Fax: +27 46 622 5049 - Email: s.coetzee@ru.ac.za - Website: www.ru.ac.za/academic/departments/difs/*

Last but not least, the ubiquitous FAO. Their fisheries depart-



The Department of Ichthyology and Fisheries Science of Rhodes University, South Africa

ment Website (www.fao.org/fil) provides statistics, fish farming news and guidelines, with a special accent on sustainable development. In Southern Africa, the FAO-supported Aquatic Resource Management for Local Communities (ALCOM) provides printed and electronic information on water management and fish farming: *ALCOM, PO Box 3730, Harare, Zimbabwe. Fax: +263 4 736847 - Email: ALCOM@harare.iafrica.com - Website: www.zamnet.zm/zamnet/alcom/alcom.htm*

Organic produce And now for that certificate

Access to the growing 'organic produce' markets in the West is subject to strict rules of certification. In Europe, produce has to conform with various certification schemes, rooted in the rules established by the International Federation of Organic Agriculture Movements (IFOAM).

So if you want to start exporting organic produce, here are the steps to take. First call on a certification body which is recognised in the importing countries. You will need to enter into a contractual arrangement with them, under which you can get advice about the different stages of production, obtain the necessary licence and sometimes even become part of their marketing chain. There are several bodies which cooperate with producers in ACP countries, including AIAB in Italy, Bio-Gro in New Zealand, Instituto Biodinamico in Brazil, KRAV in Sweden, NASAA in Australia, Naturland-Verband in Germany, OCIA and FVO in the USA, the Soil Association in Great Britain (these

are all accredited by IFOAM, who can provide addresses); other bodies include Ecocert International and Bioherb based in Germany, and Skal and Agro-Eco in the Netherlands.

You will receive a visit from a technical expert who will inspect each step of production and processing to see if it is in accordance with the criteria in the sector. If the check is positive, you will be issued with an annual licence (for you) and a certificate (for the product). These checks are run at least once a year. The licence and organic 'label' will be withdrawn if you do not continue to adhere to the certified procedures.

There is a charge for the contract; you will need to pay the costs of the technical expert (travel, accommodation, daily consulting fees). It will be worthwhile trying to arrange an inspection visit in conjunction with other producers, in a cooperative or association. Although there are moves to establish more local certification offices in ACP countries, at present there

are very few: OAASA in South Africa, ABLH in Kenya, Ecocert in Madagascar, Skal International in Suriname, INADES in Tanzania, WWOOF in Togo (If you know of others, write and let us know). Some development offices such as the Export Promotion of Organic Products from Africa, which is part of the Swedish development cooperation agency SIDA, can provide finance to meet the costs of certification.

To know more:

IFOAM

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D-66636 Tholey-Theley, Germany
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Email: IFOAM@t-online.de*

*IFOAM contact in Uganda: F J Wajje
Email: uganda@wvi.org*

*IFOAM contact in Senegal: E H H Hane
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Sida-INEC (EPOPA)

*Private Sector Development Division
105 25 Stockholm, Sweden
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OAASA

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ABLH

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Fax: +254 2 521482
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Ecocert

*Lot VD 13 bis, Amparibe
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SHOGA

*PO Box 930
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Email: pirimiti@malawi.net*

INADES-Formation


*PO Box 203
Dodoma, Tanzania
Fax: +255 61 354 722
Email: inades-fo@maf.org*

WWOOF

*BP 25
Agou Nyogbo, Togo
Fax: +228 47 1012*

Skal International

*Madeliefestraat 14
Zorg en Hoop
Paramaribo, Suriname
Fax: +597 41 0555
Email: wirhtww@sr.net*

 EU Regulation "Organic Farming". A Legal and Agro-Ecological Commentary on the EU's Council Regulation (EEC) No. 2092/91
*H Schmidt & M Haccius, GTZ, Margraf, 1998. 430 pp.
ISBN 3 8236 1288 3
CTA number 972. 40 credit points.*

Publications

Building on indigenous knowledge

Over the centuries, Pacific peoples have developed a wide variety of agroforestry systems on which they depend for services such as wind and erosion protection and for products such as food, medicines, perfumes, building materials, dyes, oils and forage. However, increasing pressure on land now threatens the sustainability of many traditional systems, while much of the local knowledge is being lost as people turn to cash crops and to single varieties of crop plants. In an effort to help farmers and those working with them



adopt sustainable practices, working groups of extension agents and agroforestry practitioners painstakingly documented guidelines, facts and methods for good agroforestry practices in the islands. These have been compiled in a well-illustrated, easy-to-read information kit full of practical tips and useful references that will interest those concerned with agriculture in the Pacific region and beyond.

Pacific Agroforestry: An Information Kit.
CTA-EU-Pacific Regional Agricultural Programme co-publication. 1999.
200 pp. ISBN 982 343 038 1
CTA number 975. 40 credit points

For a fertile future

Fertiliser Strategies presents guidelines for governments on the development of fertiliser strategies, illustrates the difference before and after the involvement of the private sector and offers solutions for improvement. It discusses the role of fertilisers in the development of agriculture along with the factors that have an impact on their use by farmers.

Fertiliser Strategies. FAO.
1999. 114 pp. ISBN
9251043515
US\$ 14 • € 15.40
(See other FAO reference for address)

The role of information in decision making in agricultural research and practice.

The proceedings of the conference held in Freising, Germany, in 1998 are published in the Quarterly Bulletin of the International Association of Agricultural Information Specialists (volume XLIV, number 1/2, 1999).

CTA-IAALD co-publication.
1999. 153 pp.
ISSN 1019 9926
CTA number 964.
40 credit points.

Drylands offer possibilities, not just problems



The future for drylands might not be as gloomy as is often portrayed. *Good Practices in Drylands*

Management focuses on these practices, with an emphasis on Africa. It stresses that certain aspects of these zones have been wrongly assessed, overlooked or exaggerated. Desertification, for instance, cannot be solely attributed to wrong land use, such as overgrazing and expanded shifting cultivation. Deserts do expand and contract, but this is probably caused by long-term fluctuations in rainfall. Overgrazing as a problem has also been exaggerated, especially in the driest areas. It might be better to speak of fluctuating productivity in drylands, instead of productive

land turning into deserts. According to the authors there are various ways to improve productivity of drylands. The main lesson of the paper is that strategies to improve dryland management must build on the skills with which dryland people allocate resources, prepare for droughts and avoid other risks.

Good Practices in Drylands Management. R Øygard, T Vedeld and J Aune. Noragric-World Bank co-publication. 1999. 116 pp.
Free of charge
The Library, Noragric
PO Box 5001
1432 As, Norway
Fax +47 64 94 07 60
Email: library.noragric@nlh.no

If you need access and order

The CAB Thesaurus is a helpful aid for users of the CAB Abstracts, CAB Health and AGRICOLA databases, as well as for researchers, information scientists and librarians indexing their own document collections or other information resources. A volume with a classified listing is available in addition to a volume with an alphabetical listing. This will be of particularly useful for librarians and information specialists who are interested in the relationships between terms in subject-specific areas.

Printed Thesaurus. CABI.
1999.
Alphabetical Listing. 925 pp.
ISBN 0 85199 364 8
GBP 130 • € 214.85
Classified Listing. 331 pp.
ISBN 0 85199 365 6
GBP 50 • € 82.60
Complete set (Alphabetical + Classified).
ISBN 0 85199 366 4
GBP 150.00 • € 247.90
CAB International
Wallingford
Oxfordshire OX10 8DE, UK
Fax: +44 1491 833 508
Email: cabi@cabi.org

Feeding in the fields

Veld Management in South Africa brings together research results on production and management of several ecological regions in southern Africa with special emphasis on the grassveld, savannah and karoo. It treats subjects like interactions between grass and trees, and between game, livestock and vegetation. It also describes foliage and various aspects of management practices like burning, fallow, erosion control, fodder production and different ways of grazing. The book not only deals with the lush and leafy aspects of the landscape, but also pays attention to the animal side of the agricultural story. One chapter



is dedicated to the nutritional value of the different forage compositions and to nutrient supplementation for livestock.

It is a bulky book, which will have an audience beyond the borders of South Africa in the grassland and savannah areas throughout southern and central Africa. Aimed at students of natural ecosystem management, it is also useful for livestock producers and game ranchers who rely on the veld to feed their animals.

Veld Management in South Africa.
N Tainton. University of Natal Press.
1999. 492 pp. ISBN 0 86980 948 2
CTA number 968. 80 credit points.
ZAR 275 • € 44
University of Natal Press
Private Bag X01
Scottsville 3209, South Africa
Fax: +27 331 260 5801
Email: books@press.unp.ac.za

What can be fed to livestock

■ The recent ban on the use of meat and bone meal in animal feed in the United Kingdom and other European countries illustrates that one cannot feed just everything to animals. The search for low-cost animal feed should coincide with the quest for what can and cannot be fed to pigs, poultry and ruminants. This set of conference papers deals with secondary plant products in general and at compound level.

Secondary Plant Products: Antinutritional and Beneficial Actions in Animal Feeding. J C Caygill and I Mueller-Harvey. Nottingham University Press. 1999. 129 pp. ISBN 1 897676 28 x GBP 25 • € 41.30
NUP Ltd
Manor Farm, Thrumpton Nottingham NG11 0AX, UK
Fax: +44 115 983 1003
Email: srobbins@nup.com

Can biotechnology buy you dinner?

■ Half the world is hungry. The question remains whether biotechnological science can change this. Not all appreciate the elegance of science. Current debates on biotechnology focus on its potential risks to human health and the environment. It is also intertwined with animal welfare, food safety and the role of global companies in agribusiness.

Agricultural Biotechnology and the Poor. Proceedings of an international conference, 21-22 October 1999. CGIAR. 2000. 235 pp. CGIAR Secretariat 1818 H Street, N.W. U-3-173 Washington, DC 20433, USA
Fax: +1 202 473 8110
Email: cgjar@cgiar.org
Available online on website: www.cgiar.org/biotech/rep0100/contents.htm

Partnerships for Rural Development in Sub-Saharan Africa

Co-published by Centre for Applied Studies in International Negotiations (CASIN), Sasakawa Africa Association (SAA) and Global 2000 Program. 1999. 118 pp. ISBN 2 940192 10 3 CHF 15 • € 9.65
CASIN
7 bis, Avenue de la Paix 1211 Geneva, Switzerland
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Email: casinfo@casin.ch

Gaining ground deviously

■ Improving soil fertility management and African farming systems are two sides of the same coin. Countless international development agencies have hurried to sub-Saharan Africa to address the decline in soil fertility. *Policies for Soil Fertility Management in Africa* reviews the evidence used to define the nature of the soil fertility problem in Africa. The authors show that food production levels have been remarkably robust since the 1960s, while at the same time fertiliser use has increased only slightly. They argue that exploiting natural capital is a rational strategy for farmers. Clearing new land is cheaper than investing in fertiliser or in labour required for low external input farming systems. Farmers opt for soil fertility management strategies only if they face declining

returns to land or labour. According to Camilla Toulmin and Ian Scoones, soil management by farmers can be made more efficient if assistance focuses on improving rural livelihoods in general. They cite five forms of "capital" that are directly linked to livelihoods: natural, physical, financial, human and social capital. Roads can facilitate access to markets, training can enhance extension, and credit supply can lead to investments in livestock. A mix of these factors—forms of capital—influences the choice to invest in soil fertility management. The book offers an overview of 15 case studies in 12 countries, in which this is shown. The final chapter discusses whether there is a case for public intervention to improve soil fertility and assesses



the range of strategies available for encouraging more sustainable soil management practices.

Policies for Soil Fertility Management in Africa. C Toulmin and I Scoones. IIED. 1999. 128 pp. ISBN 189982541X
GBP 10 • € 16.55
IIED Bookshop
3 Endsleigh Street
London WC1H 0DD, UK
Fax: +44 20 73 88 28 26
Email: bookshop@iied.org

Don't leave leaves out of your diet

■ An important source of vitamin A and other micronutrients, leafy vegetables deserve pride of place in the rural economy, the laboratory, and trial fields. Yet they are overlooked and neglected. *The Biodiversity of Traditional Leafy Vegetables* is an attempt to help researchers, extension workers and home economists alike to rediscover the value of these plants and to maintain their biodiversity. Based on case studies undertaken in parallel in Botswana, Cameroon,



Kenya, Senegal and Zimbabwe, the book illustrates the many varieties and uses of leafy vegetables, and explains seed selection, cultivation and storage methods.

The Biodiversity of Traditional Leafy Vegetables. Edited by J Chweya and P Eyzaguirre. IPGRI. 1999. 181 pp. ISBN 92 9043 404 x
Available on request
IPGRI
Via delle Sette Chiese 142
00145 Rome, Italy
Fax: +39 06 575 0309
Email: ipgri@cgiar.org

It is the change that matters



■ Impact assessment is an often-heard term on the development scene. It is usually used loosely and vaguely to indicate the effect or

results of interventions by development programmes. After analysing and comparing various development NGOs, Chris Roche, the author of *Impact Assessment for Development Agencies*, defines impact assessment roughly as "a systematic analysis of lasting and significant changes, both positive and negative, in people's life brought about by a given action or a series of actions". So impact is not a direct intervention such as a dam, a credit system or a seed supply programme but about how that changes real life for the beneficiaries.

The book presents a theoretical overview of the subject as well as the design of impact assessment

processes and the different tools and methods available in a wide range of development work. Various development programmes of partner organisations of Oxfam-UK and Novib, in, for example, Ghana, Kenya, Uganda and Zimbabwe are analysed and presented as case studies.

Impact Assessment for Development Agencies: Learning to Value Change. C Roche. An Oxfam Development Guideline, co-published with Novib. 1999. 160 pp. ISBN 0 85598 418 x
GBP 9.95 • € 16.45
Oxfam Publishing
274 Banbury Road
Oxford OX2 7DZ, UK
Fax: +44 1865 31 39 25
Email: publish@oxfam.org.uk

Striking down the *Striga* weed



■ The *Striga* weed, also known as witchweed, is regarded as the “greatest biological constraint to increased food production in sub-Saharan Africa”. It has even been described as a more serious problem than insects, birds or plant diseases and as one affecting the livelihoods of some 300 million people.

A splendidly clear and comprehensive booklet *A Reference Manual on Striga Distribution and Control in Tanzania* has been produced

for field use. It is sturdy in content and construction. While a few sections relate to the distribution of the weed within Tanzania, including its many local names and popular uses, the bulk of the booklet is of direct use to readers elsewhere. Descriptions of the biology of the weed and symptoms of its host plants are combined with sections on farmers’ knowledge of the weed and its control. Among the control measures are manual weeding, the use of *Striga*-free seed, intercropping of cereals with legumes and the use of catch crops.

The authors put much effort into producing a practical text, obviously in close consultation with farmers, extension workers and researchers, and the designers excelled themselves with their illustrations. Its publication was supported by the Farm-level Applied Research Methods for East and Southern Africa (FARMESA) programme.

A Reference Manual on *Striga* Distribution and Control in Tanzania. A M Mbwaga, J Kaswende and E Shayo. FARMESA. 2000. 26 pp. Available on request
Ilonga Agricultural Research Institute
PO Box 11onga
Kilosa, Tanzania

Get the facts straight



■ Want to know how to make a pheromone trap in sweet potatoes to catch potato weevils, or how to rear parasites of citrus root weevils? Take a look at CARDI’s three new compact and practical factsheets on pest management in the Caribbean.

- Rearing Parasites of Citrus Root Weevil
- Integrated Pest Management of the Sweet Potato Weevil
- Construction and Use of Pheromone Traps in Sweet Potato Production

Free of charge
Caribbean Agricultural Research and Development Institute (CARDI)
University Campus, St. Augustine
Trinidad, West Indies
Fax: +1 868 645 12 08
Email: itservice@cardi.org

Bananas and Food security.

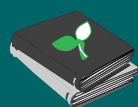
Les productions bananières:
un enjeu économique
majeur pour la sécurité
alimentaire.

Proceedings of an international symposium held in Douala, Cameroon, 10 – 14 November 1998. In English and French.

International Network for the Improvement of Banana and Plantains (INIBAP), Montpellier, France. 1999. 797 pp.
ISBN 2 910810 36 4
CTA number 969. 80 credit points.



How to obtain these publications



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Publications on CTA’s list are available free-of-charge to PDS

subscribers. Subscribers can order publications on CTA’s list up to the value of the credit points available to them. Subscribers can only request publications on the order forms provided.

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uals resident in ACP countries may also apply.

If you are not eligible for a free subscription to the PDS, or if you need publications beyond your free credit allocation, you may buy publications on CTA’s list from our commercial distributor: *Triops*, Hinderburgstrasse 33, D-64295 Darmstadt, Germany, Fax: +49 6151 314 048, Email: triops@triops.de, Website: <http://www.triops.de>

Appropriate Technology moves

■ The journal *Appropriate Technology* has changed hands and now incorporates another journal, *International Agricultural Development*. Launched in the early 1970s by the Intermediate Technology Development Group as a major carrier for the “small is beautiful” approach to technology and development, *Appropriate Technology* has survived to provide valuable information for field practitioners. The new owners, Research Information, hope that the merged publications will “fully reflect the major role that agriculture has for a majority of people in the developing world”.

Research Information Ltd
222 Maylands Avenue
Hemel Hempstead HP2 7TD, UK
Fax: +44 1442 259 395
Email: info@resinf.co.uk

Go through the points

■ This glossary outlines the terms frequently used by workers and writers on modern biotechnology and genetic engineering. It includes terms used in genetics, biochemistry, physiology, tissue culture, immunology and animal reproduction.

Glossary of Biotechnology and Genetic Engineering.
FAO Research and Technology Papers. 1999. 262 pp.
ISBN 9251043698
US\$ 16 • € 17.60
(See other FAO reference for address)

Quality seeds wanted

■ Availability of good-quality seeds of a wide range of plant varieties is a major challenge to countries in sub-Saharan Africa. A good seed policy should in addition contribute to the maximisation of both agrobiodiversity and productivity, while reducing environment degradation and depletion of natural resources. Current views and discourses on this topic can be found in the proceedings of the Regional Technical Meeting on Seed Policy and Programmes for sub-Saharan Africa held in Abidjan in 1998.

Seed Policy and Programmes for Sub-Saharan Africa. *FAO Plant Production and Protection Papers*. 1999. 244 pp. ISBN 925104323 x
US\$ 26 • € 28.65
FAO Sales and Marketing Group
Viale delle Terme di Caracalla
00100 Rome, Italy
Fax: +39 06 57 05 33 60
Email: publications-sales@fao.org

CTA in 1999: Responding to demand, establishing new partnerships

In his introduction to the CTA Annual Report for 1999, the then Director, Dr R D Cooke, lays great emphasis on “the need to ensure that information services



are demand-driven”, alongside the “the need to increase support for localised, or de-centralised, services which serve specific communities or sub-sectors”. With these opening remarks, the scene is set for an informative overview of the Centre’s activities and the way they have evolved as a consequence of the transformations that were anticipated in the Centre’s Mid-Term Plan for the period 1997–2000.

Many of these transformations, which will be further built upon in a second strategic planning exercise for the period 2001–2005, are best expressed in the consolidated growth of a partnership approach throughout the organisation. As well as the proactive approach of CTA’s Information Policies and Partnerships Department, which develops new models


of partnership with public and non-public bodies throughout the ACP regions, other departments are working along similar lines. The Publications and Dissemination Department is working on, for example, new serial co-publications with new and existing partners. In this, ACP participation is a basic requirement and closer links are being developed with ACP authors and publishers. The growing participation of ACP writers and editors in *Spore* is another example of this trend. Of the 75,500 publications distributed by CTA in 1999, almost 70,000 were sent in response to specific requests. This is the highest ever share of an ever growing volume of information made available by CTA to its subscribers—who now total 25,000—and partners.

The continuing decentralisation of many CTA activities is witnessed by the relative growth in participation of CTA-sponsored delegates in seminars held in ACP countries. In all, 233 participants were supported by the Studies and Seminars Department to attend 37 seminars, of which three-quarters were held in ACP countries, an increase from two-thirds in 1998. And most of the 10 co-seminars organised by CTA in cooperation with various partners were held in ACP countries. Likewise, the bulk of training events was ACP-based, with more than 250 people attending 17 courses in information and communication management (ICM). Increasingly, the training opportunities supported by the Information and Capacity Development Department are integrated with other CTA services. Organisations participating in courses on the use of the World Wide Web for agricultural information are also offered space on the

CTA website, or are linked to other departments’ work on, for example, market information services.

Each activity, event, study, seminar and publication undertaken in 1999 is described in a nutshell. The report also carries detailed statistics, including the one that many *Spore* readers ask about: CTA’s annual budget—provided almost exclusively by the European Development Fund—in 1999 was € 12.3 million, of which almost two-thirds was directly allocated to operational services and programmes.

In this metric age, it is perhaps incorrect to talk of ‘milestones’, but this Annual Report provides the reader with a clear and comprehensive overview of a great many achievements, undertaken in partnership.

 CTA Annual Report 1999. CTA. 2000. 112 pp. ISBN 92 9081 2281. CTA number 977. Available free-of-charge from CTA. PDS subscribers, please use your publications order forms.

Gender at the front

The Special Paper in the *CTA Annual Report 1999* presents “The Economic Role of Women in Agricultural and Rural Development: The Promotion of Income-generating Activities”. Written by Grace Akello and Fatou Sarr of Uganda and Senegal, respectively, the paper provides a compact overview of the barriers to and opportunities for optimising women’s roles, ranging from the global gender agenda to policies and strategies for income generation. It calls for a shift, a fundamental shift, from promoting gender neutrality towards a vision that is based on the economic empowerment of women in a development model where women are the subjects, rather than the objects, of development.

The Special Paper is also available, free-of-charge, from CTA, separately from the Annual Report. CTA number 979. PDS subscribers, please use your publications order forms.

Mailbox

We have selected these comments from reader’s letters over recent weeks. Your own comments are more than welcome at the *Spore* addresses in the box on the right.



Natural predators

■ **Edouard Mvogo Balla Ngono** of CODASC, M’Balmayo in Cameroon, tells of a nifty little rat trap designed by local children using empty tins. “They put some grain or a nut inside the tin. They fit a lid to the tin with a piece of rubber to pull it down and close the tin. They hold the lid up with the end of a piece of bamboo and when the rat goes inside the tin, they pull the stick away. The kids are just crazy about their catch of meat, and they well deserve their reputation as natural rat enemy number one!”

Quite a cow!

■ **Sani Labaran Zango** (PMB 1018 Daura, Katsina State, Nigeria) tells us of a prolific cow in Kumbi Fulani village. “The cow is of the red-bororo breed and is six years old. In 1997 it miscarried a set

New Working Documents

Two new titles, in both English and French, have joined the growing list of CTA's Working Document series, which provides material of immediate relevance and practical utility to specific readerships, without the delays inherent in the formal publication process.

The *Desk Study on Land-use Management in Sub-Saharan Africa* briefly describes activities and projects for soil conservation in western, eastern, central and southern Africa. About one hundred activities are included, ranging from *zai* planting techniques in Burkina Faso to *vinzungu* valley-bottom cultivation methods in Tanzania. Most of the descriptions

are institutional more than technical, giving information on organisations involved. The interested reader will need to contact the listed projects for more details. As such, it is a collection of signposts to useful sources for planners and practitioners seeking comparative information on erosion control. The document was originally prepared as a resource paper on experiences with community-based land-use management in sub-Saharan Africa for a CTA seminar on Land Management held in November 1998 in Bamako, Mali.

A more descriptive and narrative approach is taken by the *Desk Study on Water Management in Sub-Saharan Africa*

and the Caribbean, prepared for the CTA seminar on Managing Water Equitably, Efficiently and Sustainably for Agricultural and Rural Development in Sub-Saharan Africa and the Caribbean, held in Cordoba, Spain, in September 1999. The working document discusses the strategies and tools involved in the areas of water policies, legislation and water rights. And it moves into a series of descriptions of water management approaches, with chapters on Burkina Faso, Mali, Niger, Senegal, the Lake Chad basin, Northeast Africa, East Africa, Madagascar, Zimbabwe, and South Africa and other neighbouring states.

Desk Study on Land-use Management in Sub-Saharan Africa. M van de Sand. CTA. 1999. 18 pp. CTA number 8012. 5 credit points

Desk Study on Water Management in Sub-Saharan Africa and the Caribbean. J-L Couture. CTA. 1999. 37 pp. CTA number 8010. 5 credit points

Priority setting

It seems that the old adage "It's not what you know, it's who know" has been firmly turned inside out and upside down. Nowadays, while some people are still one or more tantalising steps removed from having the basic information they need on agriculture and rural development, there is a growing feeling that many others have, at first sight, perhaps too much. The emphasis is coming to lie on being able to select what is important from what is less important, and to manage it efficiently.

Here, the complex skill of 'priority setting' can help in raising the quality of agricultural information services, from defining user needs to delivery. Over the last three years, CTA has been steadily refining a methodology for the determi-

nation of priority themes for agricultural information, and it recently completed a series of six pilot studies at national level. The studies were undertaken in Burkina Faso, Ethiopia, Kenya, Mali, Senegal and Zambia. They centred around workshops involving representatives of National Agricultural Systems as well as related non-governmental organisations and rural organisations. As a result, the next phase of this programme will enable other ACP countries to be able to conduct similar exercises, although the issue of their funding remains an item. All in all, a tool is being developed in a participatory and interactive way which will bring about the demise of the other old adage "You don't know what you want until you know you haven't got it."



Spore is a bi-monthly publication providing information on agricultural development for ACP countries. **Spore** is available free-of-charge to relevant organisations and individuals in ACP and EU countries. Subscriptions may also be purchased from *Triops* (see page 13).

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of triplets. In 1998 it again delivered triplets of which two died later. In 1999 it gave birth to a single cow and on 12 February 2000 it delivered a set of



quadruplets. It is apparently healthy. Stress of excessive suckling is evident. The calves are also healthy. The cow needs a lot of high quality feed to produce sufficient milk. Already the local government chairman has donated wheat bran, cotton-seed cake and medications. We are looking for urgent

assistance to help ensure the survival of the cow and the calves."

Priority setting – part two

Japheth B. Tugume, a district coordinator of the Bushenyi District Farmers' Association in Uganda, talks of priority setting (see article above) as a question of attitude: "I have always wondered why the perception of stakeholders is always targeted to the contrary of what we want them to achieve – look at our appeal for simple irrigation. In Uganda the dry season means a period of no green vegetables on the homestead, and so a balanced diet cannot be achieved. It means that those very few who can grow a few vegetables get better prices. But the question is: Why should these beloved citizens draw several jerry cans of water for home use but cannot save one for watering at least ten tomatoes?"



Malcolm Sellu Jusu is a researcher from Sierra Leone. He specialises in plant breeding of various crops, mainly rice, and is a member of several international research communities.

Farmers' knowledge

Let's marry the knowledge of farmers and scientists

While I was working with the national agricultural research centres in Sierra Leone, numerous rice varieties were released over time but they were rarely adopted by the farmers. They simply did not use them. What, in addition, triggered my curiosity was the discovery of a—for us unknown—rice variety that the farmers called Pa Three Month, because it matures after three months. It turned out to be a popular local novelty. Pa Three Month was not a research station release; it had probably resulted from an outcross between local rice varieties (*Oryza glaberrima*) and international high-yielding materials (*Oryza sativa*). Here was an excellent reason to take a new look at how farmers were handling their seeds and how they selected seeds for the next year's crop. In various village trials, farmers were invited to select from a large number of farmer varieties,

Low-resource farmers are quite capable of selecting appropriate plant material even in difficult environments, but they need skills and genetic diversity from both within and outside their locality. Although farmers and breeders may differ in what they think and what they perceive as being important, joint farmer–scientist selection exercises are feasible and offer a fruitful option for ensuring farmers' participation, says Malcolm Sellu Jusu.

interplant “older” (*O. glaberrima*) and “newer” (*O. sativa*) types. Even without fertilisers, these combinations outyielded the same varieties planted as monocrops, for reasons of internal competition. Farmers also try to synchronise flowering in these mixtures, thus enabling outcrossing and a secure harvest in adverse environmental circumstances. Therefore, Pa Three Month is probably not the only variety that might have resulted from these combinations.

factors also play an important role. Inter-regional trade and proximity of towns—where development NGOs and agricultural research stations are based—tend to lead to more sophisticated seed selection methods, richer mixes of rice varieties and increased sociocultural relations in seed handling.

Institutional innovation is needed

Acknowledging local knowledge and cultural difference is essential for development and adoption of new varieties. Breeders must begin to take this into account in addition to the conventional interaction between genotype and the physical environment. I do not agree with those who argue that farmers need only a few broadly adapted modern varieties developed according to a standard international ideotype, nor with the populists ranged against them, who argue that farmers have their own ideas and genetic resources and therefore do not need external assistance or materials. Plant improvement research programmes have only focused on local varieties for introducing useful genes into well-established high-yielding varieties. They should also make farmers' selection experiments a regular part of an interactive process for bringing together farmers and researchers in a much-needed, complementary relationship.

The opinions expressed in Viewpoint are those of the authors, and do not necessarily reflect the views of CTA.

“Farmers know what they are looking for.”

releases and pre-releases from the Rice Research Station (RRS) in Sierra Leone, and introductions from the International Network for the Genetic Evaluation of Rice in Africa (INGER-Africa).

Low-resource farmers like variety

We found that farmers chose international *sativa* rices from INGER-Africa as frequently as they did the local rices, but they were less interested in the advanced lines from the national RRS. So farmers look for, and like, exotic material: not just as an innovation, but also for its potential to complement existing material. There is reason to conclude that the potential of local material for selection and breeding is still not exhausted, hence the lack of interest in yet newer varieties. Low-resource farmers like to experiment with many varieties and not just a few high-performing ones. Some farmers, for instance,

These farmers are among the world's most impoverished people and they work in highly insecure war-time conditions, but it is clear that they know what they are looking for and they can explain the reasons for their choices. There is also considerable agreement among the farmers, even though their choices do not necessarily match with those of researchers. Farmers know which varieties do best on poor soils, which ones keep longer, taste better, give a long satisfied feeling in the stomach, or are less susceptible to pests. They prefer to sow mixes and usually plant up to five different varieties on the same farm. Rice seeds keep for 18 months, but farmers can exchange them with relatives, neighbours, or even farmers in other regions, particularly when they move and need other rice seeds. Despite the fact that farmers have been growing rice for hundreds of years, there is a considerable regional and ethnic variation in seed management and rice varieties, for historical