



Spore

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Website: www.cta.nl



In this issue

As the development scenario changes, so do practices and perspectives. The AIDS scourge presents an awesome new challenge to the agricultural community, from policy makers to surviving farmers, to do more with less.

Another challenge lies in the dilemma presented by the barter economy. A powerful motor in agriculture, yet it is uncontrolled, untaxable, and thus unmanageable. Should authorities tolerate it or integrate it in the formal sector? Integration is also the key to satisfying the varying demands of coastal dwellers and producers.

These issues are raised by the usual blend of news, resources, views and lively readers' letters. The Viewpoint on participation in forestry planning stresses the importance of information and transparency — a theme which is also touched upon with a modest but crisp message in the report of CTA's June Advisory Committee.

Illustration Louma Production @Cinadh Didier Piv/Sunset



AIDS and agriculture

Red-ribbon farming

The red ribbon has become a worldwide symbol for mourning a death from AIDS, a disease whose impact on ACP agriculture is terrifying for those who suffer and die, those left behind, and those yet to come. The talk is of devastation, decimation, and despair. It is time to respond, to come to terms with the scourge that may remain with us forever.

A village dies every week in Zimbabwe, where one in five adults suffers from HIV/AIDS, the sexually-transmitted disease that strips the body of its immunity to infection. Each week, one thousand Zimbabweans die from AIDS-induced illnesses. More than two-thirds of all new AIDS cases in the world are reported from Africa, where more than 21 million people suffer. Across the developing world, which has 85% of all AIDS cases, the struggle against its spread receives a tiny portion—estimated at one-tenth—of the \$2 billion that the world spends on HIV/AIDS prevention.

It is for most people a disease of poverty, although it can strike anyone indulging in unsafe sex and—greatest concern of all—the

unborn children of sufferers. In Uganda, for example, one pregnant woman in three is affected, and so will be their children.

Most of the attention on the health aspects of AIDS is focussed in the North, but it is above all a social and developmental tragedy in the South. And, while there are more infections in towns than in the country, the impact is greatest in rural areas since many infected urban dwellers and migrant labourers return to their villages to be cared for and add to the number of local cases.

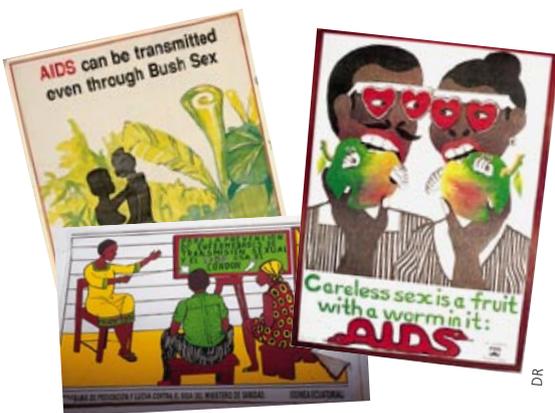
Rural livelihoods at risk

The impact of HIV/AIDS on households and communities has significant implications for the sustainability of rural liveli-

hoods, according to a recent regional conference on HIV/AIDS and agriculture held in Harare, Zimbabwe. The two immediate impacts of an illness and a death are the loss of an often productive person and loss of time as family members take off from agricultural work to care for the sick, and to mourn. Expenses for medicine and funerals add to a family's debt burden and eat into its capital that could otherwise be invested in agriculture.

Loss of labour affects crop and livestock production, by reducing the amount of land under cultivation. Soil fertility and harvests decline because soil management, tilling, weeding, mulching, and planting are neglected. Frequent loss and sale of animals due to less care lead in turn to less long-term capital being available for investment.

Extension services, already overstretched and under-resourced, suffer from absenteeism due to long illnesses, attendance of



The writing on the wall urges caution

funerals, and death of workers; in some regions of Ghana, Zimbabwe, and Uganda, for example, more than 10% of extension workers have died.

Studies by the FAO on the impact of HIV/AIDS on agriculture in western, eastern, and southern Africa repeatedly stress that, by cutting down large slices of today's and tomorrow's productive generations, the disease aggravates existing agricultural and rural problems. Rural women suffer the most from its impact. The Harare conference spoke of their triple jeopardy arising from their roles as mothers, wives, and farmers. When they have to replace the loss of a breadwinner by starting or expanding their agricultural activity, they are hindered by uncertain access to land, credit, and education.

Innovators, your country needs you

Smallholder agriculture has been hit hard by the first wave of HIV/AIDS since its emergence in 1981, and it will continue to suffer for several generations. Prevention campaigns are starting to have effect, with heartening success stories about public awareness resulting in falling infection

rates. The disease continues to spread, however, and policies for agriculture and rural development have to change significantly.

The challenge is not a new one: "more from less" is one way to sum it up. The resources available for expanding agricultural production and rural livelihoods have diminished: less labour, less capital, lost traditional knowledge, weakened informal institutions, shrunken formal institutions. There is room here for drawing on the well of innovation of rural communities and popular institutions, often represented by village and farmers' associations and the nongovernmental sector. Sometimes it is a case of strengthening existing mutual support organisations; sometimes new organisations can emerge, as has happened in the Hay and Mambo villages of Tanzania, where new savings groups have sprung up in response to the impact of HIV/AIDS.

Recent advances in microcredit, microenterprise, and employment creation could be refined even further, by being better targeted at (even better, by) women, and with a greater focus on management of financial resources. Microfinance has become a tool for empowerment in villages and NGOs, and it needs to be fine-tuned to the changing conditions of surviving rural users.

The same applies to agricultural technologies, which depend on the creativity of researchers. According to the Harare conference, a greater role could be played by low-input systems that require little human energy, or investment: intercropping to reduce weeding time, minimum tillage techniques, use of trap crops to lure pests away from productive crops and natural pest management. Appropriate technologies need to be further developed, such as animal weeding, mulching, intercropping, further selection of crop varieties for disease and drought resistance, equipment for use by the sick, as well as labour-saving devices for use in the household and for collecting water. Agricultural extension also needs to adapt to working more with clients previously untargeted: women, youths, and schools. All these themes will be developed further at a conference to be held in Accra, Ghana, in November 1999, which will be supported by CTA.

You may change your mind

Prevention of the HIV/AIDS epidemic depends mainly in changes of behaviour and attitude on the part of the individual. The same applies to coping with the permanent impact of HIV/AIDS on ACP agriculture and rural development. To make the necessary changes in agricultural practice requires changes in attitudes in the individuals who make up its many institutions. Informal institutions in villages have started to change, and the process should be encouraged by local, regional, and national governments, the private sector, and donor

Rural livelihoods at risk

The impact of AIDS on ACP agriculture is immediate, and enduring:

- illness and death destroy the major capital of agriculture – people – and working capital
- loss of labour affects farm maintenance and extension services
- women are hardest hit
- more finance and policy support is needed for village-level credit programmes, self-help groups and the development of appropriate technologies
- new approaches require new attitudes from policy-makers

agencies. These need to re-invent forgotten mechanisms of being nonbureaucratic and supporting small projects. For formal bodies, understanding the changed needs and nature of the farmer means listening, asking, and understanding at local level through more participatory approaches. Seeking and making solutions, such as adapting technologies with smallholders, means establishing genuine partnerships between institutions.

The real impact of HIV/AIDS on ACP agriculture has still to be felt, as yet another slap in the face in addition to natural and man-induced disasters of drought, climate change, changing markets, and structural adjustment. Perhaps HIV/AIDS, as a disaster that touches individuals so deeply, represents the ultimate external threat that will lead to unity in making change.

If not, there will be room for another, more sombre, innovation that, according to Andrew Mutwanda, a leading AIDS campaigner and a writer in Zimbabwe's *Financial Gazette*, has caught on in many parts of the world: the Memory Book. This is used by a family as part of its grieving ritual to commemorate a person lost to AIDS. It is a history of important people and events, a record of their aspirations and heritage. The "Memory Book of Agriculture" is a book we must hope will never need to be written.

For further information

Responding to HIV/AIDS: Technology Development Needs of African Smallholder Agriculture. Conference held in Harare, Zimbabwe, and hosted by the Southern African AIDS Information Dissemination Service.

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The Implications of HIV/AIDS for Rural Development Policy and Programming: Focus on Sub-Saharan Africa, by D Topouzis for Sustainable Development Department, FAO, and HIV and Development Programme, UNDP
FAO, 1998.

The publication is available on Internet:

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Barter and exchange

Swaps sweep the board

Swaps, barter, and nonmonetary exchanges have long been frowned upon and decried by purist economists. Not that their opinions count in the thriving world of local exchange trading systems and international barter networks.

In the small bustling market town of Nditam, 250 km north of Yaoundé, the capital of Cameroon, the activities of women producers show just how deeply rooted modern trade is in ancient practices. Grouped together in the “Beyii Ndeng” association, which means “Women, to the Fields” in the Tikar language, they help each other clear land, and sow and harvest their crops. Their complex system of mutual support goes further: to respect fallow patterns, they do not all cultivate the same food crops. This year, those growing sweet potatoes will give part of their crop to those growing macabo or taro. Such exchange is an old tradition with the Tikar people; they have, since ages, traded with the Bedjang pygmies, their neighbours in this central region of Cameroon, without ever using money. What they barter has changed with modernity. Nowadays, one party will give old clothes, salt, soap, lamp oil, and local alcohol, and receive bamboo furniture, game, and muscle power for working on plantations.

Lots of LETS ...

Some people in modern societies yearn for this form of fair trade from the good old years. Since 1993, dozens of LETS (Local Exchange Trading System) projects have been launched in Europe. They started in Canada in 1983 and have spread far and wide throughout the West. They cover a multitude of barter exchanges between individuals or communities, and for all sorts of goods or services: lessons, food, do-it-yourself handiwork, use of computer equipment, helping hands, baby sitting, and many others.

The Belgian daily *Le Matin* runs a swap shop section of small advertisements. In France, the traditional bric-a-brac traders have been joined by a new wave of LETS fairs where nonmonetary exchanges are traded. And LETS services have set up shop in cyberspace with such French-language websites as www.selidaire.org or www.troc-en-france.com. English-speaking services include the International Barter Corporation, with its website www.ubarter.com. In

Havana, Cuba, swap traders known as *permutas* have set up another type of web, where people can exchange apartments as their family situations change through deaths and births.

It is hard to quantify these transactions at macroeconomic level, in part because national borders—especially those of ACP countries—are porous, much to the profit of smugglers. But in the case of Russia, the IMF has estimated that one-half of all trade exchanges are through barter. A general estimate is that such transactions represent 10–12% of the volume of all world trade, with all that this means in terms of lost statistics and lost tax revenue.

Barter trade took off in its present form in the 1950s in exchanges between Eastern Bloc countries. In the 1970s and 1980s they were built into industrial exchanges and technology transfers, adding a new element to North–South relationships. More recently, in the 1980s and 1990s, they have taken on the form of financial compensation through debt conversions and swaps. One such method, known as “switch”, is a triangular operation in which two of the three parties set up an agreement for payment. The value of goods exchanged is recorded by the central banks of the countries concerned, and only the outstanding balance is paid in hard currency. As for debt swaps, the debtor country hands over part of its debt liabilities at a discount, in exchange for inward investment or purchase of exports from the country.

Since it became a command economy in the 1960s, Cuba has been, and still is, a past master at barter. It has bartered its sugar production for Soviet and now Russian petrol (in 1997, it swapped 3.25 million t of sugar for 9.75 million t of crude oil). In 1995, Fidel Castro’s country set up sugar swap deals with France (for wheat), with a British trader, and Iran (for fertilisers). During the 1980s, some African countries such as Tanzania swapped products like tea for tractors. Nigeria is well known as the most adept barterer on the African continent, swapping its oil for small parts.



Smuggling and laundering ...

The value of bartering is emphasised by the French organisation ADEPTA¹, the association for international exchange of agricultural and food products and technology. It holds that nonmonetary compensation, or countertrade, is an important asset for agricultural development in Southern countries. Similarly, ACECO², a French body for countertrade, seeks to maintain a certain ethical code of conduct in nonmonetary exchanges and to “protect” businesses involved in such trade.

Nonetheless, countertrade is an area rife with blows below the belt. It is well known as a way to get products for a price below their market value. It is also a way for some operators to offload surplus production. And countertrade does not go unchallenged either. The famous swap between France and China involving Airbus planes and textiles and clothes has had a drastic effect on the French textile sector. In the early 1990s, Rwanda swapped a good part of its bean crop for weapons; the result was the terrible massacre of the ethnic groups. Similarly, the ongoing armed conflicts in Angola, Sierra Leone, and ex-Zaire are fed by barter of arms for precious stones. The Russian mafia operates in these countries as well to launder its dirty money.

But the consequences of countertrade are not always so dire. In Cameroon caps of beer bottles marked by the breweries with a winning symbol can be swapped at any beer outlet for a free beer. The winning caps are sometimes accepted as a ticket to ride ... by taxi drivers.

¹. The ADEPTA association was set up in 1997 by the French Ministry of Agriculture. It brings together 210 businesses in sectors ranging from agricultural development to food processing. Its mission is to assist its members in identifying business partners and to promote contacts through trade missions, exhibitions, and fairs.

². ACECO is a private French body, specialised in partnership and advisory services for commercial negotiation and export finance for countertrade. It organises training courses and information services by sector and assists its member businesses for projects, financial engineering, and seeking opportunities in countertrade.

Sustainable management of coastal zones

Living dangerously on the edge



Photo Mark Edwards/Still Pictures

.....

Almost half of humanity lives near the coast. Many people draw their living and livelihood from this narrow strip of land nudging the ocean. The last two explosive decades have seen tremendous changes to the fragile ecological balance of coasts. The pressures of growing populations and their occupations have seriously damaged the environment, sometimes irreversibly. Everyone suffers the consequences, some more than others.

Not that the occupation levels of the coast are even : there are great stretches of virtual deserts, such as in Somalia and Namibia, and other areas with several hundred people on each crowded square kilometre. The rush to the coast is only recent: coastal settlements, started by fishers, are relatively new. Then came the towns, followed by ports and industries, while people left the rural areas of the interior for the coast. Gradual population growth put pressure on the use of the many natural resources; first and foremost on fishing and farming, but also on hunting, salt

harvesting, shell and shellfish gathering, sand quarrying, and firewood collection. The communities undertook different activities, but as the pressure on resources grew, their interests began to clash. Other pressures from tourism, industry, and aquaculture started to play their part. If population pressure had been less, these various activities could have coexisted in harmony. Wastes discharged by towns and factories dilute into the sea, up to a point. The fishing population can grow without reducing the catch, up to a point. Aquafarmers can drain off their ponds, tourists can flush their wastes

Come back fish, come back people

.....

Until the 1960s, the delta of the Senegal river was an area of extraordinary ecological wealth. This mosaic of dunes, flood plains, and mangroves was home to tens of thousands of people living from hunting, fishing, livestock production, and handicrafts. The droughts of recent years have depopulated the region of its manpower and the main source of income is now reed mats produced by the local women who have not moved. The construction of the Diama dam on the Senegal river cut down flood levels during the 1980s, causing gradual salting of the delta soils.

The Diawling National Park was created on the Mauritanian bank of the river in 1991. It did not attempt to oppose development of human activity and conservation of the ecosystem, instead it focused on the interests of all smallholders. Scientific observations soon suggested that flood levels should be restored to those prior to the construction of the dam (see Spore 80). Steps were taken to consult the representatives of all the socioprofessional groups affected by the creation of the National Park: fresh water fishers, coastal fishers, pastoralists, vegetable and fruit growers, and craftspeople. Local people were often concerned that the creation of the park would disrupt their lives. Case-by-case solutions were found through a permanent link between the community and the project team. In the village of Birette, for example, livestock farmers whose pastures had been flooded by the new course of the river were encouraged to switch to market gardening. In Ziré Takhredient, local people, who had traditionally lived from hunting, were unhappy about switching to what they saw as demeaning agriculture, so they opted for fishing, stating that "as long as there is one fish left in the water, we shall not work on the land". Often there was a clash of interest between groups. Fishers wanted a certain type of water flow to encourage fish reproduction. But the Maure women, who had set up a workshop to produce traditional mats using leather and rushes, wanted a slightly different pattern of water flow so that the rushes could receive the first rains before being flooded. The most obvious result of the National Park is that wildlife has returned in all its diversity. But the most important result is less visible: it is the return and the development of various human activities that are in harmony with the ecosystem. It all goes to show that conservation of nature is not contradictory to human activities; it is instead a guarantee of their success.

For further information

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Photo Andre Maslennikov/Still Pictures



The load on the coast



Illustration Terry Andon

There are many demands of different activities on the coast, and most of them need a good quality environment (water, fauna, and flora):

- fishing • agriculture • gathering • aquaculture • hunting • handicrafts
- wood cutting • sand quarrying • salt harvesting • firewood collection • industry
- harbours • tourism.

away in their bungalows, and small farmers can cut down mangroves. Up to a point, the impact of each group's activities on the environment is negligible. But up to which point?

After a given point, the richest people will open other posh hotels elsewhere, other fish ponds elsewhere. The largest trawlers will go further away and fish, elsewhere. Fishermen who stay behind and go nowhere will fret about the drastic falls in their catches, not knowing where all the fish went.¹

Where have all the fish gone?

Standing on their frail boats, fishers can see tangibly that there are fewer and fewer fish. Catches are down by about 60% compared with 15 years ago. Take Senegal, a country that relies heavily on fisheries both for feeding its people and for exports; the statistics show a clear drop in the catches of fish with a high commercial value (sole, mullet, sea bream, and grouper). Some species that have grown popular recently, such as cuttlefish or octopus, are stable; for others, like hogfish, the catches have fallen already.²

On a global level, the FAO has calculated that some 50,000 coastal fishermen will lose their livelihood in the next 15–20 years if nothing is done. Their numbers have increased and techniques have improved, but the causes of falling catches do not lie here alone. Discharge of urban, industrial, and agricultural effluents into rivers or directly into the sea leads to chronic pollution from bacteria, industrial waste, and pesticides. Fish are dying at a time when their value as a source of income and protein is all the more important for local people. Another form of environmental degradation, deforestation, is a more insidious factor; it

worsens the phenomena of erosion along the coast just as it does inland. Rivers carry down erosion sediments that are deposited at the mouth. The accumulated sediments literally suffocate the environment, changing it almost irreversibly, as in the case of the Limpopo estuary in Mozambique.

Development managers in many ACP countries often underestimate the value of coastal fisheries in economic and social development. Its recognition is not just a solution, it is a prerequisite. The real solution in most cases requires the involvement of all stakeholders so that they act together. Participation is a key element at the heart of integrated coastal zone management. This is a new approach, but it should not be seen as just the latest fashion in development concepts. Never, since the emergence of systems research, has the fate of people depended so much on the challenge this theme poses for researchers and leaders in development.

¹ M Ducrocq. Premières enquêtes à propos de l'exploitation des raies et requins par les pêcheurs Nyominkas du Sine-Saloum (Sénégal). *Mission report*. March 1999.

² Marchés Tropicaux. *April 1999*.

For further information

Dossier "Integrated Coastal Zone Management". In *Agriculture and Rural Development. Volume 6 p 27 No 1, April 1999. ISSN 0343-6462. Available from CTA*

Responsible Fish Utilization. *FAO Technical Guidelines for Responsible Fisheries 7. 1998. 39 pp. ISBN 92 5 104180 6. \$8.00 • €7.80*

Aquaculture development. *FAO Technical Guidelines for Responsible Fisheries 5. 1997. 40 pp. ISBN 92 5 103971 2. \$8.00 • €7.80*

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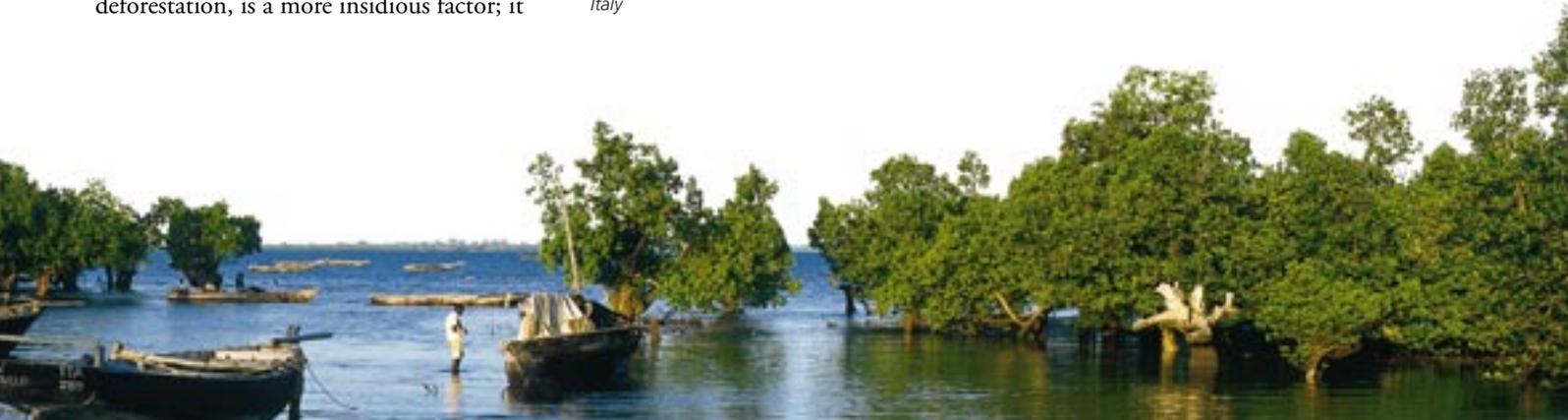
Photo ANTSunset

Shrimps: The renewable resource?

Shrimp farming has had a phenomenal success in Southeast Asia and Latin America as an important earner of foreign currency. Shrimps pens are set up in the waters of mangrove swamps on the mudflats of coastal strips. Because of the methods used, shrimp farming destroys the very environment on which it depends. Development of shrimp larvae through intensive raising reduces the swamp's resources, and the continuous discharge of soiled water means that no clean water can be put into the ponds. Shrimp farming companies are now turning towards the African continent and Madagascar as they are frowned upon in those countries where they have long operated. In 1996, the Supreme Court of India even forbade shrimp farming throughout the country. In Tanzania, the African Fishing Company has been working for several years to set up the world's largest shrimp farming project at the mouth of the Rufiji river. The delta has by far the most extensive mangroves of the entire eastern coast of Africa, where numerous species can develop. Almost 30,000 people depend on fishing in the delta. Meanwhile, the Mombasa Declaration of 6 February 1998 called for a moratorium on the Rufiji project to allow for an impartial assessment of the long-term consequences of the project for the environment and local people. Signed by numerous African NGOs campaigning for sustainable development, the Declaration reminded the governments of eastern Africa of the repeated pledges to promote sustainable development that they made at the Rio de Janeiro conference in 1992 and in Arusha in 1993.

Source

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Sweet potatoes replace Vitamin A pills

The International Potato Centre (CIP) has developed orange-fleshed sweet potato varieties that provide a simple delivery system to increase the dietary intake of vitamin A. Farmers in eastern Africa are currently growing the new varieties instead of the traditional types with low vitamin A content. Sweet potato flour from dried roots offers the most efficient way to increase vitamin intake. Vitamin A deficiency is a serious nutritional problem in many developing countries. It can cause night blindness among other problems, and prolonged deficiency can impair the immune system.

*International Institute for Tropical Agriculture (IITA)
International Potato Centre (CIP)*

Pan-African PAN

The 5th international conference of the Pesticide Action Network (PAN) – on **Feeding the world without poisons: supporting healthy food and healthy agriculture** – will be held from 18 to 21 May 2000 in Dakar, Senegal. It will be preceded by a regional workshop on integrated pest management and sustainable agriculture.

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International Rice Research Conference 2000

**31 March – 3 April,
Los Baños, Philippines**

The following seven sessions are foreseen:

1. Increasing yield potential in irrigated rice: breaking the barrier
2. Exploitation and utilisation of heterosis in rice
3. Breeding for abiotic stress tolerance
4. Durable host-plant resistance
5. Integrated nutrient and pest management
6. Water and weed management in direct-seeded rice
7. Impact of technologies on food security and poverty alleviation

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Better pictures on the radio



On-the-job training for Fijian farm broadcasters at a crop/fish/livestock farm

Photo Wrenmedia

Radio is the preferred extension medium for disseminating agricultural information in Fiji and other Pacific islands, where it enjoys almost 100% penetration in rural areas. To enhance the content of rural radio programmes, a workshop was organised in Suva, Fiji,

from 6 to 16 April 1999 by CTA and IRETA, with a course consultant from Wrenmedia.

The emphasis of the course was to increase the “sense of place” in a programme by bringing the action closer to the listener. A programme item can be made more vivid, by breaking away from the usual practice of recording interviews in the studio or in formal settings, and instead talking to interviewees in their workplace.

The course was reported on national radio in several countries and was the topic of a “Farming World” programme broadcast on the BBC World Service in late April.

Fourteen participants from seven countries attended the workshop: Fiji, Kiribati, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu. Their work really started after the course: in addition to using materials produced during the course for their national broadcasts, they have the task of producing two sample programmes and distributing them to all the other participants by September 1999.

Fallow but fertile

Shortening the fallow period in the savannah zones of sub-Saharan Africa poses new challenges for the protection and improvement of soil fertility and biodiversity. From 13 to 16 April 1999, almost 200 researchers, scientists, decision makers, and development workers from all over Africa and beyond came together in Dakar, Senegal, to plan new approaches.

Among the topics covered were short-term fallows, soil biology, vegetation succession, products (including forage) in traditional and improved fallows, tree-improved fallows, hedges, and rehabilitation of degraded areas.

The underlying and unifying feature of most recommendations was partnership and participation, pointing to the recognition that no measures to improve fallows will become sustainable without close involvement of all stakeholders. The terms that swept the seminar and which should appear in poli-

cies and practice in years to come are ‘integration’ and ‘transfer: integration of various activities, and transfer of research findings.

The seminar was organised and sponsored by CIRAD, CORAF,

European Union, IDRC, IRD, ISRA, French Development Cooperation, UNESCO, and CTA.

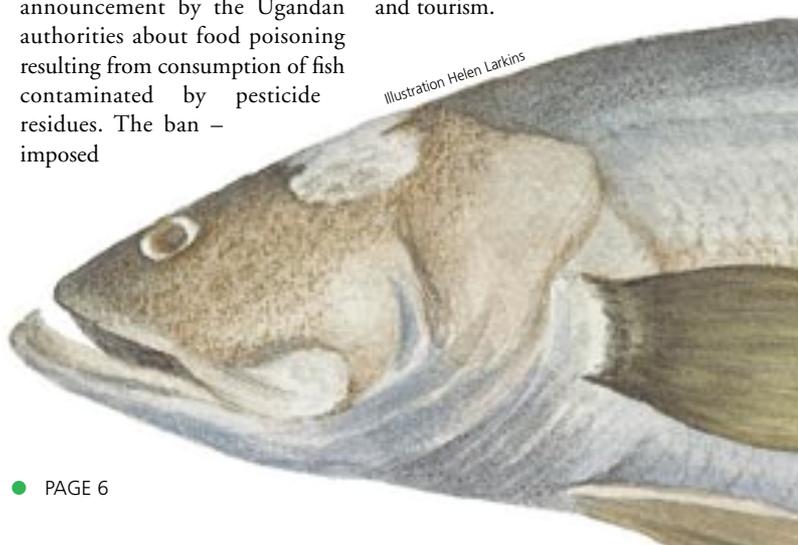
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Europe bans Lake Victoria fish

Last March 29, the European Commission banned imports into Europe of fresh water fish from countries bordering Lake Victoria: Kenya, Tanzania and Uganda. Their decision follows an announcement by the Ugandan authorities about food poisoning resulting from consumption of fish contaminated by pesticide residues. The ban – imposed

until further notice – mainly covers Nile perch fillets, fresh and frozen. It will hit export earnings hard in the countries concerned, in particular in Uganda where fish is the third export earner after coffee and tourism.

Illustration Helen Larkins



The hidden potential of the bambara groundnut

■ The bambara groundnut (*Vigna subterranea* (L.) Verdc.) is grossly undervalued in Africa, according to Gaebewe Ramolemana, lecturer in soil fertility at the University of Botswana. The bambara groundnut, a relative of the cowpea, is a protein-rich crop valued for its drought tolerance and low demand on soil prop-

erties. The nut is used for home consumption and is sold on local markets. The crop's foliage is used as fodder for livestock. Nevertheless, very little research has been done for raising yields or making the crop commercially more interesting. Ramolemana discovered that phosphorous fertilisers, irrigation, and higher

plant density can increase yields. He found that the addition of moisture enhances intake of phosphorus, the scarcest nutrient in Botswanan soils. The nutrient is most needed for growth during the first two weeks after sowing. So applying moisture during this critical period makes a lot of difference. Farmers usually obtain yields of about 500 kg/ha, but Ramolemana's irrigated pilot plots yielded over 4 t/ha. Even his rainfed plots produced almost 3 t/ha after adding phosphorus and increasing plant density. "You should avoid too many plants. We are still looking for the optimum", says Ramolemana. His research was part of a 5-year, EU-funded project, which involved a comparative investigation of the potential of the bambara groundnut in Botswana, Sierra Leone, and Tanzania.

For further information

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See also Spore 79, the International
Bambara Groundnut Network
(BAMNET).



Illustration Helen Larkins

Low-cost beekeeping

■ An original beehive was developed in Senegal nearly 15 years ago. The entire design is focused on the cost of the hive and the special conditions of tropical apiculture. It is very different to imported modern hives but is no less effective. Indeed, all modern hives are designed in the same way, with 80-litre capacity to store honey, about 20 frames to make it possible to remove the combs, sheets of imprinted wax comb foundation and an extractor for collection purposes. A hive of this kind costs African farmers about CFAF80,000 • €122!. In contrast, the horizontal hive costs less than CFAF5,000 • €7.60 and it is just as easy to use as traditional hives. Its main strong points are that it is made of cement (cheaper and stronger than wood), it is horizontal (with no stand) and not verti-

cal, the frames are easily made from sticks that are very cheap and the sheets of imprinted foundation are replaced by simple strips of ordinary wax. The honeycombs are not totally 'framed'. They can be extracted using traditional methods and the purchase of a modern extractor is not essential. This kind of hive can easily be made by beekeepers themselves and will give the same honey yield as a modern hive for a very small investment.

More information from:

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Fax : +221 821 66 73

Better safe than sorry

■ Is your organisation ready for the year 2000? If you, your colleagues, your customers, or your suppliers use computers for any part of your work, you could be affected by possible problems. Most computers in the world were designed to work on a system of dates where the year is expressed in the last two digits of the number. This year is "99", and next year is "00", which means that a computer may think that the year is really "0000", "1900", or "2000", and things could go wrong.

Computers are used in more places than most people think. The press and other media mostly mention possible problems in aircraft, large hospitals, or electricity power plants. But computers, or computer chips, are also used in other places and equipment near you: irrigation pumps, cold storage, videos, and even in motor engines. All of these could break down at the turn of the



Illustration Louma Productions

A snappy slogan (Y2K equals Year Two Thousand), but does it mean chaos?

century. No one is quite sure what will happen, although billions of dollars have been spent to try to prevent problems.

Organisations such as the World Bank have provided grants to national governments to prepare for these possible problems, largely in the banking, security, and health sectors. Little attention seems to have been paid to agriculture, and, of course, little has been done for people who got their computer software from, let's say, the infor-

mal sector. If you use a computer for your work (stock control, accounting, management of savings and credit funds, laboratory tests) or equipment with a chip, it could be worthwhile to find out if your system can cross trouble-free to the next century.

For further information

InfoDev Y2K
World Bank
1818 H Street
Washington NW, DC 20036, USA
Website:
www.worldbank.org/infodevly2k

Huanglongbing has reached the Central American region

Huanglongbing (*Diaphorina citri*) or greening disease recently reached the Caribbean. This bacterial disease poses a serious threat to citrus crops. It affects the softer parts of citrus trees, like leaves, fruit, and young twigs. Loss of leaves is followed by the appearance of new fresh shoots. Fruit show asymmetrical shapes and remain green at ripening stage. *D. citri* originates in Asia and is also recorded in Mauritius and Réunion. In the western hemisphere, *D. citri* was found only in Brazil and Honduras until recently. How *D. citri* got to the Caribbean and to Florida in June 1998 is currently not known.

T Goguy, Cirad-FIhor, March 1999

Saint Vincent trade with Barbados expanded

Green bananas and plantains from Saint Vincent and the Grenadines have entered the market in Barbados after a nearly 3-year absence. Barbados had placed a ban on certain Saint Vincent produce owing to the pink mealybug pest.

A date with destiny?

The date has long been an important staple food in oases, and is often the main cash crop both in countries on the traditional desert trading routes of the Middle East and North Africa and in the palm groves of nomads in the Sahel and eastern Africa. Consumption of dates is falling though, in producer and consumer countries. A recent publication calls for finding new outlets for processed date products (syrups, flours, pastes and vinegar) and animal feed – a line already being followed commercially in some oases.

Sécheresse, Special issue on 'Oasis', vol. 9 no. 2, June 1998 : "Le marché de la dattes, produit de rente des oasis : enjeux, diversité, tensions".

John Libbey Eurotext Limited
127, avenue de la République,
9210 Montrouge, France
Fax : +33 1 40 84 09 99

Slipping out of reach?

Agricultural and biological journals are becoming even more expensive. A survey by the Agriculture and Life Science College of Cornell University in New York, USA, showed that prices of key publications rose by an average of two-thirds over the period 1988–1994. Commercial titles rose by 78% and those published by societies and associations by 33%.

Soybean conquers Nigeria

It took a long time, but soybean's popularity is suddenly rising. Soybean used to be considered inferior to indigenous beans and most people did not know how to use it. Nigerian extension organisations and the Soybean Utilisation Unit of the International Institute for Tropical Agriculture (IITA) have been promoting the bean for some time now. They offer assistance in building mills, presses, and extruders and in developing recipes for traditional foods from soybeans. IITA also trained more than 50,000 people in Nigeria, including 30,000 women, on how to grow and use soybean. Soybeans are rich in protein and can be processed into different products like soy milk, oil, flour, and curd.

International Agricultural Development. (IITA)

The future of perennial crops : investment and sustainability in humid tropical zones February 2000 - Abidjan Côte d'Ivoire

Papers can be proposed for this international conference on: case studies of replanting and reconversion; risk analysis and models for decision-making; the role of the political and institutional framework, and the need for policy coherence; plantation management modes; technical issues in replanting and the role of the 'cash forest'; environmental impact of starting and producing perennial crops; market sector trends; replantation of perennial crops in temperate environments.

*Hubert Omont, CIRAD/DRE, BP 5035, 34032 Montpellier Cedex, France
Fax: +33 4 67 61 71 20
Email: hubert.omont@cirad.fr*

Expansion of WINFA

The Windward Islands Farmers' Association (WINFA) will be opening its membership for expansion. According to WINFA's coordinator Renwick Rose, the expansion of its membership will increase representation of various farmers' groups and organisations. New members do not necessarily have to be the domestic unions. WINFA was formed by national farmers' organisations in Grenada, Dominica, Saint Lucia, Martinique, and Saint Vincent and the Grenadines.

Benin: Do unto your fish ...



People of lagoon show the way in sharing water rights

Photo Giacomo Pirozzi/Panos Pictures

Forty years ago, fishers of the coastal lagoons of Benin still used to follow rules handed down from the time of their ancestors. They were usually expressed as religious taboos: do not catch fish when they are too young, do not fish on certain days or in certain places. These rules had been followed for more than three centuries and were based on a profound understanding of how the fish stock renewed itself. With the loss of authority of the traditional chiefs, the advent of other religions and, above all, the growth in the num-

ber of fishers, the rules were swept away. Catches shrank, the fish caught were smaller, and conflicts between fishers increased everyday.

In 1992, the government of Benin decided to set up fishing committees in 20 villages around the lagoon of Porto-Novo, with representatives elected by local fishers. The representatives were themselves fishers and not remunerated; they had the task of applying the old practices and providing information about national fishing regulations and

applying them. Now there are 90 such committees in operation, working with the Beninese authorities in fishery management.

Source

FAO. The State of World Fisheries and Aquaculture 1998. ISBN 92 5 104187 3. \$30.00 • €29.25

*Sales and Marketing Group, FAO. Viale delle Terme di Caracalla, 00100 Rome, Italy. Fax: +39 06 57 05 33 60
Email: publications-sales@fao.org*



How to improve agricultural extension work in sub-Saharan African countries at a time when public sector support has shrunk is the common concern of several donors and other institutions. Grouped together in the Neuchâtel Initiative, CTA, NEDA, the European Union, FAO, GTZ, DANIDA, DFID, IFAD, SIDA, USAID, French Development Cooperation and the World Bank seek new approaches to the delivery of extension services.

Expanding extension

One related line of action with African partners and agricultural organisations—strengthening producers' organisations—was the topic of a workshop hosted by the World Bank, with the collaboration of the International Federation of Agricultural Producers. It was held in Washington from 28 to 30 June 1999. Among the issues covered in the workshop were partnerships and how they could be developed between formal, usually state, agricultural service institutions and producers' organisations.

The workshop highlighted two revealing trends in key thinking about cooperation between stakeholders in agriculture. In the first trend towards "mainstreaming" of partnerships with producers, the focus is extended beyond farmers to a wider set of actors in rural development, including producers in

other sectors (livestock and fisheries) and processors of agricultural products (on the farm or in rural areas, such as women's cottage industries). The second trend concerns transparency and accountability: in addition to the usual top-down talk of expecting these from grassroots organisations, the workshop examined the other side of the coin. In the words of one paper: "Partnership implies promoting the accountability of those who provide service, so what are the necessary institutional reforms for agricultural services to be accountable to producers' organisations?"

*Rural Capacity Building, The World Bank Room S8-141 1818 H Street NW Washington DC 20433 Fax: +1 202 473 8229
Email: producer_organization@worldbank.org Website: www-esd.worldbank.org/extension*

North-South seed supply

■ For the last five years, the French company JTS (Seeds for Tropical Gardens) has been trying to set up distribution networks in developing countries for vegetable seeds which are suited to agricultural and climatic conditions, and to consumer tastes. The company has a humanitarian goal, and seeks to promote family gardens, which it sees as having a major role to play against malnutrition, and essential leverage in raising food production in ACP countries. It believes that there is a desperate shortage of quality seeds in developing countries, with the key bottleneck being mainly in local distribution networks. With this in mind, JTS highlights those seeds which are easiest to transport, in terms of their weight, volume and price. Expanding the networks to

include other food crop seeds is not without problems, JTS asserts: "Public opinion in donor countries is not yet ready to accept a commercial and industrial approach as being humanitarian." Which explains, they claim, their problems in finding grants from both governmental and charitable sources (the latter say it is not their job to help businesses)

and from investors (who will only invest if there is a significant short-term return.) And JTS also wants to set up a communication network. Anyone want to join them?

JTS, Z.A. des Fousseaux, Avenue des Carreaux, 49480 - Saint-Sylvain-d'Anjou, France
 Fax: +33 2 41 76 57 70
 Email: JME.Cordier@wanadoo.fr



Fonio returns to Senegal

■ Senegal, like many other countries in Africa, has a high import bill for much of its food stuffs, with national production of cereals way below local demand. Relief may be hand in the form of fonio (*Digitaria exilis*), a gramine introduced in the 1950s. It never really sold well outside its area of production,

largely because of processing problems. Now it could be making a comeback on the national market, occupying an important place in the country's agricultural development and food security. Work is needed to stress its positive aspects and to make it promotable, by dealing with the memories of when

it was marginalised a few decades ago. Some recent studies by FAO, ENDA-GRAF, GRET and others have listed the cereal's properties. Compared with other products such as white rice or maize, fonio has much to say for itself. It attracts few parasites, and can grow in many soils. Modern medicine appreciates its qualities in treating illnesses such as diabetes, and it is rich in fibres, proteins, iron and calcium. Just one little drawback: its production – mainly in the regions of Tambacounda and Kolda (north of the Gambian border) – is irregular because it is limited to certain ethnic groups. There is no marketing organisation, it is hard to harvest and process, and there is a lack of awareness of its value as a foodstuff. These and other weaknesses are being studied in trials, being conducted in Kolda to intensify and improve the crop. The trials aim at reaching production levels of between 1.5 and 2 t per hectare. A huller machine invented by Samoussi Diakité is part of the effort to increase output.

One volume has been supplied, with CTA support, to the Regional Agricultural Information Network (RAIN) that is to operate under the Association for Strengthening Research in Eastern and Central Africa (ASARECA). A second set is supplied to the Southern African Centre for Cooperation in Agricultural and Natural Resources Research and Training (SACCAR) for the benefit of researchers in all countries of the Southern Africa Development Community. CTA will supply a third set to a regional institution in western Africa.

For further information

TEEAL Office
 Mann Library, Cornell University
 Ithaca, NY 14853, USA
 Fax: +1 607 255 0318
 E-mail:
 TEEAL@albert.mannlib.cornell.edu
 Website: teeal.cornell.edu

ENDA/GRAF
 BP 13065, Dakar, Senegal
 Fax: + 221 827 3215
 Email: graf@enda.sn

Library in a box

■ Institutions in developing countries can now have resources usually available only to universities with large libraries. From the *African Crop Science Journal* to *World Development*, around 130 agricultural journals are now accessible through The Essential Electronic Agricultural Library (TEEAL). This box, with 100 CD-ROMs, contains the full text, illustrations and graphics, and a searchable index of all 130 journals for the period 1993–1996. The box costs \$10,000 • €9,750, which represents only 2.7% of the actual subscription cost. Annual updates will be available at \$5,000 • €4,875. TEEAL is available only to institutions in developing countries.

Writing annual reports

The annual chore of producing the annual all-important report of a national agricultural organisation often suffers from a lack of resources, including publishing and writing skills. In April 1999, CTA and the Agricultural Research Institute of Guinea organized a workshop near Conakry for 19 publications staff from government bodies and NGOs from Benin, Burkina Faso, Chad, Côte d'Ivoire, Gabon, Guinea, Madagascar, Mauritania, Niger, Rwanda, Senegal, and Togo. Opened and closed by the Minister for Agriculture, the workshop covered the steps of planning, commissioning, writing, and producing an annual report. Participants not only exchanged their own experiences but also learned about those of other organisations from resource people from CTA, CIRAD, and the Sahel Institute.

Caribbean bamboo craft to Asia

Saint Vincent and the Grenadines exports \$3000 worth of bamboo craft products to Taiwan. And the future looks promising. The bamboo craft project is a joint venture of the Saint Vincent Community Development Department and the Agricultural Technical Mission of Taiwan.

Successful horticulture in Malawi

It took 16 years of hard labour to reclaim land from swamps and to construct terraces and a drainage and irrigation system at Tikondwe Freedom Gardens, situated at an hour's drive to the north of Lilongwe. The Gardens (20 ha) are a successful example of organic fruit and vegetable cultivation by the local population. They are a place for experimentation aimed at minimising pressure on the environment. Operated by Mr Chikhuntha, the enterprise is expanding into poultry and fish farming. Internships and practical training courses in irrigation, permaculture design, and natural pest management are planned for the near future.

For further information

Mr Chikhuntha
 The Permaculture Society of Malawi and the Organic Farmers Club
 PO Box 70
 Dowa, Malawi

You're never alone with ALIN



The Arid Lands Information Network (ALIN) is perhaps best known for its *Baobab* journal, but it deserves wider recognition as a continental network of development workers. Launched in 1988, as a Northern and sometimes questioned initiative, ALIN is now well established in its own right as a resource for grassroots workers in most dryland countries—26 at present—of Africa.

The network has recently put itself through an internal assessment and evaluation, under its own baobab tree as it were. It has emerged stronger, streamlined, and better equipped to meet the growing demands on its services.

ALIN counts about 1600 members, virtually all are full-time development workers based in local NGOs and community-based organisations. It offers them opportunities for training, exchange visits, contacts with colleagues in similar or challengingly different situations elsewhere, and, of course, access to information. The information function is fulfilled through referrals to the most appropriate sources, a range of publications, and the practical journal *Baobab*, which is published three times a year in French and English. *Baobab* is not only a rare and welcome forum for exchanging concerns and contacts between grassroots workers across the continent, it also carries practical, clearly presented information, which is

often used by other journals. Recent programme themes include medicinal plants, veterinary services, food processing in villages, soil and water conservation, pest control, forestry, and approaches to community development. A directory of members is also produced each year so that project workers can network independently.

Many transborder networks in Africa and beyond have started off with noble intentions but have rarely progressed beyond speeches and draft proposals for capacity building or provided reliable services to their members. They reproduce the failings of top-down practices of larger institutions, which the networks sought to replace. ALIN has taken a different and

more meaningful approach. Its modest beginnings and emphasis on practical information and membership exchanges show that it has a real constituency, which it truly serves. However, its sound and reliable information service is not its main contribution. No, the real value of ALIN is that it gives the grassroots worker, who is in the front-line of development, a sense of belonging and ownership, and the reassurance that each member is important, but not alone.

For further information

Arid Lands Information Network (ALIN)
CP3, Dakar-Fann
Senegal
Fax: +221 825 4521
Email: ritaalin@sonatel.net.sn
Website: alin.utando.net

CPAA: agroforestry in Amazonia and elsewhere



And now, Cupuacu jam from rainforest

CPAA¹ is the Amazonian agroforestry research centre of the Brazilian agricultural research corporation EMBRAPA. It was founded in 1989 with the mission to disseminate scientific knowledge and technologies aimed at the development of the western Amazonian region. Several elements of CPAA's activities could be of interest to ACP countries.

CPAA has launched research programmes on extensive or

"part-time" agriculture, processing of regional products, protection and conservation of genetic resources, rehabilitation and maintenance of degraded or abandoned lands, horticultural and fruit crop systems, and sustainable fisheries and agro-industrial development.

CPAA closely collaborates with universities and international organisations, as for its SHIFT Studies on Human Impact on Forests and Floodplains in the Tropics programme. SHIFT is carried out jointly with the German Max-Planck Institut and marine research centre ZMT and their Brazilian partner INPA, the national Amazonian crops institute.

A data bank on specific crops

CPAA is currently compiling and disseminating a database containing information about specific fruit tree varieties, seed, and improved plant material. Research focuses on cupuacu (*Theobroma grandiflorum*), a tree with very aromatic and sweet fruit used in jams and syrups; dendezeiro oil palm (*Eleias guineensis* Jacq.); guarana (*Paulinia cupana* var. *sorbilis*), a big liane, whose seeds have medicinal and energetic properties; hevea; and cassava. Another research subject is pupunha (*Bactris gassipaes* Kunth), a palm fruit with a very delicate and much appreciated taste; it can be eaten directly, made into flour,

or pressed for extracting oil. The Pupunha-Net (www.inpa.gov.br/pupunha/) brings together researchers and entrepreneurs; it is a source of theoretical and practical information, including a detailed introduction to the production system of this palm.

CPAA is also a well-stocked centre of information and documentation that can be consulted through Internet: www.cpaembrapa.br/biblio/sin.htm

¹ Centro de Pesquisa Agroflorestal da Amazônia Ocidental.

For further information

Embrapa Amazônia Ocidental
Rodovia Am - 010 km 29
CP 69.011-970
Manaus, Amazonas - AM, Brazil
Fax: +55 92 622 1100
Email: cpaa@cpaa.embrapa.br
Website: www.cpaembrapa.br

Publications

Results of STD 3 agricultural research projects summarised on CTA's website

 The third *Life Sciences and Technologies for Developing Countries* Programme (STD 3), funded by the European Commission, ran from 1992 to 1995. This programme encouraged research institutions of industrialised and developing countries to co-operate closely in multidisciplinary projects. In the field of agriculture and the management of natural resources, 157 projects were selected from among the 1,283 proposals submitted to the

Commission. Compared to the first two STD projects (1983-1991), the STD 3 projects placed more emphasis on production systems and sustainable management of the environment.

Communication of the results of such programmes tends to be restricted to specialised articles published in scientific journals and conference proceedings, and these often remain inaccessible to non-experts. CTA therefore col-

laborated with the Commission in order to improve the dissemination of the results among the ACP and EU research and development communities. The Centre published summaries of STD 1 and 2 project reports in a series of volumes that appeared between 1989 and 1996. Details of the participating organisations were included, so as to promote contacts and exchanges between these and researchers on other continents.

A new approach has been adopted for STD 3: the summaries, details of organisations and indexes have been published electronically, to speed up access to selected information. The first 50 reports of the STD 3 projects are now available on-line, in English or French, on the CTA Website, www.cta.nl. They are grouped under six main themes: production systems; restoration and conservation of the environment; improvement of crop production; forests; improvement of animal production; aquaculture and fisheries; and post-harvest technologies. About 100 additional reports will be published in the course of 1999 and 2000.

European Commission
Directorate-General XII - B
Rue de la Loi 200
B - 1049 Brussels, BELGIUM
Fax: +32 2 296 62 52
Email: info@dg12.cec.be

Manual on the Use of the LP-system in Milk Handling and Preservation.
Animal Production Service, FAO.
31 pp. ISBN 92 5 104254 3
\$8.00 • € 7.80
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

No more crying about spilt milk

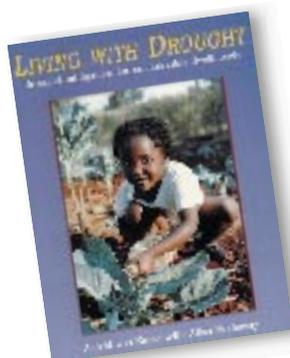


■ In *Spore 80*, a method was described for keeping fresh milk three to five hours longer by using the LP-system. The Animal Production Service of the FAO recently published a clear booklet on the LP-system. The *Manual on the Use of the LP-system in Milk Handling and Preservation* explains why milk

goes bad within a few hours in a warm climate, and it describes the method for extending storage life of fresh milk. The method is designed for collecting points, not individual farmers because the prepacked chemical activators cannot be used for varying and small amounts of milk. The booklet is therefore meant for people who want to establish milk collection points or who work there.

Reducing the impact of drought

 "We must relearn how to live with the reality of drought as an integral part of our lives and livelihoods, and not as a rare or even disastrous event", writes Dr Mbuende, Executive Secretary of the Southern African Development Community (SADC), in his introduction to this innovative book and video package. The package, he says, "is also an urgent call to better acknowledge the collective wisdom of our rural communities and households in defining drought policy and practice". A combination of participatory learning activities and writ-



ten and visual resources, the package aims to stimulate participants' thinking around issues of drought relief and development and to

enhance their understanding of drought mitigation as part of sustainable development planning. The video includes three films made in Lesotho, Namibia, South Africa, Zambia, and Zimbabwe. The video and the book were developed and tested through a series of meetings attended by participants from these five countries.

Living with drought. Drought mitigation for sustainable livelihoods. A von Kotze and A Holloway. David Philip Publishers-Intermediate Technology Publications copublication. 1999. 217 pp. + video.
ISBN 0 86486 388 8/1 85339 470 X
CTA number 923. 40 credit points.

If you have a garden in Malawi....

■ How to grow tomatoes or amaranthus, what to do against the woolly whitefly on citrus trees, or how to make mango *achaar* (chutney). All this kind of information can be found in the new quarterly *Horticulture in Malawi*. It also has a section on what you need to do in your garden on a month-by-month basis.

Horticulture in Malawi.
PO Box 31131, Lilongwe 3, Malawi.
Fax: +265 780 413
Email: GunterBaumannGTZ@malawi.net

A feeling for traditions

■ In northern Ghana, fertilisers - the backbone of the extension programme - are rarely delivered on time. Extension workers decided to turn their problem into an opportunity. They started to learn from the farmers how they dealt with the lack of fertilisers; they also learned a great deal more on traditional intercropping, use of trees for food and medicine, and much more. In Zimbabwe, war veterans, spirit mediums, and chiefs joined hands to support endogenous development and nature conservation. These are just two examples of articles picked at random from the first issue of *COMPAS, Newsletter for Endogenous Development*. The magazine's main message is: take indigenous knowledge seriously and support its development. Endogenous development implies strengthening traditional institutions and, as such, it is a political rather than a technical activity towards better management of natural resources.

COMPAS. ISSN 1389-918X
This six-monthly magazine is free of charge
Compas, PO Box 64, 3830 AB Leusden, The Netherlands.
Fax: +31 33 494 0791
Email: compas@etcnl.nl

Regional Implementation Workshop. Establishment of an Integrated Land Resources Information System for the Conservation and Rehabilitation of Land Resources in West Africa (WALRIS)

International Soil Reference & Information Centre (ISRIC).
1999. 27 pp.
\$7.50 • € 7.30
ISRIC, PO Box 353, 6700 AJ Wageningen, The Netherlands.
Fax: +31 317 471 700
Email: soil@isric.nl
Also available on ISRIC's website: www.isric.nl

Harnessing biological nitrogen fixation in African agriculture

■ The proceedings of the 6th International Conference of the African Association for Biological Nitrogen Fixation held in Harare in September 1994, have been published by University of Zimbabwe Publications with CTA's support. 270 pp. ISBN 0 908307 58 6

UZP, P.O. Box MB 203, Mount Pleasant, Harare, Zimbabwe
 Fax: + 263 4 333 407/335 249
 Email: uzpub@esonet.zw

State of the World's Forests

FAO. 1999. 154 pp.
 ISBN 92 5 104193 8
 \$40.00 • €39
 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

Regional Workshop on Pesticide Management

DG Hunter and M Umar. 1998.
 18 pp. ISBN 982 175 141 5
 Institute for Research, Extension and Training in Agriculture (IRETA), University of the South Pacific, Alafua Campus, Private Mail Bag, Apia, Western Samoa.
 Fax: +685 223 47
 Email: ireta@pactok.peg.apc.org

Feeding the Ten Billion. Plants and Population Growth

L Evans. 1998. 264 pp.
 ISBN 0 521 64081 4
 £11.95 • €18.25
 Cambridge University Press,
 Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU, UK.
 Fax: +44 1223 315 052
 Email: information@cup.cam.ac.uk

On-farm Research on Sustainable Land Management in SubSaharan Africa: Approaches, Experiences, and Lessons.

IBSRAM Proceedings No. 19. 1998. 254 pp.
 ISBN 974 86559 6 2
 \$25.00 • €24.35 (excluding postage) International Board for Soil Research and Management (IBSRAM), PO Box 9-109, Jatujak, Bangkok 10900, Thailand.
 Fax: +662 561 1230
 Email: info@ibsr.am

The Potentials of the Neem Tree in Ghana

GTZ. 1998. 127 pp.
 Gesellschaft für Technische Zusammenarbeit (GTZ), Division 45, Rural Development Pesticide Service Project, PO Box 5180, 65726 Eschborn, Germany.
 Fax: +49 6196 797 180
 Email: peter.foerster@gtz.de
 Website: www.gtz.de

The coconut tree has more to offer

■ From the moment you wake up in the morning till you are ready for your daily activities, you may have used at least seven products of the coconut palm. Shampoo, a toothbrush, soap, a broom, a spoon to eat your cereals, a glass of coconut juice and, before you go out, your doormat. According to an Indonesian saying, there are as many uses of the coconut tree as there are days in a year. Newly developed uses include cream, milk powder, and sugar.

Smallholders produce 96% of the world's total coconut output, and the tree is regarded as a social crop. Coconut farms are usually family owned and, since the stands can be productive for more than 50 years, they are passed on to the next generation. The traditional

commercial coconut products are copra and coconut oil. Their price has declined over the years due to strong competition from the oil palm and annual oil crops. Given this situation, the Coconut Genetic Resources Network decided to organise a workshop to evaluate current research on coconut production and the possibilities and constraints for coconut by-products. The aim was to increase the competitiveness of coconut small-holdings. *Promoting Multi-purpose Uses and Competitiveness of the Coconut* presents the results of this workshop and provides a useful overview on this agricultural industry.

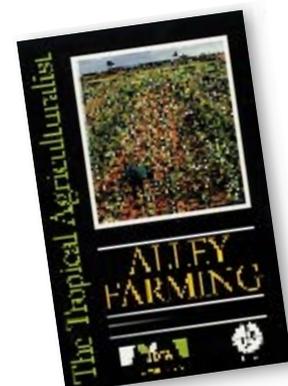
Promoting Multi-purpose Uses and Competitiveness of the Coconut. PA Batugal, VR Rao, and C Bong. 1998. 190 pp. ISBN 92 9043 382 5



IPGRI publications are available free of charge to libraries, university departments, research institutions, etc. Copies for individuals are available on request. IPGRI's website has a large number of downloadable publications. International Plant Genetic Resources Institute (IPGRI), Via delle Sette Chiese 142, 00145 Rome, Italy.
 Fax: +39 06 575 0309
 Email: p.stapleton@cgiar.org
 Publications webpage: www.cgiar.org/ipgri/publicat/index.htm

The best low-input farming system?

Many smallholders cannot obtain fertilisers when they need them, and the returns to farming may be too insecure to justify such investment. Even if more fertilisers were used, they may not be enough to sustain production on the fragile soils of many humid, lowland areas. Alley farming—an alternative low-input farming system that has been researched and promoted in Africa—has been found to have the best potential in the humid and subhumid zones. In this agroforestry system, food crops are grown in alleys formed by hedgerows of trees and shrubs. The hedgerows are cut back at planting and periodically pruned during



crop growth to reduce shading and competition with crops for light, nutrients, and moisture. When

there are no crops, the hedgerows are allowed to grow freely to cover the land. Their foliage can also be used for animal feed.

This latest addition to The Tropical Agriculturalist series provides practical guidelines for establishing and managing an alley farming system. It describes its benefits to crop and livestock production, as well as its limitations. It also discusses economic aspects and addresses the issues of social acceptance and adoption.

Alley farming. BT Kang, AN Atta-krah, and L Reynolds. Macmillan-CTA copublication. 1999. 120 pp. ISBN 0 333 60080 0
 CTA number 918. 10 credit points.

Sustainability in your backyard

The Environmental and Development Agency (EDA) has been working with village groups and small farmers in South Africa since 1977. On the strength of this experience, it has produced a well-illustrated handbook that gives practical help for developing gardens and small plots, and for looking after farm animals. The book opens with a description of the concept and principles of sustainable farming. The core chapters cover homestead farming,

tree and crop production, and livestock production covering poultry (chickens), and small (rabbits) and large (cattle, sheep) animals. The book includes interviews with small farmers that illustrate the ideas and methods described, as well as a section on farm records and a useful glossary of southern African terms.

People's farming workbook. Second revised edition. David Philip Publishers-CTA copublication. 1998. 256 pp. ISBN 0 86486 431 0
 CTA number 939. 20 credit points.



Get your

across word s



If you want your article on taro cultivation methods to be published in the *Journal of South Pacific Agriculture* it should not exceed 5000 words and be printed double spaced on A4 sized paper. The *Ahfad Journal* welcomes articles (maximum 2000 words) on the status of women in developing countries. The *Caribbean Tropical Fruits Newsletter* sets no maximum length limit, but would like to receive manuscripts typed in a specific font and accompanied, if possible, by an abstract in English, French, and Spanish.

Some hundred scientific journals in the field of agricultural and rural development are described in this practical guide. It is aimed at ACP researchers who are looking for ways to share their findings and encourages them to do so.

The guide provides information, in French and English, on each journal including its main focus, geographic coverage, frequency, and instructions to authors. The journals selected by the guide cover all ACP countries.

Selective Guide to Scientific Journals in the Field of Agriculture and Rural Development.
Prepared by CIRAD, France, and CABI, UK, for CTA.
1999. 203 pp.

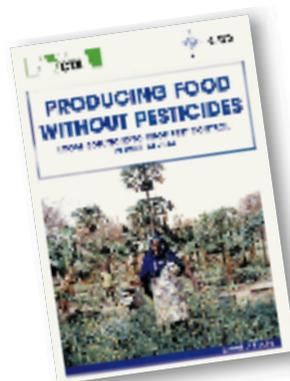
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The publication is also freely available from CTA's Website at www.cta.nl

The many ways of organic pest control



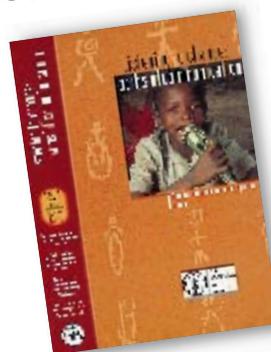
Ash, dead insects, onion (*Allium cepa*), mahogany (*Khaya* sp.), and tobacco can all be used in solutions that effectively protect crops against various pests. Many other locally available plants and materials can be used to kill or deter pests in the garden or food store. They are described in the first section of this practical guide on the use of alternatives to chemical pesticides. The sections that follow present aids for identifying pests and diseases, methods of maintaining or improving soil fertility, and ways to grow various vegetables organically. Plant names are given in Latin, French, English, Wolof, Serere, Diola, and Bambara.



Producing food without pesticides. Local solutions to crop pest control in West Africa, Lj Fuglie. Church World Service—CTA copublication. 1998. 164 pp.
CTA number 927. 20 credit points.

Are you hearing me?

■ People who want to direct their own course of change need knowledge and information, so do farmers who seek to make agriculture more productive, profitable, and sustainable. And that requires communication to share and pass on expertise and experiences in the right way, at the right time, and in the right form. *Listening to Change: Paths of Communication* is a short (12 minutes) and powerful reminder of the forgotten obvious. That people need a voice, and that communication is most useful when it starts by listening to what people have to say about their knowledge and their aspirations. With images and cases from all over the world, it is a video with a simple message that goes beyond its own medium.



Listening to Change: Paths of Communication. FAO. 1999. Video available in English and Spanish (PAL or NTSC formats), and in French (PAL or Secam).
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Simple Field Plot Experiments in Agriculture. Analysis of Variance, LSD, Design and Reporting

J van Lidth de Jeude. 1999. 107 pp. ISBN 90 5285 061 5 \$15
STOAS, PO Box 78, 6700 AB Wageningen, The Netherlands.
Fax: +31 317 424 770
Email: int@stoas.nl
Website: www.stoas.nl/internationaal/publicaties.htm

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E Barbier. 1998. 470 pp. ISBN 1 85898 685 0
\$120.00 • £75 • €115
Edward Elgar Publishing Ltd., Glensanda House, Montpellier Parade, Cheltenham, Glos GL50 1UA, UK.
Fax: +44 1242 262 111
Email: Laura@e-elgar.co.uk

Village Chicken Production Systems in Rural Africa. Household Food Security and Gender Issues

FAO. 1998. 82 pp. ISBN 92 51041601
\$20.00 • €19.50
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

World Hunger: Twelve Myths

F Moore Lappé, J Collins, and P Rosset. 1999. 280 pp. New Edition (see Spore 80). ISBN 1 85383 493 9
£12.99 • €19.80
Earthscan, 120 Pentonville Road, London, N1 9JN, UK.
Fax: +44 171 278 1142
Email: earthinfo@earthscan.co.uk

Genetically modified organisms

R Tripp. 1999. ISSN 0140 8682
Free of charge.
Overseas Development Institute (ODI), Portland House, Stag Place, London SW1E 5DP, UK.
Fax: +44 171 393 1699
Email: publications@odi.org.uk
Also available on the Internet at: www.oneworld.org/odi/

A Handbook of West African Weeds

IO Akobundo and CW Agyakwa. 1998. 564 pp. ISBN 978 131 129 0
\$35.00 • €34.10
International Institute of Tropical Agriculture (IITA), Oyo Road, PMB 5320, Ibadan, Nigeria.
Fax: +234 874 177 2276
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Advisory Committee endorses CTA's evolution



Ms T. Ngomane, now in charge of the CTA Advisory Committee, and Mr van Vuure, the outgoing Chairperson

Throughout the first week of June, CTA's Advisory Committee held its annual meeting at the organisation's headquarters in Wageningen, the Netherlands. With Members from thirty ACP and EU countries, the Advisory Committee represents all six regions of the ACP Group and all the European Union Member States. According to Prof John Perfect, Director of the Natural Resources Institute and the nominee of the United Kingdom government, it is a "unique body", whose collective knowledge and experience represents a major investment in the work of CTA.

The task of the Advisory Committee, as underlined by Mr Colin Bully of Dominica, is to advise the Centre on how to fulfil its mandate and to ensure that the ACP farmer is getting a proper service. The Committee has to do this against a fast-changing background of ACP agriculture, and research and development activities within the European Union. This year, its works are also marked by the highly complex issue of the renegotiation of the ACP-EU Lomé Convention. This agreement between the European Union Member States and the 71 countries of the ACP Group is the lifeblood of CTA, which was established under its provisions. The present Convention, together with CTA's current mandate, expires in February 2000. It is widely assumed that the agreement will be carried forward in a modified form; both the ACP and EU negotiating mandates view CTA's contribution positively. Outgoing chairperson of the Committee, Mr Wim van Vuure of Wageningen University and Research

Centre and the nominee of the Netherlands Government, told *Spore* that continuation was "highly likely".

Adjusting to change is not new to the Advisory Committee, which has seen the Centre move away from its original 1983 role of making available information to help ACP States in their agricultural and rural development. It is commonly recognised nowadays that, whilst provision and management of information remains a core activity, CTA has become more of a facilitator and mediator of information, and increasingly an actor in capacity building. The new role is stressed by South and North alike in the Committee: Mr Colin Bully talks of CTA's position as a "gateway and a conduit", Prof John Perfect of an "interface" providing back-up to national and regional information providers and, incidentally, of a support to regional fora, including those in Europe, for coalescing and pooling their activities. There is also unanimity about the intended end beneficiary—the ACP farmer—and broad agreement that rather than simply provide information to the end-user, the Centre should increasingly also serve intermediaries and policy makers particularly by building capacity. However, there is also general consensus that it is not CTA's role to be involved in the policy-making area but rather to ensure that policy makers have the tools for optimal management and assessment of information.

The growing emphasis on poverty reduction that is shaping so much of the general development debate—including the renegotiation of the Lomé Convention—was also strongly evident in the

Mailbox

Here is a selection of readers' comments and questions from our Mailbox:



Fish meals

■ **Moussa Pouye**, a farmer in DeDialocoto, near Tambacounda in Senegal, informs us: "Fish is not only used for preparing our national dish *thiébou diène*, but also for producing milk and compost. After the women smoke the fish, they remove the head, scales, and other inedible parts. The waste is bought by farmers and breeders to give to cows, especially milking cows, or to spread on the millet fields as organic fertiliser. It can also be used to make a compost that is richer—and cheaper—than chemical fertiliser".

Market forces

■ **Isah Alhassan** of the University of Abuja, Nigeria, emphasises the importance of marketing for the farmer: "A knowledge of marketing and its problems will help the farmer make decisions which are important to him either in the operation of his own farm, as a member of a particular group, or as an intelligent citizen of his country. The decisions concern what to grow and how to prepare the produce for sale, when and where to buy and sell, and what can be done to expand the market. Knowledge of the factors that affect consumers and their behaviour can help determine which action will be most effective."

deliberations of the Advisory Committee. It is here that the substantive role of the Committee becomes most visible. As the incoming Chairperson, Ms Tsakani Ngomane of South Africa, pointed out, CTA's focus on poverty reduction means that women's issues will be the centre of attention. This will, in turn, stimulate the debate about a new wave of thinking on who is the actual end-user, who is the

A woman's work is never done

■ **Romain Mirindi** of *Projet Kaliba, BP 136, Cyangugu, Rwanda, reminds us of the heavy burden of the African woman farmer:*

"She rises at 5.30 am to prepare perhaps a breakfast that she will eat with her family later in the morning. Then she goes to work on her patch of land that lies an hour's walk away. After that she draws water at the well, again far from her house, with her baby on her back. She then tills, weeds, and waters her kitchen plot until about 4 pm, stopping just to eat some morsels of food she brought with her.

She now has only two hours before nightfall, and she will use them to cut some wood (if she did not do that when she came back from her plot) and she will gather some vegetables or tubers for her family. Then she carries all that back home.

Normally she returns home at nightfall to prepare the evening meal, which takes at least two hours. Sunday is devoted to doing the washing by the river, and she rarely has time to wait for the clothes to dry before ironing them.



The husband is indifferent to these hardships and pays scant attention to her suggestions. He only helps to cut trees and burn bushes so that she can prepare the land for cultivation, but that is about all he does.

The (male) African farmer sometimes manages to do a bit of fishing or hunting, but he spends most of his time in discussion with other men in the village. If he can afford it, after several years he will take a second and younger wife, on whom he will pour all his affection. His first wife will have to carry on working as before, until illness or death force her to stop."

principal client and beneficiary. The debate is reiterated in letters from two readers on this page that discuss the "him" and "her" of the ACP farmer.

Not that Ms Tsakani Ngoname's opinion leadership can be open to doubt: women are the primary clients, and it is time for affirmative action to help men move over. The new thrust of genderisation does not augur a polarisation around

All in a game

■ **Kodja Agnibangniweke**, the manager of GAVAB in Lomé, Togo, thinks that *Spore* should feature games for readers. "To make *Spore* more interesting and exciting, I'd like to suggest that you run quiz competitions, with questions covering agriculture. They could also cover information carried in earlier issues of *Spore*, to measure just how well informed readers are and what importance each reader gives to certain information. We young people must be involved in the rational management of our natural resources so that we can assume responsibility for our future. I have noticed that young people pay more attention to newspapers that feature games and competitions."

Large dams not for the poor

■ Referring to the "very well done" article on large dams in *Spore* 80, **Guy Barthélemy** of Villages sans Frontières in Salies de Bearn, France, corrects us: "Your arguments lack conviction when it comes to the large-scale dams that are being planned in various countries. When you talk about their spinoffs in terms of irrigation and electricity supply, you fail to recognise that in virtually all cases these benefits are exclusively intended for city dwellers and rich landowners."

Building capacity

■ Writing from PO Box 2275, Bungoma, Kenya, **Dr E J Mukhwana**, Director of the Sustainable Agriculture Centre for Research and Development in Africa (SACRED), shares his organisation's experience in capacity building: "SACRED has been working in western Kenya in implementing participatory capacity building projects with farmers' organisations for the past five years and has a lot of information it can share with others. Because of the numbers involved, many organisations fear engaging in training, follow-up, or even exchange activities with groups. We have supported communities in paying for the costs of food and in providing training and meeting facilities and venues, as well as firewood, water, and cooks. In this way, more than 40 groups of 25 people each have been facilitated in sharing their experiences. The groups provide collective labour for each other."

gender, but simply a surge of respect for clients' needs and an attempt to provide proper responses.

This is clearly not the time to consider a scenario beyond March 2000 of ACP agriculture without the kind of the services that have been evolving in CTA with back-up from inputs from the Centre's Advisory Committee. Many would argue that their real work has only just begun.

Partnerships launched

CTA recently signed partnership agreements with two independent sector organisations in Ethiopia and Madagascar for joint ventures in publishing and general information work. Emerging from a process of pilot studies on potential partnerships between the Centre and nonpublic sector bodies in several countries, these agreements cover advisory services, copublication, and training activities.

In Ethiopia, the NGO Agri-Service Ethiopia will cooperate with CTA in strengthening information services provided by a wide range of national and local organisations. In Madagascar, the agreement is with BIMTT (Biraos Iraisan'ny Mpampiofana Tanora Tantsaha), which operates a thriving information centre in Antananarivo and in 60 rural training centres throughout the country.



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Participatory forest planning

Wanted: all-round negotiators

The concept of participation now occupies pride of place in forestry planning, and has become the key to redefining policy. Yet it can only work under certain conditions: there have to be responsible attitudes on the part of participants, mutual exchange of information between them, commitment by public bodies, an independent role for facilitators, and a rigorous approach.

Most forestry – policies which are currently being revisited in developing countries – claim to be based on bringing together the interest groups that represent the various users of the forest. Just as in other sectors of society, the notion of participation has come to dominate thinking on planning. It is a real novelty in the forestry world, long accustomed to the State taking decisions without any consultation.

In forestry, a long term vision is needed with regard to public intervention, and strategic planning has an essential role to play. Participation thrust its way onto the stage in developing countries during the 1980s, following criticism of the ineffectiveness of State systems to slow down the degradation of forest resources. When studies showed the importance of the forest for local communities, the idea was born to involve them in forestry management as a way to improve protection. Coupled to this was the need to involve the representatives of various interests in the formulation of corresponding political and planning options.

Several approaches found favour, varying according to the country and the international agencies backing them. In the beginning, the type of participation practised was passive, with representatives of interest groups being involved solely to be informed about options, or to provide information to the State on what it could do. In time, this attitude gradually made way for real, active involvement respecting the opinions of each party, and negotiating a compromise on objectives and means between often antagonistic positions. Slowly, pluralism was accepted in administrative bodies which had been unwilling to listen to the points of view of forest users

suspected of degrading forest resources rather than maintaining them. Now the tables have turned and today one of the key conditions of leading international donor agencies is, alongside an emphasis on training, that there must be a participatory process of drawing up national forestry policies and programmes.

The “mixed model” is a complex procedure, which has been used in several ACP countries. It involves organising – on a nationwide basis – a massive process of consultation, discussion and negotiation from bottom to top on forestry problems, on how to resolve them and on how to permit stakeholders to assume their proper responsibilities. There are rounds of consultations to arrive at a common diagnosis of the present situation, to agree on objectives to be met, to elaborate implementation strategies and related priorities. Series of regional, then national, workshops are held so that all participants can state their preferences, debate them in public and then negotiate a compromise acceptable to all parties. The forest service plays

also have to be able to properly represent real social issues, and to avoid restricting themselves to promoting their own representativeness. Further, facilitators have to have the utmost neutrality. Finally, there must be a clear commitment on the part of the public authorities to put into practice the decisions arising from the process, not normally an easy task since most of them entail expenditure. Furthermore, there is a risk involved in the withdrawal of the State and international donor agencies from forestry development. At a time when sectoral aid is falling fast and the means of central administrations are restricted, arranging the participation of stakeholders can be a way to pull out of the sector and to leave local stakeholders to fend for themselves alone. Forestry development would not be any the better for such an approach.

To involve interest groups in decisions about forestry policy is a good thing. But it has to be a reasoned choice, arrived at on the basis of methods and techniques proper to democracy. Negotiation has to

“*Serious, rigorous negotiations*”

a central technical role in the discussion, but it is only a non-majority stakeholder. This process, when conducted with due rigour, can help a State to affirm its independence in decision-making and to avoid having to follow international prescriptions.

The extent to which this type of direct democracy is effective depends on many factors. Firstly, there has to be a free and full flow of information between participants, which is not always the case since holding back information can be used as a way to maintain power. Participants

be taken – and conducted – seriously, with the rigour necessary for respecting the sincerity of all participants. Only then can the resulting decisions be sure of having optimal effectiveness, and equity.

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