

HARAMADA



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**Sustaining rural
livelihoods**

pages 12 -16



IN THIS ISSUE

No. 42 October 2002

 **NEWS** 3
Famine hits Horn and southern Africa • Does Ethiopia need land reform? • Counting the cost of subsidies • Declarations abound

 **WSSD** 6
What is the point of a World Summit on Sustainable development?

 **RESEARCH AGENDAS** 8
Flood retreat sorghum • Jewel of Nigeria's drylands • Drylands livelihoods in India • The Ark's precious cargo • Challenging land and resource rights • A richer dust concealed

 **FEATURE** 12
Sustaining rural livelihoods through diverse farming systems

 **LAND MATTERS** 17
What next for the Presidential Land Commission in Kenya? • Promoting mobility

 **ISSUES AND PROGRAMMES** 19
Jowro: custodian of pastoral resources or common profiteer?

BOOKS 22 • RESOURCES 26

Cover: Kenyan women sharing drought-resistant seeds.
Photo: David Evans, Food for the Hungry International.

Editorial

Famine in Africa is getting political, as accusations fly about food availability and GM supplies. Major shipments of grain to the region have been made by the US, bringing in surplus GM maize, a valuable source of food relief for those in desperate need. Is this a charitable act in response to the starving in the very best of western tradition, or a cynical ploy to get rid of surplus stocks and ensure GM crops become so widespread that, in future, it will be impossible to maintain GM-free status?

Some observers argue that there are substantial non-GM grain stocks available elsewhere in Africa, which could be purchased for distribution in areas of need. Equally, the unwillingness of the US to mill the grain into flour prior to distribution makes some people suspect a strong interest by the US in farmers keeping some grain aside for planting once the next farming season begins, thus polluting GM free food systems.

Conspiracy theory or justifiable caution? Battles over GM crops have broken out over the last few years, pitting Europe against the US farm lobby. The European Union's ban on commercial growing of genetically modified crops, and its insistence that such foods should be clearly labelled as GM, is seen by the US as unfair competitive practice, and no more than a means to protect the higher cost EU farm sector. With a formal complaint lodged at the WTO, US farmers hope that Europe will soon be opened up to their produce, and without the troublesome business of labelling their crops as GM. There are billions of dollars at stake in this battle.

The famine provides an excellent opportunity for biotech companies to establish their products in Africa and make it difficult for any farming system to declare itself GM-free. It won't be small farmers who benefit from this, but large companies who can then monopolise control over local food systems.

Famine hits Horn and southern Africa

Fifteen million people in the Horn of Africa are facing famine, and a further 15 million in southern Africa are at risk of serious food shortages. Lesotho, Malawi, Swaziland, Zimbabwe, Zambia and Mozambique have all experienced very poor harvests in 2001 and again in 2002, and must now wait till March 2003 before new crops will be ready for eating. The overall grain deficit for the region is estimated at 4 million metric tons, or the equivalent of 40 million bags each weighing 100kg. It's an enormous volume of grain which needs to be sourced, shipped and distributed. While some stocks are available within the region, much of the shortfall is being provided by the US, European Union and Japan.

Problems are most severe in Zimbabwe where an estimated 50% of the population are severely at risk, while elsewhere estimates range from 20-30%. Only in Mozambique is the incidence of food shortfall relatively low at 5%. But why are there such major problems? As with all famine situations, no single cause is dominant. Irregular rainfall certainly plays its part. Food production has been greatly disrupted by the land re-distribution process in Zimbabwe, and the widening and devastating impact of HIV/AIDS, which means that many people are weak and their survival particularly at risk from malnutrition.

Persistent poverty throughout the region has meant that few people have reserves on which to draw when crops fail. Without assets to sell, and no cash reserves, rising prices for whatever grain stocks remain bring hardship for many. The reserve grain stocks held by governments in Malawi and Zimbabwe have also been severely depleted in the last few years, and state marketing boards intended

to guarantee prices of staple foods have been dismantled under pressure from the IMF and World Bank. Agricultural subsidies have been removed and markets opened up to goods including food from abroad. The net result has been heightened vulnerability and exposure to risk.

Reliance on large shipments of maize and soya from the US has brought to the fore worries concerning genetically modified (GM) crops. Initially, both Zambia and Zimbabwe both refused to accept GM foodstuffs from the US, on the grounds of food safety and fears that the grain might be used as seed by farmers in the forthcoming growing season. This would contaminate their GM-free status, and making it more difficult subsequently to export crops to the EU, which is maintaining its ban on imports of GM foods. Zimbabwe has now agreed to accept GM maize, so long as it is milled into flour before distribution, thereby eliminating the risk of the grain being used for seed. But Zambia is maintaining its anti-GM stance.

The concern about GM food highlights the continuing differences between US and European positions on the safety of these technologies. USAID's Administrator expressed the frustration felt by many Americans when he reminded southern Africans that 280 million people in the US eat GM food everyday with no apparent ill effects. Europeans on the other hand have been much more wary of this technology, since they can see few if any benefits, except larger profits for the big biotech companies selling the seeds and chemicals required. The US is planning to take the Europeans to the World Trade Organisation to complain about what they see as discriminatory trade behaviour, which prevents their farmers selling GM crops in European markets.

The Southern African Development Community plans to organise an advisory committee on GM organisms, to help build capacity with these countries to monitor and test materials, and achieve a har-



monised regional policy which would allow free movement of grain between countries. The Zambian President is sending a mission to the US to discuss questions of safety with researchers there, while the EU is offering to make information available for countries in the region to make up their own minds on issues relating to GM varieties.

Looking forward, governments and NGOs are providing seed and agricultural inputs to help farmers plant crops in time for the rains which started in October. Unless post-drought recovery gets underway now, southern Africa faces a further worsening of food supplies and growing impoverishment for millions of farmers.

Does Ethiopia need land reform?

Reports from eastern Ethiopia are also alerting the international community to the rising threat of famine for as many as 15 million farmers who have had two years of failing rains. Livestock in the arid Afar region have been especially badly hit, with hundreds of thousands of animals dead due to lack of pasture.

Drought again has played a major role in causing this new food emergency. However, some observers argue that the government's agricultural and land policies are to blame. The government continues to claim ownership of all land, has encouraged periodic redistribution of land, and has banned an open market in land sales and purchases, which many economists think would be vital for the development of commercial agriculture. Equally, there has been no provision of private titles to land, though those seeking to invest in land can acquire long term leases for periods of 50 years or more.

Other observers point to the central position of land as a social as well as economic asset, which argues against it becoming a freely tradable good. Ethiopia has few other employment opportunities for its people to date. Hence, continued access to land provides the assurance that some part of their livelihood needs will be met, and

has prevented the emergence of a large, destitute landless class.

Tenure security for Ethiopia's farming population can be achieved through the role of the local peasant association or council. Land redistributions are no longer occurring in most regions, and plots are only withdrawn when the holder has been absent for more than 2 years. Land which is no longer used is then allocated to one of the many households on the waiting list seeking to gain or expand their own holdings. Despite the government's ban on sales of land, an active market in land rights does in fact exist, with a variety of transactions — rental, sharecropping, mortgages — taking place between farmers. While formal land titles which could be openly bought and sold are not in the offing, local councils in Tigray state have started to register land holdings for local people, to provide them with greater assurance of their claims to the land.

The Federal Government of Ethiopia has adopted an innovative approach to land issues, which has allowed State governments in the different regions to draft their own land laws, so long as they are in broad conformity with principles laid down at federal level. This has encouraged states such as Tigray and Amhara to experiment with new forms of land rights which build on and support local practice rather than trying to impose a blueprint model from above.

Counting the cost of subsidies

The damaging impact of subsidies paid to farmers in rich countries has been highlighted by a new report from Oxfam — *Cultivating Poverty*. This estimates the economic impact of US subsidies on African farmers. The figures are shocking. Total subsidy payments in 2001/2 equalled \$3.9 billion, a sum larger than the GDP of Burkina Faso, where more than 2 million people depend on cotton production. The largest ten farms gained \$17m in support to cotton growing, while the losses to African farmers in 2001/2 from the

slide in world cotton prices equalled more than \$300m.

Cotton prices are at their lowest level since the 1930s. At the heart of this crisis of over-production is the subsidy system which pays farmers to produce large amounts of cotton regardless of demand, leading to surpluses which can only be got rid of by dumping at prices far below what it cost to produce. West Africa's farmers are able to produce cotton at low cost relative to others around the world, but they cannot survive on the current depressed levels in world markets.

But the US is not the only culprit. Highly subsidised sugar production in the European Union also generates high levels of surplus which again must be got rid of, through offloading in markets elsewhere. At the same time, EU farmers are protected from cheaper sugar supplies elsewhere by a system of tariffs and quotas. The long-awaited reform of the EU Common Agricultural Policy and associated subsidies has been postponed yet again, due to France and Germany digging in their heels.

Why this intransigence? In countries where farmers often make up less than 5% of the population, how is it that they continue to squeeze these enormous sums from government budgets? In both the EU and US, they wield political power far in excess of their numbers, due to their location in key constituencies in which political parties want to retain power. Large farmers and land-holders have also managed to find ways of protecting their benefits, by making friends with people in high places. Some politicians are also large land-owners and thus have a personal interest in keeping their bread well-buttered.

The current round of negotiations in the World Trade Organisation provides an opportunity to test out the much vaunted rhetoric in favour of development and eradicating poverty. The farm subsidy system is in stark contradiction to the many speeches made

by western leaders in which they re-affirm their commitment to Africa's development and offering market opportunities to the poor. Gaining access to world markets and selling produce at higher prices are key ways to raise incomes and improve livelihoods for millions of African smallholders.

Cultivating poverty: The impact of US cotton subsidies on Africa, Oxfam Briefing Paper no.31, 2002. Make Trade Fair Campaign. www.oxfam.org.uk

Declarations abound

Protecting land rights for the poor has become a hot issue in Africa (see page 19). The Lagos Declaration on Land & Resource Rights in Africa was adopted at the second workshop of the Pan African Programme on Land and Resource Rights (PAPLRR) held in Nigeria, July 2002. This collaborative programme aims to articulate an African voice on land rights, policy and advocacy and address the current threats facing the rural poor, due to the actions of vested interests, inappropriate policies and institutions, and the weakness of grassroots organisations.

Ten key principles make up the declaration's text. They stress the need to strengthen decentralised and accountable institutions at local level. Equality must be at the root of all policies, whether between men and women, elders and juniors, people of different ethnic or class background. Historic injustices need addressing with land redistribution an essential component. The PAPLRR calls for researchers and practitioners to build strong and equitable partnerships between civil society, grass roots organisations, NGOs and academic institutions.

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What is the point of a World Summit on Sustainable Development?

This question was on many people's lips during the Johannesburg Summit earlier this year. And it's not easy to come up with a constructive answer. In many areas, the formal negotiations came down to a sterile and acrimonious face-off between the USA, the European Union and the Group of 77 developing countries.

The US wanted no binding targets or joint commitments to action among governments. They focused on good governance at national level and promoting partnerships involving the private sector as the main means of implementation. The EU insisted that global targets and timetables were essential for delivering sustainable development but were unable to agree among themselves on increases in aid or the removal of unsustainable European subsidies in agriculture and fisheries. The G77 was suspicious of suggestions that domestic governance was open to scrutiny while global trade and finance were not. They were also highly dubious about shared commitments, citing the many broken promises Northern countries had made at the Rio Summit ten years ago.

There were no major new agreements to rival Agenda 21 and the Conventions on Climate Change, Biodiversity and Desertification agreed at the Rio Summit. The text negotiated in Johannesburg does not add up to more than a restatement of existing commitments. Many NGOs were fed-up with the emphasis placed by many governments

and the UN on Type 2 partnerships involving governments, the private sector and NGOs as the main means by which to make progress. And in a number of areas, most notably renewable energy, negotiations on a target and the phase out of fossil fuel subsidies collapsed altogether.

Despite the setbacks, there were some genuine reasons for optimism:

- A new target was agreed to halve the number of people without access to basic sanitation by 2015
- Further commitments were made on regulating toxic chemicals, restoring fish stocks, reducing species loss and improving the benefit-sharing regime to give Southern countries a greater share of profits from bio-prospecting and bio-patenting
- With Russia's announcement that it will ratify the Kyoto Protocol, there are now enough countries on board to ensure that the Protocol will enter into effect in the near future

And beyond these agreements between governments, there were broader shifts which could prove even more significant:

- There was broad consensus in support of NGO calls for mandatory standards in corporate accountability. The text agreed provides the basis for future work on global, binding standards on transnational companies
- An impromptu alliance of countries led by Ethiopia resisted efforts by the US and others to ensure that World Trade Organisation rules would take precedence over multilateral environmental agreements in the event of a conflict
- Beyond the conference hall there was a bewildering array of meetings and activities involving civil society organisations from around the world, which turned into a market-place for ideas,

information and networking. This creative anarchy could well have far more impact than the official event.

The challenge beyond WSSD is to shift the sustainable development juggernaut back to its original course and to re-state the original vision. The world urgently needs to re-orient towards promoting participatory action; protecting environmental life-support systems; maintaining the diversity of life; putting the poor first; committing to social justice and human security; and firm respect for human dignity. Johannesburg will be judged by the policies and actions flowing from it and how far these are rooted in the interests of the poorest and most vulnerable groups on our planet. There is a long way to go and the initial signs are decidedly mixed, but at least the Summit made more clear the scale of the challenges we all face.

Help us document the WSSD process

IIED is producing a CD-ROM which presents a detailed record of civil society priorities and contributions for the Johannesburg Summit. The purpose is to bring together the broad range of ideas and information generated by WSSD which would otherwise be lost. The CD-ROM will:

- provide an extensive record of individual organisations priorities and expertise, helping others to learn from their work
- help organisations focus on the implementation of existing commitments — through strengthening their awareness of resources that can be used, organisations that they might collaborate with, campaigns and lobbying activities they could build on and examples of good practice
- present a diverse range of perspectives on the WSSD process, its successes and shortcomings, and future challenges
- include a comprehensive library of the key civil society

documents from the whole WSSD process and the principal officially negotiated texts.

The CD-ROM will be circulated globally as part of an IIED post-WSSD publication to be published by Earthscan, and as a stand-alone resource to be sent free of charge to all WSSD-accredited organisations.

Can you help us by providing material?

We need to collect documents from:

Major Groups: each of the nine Agenda 21 major groups (NGOs, women, youth, indigenous peoples, private sector, farmers organisations, local government, trade unions, scientists).

Journals, newspapers etc: selected articles on the WSSD process.

Research organisations: input from academics and policy researchers.

Governments and inter-governmental organisations: relevant documents and communications.

These materials could be

General commentaries: Overviews of what the Summit could achieve; assessments of its impact. Significant letters or emails, newsletters, online debates, material from email listservers, etc.

Issue-specific material: — e.g. forestry, corporate accountability, poverty eradication, environmental rights etc.

Records of WSSD-related events, including parallel events held during the Summit.

Please send whatever you have to tom.biggs@iied.org. We need to receive these by the end of January 2003. If only hard copies exist these should be posted to Tom Bigg, WSSD coordinator IIED, 3 Endsleigh Street, London WC1H 0DD, UK.



Flood retreat sorghum

Sown in the damp soils of flood-plain land, flood retreat sorghum provides a valuable contribution to food security in drier parts of West Africa, along the major river valleys and on the edge of lakes. Small areas of valley bottom land in *bas-fonds* and *fadamas* also enable a harvest to be reaped. While statistics are short on the extent of this crop, estimates from Mauritania suggest that in a good year, as much as 25% of national cereal production stems from this source, with average yields of around 1 ton/ha.

Flood retreat sorghum is sown in October-November at the end of the rainy season, once river levels fall from their flood peak levels. With a harvest in March, these cereals can help poorer households fill the hungry season gap. Local sorghum varieties are remarkably adaptable, and can survive and prosper even where there is as little as 200mm of rainfall in the year. Once the grain is cut, the stubble can be used for livestock fodder, and construction of shelters and fences.

The Guin a variety currently predominates in West Africa. Breeding and selection aim to improve yields and insect resistance while maintaining diversity, through selective use of materials from other areas of the world where such sorghum varieties are of importance.

A Regional Plan of Action has been drawn up to promote further research and support to this valuable but neglected crop. Five main objectives have been agreed: improvements to seed varieties, production and conservation; development of better pest management; more sustainable management of the natural resources (water, soils) on which this production depends; training and extension; diversify-

ing use and markets for flood-retreat sorghum. A range of organisations from the West African region have pledged themselves to work together for promotion of this crop.

La culture du sorgho de d crue en Afrique de l'Ouest et du Centre: Situation actuelle et définition d un Plan d Action R gional. Available from Helena.GomezMacpherson@fao.org, in French with English summary.

Jewel: the gemstone of Nigeria s drylands

In dryland areas, wetlands are a precious but fragile common pool resource (CPR) needing careful management. Increasingly, wetlands have become a place of sometimes violent conflict between various user groups, notably herders and farmers. One such a place is the Hadejia-Nguru wetlands in Jigawa State, in the north of Nigeria, with water being the prime resource over which people compete. Here, the Jigawa Enhancement of Wetlands Livelihoods project (JEWEL) is just starting with funding from the UK s Department for International Development (DFID). The programme will focus not only on the wetlands but also upstream stakeholders in the larger Hadejia-Jama are river basin.

The programme aims to enhance livelihoods of poor people dependent on these CPRs, by promoting more effective management of these wetlands, while strengthening the capacity of various stakeholders to negotiate rights and deal with conflict. Better understanding of the various issues at stake in this highly productive, but complex area is also needed amongst government agencies playing a role in wetland management.

A core activity concerns the establishment of effective platforms at the level of the wetlands and the river basin. These will bring together different stakeholder groups, who will be encouraged

to get involved in regular participatory data collection on issues such as ecology, access rights, conflict, livelihoods and poverty. These data it is hoped will stimulate learning, exchange and discussion between the various groups, in order to help them understand the issues at stake and identify possible solutions. The programme further intends to identify and strengthen local mechanisms for preventing or managing conflict relating to the use of CPRs.

For more information, please contact: Adiya Ode, Rural Livelihoods DFID Nigeria, a-ode@dfid.gov.uk, Fax: +234.9.4137400 or 4137396

Dryland livelihoods in India

Strategies for coping with change in semi-arid India have been studied by researchers from India and the UK, with the aim of examining differences between drier drought prone areas (DP), and non-drought prone (NDP) areas of the country to draw comparisons and see how things have been changing over time. The research provides interesting insights of broader relevance to many African dryland settings.

In general, DP areas rely less on agriculture for livelihoods and are more dependent on migration than NDP areas; population densities are lower as is the share of agriculture as a source of employment while urbanisation rates are higher in drought prone regions. Poverty is increasingly concentrated in cities and towns as people seek to earn a living off the land. A smaller proportion of cropped area is irrigated than in NDP regions, but there is a clear trend towards intensification of farm production and increased use of purchased inputs. While holding sizes are still almost twice as large as those in non-drought prone

areas, average farm size is falling rapidly, land distribution is becoming more inequitable, and landlessness is rising.

Water shortages present a major and growing threat. Water availability is declining, especially where surface and groundwater is being sought by other users, such as mining in and around Udaipur. The supply of water to industry and urban areas is using up rural water sources, urban water needs being sourced from wells hitherto devoted to agriculture.

Most diversification is out of the farming sector. Poor households tend to diversify into casual, unskilled wage labour, while the better off, having some education, can often gain higher paid work and salaried employment. Hence diversification seems to be widening income disparities in India. Nevertheless, all of those interviewed considered that their standard of living had improved over the last 20-30 years.

Use of common property resources used to form an essential component in livelihood strategies, especially in drought years, such as 2000, but many such resources have disappeared, having been encroached on by farmers for cropping, allocated to commercial contractors, and privatised. The experience of cotton and groundnut farmers shows how liberalisation and globalisation can bring damaging consequences for small holders. A combination of low profitability, crop failures, high input costs and heavy indebtedness has led to several hundred suicides and landlessness.

Household livelihood and coping strategies in semi-arid India: Adapting to long-term changes. Czech Conroy et al, Research Report — Society for Promotion of Wastelands Development, Delhi. spwd@vsnl.com. Also available from NRI +44.1634.880066



The Ark's precious cargo

What do llamas, jatropha, pot-bellied pigs, indigo and grass-cutters have in common? They are all under-used and poorly known animals and crops of particular value to marginal areas and producers. They very often provide reasonably stable yields under adverse conditions, and contribute to the survival of farming families. The genetic diversity and adaptive capacity represented by such crops and animals need to be recognised so that broader trends in biodiversity loss do not threaten these valuable sources of food and income.

The grasscutter rat is a large rodent, which lives in savannah and humid areas of West Africa. In heavy demand for food, it is now being farmed in various parts of the region, being particularly suited to households with little access to farmland. Breeding, extension and training activities have been developed to help expand grasscutter farming and reduce pressure on wild stocks.

Jatropha, or purging nut, is a shrub now found in drier parts of Africa, having been brought from Central America during the colonial period. Needing only 500mm of rainfall it is well-adapted to marginal soils. It is planted by farmers seeking a living hedge, while the leaves and oil from the seeds are of value as medicines, and their healing powers are said to be good for wounds and rheumatism. Extracts from the nut are now being investigated for use as a biological pesticide and against certain parasites. Research is also being done on the use of jatropha oil for use as a diesel substitute.

Protection by utilisation: Economic potential of neglected breeds and crops in rural development, GTZ, Germany. For more information, contact annette.lossau-von@gtz.de and visit www.gtz.de/agrobiodiv



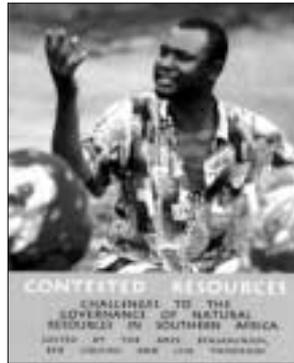
Challenging land and resource rights

Governance of natural resources in southern Africa faces major challenges which stem from the highly skewed distribution of ownership and control, with access and use rights increasingly contested. In some places, key resources span two or more countries, which brings complex issues while all resources everywhere are under rising levels of demand.

An initiative of the School of Government at the University of the Western Cape, South Africa, led to a workshop in 2001, the papers from which outline recent research undertaken in collaboration with Norwegian colleagues. A wide variety of settings are described in the collection, from San bushmen in the Kalahari of Botswana to sharing South Africa's water, and from managing open rangelands in Namibia to co-management of fishing resources in Malawi.

Many of the research papers have a common interest in describing institutions and systems for commons management, combined with a desire to seek broader lessons for policy design. Such an approach is of great value, given the very limited interaction to date between the extensive, well-founded academic debate on the merits and conditions for successful commons management, and the limited acknowledgement of such advances when it comes to drawing up and implementing laws and policies. Key to bridging this gap is the need to understand politics and power relations. Governments and project designers have been reluctant to transfer real authority to local people, seeking rather to transfer costs and responsibilities with few firm rights. Even where greater amounts of power are transferred, the lack of accountability of local leaders means that the benefits reach only a small section of the community.

A contribution by Katerere assesses the value of partnerships aiming to link community with public and private sectors. These are seen by many in the donor community as the means for encouraging investment, employment creation, and transfer of technology. But, as noted here, they also involve a major shift towards greater privatisation, which is taking place throughout the world, through globalisation and the spread of trade and market economics. The language of poverty alleviation is used to promote and justify such partnerships. But such partnerships will bring few local benefits since so little real devolution of power has taken place in most of the region.



The notion of community has also been very attractive to government and donors, but has over-romanticised more complex and differentiated societies. Tanzania remains the most advanced in terms of the expectations and rights of local communities to manage and control forest and other common property resources. Villages are considered to have legal status and can therefore own property, as well as having powers to draw up local by-laws and enforce sanctions on those who break the rules. Elsewhere, village communities and local government structures find their powers tightly circumscribed by governments, who are unwilling to devolve real authority over valuable resources.

Other major sections of the workshop report address empowerment and redistribution; the difficulties faced by communities in protected areas; and the contradictory narratives from policy, research and project work on land, environment and development.

Some discussion of economic analysis of natural resources complements the case studies addressing institutional and process aspects, with their focus on the importance of participatory projects.

For copies of *Contested resources: Challenges to the governance of natural resources in southern Africa* contact plaas@uwc.ac.za fax: +27.21.959.3732

A richer dust concealed

Dust is a common feature of drylands, whether seeping into your shoes, coating the traveller in a white shroud, or twisting into a devil's corkscrew which towers into the heavens. But dust may also be good for you, bringing nutrients from the sky to increase the health and productivity of the ecosystem. Cutting back on dust may produce unexpected and unwanted consequences.

Recent research suggests that dust carried across the Atlantic from the Sahara and Sahel feeds the soils of the Amazon forests, as well as providing vital nutrients to ocean plankton. These microscopic marine plants take in carbon dioxide from the atmosphere and, once dead, sink to the bottom of the ocean floor, taking the carbon with them. But they need iron to do this. Plans to cut carbon levels in the atmosphere by increasing storage of organic carbon in the soil, by reducing wind and water erosion, would also cut the supply of dust going into the atmosphere, with its vital supply of iron and other minerals. With less dust caught up by the winds and deposited in the seas, there will be less active growth by plankton and, therefore, less carbon absorbed from the atmosphere.

So next time you're plagued by dust, remember, it's an essential component in fighting global warming, and what's dust to you is lunch for a micro-organism many miles away.

Contact: A.Ridgewell@uea.ac.uk at the Tyndall Centre for Climate Change Research, Norwich, UK. www.tyndall.ac.uk

Sustaining rural livelihoods through diverse farming systems

How sustainable are our agricultural systems and what contribution do they make to broader rural development? Given the challenges acknowledged at the Rio Earth Summit, what progress has been achieved over the past ten years in the field of agriculture?

This compendium of case studies of improved land management and sustainable agriculture and rural development (SARD) was prepared for the 2002 World Summit on Sustainable Development, held in Johannesburg. It illustrates successful initiatives in land and agriculture which contribute to greater food security, improvements in rural livelihoods, and more rational and equitable use of our land resources for present and future generations.

Five Primary Questions for SARD Compendium

1. What technical innovations are leading to improvements in food production with SARD?
2. What novel institutional partnerships and joint working arrangements have been developed to implement SARD?
3. What examples of enabling policies have been implemented by governments to support SARD?
4. What rural development outcomes have occurred with successful implementation of SARD?
5. What wider environmental outcomes have been achieved with successful implementation of SARD?



Technical innovations leading to improvements in food production

1. Soil quality improvements
2. Better efficiency of green and blue water use
3. Pest management with minimum-zero pesticides
4. Whole system redesign and large-scale adoption

Novel institutional partnerships and joint working arrangements

1. Novel partnerships
2. Social groups and federations
3. Private sector and sustainable agriculture

Environmental outcomes

1. Regional biodiversity improvements
2. Water quality and quantity improvements
3. Calculations of externalities (side-effects) of agriculture
4. New carbon sinks in agriculture

Rural development outcomes

1. Women's and children's status improvements
2. Rural jobs and migration patterns
3. Dietary and reproductive health

Enabling policies implemented by governments

1. National integrated policies
2. Sub-national integrated policies
3. Integrated pest management
4. Soils and land management
5. Economic instruments
6. Support for farmers' groups

Certain key elements define what is meant by sustainable agriculture:

- making best use of nature's goods and services whilst not damaging the environment, by integrating natural processes such as nutrient cycling, nitrogen fixation, soil regeneration and natural enemies of pests into food production processes.
- minimising use of non-renewable inputs (pesticides and fertilizers) that damage the environment or harm the health of farmers and consumers.
- producing both food and other goods for farm families and markets, while contributing to a range of public goods,

such as clean water, wildlife, carbon sequestration in soils, flood protection, and landscape quality.

- seeking to make the best use of nature's goods and services means that technologies and practices must be locally-adapted, relying on human capital (leadership, ingenuity, management skills and knowledge, capacity to experiment and innovate).

A selection of 75 initiatives are described in the report, from velvet bean cover cropping in Benin, and small-scale aquaculture in Malawi, to *vutu-sukumu* pest management for smallholders in Kenya and water users' associations in Bangladesh. A number of the case studies stem from rich countries, and demonstrate the similarity of challenges faced in different parts of the world. As the authors of the compendium make clear, these examples are but a small part of the larger picture, to illustrate key principles and characteristics. Many hundreds of successful initiatives could not be included in their survey for lack of space. In *Haramata* we highlight just a few of these examples.

Senegal: Rodale Regenerative Agriculture Research Center

In Senegal, soil erosion and degradation threaten large areas of agricultural land. Since 1987, the Rodale Institute Regenerative Agriculture Research Center has worked closely with farmer associations and government researchers to improve the quality of soils in Senegal by using agroecological methods. The RARC works with about 2000 farmers in 59 groups to improve the soil quality, integrate stall-fed livestock into crop systems, add legumes and green manures, improve the use of manures and rock phosphate, incorporate water harvesting systems, and develop effective composting systems. The result has been a 75-195% improvement in millet yields — from 330 to 600-1000 kg/ha, and in groundnut yields from 340 to 600-900 kg/ha. Yields are also less variable year on year, with consequent improvements in household food security. As Amadou

Diop of Rodale puts it: crop yields are ultimately uncoupled from annual rainfall amounts. Droughts, while having a negative effect on yields, do not result in total crop failure.

Zimbabwe: Organic farming of cotton with natural pest management

This project involves 400 households, and has led to the elimination of organophosphate and pyrethroid pesticides from the farming system, provided information and training in sustainable agriculture directly to farmers, and led to the conservation of indigenous trees. This project was initiated by a group of resource-poor, mainly women farmers who were keen to produce cotton without pesticides for economic, health and environmental reasons. A local NGO, ZIP Research, was asked to provide training and research assistance for the farmers, due to their lack of knowledge, regarding pest management and organic agriculture. Many AIDS widows are keen to grow cotton in order to generate a cash income, organic production is accessible to these resource-poor farmers because there is no need for costly inputs. Marketing of the organic products from this project is a crucial aspect of this project and this service is being provided by the local consultant from Agro Eco. The organic seed cotton is sold to Cargill at a premium which is currently 20%. Last year's harvest of one tonne of organic lint is being locally processed into export-quality, printed T-shirts. Once the farmers are able to produce more than 25 tonnes of organic lint (or one container load) it can be sold on the world market at an enhanced premium.

Japan: Consumer cooperatives link to farmers

Food co-operatives are an important way to get good food to urban groups with no direct access to farms and the countryside. Direct links between consumers and farmers have had spectacular success in Japan, with the rapid growth of the consumer co-operatives,

sanchoku groups and *teikei* schemes. This extraordinary movement has been driven by consumers rather than farmers, and mainly by women. There are now some 800-1000 groups in Japan, with a total membership of 11 million people and an annual turnover of more than US \$15 billion. These consumer-producer groups are based on relations of trust, and put a high value on face-to-face contact. Some of these have had a remarkable effect on farming, as well as on other environmental matters. They seek to empower each and every member with a voice and role in participatory politics. Historically isolated in the home, this has given strength and new opportunities to women.

India: The Society for People's Education and Economic Change, Tamil Nadu

SPEECH has been working in Kamarajar District of Tamil Nadu since 1986, and has helped to build and strengthen local groups and institutions in 45 villages. The region is known for its acute droughts, erratic monsoons, poor services and entrenched socio-economic and cultural divisions. Village groups, or *sanghas*, have adopted a range of sustainable agriculture approaches to make better use of existing resources. Water harvesting has been particularly effective, as it not only brings previously abandoned land into production, but also

means sufficient water can be saved for an additional wet rice crop on the small amount of irrigated land. Milk cows have been introduced, bringing particular benefits to women and children. Sorghum and millet yields have doubled, and extra crops and fruit and timber trees are being cultivated. As *sanghas* become more confident, they begin to develop new activities, such as providing for health care, building roads, and running savings and credit schemes.

Switzerland: National Policy for Sustainable Agriculture

The progressive Swiss policy reforms of the agricultural sector were made in the late 1990s — a radical package supported by 70% of the public in the 1996 referendum. There are five minimum conditions necessary for farmers to receive payments for integrated production, the so-called ecological standard of performance:

- Provide evidence of balanced use of nutrients with fertilizer matched to crop demands, and livestock farmers having to sell surplus manure or reduce livestock numbers.
- Soils must be protected from erosion — erosive crops (eg maize) can only be cultivated if alternated in rotation with meadows and green manure.
- At least 7% of the farm must be allocated for species diversity protection through unfertilised meadows, hedgerows, or orchards.
- Use of diverse crop rotations.



Paraikulum watershed before improvement (above)



Paraikulum watershed after improvement (right)

Credit: J Pretty

- Pesticides have to be reduced to established risk levels.

A vital element of the policy process is that responsibility to set, administer and monitor is delegated to cantons, farmers unions and farm advisors, local bodies and non-government organisations. By 1999, 90% of farms were able to comply with the basic ecological standard (which allows them to receive public subsidies). Some 5000 farms (8%) are now organic (up from 2% in 1991), and most farmers are now expected to meet the 'ecological standard' during the year 2000. Pesticide applications have fallen by 23% since 1990, and phosphate use is down from 83 to 73 kg/ha.

United States of America: Support to Farmers Markets

In the USA, farmers markets have emerged on a huge scale in recent years. Held on a weekly or twice weekly basis, farmers and consumer groups have established new market sites to foster direct selling to the local public. There are at least 2400 farmers markets in the USA, involving more than 20,000 farmers as vendors, one third of whom use them as their sole outlet. Each is unique, offering a variety of farm-fresh and organic vegetables, fruits and herbs, as well as flowers, cheese, baked goods and sometimes seafood. The benefits these farmers markets bring are substantial — they improve access to local food; they improve returns to farmers; they also contribute to community life and social capital, bringing large numbers of people together on a regular basis. Consumers also perceive the food to be of better quality and cheaper than in supermarkets. One piece of research on fifteen farmers markets in California found that produce was 34% cheaper than in supermarkets.

Italy: Multifunctional olive cultivation contributes to local jobs

Olive trees have been cultivated for at least two millennia on the Mediterranean coast, contributing to local livelihoods and producing

rich and varied habitats for wildlife. But over recent decades, areas like Cilento have suffered from mass emigration, with the young no longer wanting to be olive farmers. In Cilento, CADISPA-Italy began working with a local olive oil co-operative to introduce organic farming and new marketing methods. Now 130 farmers located in the national park of Cilento are fully organic, using a wide range of resource-conserving practices to minimise input use and recycle valuable products, such as using olive husks for fertilizer. They now produce *Cilento verde*, an extra virgin organic oil of high value. Since the successful regeneration of olive production, co-operative businesses have now been set up for wild chestnut flour production, and ecotourism. These new ventures are largely run by young people, who are increasingly opting to stay in Cilento and use their abilities and skills to develop high quality local goods and services.

China: Rice-fish systems benefit health in Jiangsu Province

Rice-fish culture offers many multifunctional benefits to rural households, economies and environments. At present, only 136,000 ha of the total area of 21 million ha of irrigated rice fields in South East Asia are used for aquaculture. Jiangsu province in China has more than 2 million ha of rice fields, among which one third are suitable for rice-fish culture. A project was developed by the provincial government in the mid-1990s to develop rice/aquaculture combined with reforming low-yielding paddies, ponds and waterlogging farmland to increase food production, promote rural economy and enrich farmers. As a result, the rice aquaculture area in Jiangsu Province expanded from about 5000 ha in 1994 to reach 68,973 ha in 1997. Rice-aquaculture systems are low cost, and provide rapid economic returns as well as an additional source of food and income in rural area. Rice-aquaculture farming systems also maintain the ecological balance of rice field ecosystems. The rural environment can be improved through the use of non-pollution agriculture — the use of

agricultural chemicals is greatly reduced. Rice-fish culture also helps eliminate mosquito larva harmful to human health.

Ethiopia: Cheha Integrated Rural Development Project

This is integrated, small-scale project has been working in south-west Ethiopia since the drought of 1984, and has introduced of new varieties of crops (vegetables) and trees (fruit and forest), promoted organic manures for soil fertility and botanicals for pest control, and introduced veterinary services. Some 12,500 farm households have adopted sustainable agriculture on about 5000 ha, resulting in a 70% improvement of overall nutrition levels within the project area, along with a 60% increase in crop yields. Some farmers have begun to produce excess crops which they sell in local markets, earning much needed income for their families. Thus an area once reliant entirely on emergency food aid has now become able to feed itself and have enough left over to contribute to surplus. The real promise of the programme, however, lies in the fact that farmers are replicating activities on their own initiative (including those outside the project area), where once they had to be encouraged to participate through food for work payments.

Problems and trade-offs

Evidence from these case studies shows that better livelihoods are possible for rural people through promoting more sustainable patterns of agriculture, and seeing crop production as only one part of the broader picture. However, examples of successful SARD initiatives may themselves bring secondary problems and trade-offs, such as increased workloads, if cropping intensity rises and additional tasks must be undertaken. Equally many such activities rely heavily on accessing new markets at global levels, with their associated high transport requirements generating increased carbon dioxide emissions. Where SARD activity improves the value and productivity of

the land, landlords may try to take back formerly degraded lands from tenants who had made investment in such improvements. Equally, where land has been closed off for rehabilitation, those with grazing animals may find their options for obtaining fodder seriously curtailed.

There are bound to be winners and losers with the emergence of sustainable agriculture on a significant scale. In particular, agro-chemical companies may see their interests seriously threatened, since they will lose markets for their fertilisers and pesticides. Globalisation of agricultural markets brings great opportunities but also high risks, where farmers may see their domestic markets flooded with cheap imports from other countries where farmers practice short term, unsustainable or highly subsidised production.

Conclusions

The compendium makes very clear that there is much that can be achieved to make agriculture more sustainable and bring a broad range of benefits to farmers, and consumers both North and South. There is rarely a single magic solution to achieve such improvements, but rather a combination of technical, institutional and policy changes needed to bring tangible increases in nutrition, incomes, cleaner water, access to services and greater empowerment of poorer members of rural society. Such examples demonstrate the need to associate agricultural development with issues of equity, sustainability and improved incomes. A focus on modernising agriculture through establishing large commercial farms using high-tech methods will risk high losses, whether environmental, economic or social, and neglect questions of poverty and power.

A copy of the report Land and Agriculture: From UNCED, Rio de Janeiro 1992 to WSSD, Johannesburg 2002 can be downloaded at <ftp://ftp.fao.org/agl/agll/docs/landandagric.pdf>

What next for the Presidential Land Commission in Kenya?

When the establishment of a Presidential Commission of Inquiry into the Land Law Systems of Kenya was announced towards the end of 1999, a number of Kenyans greeted the announcement with a yawn. The recent history of Kenya is littered with Presidential Commissions of Inquiry which have absorbed large sums of money from the public purse in collecting views across the country, raised expectations among the populace, but whose recommendations came to naught. In some cases, the work of the Commissions were stopped midstream as in the Commission of Inquiry into the circumstances surrounding the killing of the former Minister for Foreign Affairs, Dr. Robert Ouko. The government promised, at the time the Commission was established, that no stones would be left unturned in efforts to establish the truth behind the murder of this high-ranking politician. However, the Commission was disbanded once it became clear that the evidence coming out was likely to damage the powers that be.

The recent Commission of Inquiry into the Land Clashes collected evidence and presented a report to the President, but to date the report has not been made public and no action has been taken on its recommendations. In one extreme instance, a Commission of Inquiry was established to investigate a major investment scandal in the lakeside town of Kisumu, known as the molasses project, but the Commission never even got to sit. It was thus not surprising that Kenyans reacted with scepticism to the idea of yet another Presidential Commission of Inquiry.

In the end, however, Kenyans decided to give the Commission of Inquiry into Land Matters a chance. The land question is such a sensitive political issue that it threatens to tear the country apart. The



management of land has been wrought with such corruption and inefficiency that even the government has had to admit that something needs to be done. Major donors, including the World Bank and DFID have linked the reform of land law and policy to strategic government objectives, such as improvement of livelihoods and the eradication of poverty. DFID has backed its interests in the land discussion by providing substantial support to the Commission and to civil society, to encourage the latter to present their views and participate effectively in the processes of the Commission.

So, more than two years later, the Commission has completed its collection of views from the public and is presently preparing its report. When the report is ready, it will be presented to the President in accordance with the provisions of the law. The way things look now, it is extremely unlikely that the current President, who is due to retire by the end of the year, would have any desire or time to do anything with the report. In any event, for the next six months, the overriding political issue in Kenya is the Moi Succession. The political establishment and even the public are unlikely to invest their time and energy on such issues as land policy and law. A lot therefore depends on what kind of leadership comes out of the forthcoming elections, a matter on which the jury is out.

Another bottleneck to making use of the Commission's findings is the ongoing constitutional review process. This, as some of us had feared from the beginning, has effectively eclipsed the Land Commission. Indeed, the Constitution of Kenya Review Commission has made the land issue an important subject matter of its own, and it remains to be seen how its recommendations will impact on those of the Land Commission. It may well be that once the new constitution is in place, it will become necessary to institute

a brand new land inquiry within the context of a new constitutional dispensation. One hopes, for the sake of all Kenyans, that this will not be the case.

Michael Ochieng Odhiambo, RECONCILE

Promoting mobility

For many years mobile people, such as pastoralists and hunter-gatherers, have been driven from their homes in the interests of conservation with drastic consequences on their livelihoods, cultural identity and the local environment. The costs of this approach have been high. Social conflicts have grown in and around protected areas and, in many cases, the very goals of conservation have been threatened by environmental degradation and the loss of biodiversity. It is increasingly recognised that the divide must be narrowed between a pure preservationist approach and one which puts people at the heart of conservation policy.

This is the challenge that a group of concerned professionals, including social and natural scientists, from all over the world addressed at a meeting in Wadi Dana Nature Reserve, Jordan, in April 2002. At the end of this meeting, they agreed the following declaration:

- *The world faces unprecedented threats to the conservation and sustainable use of its biodiversity. At the same time, its cultural and linguistic diversity, which includes an immeasurable and irreplaceable range of knowledge and skills, is being lost at an alarming rate.*
- *The linked pressures of human population dynamics, unsustainable consumption patterns, climate change and global and national economic forces threaten both the conservation of biological resources and the livelihoods of many indigenous and traditional peoples. In particular, mobile peoples now find them-*

selves constrained by forces beyond their control, which put them at a special disadvantage.

- *Mobile peoples are discriminated against. Their rights, including rights of access to natural resources, are often denied and conventional conservation practices insufficiently address their concerns. These factors, together with the pace of global change, undermine their lifestyles, reduce their ability to live in balance with nature and threaten their very existence as distinct peoples.*
- *Nonetheless, through their traditional resource use practices and culture-based respect for nature, many mobile peoples are still making a significant contribution to the maintenance of the earth's ecosystems, species and genetic diversity — even though this often goes unrecognised. Thus the interests of mobile peoples and conservation converge, especially as they face a number of common challenges. There is therefore an urgent need to create a mutually reinforcing partnership between mobile peoples and those involved with conservation.*

In the light of this understanding, participants at the meeting argued that conservationists and mobile people need to work together, pooling their knowledge and skills in order to conserve biodiversity and the sustainable use of natural resources while respecting the rights and livelihoods of those people living in these areas.

The Declaration sets out five principles for promoting this new approach:

RIGHTS AND EMPOWERMENT

TRUST AND RESPECT

DIFFERENT KNOWLEDGE SYSTEMS

ADAPTIVE MANAGEMENT

COLLABORATIVE MANAGEMENT

The participants at the Dana meeting recognise that these princi-

LAND MATTERS

ples and the arguments that underpin them need to be shared and discussed with a much broader group of actors, particularly mobile peoples themselves. To this end they have developed a website from which you can download copies of the Dana Declaration as well as the workshop report. You can also use this website to endorse the declaration as well as send comments on its content. If you are interested go to www.danadeclaration.org or write to Dawn Chatty, Dana Declaration, c/o Refugee Studies Centre, Queen Elizabeth House, 21 St. Giles, Oxford OX1 3LA, UK (webmaster@danadeclaration.org).

African Perspectives on Land and Sustainable Development. Declaration from a Forum, Johannesburg, 27th August 2002

We, as international activists involved in agrarian issues, are concerned that:

- land distribution and access are highly unequal and insecure
- land administration is undemocratic
- land administration under traditional authorities is highly problematic
- market mechanisms for land access exclude the poor
- multinational corporations are privileged in economic policies and responsible for deforestation and dispossession of land and resource rights
- privileging commercial and export production compromises food security
- rural Africans continue to be dispossessed of their land through the proclamation of protected areas for wildlife tourism and biodiversity protection
- women are discriminated against and marginalised in land affairs

- women's access to land is disproportionately through male intermediaries
- access to land must be accompanied by access to markets, credits and services
- traditional systems of land use and management are marginalised,
- and that the above violate the right to food, health and a life in dignity.

Based on the above concerns, we demand that:

- governments prioritise comprehensive land-tenure and agrarian reforms
- land administration take place through representative and downwardly accountable institutions
- alternatives to the market must be established to guarantee land access and security for the poor
- women be guaranteed direct and equal land access and security
- government entitle all people to a basic sustainable livelihood
- the rights of the rural poor take precedence over the interests of investors and foreign companies
- biodiversity conservation be interpreted into sustainable land use for the rural poor
- government prioritise food security over production for export
- and that governments legislate for and actively implement the above demands.

For more information on the meeting and how these principles might be taken forward, please contact: the National Land Committee in South Africa, fax: +27.11.339.6315 or email shadia@nlc.co.za



Decentralisation brings many challenges — political, financial and institutional. In many African countries, newly established District Councils or Communes must come to terms with a range of existing institutions which consider themselves the real sources of local power and authority. What role should such customary or traditional structures play in future? Which institution is considered more legitimate by local people — elected representatives, or a customary chief who has gained his position through inheritance? Phrased in this way, the former sounds the better option, but in practice things are often less clear. Ignoring customary leaders is not an option, but how might their powers and functions be made more accountable to local people? The example from Mali, below, suggests a means to move beyond confrontation and establish a more productive partnership between the old and the new.

Jowro: custodian of pastoral resources or common profiteer?

The *jowro* in Mali are highly contentious figures. To some they are the legitimate, customary managers of pastureland in the Inner Niger Delta, a function that was formalised by the *Dina* land use code of Sekou Amadou in the 19th century when they were attributed specific areas of land (*leydi*) to manage. To others they are no more than common profiteers, selling to the highest bidder the right to gain access to highly valued dry season pastures (in particular the much prized dry season *burgu* grass, *Echinochloa stagnina*), or even the land itself over which customarily they do not hold formal ownership rights.

The controversy surrounding the *jowro* is essentially a power struggle over the control of the *burgu* pastures and the enormous profits to be had in regulating access to them by resident and non-

resident cattle herds. The economic and political stakes are huge and have increased over time. Whereas in the past, conditions of access were regulated more by social relations and the need to build reciprocal networks of exchange, in recent years the system has become increasingly driven by personal financial gain. Anecdotal evidence suggests that some *jowro* can earn in excess of £100,000 in a single season from selling grazing rights to visiting herders. Such sums represent enormous earnings in a country where the average farmer or herder earns less than £500 a year.

Institutional vacuum

So what has been happening to change the *jowro* from custodian for the community to caring only for their pocket? In the past, the *jowro* were managed by clan leaders, the *suudu baaba*¹, who chose the *jowro* on the basis of their livestock husbandry skills and personal integrity. Their job was to manage the regular transhumance of livestock to and from the area in response to seasonal rains and river flooding. The *suudu baaba* also played a key role in monitoring their activities to ensure they contributed to the good management of the Delta's resources. Over time, however, the authority of the *suudu baaba* as a regulatory force has declined and the post of *jowro* has now increasingly become a hereditary position, with leading families buying support, in their struggles to claim succession, from parallel state institutions. Recent droughts, the growing monetarisation of the rural economy and the inability of the State effectively to apply its own policies and legislation have only exacerbated the situation. Hence, the privatisation, and even sale of *burgu* pasture lands, largely initiated by the *jowro*, is increasingly common-place.

Decentralisation: making things better or worse?

The recent decentralisation process in Mali has only further complicated what is already a highly complex situation. Under the

decentralisation legislation, rural councils will have responsibility for managing all natural resources within their jurisdiction including, in the case of the Inner Niger Delta, all pasturelands owned in common, such as the highly prized *burgu* grasslands.² And although the law requires rural councils to consult other structures and groups in their management decisions, this does not extend to the *jowro*. The *jowro*, as customary organisations, are not recognised by the State as having any legal or formal standing with the right to manage common property resources. Partly in response to this, the *jowro* in certain areas have succeeded in getting themselves elected as local government officials thus further complicating what is highly complex situation, by wearing several hats .

Supporting a process of informed debate

Resolving relations between customary institutions and the newly established rural councils over control of high-value resources, is a critical issue within the decentralisation process in Mali. On the one hand, many customary institutions, although severely weakened by decades of neglect, still consider themselves to be the legitimate custodians and managers of these resources, and in certain cases local people support these claims. On the other hand, the context and conditions which in the past gave these institutions their legitimacy, are not necessarily in place any more. This has resulted in both local people and government bodies contesting the authenticity of many traditional organisations.

The good management of resources in the Inner Niger Delta is unlikely to be resolved either by the State excluding the *jowro*, or by formally reinstating them to the exclusion of the rural councils and other actors. The historical role of the *jowro* cannot be ignored, but has to be redefined in an informed and participatory manner by all parties involved. Facilitating this process is no easy matter, not least

because the *jowro* themselves do not share a common vision of their potential role for resource management within the decentralisation context. Yet this is what the *Groupe de Recherche Action pour le Développement* (GRAD), a Malian NGO, is doing in partnership with IIED within the context of a programme of work funded by NORAD. A key element of the work is to help the *jowro* and the recently elected rural council members better to understand the broader institutional context in which they are operating. Although Mali has passed new legislation on decentralisation and to regulate the use of pastoral resources (the Pastoral Charter), and has revised some of its older laws on forest use, the vast majority of local people are unaware of these changes and what they mean to them. A first workshop held in April 2002 and bringing together over 50 *jowro* provided an opportunity for these new laws to be presented and discussed in the local language, Fulfulde. The proceedings of this meeting are now being disseminated through rural radio broadcasts and audio-tapes to ensure that as many local people as possible are involved. The next stage of the process is to enable the *jowro*, the rural councils and the State to define how best to manage the natural resources of the Delta and what their respective roles and responsibilities are to be.

For more information on this project and on the jowro, contact Idrissa Maiga, GRAD, BP 5075, Bamako, Mali (reseau.marp@datatech.toolnet.org) and/or Salmana Ciss, BP 103, Sevare, Region de Mopti, Mali (salmana.cisse@ier.ml).

1 *Suudu-baba*, literally fathers house in *fulfulde*. In the region of the inner Niger delta of Mali, it is interpreted in a much wider sense to refer either to a group of herders claiming descent from the same ancestor from which a *jowro* is elected, or to the broader community, comprising all resident ethnic groups living in the area (fisherfolk, farmers, etc.).

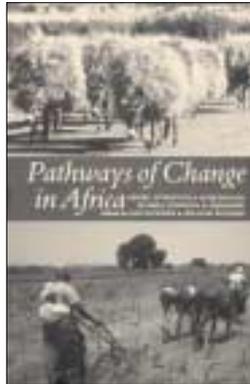
2 This prerogative, however, while it exists in principle, has not yet been formalised and the government has yet to pass legislation that will clearly define how the resource domain of rural councils is to be established.



***Pathways of change in Africa: Crops, livestock & livelihoods in Mali, Ethiopia and Zimbabwe.* Edited by Ian Scoones & Will Wolmer, James Currey, Oxford 2002. ISBN 0.85255.422.2**

How best to intensify agriculture in Africa, building on smallholder farming systems? The standard answer in many places has been by integrating crops and livestock, in a model mixed farm. Here, within the confines of a single farm household, the family's crops can benefit from manure and animal traction, while their livestock graze on stubble and constitute a store of wealth built up in years of good harvests. It is a model which has driven design of much policy and extension activity. Donors have also sought to promote such mixed smallholder systems. Yet, in practice, the pathways followed by most farmers have been rather more complex and diverse.

Case studies from Mali, Ethiopia and Zimbabwe show how households have mobilised a range of resources, activities and social capital and transformed them over time to satisfy their needs. Strategies between sites studied are markedly differ-



ent, with low and high potential areas demonstrating enormous contrasts in how people use land. Taking an historical and anthropological approach allows the authors to portray a wealth of detail surrounding the ways in which people try to assure themselves the resources they need. Land rights

and access, local power balances, shifts in prices, droughts and disease, all such factors play an important part in changing the negotiating strengths of different groups.

If poverty eradication is to provide the main objective for governments and development agencies, then a clearer understanding of social differentiation within rural society is essential. The model mixed farm may provide an answer for a few bigger and better-off households, though even these may find it makes more sense to hire contract herders to take their animals away to graze for much of the year. For smaller, poorer families, a different set of options are more likely to bring benefits, which recognise the multi-dimensional livelihood strategies being followed. These include such as access to credit and education, promoting off-farm income opportunities and

making it easier for migrants to remit incomes to rural areas.

***Negotiating property in Africa,* edited by Kristine Juul and Christian Lund. Heinemann Portsmouth. 2002. ISBN-0.325.07069.5**

Juul & Lund bring together a collection of papers from a seminar in 1999. A lively foreword by Parker Sipton sets the scene and is followed by a colourful mosaic of case studies. Lund describes disputes and land brokerage in northern Burkina Faso, Pauline Peters focuses attention on deepening inequality in land ownership in much of Africa, Ben Cousins describes the problems and prospects associated with the land reform process in South Africa, while Sara Berry presents a study on competition for land in peri-urban Kumase, Ghana. The politicisation of land issues in Benin is described by Pierre Yves Le Meur and the open-ended character of many disputes, given the absence of a single clear hierarchy of dispute resolution structures. Brigitte Thaud looks at how pastoral groups negotiate access to water and pastures in the Sahel, of particular importance given the ephemeral and highly variable nature of the resources. Uncertainty and insecurity have been further added to by the common own-



ership nowadays of firearms. Kristine Juul writes about the Fulani of northern Senegal and Amanda Hammar the importance of belonging for those seeking to claim land in northwest Zimbabwe.

All the contributions make abundantly clear the continuing strategic importance of land, not just for rural people, but increasingly for a range of urban interests who wish to gain control over a resource of growing value. Land issues are rendered particularly complex and unclear by the ambiguity surrounding the rules, laws, institutions and mechanisms for arbitration between claimants. Governments throughout Africa are seeking to address land tenure reform, following an increasingly pragmatic approach, a welcome change from earlier attempts to impose pre-conceived models. However, as the editors rightly note, a focus on policy design needs to recognise the difficulty of targeting with any accuracy. An approach is needed which acknowledges that policy interventions are liable to bring substantial unanticipated effects due to opportunistic behaviour by those seeking to strengthen their claims over land.

Farmers Initiatives in Land Husbandry: promising technologies for the drier areas of East Africa by **K.Mutungu &**

W.Critchley. Regional Land Management Unit, RELMA Technical Report Series no. 27, RELMA/Swedish International Development Cooperation Agency (Sida), 2001.

Promoting Farmer Innovation is a programme in East Africa which seeks to stimulate farmer innovation. This publication describes a series of technologies which have been developed and adapted by farmers themselves in Kenya, Tanzania and Uganda. The primary aim of the booklet is to document specific land husbandry initiatives in order to help technicians and managers of projects, as well as literate farmers, to review a range of alternative practices for the drier areas in the region.

For more information contact CDCS/Vrije Universiteit Amsterdam, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands, fax. (0)20—444 90 95, email: cdcs@vu.nl

Livestock & Livelihoods In Ethiopia

Three recent publications in ILRI's¹ Socio-economics and Policy Research Working Paper Series deal with the Ethiopian highlands and cover: *Policies for livestock development in the Ethiopian highlands* (Working Paper No. 41); *Collective action for grazing land management in mixed crop-livestock systems in the highlands of*

northern Ethiopia (Working Paper No. 42); and *Impact of land redistribution on land management and productivity in the Ethiopian highlands* (Working Paper No. 43).

These papers report research carried out by ILRI in conjunction with IFPRI² and adopt the same basic approach to the issue of how economics can be used to improve our understanding of small scale farming systems in Africa. The approach can be summarised as:

- A pre-conceived and rigorous theoretical structure, drawing on previous experience, usually from outside the system being studied, and which can be reduced to a series of econometric expressions;
- Use of fairly sophisticated econometric techniques;
- A comparatively short period of field work generating mainly quantitative data to test the hypotheses implicit in the theoretical structure;
- An emphasis, in the conclusions, on the way in which public action could improve the workings of the system being studied.

This approach contrasts with previous economic studies, usually of a more descriptive character, often very time-consuming

¹ International Livestock Research Institute

² International Food Policy Research Institute



and not substantially oriented towards improving public action.

The success of the approach used here by ILRI lies in whether the conclusions reached are likely to be useful for improving public action, whether one can have confidence in the representative-ness and reliability of the data, whether the preconceived theoretical structure helps in reaching the desired conclusions, and whether dissemination of results from the study follows sufficiently soon after fieldwork to quell doubts about the relevance of the findings. This review applies these criteria.

The most important of the conclusions in each working paper are as follows:

- (WP 41) Reducing population growth and improving access to credit, markets and extension programmes targeting livestock can enhance the role of livestock in the mixed crop-livestock farming systems found in the Ethiopian highlands
- (WP 42) Community grazing land management can contribute to more sustainable use of grazing lands and the alleviation of shortages. It tends to be more effective in areas which are remote from markets and have intermediate (rather than very high or low) population densities. In areas close to market, privatising such resources may be more effective.

- (WP 43) Land redistribution improves land *productivity* when it increases access to land for people who will use purchased inputs. It does not improve, and probably hinders land *improvement* (in an environmental sense, e.g. reducing soil erosion). Further redistribution is unlikely to lead to greater investment in land improvement, since land is usually allocated to the previously landless, rather than to those able to invest.

The principal conclusions emanating from WPs 42 and 43 provide guidance which governments, or other public organisations, can implement, and which has not always been obvious and unchallenged hitherto. In contrast the conclusion to WP1 presents nothing new nor does it suggest practicable ways of changing existing policy.

The next issue is the reliability of the data. In all three studies the basic data was collected through group interviews held at village and Peasant Association (PA) level, with a panel of about ten people present at each interview, selected to represent different age-groups, genders and occupations. Villages and PAs were selected by a process of stratification and random sampling. A typical village contains 300 —

1000 households and a typical PA 1,500-5,000, although sizes outside these ranges can be found. These primary data were supplemented by secondary data mainly gathered from government sources. The primary data collected ranged from the proportion of households owning livestock to whether the village had a system of penalties for infringement of grazing regulations, i.e. from continuous to discrete variables. Can members of these groups know the right answers, will they respond to such questions, are their answers correctly interpreted, and are the answers unbiased or, do they reflect political or interest-group pressures? Unless one has participated in the fieldwork, how is one to assess the reliability of the data in a particular report?

Every piece of research has some theoretical structure underlying it, even if not made explicit. What is different about these ILRI reports is that the theoretical structure is rigorously set out and follows a fairly universal model, without much allowance for local social, historical or political factors. The authors might argue that the high explanatory value of the estimating equations show that these universal models are valid in the



Ethiopian highlands in the late 1990s. There is, however, another explanation for this close fit, which is that Ethiopian peasants have become increasingly experienced in being interviewed by outsiders and shape their answers to what their interlocutors expect them to say. Particularly in the case of WP41, it would have been much wiser to enquire from a panel of Ethiopian peasants concerned what they thought were the important changes in the livestock sector over the past ten years, and then to test this theoretical structure, rather than for the researchers to go in with their own preconceived framework.

All three reports were published in 2002. The fieldwork for WP 41 was done in 1999-2000, for WP42 in 1998-1999, and for WP43 in 2000. This seems an excessive time lag prior to publication for what is termed a

Working Paper, and it may reflect the difficulty of joint work between two research institutes with different priorities.

Stephen Sandford. To obtain copies of the reports contact ilri-information@cgiar.org

La gestion intercommunautaire des ressources naturelles, Fr d ric Hautcoeur, ECO, IRAM and GTZ, 2001. Contact : karl-peter.kirsch-jung@gtz.de.

In recent years, natural resource manage-

ment policies and programmes have shifted away from a purely technical, conservation-orientated approach towards greater involvement of local communities and greater consideration of their livelihood needs. In many

cases, however, this has been limited to village-level institutions, ignoring the fact that natural resource management raises issues and affects actors well beyond the territory of a single village. This book describes the experience of a natural resource conservation and management project in Chad that has sought to avoid this shortcoming. The book presents the methodologies developed and used by the project, encompassing diagnostic tools, tools to support the negotiation and adoption of conventions at village and inter-village level, and implementation mechanisms. Definitely very useful reading for all those interested in community-based natural resource management!



Silvi-pasture development and management on common lands in semi-arid Rajasthan, Czech Conroy and Viren Lobo, Natural Resources Institute and BAIF Development Research Foundation, 2002. Contact: baif@vsnl.com.

What are the effects of rehabilitation and development of woodland and grazing areas on livestock and social processes? This report helps answer this question by examining 15 programmes implemented on common lands in Rajasthan, India since the 1980s. The programmes covered are very diverse, involving different types of lands (grazing, forest) and different actors (forest department, NGOs, community-based organisations). The report contains interesting findings on the environmental benefits of the programmes and their effects on livestock numbers and activities. It also examines the social dynamics of the programmes, for instance by analysing the types of conflict that arise, within and between communities, as well as between communities and external agencies. In its conclusion, the report identifies areas for further research — challenging questions waiting to be picked up! — and makes recommendations for policy and practice, arguing that government programmes should take greater account of livestock-dependent livelihoods.

Bringing soil back to life

Conservation Agriculture and Integrated Soil Fertility Management — two key approaches to achieving more sustainable patterns of land use, based on complementing natural processes. LEISA magazine provides a valuable series of articles which demonstrate that farmers who work with nature, rather than against it, can produce high and sustainable yields. They also show the innovative and creative power generated by farmer experimentation and participatory processes. Selective use of external inputs, like urea or phosphate, combined with



increased use of manure and mulches can bring much improved yields. But

given current crop and fertiliser prices, there is much of dryland Africa where the sums do not as yet add up. More promising sites for greater investment in soil fertility are those close to cities where good markets exist for cereals, vegetables and fruit and where irrigation offers assured moisture for crop growth.

LEISA magazine: Recreating living soil, October 2002. Fax: +31.33.495.1779 or email: subscriptions@ileia.nl

Water harvesting in West & Central Africa

The aim of this collection of papers is to further spread knowledge of soil and water conservation techniques. Small dams, stone lines, earth bunds, half-moons and deep



pits for planting crops and trees, and permeable dykes have all demonstrated great advantages for farmers faced with uncertain and patchy rainfall. Collecting rainfall and concentrating precious soil nutrients around crop plants are key principles behind their success. Developing diverse technical options to suit the very varied settings found in the region has been essential. While governments have become increasingly aware of the need to promote more effective soil and water conservation, many practical achievements have been the result of experiments by farmers often initiated by NGOs and donor-led development projects.

Water harvesting in Western & Central

Africa, FAO Regional Office for Africa, Accra. Fax: +233.21.668427 or email fao-raf@fao.org

21 Tips for trainers

Have you ever been stuck for ideas to liven up debate when a workshop seems to be losing energy and direction? How can you stop someone talking too much and dominating the proceedings? What's a good way of setting out chairs to achieve maximum interaction in a workshop? How to deal with diverse language ability in a single group? *Participatory Workshops* is a sourcebook full of practical ideas and activities aimed at teachers, trainers and facilitators. Written by Robert Chambers, in his inimitable style, it brings together a wonderful selection of tips based on his long experience of promoting participation and generating enthusiasm. This book is a must for anyone who has to organise and manage workshops and meetings.



Participatory Workshops, by Robert Chambers. Earthscan, 2002. ISBN 1-85383-863-2 price £8.95. earthinfo@earthscan.co.uk

Priming seed for growth

Seeds must germinate quickly if they are to fulfil their genetic potential, to make best use of light, water and nutrients. Giving crops a good start is of crucial importance to their subsequent growth and yield. Priming involves soaking the seed beforehand so that it can emerge rapidly once planted. On-farm seed priming seems to be a low risk intervention which brings significant benefits to crops such as maize, rice, groundnuts, millet, sorghum and chickpea, as well as wheat and barley. Farmer trials tested overnight soaking of seed in a number of different countries, and showed yield increases of 50% or more. All farmers involved in the trial said they would definitely soak seed before planting in future.

For a copy of the booklet *On-farm seed priming*, contact Dave Harris, Centre for Arid Zone Studies, University of Wales, Bangor. Fax:

+44.1248.371533 d.harris@bangor.ac.uk or visit www.seedpriming.org



Policy matters

This issue of IUCN's regular journal on environmental, economic and social policy concerns ways to promote sustainable liveli-

hoods and co-management of natural resources. A rich mix of articles covers links between policy and livelihoods, ways of strengthening community action, and co-managing the commons. The thoughtful editorial notes that hope for the world depends on our nourishing institutions that work on a human scale, where collective wisdom can promote social justice and pluralism. Key to such institutions are their flexibility and ability to assure a fair share of benefits and costs, rights and responsibilities between the different actors involved. The diverse contributions show that communities can be the most passionate and effective defenders of their environments, if the state and other powerful economic actors will allow them. Equally, community knowledge and institutions must form the basis for future agricultural growth. High tech alternatives merely fill the coffers of multinational companies, rather than the granaries of southern peasants.

Download the issue from: www.iucn.org/themes/ceesp/publications or write to Grazia Borrini-Feyerabend gbf@cenesta.org, or Taghi Farvar taghi@cenesta.org



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Travelling hopefully ..

Are we at present at one of those turning points when the human race begins to see itself and its concerns from a new angle of vision and, as a result, finds new openings for action, for courage and for hope?

The opening words of Barbara Ward's speech to the UN Conference on the Human Environment in 1972 ring as true now as then. They provide the start of this book — Evidence for Hope — which gives a vivid account of the story behind sustainable development, and the associated history of IIED. Its been 30 years from that first UN Conference where, for the first time many governments were willing to recognise the need to re-think patterns of behaviour. From environment being something extra, a luxury for the rich, it has for many now become a core element in decision-making, as relevant to income generation and sustainable growth as it is to poverty eradication and social justice.

Barbara Ward, who led IIED in its early years, was an energetic, charismatic and redoubtable woman of great intelligence. She brought home in that speech to Stockholm three areas where serious reflection and action were needed. These remain key concerns.

First there are serious risks that we may make our planet unfit for life, this extraordinary lump of rock, water and gases on which we are fortunate to find ourselves, with its diversity of life in myriad forms. The oceans are not boundless sinks into which we can pour, endlessly, large quantities of poisonous waste. Nor can the atmosphere cope with rising levels of carbon and other emissions.

Second, economic growth is not a solution, despite its being trumpeted as the prime measure of success for governments and nations. Even in the wealthiest states, despite tax and social insurance, many people remain ground down by poverty, unable to escape their lot. At global level, we have no means to tax and transfer income from rich to poor.

And at the same time our finite resources mean that increasingly, a gain for one part of the world will mean a loss for another. What is to be reduced — the luxuries of the rich or the necessities of the poor? As a planet we must confront the fundamental issue of choice and justice. If two-thirds of the world must stay poor so that one-third can stay rich, it won't do its as simple as that.

Third, we are trapped by our division into many different nations, unable or unwilling to put aside questions of sovereignty in favour of the broader collective good. But this way of doing business does not address the problems we face today. On many issues, nations must act together in order to achieve substantial changes in behaviour, but how to achieve a fair distribution of the burden of adjustment given current needs and past responsibilities?

These three key areas of global debate remain ever present whether in discussions of climate change, or trade debates, the need to address agricultural subsidies or plans to eradicate poverty. Modernisation and progress are seen by most people as synonymous with economic growth, and the obvious pathways for nations to tread. But such assumptions are no longer compatible with maintenance of our planet.

If you want to know where IIED came from, the history of different programmes, activities, and approaches, then you will enjoy reading this book. It covers the people and personalities behind the programmes on drylands, sustainable agriculture, forests, urban settlements, energy, economics and more.

Evidence for hope, edited by Nigel Cross.
Earthscan Publications, London 2002.

