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**ORGANIC COTTON: A NEW
DEVELOPMENT PATH FOR
AFRICAN SMALLHOLDERS?**

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Peter Ton, Davo Simplicie Vodouhê,
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EXECUTIVE SUMMARY

Drawing on case studies from Benin, Senegal, Uganda, Tanzania and Zimbabwe, this paper argues that organic cotton has much to offer smallholder farmers in sub-Saharan Africa. Experience shows that it is technically feasible, reduces health problems, maintains soil fertility and food security and often supports higher incomes than conventional cotton. All case study projects show positive impacts and empowered, more sustainable communities.

Although conventional cotton production has contributed to economies in sub-Saharan Africa, it is not cost-free. Involvement in conventional cotton depends on expensive and toxic synthetic inputs (fertilisers and pesticides) to the detriment of ecosystem and human health, undermines food security and exposes producer countries and farmers to the fluctuations of world market prices.

Most organic cotton grown in sub-Saharan Africa is project-based and donor-supported. The paper identifies a number of constraints to organic cotton's expansion in the region. The main danger is that its value depends on maintaining organic farmers' relatively strong position. There is a risk that larger companies now entering the market could squeeze prices paid to farmers, particularly premiums. Other obstacles include the structural difficulties (both actual and perceived) of doing business in sub-Saharan Africa; lack of support from government and national agricultural research centres; lack of transport and poor access to tools, equipment and organic fertiliser; and the fact that the African textiles industry has suffered from years of under-investment, a lack of local investment capital and a shortage of export oriented knowledge.

The authors suggest a number of steps for supporting the expansion of organic cotton in the region, which include the following:

- NGOs and committed companies need to be vigilant about premiums being eroded by the arrival of larger companies and need to plan responses for this occurring.
- NGOs backing organic cotton need to convince companies and international donors and policy makers of the viability of African organic cotton, encouraging them to absorb initial costs and investments until economies of scale can be achieved.
- Opportunities for local processing must be created to increase local income generation, job creation and capacity building. International donors could usefully consider switching funding towards non-agricultural areas such as developing local capacity in international trade, export economics and business management.
- Production options for local and regional markets should also be explored as alternatives to export cash cropping in the face of long term decline in terms of trade for agricultural commodities.

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INTRODUCTION

Cotton is an important cash crop for many African countries. It accounts for 50 to 70% of export revenues in Benin and is the second largest export earner in Tanzania (Ton, 2002a). Some 10 million people in Central and West Africa depend on cotton (Watkins, 2002). However, African cotton is affected by subsidies paid by the USA, European Union and China that undermine world market prices through overproduction (Linard, 2002; Goreux, 2003, Watkins, 2002); by rising production costs and the impacts of agrochemicals on human and environmental health (Ton, 2002a; PAN UK, 2003; Williamson, 2003a). For example, cotton uses 22% of all insecticides applied in agriculture and 11% of all pesticides¹ (Allan Woodburn Associates, 1995).

Because of these pressures, many African smallholders are being driven to the margins of economic viability or out of cotton altogether, and there are few alternative cash crops (PAN UK, 2003; Ton, 2002a). In this paper we argue, drawing on case studies of five countries in sub-Saharan Africa, that organic cotton offers an opportunity to reduce the human health and economic impacts of pesticides in Africa, reduce damage to the environment and improve food security and incomes for many smallholder cotton farmers. But this will only be the case if bigger markets can be created for textiles made from organic fibres and if sustainable practices can be transferred to other cotton cultivation (Ton, 2002b).

¹ Pesticides include all synthetic chemicals targeted at insects (insecticides), weeds (herbicides) and fungal diseases (fungicides).

Methodology

The paper is based on research coordinated by the Pesticides Action Network (PAN) UK² in 2001/02 in Bénin, Sénégal, Uganda, Tanzania and Zimbabwe and conducted by local and external consultants.³ It also draws on an overview paper (Ton, 2002a) and separate research into pesticides, poverty and food security conducted during 2001-2 by PAN UK with PAN Africa and Organisation Béninoise pour la Promotion de l'Agriculture Biologique (OBEPAB). The main study focused on the status of organic cotton projects (and the local, regional and national contexts in which they operate) to assess the potential for scaling-up production and trade. Questionnaires were used to gather quantitative data about organic and conventional cotton production, and a check-list of qualitative data (farmers' assessments of income and food security changes, for example) was developed to explore the state of the existing organic cotton projects, their impacts and implications. Data were gathered through key informant interviews (with producers, project managers, buyers) in conventional cotton sector organisations (state-led marketing boards or other cotton coordinating bodies), cotton research institutes and donor agencies (Ton, 2002a). We recently updated the paper with mostly qualitative data from project work.

CONVENTIONAL COTTON PRODUCTION

While conventional cotton production has contributed to economies in sub-Saharan Africa (Ton, 2001; Minot and Daniels, 2002), it has not been cost-free (Ton, 2001). Synthetic inputs (fertilisers and pesticides) need to be bought on credit (deducted from a farmer's earnings after harvest); farmers gamble on gaining sufficient yields to pay for the inputs, and conventional cultural practices damage ecosystems and human and animal health (Ton, 2001). Food security is reduced (PAN UK, 2003), while liberalisation exposes producer countries and farmers to unstable world market prices, which for decades have been fluctuating but generally declining (Gibbon, 2001).

2. PAN UK is part of an international coalition of over 600 NGOs, institutions and individuals, working to replace the use of hazardous pesticides with ecologically sound alternatives' (<http://www.pan-international.org/>). Because of cotton's intensive use of problem pesticides, it has been a priority crop for the organisation since 1990. PAN UK's cotton project, 'Moral Fibre', aims to support small-scale farmers, particularly in Africa, to convert to new production systems, and together with PAN, internationally encourage businesses to adopt sustainable textile strategies.

3. The country case studies were carried out between May and September 2001 by Simplicie Davo Vodouhè and Zéphirin Koundé (Benin); Julienne Kuisseu (Senegal); Saro Gerd Ratter and Louis Kapanda (Tanzania); Alan Tulip and Peter Ton (Uganda); and John Wilson (Zimbabwe); we are highly indebted to those consultants and researchers who were unable to contribute to this paper. More recent activities to promote the integration of organic cotton from Africa and West Africa, as well as emerging results, can be found on the PAN UK website (www.pan-uk.org/cotton) and at www.organiccottoneurope.net

Cotton production is often based around smallholder family farming; in West Africa, units averaging eight to nine people farm 10ha or less (Minot and Daniels, 2002; Toulmin and Gueye, 2003). The same pattern is true for organic cotton farming, with a tendency for the smallest and poorest farmers to be more represented (Ton, 2002a).

Pesticides and cotton

Cotton is vulnerable to pests, especially when grown as a monoculture. Large quantities of acutely toxic pesticides are used in its production, often leading to severe and fatal poisonings of humans and livestock in developing countries (Box 1).

Box 1: Pesticides used in Africa

Most of the active ingredients used in cotton pesticides in the five countries studied are classified by the World Health Organisation (WHO) as Class II (moderately hazardous) for acute mammalian toxicity. One ingredient, triazophos, is WHO Class Ib—highly hazardous. The Food and Agriculture Organisation (FAO) recommends that WHO Ia and Ib pesticides should not be used in developing countries, and if possible Class II pesticides should also be avoided (PAN UK, 2001). A spate of acute and fatal Endosulfan (a Class II pesticide) poisonings since 1999 in Benin (Tovignan et al., 2001) attests to the real danger these pesticides pose in countries where poverty and low literacy are endemic.

Case studies show rising pesticide costs and disillusionment among cotton farmers (PAN UK 2003). Farmers in Benin tell how insecticide costs rose by 86% between 1999 and 2000. They spent an average of US\$97 per hectare on insecticides in 2001 and many made losses as cotton prices remained almost static. In Senegal in 2000-01, insecticide costs were over US\$50 per ha for cotton compared with US\$25 for maize and US\$2 for groundnut. The high pesticide prices paid by farmers are a great source of extra profit for cotton companies, while farmers receive a fraction of cotton market prices despite paying market prices for inputs (PAN UK, 2003). In Senegal, farmers' cotton income fails to cover household expenses and according to SODEFITEX (the Senegalese part privatised cotton company), farmers producing less than one tonne/ha will not be able to repay debts. In our case study district average yields only once exceeded this figure in six years. In Benin reliance on cotton has failed to improve food security. Where 90% of households were food secure in 1990, only 3% were by 2001, with 11% (most of whom probably started growing cotton in the 1980s) in serious difficulties (PAN UK, 2003). The average pesticide cost per hectare for cotton farmers interviewed has risen by 80% since 2000, while incomes have stagnated.

Cotton farmers from Linguewal village in Senegal explain: “*Pesticides threaten the development of our community...they only bring us ... poisonings, suicides, increased production costs and debts – without increasing yields*” (PAN UK, 2003).

In order to buy food, poorer farmers often sell cotton pesticides (at less than half what they will have to pay the cotton company when the cost is deducted from their cotton revenue at end of season). Selling cotton inputs to traders or better off farmers reduces yields and income, and leads to toxic insecticides being used on food crops (PAN UK, 2003). Re-use of pesticide containers for storing water and food is common. Food or drink contamination leads to as much exposure as handling and spraying: in the 2000-01 and 2001-02 seasons, food contamination accounted for 68% of poisonings and 74-86% of fatalities (PAN UK, 2003) in Senegal and Benin. The negative social, health and environmental impacts of current cotton production systems are not incorporated in prices or policy, or systematically monitored, although some initiatives exist in Mali, Benin and Burkina Faso to make soil fertility management and threshold spraying important research themes (for example, Veldkamp et al., 1998).

Cotton research and extension

Macro-economic policies in the 1980s and 1990s led to deep cuts to agricultural extension agencies in the region. Few can now afford much field work and alternative systems have been slow to develop (Ton, 2002a; Toulmin and Gueye, 2003).⁴

In many cases, the lack of government extension field staff led pesticides firms to recruit field agents and collaborate with national extension services to promote products directly to farmers. Researchers, NGOs and some government observers have criticised the training and advice given to farmers on pesticides and pest management by cotton companies since liberalisation, particularly the lack of attention to pesticide hazards. In Benin there are now 23 pesticide distribution companies, eight of which supply cotton farmers (PAN UK, 2003). The cotton ‘filiere’ system in francophone countries has further removed decision-making from farmers by promoting a calendar-based spray regime which delivers far more pesticides than needed (Silvie et al., 2001). Research has failed to deliver low input systems which minimise financial risk and outlay requested by farmers (Ton, 2001).

4. Although in Benin a number of embryonic systems, both private and public, are appearing.

Prices

State cotton companies⁵ set prices in much of West Africa (Ton, 2001); in East Africa, prices tend to be fixed by the market (Tulip and Ton, 2002). Prices are usually set below world prices to subsidise the state sector and allow it to compete against artificially low international market prices caused by subsidies elsewhere (Watkins, 2002). The International Food Policy Research Institute (IFPRI) reports that a 40% decline in farm level cotton prices between January 2001 and May 2002 increased rural poverty in the short term by 8% in West Africa (Minot and Daniels, 2002), while the International Cotton Advisory Committee (2002) estimated that removing all subsidies and textile import restrictions would have raised cotton prices by US\$ 0.68 per kg. Losses in Mali and Benin from US cotton subsidies are higher than US aid received by those countries (Minot and Daniels, 2002). According to a European Union study, the value of subsidies paid in the USA, Spain and Greece (US \$ 4.5 billion) in 2001-2 was equivalent to three-quarters of world exports that year (Goreux, 2003).

Despite recent rises, the downward trend in cotton prices is expected to continue. The Cotton Outlook price in October 2005 was 64% of the 1990/1 price (Cotton Outlook 2005, www.cotlook.com).

Farmer estimates of a fair cotton price ('the difference between subsistence and development'), gathered during 2003 in Senegal, ranged between US \$0.38 (CFA 225) and US \$0.56 (CFA 335) per kilo (Ferrigno, 2003) against the US \$0.31 (CFA 185) they actually received (Table 1). By comparison, world market prices, despite the losses caused by subsidies, were back in the US \$0.70 range (Cotton Outlook, 2003).

Table 1. Cotton prices adjusted in US \$/kg (June 2003)⁶

	Current prices (in Senegal)	Farmer estimates of 'fair' price			Average
		Low	Medium	High ⁷	
CFA/kg	185	225	300	335	277.5
US\$/kg*	0.31	0.38	0.50	0.56	0.46
% above current price		22%	62%	81%	50%

*Exchange rate September 4 2003, www.oanda.com

5. Some now part or wholly privatised.

6. Estimates were gathered during discussions with 20 representatives of the Federation Nationale des Producteurs du Coton (FNPC) and again during discussions with organic farmers and their representatives in the villages of Koussanar, Palengué, Pangiat, Kota and Katok in the Tambacounda district in Senegal in June 2003 (Ferrigno, 2003b).

7. This higher end price is in fact very close to the final price (including social premiums) that farmers in Senegal from the ENDA Pronat project in Koussanar will receive under their new Fair Trade certification which they underwent in 2004 (Jorg John, Enda Pronat, pers. comm., October 2004 and see Box 4).

Costs

In Ghana average cotton farmers in Tamale spend some US \$43 a year on medical treatment as a result of pesticides poisoning and lose some 20 working days a season (equivalent to the loss of between a further US \$1.2 and 1.6 a day based on average farm labour incomes), a huge expense in a country where 45% of the population live on less than a dollar a day (UNDP, 2003; Hodgson, 2003).

Pesticides account for up to 60% of production costs (Williamson, 2003b), with an average of 30% being the norm in West Africa (Ton, 2001). This disproportionately affects poorer farmers. Such costs have to be paid even when the crop is affected by other factors (e.g., weather). Even with a potential 20-30% loss of yield during conversion to organic production, greatly reduced production expenses improve farmer access to cash income, even before premiums are paid.

Food security

While many argue that food production has not been affected by cotton, there is anecdotal evidence that food quality has decreased (since 2001); while farmers may grow as much food as before, in times of low prices and debt they will buy less supplementary food externally (PAN UK, 2003). Pesticides also affect food availability and quality via contamination (Ton, 2001; Drs Ahoui and Zonon⁸, Benin, pers. comm., 2004).

ORGANIC COTTON PRODUCTION

'While organic farming is more difficult, it saves lives from not using pesticides. We no longer have debt problems. Income is all profit at the end of season. Land and soil are preserved.' (Farmer Gera Paul, Benin, September 2002, in Ferrigno, 2002)

In this section we explore organic cotton's potential for enriching smallholders' livelihoods in sub-Saharan Africa, drawing extensively on our five country case studies.

In 2002 organic cotton represented around 0.3% of the world market (Ton, 2002b), with production around 6,000⁹ tonnes a year. In 2002, 714 tonnes came from the five case study countries (see Table 2).

⁸. Ahoui S. and Zonon N. (Drs), Centre Hospitalier D'Abomey-Bohicon, Benin, August 2004, interviews, Video, Organic Cotton: the way forward, directed by Swarup, A., August 2004.

⁹. More recent estimates put world production closer to 20,000 tonnes, with demand beginning to exceed supply (Organic Exchange, 2004).

Table 2. Organic cotton production worldwide

Country	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/01
Argentina	-	-	75	75	-	-	-	-	-
Australia	500	500	750	400	300	300	-	-	-
Brazil	-	1	5	1	1	1	5	10	20
Benin	-	-	-	-	1	5	20	20	30
Egypt	50	150	600	650	625	500	350	200	200
Greece	-	-	300	150	125	100	75	50	50
India	200	250	400	925	850	1,000	825	1,150	1,000 ¹⁰
Israel	-	-	-	50	50	20	140	180	530
Kenya	-	-	-	-	-	5	5	5	-
Mozambique	-	-	-	100	75	50	-	-	-
Nicaragua	-	-	20	20	20	20	-	-	-
Paraguay	-	100	75	50	50	50	-	-	-
Peru	200	675	900	900	600	650	650	500	550
Senegal	-	-	-	1	10	10	50	125	200
Tanzania	-	-	-	10	100	100	100	200	250
Turkey	125	200	600	725	850	1,000	1,200	2,000	1,750
Uganda	-	-	25	75	300	450	250	200	275
USA	1,000	1,950	2,400	3,350	1,550	1,300	1,900	2,900	1,625
Zimbabwe	-	-	-	-	-	1	5	5	-

Source: Ton, 2002 (in tonnes of seed cotton)

In sub-Saharan Africa organic cotton is grown to basic standards set by the International Federation of Organic Agriculture Movements (IFOAM)¹¹ and certified by private agencies. Organic production is based on sound soil management using indigenous knowledge and research to improve techniques. Pest control combines indigenous systems and botanical pesticides, particularly those using neem. Fertilisation uses a combination of animal and green manuring, sometimes adding ingredients such as oil palm processing residue. Most African organic cotton projects (some of which are NGO led, some private sector led) also put a lot of effort into capacity building for farmers and communities.

There is a learning process to converting, especially in West Africa where intensification has been greatest. Organic production tends to occur initially through substitution of synthetic chemical pesticides with preparations based on locally

¹⁰. The figures for Israel were supplied by Mali Shentizer, Israel Cotton Production and Marketing Ltd, June 2002.

¹¹. See www.ifoam.org.

available biological products, usually neem, combined with ingredients such as cow urine, chilli pepper, garlic, natural soaps and paw paw leaves. Intercropping and trap plants (such as maize and gombo) are also used. In East Africa, particularly in Uganda where pesticides use and intensive farming previously had a low impact, techniques include the use of beneficial species and trap crops such as predatory black ants to reduce populations of insect pests (van Elzakker, 2002). The most common problem pest in all regions is the bollworm; the preferred organic technique for dealing with these is to encourage predator populations (Ton, 2002a).

In East Africa, while labour costs remain similar, the reduction in inputs and the comparable yields to the conventional sector make organic cotton an economic and attractive option for farmers, with much potential to increase production (Ton, 2002a). In the sub humid regions of West Africa, the re-evaluation of cotton production is vital given that it is the main cash income generator for the region's 6 million farmers and rural workers (Ton, 2001). Increasing production in West Africa is slower as the time required for yields to rise is longer; nevertheless, reductions in input costs make organic cotton an option for many poorer farmers, with most motivated by reduced health costs and debt (Ton, 2002; Baier et al., 2005).

Growing organic cotton affords premium prices and reduces debt vulnerability for smallholders. Organic cotton farmers generally receive 20% higher prices than their conventional counterparts. Where buyers and/or policy add fair trading commitments (Box 5) to organic farming (as in Tanzania and Uganda), this also addresses some of cotton's economic problems, while organic farming's organisational structures strengthen rural communities and marginalised groups, including those for women (Box 2). Organic cotton has lessons for the entire cotton sector.¹²

Organic production began in 1994 (Tanzania/Uganda), with Senegal and Zimbabwe joining in 1995 and Benin in 1996. Uganda, Tanzania and Senegal are the main producers (Ton, 2002a), although Benin has increased production rapidly (Box 2).¹³ Organic production also recently started in Togo, Kenya and Zambia. Varieties tend to be the same as in the conventional sector with quality being little

¹². Other options for cotton growers in sub-Saharan Africa include integrated pest management or integrated crop management, which are being piloted by some cotton actors and the UN Food and Agriculture Organisation.

¹³. Indeed the latest data show that with one of the Senegalese projects ceasing production, Benin has now overtaken Senegal.

different. Just under 700 tonnes of organic seed cotton were marketed in 2001 by the five case study countries, but far more organic cotton was sold into the conventional sector in Uganda due to a lack of buyers.

Box 2: Organic cotton in Benin

Two organic cotton projects began in Benin in 1996 in the central and northern regions, managed by the NGOs OBEPAB (Benin) and SNV-Kandi (Netherlands) respectively. OBEPAB has since taken over the SNV project. By 2001 there were over 300 producers in both projects, and nearly 800 farmers by 2003. Seed cotton production was 72 tonnes by 2001, and 240 tonnes in the 2004 harvest.

Yields have fluctuated from as low as 271 kg/ha in 1997/8 (organic cotton was affected by outbreaks of aphids that also decimated conventional production) to 562kg/ha in 1999/00. OBEPAB have recently begun using a variation on the Farmer Field School approach (where field agents and farmers interact in the fields as the learning venue and jointly undertake research and training) to supplement the work of field agents and improve farmer capacity in pest and soil fertility management and research. Recently, the Beninese Institut National des Recherches Agricoles (INRAB) became involved in soil fertility research, while the government council of ministers endorsed the 2002 African Organic Cotton conference held in Cotonou.

Source: OBEPAB, 2002a and b

Production support and farmer training

In all case study countries field agents help elected producer representatives with training and certification documentation, which uses an internal control system (ICS) for group certification (paid for usually by the project rather than the market at present). The average ratio of field agents to farmers is one to 71 (Ton, 2002a).

Most organic cotton projects in sub-Saharan Africa take a farmer-centred approach. In Benin, Senegal, Tanzania and Zimbabwe significant investments have been made in adapted extension and training systems (Ton, 2002a) financed by donors but transferable to markets. In Benin, costs are around US \$35 per farmer, but are falling as numbers grow (2004 estimates). The Zimbabwe project promoted an extension system relying on the training of literate farmers as Farmer Field Workers (FFWs) who were each asked to share their knowledge with about 10 fellow producers (Wilson 2002). The Zimbabwe and the Senegal experiences (Box 3) arose out of a desire to build low cost, functional, farmer-centred training and extension systems.

Box 3: Empowerment in Zimbabwe and Senegal

The organic cotton project in Zimbabwe was started in 1995 by a local NGO, the Lower Guruve Development Association, in the Zambezi valley. After feasibility trials, a chain was set up including a farmer group, the AfF0ResT training centre, Cargill and a local spinning and weaving mill. Management problems led Cargill to withdraw in 2000 although the project continues, despite the difficulties of finding donors and investors in the current political climate. The training and gender aspects of the project were the first to use the Farmer Field School approach. The project improved women's access to organic cotton through negotiating a 'wives' exemption' with the certifier, allowing their plots to be certified as organic even if their husband was farming conventionally. Initially, 90% of the farmers in the project were women.

Source: Wilson 2002, updated by the authors in 2004

Koussanar, Senegal

In recent years conventional yields have fallen due to reduced use of pesticides and fertilisers following liberalisation; late and insufficient rains; and increased pest damage. This led to the setting up of the Koussanar organic cotton project in 1995 to show the potential of organic production and to increase farmer capacity to self-manage. It was established by ENDA Pronat with the Pesticides Trust. In 2005 it became fair trade certified and expanded orders were received from Max Havelaar, France (Joerg John, pers. comm., 2005).

Farmers have now organised themselves into village unions and a managing federation, including 57 villages and nearly 1,000 producers. They have branched out into textiles manufacturing, rice, vegetables and other crops. This is a huge success story in terms of food security, improved nutrition, improved skills and diversified sources of income, poverty reduction and empowerment of the local community and especially women. When the local community buys into the organic concept and relates it to local problems and needs, much can be achieved (Ferrigno, 2003).

Concerns are often expressed about low average yields for organic cotton, particularly in West Africa. However, these averages include yields from farms still converting to full organic growing. Yields rise with experience and as ecosystem health is restored.¹⁴ In Tanzania and Uganda (Box 4), average organic yields equal those of conventional production (700kg/ha and 600kg/ha respectively, Ratter, 2002; Tulip and Ton, 2002). Some farmers in Benin achieved over 1200 kg/ha compared with 1400 kg/ha in conventional systems (OBEPAB, 2001), and some farmers in Zimbabwe also achieved very high yields. Many such farmers are women, although reasons for their relatively higher success have yet to be investigated.

¹⁴ It appears that another factor behind low yields may be that some farmers judge their production on income, rather than yield; thus, when they have achieved a suitable level of income against labour and time investments they may stop making as much effort (Ferrigno, 2002). Many of the poorest farmers also lack proper tools for production, and their vulnerability in the conventional sector may mean they are over represented in organic cotton production.

Box 4: Tanzania and Uganda

bioRe in Tanzania

bioRe Tanzania, a subsidiary of Swiss company Remei, tries to improve living conditions for the rural population, for example by digging wells and constructing classrooms and housing for teachers. It is an important employer in the region, recruiting one field extensionist for each 50 contracted farms. There were 750 farms by 2002.

Farmers are encouraged to share knowledge and experiences during field days and training. Elected Location Leaders negotiate between farmers and management. This empowers farmers and is the basis for a partnership in the textile production chain.

Sunflower is integrated into the organic cotton production system as a trap crop for the cotton pest *Helicoverpa armigera*. This gives farmers additional income as they also market the sunflower seed. Sesame and legumes are in the crop rotation system, reducing dependency on cash income from cotton and improving diets.

Source: Ratter, 2002

Organic cotton in Uganda

Organic cotton production in Uganda mostly occurs in the fertile northern regions, and in 1997/8 made up 5% of total cotton exports. Natural pest control options are plentiful, making organic cotton production relatively easy to establish. Two projects exist, one of which trades most of the cotton produced via the Dutch company Bo Weevil.

Source: Tulip and Ton, 2002

CONSTRAINTS TO EXPANDING ORGANIC COTTON IN SUB-SAHARAN AFRICA

Organic cotton is a viable alternative to conventional production, one which could offer a better livelihood for tens of thousands of farmers. However, its value depends on maintaining organic farmers' relatively strong position. There is a risk that larger companies now entering the market could squeeze prices paid to farmers, particularly premiums, something NGOs and committed companies need to be vigilant about (and plan responses for). Some more immediate difficulties hindering the expansion of organic cotton also need to be addressed, as follows.

Market development and linkages

While markets for organic cotton textiles are growing (in Switzerland, Germany, the USA, United Kingdom, The Netherlands and Italy), the main producers of organic fibre remain Turkey, the USA and India. The structural difficulties (both actual and perceived) of doing business in sub-Saharan Africa mean that only

highly motivated companies have been willing to invest.¹⁵ Northern NGOs backing organic cotton need to focus their efforts on convincing companies and international donors and policy makers of the viability of African organic cotton, encouraging them to absorb initial costs and investments until economies of scale can be achieved. Making the impacts of cotton production on smallholder farmers visible to consumers is necessary, and organic cotton products need to be attractive and of good quality.

The projects in sub-Saharan Africa follow different models. In East Africa (Uganda and Tanzania) they are based around private companies from Europe who buy and market the fibre; in West Africa (Benin, Senegal), where conversion is more difficult due to the intensive nature of cotton farming, projects were set up by local NGOs with support from European NGOs. Production in East Africa was successfully marketed earlier, although Uganda has far more organic cotton than is certified (Ton, 2002a), while in West Africa marketing initially proved more difficult for a variety of reasons including lack of marketing capacity of the NGOs and structural factors linked to the nature of cotton marketing systems. In Zimbabwe the project used a mixture of private and NGO sector support.

Institutional and policy support

Support from government and national agricultural research centres is minimal in most countries. Conventional cotton production rewards quantity (tonnes of cotton fibre) rather than sustainability or social and environmental goods and services. Research puts the interests of governments, ginners and exporters first; their income depends on absolute quantities and qualities of cotton; an area where West Africa has a good reputation. New research and policies are needed that put producer (and consumer) interests first and that support improved field production (yield, organic fertilisation, resistance to pests and diseases and maintaining predator populations).

Other institutions need convincing of the benefits of organic cotton (cotton research institutions, gineries, etc.). There are indications of change; the Senegalese SODEFITEX is trialling organic and fair trade cotton (Box 5), the Malian CMDT is working with the Swiss NGO Helvetas, Tanzania is creating an organic only zone in Handini and the government of Benin endorsed the African Conference on Organic Cotton in Cotonou in 2002 (OBEPAB, 2002a).

¹⁵. For example, Max Havelaar in Senegal (see Box 3). Also, this year Benin formed a joint venture between the NGO partner, three Beninese and two French companies; exports are now taking place to France, India and the Netherlands.

Box 5: Fair trade cotton

A standard and label for Fairtrade seed cotton was introduced in 2005 by the Fairtrade Labelling Organisation. While organic agriculture mainly emphasises environmental considerations (while requiring a minimum social justice standard based on core ILO conventions), fair trade standards and ethical/fairly-traded approaches add a social and development perspective. Fair trade standards in particular emphasise:

- Improvement in the living and working conditions of cotton producers
- Respect for minimum social standards
- Promotion of ecological standards
- Increase in the premium for sustainable textiles

Production, processing and certification constraints

Obstacles and weaknesses under this heading include lack of transport (for example, of cow dung for fertilisation), and poor access to tools and equipment (Ton, 2002a; Ferrigno, 2002b). Other technical constraints include access to organic fertiliser in the absence of livestock and lack of arable land in some areas like Southern Benin.

Poor education in rural areas is a constraint for developing organic projects when technical advisory services and administrative tasks are required for smallholder certification. In Benin, trained agronomists are employed as field agents who support elected representatives of producers in documentation and record keeping, while the organic farmers in Senegal have a literacy/language programme (OBEPAB, 2002b; Ferrigno, 2003).

Small producers of organic cotton struggle with the cost of organic certification (Ferrigno 2002). Producers exporting to more than one country may have to meet multiple criteria due to the requirements of national or regional regulations (EU, US, Japan)¹⁶. Projects are forced to use overseas consultants at international rates, making market access difficult (Harris et al., 2001). This is an area to address if small farmers are to gain and maintain access to potentially lucrative markets (Toulmin and Gueye, 2003).

Donor support and funding

Experience suggests that communities converting to organic cotton require a longer period to increase their capacity in certification and marketing than the donor stan-

¹⁶. Although harmonised standards are being developed by the International Federation of Organic Agriculture Movements (IFOAM).

dard three-year funding programme. In Zimbabwe, Sida's EPOPA¹⁷ programme attempted to push farmers too quickly into developing their own organisation, which caused many farmers to drop out; the pace of development was set to outside targets, not farmer priorities. There was confusion over the role and status of field agents, and monitoring and reviewing were weak. Although the programme did develop efficient production and farmer training techniques, this experience shows that success with organic cotton requires an understanding of the powerless situation of small farmers in the value chain (Wilson, 2002). Future projects and market growth must take this into account if organic cotton is not to repeat the mistakes of the conventional cotton sector.

NEXT STEPS FOR ORGANIC COTTON IN AFRICA

While organic cotton production in sub-Saharan Africa was, until recently, a virtually experimental phenomenon, experience suggests it could be a viable, beneficial option for many farmers (Ton, 2002a) and could improve as it attracts interest and resources from market development (through direct investment and support from research, state and donor communities). Organic cotton production is technically feasible, reduces health problems, maintains soil fertility and food security and often supports higher incomes than conventional cotton. All case study projects show positive impacts and empowered, more sustainable communities. However, these can only be sustained in the long term through market development.

India's experiences with organic cotton may offer some lessons. India has several locally owned, vertically integrated (farm to finished product) organic cotton companies based on putting the farmer first (sometimes in partnership with European companies) which are successfully exporting finished goods, yarns and fabrics. One of these, Agrocel, supplies companies like Marks and Spencer in the UK. Integrating fair trade principles and organic farming, such projects offer commercial models for African producer groups, although the structural barriers are greater in that the African textiles industry has suffered from years of under-investment, a lack of local investment capital and a shortage of export oriented knowledge. There are legal and fiscal regulatory impediments to developing local enterprises in organic cotton (particularly in West Africa). India's share of organic cotton trade and processing is growing very fast, while most of Africa's organic exports are fibre.

17. EPOPA: Export Promotion of Organic Products from Africa (EPOPA) is a programme created by the Swedish International Development Agency (Sida) in 1994. The programme has projects at present in Uganda and Tanzania (<http://www.grolink.se/epopa/>).

Research is underway to identify African designers and small and medium-sized enterprises able to fill in supply chain gaps in West Africa.¹⁸

However, the growth of a market risks diluting the social development aspects of the trade under commercial pressures; ethically traded organic cotton needs supportive policies and companies in developed countries. Opportunities for local processing must be created to increase local income generation, job creation and capacity building. International donors could usefully consider switching funding towards non-agricultural areas such as developing local capacity in international trade, export economics and business management.

Corporate Social Responsibility (a programme by businesses aiming to reduce their negative and increase their positive social and environmental impacts) must recognise the poverty alleviation aspects of organic cotton. Companies must accept some of the costs of development. The gauntlet thrown down by poor women and men farmers in very poor countries is that economic development requires investment patterns that incorporate social development, and actively involve producers in decision-making. This has been behind the success stories in organic cotton so far.

A long term vision of how cotton can be linked to sustainable agriculture, sustainable trade and poverty reduction must consider alternatives to export cash cropping in the face of long term decline in terms of trade for agricultural commodities (Toulmin and Gueye, 2003). These alternatives include, for example, the development of production for local and regional markets (pursued by the organic farmers in Koussanar in Senegal).

18. As this paper was being updated in November 2004, a workshop in Benin, West Africa took place for the first time involving European businesses, including Otto Versand of Germany, Katherine Hamnett (London) plc and Lokaterre (France), exploring a farmer perspective on organic cotton and opportunities for investment in West Africa. The workshop was funded by the European Union, GTZ, the Dutch Embassy and ICCO of the Netherlands.

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