Oxfam Briefing Paper

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No soft landing

As China opens its markets, US subsidies are making life hard for cotton farmers

China is the world's biggest producer and consumer of cotton. The development of the textile industry since the 1990s has increased the demand for cotton and benefited millions of Chinese farmers. However, China's dismantling of state-owned enterprises and liberalisation of its cotton sector as part of its WTO accession commitments have increasingly exposed Chinese farmers to world market forces. Meanwhile, as the USA continues to insulate its own cotton sector in violation of WTO rules, the volume of US cotton imported by China increased by 21 times between 2001 and 2004. The influx of subsidised, low-priced US cotton has contributed to falling domestic cotton prices and the crowding out of local production.

Oxfam International

MAKE TRADE FAIR

Summary

Cotton is an important crop for some of the poorest areas of China, and millions of cotton farmers depend on it for their livelihoods. Cotton's high economic returns have helped, and continue to help, bring many farmers in the poor western provinces of Gansu and Xinjiang out of poverty. Cotton production is not only essential to the development of China's textile industry; it is also a labour-intensive crop that demands a large workforce in rural areas. It has thus contributed to easing the pressures of rural underdevelopment in China, at a time when the country is faced with seriously high levels of surplus labour and lack of development potential in rural areas.

However, since the liberalisation of the cotton sector at the end of 2001, cotton dumped on world markets by the USA has threatened these opportunities. The increase in demand from the textiles sector has been met by imported cotton. The fall in world prices in 2004/05 reduced the market price of raw cotton by 30-40 per cent, and this had a direct impact on the incomes of Chinese cotton farmers. Many farmers in Xinjiang cannot make ends meet. Even more worrying are the initial signs that imports are crowding out local production. Approximately 870,000 tonnes of China's 2004/05 cotton crop remained unsold as of March 2005. The low price has alarmed cotton farmers, and in 2005 led to a 10 per cent reduction in the area devoted to cotton farming. Oxfam is concerned that, if this situation continues, Chinese cotton farmers may not be able to compete against imports.

Cotton production in China is expected to fall in 2005, even though consumption of cotton is expected to increase. On the other hand, cotton acreage in the USA expanded by 3 per cent in 2005, despite 2004's drastic fall in the world price. Low prices do not hurt US cotton farmers because high domestic subsidies protect them from the risks of international price fluctuations. In fact, high subsidies encourage cotton production, regardless of market prices.

As China exposes its own farmers to world market forces, the USA continues to insulate its cotton sector in violation of WTO rules. It is estimated that US, together with EU, subsidies depressed the world price of cotton by 10.7 per cent in 2001/02. Had this not happened, cotton farmers in China could have earned an additional RMB3.16bn (US$383m) for the 6.3m tonnes of cotton they produced in 2004. It is estimated that in 2005, production will fall by about 10 per cent, costing Chinese farmers RMB1.72bn (US$208m) in lost income and resulting in 720,000 lost job opportunities.

While the influx of US cotton has adversely affected the livelihoods of farmers, the USA is trying to obstruct China's textile imports. While China is fulfilling its WTO accession commitments, the USA is ignoring the recommendations of the WTO cotton panel. This is a classic case of double standards in the international trade regime.

It is important to make trade fair so that poor people can both participate in, and receive, a fair share of the benefits trade brings. In this context, the current negotiations on agriculture at the WTO are crucial in securing the livelihoods of China's cotton farmers. Oxfam believes that any agreement reached should contain, at the very least, the following reforms:

- A flexible tariff reduction formula that allows developing countries to reduce tariffs in a way that does not undermine their development strategies.
- Full exemption from tariff reductions and no expansion of tariff rate quotas for crops essential for food security. These 'special products' should be self-selected by developing countries, using the criteria contained in the 2004 July Framework.
- A special safeguard mechanism for developing countries.

- A commitment by developed countries to eliminate all forms of export subsidies by 2010.
- Deep and rapid cuts in trade-distorting domestic support.
- The full implementation of the WTO Appellate Body's report on cotton.
- Disciplines on the Green Box and the Blue Box.
- Freedom for developing countries from obligations to reduce their domestic agricultural support programmes.
- In addition to the implementation of the WTO panel's ruling, the USA should eliminate all remaining trade-distorting support for cotton classified under the Amber, Blue, and Green Boxes on an early harvest basis.

At the same time, the Chinese government should implement national policies that help farmers to face up to international challenges. To this end, the Chinese government should do the following:

- Help farmers to increase the quality and quantity of their farm produce with sustainable methods of production by improving the quality of farmland; increase resources for research and the development of better seeds and farming technologies; and develop an acceptable cotton quality control system to increase the competitiveness of Chinese cotton;
- Develop support systems for farmers such as crop insurance, farmers' cooperatives, and improved market information;
- Help level out price fluctuations through mechanisms such as a national cotton reserve; and
- Manage the import of cotton according to China's WTO accession commitments.

1. Introduction

'Falling cotton prices have a big impact on our livelihood… I hope the country imports less cotton as imports adversely affect the price, negatively affecting our livelihood and hindering our development towards being a well-to-do society.'
—Tu Sun Wu Xiu, Group 1 of Baishilike village, Duolang county (Akesu district of Xinjiang)

'This village has already been lifted from poverty. We don't have poor families. All the children go to school and every family has a colour TV. Ninety per cent of us even have a tractor. These changes are the consequence of growing cotton since the early 1990s. Without cotton, we would not have seen these changes.'
— Liu Hong, leader of Huancheng village (Anxi county of Gansu province)

China is a major cotton producer. In 2004, its cotton production was 6.3m tonnes, representing a quarter of the world's total, and making China the biggest producer for that year. Cotton is one of the country's most important agricultural commodities, and many farmers depend on it for their livelihoods. It is estimated that about 46.2 million people in China are involved in cotton production alone, not counting labourers who earn their living from the distribution, trade, or processing of the crop. However, although the Chinese textile sector is booming, imports of highly subsidised US cotton threaten to exclude millions of Chinese farmers from the market.

At the end of 2001, China's cotton market was opened up to international competition with the country's accession to the WTO. As a result of a meteoric growth in demand in recent years, China now imports a significant quantity of cotton. Indeed, it has become the world's biggest importer, buying a total of 2m tonnes in 2004. These changes in China's internal and external trading environments and policies have had a significant impact on the cotton industry and also on the livelihoods of farmers.

Since the early 1990s, Chinese textile exports have increased steadily and have become a major earner of foreign currency. China's farmers should have benefited from this situation by taking the opportunity to increase production, improve resource allocation, and enhance product quality. Their accumulated capital from cotton production should have been reinvested in the development of their communities. However, with the liberalisation of the cotton market, China's cotton farmers have had to deal with both the opportunities and the disadvantages of being part of the international market. One of the main drawbacks involves unfair competition in the world cotton trade. Dumping by the USA has caused the world cotton price to fall to an unsustainable level. Chinese cotton production has not increased proportionally with the growth of the textile industry, and the increased demand for cotton has been met by US imports, which come with trade-distorting subsidies attached.

This paper argues that US cotton dumping is having a demonstrably unfavourable effect on the livelihoods of millions of Chinese cotton farmers. Section 2 describes the importance of cotton in supporting millions of livelihoods in rural China. Section 3 analyses the many steps the Chinese government has taken to comply with calls from the international community, which have had the effect of exposing its farmers to international competition. Section 4 illustrates how the USA, in contrast, continues to insulate its cotton sector from international market forces, in violation of WTO rules. Section 5 focuses on the specific impacts of US subsidies on Chinese cotton. Finally, Section 6 contains a number of conclusions and recommendations. Part of this paper is based on original research done by the Research Centre for Rural Economy (RCRE) of the Chinese Ministry of Agriculture, commissioned by Oxfam Hong Kong.

2. Cotton counts: the importance of cotton production in China

Agriculture is central to reducing poverty in China. Cotton, in particular, has improved the livelihoods of millions of poor rural households, especially in western China, during a period in which agricultural incomes have been falling.

China is the world's biggest developing country, with a population of 1.3 billion people. Seventy per cent of the population, amounting to 900 million people, live in rural areas. According to the country's official statistics, 29 million people in rural areas earned an annual income below the poverty line of RMB637 (US$77)[1] in 2003. The World Bank's figures for 2001 indicate that approximately 200 million people in China have a purchasing power of less than US$1 a day, and that most of these people live in rural areas.[2] In terms of gross per capita income, the rural/urban divide has been increasing in recent decades, with the ratio rising from 1:1.86 in 1985 to 1:3.11 in 2002.[3]

Poverty is especially prevalent in western China, where agricultural land and resources are scarce. The region's average annual net income per capita is only RMB1,879 (US$227.50), compared with RMB2,383 (US$288.50) in central China and RMB3,617 (US$437.90) in the more prosperous coastal areas.[4] As a result, five years ago the Chinese government announced an extensive development plan for the western and central regions in order to tackle the problem.

Even before joining the WTO, the net agricultural income of China's rural population was in decline. Annual incomes for farming households dropped by RMB30 (US$3.60) from 1997 to 1998, by RMB57 (US$6.90) from 1998 to 1999 and by RMB44 (US$5.30) from 1999 to 2000, to RMB1,136 (US$137.50).[5] With over 60 per cent of households dependent purely on agriculture,[6] China is facing a worrying situation of slow or negative growth in agricultural incomes.

China's official statistics confirm that around 500 million of the 900 million who live in rural areas earn their living by farming.[7] More than 150 million seasonal migrants travel to urban areas to look for work. This phenomenon reflects the lack of employment opportunities in rural areas. Agricultural communities should be central to any strategy aimed at helping to improve the living standards of the poor in China (particularly in the west) and at aiding the development of China as a whole.

In this context, cotton is particularly important because it generates high economic returns, is produced mostly by small farmers, is very labour-intensive, and is particularly suitable for production in some of the poorer regions of western China.

A crop with high economic returns

After oilseeds, cotton is the second most important cash crop in China. Cotton production has always yielded higher returns than other food crops such as rice, wheat, corn, or soybeans (see Table 1). In 2003, the net return per mu of cotton was RMB543.4 (US$65.80), while returns for rice and soybeans were only RMB158.8 (US$19.20) and RMB168.4 (US$20.40) respectively (a mu is a measure of land equivalent to about one-fifteenth of a hectare).

Table 1: Comparing the net returns per mu of planting cotton and selected food crops

Unit: RMB (US$)/mu.

	Rice	Wheat	Corn	Soybeans	Cotton
1995	329.08 (39.8)	142.04 (17.2)	237.40 (28.7)	137.47 (16.6)	435.75 (52.8)
2000	79.06 (9.6)	-32.47 (-3.9)	11.81 (1.4)	63.09 (7.6)	247.14 (29.9)
2002	96.61 (11.7)	-10.22 (-1.2)	78.68 (9.5)	121.96 (14.8)	287.56 (34.8)
2003	158.77 (19.2)	19.05 (2.3)	112.81 (13.7)	168.35 (20.4)	543.42 (65.8)

I hectare = 15 mu. The table shows the after-tax net return per mu for each crop.

Source: 'Annual Report of the Statistics of China's Rural Areas' (respective years), National Bureau of Statistics of China.

The high returns from cotton have improved incomes in China's major cotton-producing provinces. A look at Huancheng village in Anxi county of Gansu province illustrates the way that stable and adequate prices can promote development in rural areas. Selling cotton has enabled Huancheng's farmers to cover their daily expenses, plus medical costs, house maintenance, and their children's education. Their income from cotton is used for the next planting cycle and for other agricultural investments. They can also typically buy livestock to supplement their incomes, build sheds to grow fruit to improve their diets, or buy tractors to reduce manpower requirements.

The villagers' living standards have improved since they started growing cotton 10 years ago. All their children go to school. Every household has a colour TV set; some even have refrigerators and telephones. Their average annual per capita income is over RMB2,000 and there are virtually no poor families. This is unusual in a region like Gansu, where 43 of the 87 counties are poverty-stricken. Because Anxi county has an ideal environment in which to grow cotton, the villagers have found themselves a solution to poverty. They believe that as long as the cotton price remains at a satisfactory level, they can have a reasonable standard of living.

A crop for small farmers

It is estimated that about 46.2 million labourers, from 35.7m rural households, work in cotton production in China. The crop is a major source of income for more than 143 million people in rural areas.[8] Most of them are small-scale farmers, with around 85 per cent planting less than 15 mu (or 1 hectare). This profile is different from that of cotton farms in most other parts of the world, especially in developed countries, where farms are run by large-scale farmers or conglomerates. The average cotton farm size in the USA, for example, is 405 hectares (1,000 acres).[9]

A crop that is labour-intensive

Cotton production employs more labour than any other agricultural sector in China. According to China's Annual Survey on Rural Areas, a farmer needs to work for around 30 days for every mu of cotton grown, which is significantly more than for other crops (as shown in Table 2). This means that, in 2004, farmers spent 250m working days, equivalent to about 7.15m full-time jobs, to grow 85.35m mu of cotton.

Table 2: Manpower involved in cotton production, compared with other crops

Unit: working days/mu.

	Rice	Wheat	Corn	Soybeans	Peanuts	Oilseed	Cotton
Man-power per mu (person/ day)	13.3	9.3	11.7	7.2	13.7	11.5	29.2

Source: 'Annual Report of the Statistics of China's Rural Areas (2003)', National Bureau of Statistics of China.

In the main cotton-growing provinces, the majority of each family's workforce is employed in cotton production. The RCRE research team found that, of a workforce of an average 2.55 people in each household surveyed, 1.35 are engaged in the production of cotton. Obviously, cotton is not only a major source of income for farmers, but also a major employer and, as such, an essential component in the development of rural areas. Cotton-processing and textile enterprises established along the south-east coast of China also employ a huge labour force.

A crop suitable for poorer regions in western China

Cotton is an important sector in Xinjiang, one of the poorest regions in China. Located in the remote northwest border region, it is home to many ethnic minorities including Uygur, Kazak, Mongolian, and Kirgiz, who account for 60 per cent of the population of 20 million. Xinjiang's per capita net income was only RMB2,106 (US$255) in 2003, the eighth lowest in China.[10] In 1978, the area planted with cotton occupied less than 5 per cent of the region's total agricultural area and, nationwide, Xinjiang's cotton production ranked only 13th among China's provinces. At the beginning of the 1990s, the area used for cotton-growing began to increase. For nine consecutive years from 1993, the region ranked first in the five major indicators for the cotton sector: total production, production rate, commercialisation rate, provincial export rate, and average per capita rate.

Cotton production is suited to the climate and land condition of Xinjiang. The industry is now the central pillar of the region's agricultural economy, and plays a leading role in China's cotton industry as a whole. In 2004, cotton production in the region amounted to 1.78m tonnes, or 28 per cent of total national production.

Cotton is the major source of income for Xinjiang farmers, and the price that it fetches determines their livelihoods. According to the data collected by the RCRE research team, around 50 per cent of Xinjiang farmers produce cotton, and the income earned from the crop makes up, on average, 57 per cent of total household income. In some households, the percentage is as high as 80 per cent.

Cotton is a major source of employment for the ethnic minority people living in this remote border area. They tend not to be fluent in Mandarin Chinese and so cannot easily migrate to urban areas in search of employment. They thus rely on cotton for their livelihoods. The large volume of cotton produced in Xinjiang generates substantial demand for labour. Production levels are about 1.7m tonnes of cotton lint, equivalent to around 5.1m tonnes of raw cotton, and farmers employ an additional 2.4 million labourers at harvest time. In Kadimiaimake village of Wulune town in Akesu district, for instance, no-one needs to go to the cities for work.

Box 1: Cotton helps lift the living standards of Xinjiang farmers

A leader of a village in the Akesu district of Xinjiang says: 'One year, the cotton price was so good that many households in the village refurbished their houses or built new ones. Our quality of life was substantially improved.' Tu Sun Wu Xiu's family is a good example. They used to have a very poor house (Picture 1), but since they started growing cotton in the 1990s, their household income has increased and they have built a better one (Picture 2). In late 2003, cotton prices surged and they were able to build a new home for the next generation (Picture 3).

Picture 1

Picture 2

Picture 3

However, in 2004/05, their cotton returns dropped by 54 per cent, from RMB14,005 to RMB6,735, much lower than they had expected. The family is a relatively well-off one for Xinjiang, and poorer households faced an even bigger impact. All the same, they still felt the impact of imported cotton. ‘Falling cotton prices have a big impact on our livelihood…. I hope the country imports less cotton as imports adversely affect the price, negatively affecting our livelihood and hindering our development towards being a well-to-do society,’ says Tu Sun Wu Xiu.

3. The gradual withdrawal of support for Chinese cotton

Since cotton is such an important sector for rural development, its production has traditionally been highly controlled and protected. Until 1998, cotton production, procurement, trade, and prices were all controlled by state-owned enterprises (SOEs). In order to meet growing demand from the textile industry, the government encouraged farmers to increase production by increasing cotton prices and providing them with subsidies.

However, despite the clear contribution that cotton makes to reducing poverty, the government has gradually withdrawn support from the sector, in response to the free trade ideal of the WTO (see Box 2). In the years leading up to China's accession to the WTO, the government dismantled the SOEs involved in cotton production and methodically cancelled subsidies in order to promote liberalisation (see Table 3).

Box 2: Changes in Chinese government policy on cotton

With the steady growth in production and the plentiful supply of cotton in the late 1990s, the time was right for the reform of China's cotton trading and distribution systems. From 1999, the Chinese government decided to undertake comprehensive reforms towards liberalising the sector and harmonising it with the WTO system. Major initiatives included:

- establishing a market pricing system under the direction of the government;
- expanding cotton trading and distribution channels and simplifying the levels of distribution;
- perfecting control of the cotton reserve mechanism by separating the reserve management and the traders; before, both the traders and the reserve arm were controlled by the same government departments, which could be problematic;
- developing a cotton trading market to promote an efficient distribution system.

With these reforms, most of the existing support subsidies, such as funds for improving technology, subsidies for chemical fertilisers and other materials, and price subsidies, were withdrawn (see Table 3).

Some support policies for cotton were retained until accession to the WTO. However, since China joined the WTO in December 2001, its government, in line with its accession commitments, has eliminated export subsidies and 'cotton specialised funds'. At present, only the funds for the establishment of high-quality cotton-producing counties and the subsidies for procurement loans remain effective. In 2002/03, the government allocated a total of RMB68m (around US$9m) to support the cotton industry. Of this, RMB20m (US$2.42m) was spent on the funds for the establishment of high-quality cotton-producing counties and RMB48m (US$5.8m) on subsidies for procurement loans. Both support mechanisms are classified as Amber Box subsidies under WTO rules.

Table 3: China's subsidies to the domestic cotton industry, before and after joining the WTO

Subsidy	Before joining WTO	After joining WTO	Use of subsidy
Funds for the establishment of high-quality cotton-producing counties	RMB20m (US$2.42m) per annum	RMB20m (US$2.42m) per annum	China pays subsidies to in total 252 high-quality cotton-producing counties and supports the promotion of cotton technology. This is classified as an Amber Box subsidy. (around RMB2m per county)
Funds for the improvement of cotton-growing technology	Operated 1980–1998	Cancelled in 1998	Funds collected from cotton processors were transferred to the Agriculture Bureau for the improvement of cotton-growing technique.
Cotton specialised fund	Operated 1994–2001; annual subsidies ranged from RMB40m–RMB70m	Cancelled in 2001	Mainly spent on R&D into genetically modified cotton in late 1990s.
Cotton production subsidies	Operated 1988–1995	Cancelled in 1995	Funds provided to farmers to improve the growing environment e.g. by disease control and use of better fertilisers.
Subsidies for production inputs such as chemical fertilisers	Operated 1978–1998	Cancelled in 1998	Funds provided to farmers to buy farm inputs. Designed to encourage active participation in cotton production.
Price subsidies	Operated 1989–1998	Cancelled in 1998	The procurement price of raw cotton was fixed by the government. Subsidies were paid to SOE cotton processors.
Subsidies for procurement loans	Operated 1994–2004	RMB41m (US$5m) in 2001; RMB48m (US$5.8m) in 2002; RMB32m (US$3.9m) in 2003; RMB73m (US$8.8m) in 2004	Subsidies for loan interest (classified as Amber Box)
Cotton reserve	Has existed since 1998	Not exercised in 2002–2004 due to undersupply	
Export subsidies	Operated 1997–2001	Cancelled in 2002	Subsidies were given to exports of textiles that used local cotton to discourage the use of imported cotton.
Total subsidies	**2002** **2003** **2004**	**RMB 68m (US$8.2m)** **RMB 52m (US$6.3m)** **RMB 93m (US$11.3m)**	

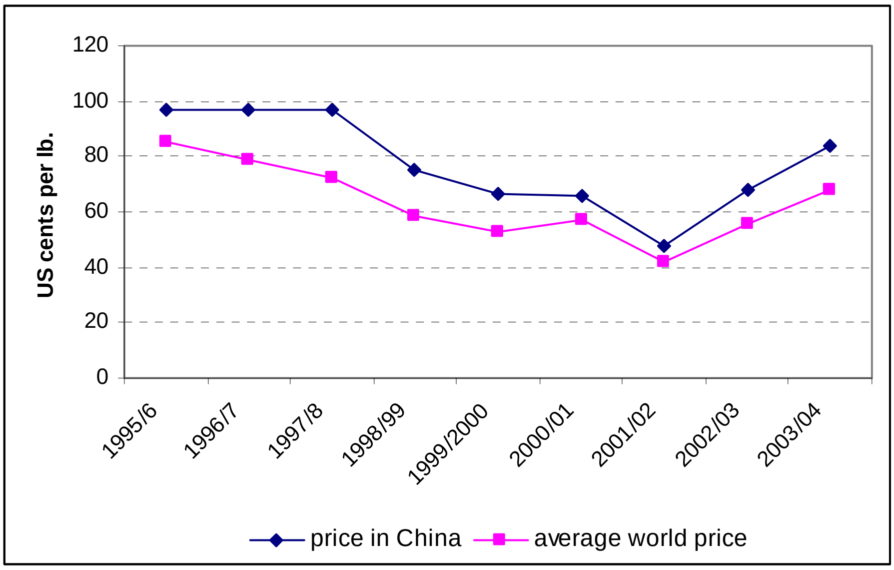
Source: RCRE research team.[11]

Note: The *de minimis* level for China is 8.5 per cent. The total value of cotton produced in China in 2004/05 was around RMB80bn (US$9.7bn). The accepted Amber Box subsidy level should be RMB6.8bn (US$823m). There is therefore still plenty of room for China to subsidise its farmers.

Before WTO accession, the government controlled cotton imports through the use of quotas and import permits, allowing China to import cotton when necessary with a low tariff rate of 3 per cent. The result was limited quantities of imports and a local market price that was independent of the international average. Even with declining world prices from 1994 to 1997, the local price in China remained stable (see Figure 1).

With China's application for WTO membership, its economy went through a process of liberalisation in order to prepare for accession. From the mid-1990s onwards, market reform was introduced in many sectors, including the cotton sector in late 1998. Liberalisation saw cotton prices drop to their lowest level historically — from RMB17,220 (US$2,084) per tonne to RMB 8,640 (US$1,046) per tonne in 2001/02, in response to the international fall in prices, from US cents 72.2 per lb to US cents 41.8 per lb. When the international price gradually recovered, local prices also adjusted themselves. When world production was hit by a poor crop in 2003/04, the price rose to RMB 16,553 per tonne, in line with world prices. These price trends are shown in Figure 1.

Figure 1: Cotton prices in China and on the world market, 1995–2004



Sources: for China, China Cotton Web, www.cncotton.com. For world price, ICAC, 'Cotton: World Statistics, November 2004'.

From 1998, the monopoly of the SOEs was lifted and private firms were allowed to enter the processing industry. Cotton trading rights were liberalised in 2002. As part of its accession commitments, China introduced a tariff rate quota (TRQ) to replace the previous quota and permit system. The initial quota was set at 781,000 tonnes in 2002 and the final quota in 2005 at 894,000 tonnes, equivalent to 15-20 per cent of national production. The tariff on volumes within the quota was 1 per cent and the tariff for volumes outside the quota was 76 per cent. Two-thirds of this quota was allocated to private firms. No export subsidies were allowed for agricultural products.

Since 2002, the quantity of cotton being imported into China has sky-rocketed. It increased from 11,300 tonnes in 2001 to 20,800 tonnes in 2002, 954,000 tonnes in 2003, and 1.98m tonnes in 2004.

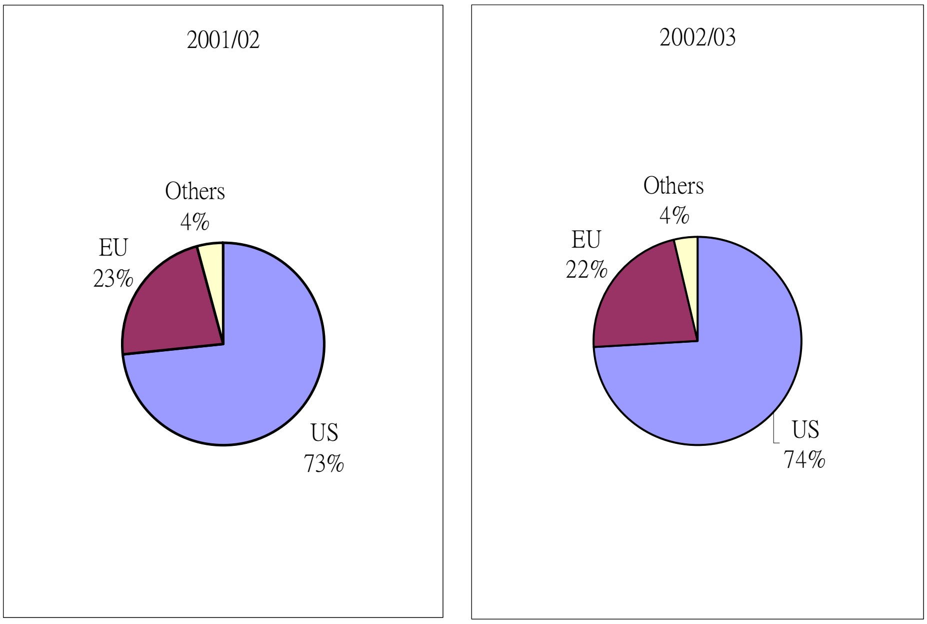
Following a discouraging drop in prices in 1998/99, production in 1999/00 fell from 4.4m tonnes to 3.8m tonnes. It recovered slightly due to high demand over the following two years, but a fall in prices in 2001/02 again slowed production in 2002/03. The price surge in 2003/04, resulting from a bad crop year, caused production to reach another high of 6.3m tonnes in 2004/05. Unfortunately, as international prices dropped again, cotton prices in China followed suit, falling to RMB11,265 per tonne by December 2004. This resulted in a lower procurement price of RMB4 per kg of raw cotton in some areas, as compared with the high level of RMB8 per kg in 2003/04.

By the beginning of 2005, liberalisation of the cotton sector was fairly complete. Oxfam is concerned that Chinese cotton farmers will be confronted with fluctuating international prices, as well as an unfair and distorted international market. In particular, continued US cotton subsidies threaten the livelihoods of Chinese cotton farmers.

4. Unfair US subsidies and their impact on the world market

While China has increasingly exposed its cotton farmers to world market forces, other major cotton producers — particularly the USA — have not. The international cotton market is extremely distorted, with huge subsidies given to cotton production, especially by the USA and the EU. During 2001/02 and 2002/03, the USA accounted for 73 per cent and 74 per cent, respectively, of total export subsidies and domestic support (see Figure 2).

Figure 2: Proportion of US and EU cotton support, compared with the rest of the world



Source: ICAC and RCRE research team.[12]

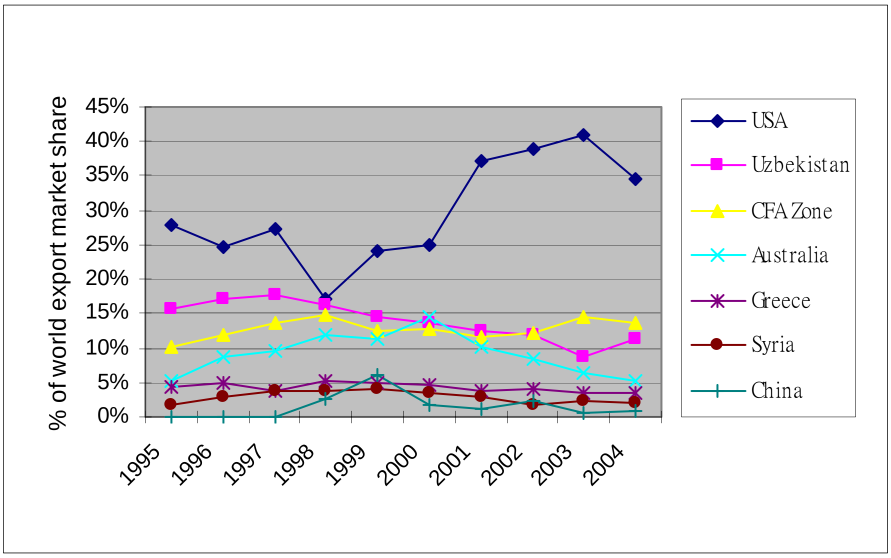
With extremely high US subsidies, the opportunities for other countries to benefit from trade are hindered. In 2001/02, the total cotton subsidies disbursed by the US government soared to US$3.2bn, of which US$3bn was used for direct payments and price supports. On 13 May 2002, President Bush signed the six-year Farm Security and Rural Investment Act of 2002 (the Farm Bill). In this new Farm Bill, cotton subsidies remained high, allowing US cotton farmers to continue to produce and export cotton regardless of fluctuations in the world market.[13]

The EU usually employs income support (classified as a Blue Box payment) for cotton, but only the USA uses both export subsidies and domestic support at the same time. The total quantity of US export subsidies in 2001/02 was US$180m and in 2002/03 US$530m. These subsidies have had huge impacts on the world cotton market and on poor cotton farmers around the world.

The USA has had high levels of exports for years, accounting for 35 per cent of the world market since 2001 (see Figure 3). As other countries have been unable to compete in such a distorted market, their export earnings have decreased. Uzbekistan and Australia are two good examples: their shares of world exports fell from 14 per cent in 2000 to 9 per cent and 6 per cent, respectively, in 2003. During the same period, the USA's share of cotton exports increased from 25 per cent to 41 per cent. Even countries with low production costs, such as countries in West Africa, only managed to expand their export shares by 2 per cent, a negligible increase compared with the USA.

The USA is a cotton giant because of its subsidies. Export support constitutes the most trade-distorting instrument in the world market, as they directly subsidise the disposal of surplus domestic production. US dumping creates a global price-depressing effect, but US farmers can still overproduce and remain shielded from global market forces.

Figure 3: Cotton export market shares (1995–2004)

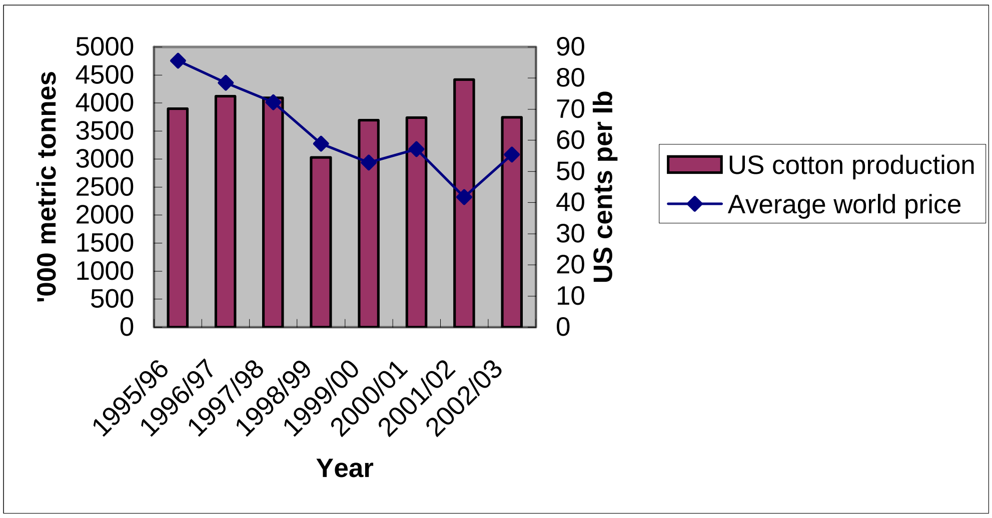


Source: ICAC, 'Cotton: World Statistics, November 2004'.

US subsidies distort world prices

As a result of these subsidies, US cotton production no longer responds to the world market price. General economic logic suggests that, with an increase in market price, production should increase, while with a fall in price it should decrease. However, because of its policy of high subsidies, the US cotton sector is going in the opposite direction. The world cotton price declined between 1995 and 2003 but, apart from 1998/99, US production remained steady. From 1995 to 2003, the international cotton price fell from 85 cents per lb to 55 cents per lb (see Figure 4). Despite the 35 per cent fall in price, the USA still produced approximately 3.9m tonnes of cotton. As a result of the subsidies, US cotton was protected from, and indifferent to, market changes.

Figure 4: US cotton production compared with average world price



Source: ICAC, 'Cotton: World Statistics, November 2004'.

High US subsidies interfere with the world price of cotton. Many organisations have carried out studies on this issue. The following forecasts feature in a report from the World Bank:[14]

- The International Cotton Advisory Committee (ICAC) calculated that, if all direct subsidies in 2000/01 had been cancelled, cotton prices would have risen by 30 per cent.
- Reeves et al. (2001) calculated that, if US and EU cotton subsidies in 2001/02 had been cancelled, the cotton price would have risen by 10.7 per cent, while the cotton production and export earnings of the USA would have been reduced by 20 per cent and 50 per cent respectively.

Other research has shown that, without subsidies, US cotton production and export earnings would have dropped by 29 per cent and 41 per cent respectively from 1999 to 2002.[15] Under such circumstances, cotton prices in Brazil and Africa would have risen by US$0.1433 per lb or 12.6 per cent. By depressing world prices, US cotton dumping affects the markets of other countries and deprives them of their opportunities to benefit from trade.

5. How do US subsidies adversely affect China?

While China has taken numerous steps towards freer trade, the USA continues its policy of heavy subsidies to its cotton sector, undermining cotton production in many developing countries. In particular, highly subsidised US cotton artificially lowers prices in the world market and, in China, floods Chinese markets and crowds out Chinese cotton producers.

The main concern for many farmers is their inability to influence or predict the international price. Import surges are a challenge that Chinese cotton farmers now have to face. Although Chinese cotton production is relatively competitive, Oxfam is concerned that imports of subsidised US cotton will crowd out local production and damage farmers' livelihoods even further.

US cotton contributes to lower prices

Some 35.8m Chinese households produce cotton, and they depend on good and stable cotton prices for their livelihoods. The cotton price, therefore, becomes a key factor in determining the standard of living for tens of millions of people in China. With prices falling, the future for these farmers looks grim. With US subsidies working to depress cotton prices in the world market, it may be harder for China to attract the investment needed to increase production and improve competitiveness in the cotton sector.

It is estimated that if US and EU cotton subsidies in 2001/02 had been removed, the world cotton price would have risen by 10.7 per cent.[16] To put this loss in the context of Chinese cotton farmers, and assuming an average price of RMB5 per kg, it would mean an additional RMB0.5 for each kg of raw cotton produced. In 2004, the income of cotton farmers could have increased by RMB3.16bn (US$383m) for the 6.3m tonnes of cotton produced that year.

Within China, the procurement price for cotton has fallen. During the 2004/05 season, the procurement price for raw cotton in Xinjiang dropped substantially, from RMB5.6 per kg in September 2004 to RMB3.95 per kg in December 2004, its lowest level that year. It recovered slightly in March 2005 to RMB4.9 per kg. Table 4 shows changes in the procurement prices of a local cotton-processing factory. These prices are considerably lower than the figure of
RMB7–8 per kg that was the norm in 2003/04. Lower procurement prices may provide a benefit for the textile industry, but they translate into lower incomes for farmers.

Table 4: Procurement prices of Ta Mian Akesu Region Limited Company (cotton processor)

Month	Sep 04	Oct 04	Nov 04	Dec 04	Jan 05	Feb 05	Mar 05
Price per kg in RMB	5.6	4.9	4.4	3.95	4.6	4.75	4.9

Source: Ta Mian Akesu Region Limited Company, March 2005.

Price is the major factor in determining how much land a farmer allocates to cotton planting. If the price is high, farmers are willing to grow more. If the price is low, they will choose to grow less. With the dramatic fall in prices in 2004/05, a shrinkage in production is expected in 2005. According to the China Cotton Association, the land area used for cotton farming declined from 84.8m mu in 2004 to 76.5 million mu in 2005: a drop of 8.9m mu, or 10.4 per cent. The Ministry of Agriculture estimated that production, similarly, will fall from 6.3m tonnes to 5.5m or 5.7m tonnes: a 10-13 per cent drop.

Even by conservative estimates, this means less income from cotton for farmers. Assuming an average price of RMB5 per kg of raw cotton and a static price for farm inputs, the amount a farmer receives per kg can be broken down into RMB2.1 for inputs (not including the cost of labour) and RMB2.9 as income. With a projected aggregate reduction in cotton production of 820,000 tonnes, this translates into a total reduction in incomes of RMB1.72bn (US$208m).

As discussed above, 29.2 working days are needed to produce each mu of cotton, so a shrinkage of 8.9 million mu in the area planted to cotton would mean a loss of around 260m working days, or 720,000 full-time jobs[17]. This will contribute significantly to rural unemployment and will force more rural workers to seek employment in the cities.

The fact that domestic demand for cotton is increasing is causing the situation to escalate. The Cotton Research Centre of the Chinese Academy of Agricultural Sciences estimates that domestic demand could rise to 8.5m tonnes in 2005. If production falls to 5.7m tonnes, there will be a shortfall of 2.8m tonnes that will have to be filled by imports. It is ironic that, even as Chinese cotton demand is increasing, domestic production is decreasing. This is mainly a consequence of the increasing openness of the Chinese cotton market, low international cotton prices, and US subsidies.

Since the Chinese government ended its support for cotton, the unpredictability of prices has become a major concern for China's cotton farmers. For each crop cycle, farmers need to invest RMB595 (US$72) per mu (not including the cost of their own labour), or around RMB2.1 per kg. They plant in April and harvest in October or November. After six months' hard work, it is reasonable for the farmers to expect a good price. Their inputs are more or less fixed, but the selling price cannot be guaranteed.

In 2001/02, the cotton price dropped to its lowest level ever. Farmers, however, still had to sell their cotton. In Akesu district, the Aizezinigongzi family of Shiwuluhaole town owns 20 mu of cotton-growing farmland. The family suffered a big loss because of the fall in prices, leaving them unable to pay for the following year's planting cycle. They had to take out a loan to keep production going, and this loan was not repaid until 2004. To minimise the burden, all they could do was reduce their investment. Eventually, the size of their crop and the quality of their cotton declined, as did their income.

In March 2005, the interviews conducted with cotton farmers by the Oxfam research team revealed a similar trend. Ahzezi Nayazi, from Akesu District of Xinjiang, for example, received only RMB6,560 (US$794) from cotton sales in 2004/05, but his family's expenses were estimated to be around RMB9,500 (US$1,150). This was made up of RMB4,500 (US$545) for farm inputs and RMB5,000 (US$605) for living expenses, including food, medicine, and other essential items. With no savings to act as a guarantee, he could not secure bank loans. He had to borrow RMB3,000 (US$363) from loan sharks to pay for farm inputs. These are costly and so are the attendant risks, so Ahzezi decided to reduce inputs for the farm. In this kind of situation, price fluctuations make it difficult for farmers to ensure the productivity and sustainability of their land.

Import surges

With the liberalisation of China's cotton sector, its accession to the WTO, and US dumping, an import surge could get worse . In fact, cotton imports from the USA to China have increased by 2,100 per cent since 2001, from 48,000 tonnes to 1.06m tonnes. The proportion of imports from the USA has also been rising, from 42.5 per cent in 2001 to 53.5 per cent in 2004 (see Table 5).

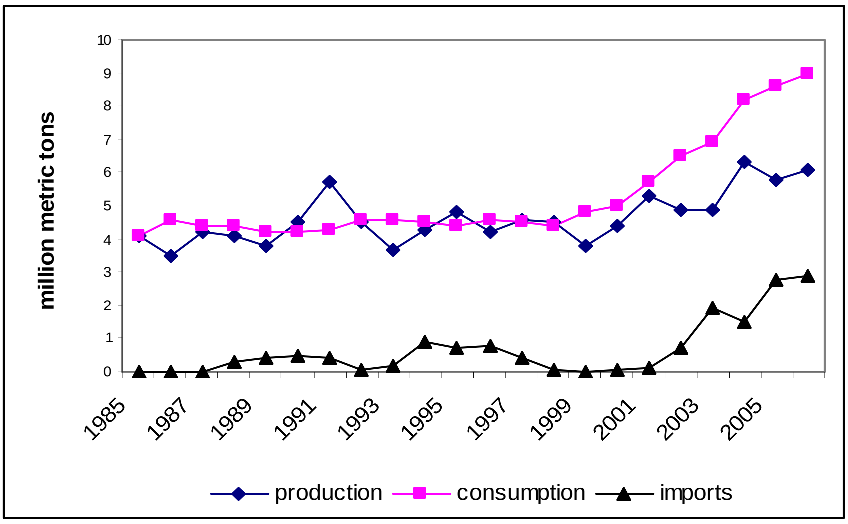
Table 5: Imports of cotton from the USA, compared with local production in China and total imports

Year	Production of cotton in China (million tonnes)	Import quantity (million tonnes)	Imports from the USA (million tonnes)	Imports from the USA as % of total imports
2001	5.32	0.113	0.048	42.5
2002	4.92	0.208	0.092	44.2
2003	4.80	0.954	0.52	54.5
2004	6.32	1.984	1.062	53.5

Source: Department of Agriculture, Department of Commerce, and Department of Custom and Excise of China.

A look at trends in production, imports, and consumption of Chinese cotton since 1985 (Figure 5) shows that, prior to market liberalisation in the late 1990s, cotton production and imports were relatively stable. Following WTO accession and the growth in consumption, imports surged. This increase means that the rapid growth of China's textile industry has not offered better opportunities for Chinese cotton farmers, but rather has provided a new destination for US cotton dumping.

Figure 5: Consumption, production, and imports of Chinese cotton



Note: figures for 2005/06 are forecasts.

Source: International Cotton Advisory Committee, 'Cotton: World Statistics, December 2002' and 'Review of the World Situation', May–June 2005.

It could be said that China imports cotton from the USA because US cotton is cheaper, but it is obvious that this would not be the case without subsidies. If actual costs and efficiency of production (including the cost of inputs in relation to yield) are considered, production costs in the USA are RMB3,000-5,000 higher per tonne of cotton lint than they are in China. The RCRE research team calculated the cost of production and found that, in 2002, in China it was RMB7,519 (US$910) and in the USA RMB 12,657 (US$1,532) — a difference of RMB5,138 (US$622). In 2003 the difference was slightly smaller — approximately RMB3,340 (US$404) — because China had a bad crop year (see Table 6). The differences are more or less covered by US subsidies.

Table 6: Cost of production in China and the USA for each tonne of cotton lint produced in 2002 and 2003

Unit: RMB (US$)

	2002			2003		
	China	**USA**	**Difference between China and USA**	**China**	**USA**	**Difference between China and USA**
Cost of Input	2,715 (329)	9,507 (1,151)	-6,792 (-822)	3,549 (430)	9,307 (1,127)	-5,757 (-697)
Labour	3,886 (470)	2,103 (255)	1,783 (216)	4,450 (539)	2,002 (242)	2,449 (296)
Manage-ment fees	427 (52)	542 (66)	-115 (-14)	370 (45)	466 (56)	-96 (-12)
Tax	491 (59)	505 (61)	-14 (-2)	547 (66)	482 (58)	65 (8)
Total:	7,519 (910)	12,657 (1,532)	-5,138 (-622)	8,917 (1,080)	12,257 (1,484)	-3,340 (-404)

Note: ginning costs are not included.

Source: Calculation based on data from USDA and 'Cost of Production Source: 'Agricultural Products in China 2004' (全国农产品成本收益资料汇编,2004 年)

The crowding-out effect

Low-priced, subsidised cotton from the USA has significantly impeded the growth of the cotton industry in China. Indeed, Chinese cotton production is expected to shrink by 10 per cent in 2005, despite the growth in demand. In contrast, the US National Agricultural Statistics Service expected the USA's cotton planting acreage to increase by 3 per cent,[18] despite a decrease in mill use of 6.3m bales — the lowest mill-use level in 20 years.

Initial signs of Chinese production being crowded out were seen in early 2005. By March, only 5.5m tonnes of raw cotton, or 86 per cent of total production, had been bought by processors. According to the China Cotton Association, 870,000 tonnes were still in farmers' hands.[19]

In general, cotton is harvested in September and October and is expected to be sold before Chinese New Year (between January and early February), when farmers require cash for the festival. In any case, raw cotton cannot be kept for extended periods as its water content will turn it yellow and substantially reduce its quality. In practice, the procurement season is normally over by the end of March. The unsold cotton recorded in March 2005 may be left unsold, or will be sold at a very low price as its quality deteriorates.

The China Cotton Association has also observed that the buying pattern of cotton processors is changing. They no longer buy cotton simply when it is available, as they have done in the past; they now buy raw cotton from farmers when they actually have orders from cotton lint users.[20] This further increases the risk of imports crowding out local production. The demand for cotton is no longer seen as being met by local production alone. Cotton buyers are now choosing between imports and local produce.

The current situation is of great concern. Cotton has played an important role in meeting rural development goals in China's cotton-producing regions, both in terms of raising incomes and providing employment opportunities. If this situation of low international prices and market fluctuations continues, it may undermine previous efforts to promote rural development in some of the poorest regions of China. If there were no US cotton dumping, the world price would not be depressed. Fair competition would allow China's cotton farmers to increase their production and thereby ease the progress of China's rural development. Therefore, keeping a stable and acceptable cotton price is important to China's rural development.

6. How US cotton dumping adversely affects the rest of the world

US subsidies, through their impact on the world price of cotton, adversely affect many other poor countries. This is why West African countries are strongly opposed to the USA's trade-distorting practices. US subsidies have a negative impact on the 33 African countries that are exporters of cotton. The Sectoral Initiative in Favour of Cotton, which was submitted to the WTO by Benin, Burkina Faso, Chad, and Mali in 2003, is now formally supported by a number of country groupings, such as the African Group, the ACP states, and the G20. However, despite the fact that WTO members agreed under the July 2004 Framework to grant cotton 'ambitious, expeditious, and specific' treatment, substantial negotiations have yet to take place.

Oxfam has estimated that in 2001 alone, African cotton-producing countries have lost more than $305mn[21] in potential export revenues because of depressed world prices. Meanwhile, in the most recent crop year, US producers received about $4.2bn in subsidies.

Instead of using monetary terms as a reference for looking at the negative impacts of subsidies, Professor Nicholas Minot of the International Food Policy Research Institute (IFPRI) used poverty figures. He estimated that price depression caused by US subsidies in 2001/2002 had reduced approximately 334,000 cotton farmers in Benin to a standard of living below the poverty line.[22]

In Brazil, it was estimated that the effect of US subsidies suppressing local cotton prices had resulted in a loss of US$478m.[23] This was one of the bases for Brazil's complaint at the WTO against US cotton subsidies.

The Brazil/USA dispute is a landmark case for agricultural dumping. The WTO panel and the Appellate Body ruled in early March 2005 that most US cotton subsidies violate WTO rules and that they should be eliminated (see Table 7). Both bodies concluded that the USA was using prohibited export subsidies and that US cotton programmes were depressing world cotton prices, causing serious prejudice to Brazil and other cotton exporters. In doing so, the WTO Dispute Settlement Body legally confirmed the claims of the African countries against US subsidies.

Table 7: Implications of the WTO panel ruling on US subsidies and export credits for cotton

Subsidies challenged in the ruling	Total amount for 2002/03 (US$bn)	Classification notified by the USA to the WTO	Panel decision about box classification	Other panel recommendation
Export credits (cotton and other commodities)	1.6	Not notified	Export subsidies	To be eliminated
Step 2 programme	0.4	Amber Box	Export subsidies	To be eliminated

(cotton)				
Marketing loan payments (cotton)	0.9	Amber Box		To be eliminated
Counter-cyclical payments (cotton)	1.3	*De minimis*		To be eliminated
Direct payments (cotton)	0.6	Green Box	Amber Box	To be reclassified

Source: 'Dumping: the Beginning of the End?', Oxfam Briefing Paper No. 64, Oxfam International, 2004.

A full implementation of this ruling by the USA would enable other cotton-producing countries to benefit from higher world prices and increased opportunities for market share. Evidence presented by Brazil to the WTO panel showed that world prices would be 12 per cent higher if the cotton subsidies that have been deemed illegal were withdrawn.

Beyond cotton, this ruling also raises a number of questions that are particularly relevant to the current negotiations on agriculture at the WTO. While the USA has demanded a relaxation of how Blue Box subsidies are defined, to allow reclassification of its counter-cyclical payments, the ruling has clearly demonstrated the trade-distorting impact of this type of programme. The ruling also highlights the need for a redefinition and a tightening of Green Box subsidies, limiting them to those programmes that are least trade-distorting.

The ruling set good examples for how subsidies should be classified and regulated; it also recognised the impact of these subsidies on the international market. Having clarified these definitions, developed countries should regulate the way in which their subsidies are being used and properly monitor them, so that the dumping of agricultural products and distortion of the international market are brought to an end.

7. Conclusions and recommendations

As a result of around US$3bn of US cotton subsidies annually, China has seen a 10 per cent decrease in the area under cultivation in 2005, leading to an aggregate reduction in farmers' incomes of US$208m, the loss of approximately 720,000 jobs, and an initial crowding-out of local production. In West Africa, thousands of cotton farmers have been reduced to poverty and US$305m was lost as a result of unfair international trade in 2001. Brazil, similarly, lost US$478m from 1999-2002.

China is a huge consumer of cotton, but it is also a huge cotton producer. As the country has taken major steps to open its markets in recent years, distortions of international trade are having a larger effect on the livelihoods of Chinese cotton farmers. Prices have declined as China has opened its cotton market to increased imports. Huge US subsidies to its 25,000 cotton producers have driven prices even lower. In China, tens of millions of cotton farmers face a bleak future.

It is important to make trade fair, so that poor people can participate and obtain a fair share of the benefits. The development component of the Doha Development Agenda must be realised. The new Agreement on Agriculture (AoA) must correct the market distortions that have been allowed in the existing one. It must offer a real chance for development by putting an end to dumping and allowing flexibility, so that developing countries can protect and develop their strategic sectors.

At the national level, it is important that governments be able to implement policies that can enhance the efficiency and effectiveness of agricultural production. Equally important, developing countries should not be forced to open up important sectors that are strategic to their development.

Oxfam considers that it is important to work on two levels: at the level of the WTO negotiations and, at the same time, at that of the Chinese government's implementation of national policies that help farmers to face international challenges. Therefore, Oxfam makes the following recommendations.

On the WTO Agreement on Agriculture (AoA) level

The three pillars of the AoA are key in influencing the livelihoods of cotton farmers in China. Oxfam calls for:

On market access:

1. **A pro-development tariff reduction formula that does not exert excessive pressure on developing country tariffs.** This includes the use of a flexible formula — similar to that used during the previous round of WTO negotiations — with lower percentage reductions for developing countries, as well as longer implementation periods. Least Developed Countries should remain exempt from any tariff reductions.
2. **The full exemption of food security crops from tariff reductions, or the expansion of tariff rate quotas (TRQs) for developing countries.** These 'special products' should be self-selected by developing countries on the basis of the criteria set out in the July Framework (i.e. food security, livelihood security, and rural development needs). When appropriate, developing countries should be allowed to continue using quantitative restrictions or to renegotiate bound tariffs.
3. **A Special Safeguard Mechanism (SSM) for all developing countries, without product limitation**, to smooth out excessive fluctuations in domestic prices and volumes of imports.
4. **A self-defence mechanism to respond to potential dumping practices**. As long as agricultural dumping is not strictly prohibited by the WTO, developing countries will be particularly vulnerable to sudden and unforeseen increases in levels of subsidies in major producing countries. To enhance transparency about such practices, the WTO secretariat should each year compute the costs of production and export prices for agricultural products that are receiving subsidies. On the basis of this information, developing countries should be allowed to add a percentage tariff equivalent to the dumping margin to their bound tariff levels. This would be a useful recourse for countries that would otherwise be competitive and would not seek permanent protection under the formula of 'special products'.

On export competition:

1. **All forms of export support, i.e. export subsidies, export credits, and commercial use of food aid, should disappear three years after the beginning of the implementation period, or no later than the end of 2010.** There should be an immediate halt to the use of export subsidies. Backloading of commitments during the implementation period should be strictly prohibited.
2. **In the case of developing countries,** the complete elimination of these instruments should take place over longer implementation periods.

On domestic support:

1. **Deeper and quicker cuts for explicitly distorting domestic support.** The USA should cut all Amber Box support by more than 60 per cent, and the EU should cut its support by more than 70 per cent, by the end of the implementation period.

2. **The permitted Blue Box level should be cut by 50 per cent and capped at 2.5 per cent** of the total value of a country's agricultural production.
3. **The *de minimis* exception should be halved** for developed countries.
4. **The Blue and Green Boxes must be further disciplined.** The current Blue Box criteria must not be loosened.
5. **Developing countries should not be obliged to reduce their agricultural support programmes**, particularly the *de minimis* exception. Most such programmes are focused on rural development and food security.

The full elimination of trade-distorting support on cotton

In addition to the implementation of the WTO panel's ruling, the USA should eliminate all remaining trade-distorting support for cotton classified under the Amber, Blue, and Green Boxes on an early harvest basis.

On the level of domestic programmes

A huge number of people living in developing countries are farmers. Rural development is, therefore, a top priority in these countries. Developing countries should, according to their own specific situation, design an agricultural assistance programme to secure the improvement of farmers' livelihoods, thereby reducing the incidence of poverty and advancing development objectives.

Since China has already withdrawn many of its price support subsidies under the Amber Box category and its reform of national enterprises is speeding up, it would be unrealistic to reverse these measures. Oxfam recommends that the Chinese government directly subsidises farmers for agricultural production, and helps them with market information so that they can make informed choices. Most of this support will come under Green Box subsidies, such as:

1 **Improving, in a sustainable manner, the quality of farmland and boosting land efficiency** by providing land management training and improving drainage and irrigation technology. This will reduce the risks of production and improve the quality and quantity of production.

2 **Investing in seeds and research and development** on different varieties of cotton, sustainable ways of production, and establishing an information circulation system to introduce better strains, which will improve quality and yield.

3 **Strengthening the technology base for disaster monitoring** and forecasting services.

4 **Developing policies on natural disaster insurance for crops,** to secure a basic income for farmers.

5 **Encouraging and supporting the establishment of cotton farmers' co-operatives,** so that farmers can have more bargaining power in buying farm inputs and selling their produce. Co-operatives could also share up-to-date information and organise training to improve farming techniques.

6 **Developing a mechanism that will enhance the flow of market information** and more accurate estimates of market prices. This would help farmers to make better-informed decisions when selling their produce.

7 **Operating a national cotton reserve mechanism** that would smooth out price fluctuations and reduce market risks for farmers.

8 **Perfecting the cotton quality control system in order to improve the quality of Chinese cotton.** This would help to increase the competitiveness of local cotton against imports.

9 Lastly, when in 2004 the government expanded quotas to allow an additional 1m tonnes of cotton to enter China, it opened the door for dumped US cotton. Bigger quotas may allow the textile industry access to overseas cotton, but they also contribute to the slump in cotton procurement prices paid to farmers. Therefore, **it is important that China make good use of tariff rate quotas,** so as to balance the interests of both the textile industry and the cotton production sector.

Annex 1: Estimation of numbers of cotton farmers, farm households, and people in China dependent on cotton

The Research Centre for Rural Economy (RCRE), under the Chinese Ministry of Agriculture, has a sample of 60,000 households all over China who have filled in survey data on a monthly basis for 15 years. From the samples of a selected province, the workforce input on cotton farming and the average farm size per household are calculated.

Workforce required for the province

By dividing the workforce input on cotton farming by average farm size per household, we can find the average workforce input per mu. Then, by multiplying this by the total farm area, we can find the total workforce required for the province.

Number of households involved in cotton production

By dividing the total farm area for cotton production by average farm size per household, we can find the number of households involved in cotton production in the province.

Number of people depending mainly on cotton farming for their livelihoods

The average family size in China is four people, so the total number of people depending mainly on cotton is the total number of households (35.8m) multiplied by four, which equals 143.2 million people.

Table 1: Average workforce input on cotton farming among sample households, by province

	Total workforce in a family (person)	Workforce input on cotton farming (person)(1)	Average farm size per household (mu) (2)	Total farm area for cotton production (million mu)(3)	Workforce required for the province (million people) (1) / (2) x (3)	Number of households involved in cotton production (3) / (2) (million)
Hebei	2.71	1.43	3	9.6	4.6	3.2
Jiangsu	1.89	1.14	3.1	6.2	2.3	2.0
Anhui	2.76	1.24	1.2	6.8	7.0	5.7
Shangdong	2.50	1.32	2.6	15.0	7.6	5.8
Henan	2.58	1.22	1.1	14.5	16.1	13.2
Hubei	2.75	1.32	1.8	5.9	4.3	3.3
Xinjiang	2.62	1.66	6.4	16.5	4.3	2.6
Total:					46.2	35.8

Source: RCRE household survey data.

Notes

[1] The exchange rate conversion used for this paper is US$1 = RMB8.26, Bank of China exchange rate, 23 May 2005.

[2] World Development Indicators, 2004.

[3] 'Table 22: Comparing the Household Income of Cities and Rural Areas, Statistics of 2003' in 'Report of China's Rural Development Over the Years', Department of Agriculture, China. www.agri.gov.cn/sjzl/baipsh/WB2003.htm

[4] Ibid.

[5] Deepak Bhattasali, 李善同 (Li Shantong), Will Martin (2004) 'China and the WTO: Accession, Policy Reform and Poverty Reduction Strategies', World Bank.

[6] Ibid.

[7]中國農業信息網,全國農業統計提要 2003 年, China Agriculture Statistical Abstract 2003, China Agriculture Information Net, http://www.agri.gov.cn/sjzl/2003/15.htm

[8] See Annex 1 for the methodology used to estimate these figures.

[9] Will Allen (2004), 'Fact Sheet on U.S. Cotton Subsidies and Cotton Production: Cotton Subsidies and Cotton Problems', Organic Consumers Association. http://www.organicconsumers.org/clothes/224subsidies.cfm

[10] 'China Statistical Yearbook 2004', National Bureau of Statistics of China, 2005, China Statistics Press.

[11] Compiled by RCRE team in research commissioned by Oxfam Hong Kong in 2004/05.

[12] Figures for China compiled by the RCRE team in research commissioned by Oxfam Hong Kong in 2004/05. Other countries, figures for 2001/02: 'Production and Trade Policies Affecting the Cotton Industry', International Cotton Advisory Committee (ICAC), July 2003. Figures for 2002/03: 'Production and Trade Policies Affecting the Cotton Industry', ICAC, June 2004. Figures for the USA are inclusive of income and price support, but loans and other subsidies are excluded.

[13] For further discussion of the Farm Bill, see Oxfam Briefing Paper 69, 'Finding the Moral Fiber', 2004.

[14] John Baffes, 'The Cotton Problem', World Bank, September 2004.

[15] This research was done by the former Assistant Director of the US Department of Agriculture, Prof. Daniel Sumner of the State University of California. He adapted the FAPRI model previously used by the US Congress to evaluate the impact of the Farm Bill on US agricultural production, prices, and trading performance. The model was co-developed by Missouri State and Iowa State universities.

[16] Reeves et al. (2001) as cited in John Baffes, 'The Cotton Problem', World Bank, September 2004.

[17] 720,000 jobs lost calculated as: 29.2 working days required per mu x 8.9 million mu = 260 million WORKING days. In China, 1 full time job equals 360 working days a year, so 260 million days divided by 360 equals slightly over 720,000.

[18] Acreage as of 30 June 2005. National Agricultural Statistics Services (NASS), United States Department of Agriculture. http://usda.mannlib.cornell.edu/reports/nassr/field/pcp-bba/acrg0605.pdf

[19] 'China Cotton Situation Monthly (April)', China Cotton Association, 30 April 2005. 中国棉花协会, 中国棉花形势月报 (4 月) 05/04/30. http://www.china-cotton.org/news/newsshow.php?articleid=2789

[20]走過 2004' 的中國棉業 ——2004 年棉花行業大事記，中國棉花協會，2005 年 4 月 China Cotton Industry 2004, 'Important Events in the Cotton Industry 2004', China Cotton Association, April 2005.

[21] 'Finding the Moral Fiber: Why reform is urgently needed for a fair cotton trade, Oxfam Briefing Paper 69, October 2004.

[22] Nicholas Minot and Lisa Daniels (2002) 'Impact of Global Cotton Markets on Rural Poverty in Benin', The World Bank.

[23] 'United States: Subsidies on Upland Cotton (WT/DS267)', Brazil's Further Submission to the Panel, 9 September 2003. http://www.mre.gov.br/portugues/ministerio/sitios_secretaria/cgc/algodao.asp

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For further information on the issues raised in this paper please e-mail advocacy@oxfaminternational.org.

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