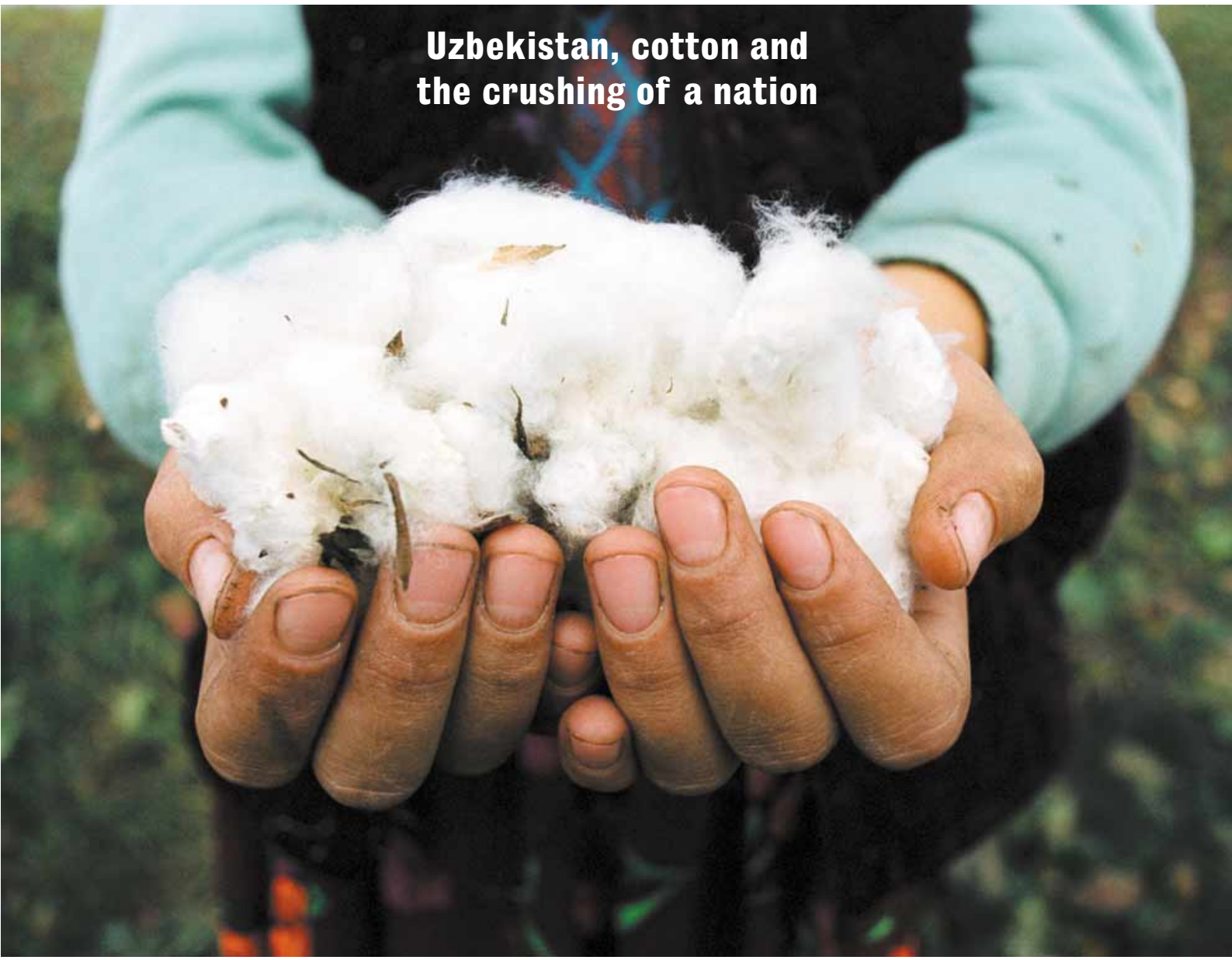
WHITE GOLD
THE TRUE COST OF COTTON



Uzbekistan, cotton and the crushing of a nation

A report by the
Environmental
Justice
Foundation

Uzbekistan profile

Independence: September 1st 1991
President: Islam Karimov (1991 – ongoing)
Population: 25.5 million
Total Area: 447,400 km² / 172,700 sq miles (slightly larger than California; almost twice the size of the UK)
Capital: Tashkent
Administrative Divisions: 12 regions: Andijan, Ferghana, Bukhara, Jizzakh, Khorezm, Namangan, Navoi, Kashkadarya, Samarkand, Sirdarya, Surkhandarya, Tashkent and the autonomous Republic of Karakalpakstan

Major Languages: Uzbek, Russian, Tajik
Major Religions: Muslim (88% – mostly Sunni), Eastern Orthodox
Ethnic groups: Uzbek (80.0%), Russian, Tajik, Kazakh, Karakalpak, Tatar
Exports: Cotton, gold, natural gas, mineral fertilizers, ferrous metals, textiles, food products
Contribution to GDP (1999): Agriculture 33%, industry 24%, services 43%
Poverty: 27.5% of population (6.8 million people) are unable to meet basic consumption needs

In 2004, Transparency International ranked Uzbekistan 114th (out of 146 countries ranked) in terms of the Corruption Perception Index. Other countries ranked equally with Uzbekistan include Sierra Leone, Zimbabwe, Ethiopia, Honduras, Venezuela and the Republic of Congo*.

* Transparency International Corruption Perceptions Index 2004, www.transparency.org

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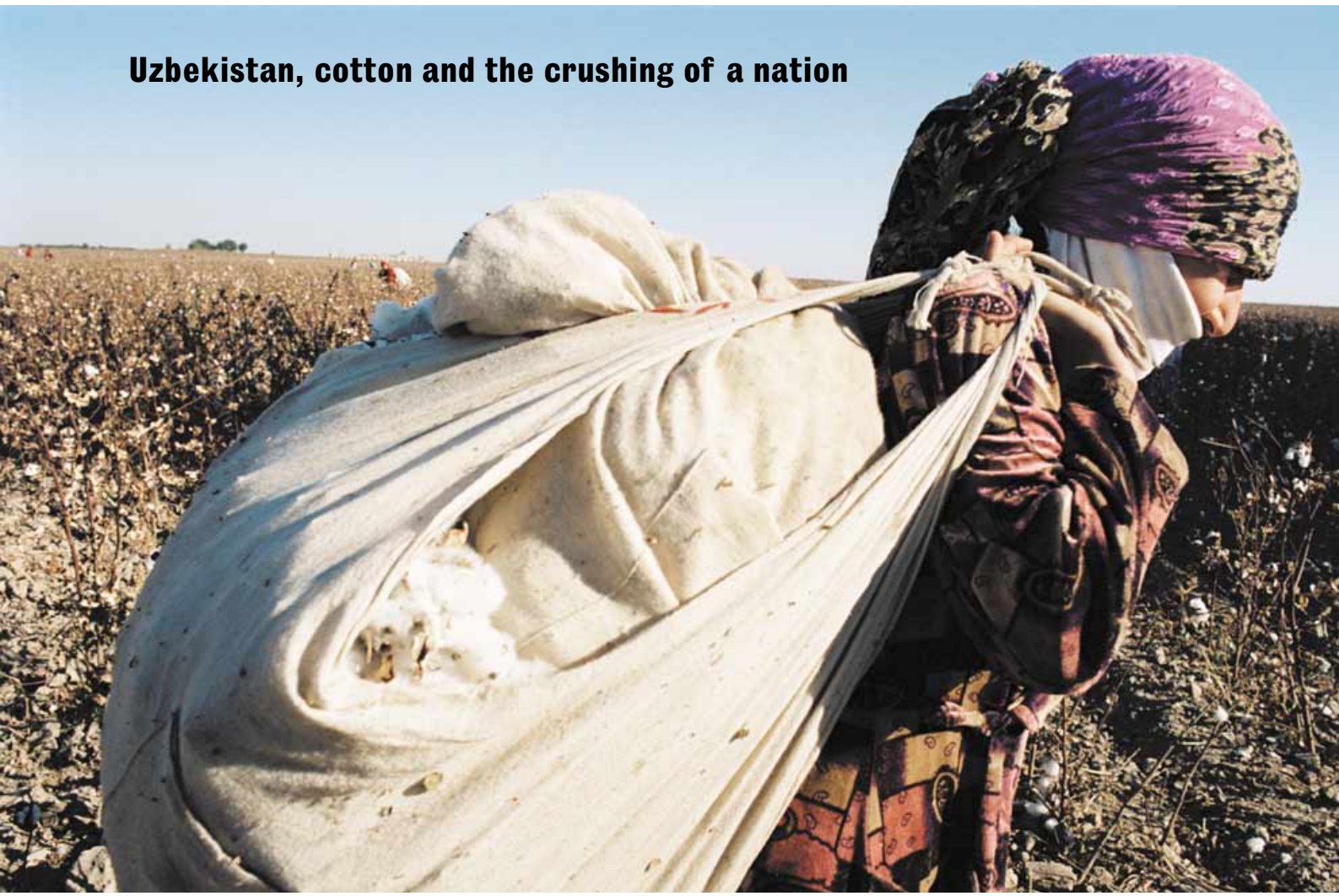

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INTRODUCTION

Cotton production in the Central Asian Republic of Uzbekistan represents one of the most exploitative enterprises in the world.

Up to one third of the country's workforce is made to labour on cotton farms; denied ownership of the land they work, and forced to labour without reasonable wages they are unable to opt out of cotton cultivation – those who try are subject to violence, imprisonment and intimidation. Tens of thousands of children are forced to pick the cotton harvest each year. Crucially, the suffering caused by this industry comes at the hands of the government. It is the Uzbek state, not the country's mafia that instigates the abuses connected to the production and sale of cotton turning its people in to a slave nation.

More than US$1billion is generated through export – representing around 60% of hard currency export earnings and placing Uzbekistan as the world's second largest exporter of cotton – and it is the totalitarian dictatorship of President Islam Karimov that exclusively benefits. Europe (EU and Switzerland) is the major market for this tainted product, buying around US$350 million of Uzbek cotton annually.

Side by side with the human rights abuses and social distortion caused by cotton, is an environmental catastrophe of astonishing proportions. Cotton production in central Asia has all but eradicated the Aral Sea – a vast area once the world's 4th largest inland body of water and now reduced to just 15% of its former volume. Appalling mismanagement of this vital water resource – used largely for cotton production – by the Soviet authorities and their successors has led to the disappearance of the sea's 24 species of native fish, the drying out of associated wetlands and the creation of thousands of environmental refugees, former dependents of the Aral's riches. Uzbekistan and its current government shoulders some considerable responsibility, as mismanagement of the country's disproportionate share of water use continues. Currently Uzbekistan accounts for 56% of regional water demand – principally for its 1.47 million hectares under cotton – yet authoritative estimates show that up to 60% of water diverted for irrigation fails to reach the fields, lost instead in the decaying network of canals and pipes.

The people of Karakalpakstan who once relied upon the Sea for livelihood are suffering terrible economic hardship. Unemployment stands at around 70% and the health problems caused by the degraded environment are shocking. The Karakalpaks are exposed to the 43 million tonnes of salt and pesticide laden dust created by the drying of the Aral. In some parts of the region up to 50% of all reported deaths are respiratory in nature.

In 1991, the collapse of the Soviet Union left the Republic of Uzbekistan without a legitimate leadership. In the ensuing power vacuum, Islam Karimov, head of the local politburo seized power, becoming the country's first President. Since then Karimov has acted to entrench his power and with it control of Uzbekistan's billion dollar cotton revenues, which have become essential to bankrolling his regime.

To do this, Karimov retained the Soviet system of cotton production. The government rigidly controls all aspects of the industry, dictating production quotas; procurement by the State – for a fraction of the true value – while local officials, appointed directly by the President, "motivate" producers with an array of more or less brutal forms of intimidation and control. Underpinning the entire industry is the systematic use of child labour and slave wages. During the autumn months of harvest, government officials shut down schools and transport tens of thousands of students and children to makeshift camps where children as young as seven pick cotton. Wages for those adults who work on state cotton farms are commonly less than $7 per month.

Such a system has only been possible within a framework of totalitarian control. Karimov has eliminated any form of democratic representation; prohibited a free, or even partially free media, subverted basic civil liberties and institutionalised the use of torture and intimidation within the police, National Security Service and prisons. Government response to public protest – peaceful or not – is brutal, as most recently witnessed by the response to demonstrations in the border town of Andijan in May 2005 where demonstrations were met with indiscriminate shooting leading to an estimated 700 deaths and the subsequent arbitrary arrest of activists, human rights workers, journalists and demonstrators.

Given such conditions, the Uzbek people have been left with little option but to abide by the commands of the Karimov government. Tellingly, those Uzbeks who felt able to speak out during EJF's research and investigations were clear in their condemnation of the cotton industry and united in their view that under the current regime it does little if anything to benefit the people, but much to support a corrupt and brutal government.

Yet, despite these well known abuses Western corporations and particularly European companies, continue to trade with the regime, buying cotton in exchange for vast amounts of foreign capital.

The compelling conclusion reached in this report is that there is an overwhelming rationale for immediate action by the international community; Governments, businesses – retailers and buyers – alongside consumers, especially those in the major European markets, to exert real influence and avoid cotton sold by Uzbekistan, produced by a slave nation at great environmental cost.

EXECUTIVE SUMMARY

- Uzbekistan is the second largest exporter of cotton in the world, generating over US$1 billion through the export of around 800,000 tonnes each year. This income is vital to the country's economy, representing around 60% of hard currency export earnings.
- Uzbekistan's three million agricultural workers receive a fraction of the true value of their cotton. Revenues derived from cotton are monopolised by the country's government which acquires the crop via a corrupt system of compulsory state procurement and uses the funds to consolidate its control of the Uzbek population.
- The financial hardship endured by those involved in cotton production is compounded by a totalitarian dictatorship in the regime of President Islam Karimov. Farmers are given strict quotas which define how much cotton they are to produce; all wages are administered via corrupt state banks; agricultural inputs are prescribed by the state; and the scarcity of internal movement visas severely restricts people's ability to avoid the system or seek an alternative livelihood. Those who complain are liable to be arrested and beaten by local governors directly appointed by President Karimov.
- Blatant human rights violations characterise cotton production. In order to bolster the workforce, the Karimov regime conscripts tens of thousands of Uzbek children, as young as seven, to serve as manual cotton harvesters. An estimated 200,000 children are conscripted in the Ferghana region each year. The work is arduous and there are minimal financial rewards. Threats of

'Being a cotton farmer here is like hanging between life and death. The government controls our lives very tightly. If we don't obey, we'll end up in trouble. All we want is freedom. And the state is punishing us for wanting freedom.'

Uzbek cotton farmer, 2005

expulsion from school keep many children in the fields. Those who fail to meet their quotas or pick poor quality cotton are punished by scolding, beatings and detention.

- Cotton production in Central Asia, coupled with the appalling mismanagement of the regional water resources by the Soviets and their successors has resulted in one of the world's worst human-induced ecological disasters. Diverting river waters away from the Aral Sea, once the world's 4th largest inland body of water, has reduced the Aral to just 15% of its former volume. Most of the water has been used for cotton irrigation. Consequently all of the sea's 24 native fish species have disappeared from the Aral's waters; a significant majority of the country's wetland ecosystems have dried out; and tens of thousands of people whose livelihoods once centred around the Aral and its rich fish stocks now subsist as environmental refugees. Today Uzbekistan continues to mismanage this vital resource. Accounting for 56% of regional water demand - largely to supply its 1.47 million hectares under cotton – up to 60% of diverted river water never reaches the fields and is lost in the decaying irrigation network. The region is increasingly water stressed and conflict over water allocation now forms the basis of ongoing tension throughout the region.

- The residents of Karakalpakstan who once relied upon the sea for their livelihood are suffering massive economic hardship as a result of the fisheries' collapse. Unemployment in the region stands at 70%. Health problems are rife as a result of poverty, pesticide and salt residues borne on the wind, and a lack of safe drinking water. The Karakalpaks are exposed to the 43 million tonnes of salt and pesticide laden dust given off by the former sea bed each year. In some parts of the Aral Sea region up to 50% of all reported deaths are respiratory in nature. One in every 20 children is born with an abnormality, and the rate of genetic (DNA) mutation amongst Karakalpaks is 3.5 times more than the normal rate.

- Soil structure and cover is suffering from chronic water mismanagement. Failure to invest in infrastructure maintenance has left many irrigation and drainage systems derelict. Widespread waterlogging has rendered 64% of Uzbekistan's irrigated cropland adversely affected by increased salinity. Falling yields now threaten to consolidate rural poverty.

- The Karimov regime is a brutal dictatorship. The recent massacre of those attending a largely peaceful demonstration in Andijan provides a snapshot of the state's systematic violation of basic human rights. Fundamental freedoms are oppressed; the Uzbek people are denied access to open democratic elections; torture in prisons is both widespread and systematic; freedom of expression is severely curtailed; corruption is endemic; and the judiciary has no independence from the country's executive and is fundamentally compromised.

- Through the trade in cotton, the developed world continues to bankroll the Uzbek administration. The major market is Europe, which buys around US$350 million of Uzbek cotton annually. Revenues derived from this lucrative commodity are essential for the economic survival of the Karimov regime. This report concludes that the international community can and should play a significant role in promoting agricultural reform, enhancing civil society, and ensuring a better future for the Uzbek people and their environment.

HUMAN RIGHTS AND GOVERNMENT WRONGS

ABOVE: *The people of Andijan gather around the bodies of those killed in the massacre, May 14th 2005.*

On May 13th 2005, the Uzbek government acted to quell a crowd of people attending a largely peaceful demonstration in Bobur Square in the eastern city of Andijan. What followed has been described as one of the worst acts of state-inspired bloodshed since the 1989 massacre in China's Tiananmen Square[6]. Uzbek troops fired indiscriminately into the crowd which numbered several thousand people. Having sealed off the area, they continued to fire as protestors attempted to flee. Eyewitnesses said that between 300 and 400 people were present during the worst of the shooting which left few survivors[5]. Although the government gives an 'official' death toll of 187, other estimates suggest that in total around 700 men, women and children were killed[6].

The events which followed gained widespread attention in the global media and prompted governments around the world to demand a full scale independent investigation. But the massacre itself provides only a snapshot of the litany of human rights violations committed by the Karimov dictatorship. What lies behind the events of May 13th is a systematic framework of human rights abuses. Fundamental freedoms are oppressed; Uzbeks are denied access to open democracy; over 5000 people are believed to have been imprisoned for their political or religious beliefs[1]; freedom of expression is severely curtailed; and opposition politicians, journalists, activists and human rights defenders are routinely harassed and tortured; the country's judiciary is beholden to the executive; and torture in prisons is both systematic and widespread.

A Democracy in Exile

According to a report by the Organisation for Security and Co-operation in Europe (OSCE), Uzbekistan's December 2004 Parliamentary Elections fell "significantly short of OSCE commitments and other international standards for democratic elections"[7]. The report noted that authorities "failed to ensure a pluralistic, competitive and transparent election,"[7] and that, "fundamental freedoms in Uzbekistan remain severely restricted, and the relevant principles necessary for a meaningful democratic election process, such as freedom of expression, association and assembly, were not respected"[7].

Uzbekistan's failure to hold free and fair elections in 2004 is a product of the regime's longstanding contempt for democracy. Under the electoral system, parliamentary candidates are vetted for loyalty to the government and screened for signs of independent thinking[8]. Genuine opposition groups, such as Birlik and Erk, which stem from secular democratic parties, have sought to stand in national elections, but are continually denied registration[8]. Their members are harassed, and some report being detained and subjected to torture[9]. Given the climate of fear and intimidation, leaders of both parties are currently in exile[8].

But while the Uzbek regime has succeeded in obstructing democracy, Karimov has not eroded the desire for democratic elections. As one Uzbek human rights activist told EJF, *"The people are waiting for justice. Our constitution and our laws are formulated very elegantly but they are not applied into practice. Our people want to participate in some real elections, in some fair elections, with international observers when we would be able to vote for our own people"*[10].

Freedom of Speech

Despite the abolishment of censorship in 2002, the freedom of the Uzbek press remains strictly limited. The media is almost entirely beholden to the state: the country's three daily newspapers are owned and controlled by the Cabinet of Ministers, which also holds several weekly publications; national television is dominated by 4 state-run television channels; and the establishment of independent media outlets is prohibited without government approval[1]. This framework allows the government to impose severe restrictions on freedom of expression. Consequently the media largely ignores unpleasant facts and paints a false picture of happy workers, growing investment and a prosperous economy[8].

Those who push the government's limits receive swift retribution. Under Uzbek law journalists are personally responsible for the 'accuracy' of the news stories they produce, exposing them to the risk of criminal prosecution for their reporting[1]. In recent years numerous journalists responsible for articles criticising the government have been arrested, tortured and imprisoned[9]. Others report receiving advance phone calls from government agents warning them to be cautious in how they report specific events[1].

LEFT: *President Karimov voting, 2000.*

Marxist-history professor Abdulhasiz Dzhalalov was Karimov's sole opponent during Uzbekistan's 2000 election. He was quoted during his campaign as stating that he himself intended to vote for Karimov[11].

'I was very cruelly tortured physically and psychologically. I was injected with mysterious substances and they threatened to inject me with the AIDS virus. They put bags over my head and gas masks over my face and made me write a letter saying I'd killed myself. They also sprayed gas in my mouth to choke me and gave me electric shocks on my ears and other body parts.'

RUSLAN SHARIPOV, AN UZBEK JOURNALIST TORTURED BY THE STATE[12]

On February 16th 2004, authorities arrested human rights activist Muidinjon Kurbanov and held him incommunicado for three days. During this period he was threatened and forced to sign a dictated confession. He was subsequently tried and sentenced to three years imprisonment on fabricated charges of weapons possession in an unfair trial that focussed on his work as a human rights campaigner.

Adapted from *World Report 2005: Uzbekistan*, Human Rights Watch (2005)[13]

Obstructing Civil Society

The Karimov regime has a long record of repression against civil society activists and NGOs. Organisations defending human rights endure systematic obstruction, while individuals who challenge the authorities do so at great personal risk. In recent years the government has harassed, threatened and detained human rights defenders in an attempt to restrict information on human rights abuses[13]. While experts believe that many instances of state brutality against human rights defenders go unreported, in 2004 the United States Department of State documented two cases where activists were severely beaten following threats from the government to stop their activities[13]. Asked to summarise his experiences defending human rights, one Uzbek interviewee told EJF, *"Our authorities don't support us, they only persecute and punish us"*[10].

One senior government civil servant stated that the government worked out careful plans to paralyse NGO activities and introduced regulations that effectively forced NGOs to be in breach of legislation[14]. One of the regime's tools of repression is to withhold legal registration. This automatically renders such groups illegal, thereby criminalising their activities. In 2004 the government refused to register any independent human rights organisations[13] including the Human Rights Society of Uzbekistan (which has been denied registration six times), the Erk-affiliated Mazlum, and Mothers Against the Death Penalty and Torture[1]. Without registration groups have difficulty renting offices, conducting financial transactions, and finding venues for public events[15]. In recent years the Karimov regime has extended this strategy to encompass international NGOs, resulting in the expulsion of the Open Society Institute and International Crisis Group. In September 2005, the Uzbek branch of Internews – an NGO working to foster independent media worldwide – was ordered to close with immediate effect following a court hearing, which the country director described as "blatantly biased" and a "politically motivated case"[16]. Human Rights Watch has been permitted to remain but is now subject to punitive reporting procedures. These require the organisation to obtain 'agreement' from the Ministry of Justice (MOJ) on the content, agenda, timing and place of any proposed activity, and to invite MOJ officials to attend[13].

BELOW: *Protesters outside the British Embassy in Tashkent*
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Peaceful Protest

Although the 2005 Andijan massacre represents the most extreme example of Uzbekistan's intolerance towards public demonstrations, it cannot be characterised as an isolated event. Individuals attempting to demonstrate are commonly attacked, harassed, detained or held under house arrest[1]. Furthermore the administration attempts to obstruct public rallies by requiring demonstrators to obtain permits from authorities[1]. Known human rights defenders are often held in custody during planned rallies to interfere with the demonstrations.

Human rights defender Gavkhar Aripova was severely beaten on 13th June 2004 having attempted to attend a demonstration prior to the Shanghai Cooperation Organisation heads of state meeting in Tashkent. Implementing a threat made by an officer of the counterterrorism unit the previous day, the assailants broke her leg during the attack [17].

Disrupting the Demos

On 30th May 2005, opposition party activists and human rights defenders planned a demonstration outside the Ministry of Justice to protest against the government's refusal to register the opposition party Birlik. The authorities used arbitrary detentions to prevent many participants from taking part in the action. Vasila Inoyatova, chair of Ezgulik, reported that the police detained many activists in advance of the demonstrations and put others under house arrest in Tashkent and other cities.

Adapted from 'Burying the Truth', Human Rights Watch (September 2005)[18]

Freedom of Movement

While in theory Uzbekistan's constitution provides citizens with the freedom to move within the country's borders, in practice restrictions on internal movement are severe. According to Uzbek law, every citizen must be registered as being resident in a specific region. Registration takes the form of an official stamp obtained from OVIR (Otdel Viz i Registratsii); the government bureau for internal and external migration. In order to move from one place to another, Uzbeks are required to obtain a visa amending their residential registration. These documents are rarely forthcoming and can only be obtained in conjunction with substantial bribes. The US State Department notes that in order to relocate to Tashkent, persons are obliged to produce funds of up to $100[1]. This makes movement prohibitively expensive for the majority of the rural population.

In addition, those wishing to leave the country are required to obtain an exit visa, also issued by OVIR. A number of human rights activists as well as politically sensitive persons and their families have reported difficulties in obtaining the necessary documentation[9].

Hard Labour

Officially, Uzbekistan's 9 million workers[19] have the right to join and form independent trade unions. In reality all Uzbek unions are centralized and heavily influenced by the government[1]: none are independent. With no avenues for collective bargaining, the Uzbek workforce can do little to address issues such as the country's pitiful minimum wage, the government's failure to deliver wages on time, or the compulsory use of children during the cotton harvest.

Uzbekistan's minimum wage is set by the Ministry of Labour in consultation with the Council of the Federation of Trade Unions (CFTU). At the end of 2004 the lower limit on workers' payment stood at just $6.53 per month[1]: a level of remuneration in line with that received by those working on state cotton farms. This does not provide a decent standard of living for a worker and family[1].

The abysmally low level of payment received by government employees is exacerbated by the state's failure to deliver wages on time. Payment arrears of 4 to 6 months are not uncommon[1], though in practice these monies are often intercepted as they pass through the country's corrupt banking system[20].

Judicial Interference and Unfair Trials

Uzbekistan's judicial system is heavily stacked against those accused of breaching the law. State appointed defence attorneys commonly act in the interest of the state rather than that of their client[9]; the police are alleged to habitually

LEFT: *Tashkent Supreme Court.*

In October 2004, Bakhtior Muminov was tried for alleged participation in violence as well as membership of a prohibited religious organisation. He testified that he had been tortured with beatings and electric shocks to extract a confession. His claims were ignored and he was sentenced to sixteen years imprisonment[13].

"One detainee was severely beaten in front of me and then – in handcuffs and leg irons – hung out of a third floor window, head down, and told he was about to be dropped, at which point he lost consciousness. After he came round, he was tortured further with the gas mask suffocation method and by having his feet placed in an iron bucket in which a fire had been started. He fainted again, and at this point he was taken away."

'Uzbek Prisons – a Survivor's Guide', Ruslan Sharipov, Institute for War and Peace Reporting (2004)[22]

Maira Rahmanov and her young daughter were detained and held in a basement police cell. Her brother, Marat, arrested for murder, was told by investigators that "*everything will be done to them that was done to you, and even worse because they are women*". Marat was tortured by burning, beating around the head and the "swallow" where the victim is suspended face down by the arms and legs. He signed a confession and was sentenced to death, later commuted to 20 years imprisonment[23].

plant narcotics and weapons which can later be used in evidence[3]; and judges routinely accept as evidence confessions allegedly extracted under torture. A recent report by the US Department of State summarises the situation:

"Government prosecutors order arrests, direct investigations, prepare criminal cases, and recommend sentences. If a judge's sentence does not agree with the prosecutor's recommendation, the prosecutor has a right to appeal the sentence to a higher court. Defendants are almost always found guilty, often based solely on confessions."[11]

The system is further corrupted by the manner in which judges are selected. Under the Uzbek constitution all judges are appointed by the President, who retains the power to remove them[1]. Removal of a Supreme Court judge must be confirmed by the Supreme Assembly, but this in turn is obedient to the President. Thus the entire judicial system is ultimately controlled by Karimov.

"Systematic" Torture

According to Professor Theo van Boven, the former UN Special Rapporteur on Torture, Uzbekistan's use of torture is "systematic"[21] and is employed both as a means of extracting evidence before a trial, and as a punitive measure once sentencing has occurred[1]. Beating is the most common form of physical mistreatment, but police, prison officials and the National Security Service also resort to suffocation, electric shock, rape and other sexual abuses[1]. These kinds of torture take place in prisons, pre-trial facilities, and local police and security precincts. As confessions are such a crucial element of any trial, torture occurs regardless of whether the alleged crime is petty theft or political sedition[22].

The Death Penalty

Uzbekistan is one of only two former Soviet republics which continue to execute death row prisoners: all others have either abolished or placed moratoria on the death penalty. As an OSCE member, Uzbekistan is obliged to release information on the number of executions carried out each year. Nevertheless, the figures are shrouded in secrecy. According to President Karimov, Uzbekistan executed around 100 prisoners in 2001[24] and in December 2004, he claimed that between 50 and 60 people a year are executed. However human rights groups believe the figure is far higher[25]. These killings, routinely supported by evidence obtained under torture, are carried out in a manner intentionally designed to

RIGHT: *The parents of Allanazar Kurbanov, who was sentenced to death in August 2001, hope their son is still alive, but have no official confirmation of his fate.*

"We want to find out the truth. We are getting contradictory signs from the authorities, but nothing definite. We will not give up [until we] find out what happened".

Muzafar Avazov, a 35-year old father of four, was returned to his family on 8th August 2002. His body was covered with the signs of torture: burns on the legs, buttocks, lower back and arms; heavy bruising to the head and neck; and his hands had no fingernails. Official sources reported 60-70% of the body was burnt. The burns were consistent with being forcefully immersed in boiling water.

cause maximum distress to the families of those concerned. Relatives of the condemned are not always told that the execution is imminent, or indeed when it has been carried out: family members arriving for prison visits have simply been told that their relative is no longer listed on death row[26]. Intense secrecy also surrounds the actual execution – which follows the Soviet method of a lone executioner firing a single pistol shot[27]. A UN report summarises;

"The complete secrecy surrounding the date of execution, the absence of any formal notification prior to and after the execution and the refusal to hand over the body for burial are believed to be intentional acts, fully mindful of causing family members turmoil, fear and anguish over the fate of their loved one(s)". The treatment of the families of those sentenced to death *"must be considered malicious and amounting to cruel and inhuman treatment"*[21].

Despite calls from the international community, Uzbekistan refuses to amend the protocols under which it condemns citizens to death. The UN Human Rights Committee has requested a stay of execution for a number of death row inmates in order to investigate serious allegations of confessions obtained under torture. Since 2002, at least nine of these prisoners have been executed regardless[28].

In August 2005, President Karimov announced the abolition of the death penalty, a decree that will only come into effect from 2008, a delay that will inevitably mean the execution of scores more people in the interim. Whilst welcomed by human rights defenders, the timing of the abolition has also brought into focus the trial of 15 men who were charged with fomenting violence in Andijan. They face charges of aggravated murder and terrorism, the two remaining capital crimes[29].

Rhetoric and Reality

Despite the realities of Uzbekistan's abysmal record of human rights violations, the Karimov regime is keen to present a veneer of respectability to the outside world. Uzbekistan retains its 1992 constitution which provides for a democratic republic built upon the ideals of social justice and codifies economic, social, political and civil rights[30]; it keeps abreast with the international community by ratifying selected legally binding human rights treaties; and government officials make frequent announcements heralding gradualist reform[8]. But while the regime continues to express commitment to change, and remains rhetorically committed to a programme of political and economic liberalisation, its disregard for basic human rights continues unabated.

President Karimov.
© Alexander Nitzsche, OSCE

"The Government's human rights record remained very poor"—**US State Department, 2005**[1]

"The government's human rights record is appalling, and political rights are virtually unknown"—**Senator John McCain**[2]

"One of the most authoritarian countries that emerged from the Soviet Union"—**Freedom House**[3]

"A totalitarian state, with a nationalist ideology"—**Craig Murray**[4]

"President Karimov has presided over an increasingly restrictive and abusive government."—**Human Rights Watch**[5]

The Crackdown After Andijan

Following the events of May 13th the repression of Uzbekistan's human rights defenders, political activists and independent journalists has been heightened to an unprecedented level. Not only has the regime sought to target those who witnessed the Andijan massacre, but activists throughout the country have been subjected to a widespread government crackdown[31]. "We've been following political repression in Uzbekistan for many years" said Holly Cartner, Europe and Central Asia director of Human Rights Watch, "but we've never seen anything as extensive as the crackdown post-Andijan."[32] While those operating in the region have been worst-hit, civil society activists in Tashkent, Jizzakh and Bukhara have fallen victim to a wave of state orchestrated attacks[33]. These assaults appear to represent not only an attempt to conceal information about what happened on May 13th, but to stifle the independent voices that scrutinise the authorities, expose corruption, and demand accountable government and human rights norms[33]. Uzbeks now talk of the possibility that the country's human rights organisations could disappear completely.

"*The authorities speak openly that there will be no human rights activity. They say this to us openly. The head of the regional police said this to me. From the top there is a specific oral order that human rights defenders should not be in contact with international organisations ... There is so much pressure now that human rights organisations might disappear altogether. A lot of famous human rights activists are quitting, no one remains. They are leaving [Uzbekistan].*" Prominent Jizzakh activist talking to Human Rights Watch[33].

One human rights defender told EJF that he knew of 53 members of Uzbek NGOs who were still under arrest following the Andijan crackdown, reporting that many local organisations had effectively been closed down[10].

Many victims of the government's widespread crackdown have been left severely injured as a result of state orchestrated attacks, as illustrated in the summaries of some of the incidents documented by Human Rights Watch[33]:

Ulugbek Khaidarov – *independent journalist from Jizzakh*
On June 24, two unidentified men in uniform attacked Ulugbek Khaidarov as he travelled to visit journalist and human rights defender Tulkin Karaev. Ulugbek was first hit over the head with a heavy object and then kicked and punched as he lay on the ground. Following the attack Ulugbek had severe swelling on his face, with one eye swollen shut, and bruises on his body.

Lobar Kainarova – *correspondent for Radio Free Europe's Tashkent bureau*
On July 1, Lobar Kainarova was returning home from reporting a trial when she was attacked by 2 women and a man. Her assailants forced Lobar, who was 3 months pregnant, into a van and drove her around for 2 hours whilst beating her in the face and abdomen. Lobar also had her tape recorder and interview materials confiscated.

Gavkhar Yuldasheva – *head of Gallaorol district branch of Ezgulik*
On August 2, Gavkhar Yuldasheva was attacked by 2 men as she went out to buy bread. The day before she had attended a meeting in Jizzakh with the British Ambassador. One of her assailants kicked Gavkhar and pounded her head against the ground. A few days later Gavkhar was summoned before a senior police officer who told her, "Remember this: This is a warning, next time we'll kill you."

Bakhtior Khamroev – *Jizzakh branch of Human Rights Society of Uzbekistan*
On May 26, a crowd of 70 people including representatives of the local authority, police and the media, forcibly entered the home of Bakhtior Khamroev. The crowd then held a demonstration against Bakhtior from within his own home. During the rally Bakhtior received blows to his chest, head and one remaining kidney.

Besides physically attacking civil society activists, the Uzbek regime has attempted to prevent people from holding public demonstrations. In Tashkent, Samarkand and Jizzakh, human rights defenders have been detained and harassed in advance of planned gatherings[33]. The state has also used the media to vilify human rights defenders and Uzbek journalists working for international media outlets. Common accusations include claims that they are being paid by foreign masters to spread lies about the Andijan massacre[33].

Whilst most of the government's actions have targeted Uzbeks, international NGOs have not escaped unscathed. As a result of state action several western organisations have now been forced to quit the country. On September 12, the Civil Court of Tashkent ordered the International Research and Exchanges Board (IREX) to suspend its activities[34]. In a press release the organisation, which works to improve the quality of education and strengthen independent media, described the development as being 'the culmination of a year of increasingly aggressive obstruction of IREX activities'. The American Peace Corps also suspended its activities following the state's refusal to renew the visas of 52 Peace Corps volunteers and the Peace Corps country director[35].

After the Andijan violence, foreign and especially local journalists were subjected to severe pressure. In the immediate aftermath of May 13, the authorities tried to muzzle reporters by detaining, assaulting and threatening them. The high level of intimidation had the effect of forcing many to flee the country to neighbouring Central Asian states or further afield. To send signals that from now on, no independent voices were to be heard, the security forces also extended their harassment to Uzbek journalists working in regions far away from the Ferghana Valley.

In an almost conscious emulation of Stalin's terror of the 1930s, the government's next step was to work up a case to show that journalists working for international media such as the BBC, RFE/RL and the Institute for War and Peace Reporting had not only invented the stories of mass killings by security forces in Andijan, they themselves had actually incited the "Islamic extremists" to violence. This curious but extremely alarming hate campaign, for which the authorities have not even bothered to come up with a coherent line of argument, is part of a wider policy of using the tightly-controlled media to purvey manufactured outrage at the alleged subversive actions sponsored by Karimov's former western friends. The threat of retaliation, in the form of prosecution or less legal methods, now hangs over every journalist seeking to report fairly on the country.[35a]

The events surrounding Andijan have led to a further media crackdown. Radio Free Europe/Radio Liberty has documented over 30 cases of attacks on journalists, including threats, detention and assault; others have been placed under surveillance, had their belongings confiscated, or their families harassed. Nosir Zokirov, a journalist working for RFE/RL was sentenced to six months in prison on a charge relating to his reporting on Andijan. He was reportedly summoned to court, charged with insulting a security officer, tried without counsel or witness, sentenced and imprisoned – all on 26th August[36].

According to the BBC Bureau in Tashkent, the general prosecutor's press secretary suggested that "steps may be taken" against certain journalists who took part in the "information attack" against Uzbekistan. The authorities accuse journalists from the BBC, Deutsche Welle, Associated Press and the internet news agency Ferghana.ru of organising attacks and trying to use the protest in Andijan to overthrow the government[37]. At least four journalists working for the London-based Institute for War and Peace Reporting have had to flee the country [38] and BBC correspondent Monica Whitlock also left following pressure from the Uzbek authorities.

A Brief History of Uzbek Cotton

From the establishment of the first trade links with Tsarist Russia, to the fall of the Soviet Union in 1991, and on to the present day, cotton production has become ever more central to the Uzbek economy. Yet instead of enjoying increased prosperity, Uzbek cotton farmers have succumbed to greater levels of control and exploitation with each successive shift in regional power.

Late 18th century Russian merchants establish regional trade to Moscow's growing textiles industries.

1861 US civil war disrupts the supply of American cotton to Imperial Russia. Tsar Alexander II sends Russian military forces to conquer Central Asia.

1876 Central Asia becomes a protectorate of the Russian Empire. Cotton production increases dramatically. Local species replaced by American varieties. Railways built to enable mass transportation of cotton to Moscow. Switch to cotton cultivation causes decreases in local food production, leading to food shortages in Central Asia.

1917 Russian Revolution brought Tashkent under direct Soviet rule. Soviet planners dictate that Central Asia should provide enough cotton for the entire Soviet Union. Uzbek cotton plantations are collectivized and production is further increased. Millions are forced to work on state-owned cotton farms.

1927 Stalin draws up plans for the construction of vast irrigation networks to divert water away from the Aral Sea in order to provide water for further increases in cotton production.

1970 Central Asia becomes the biggest cotton producer in the world harvesting over 2.3 million tonnes in a single year[6].

1989 Soviet Russia appoints Islam Karimov as leader of the Uzbek Soviet Socialist Republic. Within a year the political climate in Moscow starts to change. Foreseeing the dissolution of the very political structures that had brought him to power, Karimov opts for independence from Moscow.

1991 Uzbekistan becomes a sovereign state led by President Islam Karimov.

Today While Moscow abandons the Soviet command-administrative system, Uzbekistan continues to set cotton production quotas. Farmers are still forced to grow cotton for minimal financial rewards under the Soviet system of compulsory state procurement. Instead of giving Uzbekistan's cotton harvest to Moscow, Karimov sells it on the global market and uses the profits to bankroll his regime.

Adapted from US Library of Congress[35]

THE REGIME'S REVENUE

Karimov's Cotton Monopoly

The dominance of the Karimov regime is founded upon its monopoly of Uzbekistan's exports of cotton; a commodity which accounts for around 60% of national hard currency export earnings[1,2] and which dominates the country's largely agrarian economy. By 'managing' the sale of Uzbekistan's cotton crop, the political inner circle has direct control of a large proportion of the national income. Within the highly secretive environment that characterises central government[3], President Karimov and those close to him are able to allocate Uzbekistan's multi-million dollar cotton revenues with little public scrutiny. This tremendous financial resource, coupled with a system of regional administration which enforces annual cotton production, has enabled the Karimov regime to make Uzbekistan a slave nation.

At the heart of Karimov's cotton monopoly lies a government owned company called Uzkhlopkoprom (UKP)*; an organisation which controls the country's network of 127 district gins[4], where the cotton lint is mechanically separated from the seed, making it ready for export. Under Uzbekistan's system of compulsory state procurement, farmers are legally obliged to deliver the seed cotton they harvest to their local gin where it is sold to UKP[5]. This scheme makes UKP the sole buyer and distributor of Uzbek cotton. UKP then transfers around 70%[6] of Uzbekistan's entire cotton harvest to three state trading organisations[7]: Uzprommashimpeks, Uzmarkazimpeks and Uzinterimpeks[8]. Uzprommashimpeks alone has an average yearly turnover of over US$330 million[9].

The activities of Uzkhlopkoprom and the three state trading organisations are overseen by Rustam Azimov, the Minister for Foreign Economic Relations, Investments and Trade (MFER). The Ministry is central to the management of cotton export operations and reports directly to central government[7]. Azimov's brief includes setting prices, monitoring dollar receipts and selecting buyers[7].

* Uzkhlopkoprom is 51% state owned[4].

Domestic Cotton Consumption

Cotton not destined for export is transferred to Uzbeklegprom: the government-controlled 'Association of State Cotton Enterprises'[16]. This bureau is charged with overseeing Uzbekistan's domestic textiles industry; a sector mostly composed of joint ventures established between the Uzbek state and foreign investors. In January 2005 the Cabinet of Ministers launched a State Programme designed to increase the country's cotton processing capacity to 50%[17]. This will be achieved by forming a further 94 joint ventures, each roughly 25% owned by the state[18]. By selling cotton to these enterprises at prices close to its commercial value, the Karimov regime will continue to profit from cotton production. But by owning shares in each individual textiles enterprise, the state will gain access to extra revenues derived from the export of cotton manufactures.

Buy Low, Sell High

The cotton revenues which bankroll the Karimov regime are based on the differential between the procurement prices paid to farmers, and the tariffs obtained through cotton exports. According to a recent paper from the World Bank, the official price paid to farms equates to just US$410 per tonne of cotton lint[7]. But while the state offers low level financial rewards to farmers, its trading organisations sell the cotton they produce at prices which reflect its true commercial value[7]. Uzprommashimpeks openly acknowledges a 2002 export tariff of US$1193.79 per MT of cotton lint[9]. This figure concurs with the World Bank assessment that officially farms receive one third of the actual value of the cotton they produce[7]. The true outlook is probably far more bleak. Farmers have reported that they don't receive the official procurement price; some claiming that the tariffs are 'largely symbolic'[8]. One estimate claims that as little as 10 to 15% of the income generated by the sale of cotton goes back into agriculture and thus to the farms[8]. Uzbeks are only too aware that their government retains the bulk of profit from the export of cotton. In a recent interview with EJF, one human rights defender explained, *"Uzbek cotton is a source of profit for this corrupted mafia"*[10].

Not content with its powerful monopoly position, government buyers routinely cheat farmers on the percentage of raw cotton they supply and grade cotton as 'poor' quality, whilst selling it on to the international market as 'high' quality[11]. In 2004 EJF learnt that farmers who are entitled to 3cents (35 sums) per kilo are actually only paid 28 sums per kilo, whilst over the border cotton is sold for 300-400 sums per kilo, which in turn is sold for up to 2000 sums per kilo [12]. Smuggling into neighbouring Kazakhstan and Kyrgyzstan has therefore become a more profitable but highly risky alternative. Such is the regime's concern to stem the flow of cotton contraband that watchtowers, fieldposts and the enlisting of 'committees of citizens for public self-defence' have been established in border areas[13].

Rustam Inoyatov: Making a Killing

While the majority of Uzbekistan's cotton exports are administered by just three state companies, privileged members of the country's inner circle may enjoy direct access to cotton exports, the major source of serious fortunes. One such official to have benefited from cotton sales is Rustam Inoyatov, chief of the National Security Service, and said by some Uzbek human rights organisations to have culpability in the Andijan massacre[14]. Inoyatov has amassed a small fortune via Baltasia; a company owned by his relatives[15]. With the direct approval of Elyor Ganiyev, then Minister for Foreign Economic Relations, Baltasia was able to secure cotton directly from Uzkhlopkoprom, and is now the sole exporter of Uzbek cotton to the Baltic states. In another case, contracts signed with foreign-owned companies and Uzmarkazimpeks stipulated low-grade cotton fibre, whereas the cotton sold was high grade. Each contract amounted to US$13.3 million and the profits on the deal amounted to an estimated $10 million tax-free[15].

Uzbekistan's cotton barons

In what has been described as a neo-feudalist system[19], the control of Uzbekistan's cotton exports remains the preserve of Tashkent's political elite, whilst responsibility for enforcing cotton production is borne out by the country's 13 regional governors[20]; known as *Hokims*. Each Hokim is appointed directly by President Karimov[21] on the strict understanding that he will deliver his region's annual cotton quota as set out by Uzbekistan's central government[5]. The fulfilment of cotton quotas is central to the Hokim's duties[8]: failure to deliver can result in dismissal[20].

For successful regional governors enforcing cotton production is highly lucrative[5]. While the state salaries they receive are artificially low[5], Uzbekistan's central government affords them a great deal of discretion in the administration of their territory[20]. Hokims can effectively treat their region as their own private fiefdom. As long as the farmers in every region deliver adequate cotton to Uzkhlopkoprom, Tashkent ignores the myriad of corrupt schemes that centre on each regional administration[5].

This arrangement is extremely detrimental to Uzbekistan's rural communities: for what the regime saves by virtue of paying Hokims a low salary, they forfeit by way of bribes and commissions. Among the rural population it is the cotton farmers who suffer most. As one analyst recently noted, *"When you have a populace that is not being paid fair wages for a certain crop and when you have an economy that is geared towards this crop, the only system that is going to get the crop harvested is going to be very, very tight social and political controls where the entire population in rural areas is a potential captive labour force"*[22]. Private farmers are routinely threatened with eviction should they fail to follow the orders of the local administration[8], and reports of state-orches-

Death in the Provinces: the making of an Uzbek Prime Minister

For the successful Hokim the ultimate career goal is a position within Uzbekistan's central government[5] and the potential to benefit directly from the revenues derived from cotton, rather than simply enforcing its production. The Karimov regime has a record of giving high office to Uzbekistan's most brutal regional governors. One example is **Shavkat Mirziyoyev**, former Hokim of Jizzakh. In 2000, Mirziyoyev is alleged to have beaten Eshniyoz Hamzayev, one of Jizzakh's maths teachers, because his students were picking cotton too slowly. Hamzayev died in hospital five days later[8]. By 2002, Mirziyoyev had graduated from Jizzakh becoming Hokim of Samarkand; a region with twice the population[21]. Here he is alleged to have ordered the torture and murder of the 18 year old grandson of a local dissident, Mirsaidov, after the latter had met with Craig Murray, former British Ambassador, to discuss among other matters, human rights abuses associated with Uzbek cotton production[3]. Since then Mirziyoyev has been elevated to Prime Minister of the Republic[21].

trated arrests and beatings are now commonplace. In extreme cases regional governors are said to execute farmers who fail to comply; both as a punishment, and as a means of engendering compliance from the wider rural community[23].

Jizzakh has experienced some of the worst levels of abuse[8]. The authorities regularly confiscate lands from private farmers, usually handing them over to their relatives, or placing them under direct regional control[8]. The case of 32 farmers working in the region provides an insight into the level of brutality that Uzbekistan's cotton producers receive:

At 5 am the police began knocking at the door, telling the farmers to pick up their documents and leave their houses immediately. The farmers and their families were rounded up into a small hall in the regional administration building where they were surrounded by roughly 60 police and high ranking officials. Shortly afterwards regional governor Ubaidulla Yamonkulov, ordered the farmers to increase cotton production. Upon hearing his demand the farmers expressed discontent. Yamonkulov flew into a rage, cursing and threatening them. He then began to beat them with his fists. One man was kicked until he fell over. Another had his head beaten against a table. When the regional governor had finished with one farmer, he moved on to the next. Some of the victims were so badly beaten they later required medical assistance. When the governor was sure that the assembled men and women were sufficiently terrorised, the police ordered the farmers to give up their land. Between them the farmers surrendered a total of 1,842 hectares. Adapted from the IWPR[24]

District Governors and Farm Chairmen

Uzbekistan's system of cotton quotas extends well below the level of regional administration. In order to facilitate the organisation of cotton production, a Hokim will divide the regional cotton target among each of the cotton producing districts in his region[5]. Having established a quota for each district, Hokims then appoint district governors to enforce these targets[5]. While the appointment of district governors must be approved by Karimov, it is Hokims who select and recommend candidates for appointment, thus engendering a high degree of loyalty from their constituencies[5]. Once in position district governors operate under much the same understanding as their bosses. If a district fails to achieve its cotton quota the district governor is liable to be sacked[28], but so long as adequate cotton is produced the district governor is free to accumulate wealth by abusing his position[5].

District cotton quotas are then divided among the individual farms within the district[5]. In this way both the large state-controlled Shirkats and the smaller Private Farms receive an allotted cotton quota[5]. The farms are then made to sign contracts with the state guaranteeing that they will fulfil their cotton quota and deliver it to the district gin[29]. Lastly, Hokims assign a Chairman and Accountant to each of the state-controlled Shirkats[5]. These state appointed officials are in place to ensure that farms achieve adequate cotton production. In return they are trusted to administer the farm bank account on behalf of their labourers; a responsibility that many abuse[5].

Uzbek Cotton Farmers

At the official state procurement price, Uzbek cotton farmers should receive around one third of the true market value of the cotton they produce[7]. But surveys of the country's rural community reveal a very different picture. According to a recent report by International Crisis Group, those that work on the cotton farms usually get far less[8]. Cotton reimbursement is paid to farmers by Uzkhlopkoprom via state banks. This arrangement gives farmers little control over their earnings[8]. The state banks are notoriously unwilling to pay out and they take orders from the Hokims[8]. Thus a Hokim is able to spend money from the farmers' accounts and to direct how much money is paid to whom for inputs such as equipment, fertilizer and petrol[8]. EJF learnt that the state calculates that it costs the farmers around 200,000 sums to grow a tonne of cotton, but the reality is that it is in the region of 360,000 sums [30]. Since the state has a virtual monopoly on inputs it can price them as it likes[8]. On the larger Shirkat farms, only the farm chairman and accountant, both appointed by the state, hold the ability to access farm accounts, thus providing a second tier of corruption. When money does reach the farmers it is often late, sometimes by years. In other cases no cash is released from the banks at all, and farmers are given products such as oil or flour instead[8]. In many cases almost nothing trickles down to the producer[8].

Many of Uzbekistan's cotton labourers live in dire poverty, receiving the official state wage of around $6 dollars per month[8]. According to one analyst, *"Uzbekistan's cotton farmers are now in most cases much poorer, in worse health, and with less perspective than their parents"*[8]. A recent assessment by the World Bank classifies 30.5% of the country's rural population, 4.9 million

Advocates under Attack

The Hokims' contempt for the rural community extends well beyond those directly involved in cotton production. People who try to defend farmers' rights do so at great personal risk.

On 29 March, 2005, **Egamnazar Shoimanov**, a member of the Human Rights Society of Uzbekistan, was attacked and brutally beaten, suffering a broken jaw and ribs and numerous cuts which required stitching[25]. The attack followed a two month period during which Shoimanov had helped a group of farmers oppose local authority attempts to confiscate their land. In a statement made afterwards Shoimanov said he was in no doubt that the attack on him was ordered by local officials[25].

On 16 February, 2004, police in Jizzakh arrested human rights activist **Muidjahon Kurbanov** following his attempts to advocate on behalf of local farmers[26]. Officials claimed to have found weapons and a small quantity of opiate derivative in Kurbanov's chicken shed. He was held incommunicado for three days and forced to sign a dictated confession[27]. During his trial it was established that Kurbanov's chicken shed had likely been broken into shortly before the police search[26]. International observers who monitored the April trial believed that evidence used by the prosecution was likely planted by the police[26]. On March 24, Kurbanov was sentenced to three years in prison. After an international outcry his punishment was reduced to a fine[27].

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Uzbeks, as 'poor', declaring them "unable to meet their basic consumption needs"[31]. Of these, approximately 1.8 million were said to be extremely poor[31]. The World Bank goes on to show that over half of the rural poor work in agriculture; a sector dominated by cotton. It describes the poor as living in sparsely furnished homes with few amenities: three quarters have no access to running water and less than 2% are connected to a central sewage system.

All work and no pay

Despite producing a commodity which bankrolls the country's elite, and furthers the careers of regional officials, life for the Uzbek cotton farmers is extremely difficult. One cotton farmer recently described his situation as being *"like hanging between life and death"*, explaining, *"The government controls our lives very tightly. If we don't obey, we'll end up in trouble. All we want is freedom, and the state is punishing us for wanting freedom"*[32]. For many survival depends on the household plot[33]. These small patches of land, ranging up to 0.2 hectares in size[31], provide a lifeline to rural inhabitants who are able at least to grow some food to further their own chances of survival[33]. But their dependence upon the household plot presents a great irony. These farmers, whose labour supports a cotton harvest valued at over US$1 billion[6], survive not on wages they receive in return for their cotton, but on the few vegetables they can produce on land adjacent to their homes.

In Search of Prosperity

Many cotton labourers are driven to seek employment away from their farms. Despite lacking the necessary registration from OVIR, many travel illegally to Tashkent where they congregate in the bazaars hoping to be recruited as day labourers[8]. There they can earn as much as $3 for a day's work[8]; far more than on the cotton farms. Police harassment is routine, yet for many, the prospect of meaningful employment is preferable to life in their native regions[8]. As International Crisis Group observes, *"Every day, hundreds of men gather at the Urikor bazaar, [Tashkent's] the city's largest. They come from all regions of Uzbekistan, but their reasons for coming are the same; on the farms they come from there is no work – or no work for which one can expect to be paid"*[8].

In addition to urban migration, many Uzbek cotton farmers escape to neighbouring countries. For those with the right connections, the destination of choice is Russia, where unskilled labourers can find work for up to US$250 per month[8]. Informal estimates suggest that over 2 million Uzbeks find illegal employment there at any one time[8]. In the autumn months others travel to Kazakhstan and Kyrgyzstan where they can earn several dollars per day picking cotton during the harvest. *"Nowadays a third of farm workers are picking cotton in Kazakhstan because the pay is better"* explained one Uzbek human rights defender interviewed by EJF[34]. So great is the flow of Uzbeks into these regions during the autumn that virtually all Kazakh and Kyrgyz cotton is hand picked by Uzbeks[8].

The Failure of Land Reform

Among the republics of Central Asia, Uzbekistan has been noted for pursuing a gradual strategy of agrarian reform[35]. However, while the pace of change has been slow, several significant transformations have occurred within the agricultural sector since independence. These developments have been implemented both as a means of adapting to the new economic landscape of post-Soviet Central Asia, and in response to pressures exerted by the international donor community in favour of greater liberalisation. But while several key changes have taken place, the administration's economic dependency on the revenues derived from cotton exports has to a large extent hampered the integrity of agricultural reform. The net result has witnessed no great improvement in the conditions under which cotton farmers work.

Perhaps the most substantial development has been the conversion of the country's 1,108 state farms (*sovkhozys*) and 940 collective farms (*kolkhozys*) into joint stock companies. According to leading experts in the field, the rationale for the transformation of state farms has been largely economic[36]. Under the Soviet system, state farm workers received a fixed wage from the central administration. But with the collapse of communism and the subsequent loss of subsidies from Moscow, the Uzbek government has sought to relieve itself of the burden of wage payments by transforming these farms into enterprises which could manage their own budgets[36].

The break up of the Soviet Union also meant that trade links with other republics were disrupted leading to a shortfall in grain, and to shortages of flour in many parts of the country[36]. In response the area under wheat was expanded substantially. Indeed between 1992 and 2001 Uzbek wheat production was elevated from 964 million tonnes to 3,127 million tonnes[37]. This expansion occurred mainly at the expense of fodder crops. The State also increased the availability of private land plots for individual households; expanding the private subsidiary plot, to which all citizens are entitled, from 0.06 Ha to 0.25 Ha, and eventually to 0.35 Ha of irrigated land and 0.5 Ha of non-irrigated land[36]. However the actual size of the plots and their location in relation to individual dwellings has been dependent upon regional availability.

The administration has also attempted to deliver a degree of privatisation. Initially leased peasant farms were created in the framework of collective enterprises. Their contracts were transacted with collective farm managers and their produce sold to the collectives; but at even lower prices than the state procurement tariff[36]. The collectives also made illegal demands that peasant farms produce part of their crops to fulfil state procurement quotas. This is hardly surprising given that the farms were created at the expense of the collectives.

In 1997 new legislation separated independent farms from collective enterprises by granting them independent juridical status, and the right to enter into transactions with buyers of crops and suppliers of inputs in their own right[36]. However in practice these developments were jeopardised by the fact that the state retained its monopoly on agricultural inputs and remained the sole buyer of 'strategic' commodities such as cotton[37].

Under mounting pressure from the international donor community the government of Uzbekistan has relaxed the system of compulsory state procurement. In principle, compulsory state purchase of cotton now only applies to a proportion of planned production. Provided that producers meet their cotton production targets, they are only obliged to sell 30% of their crop to the state at the official procurement price[36]. The remaining 70% can be sold to the state at a higher price. But while the new scheme presents the veneer of liberalisation, in practice it has done little to enhance rural incomes from cotton. For the new rules also dictate that those farmers who fail to meet the state production targets forfeit the right to sell any cotton at the higher price. Thus where cotton quotas are not met, all cotton is procured by the state at the compulsory purchase price; just as it was under the old scheme. And because the state sets farmers ambitious production targets, failure to attain them is common.

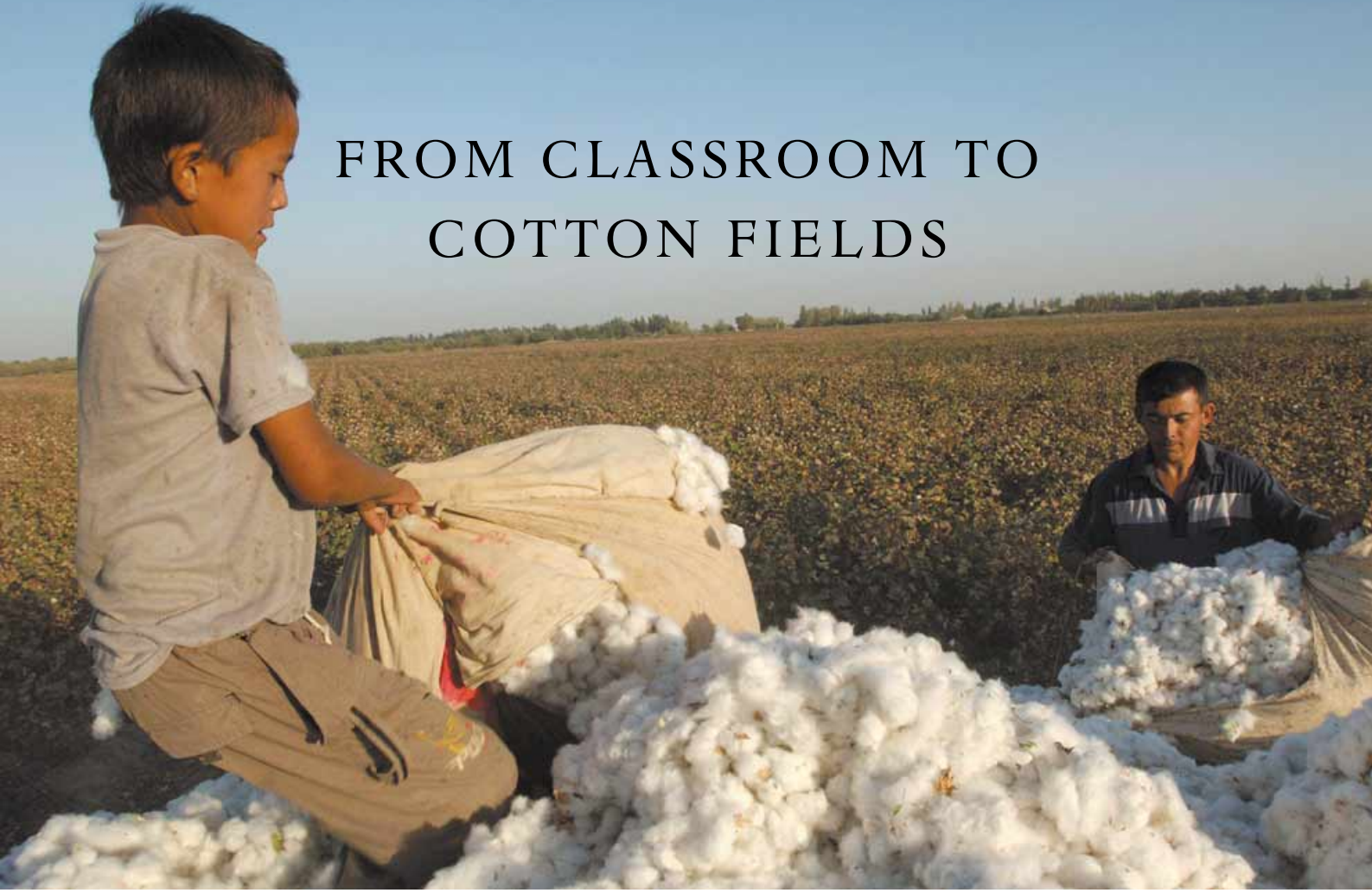
Agricultural reform continues to be high on the agenda of the international donor community. In its most recent Country Strategy, adopted July 2005, the EBRD continued to call on the government of Uzbekistan to liberalise state procurement prices in agriculture[38]. In a recent statement a spokesperson for the IMF went even further. Speaking in May 2005, John Wakeman-Linn, head of the IMF mission to Uzbekistan, called for farmers to be allowed to grow and sell whatever they feel is necessary under given market circumstances, saying it would be "key to improving living standards in the rural areas"[39].

Uzbekistan's 2005 regional cotton quotas

Region	*Seed Cotton Quota (MT)[36]*	*Population[21]*
Andijan	310,000	1,899,000
Bukhara	360,000	1,384,700
Jizzakh	230,000	910,500
Ferghana	340,000	2,597,000
Karakalpak Republic	176,000	1,400,000
Kashkadarya	410,000	2,029,000
Khorezm	275,000	1,200,000
Navoi	110,000	767,500
Namangan	270,000	1,862,000
Samarkand	235,000	2,322,000
Surkhandarya	345,000	1,676,000
Syrdarya	264,000	648,100
Tashkent	275,000	4,450,000
Total	**3,600,000**	

LEFT: *Girl signing receipt agreeing to pick a designated quota of cotton.* © EJF

FROM CLASSROOM TO COTTON FIELDS



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'There is no child labour in Uzbekistan'

Spokesperson for Uzbek embassy, London, 2005.[3]

The promise…and the reality of child labour in Uzbekistan

Uzbek children – some as young as seven – are drafted in as cheap or free labour during the cotton harvest. They can miss up to 3 months education as schools are closed and they are despatched to the cotton fields where the 'luckiest' amongst them can earn a meagre 3 cents for each kilo of cotton they pick. Although child labour is common in many countries, Uzbekistan is unusual in that it is at the behest of the government and public employees, rather than their families that children toil in the cotton fields. In short, thousands of children are ordered to pick a crop that benefits the government, not their families.

Although prohibited under the Uzbek constitution, child labour for under-16's[4] and compulsory labour for young adults is widespread[5,6]. In 2000, UNICEF estimated that 22.6% of children aged 5 to 14 worked at least part-time, primarily (though not exclusively) in cotton harvesting[7]. The Karimov government denies that this is an official policy, claiming that children volunteer out of loyalty to family or their community and blame is apportioned to irresponsible parents. It is certainly true that traditionally, children in poorer rural households have worked to supplement the family income by helping on family-owned plots [8]; and child labour is also prevalent in silk, rice and tobacco farms[9]. However campaigns promote a sense of duty towards cotton as 'the wealth of our country', which when coupled with strictly-imposed cotton quotas offer no alternative but to demand that families and whole villages work the land.

"It's getting worse and worse. Before they sent children from the 9th to 11th classes, but now they're sending 3rd class children as well. Children 9 years old have no lessons…my nine year old daughter doesn't even have enough clothes.[19]

A New Labour Force

Centralised planning was the foundation of the Soviet economic system: all enterprises were given planned tasks in order to meet a set level of output. This was no different for agricultural products with producers given no option in terms of what to grow or how much of it. In the post-Soviet era, this situation is little changed, indeed cotton has such strategic significance for the national economy that procurement quotas are rigorously enforced. In order to harvest the cotton, large amounts of inexpensive labour must be mobilised: children and students make up the reserve that ensures cotton quotas can be met[10].

Despite official denials of child labour, cotton quotas for each region are sent direct from Tashkent and local officials approach head teachers who announce the harvest and quotas to staff and pupils and ensure that their students pick the required daily amount [11]. Children are compelled to pick cotton during the autumn harvest – lasting between early September until the end of October – in addition to weeding the cotton fields. A new trend has been reported in which children are effectively press-ganged from the beginning of June and sent into the fields to apply pesticides to the growing crop [12].

During the Soviet era, crop-spraying machines and aircraft were used, and around 50% of the harvest was mechanised, but fuel and maintenance costs have left local officials ever more reliant on children. As one government official admitted *'Agricultural work is very labour intensive and no agricultural work is done without children's participation'* [13]. In contrast with the wheat harvest – which is completely mechanised and requires skilled workers – cotton can be picked by hand. Indeed as the acreage under cotton has increased, hand-picking has become ever more necessary. Today, 90% of cotton is harvested by hand and children have been drafted in to make up the labour shortfall.[14]

Migration of adult workers – including the migration of cotton-pickers to neighbouring states where cotton production is not so strictly controlled – has exacerbated the situation[15]. One human rights group remarked that by doubling the amount paid to cotton pickers to match rates paid in Kazakhstan (60-70 sums per kilo), adults would have an incentive to stay and pick Uzbek cotton[16]. The meagre sums offered to cotton pickers are not sufficient to attract casual labourers and coercion of children is the alternative. As one NGO worker explained, *'in our [Ferghana] region many of the women go to Kazakhstan to pick cotton because they pay more there. Thus the entire burden falls on children. There is no economic reform in the kishlaks so it will be a long time before our children will be free from agricultural work'* [17]. Child labour is booming as authorities are keen to lower production costs and still ensure that government-imposed production quotas can be met [18].

International Law and Uzbekistan's commitments

The UN Convention on the Rights of the Child, article 32 recognises the right of the child "*to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.*"

Uzbekistan has signed the Convention on the Rights of the Child.

In June 1999, the International Labour Organisation adopted Convention No. 182, the Worst Forms of Child Labour Convention which obligates state parties to "*take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour as a matter of urgency*".[2] Under the Convention, the "*worst forms of child labour" include, inter alia, "forced or compulsory labour" and "work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children*".

Recommendation 190 adopted in conjunction with Convention 182 states that consideration should be given to work that exposes children to physical abuses: "*work in an unhealthy environment which may, for example, expose children to hazardous substances...or to temperatures...damaging to their health*"; and "*work under particularly difficult conditions such as work for long hours or work which does not allow the possibility of returning home each day*".

At the time of writing the Uzbek Government has failed to sign the ILO Convention on the Worst Forms of Child Labour.

According to the ILO, child labour is a concern not only in Uzbekistan, but in neighbouring Central Asian states.

ILO Conventions ratified by:
Kazakhstan: Conventions 138 and 182
Kyrgyzstan: 138 and 182
Tajikistan: 138
Turkmenistan: None
Uzbekistan: None

*Convention 138: on the minimum age for admission to employment

"Cotton is our national wealth and we are serving our fatherland…cotton is our white gold"

15-year old girl, Tashkent region.

Hard times – harvest time

During the harvest many rural schools are closed by government officials and both teachers and pupils despatched to the cotton fields[20,21]. Local children are able to return home in the evening but older children and those conscripted to work in remoter areas are forced to stay in dormitories, on farms, or, ironically, in classrooms, with poor living conditions, at times drinking irrigation water and with insufficient or poor quality food to eat.[22] Some children recount how they sleep in barracks with no electricity, windows or doors for weeks at a time. '*We lived in a barrack and 18 people slept in one room. There wasn't any water for taking a shower*', claimed one schoolboy in Namangan[23]. Some children have to pay for their own food: how much they get to eat depends on how much they earn in the fields [24]. As one human rights worker noted, *"You saw what they eat…Even in Soviet times there was hot lunch for the cotton pickers. Here they have bread and tea in plastic bottles"*[25].

Children can be left exhausted and in poor health after weeks of arduous labour, which as the harvest progresses, coincides with the onset of Uzbekistan's winter. Although children are theoretically meant to pass a medical examination before working, in reality this doesn't take place [26]. One human rights organisation confirmed the deaths of eight Samarkand children and students while picking cotton over a 2-year period; many more suffer illness and malnutrition. The conditions can give rise to chronic diseases including intestinal infections, respiratory infections, meningitis and hepatitis [27]. Despite the harsh nature of the work, threats of expulsion from school keep many children in the fields. Those who fail to meet their quotas or pick poor quality cotton are reportedly punished by scolding, beatings, detention or told that their school grades will suffer [28]. One teacher filmed by EJF told the children that *"If you don't pick 4kgs, I'll beat you"*[29].

It is impossible to establish the precise numbers but tens of thousands of children are likely to be involved for several weeks during the annual harvest. In October 2004, a minister with the public education department reportedly admitted that at least 44,000 senior pupils and students were harvesting the cotton. However, these official figures can be expected to fall far short of the reality: three years previously, 198,055 school children and over 13,000 (perhaps as many as 17,000) students were reported working in the Ferghana region alone[30]. In 2004, one human rights group claimed that around 60,000 children and students were picking cotton in Jizzakh region alone, with around 30,000 being school age children [31]. Estimating the total numbers involved is complicated further as the number of children engaged varies over the course of the harvest: children are only employed in cotton picking in an organised way once the best part of the cotton has already been picked and when the potential earnings from cotton picking is too low to entice adult workers [32]. Younger children are drafted in towards the end, as adults are less inclined to work even if quotas have not been filled.

Depending on their age and the stage of the harvest, children can pick between 10 and 50 kilos of cotton each day [33], [34]. Money due to them is reduced for low quality or damp cotton[35]. Some children claim that they are not paid anything once deductions for food, supplies and transport are made [36] and parents note that payment often falls far below the costs of replacing clothes damaged whilst picking cotton[37].

Interviews in cotton growing areas reveal that antipathy towards child labour stems in part because the rewards of the labours do not return to the family or community. In the post-Soviet period school attendance has decreased in the most impoverished regions and poor households cannot afford textbooks or clothes [41].

It is clear that the wealth of 'white gold' is not bringing benefit or development to the rural communities and children who shoulder the burden of the harvest.

ABOVE: *Boys queuing to have their cotton weighed.*

Everyone to the fields

School children and students are by no means the only victims of Uzbekistan's system of compulsory labour recruitment. Employees of local administration, teachers, small businessmen and medical personnel are commonly forced to leave their jobs for weeks at a time and take to the fields to pick cotton: with no additional compensation[57]. In some instances refusal to co-operate can lead to dismissal from work[58]. This compulsory reallocation of key workers has implications far beyond those individuals directly involved. As one Uzbek human rights defender explained, the loss of kindergarten teachers, factory workers and doctors during the cotton harvest leads to the closure of schools, factories and hospitals[59].

OPPOSITE PAGE: *Life in a barak for thousands of Uzbek children and students.*

BELOW: *If they are lucky, these 12 year olds can earn 100-200 sums (US 38 cents) per day harvesting cotton working from 7am to 5pm[1]. Many children earn nothing at all for their labours.*

Child labour in the global cotton trade

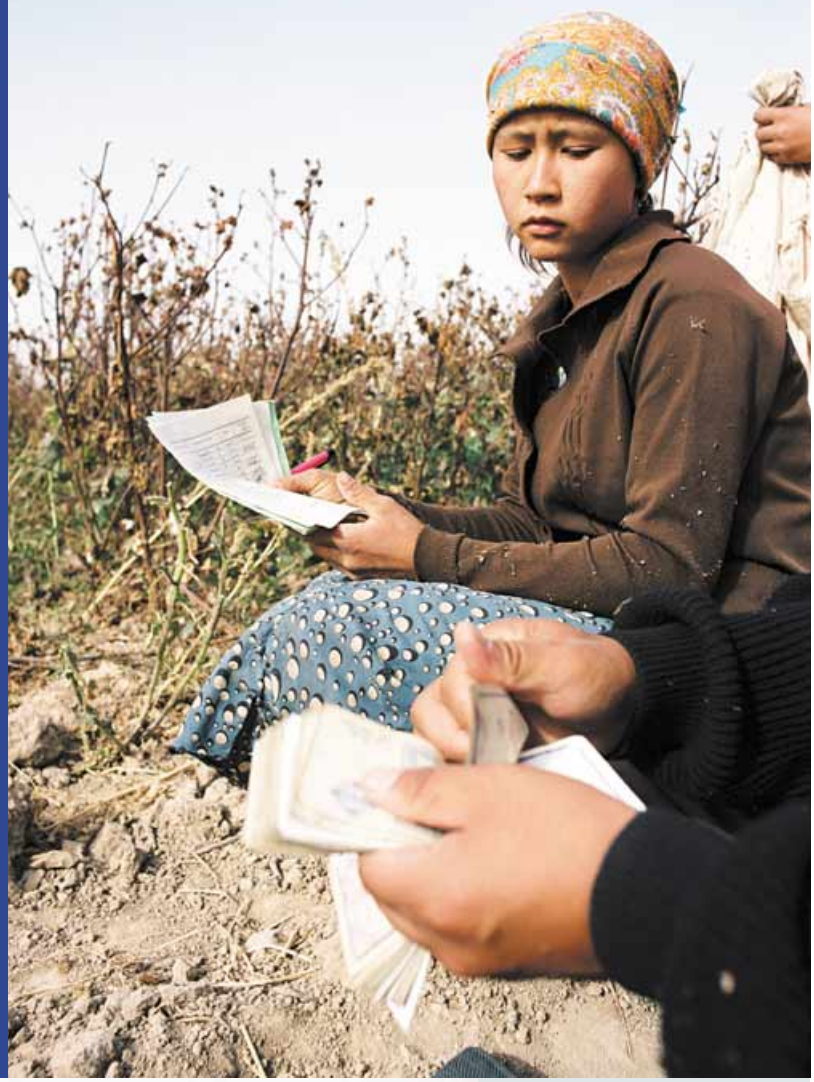
Across the globe some 250 million children are compelled to work: many are employed in agriculture, where they are at risk: from exposure to pesticides and other chemicals, machinery and arduous labour – a clear contravention of the International Labour Organisation (ILO) Convention on the Worst Forms of Child Labour[50]. The international trade in cotton – along with many other commodities sold to western corporates and consumers – is supported by the widespread use of child labour.

From West Africa to Egypt, India to Turkmenistan, children are employed in a variety of tasks from cottonseed production, to pesticide spraying and the annual cotton harvest.

- Children as young as seven are forced to assist with the harvest in all five Central Asian states. In 2004, almost 40% of Tajikistan's cotton was harvested by children. [51] In Turkmenistan, despite a Presidential announcement against child labour 200,000 children were thought to have been engaged in the cotton harvest in 2004 [52]. Government officials continue to 'strongly encourage' children to work in the cotton fields and children as young as 10 have been recorded harvesting cotton [53].
- Cotton production in Benin is fuelling the trafficking of children from Burkina Faso[54].
- In Egypt a 2001 report estimated that one million children aged between seven and 12 were employed in controlling cotton pests. Abuses include exposure to pesticides, beatings from foremen and overwork [55].
- In the Indian state of Andhra Pradesh alone, over 240,000 children work in cottonseed production[56].

"We serve the state when we pick cotton"

10 YEAR-OLD GIRL, NAMANGAN REGION



'We are the president's children'.

Reports of what children can earn for their labour vary greatly – some children claim that they receive US$5 for five days work whilst others report that they are paid only 180 sums (US 15 cents) for a five-day period. In 2001, the Uzbek NGO, Tahlil estimated that payment for 1 kg of cotton ranged from 22 sum (1.5 US cents) at the beginning of the season to 15 sum at the end. In 2004 children in Ferghana reported that an average day's harvest of 10kg of cotton can earn them 400 sums (US 38 cents)[38]. Child labour is undeniably cheap and immensely profitable: a child may be paid at best a miniscule 40 sums (3-4 cents) per kilo[39] for a product that is worth around US$1.15 on the global marketplace[40].

Chemical fields

Children are despatched to manually weed the fields during the growing season, work that lasts up to a month during the summer vacation[42]. One 15-year old schoolgirl in Jizzakh described how they routinely worked an 8-hour day to clear an 800 metre row of cotton. They received no money for their labours[43]. In 2004, a new trend emerged with reports from the Ferghana valley – heart of Uzbek cotton production – that children were being compelled to apply pesticides to the growing crop[44]. Plastic water bottles containing chemicals were given to children who were then expected to spray the rows of cotton plants. One child complained that *"It's so hot in the fields and the chemicals burn your skin if they touch it"*. Others complained of the smell and that their hands turned white[45]. The chemical constituents were not revealed to the children or their families, but one government scientist insisted that dilution meant that children would suffer no ill-effects: *"I don't think the chemicals are harmful…Anyway, we've been given our orders"*[46].

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A future in the fields?

Despite international condemnation of its policy of using child labour, and an appeal from 18 Uzbek NGOs for a ban on children harvesting cotton and for western traders to avoid buying Uzbek cotton[47], there is no end in sight. One expert cited production quotas as partly to blame: *"As long as these are in place and as long as local appointed administrators feel their survival depends on meeting them, this [child labour] will continue"*[48]. An official at the Interior Ministry summed the situation thus, *"We are stuck with our history…until we can diversify our economic base we must produce and sell cotton like crazy. The harvest is hugely labour intensive and we are forced to use kids"*[49]. In the absence of economic reforms and pressure from the international community, the exploitation of Uzbek children in order to meet the needs of a ruling elite looks set to continue.

"Everyone says 'cotton, cotton, cotton', but we need a future generation"

Mother of four, Namangan region

© Thomas Grabka

DRAINING A SEA? HOW COTTON EMPTIED THE ARAL

'One of the most staggering disasters of the Twentieth Century'

UNEP 1991[1]

The Disappearance of the Aral

Before the expansion of Uzbek cotton production and the vast irrigation network that today totals 28,000 km, the Aral Sea was an ecological oasis set amidst the great deserts of Central Asia. Today it has shrunk to just 15% of its former volume[3] and is no longer one sea, but three (the Big and Small Arals). The Aral's demise has uncovered over 40,000 km^2 of the former sea floor[4]. This area – equivalent to more than six million football (soccer) pitches – now takes the form of dry mud flats contaminated with salt and pesticide residues[5]. Exposed to the northerly winds, dust storms carry over 40 million tonnes of salt laden particles into neighbouring regions every year[6]. The sea's demise has also led to localised climate change: the summers have become shorter and drier, the winters are longer and colder, and annual rainfall has decreased[7].

While the decline of the Aral Sea began decades before Uzbek independence, the Karimov administration has done little to address the issue. Indeed since 1991, the situation has markedly declined. What little sea water remains is now far more saline than ever before: the Aral (with 67 grammes of salt per litre of water[3]) is now twice as salty as the world's oceans. Native brackish-water fish have been largely eradicated by the rapid change. Once the region's fishbasket, what remains of the Aral's barren waters now lie at the centre of a 400,000 km^2 *"zona ekologicheskogo bedstviya"* or ecological disaster zone[8]. The Aral fishing fleet – which once landed over 40,000 tonnes of fish every year[4] – and supplied the largest fish processing plant in the Soviet Union – now lies stranded on the former sea bed.

OPPOSITE PAGE: *The demise of the Aral Sea (left) 1989 and (right) 2003. Since Karimov came to power, the sea's volume has declined by around 50%.*

How to Drain a Sea

The Aral Sea is fed by the Amu Darya and Syr Darya rivers that originate in the Tajik-Afghan mountains, and flow northwest across the plains of Uzbekistan. Before the expansion of Uzbek cotton production, these giant waterways together carried more water than the Nile[9]: enough to make the Aral Sea the fourth largest land-locked body of water in the world[5]. But with Central Asia's water withdrawal from rivers amounting to 85%[10] of available water, little ever reaches the Aral Sea. Indeed, at certain times of year, the Amu Darya runs dry long before it reaches the delta[11].

The primary cause of the Aral Sea crisis has been irrigation, mainly for cotton. In Uzbekistan, almost 20,000 litres are withdrawn for every kilogramme of cotton harvested. According to the World Bank, Uzbek farmers withdraw an average 14,000 m^3 of water for every hectare of irrigated farmland[12]. With over 1.47 million hectares under cotton[13], Uzbek cotton farms consume over 20 km^3 of water every year.

An ageing and inefficient irrigation system totaling 28,000 km of canals[3] has contributed to the demise. A World Bank study found that up to 60% of water diverted from the rivers fails to reach the fields[14]. A recent report by the World Bank states, *'Irrigation and drainage infrastructure is beginning to fall apart. Canals are silted up or damaged, gates are broken or non-existent, and pumps held together by improvised repairs and parts cannibalised from other machinery."*[12] The Aral's disappearance is a physical testimony to the unsustainability of Uzbek cotton production.

RIGHT: *Uzbekistan's irrigation system totals 28,000 kilometres of canals and pipelines. This ageing system leads to massive water loss. Estimates suggest that up to 60% of diverted water never reaches the fields.*

Unsustainable and unquenchable

All of Central Asia's cotton producers rely on the Amu Darya and Syr Darya rivers as a source of water for irrigation[2]. In diverting water away from these two substantial watercourses the architects of Central Asian cotton production have created one of the most profound ecological disasters of the 20th century. The major contributor to the Aral's decline is Uzbekistan, whose present water demand represents 56% of the regional total[2].

Minimizing the damage?

A number of organisations have been established to address issues relating to Central Asian water management. These have included the Interstate Co-ordinating Water Commission (ICWC), the Interstate Council for the Aral Sea Basin (ICAB), and the International Fund to Save the Aral Sea (IFAS)[21]. The problem has also attracted the attention of Western donors such as the Global Environment Facility (GEF) and the UN-backed Special Program for the Economies of Central Asia (SPECA). A Kazakh project costing over $160 million – of which $85 million came from the World Bank – was launched in 2002, of which a component was the construction of a dam across the mouth of the Syr Darya[22]. But while the Aral Sea crisis has mobilized funds some fear not all the money invested has actually reached projects aimed at addressing the problem. In a communication with EJF, a former Senior Ecologist at the World Bank said, "*The Aral Sea disaster has been used to obtain large amounts of foreign aid to tackle issues that have little or nothing to do with the Aral Sea*"[27]. As one Uzbek commentator recently noted, half a billion dollars has been spent on the Aral Sea, but nothing has changed[23]. Despite the availability of money, none of the international initiatives focusing on the Aral have made much headway in addressing the key political obstacles which have so far undermined attempts to rationalize Central Asian water withdrawals[21]. Some experts now consider that the Aral Sea is beyond saving.[24,27] Instead attempts are being made to minimize the ecological impact of the Aral Sea crisis by preserving parts of the remaining waters.

A Chronology of Decline[3]

Year		Average depth (m)	Average area (km²)	Average volume (km³)	Average salinity (g/l)
1960		53.4	66,900	1,090	10
1976		48.3	55,700	763	14
1985		41.5	45,713	468	---
1990*	Total		36,500	330	~30
	Large	*38.6*	*33,500*	*310*	*~30*
	Small	*39.5*	*3,000*	*20*	*~30*
2000*	Total		24,003	173	
	Large	*32.5*	*21,003*	*149*	*67*
	Small	*38.6*	*2,700*	*17*	*18*
2010	Prediction	32.4	21,058	~124	~70

** N.B. In 1987 the Aral Sea split into two separate bodies of water*

The End of an Ecosystem

Before the expansion of Uzbek cotton production, the Aral Sea was home to 24 native species of fish[15]. Its waters encompassed over 1100 islands forming countless lagoons and shallow straits[5], and on the open seas, fleets of trawlers caught 40,000 tonnes of fish every year[4]. But the sea's rising salinity and receding shoreline has had a devastating impact on the ecosystems it used to support.

By the early 1980s native fish species started to disappear. Within a few years, commercial trawling ceased to be viable. Today, none of the Aral Sea's native fish species can be found in its waters[15]. Some fish survive in deltaic lakes; others, such as the Aral Salmon, are considered extinct[16].

The environmental consequences are apparent over an area of approximately 400,000 km² [16]. Within this vast area, falling downstream water availability and increased salinity have led to the shrinkage of wetlands and lakes by up to 85%[8]. These valuable ecosystems represent a prime habitat for a variety of wildfowl[17], and their loss is resulting in the widespread disappearance of native flora and fauna[18]. As desertification continues, endemic plants are now being replaced by invasive species more suited to the dry, saline environment[8].

Desiccation has also reduced and fragmented the Tugai forests. Russian experts estimate that in some parts of Uzbekistan as little as 15% to 20% of the Tugai forests remain[16]. These unique riparian communities of poplar, willow, oleaster, and reeds[16] once stretched along the Amu Darya covering an estimated 100,000 hectares[16]. Populated by 576 plant species, including 29 endemic to Central Asia[19], the Tugai provided habitat for amphibians, reptiles and birds, as well as reed cats, jackals, foxes, badgers, voles, wild boars and deer[17]. The Bukhara Deer (*Cervus elaphus bactrianus*), once found throughout the riverine ecosystems of Central Asia, now numbers just 300 animals[20].

LEFT: *The highly endangered Bukhara Deer now numbers just 300 animals.*

ABOVE: *Dried and salt-encrusted land around the Aral Sea.*

Uzbekistan's water crisis – a downward spiral

It is not only the Aral that is suffering. Poor water management is affecting Uzbekistan's soil. Derelict infrastructure has led to deepening threats from failing soil fertility, including soil erosion, which threatens 19% of irrigated land[12]; waterlogging, which also causes aquifers that supply drinking water to become contaminated with salts and agrochemicals; and, most profound of all, salinization, which now affects 64% of the country's irrigated farmland[25]. In Jizzakh region, salt is reported to be just one metre below the surface, when it should be 2.5 metres below[26]. These problems are now so advanced that up to 20,000 hectares of agricultural land are lost every year[12]. For the country's 16 million rural inhabitants, many of whom survive on produce grown on household plots[24], failing soil fertility is a serious issue for food security and living standards.

The salinization problem alone is so significant that some commentators have described it as a 'salt crisis'[3]. As a former Senior Ecologist at the World Bank explains, *"The main agricultural problem in the Aral Sea region is salinization of the soil, caused by lack of drainage. An adequate drainage system has not been installed because it would have made cotton production much more expensive. It was easier and cheaper to move to another plot of land once salinization occurred"*[27]. The result is that over-irrigated soils have accumulated excessive amounts of water capable of liberating salt locked deep beneath the soil surface[12]. Once freed, these minerals move upwards where they have a negative effect on soil fertility[3]. The proportion of irrigated land suffering from increased salinity has risen from 48% in 1990, to around 64% today[25]. This represents over 2.75 million hectares[12] of land damaged through poor water management. The problem is particularly serious in the downstream regions of Navoi, Bukhara, Surkhandarya, Khorezm, Karakalpakstan, where salinization is said to affect between 86% and 96% of irrigated lands[28].

Central Asia's salt crisis

	Total Irrigated Area	Area Affected by Salinization	Percentage Soil Affected
Kyrgyzstan	424,000	122,000	28.8%
Tajikistan	747,000	280,000	37.5%
Uzbekistan	4,248,000	2,801,000	65.9%
Kazakhstan	786,000	629,000	80.0%
Turkmenistan	1,714,000	1,661,000	96.9%
Central Asia	7,919,000	5,493,000	69.4%

Source: World Bank (2001)[14]

The Aftermath of Soviet Planning

Under the Soviets the region was managed as a single agricultural entity[32] whose water strategy was laid out by the Ministry of Irrigation in Moscow[33]. The fall of Communism brought an end to centrally planned water management[3]: the division of Central Asian water resources is now largely determined by the individual actions of five separate national governments, each intent on fostering their own individual prosperity[3]. Following independence, President Karimov was eager to maintain Uzbekistan's position as the prime beneficiary of water resources; eventually managing to persuade the other Central Asian states to endure water quotas in line with those of the outgoing Soviet administration[21]. Despite the establishment of the Interstate Coordinating Water Commission (ICWC) – under which states agreed to retain the Soviet system of water allocation[21] – tensions over water continue to run high. Rival governments routinely accuse one another of breaching water quotas[21]. According to a media report in 2003, a British diplomat in Tajikistan stated that "*Within 10 years if nothing changes there will be armed conflict*" [22].

Flushing Meadows

In an attempt to redress existing soil degradation Uzbek farmers are actually increasing the volumes of water they consume, leading to a spiraling problem. Farmers have taken to 'flushing out' their fields with irrigation water in order to wash away the excess salt[3]. This practice demands substantial quantities of water and has a negative impact on the quality of water available to downstream farmers.

The final paradox is that the demands for water and subsequent increases in soil salinity now threaten the very survival of Uzbek agricultural production. Cotton, in particular, is very sensitive to soil salt both during germination and the seedling stage[29]. Increased salinity leads to a reduction in yields and decreased fibre quality. Uzbekistan could find that its drive to cotton production becomes its downfall.

By 2001 the problem of salt accumulation had become so widespread that almost 70% of all irrigated cropland in Central Asia had been adversely affected by salinization to some degree[3]. Although over half of all affected land is located in Uzbekistan, neighbouring countries such as Turkmenistan and Kazakhstan are also badly affected. Upstream, Kyrgyzstan and Tajikistan suffer lower levels of salinization, but are both partly responsible for damage caused in the three downstream countries by virtue of the salt they release back into the region's river systems.

The Politics of Plumbing

Regionally, the greatest tension exists between Uzbekistan and its two upstream neighbours; Kyrgyzstan and Tajikistan, which between them generate almost 70% of the region's water resources[2]. Kyrgyzstan and Tajikistan lack regional hydrocarbon resources, and seek to use water formed within their territories to generate hydroelectricity, an ambition diametrically opposed to the demands of Uzbek cotton production. The two upstream states need to divert water into reservoirs during the summer – thereby limiting the water available downstream for cotton during the growing season. During the winter, when energy is most in demand, water from their reservoirs is put to use powering the turbines but can cause flood damage to downstream irrigated cropland.

To date Tajikistan's energy ambitions remain largely unrealised. Civil war, compounded by chronic lack of funds have so far thwarted the construction of a major hydropower plant at Rogun[32]. But the Tajiks continue to court foreign investment to support the project's completion[21]. This would entail the creation of the world's highest dam (335 metres) which would hold waters capable of delivering 3,600 MW of power[32]. Uzbekistan remains adamantly opposed on the grounds that it would damage downstream cotton production. The Uzbek attitude has not escaped the notice of Tajik officials, who talk of the dam's power to force Tashkent into adopting a new political stance towards their country[21].

The situation in Kyrgyzstan is far more advanced. The Republic has already made progress in increasing the amount of energy derived from hydropower and since independence has substantially moderated the flow of water: a development which has now become a major point of contention between Kyrgyzstan and Uzbekistan[15].

In future the three countries are likely to disagree over the extent of regional water withdrawals. Present quotas allow the upstream countries to consume only a fraction of the water they generate. But by 2025 both Kyrgyzstan and Tajikistan are predicted to increase their national water demand by over 25%[2].

Kazakhstan also experiences tension over water supply. Being the furthest downstream of the three countries along the Syr Darya, much of the Kazakh water supply is heavily salinated as a result of upstream mismanagement. As Uzbek farmers divert spent irrigation water back into local river systems, 7.6 km^3 of salt laden water is released into the Syr Darya every year[2]. By the time the Syr Darya has reached Sharadara, (just north of the Uzbek border) its salinity ranges from 1.24 to 1.46 grams per litre[2]. Further north the salt concentration rises above 1.5 grams per litre: the World Health Organisation guideline value for drinking water salinity[34]. The seriousness of the situation has led Kazakhstan to declare the situation a matter of national security[35].

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THE CURSE OF KARAKALPAKSTAN

'In Moynaq I visited an abandoned fish processing factory. Production had long since ground to a halt as the town's commercial fisheries have all long gone out of business…. The loss of the Aral has left the Karakalpaks high and dry. Without the water, they have no jobs, no income and no future.

Galima Bukharbaeva IWPR, Tashkent[6]

The environmental consequences of Uzbek cotton production pose a threat to people throughout Central Asia. Yet nowhere has the impact been more acute than in Karakalpakstan: an autonomous region home to some 500,000 ethnic Karakalpaks[1]. These people, indigenous to the shores of the Aral Sea for over 2000 years, have watched as their livelihoods have disappeared in less than a generation[2]. With the collapse of the regional fishing industry, which once provided 50% of their national income[3], the majority of Karakalpaks now live with poverty[4] and unemployment[2]. Their lives are further blighted by acute health problems, the direct result of the localised accumulation of salt and pesticides associated with upstream cotton production.

Left high and dry

Before the sea's retreat, many Karakalpaks found employment in the fishing industry. The region's trawlers brought in an annual catch of 40,000 tonnes[5], generating wealth for those who owned the boats, and jobs for those who worked on them. In addition, the sea supported employment for many others who worked in the region's canneries and in the health resorts along the coast. With the Aral substantially reduced, the local economy has been annihilated.

Other livelihoods centred around the Amu Darya delta where extensive reed beds provided pastures for cattle[2]. Together with fish, these played a valuable role in supporting local incomes and providing nutrition. The delta was also home to the muskrat[5] whose valuable pelt helped to support the local hunting industry. With the flow of the Amu Darya greatly reduced, and with substantial increases in local salinity, these livelihoods are no longer tenable. The reed beds which once supported cattle grazing have been replaced by a dry saline desert.

With the basis of their former livelihoods now absent, unemployment has reached a staggering 70%[2]. A recent paper from the Asian Development Bank suggests between 50% and 70% of Karakalpaks are poor, with 20% being severely poor[4].

Medical crisis

Poverty, coupled with exposure to toxic chemicals, has had a severe effect on the well-being of the Karakalpak population. Two thirds now suffer with ill health[5]. Many of the diseases that threaten the area are caused by lack of access to basic health care.

The high levels of salt washed down the Amu Darya have left 40% of the Karakalpak population with no access to safe drinking water[4] and most sources of drinking water fail to comply with water standards[8]. The World Health Organisation (WHO) guideline for drinking water salinity is set at 1.5 grammes of dissolved salt per litre[9]: in Karakalpakstan drinking water can contain up to 3.5 grammes of salt per litre[2]. The situation is especially grim in the north where few schools and hospitals are able to provide safe drinking water. Chronic exposure to salty drinking water may account for the high incidence of hypertension and diseases of the kidney and urinary tract[2].

Unable to grow vegetables in the salinated soil, and too poor to buy food from the bazaars, the population suffer from malnutrition[2]. Almost all Karakalpaks suffer from anaemia: 87% of teenagers, 91% of non-pregnant women, and 99% of pregnant women[2]. Most of these women suffer complications during pregnancy and delivery including haemorrhages[2]. Untreated anaemia in pregnancy and young children poses a high risk for weak immune systems and a risk of brain damage[8].

Karakalpakstan is also gripped by tuberculosis. The disease, common amongst the world's poor, is present in epidemic proportions[2]. Data for 2002 show that the notified incidence for new infections of pulmonary tuberculosis in Karakalpakstan was 89 per 100,000[2]. In areas closer to the sea infection rates were higher. These statistics place the region amongst the most tuberculosis-infected regions of the former Soviet Union[2].

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Death of a town

The town of Moynaq lies in northern Karakalpakstan. Before the Aral Sea receded it served as a major port supplying 150 tonnes of fish a day. The fish were landed by 500 tonne trawlers[5] and taken off to nearby canneries where local Karakalpaks were employed in processing the fish. Nearby seaside resorts offered Soviets the chance of enjoying a beach holiday bathing in the cool waters of the sea.

Today, instead of facing the cool blue waters of the Aral, Moynaq borders 40,000 km^2 of newly polluted wasteland. The waters have dried up and the sea lies over 150 km away. The local fishing industry has been decimated and the beach resorts have all closed down. The only tourists in Moynaq now are those who come to photograph the rusting hulls of the giant trawlers that lie strewn across the sand.

Adapted from MSF (2003)[2]

The Karakalpaks suffer the brunt of the region's toxic dust storms. Being south of the saline mud flats, in a region with a prevailing northerly wind, Karakalpakstan receives much of the 43 million tonnes of salt and pesticide laden dust deposited each year[2]. It is no co-incidence that in some regions of the Aral Sea, 50% of all reported deaths are said to be respiratory in nature[2]. Recent data show an increased incidence of obstructive lung disease and bronchial asthma in the Aral Sea area; particularly in Karakalpakstan[10].

Perhaps the most sinister development in Karakalpakstan is the prevalence of diseases attributable to Uzbekistan's chronic overuse of agrochemicals. Pesticides, herbicides and defoliants applied on the cotton farms throughout Uzbekistan are carried by the Amu Darya to the Aral Sea basin where they enter the food chain. A 2001 study conducted by Médecins Sans Frontières and the WHO found significant levels of persistent organochlorines (including PCBs, dioxins and DDT) in samples of beef, fish, eggs, milk, potato and rice[11]. Further studies have detected pesticide residues in samples of treated water[2] and breast milk[12]. These findings correlate with a marked rise in the incidence of immunological disorders, kidney disease, and allergy, liver pathologies and reproductive pathologies amongst Karakalpak populations[2].

A recent study funded by the NATO Science Program found that Karakalpaks suffered 3.5 times the normal rate of DNA mutation[13]. Increased accumulation genetic error due to exposure to pesticide residue could well explain the region's abnormally high cancer rates. In particular, residents of Karakalpakstan suffer from the world's highest rate of cancer of the oesophagus[14].

The chemical pollutants may explain the high levels of human reproductive pathologies. A survey of 5000 couples revealed that 16% experienced infertility[8]. Miscarriages rose to 18% of recorded pregnancies in 1998. And one in every 20 children is born with an abnormality[8]: a figure five times higher than in European countries.

The Ethnic Karakalpaks

The Karakalpaks are one of the ancient Turkic speaking peoples of Central Asia. Descended from tribes indigenous to the southern shores of the Aral Sea, Karakalpak communities have spent much of the past two millennia leading a semi-nomadic lifestyle, grazing cattle, catching fish, making carpets and farming the fertile lands associated with the Amu Darya delta[1].

Aside from their characteristic dress and cuisine, the most defining aspect of the Karakalpak identity is their national language: a dialect distinct from the surrounding Turkic tongues and more closely related to Kazakh than to Uzbek[7]. 96% of Karakalpaks claim their 'national language' as their native tongue[7]. The Karakalpak identity is further defined by their strong cultural tradition centred around poems and songs, which record much of their history, folklore and legend.

In recognition of the Karakalpak national identity, the Soviets made Karakalpakstan an 'Autonomous Republic' granting it a separate constitution. Administered first from Moscow, the region was later incorporated into Kazakhstan, before being handed over to Tashkent[7]. With the collapse of Communism in 1991, Karakalpakstan was integrated into Uzbekistan and is now effectively ruled directly by President Islam Karimov.

'The Uzbek administration is systematically applying toxic chemicals on cotton plantations all over Uzbekistan. These chemicals wash off the fields, into the rivers, and end up poisoning the people of Karakalpakstan. It's interfering with their DNA. Their babies are born sick and deformed. And the cancer rate amongst adults is horrendous. The Uzbek government knows full well the devastating consequences of its policies. It's been going on for years. And they just don't care.'

Michael Hall, Analyst, ICG[15]

Exodus

Faced with loss of livelihood, poverty and ill health, large sections of the Karakalpak community have responded by simply moving out. These environmental refugees are now abandoning their ethnic homeland in search of greater prosperity elsewhere. Estimates suggest more than 100,000 people left the region prior to 1996[16]. Since then emigration has continued at a rate of roughly 4,000 people per year[2].

Those leaving the area are often the most highly skilled[2]. This represents a significant loss of regional human resources which may further jeopardise the future of the Aral Sea population. The extent of Karakalpak emigration is a testimony to the scale of environmental degradation inflicted on the region. The Aral delta, once so rich that it drew thousands towards its shores, is now so barren that it pushes them back into the desert.

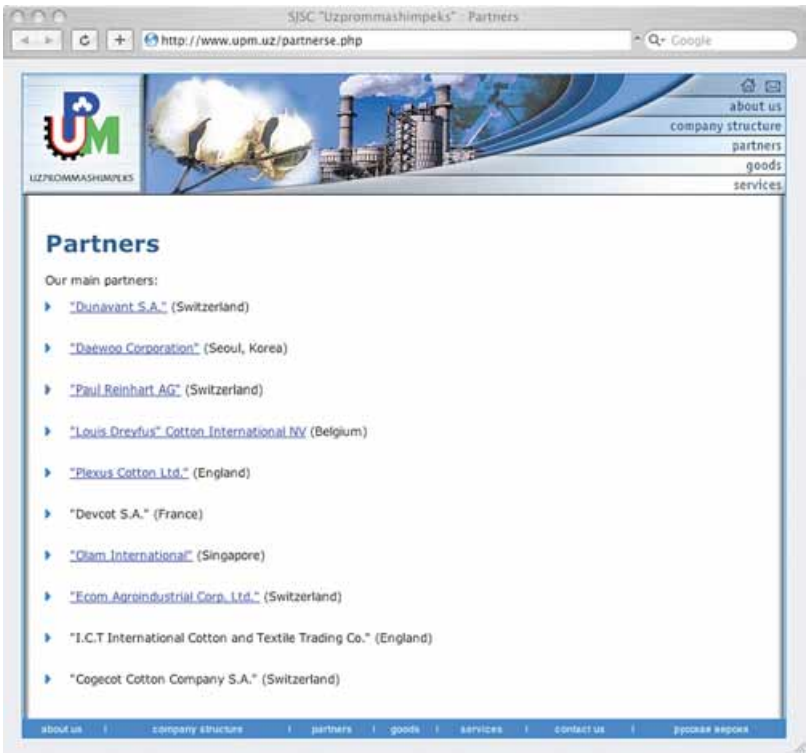
FROM FIELD TO FACTORY

Uzbekistan is one of the 'Big Five' countries that dominate global cotton production (China, USA, India, Pakistan and Uzbekistan). Unlike China, India and Pakistan which each produce substantial volumes of cotton but sell very little on the international market, Uzbekistan has limited capacity for domestic textile production. As a result over 70% of Uzbek cotton – around 800,000 tonnes – is sold on the world market every year[1], making Uzbekistan the second largest cotton exporter in the world[1]. According to the United Nations Conference for Trade and Development, the biggest single destination for Uzbek cotton is Europe[2] which receives 29% of Uzbek cotton exports valued at around US$350 million per year. Other major destinations include the Russian Federation (23%) and Asia, with UNCTAD estimating that 10% of Uzbek exports alone are destined for the Republic of Korea[2].

The world cotton market is dominated by a handful of major commodities traders, nearly all of whom have a global presence across developed and developing markets[3]. These companies buy and sell cotton on markets throughout the world. Besides simply acting as dealers, commodities traders often play a role in ginning the cotton; a process by which the seeds are removed from the fibre, thus preparing the lint for sale.

International Commodities Traders

The bulk of Uzbek cotton exports are sold to international trading companies by three state trading organisations[4]; Uzprommashimpeks, Uzmarkazimpeks and Uzinterimpeks[5]. These government controlled bureaus list some of the world's most prestigious cotton traders among their clients. According to the organisation's official website (below, October 2005), Uzprommashimpeks' main partners include; Dunavant S.A. (Switzerland), Daewoo Corporation (Seoul, Korea), Paul



From Lint to Leggings

Global demand for cotton has escalated so much that in 2004 annual cotton production from over 80 countries[15] surpassed 100 million bales[16]. This represents over 24.3 million tonnes of cotton consumed every year. Almost two thirds of all cotton produced worldwide is used in clothing manufacture[17], equating to over 14 billion pairs of jeans, or 51 billion shirts every year*. Consumers in the EU, USA and Japan account for 74% of this global trade[18]. In total, EU consumers buy an estimated US$200 billion of clothing every year[19], while Americans spend over US$6 billion on T-shirts alone[20].

In 2001 researchers attempted to trace the origins of a pair of jeans on sale in Ipswich, UK. Extensive research revealed that the jeans were made in Tunisia using denim produced in Italy and Germany from cotton grown in Benin, Pakistan and Korea. The jeans' components and raw materials had travelled over 40,000 miles before finally ending up in Suffolk. [21]

* These data have been based on estimates obtained from the National Cotton Council of America (2003)

Reinhart AG (Switzerland), Louis Dreyfus Cotton International NV (Belgium), Plexus Cotton Ltd (England), Devcot S.A. (France), Olam International (Singapore), Ecom Agroindustrial Corp. Ltd (Switzerland), I.C.T.. International Cotton and Textile Trading Co. (England), and Cogecot Cotton Company S.A. (Switzerland)[6]. Another major company buying Uzbek cotton is Cargill Cotton UK[5], a division of Cargill Incorporated; one of the world's largest privately owned businesses[7].

Corporate Social Responsibility

While the realities of government corruption and forced child labour are hard to ignore, the global cotton industry has done little to address the manner in which Uzbek cotton is produced. Tobias Webb, Editor of Ethical Corporation – speaking generally of the global commodity market – sums the situation thus, *"The global cotton industry clearly lags behind some other agricultural sectors in considering where its raw material emanates from. Our investigations and those of others have shown that the large cotton buyers appear to operate on a "don't know, don't care" basis with regard to the social, economic and environmental impact of cotton farming, harvesting and distribution"*[9].

A selection of recent statements made by cotton traders appears to support Webb's claim:

- Paul Kinney, President of Cargill Cotton UK, was recently quoted as saying *"Cargill has nothing to do with picking cotton in those [Central Asian] countries. I have no further comment and prefer to end this conversation"*[10].
- In February 2004, a spokesman for Cargill was quoted as saying that to its knowledge children who picked cotton did so to help their parents during the harvest[12].
- Thomas Reinhart, who runs a Swiss family-owned company that is one of the biggest traders in central Asian cotton, said he had never heard of the use of child labour in the region: *"We buy our cotton from government agencies and don't know what happens out in the fields"*[13].

From the Field to the Factory

Perhaps the reason that global cotton traders are able to turn such a blind eye to the manner in which Uzbek cotton is produced is that the logistics of the cotton supply chain are complex and consumers have very little awareness of where their clothes originate. Whilst some cotton products contain labels stating the country of their manufacture, details of where the cotton is grown is almost always absent. A spokesperson for the Clean Clothes Campaign explained *"It is very difficult for consumers to find out about the way in which the cotton in their clothes has been produced. This makes it difficult for them to take action to improve conditions of the thousands of workers in the industry"*[14].

But just as clothing retailers such as GAP[22], Nike[23] and H&M[24] have taken measures to address the labour conditions in the factories in which their products are manufactured, the cotton industry as a whole must now focus on the conditions under which cotton is grown. Those companies that trade in Uzbek cotton, those that finance the buying of cotton, and those that retail products made from cotton, must work together to protect the rights of the people who produce it. Without such action it seems certain that trade in cotton from Uzbekistan will only perpetuate the human misery associated with its production.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BANKROLLING THE INDUSTRY

Raising the Stakes

Since 1991, revenues from the sale of cotton fibre have provided the main source of hard currency earnings for the Karimov regime. By exporting the bulk of the national cotton harvest, the Uzbek administration has consistently forfeited the chance of profiting from enterprises higher up the value chain. Aware of this missed economic opportunity Karimov has sought to develop Uzbekistan's domestic textiles industry by encouraging foreign investors to enter into joint ventures.

To date the project has been largely successful. Before 1991 there were only four large textile complexes operating in the country[1]. But since 1995 the government has established 36 joint ventures with partners from Germany, South Korea, Japan, Switzerland, Turkey, the US and other countries[1]. Together these initiatives have helped increase Uzbek textiles exports by almost US$200 million[1]. According to government officials, Uzbekistan now has a modern cotton processing capacity of around 200,000 tonnes and consumes 28% of national cotton production[2]. These textiles are sold on major world markets: Uzbek yarn currently holds a 9% share of the European market[2].

The 2005 Textiles Initiative

Given its success in attracting substantial foreign investment, the Karimov regime is now keen to further increase domestic textiles production. On 27 January 2005, Uzbekistan's Cabinet of Ministers launched a state programme designed to raise Uzbekistan's cotton processing capacity to 50%[1]. The programme aims to establish a further 94 joint ventures with a combined foreign investment of US$1.2 billion[1]. Together these projects are intended to boost Uzbekistan's annual exports by 329,900 tonnes of cotton yarn, 114.4 million metres of cotton cloth, and 252 million additional pieces of clothing apparel: goods with a projected value of over US$1.1 billion annually[1,2].

While details of the 94 new joint ventures have yet to be released, the state is likely to retain a share in each of them. Of the 23 initiatives outlined so far the state plans to retain shares in all but one; with the mean average stake held by the administration being almost 25%[3]. Of these initiatives 'Semurg JV' seems typical. The initiative is seeking US$1.8 million in direct investments, together with US$5.5 million in credit. Once funding is established the joint venture will proceed to manufacture 2.5 million T-shirts. The Uzbek state will retain a 25% share in the operations[3]. Other ventures detailed by the authorities, include the production of yarn, fabric, shirts, trousers, sportswear and children's clothing.

Eager to court prospective investors the Uzbek administration organised a conference at the Tashkent Intercontinental Hotel in March 2005. The event was attended by representatives from over 250 international institutions, diplomatic corps, foreign and local enterprises, companies, and financial institutions[4]. Among them were 220 delegates representing 190 companies from the USA, Germany, Japan, Turkey, Italy and Malaysia[4].

These firms received presentations from the First Deputy Prime Minister and Minister of the Economy, as well as officials from the Agency for Foreign Economic Relations (AFER) and the National Bank of Uzbekistan (NBU); all keen to underline Uzbekistan's merits as a place for investment. Uzbek officials highlighted the availability of vast stocks of raw cotton and drew specific attention to the country's low labour costs; indicating that Uzbeks would work for just US$0.22 per hour[2]. Officials also underlined the availability of low cost water. Despite the severe levels of water stress experienced by many of the country's population, investors were told to expect prices of just US$0.13 per m^3: far less that the US$0.51 per m^3 payable in the USA[2].

Potential investors in cotton processing were offered substantial tax breaks until 2009: investments in enterprises specializing in the production of garments and apparel would be exempt from all budget taxes and duties, except VAT[2]; and other investments would be exempt from income tax, property tax, and customs duties[2]. Additional privileges set out in a special governmental decree state that some enterprises will be exempted from environment tax, water charges, land tax and infrastructure development tax[5]. Were these incentives not enough, delegates were also assured that the National Bank of Uzbekistan would finance the proposed initiatives using credit lines from a raft of International Financial Institutions (IFIs)[6]. According to Uzbek officials, the European Bank for Reconstruction and Development (EBRD) would provide US$175.1 million, the Asian Development Bank (ADB) US$80.0 million, and the International Finance Corporation (IFC) US$31.0 million. Other organisations supporting credit lines would include the Islamic Development Bank (IDB), KfW Bankengruppe, and the OPEC fund[6].

Bursel Tashkent Textile, an established joint venture supported by the EBRD, were on hand to inform delegates of their experience in doing business in Uzbekistan, and a number of new foreign investors signed documents expressing their intention to invest[4]. Moreover, several foreign firms reportedly expressed interest in purchasing products to be made by new Uzbek enterprises[4].

Bursel Tashkent Textile JV

One of the 36 joint ventures now handling Uzbek cotton is Bursel Tashkent Textile; a company owned by the Turkish Bursel Group, Uzbeklegprom (Association of State Cotton Enterprises) and the Governorate of Chirchik (where the project site is located)[7]. The firm's establishment was supported by loans of US$13 million from the European Bank for Reconstruction and Development (EBRD)[7], which noted that the venture would serve as a beacon to future investors seeking to enter the Uzbek textiles industry[7]. Bursel Tashkent Textile will generate profits for its investors and for the Uzbek regime by manufacturing cotton garments (underwear, nightgowns and T-shirts) primarily for export to North America and European markets[8].

The Farmers' Perspective

For Uzbekistan's three million rural workforce the prospect of Uzbek textiles expansion must seem bleak. Not only will expansion enable the regime to augment its income: the national importance of cotton could increase dramatically, potentially creating greater financial disincentives for agricultural reform and the delivery of genuine liberalization of the cotton sector. While foreign investors, financed by the world's leading IFIs, are set to make profits far in excess of those received by the farmers, rural poverty and oppression will be exacerbated.

THE NUMBERS SPEAK FOR THEMSELVES

The Karimov regime earns over US$1 billion from cotton exports every year

Uzbekistan is the 2nd largest exporter of cotton in the world, selling on average over 800,000 tonnes of cotton per year[1], grown on 1.47 million hectares of Uzbek farmland[1]. Cotton production employs up to one third of Uzbekistan's 9 million workforce[2] and generates 24% of the country's $8.7 billion GDP[3]. The Uzbek state acquires cotton by means of compulsory purchase before selling it on the world market at 85% of the commercial price[3]. This provides the Uzbek government with an annual income of over US$1 billion[1]. These exports account for around 60% of Uzbekistan's hard currency export earnings[2].

Officially Uzbek cotton farmers receive one third of the export price of their cotton

According to a study by the World Bank, the declared price paid to Uzbek farmers in return for their cotton represents only one third of its export price[4]. The true outlook is probably far more bleak. Farmers have reported that they don't receive the official procurement price; some claiming that the tariffs are 'largely symbolic'[5]. One estimate claims that as little as 10 to 15% of the income generated by the sale of cotton goes back into agriculture and thus to the farms[5]. The official wage for a state cotton labourer stands at just US$6.53 dollars per month[5]. Chronic underpayment and lack of investment have left 4.9 million rural Uzbeks living in poverty[6,7]; 75% of rural Uzbeks have no access to running water and less than 2% are connected to a central sewage system [8].

The Uzbek regime forces tens of thousands of children to hand pick the cotton harvest. Up to 200,000 children work to harvest the cotton in Ferghana region alone

Due to underinvestment and a shortage of agricultural machinery, 90% of Uzbek cotton is harvested by hand[9]. Much of this work is carried out by children, some of whom miss up to three months schooling each year while picking Uzbek cotton[10]. The exact number and age of children involved is unrecorded, but estimates suggest figures of around 200,000[11]. EJF has obtained footage of children as young as seven working in Uzbek cotton fields.

Uzbek cotton production consumes over 20 billion cubic metres of water every year

In Uzbekistan farmers withdraw an average of 14,000 m^3 of water for every hectare under irrigation, whereas rates in countries such as Pakistan and Egypt – not known for their efficient irrigation – are substantially lower[12]. In total Uzbekistan's 1.47 million hectares[1] under cotton consume over 20 billion cubic metres of water[13]. Given the country's annual harvest of over 1 million metric tonnes of cotton[1], Uzbekistan consumes close to 20,000 litres for every kilo of cotton harvested. This vast volume of water is supplied to the cotton plantations by Uzbekistan's extensive irrigation networks which, if laid out in a straight line, would span 28,000 km (over half way around the circumference of the world)[14].

Irrigation for Uzbek cotton production has been a significant contributor in the demise of the Aral Sea, now just 15% of its former volume

Uzbekistan's chronic over-irrigation has virtually eradicated the Aral Sea, which relies on water delivery from the Amu Darya and Syr Darya rivers. Since the expansion of Uzbek cotton production in 1960, the Aral has shrunk to just 15% of its former volume and now covers only one third of its former area[12]. 40,000 km^2 of the original sea floor is now left exposed[15].The Sea's salinity has increased from 1g/l to 6.7g/l[12] leading to the disappearance of all 24 native fish species from its waters[16]. Commercial fishing catches fell from 43,000 tonnes in 1960, to non-existent by 1980[17].

Two thirds of Uzbekistan's irrigated cropland has been damaged by over-irrigation

Decades of intensive cotton production and agricultural mismanagement now threaten the long term fertility of Uzbekistan's 4.3 million hectares of irrigated farmland[12]. 64% of irrigated land has been adversely affected by increasing soil salinity[18]; 19% is threatened by water erosion[12]; and 12% has reportedly already been abandoned due to failing soil fertility[4]. At the present rate, a further 20,000 hectares of irrigated land could be lost each year[12].

Karakalpak communities show rates of DNA damage 3.5 times higher than normal

Those hardest hit by the environmental consequences of Uzbek cotton production are the ethnic Karakalpaks. Because their homeland lies directly south of the former Aral Sea, the Karakalpaks are highly exposed to the 43 million tonnes of salt and pesticide laden dust released by the former sea bed every year[19]**.** Dioxins and PCBs have been found throughout the food chain[20], in samples of treated water[17] and breast milk[21]. Rural communities show DNA mutation rates of up to 3.5 times higher than those seen in the USA[22]. Five percent of children are born with abnormalities[23]. Almost all Karakalpaks suffer from anaemia: 87% of teenagers, 91% of non-pregnant women, and 99% of pregnant women[21].

The Uzbek regime is supported by US$4.3 billion in international loans

Since independence, the Uzbek regime has benefited from substantial investment from International Financial Institutions. The World Bank estimates that Uzbekistan has outstanding debts of $4.3 billion[24]. These monies have been loaned by organisations such as the Asian Development Bank, European Bank for Reconstruction and Development, and World Bank. Given its economic significance, it is likely that much of this debt will be re-paid using funds derived from the sale of cotton.

Europe is the major destination for Uzbek cotton

According to the UN, the single biggest destination for Uzbek cotton is the European market, which received almost one-third of all cotton exported from Uzbekistan between 1997 and 2001[25]. This represents an average European import of over 240,000 tonnes of Uzbek cotton with a commercial value of nearly US$350 million dollars[1].

CONCLUSIONS

Cotton production in Uzbekistan occurs within a framework of systematic exploitation, human rights violations, and environmental destruction. It is difficult to conceive of another industrial sector at a global level that can at once be linked to a massive ecological disaster, widespread child labour, increasing poverty, the demise of a unique people, chronic health problems and direct financial support for one of the world's most authoritarian regimes.

It is cotton, more than any other commodity that is the bedrock of the Karimov regime. The sale of cotton to western consumers brings direct benefit to a small cadre of the President's friends and business associates, and helps to bankroll the national security apparatus that ensures the regime's survival. In Uzbekistan, there can be no doubt that cotton is a political issue.

Despite the vast wealth that the Uzbek administration derives from the sale of cotton internationally, it has demonstrated an almost total failure to share those benefits and loosen the tight grip over the 25 million Uzbek people who are suffering from deepening social deprivation. Moves towards economic reform – when they occur at all - are painfully slow and the regime retains its commitment to Soviet-style control over every aspect of the economy. Living standards and economic growth are amongst the lowest in the former Soviet Union. Without the necessary far-reaching political and economic reforms, Uzbekistan looks set to continue its decline towards economic sclerosis and further political oppression and civil unrest.

The Uzbek cotton that finds its way into clothing factories and ultimately on to western high streets carries a heavy cost, and one which consumers remain largely unaware of. It is almost impossible for consumers to know where the cotton that their clothes are made from originates, and whether it is linked to environmental or social impacts.

Clothing manufacturers and retailers have an obligation to look beyond the 'sweatshops' and into the cotton fields – following the entire life-cycle of their product from the field to the final point of sale. Corporate enterprises must make a critical assessment of their role in driving the problems and seek new means to source environmentally sustainable and socially equitable cotton. They must be able to audit fully and demonstrate that their supply chain does not exacerbate the chronic situation within Uzbekistan.

The international community and financial institutions too must assist in driving forward political and economic reforms within Uzbekistan. The massacre at Andijan is a microcosm of a wider brutality that pervades the Karimov regime. Far stronger efforts must be undertaken to exert all possible leverage to ensure that root-and-branch reforms take place in the cotton and other economic sectors.

It is clear that unless the international community – political decision-makers, corporate entities and consumers – act collectively to address the situation, the human suffering and injustice inherent in Uzbek cotton production will endure.

PRIORITY RECOMMENDATIONS

President Islam Karimov and the Government of Uzbekistan

- Support independent investigations of labour rights abuses in Uzbekistan – including child labour, and forced labour with regards to students and public employees.
- Undertake an immediate near term assessment of Uzbekistan's irrigation and drainage infrastructure with a view to ending the chronic mismanagement of national water resources.

European Union and its Member States

- Promulgate a Regulation prohibiting the import into the European Union, of cotton, and cotton related products, that have been produced using child labour.
- Directly engage the government of Uzbekistan in reforming labour conditions and environmental concerns in the production of cotton.

Consumers

- Pick Your Cotton Carefully: Refuse to buy cotton products without the certain knowledge and assurance from the retailer that they have been produced without causing environmental destruction or human rights abuse – specifically including child labour.
- Ask your retailer to clearly label all their products to give this assurance and state the country of origin of the cotton fibre.

Retailers / Traders

- Secure production methods and develop an effective product labelling system to guarantee that neither child nor forced labour is used at any stage of the production process and that all reasonable environmental concerns are taken into full account.

IFIs / Investors

- Seek specific assurances that their investment portfolios are not supporting manufactures or retailers of cotton products that have involved child or forced labour, or resulting in significant environmental damage at any stage of the production process. All investment in the cotton sector in Uzbekistan should be immediately halted until such assurances are received.

RECOMMENDATIONS

The Government of Uzbekistan should:

a) Take urgent action to end the use of children as labour in the cotton fields:

- Ratify and fully implement the International Labour Organisation (ILO) Convention C182 on the Elimination of the Worst Forms of Child Labour;
- Adhere to the UN Convention on the Rights of the Child;
- Make public pronouncements to prohibit child labour and punish those who continue to promote the use of children in cotton production;
- Review the system of cotton quotas and prices paid to farmers that encourage child and forced labour in cotton production;
- Support independent investigations of labour abuses – including forced labour for students and public employees;
- Provide an enabling environment for independent industry and labour rights bodies to monitor and report on labour conditions in the cotton sector.

b) Liberalise the agricultural sector and enhance transparency in the sector:

- Implement a programme of land reform giving farmers freehold ownership of the land they farm;
- Prosecute government officials who abuse the system by seizing farms;
- Significantly increase the prices paid to cotton producers to reflect prices achieved for cotton on the world market;
- End the practice of issuing state quotas governing cotton production;
- Encourage agricultural diversification to satisfy food and livelihood needs;
- End the compulsory state procurement system and allow farmers to sell their produce on the open market direct to cotton buyers thus reducing the incentives to smuggle. Stricter police controls that will lead to potential conflict in border areas should be avoided;
- Invite the OSCE to monitor agricultural reform;
- Undertake a commitment, and be able to demonstrate, that revenues generated by the sale of cotton are creating significant additional benefits within rural communities where cotton is grown.

c) Reduce the inefficiencies in water use by devising a national strategy to repair and replace irrigation systems within a given time period, using a proportion of profits derived from the cotton sector.

d) Demonstrate the enhancement of human rights:

- Enable an independent, international investigation into the events at Andijan and the aftermath that has led to intimidation, harassment, detention and arrest of human rights defenders, political activists and journalists;
- Make a commitment to restore the freedoms of assembly, association, employment and movement enshrined in the Universal Declaration of Human Rights, to which Uzbekistan is a signatory. Enable journalists to report without censorship or coercion;
- Make a commitment to restore labour rights as enshrined in the International Covenant of Economic, Social and Cultural Rights, to which Uzbekistan is a state party;
- Make a commitment to restore human rights with regard to the death penalty, torture, forced or compulsory labour, and freedom of thought, expression, assembly and association, enshrined in the International Covenant on Civil and Political Rights, to which Uzbekistan is a state party.

The International community should:

- Press the Uzbek government to enable an independent, international investigation into the May 2005 events in Andijan and the aftermath that has led to intimidation, harassment, detention and arrest of human rights defenders, political activists and journalists;
- Press the Uzbek government to commit to the restoration of normative human rights as enshrined in the International Covenants on Civil and Political Rights, and on Economic, Social and Cultural Rights, to which Uzbekistan is a state party;
- Participating states of the Organisation for Security and Co-operation in Europe (OSCE) should recognise that the Andijan events are of "direct and legitimate concern to all participating states". Accordingly states should invoke the Moscow Mechanism and initiate an expert mission to examine the May events and the aftermath.

National Governments should:

- Work within the WTO to introduce conditions on trade that would punish manufacturers and producers who use child labour at any stage of the supply chain;
- Undertake steps to shift the burden of proof that a product has not been produced using child labour onto the producer;
- Consider trade sanctions until Uzbekistan can demonstrate that cotton production is not linked to child or forced labour, and made a clear commitment to liberalise the agricultural sector;
- Establish dialogue with European and US companies engaged in cotton procurement in Uzbekistan so as to raise awareness of the issues and appropriate corporate responses;
- Cease to promote the export of Uzbek cotton and cotton goods until environmental and human rights abuses are remedied;
- Foreign trade missions and embassies should not promote foreign direct investment (FDI) in the cotton sector until such time as abuses are remedied;
- Domestic exporters of cotton processing equipment or materials should not be supported or encouraged by export credit guarantees or other government assistance;
- Consider incentive-based reforms within the cotton sector, such as providing non-discriminatory subsidies to farmers who can demonstrate that they do not use child or forced labour, thereby shifting the competitive advantage to responsible producers;
- Continue to exert leverage on the Uzbek government to take profound and immediate steps towards economic liberalisation and democratization. Establish benchmarks to measure progress on human rights and economic liberalisation;
- Undertake an investment ban on any FDI in Uzbekistan's cotton sector until human rights abuses are demonstrably remedied;
- Immediately develop and apply strict conditionalities – accompanied by clear, measurable benchmarks – for any lending to Uzbekistan by IFIs or bi-lateral agencies. Conditions must require significant land reform, economic liberalisation, greater press freedoms and democratisation.

The European Parliament, Commission and Council of Ministers should:

- Pass a parliamentary resolution calling for an immediate European Union prohibition on cotton products made using child labour, explicitly referring to Uzbekistan and additionally seeking the introduction of an EU-wide scheme for the labelling of imported goods to show that they have not been produced with the use of child labour at any stage of the supply chain. This will build on the recent EU Parliamentary Resolution (July 05) calling for an end to exploitation and child labour in developing countries. The Parliament should consider developing a regulation to make this EU law;
- Promote a "child labour free" label for cotton products and the introduction via WTO of a ban on child labour in trade;
- Seek direct critical address from national governments toward the cotton sector in Uzbekistan and its environmental and human rights abuses;
- Press the European Commission to investigate the creation of EU-level legal mechanisms, which will identify and prosecute importers within the EU importing products which allow the violation of core ILO conventions, including child labour. The use of child labour in any part of the supply chain would be enough to constitute a violation;
- Seek the withdrawal of the EBRD from future and existing cotton related projects in Uzbekistan.

International Financial Institutions and the Donor Community should:

- Develop and monitor strict economic, human and civil rights benchmarks prior to further funding being granted to Uzbekistan;
- Establish policies denying funds to projects which generate revenue for the Uzbek administration;
- Cease to invest in textiles initiatives involving Uzbek cotton;
- Consolidate efforts to address Central Asian water mismanagement;
- Adopt conditionalities to any lending that support significant land reform programmes and economic liberalisation;
- Support the work of the International Labour Organisation, via the International Programme on the Elimination of Child Labour to ensure that the appraisal missions to Central Asia reach meaningful and timely conclusions;
- Support civil society efforts to enhance governance by achieving greater transparency in government activities. Particular reference should be given to ensuring greater transparency in the government-owned cotton procurement companies and revealing their direct beneficiaries;
- Provide active support to Uzbek civil society, human rights defenders and media monitoring groups, investigating and reporting on abuses in the cotton sector;
- Develop programmes that lend legal support to farmers and rural communities and enhance their advocacy at a national and international level.

International Cotton Traders and Retailers should:

- Work with civil society organisations to develop an effective product labelling system guaranteeing that neither child nor forced labour is used at any stage of the production process;
- Take immediate steps to make available to customers information on the origins of all cotton products (not only the country of manufacture of the item);
- Undertake an independent review of cotton suppliers – including Uzbek government-owned trading companies – and seek assurances that the cotton is produced in accordance with international labour norms. Where assurances cannot be provided, alternative suppliers should immediately be sought. Undertake commitments to be more transparent in the agreeing of contracts with Uzbek government agencies;
- Avoid procurement of Uzbek cotton until such time that child and forced labour are eradicated from the production process;
- Engage with civil society groups and international organisations in joint efforts to improve working conditions on cotton farms and remuneration provided to farmers and other workers.

Consumers should:

- Demand that all products are clearly labelled stating the country of origin of the cotton fibre, enabling them to make informed buying choices;
- 'Pick your cotton carefully' – Refuse to buy cotton products without certain knowledge that they have been produced without causing environmental destruction or human rights abuses;
- Call upon manufacturers and retailers to swiftly develop a labelling system that guarantees neither child nor forced labour is used at any stage of the production process;
- Choose products that have been independently certified as organic or fair trade; or choose recycled cotton products wherever possible.

International Investment Houses, Banks and Foreign Investors should:

- Seek specific assurances that their investment portfolios are not supporting manufacturers or retailers of cotton products that have involved child or forced labour at any stage of the production process. Where links to the cotton sector are known, pressure should be brought to bear to swiftly reduce and eradicate such investments;
- Cease to act as guarantors to companies seeking to export equipment used in the cotton textile process;
- Use economic leverage to press the Uzbek government to make the cotton sector more transparent and financially equitable;
- Cease to invest in the Uzbek cotton sector until human rights abuses are demonstrably eradicated.

International Cotton Advisory Committee should:

- Instigate a process of assessment whereby the social and environmental impacts of cotton production are evaluated for each member state and findings made public to investors and importers;
- Support the development of a global labelling scheme that guarantees products that have been produced without the use of child or forced labour at each stage of the production process;
- Work to ensure that the procurement and sale of cotton fibre or products on the open market must be accompanied by country-specific information as a minimum requirement.

Glossary

Amu Darya major river in Central Asia. The Amu Darya originates in the Afghan-Tajik mountains and flows north-west through parts of Tajikistan, Afghanistan, Turkmenistan and Uzbekistan, towards the Aral Sea

Birlik outlawed political party founded in 1990

Cabinet of Ministers the executive body of the Republic of Uzbekistan

Erk Freedom Democratic Party: an outlawed political group founded in 1990

Ezgulik Human Rights Society of Uzbekistan

Ginning mechanical process by which cotton fibre is separated from the seed

Hokims regional governors

Kishlak village

Karakalpak person native to Karakalpakstan, the autonomous region to the south of the Aral Sea

Lint cotton fibre removed from the seed by the process of ginning

National Security Service Uzbek Secret Police

OVIR government bureau responsible for internal and external migration (Otdel Viz i Registratsii)

Private Farm farm held by a private individual under leasehold from the state

Seed Cotton unginned cotton composed of seed and lint

Shirkat large state-owned farm

Sum (also soum, som) Uzbek currency unit

Supreme Assembly the supreme representative body of the Republic of Uzbekistan; also known as the Oliy Majlis

Supreme Court the highest judicial body of civil, criminal and administrative law

Syr Darya major river in Central Asia. The Syr Darya originates in the Afghan Tajik mountains and flows north-west through parts of Kyrgyzstan, Uzbekistan, Kazakhstan and Afghanistan, towards the Aral Sea

Tugai forest unique Central Asian woodland ecosystem found in association with major waterways

Uzbek Sum (UZS) the unit of monetary currency in Uzbekistan. Also known as soum and som.

Uzbeklegprom state authority charged with overseeing joint ventures in the textiles sector

Uzkhlopkoprom state authority charged with procuring and ginning cotton

Uzprommashimpeks one of three state trading organisations charged with selling Uzbek cotton to international commodities traders

Wiloyat an Uzbek regional administrative area

Abbreviations

ADB Asian Development Bank

AFER Agency for Foreign Economic Affairs

EBRD European Bank for Reconstruction and Development

FDI Foreign Direct Investment

ILO International Labour Organisation

IFI International Financial Institution

IDB Islamic Development Bank

IFC International Finance Corporation

IWPR Institute for War and Peace Reporting

MT Metric tonne

NBU National Bank of Uzbekistan

OSCE Organisation for Security and Co-operation in Europe

UNEP United Nations Environment Programme

UNICEF United Nations Children's Fund

WHO World Health Organisation

CONVERSION

Units

1 kilogramme (kg) = 2.20 pounds (lb)
1 metric tonne (MT) = 1000 kilogrammes (kg) = 2,204 pounds (lb)
1000 litres = 264 gallons
1 hectare (Ha) = 2.47 acres
1 km^2 = 247 acres
1 cubic kilometre (km^3) = 100,000 hectare metres = 810,713 acre feet
1 kilometre = 0.62 mile

Currency

Uzbek sum (soum, som): UZS
1000 UZS = US$0.90
1000 UZS = €0.70
US$1 = UZS 1100
€1 = UZS 1350

REFERENCES

Human rights and government wrongs

1 Uzbekistan: Country Reports on Human Rights Practices 2004, United States Department of State (2005) http://www.state.gov/g/drl/rls/hrrpt/2004/41717.htm

2 Uzbekistan, Op-Ed by John McCain, Financial Times, June 14 (2005) http://mccain.senate.gov/index.cfm?fuseaction=Newscenter.ViewOpEd&Content_id=1591

3 Nations in Transit 2004: Uzbekistan, Freedom House (2004) http://www.freedomhouse.org/research/nitransit/2004/uzbekistan2004.pdf

4 EJF interview with Craig Murray, Former British Ambassador to Uzbekistan (2005)

5 "Bullets were falling like rain": The Andijan Massacre, Human Rights Watch (2005) http://hrw.org/reports/2005/uzbekistan0605/index.htm

6 'Gunfire continues in Uzbekistan' (16 May) USA Today (2005) http://www.usatoday.com/news/world/2005-05-16-uzbekistan_x.htm

7 Republic of Uzbekistan Parliamentary Elections 26 December 2004, OSCE/ ODIHR Limited Election Observation Mission Report (2005) http://www.osce.org/documents/odihr/2005/03/4355_en.pdf

8 The Failure of Reform in Uzbekistan: Ways Forward for the International Community, International Crisis Group (2004) http://www.crisisgroup.org/home/index.cfm?id=2537&l=1

9 Uzbekistan: Country Reports on Human Rights Practices 2003, United States Department of State (2004) http://www.state.gov/g/drl/rls/hrrpt/2003/27873.htm

10 EJF interview with Uzbek Human Rights activist (2005)

11 Freedom in the World 2000 – 2001: Uzbekistan, Freedom House (2001) http://www.freedomhouse.org/research/freeworld/2001/countryratings/uzbekistan.htm

12 Annual Report 2005: Uzbekistan, Reporters Sans Frontiers (2005) http://www.rsf.org/article.php3?id_article=13459

13 World Report 2005: Uzbekistan, Human Rights Watch (2005) http://hrw.org/wr2k5/pdf/uzbeki.pdf

14 IWPR Reporting Central Asia, No. 413, 1st October 2005, Hard Times for Uzbek Charities

15 Uzbekistan: Country Reports on Human Rights Practices 2004, United States Department of State (2005) http://www.state.gov/g/drl/rls/hrrpt/2004/41717.htm

16 UN Office for the Coordination of Humanitarian Affairs, 3rd October 2005, 'Internews to appeal government closure notice' www.irinnews.org

17 'Uzbekistan: Free Speech Stifled as Summit Opens' (June 17) Human Rights Watch (2004) http://hrw.org/english/docs/2004/06/17/uzbeki8854.htm

18 Burying the truth – Uzbekistan rewrites the story of the Andijan massacre. Human Rights watch (September 2005) http://hrw.org/reports/2005/uzbekistan0905

19 Uzbekistan: Country Profile, Economist Intelligence Unit (2004)

20 The Curse of Cotton: Central Asia's Destructive Monoculture, International Crisis Group (2005) http://www.crisisgroup.org/home/index.cfm?id=3294&l=1

21 Civil and Political Rights, Including the Questions of Torture and Detention, United Nations Economic and Social Council (2003)

22 Special Report: Uzbek Prisons – A Survivors Guide, Institute for War and Peace Reporting (2004) http://www.iwpr.net/index.pl?archive/rca2/rca2_332_1_eng.txt

23 IWPR Reporting Central Asia, No. 413, 1st October 2005, Uzbek Death Penalty on Trial

24 Civil and Political Rights, Including the Questions of Torture and Detention, United Nations Economic and Social Council (2003)

25 IWPR Reporting Central Asia, No. 413, 1st October 2005, Uzbek Death Penalty on Trial

26 IWPR Reporting Central Asia, No. 413, 1st October 2005, Uzbek Death Penalty on Trial

27 IWPR Reporting Central Asia, No. 413, 1st October 2005, Uzbek Death Penalty on Trial

28 'UN human rights official deplores executions in Uzbekistan' (13 September), United Nations News Centre (2004) http://www.un.org/apps/news/storyAr.asp?NewsID=11902&torture&Cr1

29 IWPR Reporting Central Asia, No. 413, 1st October 2005, Uzbek Death Penalty on Trial

30 The Constitution of the Republic of Uzbekistan (1992) http://www.press-service.uz/en/section.scm?sectionId=4713

31 Uzbekistan: Lifting the siege on the truth about Andijan, Amnesty International (2005) http://web.amnesty.org/library/index/engeur620212005

32 Human Rights Watch, Press Release, 20 September (2005) http://hrw.org/english/docs/2005/09/20/uzbeki11762.htm

33 Burying the truth: Uzbekistan rewrites the story of the Andijan massacre, Human Rights Watch, September (2005) http://hrw.org/reports/2005/uzbekistan0905/uzbekistan0905.pdf

34 International research and Exchanges Board, Press Release, September 13 (2005) http://www.irex.org/newsroom/news/2005/0913_pr.asp

35 Peace Corps, Press Release, June 6 (2005) http://www.peacecorps.gov/index.cfm?shell=resources.media.press.view&news_id=1043

35a Pers comm. J MacLeod, Senior Editor, IWPR, 18.11.2005

36 UN Office for the Coordination of Humanitarian Affairs, 3rd October 2005, Activists warn of further media crackdown www.irinnews.org

37 Email communication sent by I McWilliam, BBC Tashkent Bureau, 16th September 2005, 'Tashkent stepping up attacks on BBC and other media',

38 UN Office for the Coordination of Humanitarian Affairs, 3rd October 2005, Activists warn of further media crackdown www.irinnews.org

The regime's revenue

1 Uzbekistan: Country Profile, Economist Intelligence Unit (2004)

2 Personal Communication with Anna Walker, Analyst, Economist Intelligence Unit (2005)

3 Personal Communication with Craig Murray, Former British Ambassador to Uzbekistan (2005)

4 GAIN report, United States Department of Agriculture (2004)

5 Personal Communication with Alisher Ilkhamov, Former Director of Open Society Institute, Tashkent (2005)

6 Cotton: Production, Supply and Distribution, Foreign Agricultural Service, United States Department of Agriculture (2005)

7 Cotton: Market Setting, Trade Policies, and Issues, by John Baffes, World Bank Policy research Working paper 3218, February (2004)

8 The Curse of Cotton: Central Asia's Destructive Monoculture, International Crisis Group (2005)

9 Official website of Uzprommashimpeks http://www.upm.uz

10 EJF interview with Uzbek human rights defender 2005

11 EJF pers comm. anon, October 2004

12 EJF pers comm. anon, Tashkent, October 2004

13 Namangan TV, 12 Oct 04

14 Petition addressed to the UN, EU and OSCE http://www.uza.belgweb.com/en/en.php?category=2

15 'Chairman of the National Security Service is in charge of everything', Rustam Murzayev, Novaya Gazeta, 11 August (2005)

16 GAIN report, United States Department of Agriculture (2003)

17 'Investment Opportunities in the Textile Industry of Uzbekistan' a presentation made by A. Bakhramov, Chairman of the Board, Uzbeklegprom, at the Tashkent InterContinental Hotel, 29 March (2005) http://www.legprom.uz/legal/presentation_bakhramov_eng.pdf

18 Uzbeklegprom 27 September (2005) http://www.legprom.uz/eng/invest.php

19 The Failure of Reform in Uzbekistan: Ways Forward for the International Community – p28, International Crisis Group (2004) http://www.crisisgroup.org/home/index.cfm?id=2537&l=1

20 Agrarian Reform, Gender and Land Rights in Uzbekistan, Deniz Kandiyoti, Social Policy and Development Programme Paper Number 11, United Nations Research Institute for Social Development (2002)

21 Portal of the State of Authority, Republic of Uzbekistan http://www.gov.uz

22 Central Asia: New Report Warns Of Social Cost Of Region's Reliance On Cotton', (11 February) Radio Free Europe/ Radio Liberty (2005)

23 EJF interview with Uzbek human rights defender (2005)

24 'Uzbek farmer abuse claims', Institute for War and Peace Reporting, 22 September (2004) http://www.iwpr.net/index.pl?archive/rca2/rca2_315_2_eng.txt

25 'Angry Uzbek farmers force official climbdown', Institute for War and Peace Reporting, 5 April (2005) http://www.iwpr.net/index.pl?archive/rca2/rca2_365_2_eng.txt

26 Uzbekistan: Country Reports on Human Rights Practices 2004, United States Department of State (2005) http://www.state.gov/g/drl/rls/hrrpt/2004/41717.htm

27 World Report 2005: Uzbekistan, Human Rights Watch (2005) http://hrw.org/wr2k5/pdf/uzbeki.pdf

28 EJF interview with Uzbek human rights defender (2005)

29 'Uzbek cotton smugglers targeted', Institute for War and Peace Reporting, 1 November (2003) http://www.iwpr.net/index.pl?archive/rca/rca_200310_243_2_eng.txt

30 Pers comm. With Human Rights Society of Uzbekistan, Tashkent, Oct 2004

31 Uzbekistan: Living Standards Assessment; Policies To Improve Living Standards volume II, World Bank (2003)

32 'Cotton farming is dangerous in Uzbekistan', Maria Golovnina, Reuters, 31 May (2005)

33 Personal Communication with Michael Hall, Analyst, International Crisis Group (2005)

34 EJF interview with Uzbek human rights defender (2005)

35 Ilkhamov, A. 'Shirkats, Dekhqon farmers and others: Farm restructuring in Uzbekistan', Central Asian Survey, Vol. 17, No. 4, (1998) pp. 539-560.

36 Kandiyoti, D. 'Agrarian Reform, Gender and Land Rights in Uzbekistan', Social Policy Development, Programme Paper Number 11, UNRISD (2002).

37 Spoor, M. 'Agricultural Restructuring and Trends in Rural Inequalities in Central Asia', Civil Society and Social Movements, Programme Paper Number 13, UNRISD (2004).

38 Strategy for Uzbekistan, European Bank of Reconstruction and Development (2005)

39 'Cotton farming is a dangerous job' Maria Golovnina, Reuters, 31 may (2005)

From classroom to cotton fields

1 Pers comm. (various – child cotton harvesters), Ferghana valley, October 2004

2 ILO Convention No. 182 (Worst Forms of Child Labour Convention, 1999), article 1.

3 Shenker S, BBC News report, Central Asia Struggles to End Child Labour, 21.2.2005 www.bbc.co.uk/go/pr/fr/-/2/hi/asia-pacific/4267559.stm

4 International Organisation for Migration, Labour Laws and Employment Practices Affecting Children in Central Asia, Baseline Survey, 2004

5 EJF interviews and personal communication with human rights defenders; various locations: Ferghana region, Jizzakh, Namangan province, October 2004

6 Numerous published sources, see for example: Institute for War and Peace Reporting (IWPR), Further Growth in Uzbek Child Labour, 18.6.04; ICG, The Curse of Cotton, 2005; IOM 2004 *op cit*; IRIN, Focus on child labour in the cotton industry, 9.2.04

7 UNICEF 2000 cited in US State Dept Country Reports on Human Rights Practices – 2004 (Bureau of Democracy, Human Rights and Labor), February 2005

8 'Labour laws and employment practices affecting children in Central Asia', International Organisation for Migration, November 2004

9 Tahlil and Save the Children, Child labour in Uzbekistan, 2002

10 Tahlil and Save the Children, *op cit*

11 IWPR investigation into Uzbekistan cotton, 10.12.2004

12 IWPR, Further Growth in Uzbek Child Labour, 18.6.04; pers comm. Matlyuba Azamatova October 04; pers comm. Michael Hall March 2005

13 Tahlil and Save the Children, *op cit*

14 Pers comm Galima Bukharbaeva, March 2005; pers comm. IWPR, June 2004

15 Pers comm (anon) human rights worker, Jizzakh region Oct 2004; pers comm. IWPR, June 2004

16 Pers comm (anon), Ezgulik, Jizzakh region, Oct 2004

17 Head of human rights NGO, Ferghana region, quoted in Tahlil and Save the Children, *op cit*

18 IWPR, Further Growth in Uzbek Child Labour, 18.6.04

19 Pers comm (anon) human rights worker, Namangan region, Oct 2004

20 IWPR, Investigation into Uzbekistan cotton, 10.12.2004

21 Tahlil and Save the Children, *op cit*

22 Interviews (various) with children and parents in Ferghana region, Jizzakh region, Oct 2004; pers comm. Michael Hall March 2005; pers comm Galima Bukharbaeva, March 2005

23 Child labour in Uzbekistan, *op cit*

24 IWPR investigation into Uzbekistan cotton, 10.12.2004

25 EJF interview with human rights worker, Namangan, October 2004

26 Tahlil and Save the Children, *op cit*

27 Tahlil and Save the Children, *op cit*

28 EJF pers comm. (various), Uzbekistan, Oct 2004; interview with Galima Bukharbaeva, March 2005

29 School teacher, Rishtan district, Ferghana, interviewed in October 2004

30 Figures from human rights defender (anon), Ferghana region, October 2004

31 EJF interview with Ezgulic, Dijazzak region, October 2004.

32 Tahlil and Save the Children, *op cit*

33 EJF interviews (various), Ferghana, Jizzakh, Namangan, October 2004; IRIN, Focus on child labour in the cotton industry, 9.2.04

34 EJF pers comm. Alisher Ilkhamov, November 2004

35 EJF interviews (various) in Rishtan district, Ferghana region, 17.10.2004

36 EJF interviews with children (various), 17.9.04; Focus on child labour, IRIN, 9.2.04)

37 Child labour in Uzbekistan, *op cit*

38 EJF interviews with schoolchildren in Rishtan district, Ferghana region, 17.10.2004

39 Average figure derived from various sources, including interviews in Rishtan and Toshloq districts, Ferghana region. October 2004

40 International Crisis Group, The Curse of Cotton, February 2004

41 EJF interviews in Ferghana region, October 2004

42 Tahlil and Save the Children, *op cit*

43 Tahlil and Save the Children, *op cit*

44 IWPR, Further Growth in Uzbek Child Labour, 18.6.04

45 Pers comm. anon, 15.10.04.

46 IWPR, Further Growth in Uzbek Child Labour, 18.6.04

47 Coalition of 18 Uzbek human rights organisations, October 2004

48 Michael Hall quoted in BBC News online 'Central Asia struggles to end child labour, 21.2.2005

49 IRIN Uzbekistan: Focus on child labour in the cotton industry, 9.2.2004

50 International Programme on the Elimination of Child Labour, ILO, March 2003

51 ITAR –TASS NEWS AGENCY, Children collecting nearly 40% of Tajik cotton harvest (16.7.04); International Organisation for Migration, 2003

52 Turkmen Helsinki Initiative, Turkmen cotton will be harvested by children, 16.9.04

53 USDA, (Bureau of Democracy, Human Rights, and Labor) Country Reports on Human Rights Practices - Turkmenistan, 2003. 25.2.2004, http://www.state.gov/g/drl/rls/hrrpt/2003/27870.htm

54 Various sources, for example: *Africa Recovery, Vol.15 #3, October 2001, page 14* Child labour rooted in Africa's poverty; Anti-slavery Trafficking of children in West Africa - focus on Mali

and Côte d'Ivoire, http://www.antislavery.org/archive/other/trafficking-children-wafrica.htm ; U.S. Department of Labor, Bureau of International Labor Affairs, http://www.dol.gov/ILAB/media/reports/iclp/tda2001/benin.htm ; Human Rights Watch, Togo – Borderline Slavery, Child Trafficking in Togo, Vol 15, No. 8 (A), April 2003

55 Human Rights Watch, Underage and Unprotected - child labour in Egypt's cotton fields January 2001

56 India Committee of the Netherlands, 'Monsanto, Unilever Use Child Labor in India', 14.5.2003

57 pers comm. with Michael Hall, International Crisis Group, 30.8.05

58 International Crisis Group, The Curse of Cotton, February 2005

59 pers comm. various, Ferghana, Jizzakh regions, October 2004; pers comm. J. Nathan, June 2004

Draining a sea? How cotton emptied the Aral

1 Diagnostic study for the development of an action plan for Aral Sea. In: UNEP expert working group for the project assistance in the development of an action plan for the conservation of the Aral Sea. Tashkent: UNEP (1991)

2 Strengthening Co-operation for Rational and Efficient Use of Water and Energy Resources in Central Asia', Chapter II. UNECE/ UNESCAP (2004)

3 Max Spoor and Anatoly Krutov, The 'Power of Water' in a Divided Central Asia. In Mehdi parvizi Amineh & Henk Houweling (eds.), Central Eurasia in Global Politics: Conflict, Security and Development, (Leiden, Boston: Brill Academic Publishers, 2004), 595.

4 Waltham and Sholji, The demise of the Aral Sea – an environmental disaster, *Geology Today* 17 (2001)

5 Whish-Wilson, P., 2002. The Aral Sea environmental crisis. *Journal of Rural and Remote Environmental Health* 1: 29-34.

6 Karakalpakstan: A Population in Danger, Medicin Sans Frontiers (2003) http://www.msf.org/source/countries/asia/aralsea/2003/karakalpakstan/complete.pdf

7 Glantz, M. H., Creeping environmental problems and sustainable development in the Aral Sea Basin. Cambridge University Press, Cambridge.

8 P. P. Micklin, The Aral Sea Problem, Proc Instn Civ Engrs Civ Engng 1994, 102 Aug 114-121

9 Russia reviving massive river diversion plan, New Scientist (2004)

10 Water For All: The water policy of the Asian Development Bank (2001)

11 Nels Johnson, Carmen Revenga, Jaime Echeverria, Managing Water for People and Nature, *Science*, Vol 292, Issue 5519, 1071-1072 , 11 May 2001

12 Irrigation in Central Asia: Social, Economic and Environmental Considerations, World Bank (2003)

13 Cotton: Production, Supply and Distribution, Foreign Agricultural Service, United States Department of Agriculture (2005)

14 World Bank 2001 Water and Environment Management Project. Sub-component A1.National and Regional Water and Salt management Plans. Regional Report No. 2 Phase III Report – Regional Needs and Constraints. Supporting Volume (November). Tashkent: World Bank.

15 Water, Conflict, and Regional Security in Central Asia, Conflict and Water in Central Asia Macro v5, Eric W. Sievers (2002)

16 World Lakes 2003 The Aral Sea: Management Experience and Lessons Learned, World Lakes Network, June 2003

17 Republic of Uzbekistan, Biodiversity Conservation, National Strategy and Action Plan, Tashkent 1998 http://www.biodiv.org/doc/world/uz/uz-nr-01-en.pdf

18 Mainguet, M., and Letolle, R., Water Problems in Central Asia – Gigantomania Should be Replaced by Small Projects. Presented at 'New Approaches to Water Management in Central Asia', a United Nations Sponsored workshop help in Alleppo, November 2000

19 Regions at risk: comparisons of threatened environments (eds.) Jeanne X. Kasperson, Roger E. Kasperson, and B. L. Turner II United Nations University Press. The United Nations University, (1995)

20 Environmental Performance Review of Uzbekistan, United Nations Economic Commission for Europe (2001)

21 Central Asia: Conflict and Water, International Crisis Group (2002) http://www.crisisgroup.org/home/index.cfm?id=1440&l=1

22 The Guardian, Kazakh Dam condemns most of the shrunken Aral Sea to oblivion, 29.10.2003

23 Interview with Bakhtiyor Khamraev, Human Rights Society of Uzbekistan, October 2004

24 Interview with Michael Hall, Analyst, International Crisis Group (2005)

25 William F. Schillinger, Cropping Systems Research Needs in Uzbekistan: A Report to the World Bank, (2003)

26 Interview with HRSU workers, October 2004

27 Personal Communication with former Senior Ecologist (anon), World Bank (2005)

28 The Curse of Cotton: Central Asia's Destructive Monoculture, International Crisis Group (2005) http://www.crisisgroup.org/home/index.cfm?id=3294&l=1

29 Ahmad. S., *et al*.. Salt Tolerance of Cotton. *Asian Journal of Plant Sciences* 1: 715-719 (2000)

30 UNEP Global Environment Outlook (2002) http://www.grida.no/geo/geo3/english/pdf.htm

31 'Water and Conflict in Central Asia', Environmental Politics in Central Asia Sarah L. O'Hara (1998)

32 'A source of regional tension in Central Asia: The case for water', Jeremy Allouche

33 'Water Diplomacy in Central Asia', The Middle East Review of International Affairs, Zainiddin Karaev (2005)

34 World Health Organisation, WHO Public Health initiatives – Investigation of Gastro-Intestinal Diseases and Water Supply Structures in Central Asia (2003)

35 Gulnara Shalpykova, 'Water Disputes in Central Asia: The Syr Darya River Basin'. Thesis submitted to International University of Japan (2002)

The curse of Karakalpakstan

1 Ethnic Atlas of Uzbekistan, ed. Alisher Ilkhamov, Open Society Institute and LIA R.Elinina, Tashkent-Moscow, 2002, p. 116-125.

2 Karakalpakstan: A Population in Danger, Medicin Sans Frontiers (2003) http://www.msf.org/source/countries/asia/aralsea/2003/karakalpakstan/complete.pdf

3 The Study on Water Supply System in Six Cities of the Aral Sea Region of Uzbekistan - Final Report, Japan International Cooperation Agency and the Ministry of Public Utilities of the Republic of Uzbekistan (1996)

4 Proposed grant assistance (financed by the Japan fund for poverty reduction) to the Republic of Uzbekistan for the supporting innovative poverty reduction in Karakalpakstan project, Asian Development Bank (2001)

5 Waltham, T., and Sholji, I. 2001. The Demise of the Aral Sea – an environmental disaster. *Geology Today*, 17: 218-228.

6 EJF interview with Galima Bukharbaeva, Institute for War and Peace Reporting, Tashkent (2005)

7 Hanks, R. R., 2000. A Separate Space?: Karakalpak Nationalism and Devolution in a Post Soviet Uzbekistan. Europe-Asia Studies, 52: 939-953.

8 Health and Ecological Consequences of the Aral Sea Crisis; prepared for the 3rd World Water Forum, Kyoto, Dr Oral Ataniyazova (2003)

9 WHO Public Health Initiatives – Investigation of gastro-Intestinal Diseases and Water Supply Structures in Central Asian Republics, World Health Organisation (2003)

10 United Nations Economic Commission for Europe. Environmental Performance Review of Uzbekistan. Geneva: UN Economic Commission for Europe (2001)

11 Muntean, N., *et al.* 2003. Assessment of Dietary Exposure to Some Persistent Organic Pollutants in the Republic of Karakalpakistan of Uzbekistan, *Environmental Health Perspectives*, 111: 10.

12 Hooper K, *et al*., 1998 Analysis of breastmilk to assess exposure to chlorinated contaminants in Kazakhstan: High levels of 2,3,7,8,Tetrachlorodibenzo-p-Dioxin (TCDD) in agricultural villages of Southern Kazakhstan. *Environmental Health Perspectives*. 106: 797-806

13 'Aral Sea Catastrophe Leaving Its Mark on DNA of Local Populations' September 7, EurasiaNet (2004) http://www.eurasianet.org/departments/environment/articles/pp071104_pr.shtml

14 'Aral catastrophe recorded in DNA' June 29 BBC (2004) http://news.bbc.co.uk/1/hi/sci/tech/3846843.stm

15 EJF interview with Michael Hall, International Crisis Group (2005)

16 CIS Conference on refugees and migrants, 30-31 May, 1996, Geneva, Switzerland. Geneva. United Nations High Commissioner for Refugees, 1996.

From field to factory

1 Cotton: Production, Supply and Distribution, Foreign Agricultural Service, United States Department of Agriculture (2005)

2 Info Comm, Market Information in the Commodities Area, United Nations Conference on Trade and Development http://r0.unctad.org/infocomm/anglais/cotton/sitemap.htm

3 (IIED, Better Management Practices Project for IFC and WWF-US: Phase Commodity Guides IIED, Rabobank 29th March 2004

4 Cotton: Market Setting, Trade Policies, and Issues, by John Baffes, World Bank Policy research Working paper 3218, February (2004)

5 The Curse of Cotton: Central Asia's Destructive Monoculture, International Crisis Group (2005)

6 Official website of Uzprommashimpeks http://www.upm.uz/partnerse.php

7 Official website of Cargill Cotton http://www.cargillcotton.com

8 EJF interview with Craig Murray, former British Ambassador to Uzbekistan (2005)

9 (Personal Communication withTobias Webb, Editor, Ethical Corporation, 17 May (2005)

10 The Curse of Cotton: Central Asia's Destructive Monoculture, International Crisis Group (2005)

11 The Curse of Cotton: Central Asia's Destructive Monoculture, International Crisis Group (2005)

12 'Anger rises over the cotton field children who die for nothing' The Sunday Times, 27 February (2005) http://www.timesonline.co.uk/article/0,,2089-1502337,00.html

14 EJF interview with spokesperson from the Clean Clothes Campaign (2005)

15 Cotton: Production, Supply and Distribution, Foreign Agricultural Service, United States Department of Agriculture (2005)

16 Cotton: Production, Supply and Distribution, Foreign Agricultural Service, United States Department of Agriculture (2005)

17 Info Comm, Market Information in the Commodities Area, United Nations Conference on Trade and Development

18 'World Clothing Market', Traidcraft and Clothing, Traidcraft http://www.traidcraft.co.uk

19 'World Clothing Market', Traidcraft and Clothing, Traidcraft http://www.traidcraft.co.uk

20 'Cotton T-shirts' in State of the World 2004, WorldWatch Institute (2005)

21 Source: Abrams, F., Astill, J. (2001) "Story of the Blues" The Guardian, London UK. 29 May 2001 http://www.guardian.co.uk/Archive/Article/0,4273,4193955,00.html

22 Official website of GAP http://www.gapinc.com/public/SocialResponsibility/socialres.shtml

23 Official website of Nike http://www.nike.com/nikebiz/nikebiz.jhtml?page=25

24 Official website of H&M http://www.hm.com/uk/hm/social/csr_rapport.jsp

Bankrolling the industry

1 'New Measures of State Support for Attraction of Foreign Investments into Textile Industry', Portal of the State of Authority, Republic of Uzbekistan, 15 March, 2005 http://www.gov.uz/en/content.scm?contentId=10886

2 'Investment Opportunities in the Textile Industry of Uzbekistan' a presentation made by A. Bakhramov, Chairman of the Board, Uzbeklegprom, at the Tashkent InterContinental Hotel, 29 March 2005 http://www.legprom.uz/legal/presentation_bakhramov_eng.pdf

3 Uzbeklegprom (27 September 2005) http://www.legprom.uz/eng/invest.php

4 'Presentation of the Investment Opportunities in the Textile Industry of the Republic' Uzbeklegprom (29 March 2005) http://www.legprom.uz/eng/news_archive.php?id=27

5'Commentary on the privileges envisaged by the resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On Measures On Attraction Of Investments Into The Textile Industry of the Republic of Uzbekistan" Dated January 27, 2005, Uzbek News Service http://www.uzbekistan.de/en/2005/e_n0325b.htm

6 'Development of Banking & Finance System in Uzbekistan and Potential Sources of Finance for Projects' a presentation made by R. Gulamov of the National Bank of Uzbekistan, at the Tashkent InterContinental Hotel, 29 March 2005 http://www.legprom.uz/legal/presentation_nbu.pdf

7 Bursel Tashkent Textiles JV, project summary document, European Bank of Reconstruction and Development (2003) http://www.ebrd.com/projects/psd/psd2003/26361.htm

8 Uzbekistan Showcase, European Bank of Reconstruction and Development (2005) http://www.ebrd.com/country/country/uzbe/index.htm

The numbers speak for themselves

1 This represents an average figure for 1995-2004 using data provided by the USDA

2 According to the Economist Intelligence Unit, Uzbekistan's agricultural workforce is over 3 million.

3 Economist Intelligence Unit, Country Profile: Uzbekistan (2004)

4 Cotton: Market Setting, Trade Policies, and Issues, by John Baffes, World Bank Policy Research Working Paper 3218, February (2004)

5 The Curse of Cotton: Central Asia's Destructive Monoculture, International Crisis Group (2005)

6 Uzbekistan: Living Standards Assessment, volume II, World Bank (2003)

7 Uzbekistan: Common Country Assessment, United Nations (2003)

8 Uzbekistan: Living Standards Assessment, volume I, World Bank (2003)

9 EJF interview with Galima Bukharbaeva, Institute for War and Peace Reporting (2005)

10 Tashkent Centre for Social Research ' Tahlil', Child Labour in Uzbekistan, (2002)

11 EJF pers comm. anon, 15.10.04

12 Irrigation in Central Asia: Social, Economic and Environmental Considerations, World Bank (2003)

13 According to the USDA GAIN report 2004, almost all Uzbek cotton is flood irrigated. This calculation is made on the basis that all Uzbek cotton is irrigated.

14 Max Spoor and Anatoly Krutov, The 'Power of Water' in a Divided Central Asia. In Mehdi parvizi Amineh & Henk Houweling (eds.), Central Eurasia in Global Politics: Conflict, Security and Development, (Leiden, Boston: Brill Academic Publishers, 2004), 595.

15 Waltham and Sholji, The demise of the Aral Sea – an environmental disaster, *Geology Today* 17 (2001)

16 Water, Conflict, and Regional Security in Central Asia, Conflict and Water in Central Asia Macro v5, Eric W. Sievers (2002)

17 Whish-Wilson, P., 2002. The Aral Sea environmental crisis. *Journal of Rural and Remote Environmental Health* 1: 29-34.

18 William F. Schillinger, Cropping Systems Research Needs in Uzbekistan: A Report to the World Bank, (2003)

19 Karakalpakstan: A Population in Danger – p4, Medicin Sans Frontiers (2003)

20 Muntean, N., *et al.* 2003. Assessment of Dietary Exposure to Some Persistent Organic Pollutants in the Republic of Karakalpakistan of Uzbekistan, *Environmental Health Perspectives*, 111: 10.

21 Hooper K, *et al*., 1998 Analysis of breastmilk to assess exposure to chlorinated contaminants in Kazakhstan: High levels of 2,3,7,8,Tetrachlorodibenzo-p-Dioxin (TCDD) in agricultural villages of Southern Kazakhstan. *Environmental Health Perspectives*. 106: 797-806

22 Aral Sea Catastrophe Leaving Its Mark on DNA of Local Populations, September 7, EurasiaNet (2004)

23 Health and Ecological Consequences of the Aral Sea Crisis; prepared for the 3rd World Water Forum, Kyoto, Dr Oral Ataniyazova (2003)

24 World Development Indicators database, World Bank (2005)

25 Market Information in the Commodities Area: cotton, UNCTAD (2005)

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