seemed a good idea in the first place, namely that governments and monopoly had done a pretty poor job in most countries in delivering low-cost and secure supplies of energy.

David Robinson
Madrid

Dear Editor

I got two impressions on reading the three articles on nuclear power in your February issue. First that we cannot do without a major renaissance of nuclear power if we are to meet the challenge of global warming (with which I agree); and second hope that this will occur. But hope is not going to be enough – even if that hope is shared by an increasing number of previously antagonistic commentators, by politicians and members of the public; and even if all one's concerns about proliferation, waste disposal and safety are fully met.

The question which was not addressed by your contributors is what measures are needed to ensure this hope is realised? Governments can say how supportive they are of nuclear power. But will they make the necessary business decisions happen, and how? In the UK we are particularly subject to the market, and the market is going to need a lot more than signals from the government before it will act. One way or another, however you wrap it up, the government is going to have to give bankable guarantees to the industry, to persuade it to invest. And it is unlikely to want to see a proliferation of designs and suppliers all expending a lot of effort on competing with each other. Are we going to see a stealthy progress of the generating industry back into the Public Sector? (Shades of Network Rail?)

By the same token, if France is serious about nuclear power (which it certainly seems to be) then it is not going to be bullied into the market liberalisation in this sector that the EU is calling for. Is there a fundamental conflict between the desire for nuclear power and for market liberalisation?

Charles Henderson
London

China in Africa

Lindsey Hilsum looks at Africa's joy and misgivings about Chinese investments

There are still a few zebras and elephants in Beijing, not to mention the odd giraffe. Not wandering the streets, of course, but on billboards, remnants of the November 2006 Africa Summit, when the Chinese government feted political and business leaders from 48 African countries in the biggest extravaganza of its kind China has ever held.

African leaders, accustomed to being regarded as representatives of a failed continent – 'a scar on the conscience of the world,' as Tony Blair once put it – loved the attention and flattery. Each leader was greeted by President Hu Jintao in the Great Hall of the People, and by the end of the summit the Chinese had cancelled US$1 billion in debt, while promising another US$3 billion in preferential loans, US$2 billion in export credits, and a new US$5 billion fund for Chinese investment in Africa.

China already lends Africa four times as much money as the World Bank does. With US$1 trillion in reserves, China is awash with cash which can be used to secure long-term energy deals, subsidise Chinese companies expanding into Africa, curry diplomatic favours and buy influence.

The Sierra Leonean Ambassador to China, Sahr Johnny, explained the dynamic in an interview with Channel 4 News just before the Gleneagles summit in 2005, where Mr Blair and his rock star friends Bob Geldof and Bono tried to persuade G8 leaders to make 'saving' Africa a priority. 'The Chinese are doing more than the G8 to make poverty history,' said Mr Johnny. 'They just come and do it. They don't hold meetings about environmental impact assessment, human rights, bad governance and good governance. I'm not saying it's right, just that Chinese investment is succeeding because they don't set high benchmarks.'

President Yoweri Museveni of Uganda, once the darling of western donors but more recently criticised for prolonging his rule and skewing elections, was scathing about his former friends. 'The western ruling groups are conceited, full of themselves, ignorant of our conditions, and they make other people's business their business,' he said, in an interview during the Beijing summit. 'The Chinese deal with you as someone who represents your country, and for them they represent their own interests and you just do business.'

China's primary interest in Africa is energy to fuel to its 10 percent annual growth.[1] According to the US Energy Information Administration, China imports 4 million barrels of oil a day, a figure expected to rise to 11 million by 2030. With the exception of South Africa, the continent's most developed economy, China's top trading partners in Africa are all oil producers – Angola, Sudan, Congo-Brazzaville, Equatorial Guinea, Gabon, Nigeria. Angola is second only to Saudi Arabia in supplying the Chinese market. Chinese customs statistics suggest that about 30 percent of the country's oil imports are from Africa.

China not only wants to secure oil supplies now, but also to establish itself in the long term as a global player in the international oil market. The China National Petroleum Corporation (CNPC), China Petroleum and Chemical Corporation (Sinopec) and the China National Offshore Oil Corporation (CNOOC) are involved in oil exploration, production and refining across Africa. As state-owned companies, they are a tool of Chinese foreign policy. According to Ian Taylor of St Andrews University,

1 This and the following five paragraphs draw on Ian Taylor's article "China's Oil Diplomacy in Africa", *International Affairs*, 2006, vol.82:937–60.

‘China takes the long-term view vis-à-vis energy security, rather than the short-term view of private Western companies – a view necessitated by considerations of profits and shareholders.’

CNPC built its first oil refinery outside China in Sudan. Last year, Chinese companies bought exploration rights in Kenya, Namibia and Ethiopia which have not previously been oil producers, as well as increasing stakes in exploration, drilling, production and refineries in well-established oil producers such as Nigeria, Angola and Congo-Brazzaville.

For African governments the rewards are enormous. On the back of Chinese demand, the price for oil, copper and minerals such as platinum has risen to the point where some African countries are experiencing growth rates of 5 percent or more. Moreover, Chinese interest gives them leverage with western and multi-lateral donors they never previously enjoyed.

In 2004, when the IMF refused to lend money to the Angolan government unless it curbed corruption, China’s export-credit agency, Exim Bank, stepped in with a US$2bn loan on easy terms – or, as a statement from the Angolan Embassy in London put it, ‘no humiliating conditions were imposed.’ Angola is widely regarded by businesspeople as one of the most corrupt countries in the world – in 2006, Transparency International, the anti-corruption watchdog, ranked it 142nd out of 163 countries in its Corruption Perception Index.

But the Chinese knew what they were doing. Not only was the Angola loan tied to an initial supply of 10,000 barrels a day rising to 40,000 barrels later, but it was mainly for construction projects to be carried out by Chinese companies. Emerging from 30 years of civil war, Angola has embarked on massive infrastructure projects, with Chinese contractors as the first choice for roads, bridges, fibre-optic links, and even a new airport. For many Chinese firms – state-owned or semi-private – it is their first opportunity to ‘go global’, step one on the ladder to becoming multinationals with experience of operating outside China.

In a recent press conference in Beijing, the Chinese Foreign Minister, Li Zhaoxing, enthused about the crowds of ordinary citizens who would line the streets to greet him or other senior Chinese officials on their frequent visits to Africa. Perhaps he had forgotten how local party stalwarts used to round up Chinese peasants to hail Chairman Mao when he passed through on his train – woe betide those who failed to show up. While their governments welcome the Chinese, some Africans have their doubts.

> “China already lends Africa four times as much money as the World Bank does”

Rebels in the Niger Delta, who have long harassed Shell and other western oil companies in protest at the Nigerian government’s failure to distribute oil revenue fairly, recently kidnapped five Chinese oil workers. Michael Sata, an opposition candidate in the 2006 Zambian election, campaigned on an anti-China platform after workers at a Chinese-owned copper mine were shot during a protest over poor wages and working conditions. Elsewhere, Africans grumble that the Chinese import in even unskilled workers so their projects rarely boost employment, while in Zimbabwe cheap Chinese goods are derided as ‘zhing zhongs’.

Indigenous anti-corruption groups fear the spreading influence of China. ‘We’ve spent 15 years working on conventions against corruption, and now the Chinese come in and they haven’t signed up to any of it,’ said Zainab Bangura of Sierra Leone’s National Accountability Group. ‘I’m worried that African governments will see China as an alternative to G8 countries, because with the Chinese they don’t have to worry about good governance and all that.’

Others complain that their governments are failing to get a good deal from their new friends in the east, allowing the Chinese to extract natural resources as the former colonial powers did, without building processing facilities to add value and create jobs in Africa.

But the most voluble protests come from western non-governmental groups campaigning about mass killings in the Sudanese region of Darfur. China is Sudan’s biggest trade partner, buying some 60 percent of its exports, nearly all oil. The Chinese have built three small arms factories on the outskirts of Khartoum, the Sudanese capital. According to Human Rights Watch, more than 70 percent of Sudan’s oil revenue is used to buy weapons, many of which are used in Darfur. Government-backed militia, known as *janjaweed*, supported by Sudanese army helicopter gunships, have driven more than two million Darfur citizens from their homes while up to 200,000 have died, some in fighting, others from hunger. President Hu Jintao, who visited Sudan in February as part of his fifth tour of Africa, was reported to have put some pressure on his Sudanese counterpart, President Omar al Bashir, but the displaced people of Darfur are yet to see any improvement in their desperate circumstances.

Until now, criticism has not bothered the Chinese, who trumpet a foreign policy based on ‘non interference’ and ‘sovereignty’, which means that they will not criticise their African trading partners and oil suppliers because they do not welcome outsiders commenting on their own human rights record.

But in March, a new campaign emerged in the USA calling for a boycott of next year’s Beijing Olympics, because of Darfur. ‘China’s slogan for these Olympic Games – “One world, one dream” – is a ghastly irony, given Beijing’s complicity in the Darfur genocide,’ wrote Eric Reeves, an American academic. ‘The Chinese leadership must understand that if they refuse to use their unrivaled political, economic, and diplomatic leverage with Khartoum … then they will face an extremely vigorous, unrelenting, and omnipresent campaign to shame them.’

Shame and ‘loss of face’ are potent concepts in China. The Darfur

Olympic campaign, if it reaches a critical mass of support, could just dent China's image at an important and very public moment. Next year's Olympics are seen by the authorities in Beijing as their 'coming out' party, the moment in history when China is restored to its rightful place in the world, similar to the status it enjoyed in the prosperous and powerful Han, Tang and early Qing dynasties.

Courting Africa is part of the strategy to boost China's global diplomatic reach and international standing. Only five African countries retain links with Taiwan – the rest have all turned to the People's Republic. Aware of the importance of 'soft power', China is building Confucius Institutes, where people can learn Mandarin and study Chinese culture, in key African cities. According to Yan Xuetong of the Institute of International Studies, Tsinghua University, while the USA follows an increasingly unilateral course, 'China will maintain its multilateral diplomacy to harmonize relationships with her neighbours, the EU and the developing nations of other regions. Their opposite foreign policies will reduce the political power disparity between China and the United States.'

At the beginning of the twenty-first century, Africa provides China with a strategic opportunity to increase its influence in the United Nations and other international forums, as it tries to match its economic rise with greater diplomatic clout.

It is an opening few African leaders could have dreamed of. After decades of being damned by the West as 'the lost continent', suddenly Africa matters. No wonder African leaders were smiling like crocodiles as they left the Beijing Summit.

Additional research for this article done by Kuang Ling

Bassam Fattouh assesses Chinese oil companies in Sudan

China and Energy Security

China is a relative newcomer to the 'energy security' game. Until the late 1980s, energy security did not constitute a major concern for the Chinese government. This started to change in the mid to late 1980s as a result of economic reform and China's spectacular economic growth which sparked large increases in oil demand. In 1993, China shifted from a net oil exporter to a net oil importer; in 2003, it surpassed Japan as the world's second-largest consumer of petroleum products. International Energy Agency (IEA) data show that between 2000 and 2006 China accounted for almost 40 percent of total growth in global oil demand.

The recent shift to the status of a net importer of oil has raised serious concerns about energy security in China. The option of finding new reserves and boosting domestic production to achieve self-sufficiency in oil is no longer available. Instead, Chinese oil demand is likely to continue to rise at a much faster rate than domestic production. It is estimated that by 2020, China will import nearly 8 million b/d accounting for around 65 percent of its total oil demand.

Faced with this reality, China has embarked on what some refer to as 'oil diplomacy' to enhance energy security. This diplomacy is centred on two main objectives: to secure oil supplies for the country's growing demand and to enhance its position as a major player in the oil market.[1] To achieve these two objectives, China first began a major restructuring of its oil industry in the 1980s. This resulted in the creation of three vertically integrated state-owned oil companies: China National Petroleum Company (CNPC), China Petroleum and Chemical Corporation (Sinopec) and China National Offshore Oil Corporation (CNOOC).

1 See Ian Taylor, 'China's Oil Diplomacy in Africa', *International Affairs*, 2006, vol.82: 937–59

In its attempt to secure oil supplies, the Chinese government has pushed its oil companies to acquire foreign oil assets and secure exploration and development rights all over the world. CNPC, Sinopec and CNOOC, which until recently focused almost exclusively on domestic oil production, have now acquired assets in a large number of oil-producing countries. According to the EIA's China Country Analysis Briefs (August 2006), CNPC has acquired oil interests in 21 countries spanning four continents and intends to spend a further $18 billion in foreign oil and gas assets between 2005 and 2020. The policy of acquisition of oil assets is primarily driven by energy security concerns. Consequently, Chinese companies have been able to engage in aggressive bidding, and accept terms that are not acceptable to private companies. Some observers go further, accusing the Chinese government of promoting state-to-state deals and engaging in political opportunism to secure oil concessions.

Chinese Companies in Africa

In this frantic quest for energy sources, special attention has been given to Africa. China voluntarily waived $1.2 billion in sovereign debt in 2000 and by 2006 it has provided more than $5.5 billion in aid and cancelled the debt of 31 African countries. It has also strengthened its economic links with Africa as reflected in the value of China's trade and foreign investment in the continent. In 2005, trade between China and Africa increased from $20 billion to $40 billion and in 2006 it hit a record of $55.5 billion.

It is important to stress that Chinese interests in Africa have not been confined to oil assets. China has also been active in securing access to different kinds of natural resources.

Chinese Oil Interests in Sudan

Within Africa, Sudan presented a perfect opportunity for Chinese oil companies to consolidate their presence in the continent (as detailed by Luke Patey in a Danish Institute for International Studies publication).

Since the early 1980s, Western oil companies in Sudan started to scale down their operations and by the mid 1990s decided to exit the country. CNPC seized the opportunity and stepped in to displace foreign firms, establishing a leading position in Sudan's oil industry. When CNPC entered in 1996, the country's oil potential was well recognised thanks to Chevron's effort. Chevron, which had entered Sudan in the early 1970s, had made many significant discoveries and established the basis for the Sudanese oil industry. However, after a heavy investment estimated at $1 billion, the company was forced to suspend its operation in 1984 and completely exited Sudan in 1992 selling its concession for $23 million to a Sudanese oil company (ConCorp) whose owner was closely linked to the leader of the National Islamic Front, Hassan Al-Turabi. Chevron's departure was caused by the eruption of the civil war, continuous attacks on oil installations and threats to expatriate employees.

Concorp in turn sold its concession to a State Petroleum Corporation from Canada, which then in 1994 sold its concession to Arakis Energy Corporation, also from Canada. In 1996, Arakis sold 75 percent of its share to CNPC, Petronas, and Sudapet (the national Sudanese oil firm) and formed a new consortium, the Greater Nile Petroleum Operating Company (GNPOC) with Arakis acting as the operator. Arakis however was not able to raise the required finance and decided to sell its share to Talisman Energy (another Canadian company). Oil assets in Sudan were vital for Talisman's global energy portfolio, but after four years of engagement it decided to sell its interest to India's Oil and Natural Gas Corporation Limited (ONGC). Talisman's departure was caused in part by outbreaks of violence, military attacks on oil installations and pipelines and in part by pressure from media and human rights organisations that linked violence to Talisman's activities in Sudan.

China Faces Criticism and the Policy of Non-interference

The Chinese government portrays its strategy of securing oil assets in Sudan as different from that of traditional exploiters. Chinese officials argue that unlike the colonial West, its trade and investment in Africa are contributing to the development of the continent and that China is investing in Africa at times when it has been attracting little investment from anywhere else.

> "The Chinese government portrays its strategy of securing oil assets in Sudan as different from that of traditional exploiters"

However, this has not helped insulate China from criticism. During the war between the Sudanese government and Sudan People's Liberation Army (SPLA), China was heavily criticised for helping finance the Sudanese civil war and supplying weapons to the Sudanese government. It is estimated that China has sold the Islamic government in Sudan $100 million worth of weapons and supplied it with jet fighters and strengthened its military air power. During the civil conflict, there were many reports accusing the Sudanese government of using CNPC facilities as a base from which to attack rebels. China is also accused of turning a blind eye to poor governance, corruption and human rights abuses and supporting autocratic regimes. Currently, it is being criticised for adopting a special reading of human rights to block UN sanctions on Sudan for human rights abuses in Darfur.

China's response to these criticisms especially those related to human rights abuses has been to adopt a policy of 'non-interference in state sovereignty and domestic affairs', according to Ian Taylor. This policy can vary from a very general position that China does not meddle in domestic politics to the position that the business sphere should be completely separated from the political sphere. The policy has been well received in Africa and particularly in Sudan since it feeds on Sudanese leaders' suspicions that Western countries wish to force their viewpoints and values on poorer and weaker nations. Others would go further, arguing that criticisms directed at China are hypocritical as Western countries' foreign policy towards Africa was never based on enhancing human rights. As to criticism that China is taking oil from Africa, Bo Xilai, the Chinese commerce minister, responded very bluntly that 'according to statistics, last year, of Africa's total oil exports, China took 8.7%, Europe took 36% and the United States 33%. If importing 8.7% means exploitation, how about 36% and 33%?'

China in Sudan: A Success Story?

It is unlikely that criticism of China's energy interest will alter its strategy in Sudan in the near term. On the face of it, the future is looking bright for CNPC. In the last two years, Sudan has been enjoying a period of relative political stability as regards the North/South conflict thanks to the Comprehensive Peace Agreement (CPA) signed in 2005 between the Sudanese government and SPLA. The CPA stated explicitly that all previously signed oil agreements by the Government of Sudan will be respected by all parties. Thus, it was no surprise that the Chinese government was very fast to welcome the agreement between the warring factions.

The fact that the two parties agreed not to alter existing concessions can be considered as an important achievement. Oil production has so far been concentrated in Southern Sudan. Furthermore, most discoveries are being made in the Southern part of the country while exploration results in the North have not been very promising. To reflect this reality, the CPA included an agreement on sharing revenues from oil sales between the South and the North on a 50–50 basis. To help implement the revenue-sharing agreement of the CPA, the National Petroleum Commission (NPC) and the Assessment of Evaluation Commission, were created in 2005. NPC has also been made responsible for approving new oil contracts and resolving any disputes regarding existing concessions. In principle, these institutions should give the Government of Southern Sudan a bigger say in determining the future development of Sudan's oil sector.

The above suggests that China's energy interests in Sudan are quite secure and that its policy of enhancing energy security has worked in this country. However, it is still premature to come to such a conclusion. China's position may be undermined by current dynamics within Sudan. These new dynamics are being manifested in a number of ways. First, there is a debate in Sudan on whether the heavy reliance on Asian oil companies is the best strategy for the long-run development of its oil sector. Many argue that Sudan should aim at attracting more international oil companies which are perceived to have the best available technology, follow high efficiency benchmarks, and pursue more responsible social policies. It is also argued that private foreign oil companies would play a more effective role in technology transfer and upgrading indigenous skills. Chinese companies, on the other hand, tend to rely primarily on imported labour from China with little interaction with local employees. Also, Chinese companies play a limited role in the training of local employees, especially from the South.

Second, Chinese officials always emphasise that Chinese oil companies pay greater attention to protecting the environment and engaging with the local community when exploring and developing oil fields. However, the view from within Sudan is quite the opposite. In fact, many argue that the Chinese have been successful because they do not set high benchmarks regarding transparency, environmental standards, and corporate social responsibility. Earlier this year, the Chairman of the Assessment of Evaluation Commission (AEC) Tom Vraalsen declared that oil companies are seriously violating the CPA in more than one area including extensive environmental degradation, failure to compensate for damages caused by oil operations and disregarding the concerns and interests of local communities. The latter issue has caused some resentment especially towards the Chinese.

Third, some governors in the Southern oil-producing states are becoming more affirmative, requesting that oil companies do not bypass them. For instance, in a recent conference, the governor of Jonglei State, which produces oil, announced that 'some of these oil companies should understand that Southern Sudan is no longer a no-mans-land as it was before the CPA, ready for grabbing. There are levels of governments and laws in full operation that must be consulted and respected by oil investors and all concerned.'

> "China's position may be undermined by current dynamics within Sudan"

Fourth, the use of private security forces by Chinese oil companies has also been causing tensions and raising eyebrows. Many officials are arguing that there is no need to have separate security for companies. Since the war is over, oil assets should be kept under the protection of the State.

Fifth, recently there have been many calls for greater transparency in management of oil revenues and improving the functioning of the NPC. For instance, the European Coalition on Oil in Sudan (ECOS) announced in its 2006 Conference that the 'NPC is the most important mechanism towards the realization of equitable oil distribution and revenue utilization.' However, the NPC has been dysfunctional due to political differences among the various parties. Although sharing revenues is an internal Sudanese matter, foreign companies can not insulate themselves from this debate as they are responsible for generating and channelling the rents to the central government.

These issues are unlikely to go away and most probably will intensify, especially in the next few years when Southerners decide in a referendum in 2011 whether they wish to partition from the rest of Sudan. This raises a series of important questions: what will be the future of CNPC (and other Asian national oil companies for that matter) if Southern Sudan decides to vote for partition and independence and decides to terminate the oil concessions signed by the Northern Government? If this happens, would China consider this decision as a sovereign act and respect the new government's decision? Or will such a decision alter China's policy of non-interference in domestic affairs?

Conclusion

Despite early successes China's current energy interests in Sudan are far from being secure and events may still prove the weakness of its energy strategy in Africa in general and Sudan in particular. In fact, this raises a more fundamental question about China's general energy security strategy. First, Chinese companies control a small amount of production outside China. In fact, the amount of oil obtained from Chinese concessions in Sudan is quite low, representing less than 5 percent of Chinese total demand in 2006. Second, given China's rapid growth in oil demand, ownership of assets in Africa will not help achieve the objective of diversification as China will remain highly reliant on imports from the Middle East. Third, ownership of assets does not secure low oil prices or help insulate the Chinese economy from price hikes or price volatility. Finally, it is not clear whether China can avoid the fate of other companies and continue to exercise its control over foreign assets in periods of crisis or fundamental political changes which Sudan is likely to face in the near future.

The emergence of the internationally active Chinese oil companies acting as agents of their home state's foreign policy to secure energy security is merely a variation on an old theme. The United States, Britain and Japan tried a similar strategy in the last century and failed. Now it is apparently China's turn to learn this lesson the hard way.