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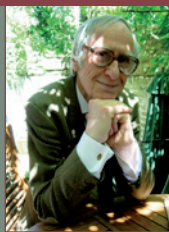
January 2011

Kenya's Dilemma

**Revealed: new port
threatens Lamu
district's indigenous
coastal communities
and fragile ecology**

Green Banking

Green bank that could help Britain reduce carbon emissions



David Fleming

Tribute to the life and work of Dr David Fleming



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Can families play a role in the fight against climate change?

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Fishy business...

As we ease into the new year just one story dominates the environment beat: that the Metropolitan Police face calls for a detailed independent inquiry into its policing of protest outfits after it emerged that they had secretly infiltrated dozens of activist groups using a 'deep undercover' officer Mark Kennedy.

Mark Kennedy spied on protesters, including climate activists, for almost seven years in a bid to gather intelligence that would help the Met disrupt the country's green protest movement. Details about his elaborate undercover role were due to be raised in Nottingham Crown Court this month in legal arguments relating to the attempted prosecution of six climate campaigners accused of conspiring to enter the controversial coal fired power station at Ratcliffe-on-Soar. But the Crown Prosecution Service withdrew the charges suddenly after the defence requested disclosure on the role Kennedy played in organising the protest.

Kennedy himself is reported to have quit the Met and had offered his services to aid the defence in the Ratcliffe case which originally saw over a hundred activists arrested by police in April 2009 in a swoop designed to prevent the occupation of the power station. Campaigners are now – rightfully – calling for an inquiry into the affair, particularly examining allegations that he overstepped the mark between being a passive spy and becoming an agent provocateur.

Although it's highly worrying that taxpayers money is being wasted by police trying to disrupt eco- protest networks it shouldn't come as a surprise – infiltration and other covert operations targeting campaigners are hardly new. And, as The Ecologist revealed in 2008 ahead of the Kingsnorth climate protest, it is not always the police who do the spying: our investigation traced how Toby Kendall, an employee of 'risk management' firm C2i International, had been paid to spy on direct action group Plane Stupid, using the pseudonym Ken Tobias.

Our report – and somewhat controversial film, Melting Point, which you can watch online at www.theecologist.org – highlighted a range of other equally unsavoury attempts to thwart or smear green protest groups by police, big business and corrupt sections of the media. Nothing, it seems, has changed.

In the week that Channel 4 tackles all things fishy with its Big Fish Fight season, you can watch online too our groundbreaking investigation, The Greed of Feed, examining the social and ecological costs of fishmeal production in Peru. Fishmeal is a principal component of farmed salmon feed and, as we documented, many of the UK's leading food retailers were found to be sourcing salmon from Scottish farms with links to companies buying highly unsustainable Peruvian fishmeal. As part of his campaign, Hugh Fearnley-Whittingstall examines salmon (amongst other species) and references the troubling feed question, the Ecologist Film Unit having fed much information and footage into the programme.

Also lending their support to the C4 campaign are Gordon Ramsay and Jamie Oliver. Whilst such high profile backing undoubtedly generates interest in the issues, it also brings about troubling inconsistencies: at the time of the original Ecologist investigation into salmon feed, Oliver was among the celebrities found to be advertising Sainsbury's Scottish salmon – one of the supermarkets linked by our research to a salmon supplier which had partnered with a feed company procuring huge volumes of controversial Peruvian fishmeal...

Andrew Wasley, editor

Cover: Mega port plans in Kenya are proving controversial. Tafline Layline

Green Investment Bank faces critical test over funding shortfall



George Osborne pledged £1 billion to a green bank that could help Britain reduce carbon emissions. But with low carbon technologies unproven, banks, institutions and energy companies are wary, meaning the venture may not attract the capital to make it viable.

Mark Jansen
investigates

George Osborne pledged £1 billion to a green bank that could help Britain reduce carbon emissions. But with low carbon technologies unproven, banks, institutions and energy companies are wary, meaning the venture may not attract the capital to make it viable. Most people would agree the UK needs to slash its carbon emissions. The problem is paying for it. According to accountants Ernst & Young, the UK needs to spend £450bn on its energy infrastructure by 2025 in order to meet its long-term target of an 80 per cent cut in carbon emissions by 2050, enshrined in the Climate Change Act of 2008.

That £450bn includes money to make our homes and industry more energy efficient and a massive

expansion of renewable energy such as wind, tidal and hydro power. It also includes money for new coal, gas and nuclear power stations, to replace our rapidly-ageing existing stock and keep the lights burning, plus investment in carbon capture and storage, as well as new transmission networks.

That sum is not expected to come entirely from taxpayers' pockets. Ordinarily, the money would be spent by energy companies, banks and so-called 'institutional investors' such as pension funds, who take people's savings and invest them, with the aim of generating a steady return which goes into their retirement pot. The problem is, nowhere near enough money is going into our energy infrastructure at present. Ernst & Young estimates that banks, institutions and energy companies will only invest £50-£80bn between now and 2025, leaving a massive shortfall of £370bn. The reasons for the shortfall are complex, but a crucial factor is that investment in low-carbon technology is seen as very risky, because the technology is unproven and the returns are uncertain. In addition, Britain is just one country competing for funds to invest in its energy system in a global marketplace. Yet unless something is done to make up that shortfall, the UK's hopes of becoming a low-carbon country are doomed.

Low carbon energy

That is why our politicians have resolved to create a Green Investment Bank. The basic idea is that the bank would use some taxpayer's money in creative ways that encourage the private sector to invest a lot more in low-carbon energy. In October the chancellor George Osborne promised an initial £1bn for the Green Investment Bank. A debate is currently raging between different government departments as to exactly how

the bank should work and how much more of our money should be put into it. A critical question is, how much risk should the bank be allowed to take with our money?

The collapse of Lehman Brothers in 2007 kicked off a global recession with US and European governments forced to prop up the banking system. Royal Bank of Scotland remains largely in state hands and the failure of Irish banks has led the Irish Republic to seek an 85bn Euro bail-out from the European Union and the International Monetary Fund. In this climate, British politicians will have to tread very carefully indeed when deciding how the Green Investment Bank will work, although all the main political parties support its creation. The Coalition is expected to announce more details in March, most probably in the 2011 Budget. A spokesman for the Department of Business, Innovation and Skills says it aims to have the bank up and running by September 2012.

Ernst & Young is relatively cautious about the bank's future role. In October it published a report, 'Capitalising the Green Investment Bank', which examined the funding shortfall and possible ways for the new bank to help. Ben Warren, co-author of the report and an energy and environmental infrastructure partner at Ernst & Young, says the idea of a Green Investment Bank which borrows heavily to invest in energy projects such as offshore wind farms is 'not an attractive prospect'. The bank should avoid trying to compete with private sector banks and instead, find ways to channel private money into low-carbon energy, such as by creating insurance products which reduce the risks, he argues. For example, it could promise to compensate investors if the construction of an offshore wind farm goes over budget or falls behind schedule. Warren argues that the basic problem is not that the financial

markets don't work, but they are afraid of the risks inherent in low-carbon technology. The Green Investment Bank's role should be to reduce that risk. 'Offshore wind has a high perceived risk of construction and cost over-runs,' says Warren. The same worries hold back investment in new nuclear power stations, while carbon capture and storage is also 'an unproven technology'.

Shortfall in funds

Ernst & Young believes the Green Investment Bank needs at least £4-£6bn in order to 'make a difference'. So far Osborne has pledged just £1bn, with a promise of more to come from the sale of government assets. 'In our minds, £1bn is short, under any scenario,' says Warren. 'The green economy will deliver some real jobs... While the government is looking at everything through the austerity lens right now, renewable energy provides great opportunities for the UK.'

Campaigners for the Green Investment Bank argue that the risk of investing has to be balanced against the massive potential benefits of achieving a low-carbon society. Andrew Raingold, deputy director of the Aldersgate Group, a coalition of businesses, NGOs and Members of Parliament which campaigns on environmental issues, is confident that the Green Investment Bank will happen, but is concerned that political disagreements over how it should operate and how much money it should be given may prevent it from being 'credible and effective'. 'It will be hard to achieve a political consensus on the solution,' he adds.

The Aldersgate Group, which published its own report in September, 'Financing the future' believes the bank should issue 'green bonds' to encourage pension funds to invest in the low-carbon sector. Pension funds and life

insurance companies are critical because they control funds of more than £2 trillion. However, they do not currently invest in low-carbon energy because it is seen as too risky. Supporters of the 'green bond' concept argue that this would change if the Green Investment Bank sold green bonds to pension companies. These would offer the kind of steady, if relatively modest, income which is attractive to pension funds and the payouts would be guaranteed by the government. Meanwhile, the Green Investment Bank would take the money raised from the sale of these bonds and invest it in riskier projects such as offshore wind farms or carbon capture.

'We think it's essential the bank has the power to raise its own capital and green bonds would be an example of that,' says Raingold. The Aldersgate Group also argues that the creation of a bank which puts taxpayers' money into low-carbon projects would demonstrate to the rest of the investment world that the government is serious about low-carbon energy. This is particularly important because this autumn the government announced a comprehensive review of the electricity market and it is widely suspected that the subsidies currently paid to generators of renewable electricity may be reduced, which has made

private sector investors even more cautious. 'There is a perception in the private sector that the government keeps changing its mind on climate change policy,' says Raingold. 'If you have a government-back institution making these investments, it would help convince the private sector that government policy is genuine.'

Holy grail: pension funds

Gordon Edge, policy director at Renewable UK, which represents wind, wave and tidal power companies, would strongly welcome a Green Investment Bank which achieves the 'holy grail' of getting pension funds to invest in low-carbon energy. At present, onshore wind companies are managing to find the £1bn or so a year they need to fund their expansion of roughly 1 gigawatt per year. Offshore wind is more expensive, but so far, those companies have also managed to raise the £3bn a year they need to increase capacity by 1 gigawatt annually. The problem will occur around 2015, when expansion of offshore wind must ramp up to around 3 or 4 gigawatts per year, to help reach the UK's target of 15 per cent renewables by 2020, up from the current level of just 3 per cent. Power companies like Eon and RWE simply don't have the money to fund this level of expansion, says Edge: 'We need to find that money somewhere else.'

Campaigners say there are plenty of examples already of state-owned banks that have successfully supported the development of new markets, such as the European Investment Bank or Germany's KfW. Ed Matthew, programme director of Transform UK, which has lobbied strongly for the Green Investment Bank, says Germany's KfW has helped bring about hundreds of thousands of energy-efficient refurbishments of German housing, by offering low-interest loans.

'In the UK, there are almost no refurbishments, apart from those done by a few environmentalists. In Germany, they are retrofitting 100,000 homes a year and 200,000 jobs have been created, because of KfW's programme,' says Matthew. He adds, 'The investment needed to make the UK a low-carbon country is on a completely different scale to what's gone before. There's not a chance in hell of reaching the levels of investment required without a Green Investment Bank.'

Nick Mabey, chief executive of E3G, an environmental think tank that was commissioned by the chancellor to report on how the bank should work, is 'cautiously optimistic' that a fully-fledged investment bank, with the power to borrow money on the capital markets as well as spend taxpayers' cash, will be created.

'I think there's an awful lot of support among politicians and decision makers, in and outside government, especially those who see the green economy as part of the future,' says Mabey. 'The UK has had great targets [for renewable energy] forever, but we are very bad at implementing them. I think the Green Investment Bank is critical... we need a sensible, clever, innovation.' In a few short months we will know whether our government is ready to take the plunge.



Sustainable stock exchanges: a new choice for investors



Can the cut-throat, speculative world of the stock market be used to hold businesses to account for environmental damage and human rights abuses? **Chris Milton** investigates for the Ecologist.

In November 2009, in a small room at the United Nations in New York, a group of the world's most powerful financiers gathered to discuss something close to their hearts: stock markets.

However rather than talking about capital driven considerations, such as cash flows and profit maximisation, their focus was on

promoting environmental and social considerations as criteria for sound investments.

This is because the meeting was hosted by the United Nations Principles of Responsible Investment (PRI) and most of the meeting's attendees were signatories to the scheme. Its focus was how signatories could fulfil the third of PRI's six principles:

to seek environmental, social and governance (ESG) disclosure from the companies in which they invest. ESG is the twin of the more widely known Corporate Social Responsibility (CSR). While CSR is the disclosure of information by a company, ESG is the criteria against which investment decisions should be made. The two do not correlate exactly, but they certainly work hand in hand.

Many investors in the Socially Responsible Investment (SRI) community had previously thought CSR disclosure would happen through government regulation, but the meeting believed it had found an alternative: Sustainable Stock Exchanges, where the production of CSR data is part of the exchange's listing rules, the hurdles a company has to jump over in order to be publically traded.

In September 2010 the group met again, this time in China. A survey of the world's top 30 stock exchanges was presented, which showed that while only 21 per cent of respondents supported changing their listing rules, over 75 per cent accepted they had some responsibility towards society and the environment. The meeting ended with the initiative's leader saying it would write to stock exchanges around the world 'to demand that sustainability reporting becomes embedded within listing rules and that listed companies put a forward looking sustainability strategy to vote at their AGM.'

This leader isn't one of the more recognisable ethical investment companies such as Triodos Bank and the Co-operative Group, who are nevertheless part of the initiative.

It's Aviva Investors, part of the world's fifth largest investment company and the largest UK-owned institutional investor. Why is this giant leading attempts to reform the global financial system of which it is such a vital part?

Failure of voluntary approach

Steve Waygood is Head of Sustainability and Investor Research at Aviva Investors and the man writing the letter to the leading stock exchanges. '[Aviva] recognises that sustainability is important and should be integrated

into portfolio management,' he explains, 'The question is how to do this in practice?' He lists three possible options: expecting companies to adopt CSR criteria voluntarily, changing company law or changing stock exchange listing rules. 'Voluntarism isn't working,' he says, citing Aviva Investor's experience when they wrote to 10,000 of the world's listed companies to ask them to sign up to the United Nations Global Compact (UNGC), one of the less stringent CSR frameworks.

Only 150 of the 10,000 were prepared to take the step voluntarily, and only 10 per cent of the companies signed up to the UNGC are of interest to institutional investors, the rest being either state or privately owned. Of the other two options, he believes company law is reviewed too infrequently to be useful in the current environment, leaving changing stock exchange listing rules as the only viable solution for institutional investors. 'Aviva Investors would prefer stock exchanges to change their listing rules to include a sustainability strategy from companies to be put forwards at AGMs,' he says, likening the proposed situation to directors' remuneration reports.

These have to be prepared every year and submitted for approval at the AGM. The vote is only advisory, but it is taken as a severe criticism of a company's management if the board cannot get shareholders to agree with its overall strategy, as activist shareholders have shown in recent years. Forcing a vote on sustainability at AGMs will stimulate more discussion of sustainability within the boardroom than simply changing company law to make CSR reports mandatory.

Steve Waygood is realistic enough to recognise that this engagement on big markets is not enough to solve all the sustainability issues in the financial world. One reason

may be that it excludes social enterprises.

The problems of social enterprises

Social enterprises are companies whose primary aim is to create a positive change in society. As businesses they need to make a profit but they are willing to sacrifice maximised profit in order to ensure the effect on the ground is as far reaching as possible. These businesses traditionally hit a glass ceiling and become disenfranchised from the investment world, according to Pradeep Jethi, a driving force behind the Social Stock Exchange project.

They receive good capital investment when they first launch, he says, because they are in a rapid growth phase and this fits with traditional investors' aim of creating a large profit within a short space of time. However in later years investors are not so keen on the slower growth rates and the businesses themselves shy away from traditional investors who may ask them to compromise their core mission in order to maximise profits.

The Social Stock Exchange could change this by providing a market exclusively designed for impact investors to look directly at the opportunities provided by social enterprises. 'What differentiates us is that our companies put social justice first,' says Pradeep Jethi, explaining that there would be no need for mandatory CSR listing rules because only socially aware companies would be allowed onto the exchange in the first place. That differentiation could attract big money. Impact investment is a fast growing section of the finance sector and includes names such as JP Morgan whose impact investment fund is currently worth over \$41bn.

Pradeep Jethi admits it will be difficult to keep the speculators out of the Social Stock Exchange simply because it's up to the companies where they accept investment from, not the exchange. 'When a company first IPOs (lists on the exchange) we will advise them to go to impact investors,' he says, 'And one of the things we would like to do is to ask that the share register should be published once or twice a year.'

The hope is that this additional scrutiny will keep away the gambling class of speculators who don't like the wider world to know which companies they're betting on.

Human rights a low priority

However reforming stock exchanges can never be a complete solution according to Scott McAusland, Advocacy and Communications Officer for the International Rehabilitation Council for Torture Victims. 'Targets mean investors are committing on these issues,' he says, 'But investors will never be as good as NGOs at holding businesses to account for human rights abuses'. His issue is that human rights is still seen as a very poor cousin of environment issues and has far less emphasis placed upon it by reporting frameworks, companies and investors alike. This is because human rights abuses usually only come to light after a certain length of time has passed. Even where a link to a company is proved access to legal redress for the victim can be impossible without an independent organisation prepared to take action.

Investors are unlikely to be able to take on this role because they're naturally more concerned with a company's mitigation and preventative measures than ensuring the victim is receives proper remedy. 'The thinking simply

isn't as well developed,' he says citing the recent example of the Global Reporting Initiative (GRI), another CSR framework, deciding not to update its human rights indicators because the area is just too complicated.

In order to become sustainable, national and global financial systems will therefore need to take account of many factors and just one solution is unlikely to be able to embrace all the changes required. This is neatly summed up by Harry Morrison, General Manager of The Carbon Trust, who points to the difference between reporting upon a company's operations and taking steps to change them for the better.

He suggests that investors may wish to use carbon as an example of how other impacts should be handled. In particular, he points to how the Carbon Trust has not just engaged with businesses in measuring their carbon footprint but also actively helped them to set targets to reduce it. However even here it appears that there is a mismatch between business expectations and their actions on the ground. For example, a recent Carbon Trust survey found that three quarters of UK companies expect carbon reporting to become mandatory, yet almost the same number admit they don't measure their carbon footprint.

Even more tellingly, the survey shows that less than half of the

companies cited investor pressure as a reason to cut their carbon emissions, while over three quarters cited consumer expectations.

There is no doubt that sustainability has gained momentum within the financial sector. The volume of UK funds placed under SRI has increased by 19 per cent in the last two years and many markets are reporting that the value of SRI funds is growing faster than the market as a whole. The danger is that once this rapid expansion of SRI and impact investing has tailed off the money will move to the next high growth area.

To stop this happening investors and governments need to have well informed consumers telling them what to do and activist NGOs prepared to keep the pressure up and hold businesses to account. In other words, all stakeholders need to participate together in making CSR and ESG become everyday business and investment practice. Only this will ensure finance moves to a truly sustainable model.



Activist families: the parents and children protesting against climate change

Can families play a frontline role in the fight against climate change? The Ecologist meets the parent-child activists who believe they can.

Sarah Bentley reports

'Get her down, she's scared...you'll be charged with child abuse...we'll arrest you.' These threats were directed at Duncan Blinkhorn, a 49 year-old community events co-ordinator from Brighton and his then 11 year-old daughter Maya, as they perched on a fence outside the Radcliffe-On-Soar power station on October 17th 2009 holding a Don't Burn Our Future banner.

The father and daughter were at a direct action organised by Camp For Climate Action and other groups demanding coal-fired stations be replaced with renewable energy infrastructure. 'It was my idea to climb the fence so our banner could be seen by the cameras,' explains Maya, who self-manages her education and wants to be a nurse or vet. 'I told police I was fine but they wouldn't listen. They threatened to arrest Duncan. That was scary but it hasn't stopped me going on other actions. It's my generation that will be affected by climate change. Having young



A family affair...

people at demo's makes a good point.'

After Radcliffe the Blinkhorn's were investigated by social services. Footage from the day satisfied social workers Maya wasn't coerced into participating and the case was dropped. Such scrutiny from the authorities is intended to deter families from attending actions, but in October Duncan and Maya joined Crude Awakening, a blockade of the Stanford-Le-Hope oil refinery. Rather than D-lock themselves to vehicles they helped create a 'carnival atmosphere.' Duncan brought a soundsystem in a suitcase while Maya hula-hooped, chalked anti-oil messages on the ground and posed for photos with oversized cigarettes she'd crafted with Addicted To Oil written down their sides. 'I suppose

we're pushing the boundaries,' confesses Duncan. 'But allowing Maya to come on peaceful but assertive actions seems right. It's a parental responsibility to help children understand the world they're growing up in. Climate change inaction is bad parenting on a global scale. On a micro level we can turn that around.'

Having the moral upper hand doesn't negate the very real prospect of arrest and leaving a minor unattended. Doesn't it worry Duncan? 'It's not happened yet so if it did I would worry. But the people at these demo's are like family. Maya would be in excellent hands.'

Duncan is the only interviewee in this piece who participates in direct action happy to use his real

name. Many activists, particularly those prepared to use their bodies as physical barriers or damage property to access targets, use aliases which campaign comrades and even their children use when police or potential undercover are in the vicinity. 'I understand why activists do it but I don't feel I need to,' he says. 'I'm happy to talk to anyone – police, students, other families - about what we do.'

Facing down the police and harassment

The dedication and bravery of the Blinkhorn's is not unique. Families with lifestyles driven by their commitment to the environment are an increasingly common presence within activism circles and are participating in camps, direct actions, protests, publicity stunts and campaigns across the UK. Numbers of families involved nationally are unavailable but at last years Climate Camp, a temporary

community in a claimed space that aims to promote sustainable living, an estimated 40 families attended despite previous camps experiencing harassment such as low flying helicopters playing loud music at 5am and violent evictions. Even at intervention camps, temporary communities formed to block environmentally destructive projects that tend to end in confrontations with police and industrial machinery, families, particularly at weekends and holidays, are a common sight.

Two years ago Sarah Finnie, a 42 year-old herbal medicine student and former nurse from Yorkshire and her then 11 year-old James spent their summer holiday at the Shell To Sea camp in County Mayo, Ireland. Shell To Sea is an uprising of local residents and activists against Shell's aggressive move into the area to build a pipeline to transport recently discovered oil off the north west coast of Ireland.

Sarah felt it imperative her son visited the site to understand the injustices of society. 'Shell were doing everything on the cheap with no concern for the environment, health and livelihoods of locals,' she explains. 'Kids won't see that side of life unless you show them.'

During their stay the mother and son helped cook communal meals, chop firewood and look after traumatised activists who'd had close calls with bulldozers. 'I felt comfortable in support roles,' Sarah explains. 'It's a way families can make a valuable contribution without putting themselves in immediate danger.'

Family areas at protest camps

After spaces have been claimed and camps set up these temporary communities are places where ideas are exchanged, skills shared and networks expanded. Children roam freely and are encouraged



It's never too young to start...

Photos: Hannah Edy



to get involved in the running of the community. Climate Camp has a crèche manned by volunteers so parents can attend or give workshops and for the 2011 Rainbow Circle Camp, a legal but environmentally focused event, a family dome is planned. 'You meet people and families with similar values doing home schooling or living off grid and it gives you the knowledge and confidence to do those things yourself,' Sarah explains. Camps are usually served an eviction notice. In theory this gives people, particularly families, a chance to leave before the cavalry arrives and truncheons swing, although it doesn't always play out like that.

Witnessing direct action regularly normalises it to children, as Sarah discovered when after ten days at Shell To Sea James was determined to join the activists swimming in the sea to prevent work taking place. After careful consideration she agreed to let him do it with an experienced and trusted friend. 'They weren't trying to carry out any work and I kept a close eye on the situation. It was symbolic more than anything. I'm proud he wanted to do it.'

For Matthew and Barbara Robbins, activists with the Rising Tide collective, last year the tables

were turned on the parent-child responsibility roles when at a direct action 32 year-old Matthew, who was bolting across a ploughed field heading towards a power station, looked back to see Barbara, his 64 year-old retired head teacher mother, gingerly picking her way across the field 100 yards behind. 'After that I decided I was going to do actions that don't require running,' says Barbara. 'I don't want to hold Matthew back.' Now Barbara plays a support role in actions such as making flags, organising meditation areas at camps and mediating disagreements. She introduced Matthew and his siblings to activism when they were children through her role in the Campaign For Nuclear Disarmament (CND) movement. For a few decades a time consuming job as a head teacher took her away from activism but since retiring she has been re-recruited by her son. 'She exposed me to activism and now I've brought her back in,' says Matthew. 'We've gone full circle.'

Moral dilemmas

Matthew and Barbara's circumstances are quite unusual. Most active family activists are parents and their underage progeny. Finding a balance between exercising due parental care and allowing children to participate in or watch morally justifiable

but technically illegal actions is a challenge with boundaries that differ from family to family. At the currently occupied Huntington Lane camp in Shropshire, a settlement preventing UK Coal from opening a new mine, there's a presence of two local families, Annie and Gary Collins and their 9 year-old Jasper, and Suzy Murphy with her 7 year-old daughter Eden. Gary is a full time activist and the Collins regularly sleep on site in temperatures as low as minus 10. Annie describes the camp as, 'Jaspers playground.' He gives tours to visitors, knows about ancient trees and cooks foraged nettles, wild garlic and scrambled eggs on his camp stove. Eden gets equally stuck in by helping chop wood, build benders and make teas.

Despite both mothers heavy involvement with the camp – following case paperwork, collecting donations of food and equipment, using already stretched family budgets to buy communal supplies, raising awareness online, opening their homes to activists who need a hot bath - they don't want their children present during site evictions and direct actions such as lock on's. 'I don't want Jasper seeing confrontations like that,' says Annie. 'He has to first understand there are other ways of doing things.' Wouldn't it be distressing for him to watch a place torn down that's been his second home for nearly a year? 'It would. I don't think you should shield children from the truth but you have to make a decision on a case-by-case basis...I want him to be open to the police and accept them as individuals. This could be challenging if he watched certain events.'

There is another army of committed families for whom the potential maelstrom of direct action and temporary camps keeps them away from such events, but their activism endeavours are just as valid and impacting.

Former science teacher Dina Baird is a mum to three children age 7, 9 and 11 and co-ordinator of Friends Of The Earth (FOE) Warrington and it's Youth & Education advisory group. Dina considers every aspect of family life from the perspective of its environmental impact. In recent years they've become car-free and made a decision not to fly. Last December she mobilised her kids and their classmates to create Christmas cards from the future highlighting climate change issues to send to their local MP. Wary not to dictate she shows her children documentaries such as Food Inc and The Age Of Stupid and pauses the action to discuss what's going on in child friendly terms. She says, 'If they've had enough explanation in a way they can relate to they generally come to the same conclusions as I do.'

Fears of teenage rebellion

Dina's children help out on FOE stalls by handing out leaflets and collecting signatures for petitions. 'I only let them do that if they can talk about the issue - otherwise it wouldn't be fair.' Last year her eldest daughter held a banner for a FOE photo stunt calling for reform of the aviation bill and she appeared in a street theatre performance about fossil fuels called Old King Coal. 'She really understands the issues,' says Deena. 'We're lucky. At their school they get kudos for their knowledge.'

Parents able to inspire their children's primary schools to follow environmental best practice can make a huge impact on local communities, as Suzy Murphy, mother of Eden and Huntington Lane supporter can testify. She has brought a string of ideas to Eden's head teacher such as a recycling scheme, compost bins and a child led eco-team - all have been implemented. 'If you approach

it the right way you can massively change your local primary school,' she says. 'Even if Eden's school wasn't responsive I'd just annoy them appropriately until what's best for the environment was put in place. If my child's there I'm not having it any other way.' Suzy is currently looking into flexi-schooling so Eden can divide her time between school and sites such as Huntington Lane where she can learn - 'skills vital to life but aren't in the curriculum' - such as coppicing, conservation, and permaculture. 'If I do my research and write the proposal correctly I'll get it agreed. You have to know your rights and remember schools work for you.'

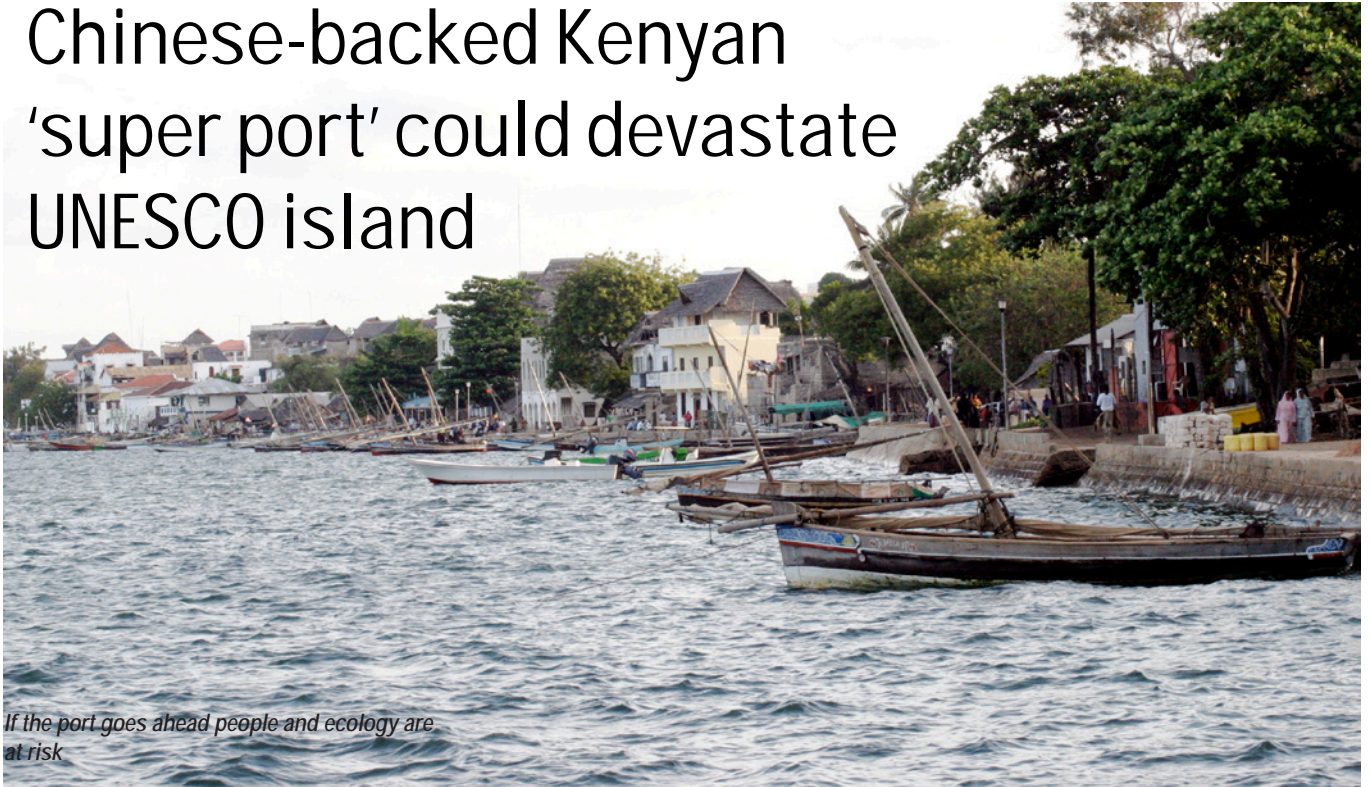
National campaign groups Greenpeace, FOE, Campaign Against Climate Change (CACC) and Climate Camp don't have strategies for specifically communicating to and mobilising families. Greenpeace doesn't allow minors to participate in direct actions due to safety and legal implications although they can attend local meetings and FOE have a Youth & Education Network, often championed by parents, designed to help educate young people about environment issues. Despite differing approaches all groups believe the involvement of families in environmental and climate change campaigning is invaluable, particularly at public events such as demo's, protests and risk free stunts. CACC have previously used families

to deliver Climate Emergency Demands to the Prime Minister. National Co-ordinator Phil Thornhill says, 'It's symbolic to have children present as they are the one's who will suffer from climate change. At a demo they have a positive influence on the atmosphere and reflect a broader spectrum of society rather than the usual suspects.'

Although family environmental activists differ in income, background and methods of participation there is common ground. Parents often have care, charity, education, creative or land based occupations. Many had politically active guardians and have early memories of being taken on demonstrations. Do their own backgrounds make them confident the experiences they're offering their children today will instil a lifelong respect for the environment and willingness to politically engage and take action? They hope so - although jokes about children rebelling and becoming hedge fund managers are common. Suzy Murphy says, 'Once a child understands food chains, the ecosystem and what's going on in the world on a larger scale, no one can take that knowledge away. Even if they rebel and go through a phase of wanting sports cars and glamorous things, once they've been opened to it, eventually this path will always come back to them.'



Chinese-backed Kenyan 'super port' could devastate UNESCO island



If the port goes ahead people and ecology are at risk

Wide-ranging plans to link up Kenya, Ethiopia and Southern Sudan include the building of a port which threatens Lamu district's indigenous coastal communities and fragile ecology. Words and pictures: **Taflin Laylin**

As part of its Vision 2030 plan to become an industrialised nation, Kenya is embarking on a \$20 billion port project that threatens to destroy a fragile cultural and ecological heritage site along the country's northern coast.

The Lamu-Southern Sudan Ethiopia Transport Plan (LAPSSET) includes a port and oil refinery proposed for construction on the mainland across from the Lamu archipelago; three international airports and three resorts; an oil pipeline from Lamu to southern Sudan, and a massive rail and road network that will connect the region south of Somalia to the rest of Kenya, Ethiopia, and southern Sudan.

An enclave of Swahili culture

given UNESCO heritage status in 2001, Lamu is the best-known and most populated island in the archipelago surrounding Manda Bay. Others include Manda, Manda Toto, and Pate. Along with the mainland, each is fringed by an expanse of mangrove forest and nurture coral reefs, endangered dugongs and marine turtles, as well as indigenous tribes that still rely almost exclusively on their natural resources for subsistence.

In 1977, predicting that Kenya's first port in Mombasa would eventually reach a saturation point, Renardet-Sauti, a group of Swiss engineering consultants, identified Manda Bay as the perfect new location for a second port. Mr. Mahmoud Ali, who heads Lamu's sleepy Kenya Port Authority (KPA), showed

The Ecologist satellite images demonstrating hundreds of acres of level territory which - combined with sheltered deepwater - is considered an ideal harvest for long term economic growth 'at relatively low cost,' he said.

In 2009, the government (GoK) began to market LAPSSET as key to building East Africa's most powerful country. The KPA calls it the "Lamu Port Dream." For citizens of the grubby din of sprawling Nairobi, such growth sounds appealing, but viewed from a traditional dhow (sailboat) built in part from mangrove poles the prospect is dumbfounding.

'All this will be gone'

Mr. Atman, a serious, small Swahili man who has worked on dhows since he was ten years old, sweeps his hand from the winding serpentine coral reef to the long shore, where surrounding mangroves dwarf an American navy base. 'All of this will be gone,' he said with a look of resignation, 'all

of it.'

Nobody will know the project's real cost until the Japanese Port Consultants (JPC) complete their nine-month feasibility study initiated in June 2010, but it will be too high for the developing country to absorb without foreign investment. The JPC study alone – which will examine all seven components of the port development – will cost Kshs 3.05 billion (approximately £23 million). The GoK raised those funds in part with the controversial sale of Nairobi's Grand Regency hotel to Libya for Kshs 2.5 billion. Most of the remaining capital will be siphoned from private investors.

The transportation ministry issued a second tender mid-October for the first construction phase, which includes dredging and reclamation for the initial three berths. Bidders were asked to submit designs that can harbour container, general and bulk cargo ships with up to 100,000 dead weight tonnages (DWTs). Eventually, according to KPA, the port will have 22 berths and a 1,000-acre quay, and will be the only East African port that can handle the most Herculean cargo ships.

LAPSSET will be a boost to a once major trading post eclipsed by Mombasa and Zanzibar, according to Hon. Fahim Twaha, Lamu West's Minister of Parliament: 'It will create job opportunities, opportunities for Lamu to grow,' he said. 'It will benefit other parts of the country.'

Officially, the bid's winner has not been announced, but KPA circulated internal news in September that the China National Machinery Industry Corporation – a Chinese state-owned corporation – has shown 'interest.' Circumventing northern Sudan, an oil pipeline from Juba to Lamu will give Sudan's largest oil customer easier access to southern reserves.

China's hand

But China's environmental reputation in Africa is already sullied. Terry Hathaway with the non-profit organisation International Rivers reports that Ethiopia's Gibe III dam project will usurp flow to the Ono River Valley and the desert Lake Turkana, where 500,000 tribal people eke out a trying symbiosis with what few resources they have.

Both the African Development Bank and European Investment Bank rescinded their financial support for the dam, but, unperturbed by enviro-social concerns, the Industrial and Commercial Bank of China (ICBC) stepped in with a \$500 million contract to Dongfang Electric Corporation for turbines and electro-mechanical works.

Kenya is similarly ambivalent towards genuine accountability. Hon. Twaha insists that its environmental impact should be monitored 'every step of the way,' adding, however, that the port project will not harm Lamu's environmental or cultural status. 'It is so far away on the mainland, houses are close together, the islands are too sandy. It won't bring too many changes,' he said.

Historically, Hon. Twaha's development ambitions have eclipsed his environmental sensibilities. Earlier this year he was lawfully prevented from building on Lamu's sand dunes, the main water catchment for the island's 100,000 residents.

Lamu is only a 20 minute boat ride from Manda Bay, where the cacophony of ships trudging wanton cargo will shatter the entire archipelago. Everything locals rely on for subsistence will be overrun. Islanders talk as though a quaint new jetty is about to be built; many anticipate job opportunities. Few have any sense of how permanently the project will alter their way of

life.

In the early 1980s, Mr. Omar Mzee, a former Minister of Parliament who trained in Wildlife Management, managed both the Boni and Dodori Natural Reserves just north of the port development area. Currently he works as Secretary for the Lamu Environment Protection and Conservation Group (LEPAC) that was formed to bring current conservation science to the archipelago. Then the port project was announced. 'Now that takes up all our time,' he said. 'Dredging will destroy coral reefs, the oil pipeline will cause oil spills, construction will destroy the mangroves, and the endangered dugong will almost certainly be pushed to extinction.'

Mangrove ecosystems

In 1980, 60,000 hectares off the coast north of Lamu was designated a Biosphere Reserve under UNESCO's Man and the Biosphere Project. Dodori Creek comprises the southern edge of that space and will eventually be the port's parking bay. Felling at least 1,000 acres (but probably much more) of mangrove forest will upturn what is already a teetering ecosystem: mangrove tree leaves are among the most absorbent carbon dioxide sponges on earth, providing an environmental service of local, national, and international significance. Their roots also provide refuge for crustaceans and fish species, as well as nesting marine turtles. A meandering warren of the trees' twisted roots keeps soil erosion at bay. Both the endangered Green and Ridley turtles are common here, their populations resuscitated in large measure because of concerted conservation and education programs organised by Lamu Marine Conservation Trust (LAMCOT). Previously prey to poaching and incidental catch, LAMCOT has helped the local community safeguard their valuable



A view towards shore

natural and tourism resource.

Atwaa Salim, the lead field officer who led a trip to watch the last layer of buried green turtle hatchlings scurry into the Indian Ocean, frets about the development's potential impact on the turtles, the coral reef, and the local community. 'We are worried about pollution and oil spills in the coral area,' he told *The Ecologist*. 'The rich will become richer and the poor will become poorer.'

It is impossible to exaggerate the coral reef's importance. The entire expanse of Kenya's reef supports approximately 80 per cent of an artisanal fishing industry. In Mombasa, where there are only two shipping lanes, 70 per cent of fish species have declined. There are no exact numbers, but roughly 45-80 per cent of every Kenyan coastal community relies on fishing for subsistence, and the Lamu archipelago is no exception. The reef is also an important tourist attraction, on which residents have become increasingly dependent.

'Tourism-related revenue could earn a lot more for the average Lamu person than the port,' said Mr. Mzee.

People before fish

If the islanders throughout the archipelago lose their mangroves, their coral reef, and tourism revenue, they may as well pack up their donkeys and head to the country's interior. There will be virtually nothing left for them to live on. But the authorities refuse to acknowledge this.

The Assistant Minister of Fisheries and MP for Lamu East, Hon. Chiaba is convinced that the project will 'be for the better.' Asked whether he was concerned that a major fishing area would be cut off, his response was indignant. 'We are just under these environmental things but the people are very poor,' he said. 'We have to take into consideration the welfare of human beings. And then we'll worry about the fish.'

In August, the Kenyan Government ratified a new constitution. That twenty-year crescendo was expected to climax with a new era, to unite the country's numerous ethnic groups, and to clamp down on corruption. According to Lamu's former Chairman of the Council, Mr. Abdalla Fadhil, the constitution should in part ensure more localised control of cultural and natural resources. But the clandestine process surrounding pending growth in the Lamu district gives locals a taste of corruption re-packaged as 'development.'

'The original Lamu people have been marginalised for decades,' said Mr. Fadhil, who added that 70 kilometers of unpaved road still separates Lamu from civilization, even though it received its heritage plaque in 2001. Until the GoK announced its gargantuan plan, Lamu didn't trouble its conscience at all. Without transmission lines linking it to the national grid, the town is still powered by roaring antique diesel generators, and access to higher education and supplies entails a minimum five-hour bus journey south.

Diluting culture

The Swahili people have fished the generous waters cradling the Lamu archipelago for seven centuries, enduring successive Arab and Portuguese regimes, and though its UNESCO status should have lifted its people out of poverty, the opposite has happened. Property values soared, and wazungus (white people), Masaai, Kikuyu and other non-Muslim people pitched camp. A semblance of the old world still lines the alleyways packed with chickens and children and kikoy-clad men selling tobacco and fried foods, but the pending influx of foreigners has already diluted the culture.

Lamu's spiritual leader Imam Idarus is vehemently opposed to the development project and has been labeled by opponents as 'poison' because he has so openly spread his criticism among loyal followers. 'The port will completely swallow the Swahilli population,' he said via a translator. 'The Swahili people are not prepared. [It] will bring big business, prostitution, corruption, and drugs.' 'Nevermind the UNESCO world heritage site,' he added. 'The Swahilli people will disappear.'

In 2009, the former Minister of Transportation Hon. Ali Mwakwere first traveled to Lamu with his cheerleading delegation, flooding the island with a Christmas list of reasons to embrace the port, chief of which is job opportunity. But the local leaders questioned what jobs would befit a population of people who barely finished primary school.

'We are ready to help the people,' said Mr. Fadhil – referring to the rest of Kenya, for whom the economic benefits of the LAPSET project are promised to have been tailored, 'but what will the project do for us?'

Indigenous people

The Lamu district is home to thirteen tribes, including the Sanye, whose tiny population of

Mangrove forests are among the ecosystems under threat



500 makes them among the most endangered people on the planet, according to Mr. Mohammed Ali Baddi who works with a non-profit organization that protects the Sanye as well as LEPAC. Along with Mr. Fadhil, Imam Idarus, and a host of other concerned stakeholders, Mr. Ali Baddi approached the Minister of Transport with their concerns.

‘We demanded that the government make it public what we are expecting,’ he said, ‘but the government was never transparent... they are secretly proceeding with the 6700km² project at a fast pace.’

Omar Mzee penned a letter in November 2009 to Dr. A Muusya Mwinzi with the National Environment Management Authority (NEMA) tasked with ensuring appropriate environmental oversights. The three-page memo outlined the cultural, environmental, and social destruction that LAPSETT will certainly cause. ‘In view of the foregoing, and in consultation with the Lamu Council

of Elders, the Council of Imams, several environment groups among other stakeholders from Lamu strongly feel that we are being betrayed, and that some individuals are forcing this project down our throats – a project that has no meaning to our wellbeing and that of future generations,’ he wrote. Mr. Mzee’s main objective was to request an Environmental Impact Assessment (EIA).

In December, B.M.Langwen from NEMA responded: ‘The Authority has not received this study report to-date and cannot therefore communicate its decision on the same.’ NEMA further promised to dispatch the EIA when one becomes available. Almost one year later, after a second tender for the first phase of construction has been released and closed, no environmental impact assessment has been done.’ That is illegal by the way,’ said Mr. Ali Baddi.

Defending resources

He and his colleagues refuse to go down without a fight. They have solicited their own environmental

impact assessment from an independent third party, as well as legal help from Natural Justice. A South African organization, Natural Justice works (in part) within the United Nations Convention on Biological Diversity (CBD) framework to help indigenous communities defend their right to manage their own land, resources, and way of life.

According to Gino Cocchiario, LEPAC contacted Natural Justice earlier this year via INUKA Trust - a Nairobi-based Non Government Organization that is helping to formulate Lamu’s biocultural community protocol (BCP). ‘The biocultural community protocol can be used as a lobbying tool between the government and various communities,’ he said. ‘If an outsider wants to use that community’s resources, then they will have to seek their consent.’

Natural Justice has legally emboldened indigenous people throughout Africa, Asia, and Latin America, including the Raika in Rajasthan, India.

For as long as the Swahili people have lived in Lamu, the Raika have grazed camels, cattle, goat, and sheep, but their land was being expropriated for outside interests. In June, 2009, a BCP re-embedded the right to negotiate land use within the Raika’s long-established governance system called samaj panchayats.

Mr. Ali Baddi is careful to emphasise that the aim of establishing a similar BCP in Lamu is not to swipe the Gok’s plans and horde the archipelago, but to ensure that it does not become a sacrificial lamb for China, Sudan and others who stand to pad their coffers.

‘We want to engage our government for mutual benefit,’ he says. ‘We want a good clean port.’

Climate change: we are like slave-owners



An economy run on slave labour has much in common with one run on fossil fuels, argues Jean-Francois Mouhot. Ending suffering means we all need to become modern-day abolitionists.

Jean-Francois Mouhot

Why does climate change science generate so much heat and controversy? In a recent article in the journal *Climatic*

Change, I argue that we have a vested interest not to cut carbon emissions, similar to that of slave-owners in the 19th century who opposed the abolition of slavery.

First, slaves and fossil-fuelled machines play(ed) similar economic and social roles: 'energy slaves' (machines powered by fossil fuels) now do the work in our homes, fields and factories, which used

to be carried out by slaves and servants in the past. Both slave societies and developed countries externalise(d) labour (labour came from slaves in the former case and 'work' is provided by machines in the latter), and both slaves and modern machines free(d) their owners from daily chores.

Before the advent of fossil fuel powered appliances, 'slavery was the most efficient means by which the ambitious and powerful could become richer and more powerful. It was the answer to energy shortage', writes historian John McNeill. This was well understood by educated men and women from the antiquity onwards. As the leading historian of slavery David Brion Davis has noted, 'what made slavery so appealing and seductive, especially in the long era before self-powered appliances, engines, and other labor-saving devices, was the freedom it brought for slaveholders'. As a consequence, economically and socially, we are today as dependent on fossil fuels as slave societies were dependent on bonded labour.

Second, in differing ways, suffering resulting (directly) from slavery and (indirectly, through Climate Change) from the excessive burning of fossil fuels are now morally comparable. When we burn oil or gas at a rate that exceeds what the ecosystem can absorb, we contribute to global warming, which in turn contributes to droughts, floods or hurricanes. These climatic events cause suffering to other human beings, today and in the future. They contribute to crop failures and put some people at risk of falling into debt bondage, a condition similar to traditional slavery. Other people are driven away from their land because of poverty, and become refugees, stationed in

camp, where they may have to work for unscrupulous employers or in prostitution rings (a form of slavery in which refugees are over-represented).

Similarly, cheap fossil fuels facilitate imports of goods from countries without (or with grossly inadequate) legislation to protect economical and social rights of employees and workers. Indeed, our global economy rests on Ricardo's famous comparative advantage concept, which is based on the assumption of negligible transport costs. The availability of cheap energy is a required condition for the transportation of foreign goods on a massive scale over large distances, otherwise it would become uneconomical. Fossil fuels hence help externalise labour and perpetuate oppression.

I am not arguing our collective behaviour is equivalent to that of slave-owners of the past: one key difference lies in the different ways in which suffering caused by slavery, on the one hand, and by the burning of fossil fuels, on the other, operate. In the case of slavery, oppression operates more or less directly. In the fossil fuel economy, however, the sufferings engendered by the burning of fossil fuels are indirect and often imperceptible by those who are causing it. The comparison thus ignores the direct human experience that characterized slavery. (However, many people - for example consumers of slave goods or absentee plantation owners who lived in the UK - also benefited from slavery without maintaining direct connections to it. These people can certainly be said to have committed a morally equivalent sort of human transgression to people who benefit from fossil fuel use).

A second crucial difference is that there is no willingness to cause harm or dehumanize others by burning fossil fuels. In contrast, motives for enslavement were, and are, by no means limited to economic needs and frequently included a willingness to control others.

We have a mental image of slave owners as cruel, sadistic, inhuman brutes. Yet, we forget too easily the ordinariness of slave ownership in past centuries. Slavery seemed normal and indispensable. George Washington, Thomas Jefferson and even Toussaint L'Ouverture, owned slaves. Both lifestyles and incomes depended on it, as we today depend on fossil fuels. Similarly, many slave owners lived with the impression that they were decent people, as we do. Adam Hochschild, in his captivating book *Bury The Chains*, compares the mental framework of slave owners with the way we think about automobiles today: "for reasons of global warming, air quality, traffic, noise, and dependence on oil, one can argue, the world might be better off without cars. ... Yet, does anyone advocate a movement to ban automobiles from the face of the earth?". We don't contemplate banning automobiles because life with fossil fuels looks easy. The convenient life our 'energy slaves' give us is a powerful incentive not to act on climate change.

Jean-Francois Mouhot is a post-doctoral research fellow at the University of Birmingham.

Dr. David Fleming: a tribute

Colleague and friend **Shaun Chamberlin** pays tribute to the life and work of Dr David Fleming, founder of the idea of personal carbon trading

Dr. David Fleming, a visionary Green thinker and one of the key whistleblowers on peak oil, has died aged 70. He was a significant figure in the genesis of the UK Green Party, the New Economics Foundation and the Transition Towns movement.

His legacy also includes TEQs (Tradable Energy Quotas), the energy rationing scheme currently under consideration by the UK Government, his influential book *Lean Logic* and the real delight and inspiration he gave so freely to all who met him.

David was born on the 2nd January 1940 at Chiddingfold, Surrey, to Norman Bell Beatie Fleming, a Harley Street eye surgeon, and Joan Margaret Fleming, an award-winning crime writer.

After reading History at Trinity College, Oxford from 1959 to 1963, he went on to work in manufacturing, marketing and financial PR before earning an MBA from Cranfield University in 1968.

Despite being an avowed



Conservative voter, he was a significant figure in the development of the UK Ecology/Green Party - his flat in Hampstead serving as its party office in the late 70s and early 80s - and urged his contemporaries to learn the language and concepts of economics in order to confound the arguments of their opponents. He practiced what he preached, and in 1979 began studies in economics at Birkbeck College, University of London, completing an MSc in 1983 and his PhD in 1988.

But Fleming's true passion and genius was for exploring and understanding that mysterious thing 'community', in all its disparate forms. He admired tradition and ceremony for their

ability to engender cultural stability, and was a lifelong member of deep-rooted groups as diverse as the English Song and Dance Society, his local church in Hampstead, the Oxford and Cambridge Club, and ancient guild The Worshipful Company of Fishmongers. He was a passionate advocate for the critical importance of pubs, and memorably, when once asked how best to improve the resilience of one's local community, he answered 'join the choir'.

Always something of an intellectual whirlwind, Fleming found time to be Honorary Treasurer and then Chairman of the Soil Association between 1984 and 1991; to help organise 'The Other Economic Summit' (TOES); and to edit the



1997 book *The Countryside in 2097* before making a major contribution to the world's awakening to peak oil.

'The next oil shock?', Fleming's April 1999 article for *Prospect* magazine, argued that the International Energy Agency's (IEA) most recent report represented a coded message, warning of an impending energy crunch with potentially profound impacts. After publication, to Fleming's surprise, Fatih Birol - the future Chief Economist of the IEA - suggested a meeting, at which Birol intimated that 'you are right... there are maybe six people in the world who understand this'. This encounter gave greater impetus to Fleming's drive to see an effective energy rationing scheme put in place. Having first published on his TEQs

scheme in 1996, 2008 saw a UK Government funded pre-feasibility study into the idea, which will be followed by the All Party Parliamentary Group on Peak Oil's report in January 2011.

Yet perhaps Fleming's key focus over recent years has been the preparation of his magnum opus, *Lean Logic: A Dictionary of the Future*, the work that pulls the various strands of his thinking together into one cohesive vision. As those who knew him recall with sighs and smiles, his perfectionism had led to numerous delays in the publication date, but Fleming was making final preparations for publication before his death. It will now be published posthumously, thanks to the determination of the many readers Fleming asked to comment on early drafts, many of

whom claim it as a key influence on their work and thought. A good example is Transition Towns movement founder Rob Hopkins, who once humbly described his own work as 'simply taking Heinberg's insights into peak oil, Holmgren on permaculture and Fleming on community resilience, rolling them together and making the whole thing comprehensible'.

Indeed, so many of the seeds Fleming planted will continue to bear fruit long after his untimely passing. In his wry way, he would often describe himself as having failed at everything he turned his hand to, but the truth was anything but. As a young Transitioner put it, remembering his first meeting with Fleming, 'I was left thinking that this was the sort of man I would aspire to be'.

Fleming was a sparkling conversationalist, an often hilarious writer and a remarkably attentive listener. Compassionate and encouraging, almost all who met him were utterly charmed. The vast wealth of reading and knowledge he could call upon, and the unusual connections he drew in the course of any conversation (or helter-skelter lecture) led him to produce content fit for weeks of dissection, if sometimes too rich for immediate absorption. Fortunately, *Lean Logic* should preserve his thought in a format well suited to lengthy contemplation.

Fleming is survived by his sister Penelope, his niece Lucy, nephew Ben and his extended family.

Dr. David Fleming (2 January 1940 - 28 November 2010)

More on Fleming's work at www.theleanconomyconnection.net

*Shaun Chamberlin is the author of *The Transition Timeline* (Green Books, 2009)*