

GROUNDWORK

VOLUME 9 NO.4

DECEMBER 2007

groundwork

An Environmental Hero!



environmental justice action in Southern Africa

groundWork is a non-profit environmental justice service and developmental organisation working primarily in South Africa, but increasingly in Southern Africa.

groundWork seeks to improve the quality of life of vulnerable people in Southern Africa through assisting civil society to have a greater impact on environmental governance. groundWork places particular emphasis on assisting vulnerable and previously disadvantaged people who are most affected by environmental injustices.

groundWork's current project areas are: air quality, waste (including health care waste, industrial landfill waste and incineration) and corporate accountability.

groundWork is constituted as a trust. The Chairperson of the Board of Trustees is Pietermaritzburg attorney, Jonathan White. The other trustees are: Farid Esack, Patrick Kulati, Richard Lyster, Thuli Makama, Sandile Ndawonde and Joy Kistnasamy.

GROUNDWORK'S SOUTH AFRICAN STAFF ARE:

Director: Bobby Peek

Deputy Director: Gill Addison

Office Manager: Bathoko Sibisi

Air Quality Campaign Manager: Siziwe Khanyile

Waste Campaign Manager: Musa Chamane

Health Care Waste Manager: Nomcebo Mvelase

Research Manager: Rico Euripidou

Exec. Assistant to Director: Jane Harley

GROUNDWORK'S USA STAFF ARE:

Director: Heeten Kalan

Coordinator: Sunita Dubey

HOW TO CONTACT US:

6 Raven Street

Pietermaritzburg

P O Box 2375, Pietermaritzburg, 3200

Tel: 033-342-5662

Fax: 033-342-5665

e-mail: team@groundwork.org.za

Web: www.groundwork.org.za

555 Amory Street, Boston
MA 02130, USA

Tel: +1-617-522-0604

Fax: +1-617-522-5591

e-mail: info@groundwork-usa.org

Web: www.groundwork-usa.org

In this issue

3	From the Smokestack
4	Lead Story - Climate Change and Community Resistance
7	Air Quality - Air Quality Standards
8	Waste - Ban the Burn!
10	Waste - African Regional Cooperative Mercury Conference
13	Waste - Towards a Globally Binding Mercury Agreement
15	Waste - Cement Towns
17	Air Quality - Bucket Brigade in Zambia
19	groundWork US - Apocalyptic Technology
22	Corporate Accountability - Lies, spin and deceit
24	The Democratic Process in Action
26	In Brief
28	The Back Page

AFFILIATIONS:

groundWork is affiliated to the following international organisations:

Health Care Without Harm

International POPs Elimination Network

Basel Action Network

Oilwatch International

Global Anti-Incineration Alliance

groundWork is the South African member of Friends of the Earth International

CREDITS:

Printed on recycled paper from Sappi Fine Papers

Printing by ArrowPrint

Cover photo: Von Hernandez, familiar to some through our waste meeting earlier this year, was named as one of Time Magazine's Environmental Heroes. He is shown here at Smokey Mountain in Tondo. Picture courtesy Greenpeace.



From the smoke stack



Photo by FoE

by groundWork Director, Bobby Peek

Another year bites the dust, and at the outset I must say to all staff "well done". 2007 was a hectic year and we have survived it. It is a year that saw new staff joining us, "The groundWork House" purchased and demands grew as always, and we responded.

The intensity of the year can be seen in the amount of travel staff have done. Much of this travel is attributed to government policy processes. While positive, the negative reality is that not all people can travel to meetings. Government should be doing the flying around to the people when there are key policy issues to be discussed. groundWork tried as best we could to facilitate peoples' input to key policy processes, but this is not always possible and not the way to go. Government must participate on the ground – not in Pretoria.

Following are a few issues that I hope will get some journalists and other people thinking, and hopefully foster more research.

By the time you get this newsletter the big hullabaloo around Bali would have come and gone and still we will be doomed to climate change. Maybe we should spare a thought for Eskom who has just been fingered by Carbon Monitoring for Action for being the "second highest polluting power company in the world, spewing about 214-million tons of carbon dioxide into the atmosphere", and for South African government who facilitates this. How do Eskom and government respond ... 'please people switch off your geysers and non-essential items'. Can someone please tell Eskom and government to "catch a wake up" as we say in South Africa. This is not going to work, when 73% of our electricity is used for industrial purposes. It is alarming how people have fallen for Eskom's purposeful misguided response. East Coast Radio and The Daily News, two of Durban's long standing media houses have been caught hook, line and sinker and have called for KwaZulu-Natal residents to switch off their lights for one hour during dinner time! More about this later.

Remaining on energy issues let us not forget our beloved refineries in south Durban. It seems as if the local residents are once again "pissed off", not only by the explosions but also by the disruptions in their daily lives. Local residents, under the banner of the Bluff

Enviro Team, have decided to challenge Shell and BP for abusing their environments and area through the manner in which they have chosen to replace their pipelines. How did Shell and BP respond? From the words of the BET: "Unfortunately SAPREF (Shell and BP) have chosen not to address the issues that BET has brought to your attention." Well nothing new. I do hope that the BET and SDCEA can nail them down once and for all.

Then there is the scandal with IUCN and Shell. You cannot call it anything else. Shell and IUCN in bed! The appropriate subject line from a mate of mine who sent the information was: 'The Devil Works in Mysterious Ways.' I do not expect anything else from IUCN, considering that they are chaired by none other than Valli Moosa, the ex-minister for Environmental Affairs and Tourism on whose watch more than a million litres of petrol from Shell's rusting pipelines ended up below community homes – and they were never prosecuted. groundWork tried to warn IUCN about Moosa way back in 2005 when he joined their ranks¹, but they never listened. Well, why should they? Maybe playing with the Devil is their game. I wonder how many indigenous peoples are going to lose their lands to biodiversity management and conservation when Shell try to get their oil, as IUCN negotiates tradeoffs for biodiversity and conservation? The partnership will foster a process for the Shell Group "to be the conservation leader in the energy sector and sustain profitable operations over the long term". What an absurdity. You can go into the agreement in depth and find fault with it on nearly every clause. Could we expect anything better from an organisation whose president is the chairman of Eskom and whose record need not be repeated here?

Finally we end this year off on a sad note. Biowatch is still fighting their legal battle after their appeal against costs was dismissed by the Pretoria High Court on 6 November 2007. This is a painful blow for environmental justice and democracy in general in South Africa. groundWork stands by Biowatch in their endeavours to challenge the legal system further. The sad reality is that after all of these legal endeavours Biowatch will win, we believe, but might not be able to continue because of the legal costs that await them.

Wishing all of our supporters a peaceful transition into the New Year. 🌱

¹ See <http://www.groundwork.org.za/Press%20Releases/20Oc05.asp> for more info on Valli Moosa



Climate Change and Community Resistance

By Bobby Peek

Local resistance and local initiatives are likely to have a greater impact on climate change than high-level government discussions

Over the last weekend in November and first weekend in December, South Africa's biggest Sunday paper, the Sunday Times, ran two interesting articles in their Business Times, the first one being "The real cost of power" and the second one being "Billionaire club grows".

The first article reports on the research conducted by global Carbon Disclosure Project, which puts Eskom, Sasol, BHP Billiton, Anglo American, Sappi, Anglo Platinum, Harmony Gold, AngloGold Ashanti, Impala Platinum and SABMiller as SA's top emitters. Some companies, such as Arcelor Mittal South Africa, Barloworld and Kumba Iron Ore, did not participate in the process. There is no doubt these companies could be up there with the rest.

The second article is part of a Business Times focus on the "rich getting richer". It highlights not only the hundred richest people in South Africa, but also the top hundred earners in South Africa.

Some of the names that appear include the likes of the South African family well known since diamonds were discovered, the Oppenheims. Nicky Oppenheimer, Chairman of De Beers, the world's biggest diamond producer, has extensive shares in Anglo American, and is South Africa's second richest person. Patrice Motsepe, who has shares in African Rainbow Minerals and Sanlam, is South Africa's third richest person. Lakshmi Mittal is South Africa's richest person, but also one of the world's richest. Other people that are mentioned in the focus on wealth are the likes of Pat Davies, Chief Operating Officer of Sasol, who earned a whopping R72.5 million rand from making

sure that South Africa's polluting giant continues its expansion globally. He is the 65th biggest earner in South Africa. But here is a surprise, or maybe not considering his background in playing many games at once: our very own ex-Minister of Environment and Tourism, now President of the International Union of Conservation of Nature and the Chairperson of South Africa's biggest polluter, Eskom, Valli Moosa, comes in as the 71st richest person in South Africa.

The question you are asking yourself now, is what has all this got to do with "Climate Change and Community Resistance"? Well, what stares us in the face as we read these two articles is the fact that the names that are mentioned in the who is who of those that are rich, are linked to the companies with the highest greenhouse gas emissions in South Africa, and if not the highest, very close.

Now the question has to be asked, how did they make all this money? It is not rocket science, it is simple: production and growth of corporate profit at the expense of peoples' lives and livelihoods, and at the expense of the earth, through causing climate change. Companies and the names that are mentioned in these reports have all been linked to environmental injustices in one way or the other, from the deaths of workers to the poisoning of people's lands, to secret decision making. What is scary and alarming is that they have enough foot soldiers waiting to take up the reigns of South Africa's richest, as in the likes of Sharif Pandor, of Nkwe Platinum.

Can we trust these people to "power down" and make less profit to ensure that, as a globe and people,



we survive. No way, and that is why community resistance to environmental injustices at the fenceline of the polluting oil refinery, the gushing oil well, and on lands torn apart for mining and mono-cropping for agro-fuel, is so critical. Here people are not only resisting to save their own lives but, more importantly, they are resisting to ensure that they secure the future of our existence. They are ensuring that the present fossil fuel frenzy as we move beyond peak oil is resisted, but also that false solutions in the form of agro-fuels and nuclear energy are resisted.

The resistance manifests itself in many ways and in various places. In standing against local pollution on the fencelines in Sasolburg, Secunda and south Durban, people are pointing attention to polluting industries. Forcing companies to deal with local pollution puts them on the step to dealing with global pollution. No doubt the likes of Sasol, Shell, Petronas, BP and others would like to de-link the local from the global, but this resistance at the fenceline is linked to global resistance within Oilwatch¹, the Durban

Group², and Friends of the Earth International (FoEI)³. People on the fenceline are facing the growing reality of the health impacts that these oil refineries are having on them and of how they are impacting on their neighbourhoods.

The other form of resistance that is critical, and which has started from grassroots but is finding its way into political positions, is that of keeping the oil in the ground. The Uwa Peoples' resistance shot to global prominence in the mid 1990s when, as a collective of People in the Columbian Cloud Forrest, they threatened to commit collective suicide if Occidental Petroleum drilled on their land. Across the Atlantic, in the Niger Delta, a similar struggle runs in parallel, that of the peoples of the Niger Delta against big oil. The Ijaw women, understanding how brutal the battle against big oil was, decided that they would take the struggle into their own hands. In 2002 they took the struggle up themselves and "deliberately left their husbands, brothers, and sons out of the protest ... Our men would have discouraged us because



Devastating veldt fires in South Africa, which threaten humans and animals alike, will increase as climate change dries out ecosystems around the world.

Photo by Theuns Botha

¹ For more on Oilwatch visit <http://www.oilwatch.org>

² For more information on the "Durban Group" visit <http://www.carbontradewatch.org/durban>

³ For more information on FoEI visit www.foei.org



Lead Story

they would be afraid for our lives ... they have been fighting without success and so we said it is the turn of we the women to fight.”⁴

These two struggles are based upon leaving the oil in the ground, because local people were concerned about their local environments as they saw them being destroyed and envisaged them being destroyed in future. But this battle of the Uwa People and the Ijaw women has more saving grace for the collective planet than any negotiations on climate change within the fancy United Nation forums, for they are forcing the only solution possible – leave it in the ground!

What is critical is that these pieces of resistance are not going unnoticed. In Ecuador, the political leadership has understood the global reality – to some extent – and have started talking about leaving the oil in the ground. Rightfully, they have asked what the price for this is, considering their own economies. “Ecuador doesn’t ask for charity ... but does ask that the international community share in the sacrifice and compensates us with at least half of what our country would receive, in recognition of the environmental benefits that would be generated by keeping this oil underground”, stated President Rafael Correa of Ecuador.⁵ How all of this will develop over the next year is going to be interesting. But someone is listening.

Sea level rise is already visible in Paraty Brazil

Photo by Daryl Mulvihill and used courtesy of FoEI



Then there is the false promise of nuclear and agro-fuels. In the report on South Africa’s top emitters, the Netherlands-based Ceedata Consultancy warns not only about the waste of nuclear energy, but also points out the fact that in mining and refining the uranium to make the nuclear process possible more

carbon dioxide is produced than would be by a fossil fuel power station. One just has to ask Malawians presently what is the hottest issue in their country besides Madonna, and they will possibly point to uranium mining which will impact upon Lake Malawi. One has to scan the media in South Africa and you will get an understanding of how our water is polluted with uranium.

Following hard on the heels of nuclear is biofuels, and what people are now referring to as agro-fuels. People are having to face up to the reality of their land being taken over to grow fuel rather than food. All of this is entwined with the entry of GMO crops for these purposes. There is a big push by the South African government and the East London Industrial Development Zone Chief Director to develop a canola based agro-fuels plant in the area, which will rely on canola grown on prime land in the Eastern Cape. It is claimed that farmers could earn up to R1.2 billion rand a year. Considering the need for development in the Eastern Cape, such a proposal cannot be ignored, but one has to ask what is going to happen to food sovereignty – not food security – when agricultural land for food is producing crops for European motor vehicles?

It is ironic that Nigeria was once the hub of palm oil, and that palm oil is now being targeted as an agro-fuel. Are we going to see the end of fossil fuel, only to place Nigeria back into the predicament of palm oil and the havoc it brought to bear on Nigeria in the early 20th century and in South East Asia presently?

Although this piece goes to press before the outcomes are known, you will read it after the negotiations are completed in Bali. However, what is a reality is that whatever comes out of Bali will not be able to reverse the damage already done. The negotiations presently underway between governments that are dependent on the rich of the world to remain in power will not provide solutions. Climate change resistance can only happen at a local level, a level where people can feel the pain and agony of losing their land and livelihoods. The hope, however, is that there is a political connection sooner rather than later to ensure that peoples’ solutions are considered rather than business solutions. ♪

⁴ <http://www.isioma.net/sds01403.html>

⁵ <http://www.ens-newswire.com/ens/apr2007/2007-04-24-04.asp>



Air Quality Standards

By Siziwe Khanyile

Are the proposed new standards even constitutional?

The Department of Environmental Affairs and Tourism (DEAT) has engaged stakeholders in the development of the national standards for ambient air quality.

We made our submission to the DEAT, and expressed our concerns on 8 September 2006 and did not get feedback until we were invited to a multi-stakeholder meeting on 26 October 2007.

One aspect of concern for groundWork was the interpretation of Section 24 of the Bill of Rights.

groundWork has done an extensive review of Section 24 and other related socio-economic rights in the Bill of Rights – “The Balance of Rights”¹. What is evident from our interpretation of this right, based upon an environmental justice paradigm, is that “Everyone has the right to an environment that is not harmful to their health or well-being” means exactly that – people’s health should not be harmed by any environmental conditions, e.g. exceedences of air pollution standards. It cannot mean harmful within acceptable limits and leave it to government to decide what is acceptable, i.e. only after so many exceedences. Where “a certain minimum standard” is used, it must be as a tool enabling the state to “respect and protect” the right. Further, government would have to be able to justify the standard by showing that it is compatible with the ordinary meaning of “not harmful”. Unfortunately government cannot show that an exceedence of a standard is not harmful. The reason why we have standards is to be protective of peoples’ health.

We believe that the Air Quality Standards must protect and manage air quality within this framework.

Furthermore, and most importantly to the development of a long term strategy, the second part of Section 24 states: “....secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social

development.” The critical word here is ‘while’: it does not say ‘subject to’. It means that, at the same time as economic development is taking place, this development must promote justifiable economic and social development. Air quality standards protective of health need to be developed now and are not dependent upon finances. For a further analysis of this see pg 40-50 of “The Balance of Rights”.

Allowing any exceedences at all in legislation is, in our opinion, a violation of the constitution, and may need to be tested in court. 🚫

Levels of emissions

The DEAT does not appear to have thought sufficiently of what cap (or what safe upper levels) there should be in place on the levels of the exceedences, if they follow this methodology and allow exceedences on the ambient AQ.

If DEAT allows exceedences by chemical by priority area per year then the following questions must be asked:

- * What is a safe limit for an exceedence in terms of time e.g. for how long can an exceedence occur?
- * What is the safe lower level for an exceedence that will not affect public health without DEAT intervention
- * At what “trigger level” of an exceedence will the DEAT begin to act in order to reverse the exceedence and protect public health?
- * At what level of an exceedence is this exceedence “unacceptable” and somebody has to held accountable for this? Who would be accountable?
- * If this approach is chosen then the onus of proving exceedences in industry which impact ambient air quality standards is placed on the public which is not right. This responsibility must be borne by the polluting industries in the priority area.

For these reasons we believe this approach to be unacceptable because ultimately nobody will bear the responsibility for exceeding ambient AQS which ultimately affect public health.

¹ [http://www.groundwork.org.za/Publications/The%20Balance%20of%20Rights%20-%202004\\$%groundWork%20report.pdf](http://www.groundwork.org.za/Publications/The%20Balance%20of%20Rights%20-%202004$%groundWork%20report.pdf)



Ban the Burn!

By Bobby Peek

At the recent parliamentary hearings, groundWork made a strong case for the complete ban of incineration within the Waste Bill

On the 21st of November 2007 – a typical Cape Town winter's day, in the beginning of summer – we all rushed in to national parliament to tell the parliamentarians on our Portfolio Committee on Environment and Tourism to ban incineration in the National Environmental Management: Waste Bill.

groundWork organised community people from far flung areas such as Mafikeng and Lichtenberg to attend the hearings. The hearings were supposed to be in August, but each month it appeared on the Portfolio Committee agenda and then fell off. Finally on Sunday, 5th November it was advertised for the 21st.

In previous discussions with DEAT officials on the Bill it was clearly stated that they were not going to consider our concerns around incineration, and that we were going to have to present our concerns to Parliament. Well, this we did!

People living next to five cement kilns - Port Shepstone (KwaZulu-Natal), Slurry (Mafikeng), Lichtenberg (North West Province), New Brighton (Port Elizabeth), and Hercules (Pretoria) - who are resisting proposals by the cement industry to burn waste were there. For most of the community delegation this was their first time giving testimony or evidence in parliament. It was powerful! People spoke from their hearts about the day to day struggles with the cement kilns and how these struggles are on top of the very many other struggles for housing, water and other services. The intersection with health, such as tuberculosis, was also highlighted. It was riveting.

Members of the Portfolio Committee stated that before the Bill is passed they should visit the communities and "look into the cement industry for this it is seriously affecting peoples' lives", and then do a parliamentary report on the situation. The DEAT recognised the concerns of the communities and indicated that they will do compliance monitoring – but of what, is the question, considering that the cement industry is currently permitted for dust emissions only. The important issue is that they need new permits! A vacuum in law exists, and this was finally admitted by the DEAT.

It was an interesting day to say the least. By the end of the day, at 20h00, the community and the Portfolio Committee people were the last in the venue. Representatives from government, industry and the banks had all left! We were left standing. From this reality I am hoping that the conclusion can be drawn that as people we have the most to lose if this Bill is not amended to include the concerns we raised¹.

The morning started off with a presentation by Mr Ian Sampson representing Standard Bank and Prince Maruleke representing the sector. Their participation was limited to Chapter 4 because they were very concerned about how this section on contaminated land might affect the banking sector. It was interesting to see how the banks emerged in this process. It is clear that they are funding many businesses with contaminated land as surety, and possibly own vast amounts of potentially contaminated land and, because of the very lax way in which they give out loans without actually understanding environmental

¹ Visit <http://www.groundwork.org.za/Press%20Releases/Waste%20Management%20Bill%20Briefing%20Paper.pdf>



impact and checking property thoroughly, they could be liable for clean up if they ever repossess following an insolvency. The Banks say that they want immunity from this legislation if they had no knowledge of their clients' activities (to also apply retrospectively). Using this logic, however, one would then assume that the sector gives out loans without fully understanding the business they are loaning money to – which strikes me as odd...and irresponsible. This Section is one of the strong clauses in the Bill, and it is our hope that the Portfolio Committee will recognise the critical and strategic importance of this section, and maintain it as it is.

The metal recycling industry was represented by legal counsel and it was clear that they just wanted to be left alone to continue doing what they are doing in an unregulated manner.

It was Business Unity South Africa (BUSA) that was a surprise. They were happy with the Bill. As Dr Lotter said, 'Many of our concerns were addressed'. But while they welcomed standards and norms, they were not prepared to have any talk of standards and norms in relation to life cycle analysis, often referred to as LCA. So they were at one level speaking with a forked tongue, pretending to want standards, but not wanting them in relation to LCAs.

On the community side we built up our submissions to a crescendo. Marie-Lou Roux from Habitat Council was the first NGO/community submission. She was very thorough, and I enjoyed every minute of her 30 odd minutes as she carefully took the Portfolio Committee and the various lawyers and industrial representatives through a process of what is wrong with the Bill. Following her was Dr Mandla Buthelezi from the National African Farmer Union (NAFU) who was clear that pesticide waste, AKA African Stockpile Programme waste, should not be allowed to be incinerated in cement kilns.

Desmond D'Sa of the South Durban Community Environmental Alliance and Moleleki Fantisi of the Vaal Environmental Justice Alliance very graphically showed the community experience of living next to landfill sites that are unmanaged and unregulated. Mark Wells of the Gaia Cooperative and Zini Mokhele of the Greenhouse Project gave

a good rendition of the importance of Zero Waste and life-cycle analysis. These presentations caught the imagination of the parliamentarians and they welcomed this knowledge. It was good to see the Portfolio Committee Chair, Langa Zita, spend time with Mark Wells after the hearings to understand how the alternative developmental paradigm and process that was presented by him could be applied in an impoverished Eastern Cape.

By 18h30 we were running behind schedule and any thought of leaving early was dashed. To the credit of the Portfolio Committee they hung in there. The last three presentations were given by groundWork and a representative of uMthombo-Wesizwe, a KwaZulu-Natal based NGO. A strong argument as to why incineration must be banned and why mining and health care waste must have a special section in the Bill was articulated. Mining waste cannot be excluded, for this makes up 83% of SA waste. At this late time in the day, now after 19h00, the Portfolio Committee was still listening attentively. It was stated that: "If we allow this Waste Bill to go without mining – this will be a flimsy piece of legislation." There was a call for a meeting with the Portfolio Committee on Minerals and Energy to discuss the issue of mining and the Portfolio Committee on Health to discuss health care waste before the Bill is finalised. The committee asked if alternative ways of dealing with health care waste existed and groundWork obliged with examples.

It was a crescendo to a long day.

The Chair called the meeting to close just before 20h00 and there was a buzz in the room amongst community people. They felt that they were heard. After supper, on the way back to the accommodation, a remark was made that it felt like a good soccer match. We had a good defense in the morning, good mid-fielders in the afternoon and good strikers at the end of the day.

I just hope we scored the goals! The Bill needs to go back for redrafting. To be passed in this manner will be a travesty of justice and a waste of time in the practical implementation of our democracy. 🌱



African regional cooperative mercury conference

By Nomcebo Mvelase and Rico Euripidou

groundWork recently hosted a conference focussing on the phase-out of mercury in health care settings

After a flurry of invitations, follow ups, confirmations and logistical preparations, groundWork, in conjunction with Health Care Without Harm¹ and in association with UNEP, successfully hosted the third UNEP Chemicals sponsored Regional Mercury conference which was held in Johannesburg from the 24th to the 26th of October 2007. This conference builds on the previous regional cooperative workshops held in Manila and Buenos Aires, organised by HCWH in association with UNEP Chemicals in 2006².

It was a bit hectic on the morning of the first day when about 85 delegates from various institutions, including physicians, nurses (occupational and infection control), health care specialists from the private and public sector of different positions, microbiologists and nursing unions from the SADC, East African and West African region started arriving, registering and getting settled for the three day big event which was held in Kempton Park in Johannesburg.

Delegates debate various strategies during the conference. Photo courtesy groundWork



The key feature of these workshops is to raise awareness of the inherent environmental, community and occupational dangers of mercury and provide

delegates with appropriate information to develop a strategy to reduce, and ultimately phase out, mercury use in the health care sector. Mercury pollution is a serious global environmental and human health problem which causes various adverse impacts in all parts of the world. In health care settings mercury may be released from thermometers, blood pressure devices, gastrointestinal and other mercury containing products. Mercury is a neurotoxin and crosses the blood brain barrier and also impacts on the fetus. This is one reality which was discussed as the first day unfolded and was an enormous eye opener as most delegates were not at all aware of how dangerous mercury is.

The conference was opened by Dr. Aquina Thulare, the Secretary General and Chief Executive Officer of the South African Medical Association, a national Association and trade union of medical doctors in South Africa. She began her presentation by stating that mercury is an occupational and environmental menace that is widespread in our environment. Importantly she said that "as an affiliate of the World Medical Association, and the World Medical Association Africa Region, we are part of a global network of millions of doctors who aspire to notions of ethics in medicine, practiced to ensure that we do not harm our patients and communities. In keeping with the Hippocratic Oath that states: 'first, do no harm' doctors, dentists, nurses and other health workers must be frontline advocates of mercury-use reduction and elimination to make health-care practices safer to human health and the environment".

Speakers from various other countries, including Argentina, the United States, Sweden, India and South Africa then gave a global overview of mercury in health care and the move towards safer alternatives.

¹ Health Care Without Harm is an international coalition of over 460 organizations in more than 50 countries, working to transform the health care sector so it is no longer a source of harm to people and the environment. <http://www.noharm.org> ² <http://www.mercuryfreehealthcare.org/>



Mercury in health care

Spills and breakages of mercury containing medical equipment are a daily reality of hospitals and clinics around the world where they are still used. They create a hazardous hospital and health care environment for patients and health care workers while contributing to the global mercury load. Health care generated mercury waste also enters the global environment via incineration, solid waste disposal or waste water.

Highlights

It was promising and encouraging to hear Jabu Nene, former Head of infection control at Ngwelezane Hospital in rural KwaZulu Natal and long term advocate for improved waste management in KZN, say "We are already mercury free at Ngwelezane and I hope this gathering gives others confidence and evidence to move towards mercury free health care". Ngwelezane is one of the two model hospitals that were identified for greening by groundWork in 2002 to ensure that their health care waste is properly managed and disposed of. They were even assisted to put waste minimisation and segregation in place. Sr. Nene added that "it was a breakthrough for them to actually switch to the digital thermometers as the mercury ones were breaking everyday".

On day two of the conference delegates were split into different groups where they were encouraged to discuss what they considered their short, medium and long term goals might be, and also what challenges they thought they were going to experience in implementing the change in their institutions and how they were going to deal with them.

The most commonly mentioned challenge was "resistance to change". Mercury is mistakenly perceived to be the gold standard in measuring vital statistics and most of the people believe that the best reading is achieved only when using mercury equipment. However, alternatives to mercury containing devices exist and their accuracy and precision has been tested and found to meet the highest standard³.

Amongst the goals that each group had, these were common goals from almost every group.

³ <http://www.noharm.org/us/mercury/alternatives>

Short medium and long term goals and actions

1. Short term
 - a. Awareness and circulating information
 - b. Get network buddies on line
2. Commitment
 - a. Influencing all stakeholders (nurses, doctors)
 - b. Implementing mercury policies / plans
3. Medium term
 - a. Tested, accurate, cost effective tools of medical devices as alternatives available for choices
 - b. Political lobbying for legislations
 - c. Create center of excellence (mercury pledge)
 - d. Link with existing risk / quality assurance committees / bodies e.g. occupational health, to support ISO14000
4. Long term
 - a. Legislation on national level
 - b. Mercury free environment
 - c. Urge SA Government to have a better position internationally as far as mercury is concerned

Nomcebo's personal observations


"First do no harm" is the first oath that doctors, and even nurses, make as they undertake their professions, but sometimes a lack of knowledge leads to unwitting harm. About 60% of our delegates were from the nursing component and have been in service for more than 10 years. It is such a sad reality that, because of lack of knowledge, these nurses have been continually acting against their oath and unintentionally exposing themselves and their patients to doses of mercury through broken thermometers and even flushing it down through the drain, contaminating the land and water! As a person with a nursing background I would like to confess that these things are happening in the clinical settings. I did it too, and I did it for one simple reason: I was not aware that mercury is so dangerous. I felt very honoured and lucky during this conference to be able to rub shoulders with the international members, to speak the same language, and to be a different person today, able to raise awareness and empower all my former colleagues in the whole of South Africa and Southern Africa to make the switch.



Conference conclusion and commitments

Jamie Harvie, Executive Director, Institute for a sustainable future, based out of Minnesota in the United States who is the advisor to the Health Care Without Harm observed that “African delegates like their SE Asian and Latin American contemporaries

in previous regional conference have demonstrated a strong commitment to phase out mercury in healthcare”.

As a result of this conference all delegates agreed on the conference declaration shown below. 

Johannesburg Declaration on Mercury-Free Health Care

Aware that Mercury is a bio-accumulative global toxicant and hence poses an acute threat to health care workers, patients, and ultimately a long-term persistent threat to the global environment;

Understanding that healthcare contributes to the global mercury problem through broken and discarded mercury containing medical devices;

Appreciating UNEP's efforts to promote mercury-use reduction and that WHO has issued a policy promoting the elimination of mercury in the health care sector;

Noting that in the US and Europe mercury-based medical devices have been phased out; that the European Union is developing a mercury export ban; and that several health care systems in Asia and Latin America are phasing out mercury.

Noting further the existing successful local initiatives in the African region to phase out mercury containing devices.

Mindful of the challenge that the awareness level of decision makers, health workers and the general public, regarding the impacts of mercury on environment and human health is very low;

Worried that Africa may ultimately become a dumping ground of banned mercury containing devices; and Comforted by the fact that affordable, effective and accurate mercury-free alternatives are available.

We, the participants in the First Southern Africa Conference on Promoting Alternatives to Mercury in the Health Care Sector, commit ourselves to:

Raise awareness by providing information, education and training to decision makers, health care workers, and the community, focusing on the impacts of mercury and the need to replace it.

Advocate/lobby for appropriate regulation, legislation and enforcement of mercury-free health care (mercury use phase out) at the national, provincial and local levels.

In the short term promote/advocate for the planned and progressive replacement of mercury containing instruments and devices used by the health care sector; and for cleaning up mercury contaminated areas - starting from our work places, and moving up to the local, provincial and national levels.

Create National, Regional/Sub-Regional networks for mercury-free initiatives as well as platforms for sharing knowledge,

experiences, technologies and expertise in mercury-free health care devices.

Conduct monitoring and evaluation of progress on implementation.

Develop and offer courses on environmental and occupational health - with particular focus on mercury use - to practicing nurses, doctors, environmental health advocates and health care workers in general.

Advocate for the incorporation of environmental and occupational health - with particular focus to mercury use - into education curricula at all levels,

Promote mercury-free health care research and share results in order to achieve fast mercury elimination and its replacement with safer alternatives.

Promote the creation of infrastructure to adequately manage and dispose of mercury waste.

Strongly advocate for Extended Producer Responsibility for mercury-based medical devices.

Collaborate with industries that produce economically viable mercury-free health care devices.

Change purchasing patterns in health care institutions, by phasing-in mercury-free medical devices. Lobby governments to introduce tax incentives to promote mercury-free medical devices.

At Regional and Sub-Regional level, advocate and promote Government collaborative efforts to protect the region from turning into a dumping ground of mercury containing health care devices. In this aspect, sensitize the Africa/SADC Health and Environmental Ministers to take up this matter in their regular meetings as a matter of urgency.

At a global level, strongly advocate for an international legally binding instrument to regulate production, trade and use of mercury, and mercury containing products, as well as to promote the transfer of mercury-free technologies.

Urge African delegates to the forthcoming UNEP Ad-Hoc Open Ended Working Group meeting in Bangkok (12-16 November 2007) to have a common stand in favour of a legally binding instrument.



Towards a globally binding mercury agreement

By Rico Euripidou

An international meeting brings the world a little closer to an agreement which is binding on all nations

The first meeting of the *ad-hoc* Open Ended Working Group (OEWG) to review and assess measures to address the global issue of mercury was held from November 12 to 16, 2007 at the UN ESCAP facilities in Bangkok, Thailand

A brief history

As early as February 2001, the UNEP Governing Council (GC) invited UNEP to undertake a global assessment of mercury and its compounds. The Global Mercury Assessment report was published in December 2002.

The GC, when it met in 2003 for its 22nd session, concluded that there “was sufficient evidence of significant global adverse impacts from mercury and its compounds to warrant further international action to reduce the risks to human health and the environment” and decided that national, regional and global actions, both immediate and long-term,

should be initiated as soon as possible. It urged all countries to adopt goals and take national actions, as appropriate, with the objective of identifying exposed populations and ecosystems and reducing anthropogenic mercury releases that impact human health and the environment. It also requested UNEP to initiate technical assistance and capacity building activities to support the efforts of countries to take action regarding mercury pollution. In response to this request, UNEP established a mercury programme within UNEP Chemicals¹.

In 2005 the GC revisited measures to address the global adverse impacts of mercury including the possibility of developing a legally binding instrument, a non-legally binding instrument or other measures or actions. The GC requested UNEP to develop a “supply, trade and demand for mercury on the global market” report for consideration at the 24th session of the Governing Council.



Rajdamnern Nok Avenue in preparation for the celebration King of Thailand's 80th birthday, photo courtesy of Earth Bulletin <http://www.iisd.ca/chemical/merc1/>

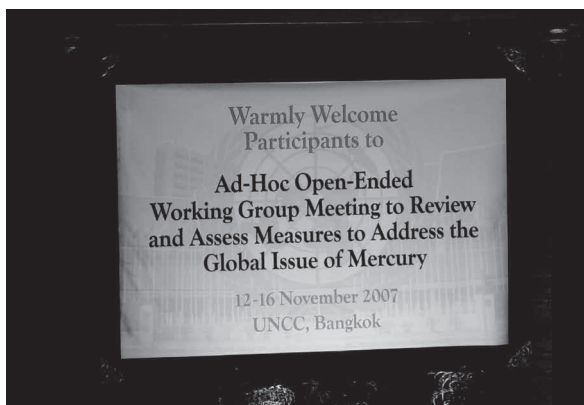
¹ <http://www.chem.unep.ch/mercury/2003-mandates.htm>



Following its 24th meeting in February 2007, in Nairobi, the GC found that efforts to reduce the global risks from mercury were *not sufficient* to address the global challenges and concluded that long term international action is required. Decision 23/4 called for strengthening of the UNEP mercury programme partnerships and the establishment of an *ad hoc* OEWG of Governments, and stakeholder representatives to review and assess options for enhanced voluntary measures and new or existing international legal instruments.

Topics covered

The OEWG's mandate is also to consider the analysis of possible options to address the global challenges to reduce risks from releases of mercury. These include "inter alia: reduce atmospheric mercury emissions from human sources; find environmentally sound solutions for the waste containing mercury; reduce global mercury demand and supply; identify environmentally sound storage solutions for mercury; and to increase knowledge on areas such as inventories, human and environmental exposure, environmental monitoring and socioeconomic impacts".²



During the first plenary session of the OEWG, Nigeria, on behalf of the African Group, laid down the gauntlet to the rest of the world and categorically stated that voluntary measures to address global mercury releases have proven insufficient and called for a legally binding instrument to effectively address mercury. The most notable absentee was India.

Over the next five days discussions ranged from a review of options for enhanced voluntary measures and new or existing international instruments, discussions

for the study options for the global control of mercury, unintentional emissions of mercury from human sources, mercury releases from artisanal small scale mining, mercury demand in products, contaminated land, and current knowledge on inventories, long term storage, human and environmental exposure, and monitoring and socio economic impacts.

Next steps

In preparation for the next GC meeting in 2009, the OEWG requested that the UNEP chemicals secretariat undertake "intersessional work" in preparation for the second OEWG with the aim to ultimately provide options to advise the next GC of the best possible methods to effectively address the global mercury problem.

The OEWG requested the UNEP secretariat to prepare for its second meeting with:

- An analysis on the way that different financial mechanisms would apply to a protocol to the Stockholm Convention, a new free-standing treaty and of voluntary arrangements, and a further analysis on how countries could pursue the development of such instruments to control mercury pollution, and
- An indication of which mercury control measures could be implemented at a national level (considering the national capacities), and which would benefit from a coordinated international framework, whether through legally binding instruments or voluntary arrangements³.

Other studies commissioned include a report on atmospheric emissions, developing best guidelines for the environmentally sound management of mercury waste in cooperation with the Basel Convention Secretariat, and a status report on the mercury partnership program.

Conclusion

Many delegates welcomed the open attitude that prevailed in Bangkok and look forward to the next meeting in Nairobi, October 2008. "The outcome of the second meeting of this group will shape future global action," said Ravi Agarwal of the Indian NGO Toxics Link. "That will be the difficult meeting, but we feel there is now good momentum towards establishing a global treaty to control mercury pollution³."

² <http://www.iisd.ca/chemical/merc1/>

³ First steps towards streamlining global solutions on mercury www.zeromercury.org



Cement Towns

By Musa Chamane

You CAN bite the hand that only pretends to feed you

In South Africa we have won a number of rights. One of them is the right to an environment that is not harmful to your health. But, if we do not stand up for our rights, they will get lost. Cement companies, for example, are currently problematic neighbours because of the amount of dust that they create – and now they're planning to burn waste in their kilns, spewing out any number of toxins. People in the company towns are left with difficult choices – opt to be poisoned by an industry that can well afford to spend more money on appropriate technology to protect their health, or fight industry and run the risk of losing your job and home.

In order to help these communities challenge the cement industry, groundWork is hosting a number of community meetings to discuss the proposed waste burning in cement kilns. So far, we have held meetings in Mafikeng Slurry, Port Shepstone and Port Elizabeth. All these meetings were well attended. Local councilors and ward committees were very helpful in getting these meetings to take place. The meetings take place in local community halls or schools, and translation into the local language is provided. It is quite a challenge to present technical information to non-technical people in a way, and a language, that they can easily understand.

I was shocked to witness the conditions that poor people are exposed to because of cement companies. Waste burning in the cement kilns will make the environment even worse than it is.

Dust impacts

The issue of dust was a factor common to all areas. It was mentioned that if you hang your washing out to dry, and the wind is blowing towards your direction

from the plant, your washing will become cement coloured. The roof tops and nearby vegetation are covered with dust. Local business suffers because of the dust. The owner of a car wash said "I have to wash cars repeatedly without payment if the wind blows towards my car wash". Dust, especially very small particles, can have an adverse affect on health, being especially implicated in respiratory diseases and cancer.



A cement factory.

Photo by Stephen Coburn



Waste Project

Rain Water Harvesting

Some communities, especially Slurry, do not have access to potable water and are therefore harvesting rain water from their roof tops. The concern was raised that water harvested from these roof tops could be contaminated and not safe for human consumption.

Industry has not employed local people

In Port Shepstone and in New Brighton it was mentioned that the cement plant is not benefiting them as few of the people employed at the plant come from the local area. After the presentation there, they felt that we need to develop a petition to submit to the authorities, so that the authorities will know that they are resisting the incineration of waste in cement kilns.

Farmer's concern

The farmers were represented at Port Shepstone because the plant is located in the middle of farmland and rural communities. Farmers expressed concern that their produce is always covered with dust, which

is a big problem for them. They are concerned that if cement kilns start to burn waste, their produce will be covered with materials that they know nothing about, which could mean that their produce would be unacceptable in the market. There is concern that dust could cause crop disease.

Corporate Towns

Some communities live in towns that are owned by the local cement company. They are reluctant to cause trouble because they might face eviction as a result. The industry subsidises schools and occasionally helps to build business centres and sports fields in a bid to ingratiate themselves with the communities. They spend, however, less than 1% of their turnover on these sorts of endeavours.

Air emissions and climate change

The other worrying factor raised in meetings is that the exact emissions that come from waste burning cannot be known, as various spontaneous chemical reactions can take place at high temperatures. These emissions could result in serious diseases in both humans and in animals. The cement industry produces huge amounts of CO₂, largely from the process which takes place when limestone is broken down, which make a significant contribution to global warming.

Waste transport and storage

Waste will have to be brought into the plants, and stored there. Tons and tons of waste will be required, all of which will have to be trucked in. Not only does this create a problem regarding the waste itself, but there will also be more traffic, with resultant dangers, frustrations and pollution.

Our presentations were based on research that has been done both within groundWork and externally. People have shown signs of wanting to resist this activity. They believe that operating conditions are unlikely to be improved, but that emissions from waste could be even more toxic. While the cement industry is likely to make higher profits through this practice, the workers doubt that they will see a wage increase, or that new jobs will be created, and their health may be even more badly impacted upon than it presently is. ♀

Musa Chamane
pictured outside
the New
Brighton Cement
Plant in Port
Elizabeth.



Bucket Brigade in Zambia

By Siziwe Khanyile

A recent visit to Zambia proved to be an eye-opener

Flying over Zambia I was struck by the terrain. Although very green, it was significantly flat.

Arriving in Lusaka, I felt like I could be in any town anywhere in South Africa. There was a familiarity about the place and it was very apparent that the City has been colonized by South African business. Lusaka, the capital city had the familiar Checkers and on the streets you were met with pink shirt-clad young people who were either starting or ending their shift at the Game Stores in the mall. China's infiltration into the country is also starkly evident both in Lusaka and other towns.

Our gracious hosts were from Development and Education Community Project (DECOP), an NGO working primarily on mining and land based on the copperbelt.

Myself and two Bucket Brigaders from the United States, Denny Larson and Ruth Breech of Global Community Monitor, together with our hosts, trekked a long, cramped 4 hour drive northwards from Lusaka towards Mufulira on the copperbelt. Our mission? To train local people on the Bucket Brigade.

From Lusaka, we passed through Kabwe where our vehicle was engulfed by a group of vendors selling audio cassettes. Some were of original local musos, but others were what is termed fong kong (pirated) international artists. Our trek also passed through Kapiri Mposhe, Ndola, Kitwe and finally Mufulira. At each of these stations the small shops and vegetable street vendors were a happy sight. When we approached Kitwe it was sunset and in the near distance we could see bright lights and spewing dust from a copper smelter. In the air was a pungent mix of metal, sulphur and acidic smells. I knew I was in the heart of the copperbelt.

We arrived in Mufulira when it was already dark and prepared ourselves for the next few days, before resting for the night.

During the presidency of Frederick Chiluba the government privatised national assets such as the ZCCM (Zambia Consolidated Copper Mines). The public private partnerships did not benefit workers and the general community. While the proceeds of the sale of mines is unknown, workers suffered retrenchments and there is a current court case on the matter. The ZCCM mine is now called Mopani copper mine. It is jointly owned by First Quantum and the Swiss-owned multinational mining giant Glencore. It is one of the largest in Zambia's copper belt, and is said to be one of the largest mines in the world.

Our interactions at Mufulira were with DECOP, members of the community, journalists from Zambia News and Information Services, Trade unionists from The Mine Workers Union of Zambia and the Zambia Congress of Trade Unions, engineers, nurses, a crop health inspector, as well as a local council official.

We trained them on taking samples of dust and fallout from the mine dumps and from the copper smelter that has collected on various surfaces. During the field exercise we took wipe samples from various locations in the community. Previous samples taken by DECOP in Kitwe at another copper mine demonstrated high levels of arsenic, lead and cadmium. We expect similar results from this mine.

In the community we met women who were very vocal about their plight. We spoke about the many problems that they face as a consequence of having the mine a few meters away from their homes, schools and clinic.

We were informed that when the mine was still state-owned and called ZCCM roads were built in Mufulira, but that since then there are many service delivery problems and the Kankoyo and Butondo townships are in a general state of disrepair.

The roads are badly potholed, paint falls off people's



Air Quality Project

roofs and houses, walls are cracked, and sewer pipes on the side of the road lie broken while young children play in sewer water.

Mopani Copper Mines have the deepest and oldest mine on the Copperbelt. It was commissioned in 1938. There is a smelter and three mine shafts, as well as new acid ponds which were developed to extract copper for refining. Mopani also serves as a smelter for copper mines from the DRC and Solwezi (a capital city for the North West province of Zambia) who bring their copper to Mopani to be smeltered.

Taking wipe samples to measure for pollutants like arsenic, lead and cadmium.

Photo courtesy GCM.



Sulphur emissions erode paint off rooftops and cause them to leak. We were informed that ZCCM would replace the roofs every year but that this is no longer the case. One of the group members commented that yes, they replaced roofs, but people's lungs could not be replaced. On one of the days that we were out in the community, a sudden, strong sulphur smell hit us. The mine was gassing the community with what seemed like pure sulphur. At the smelter we could see yellow smoke spewing out of the chimneys, and from the strength of the smell it seemed apparent that no scrubbers were used. This resulted in us coughing and coarse feeling in the throat.

For a while there would be no activity at the mine, and then billows of black smoke would rise out of the chimneys. The audacity of it was unbelievable.

Other observations that we made on the tour included a huge mountain of ash which is waste from the smelter process. The slag heaps are not fenced in and people have created foot paths on the edges of the slag heaps, and children play happily oblivious to danger the black soot causes.

Houses are several meters from the ash dumps and a childrens football field just 20 meters from it. We were informed by community members that the noise from blasting had caused some houses to collapse.


Growing vegetables is near impossible. The soil is acidic, and the ground is dry and dusty. The trees and other plants that do manage to survive have black dust deposits on them, and should not be consumed. But due to the extreme levels of poverty, people will eat what is available and will continue to plant tomatoes and will drink the contaminated water.

The acid ponds pose another environmental and health problem. We were informed that acid from the acid plant leaks into the stream that leads to a river that supplies households their water. Even though the water was contaminated, people continued to drink as an alternative was not available. This resulted in ulcers and sores. The community is plagued with respiratory illnesses and asthma is common among children and adults.

A distance from the community huge white heaps of mine waste lie. This is ash from the mine and it is piped through parts of the community and the white powder residue is evident along its path, obviously due to leakage.

The environmental injustices in Mufulira are grave: perhaps it is because the community is so close to the mine and there is extreme poverty, a lack of services, 'on paper' legislation, and a council that is totally toothless.

Our final evening in Zambia was spent in Lusaka where we were accommodated at the hostels for parliamentarians. This was possible because they were on break. We were hosted by an MP who was previously within the council of Mufulira. He had been very vocal and tried to enforce legislation in his municipality, but he was, however, promptly removed and given a better paying position within national parliament. Although his intentions are good, he now has no power to speak of. He has been effectively silenced.

Such is the frustration of well meaning government officials, NGOs, trade unions and the community at large. They feel emasculated because they have no say in the affairs of their town. The meeting did, however, resolve that as a people, and as a community, they needed to be more demanding of their rights and to be less compliant. 



Apocalyptic Technology

By Sunita Dubey

Coal-to-Liquids in the climate change era

On 17 November 2007, when releasing the "Fourth Assessment Report on Climate Change", the UN Secretary-General Ban Ki-moon challenged the world's policymakers to start devising a comprehensive deal for tackling climate change at next month's summit in Bali, Indonesia. The United Nations report has found that the global warming is unequivocal and could cause irreversible damage to the planet. The recent cyclone in Bangladesh, where thousands of people have died is a glimpse into extreme weather changes and its impact on poor, developing countries. The reason for climate change can mainly be attributed to the fact that world economies are primarily growing on increasing fossil fuel use, particularly coal, the most polluting form. Given the fact that coal usage has been the major factor in CO₂ emissions, it is ironical that still some people are looking for coal-based solution to save the world from this calamity. The announcement of the "World Coal-to-Liquids conference" to be held in Paris April 2008 is an example of an initiative that is the antithesis of all human effort to combat the impacts of climate change.

What is Coal to Liquids?

Coal-to-liquids was first developed in the 1920s by two German chemists: Franz Fischer and Hans Tropsch under the Nazi regime to fuel the war machine. This so-called 'Fischer-Tropsch' process converts solid coal into a gas which, when combined with hydrogen under high pressure and temperature, produces synthetic crude oil that can be then refined and used as transport fuel. The only commercial-scale coal-to-liquid plant is in South Africa, which, due to international sanctions, was developed in 1955 under the apartheid regime. At face value,

this technology might look like a scientific marvel to reduce the oil dependence of the world and bring down the skyrocketing price of crude oil. However, a deeper look into this technology reveals why CTL is a bad idea, not only as a liquid fuel but also for humanity and the environment which is already reeling under the impacts of climate change.



Stacks spewing out pollutants.
Photo by "opla"



Why is CTL a bad idea in the climate change era?

One ton of coal produces only two barrels of liquid fuel. In addition to the carbon dioxide emitted while using the fuel, the production process creates almost a ton of carbon dioxide for every barrel of liquid fuel. EPA's analysis finds that without carbon capture life-cycle greenhouse gas emissions from coal-to-liquid fuels would be more than twice as high as from conventional diesel fuel (118% higher). Assuming carbon capture and storage, EPA finds that life-cycle greenhouse gas emissions from coal-to-liquid fuels would be 3.7% higher than from conventional diesel fuel.¹ The credibility of this claim seems doubtful as in 2004 Sasol's Secunda plant in South Africa emitted 52 million tonnes of CO₂ while the larger Sapref refinery emitted only 1 million tonnesⁱ. This has put even the difference of 2.5:1 ratio under doubts when it comes to CO₂ emissions from fuel derived from coal. CTL proponents argue that the technologies will be available someday to capture and store emissions from coal-to-liquids plants but, even if the carbon released during production were somehow captured and sequestered, some studies indicate that liquid coal would still release 4 to 8 percent more global warming pollution than regular gasoline.ⁱⁱ While the Sasol plant in South Africa has been held up as a shining example of commercialisation of coal-to-liquids all over the world, CTL proponents fail to mention that South Africa has the second most carbon intense economy in the world – after oil rich Venezuela. South Africa also has the dubious distinction of hosting the single largest carbon dioxide emitter in the world, Sasol's coal-to-liquid (CTL) plant at Secunda, which is the world's single largest greenhouse gas producer.ⁱⁱⁱ

However, the CTL plants not only releases high amounts of CO₂, but also the other air pollutants sulfur oxides, nitrogen oxides, particulate matter, mercury and other hazardous metals and organics. Sasol's own reports in 2001 noted that annual emissions from its Sasolburg plant alone amounted to over 42,000 tons of volatile organic compounds (VOCs), 22,000 tons of hydrogen sulphides and 26,000 tonnes of sulphur dioxide.

¹ <http://www.epa.gov/otaq/renewablefuels/420f07035.htm>

² Boardman, Richard, Ph.D. "Gasification and Water Nexus," Department of Energy, Idaho National Laboratory Gasification Research, presented March 14, 2007 at the GTC, Workshop on Gasification Technologies

What about water?

In November 2002, the United Nations Committee on Economic, Social and Cultural Rights affirmed that access to adequate amounts of clean water for personal and domestic uses is a fundamental human right of all people.^{iv} However, hundreds of millions of people face water shortages that will worsen as temperatures rises due to climate change. The recent fourth Assessment Report by Intergovernmental Panel on Climate Change has predicted by 2020, in Africa alone, between 75 million and 250 million people are projected to be exposed to increased water stress due to climate change. If coupled with increased demand, this will adversely affect livelihoods and exacerbate water-related problems.

It's a known fact that water is critical for human survival and in the given circumstances we should protect as well as judiciously use this precious resource. The coal-to-liquids is, however, a highly water intensive technology and the withdrawal and consumption of water in areas with water shortages will create havoc for communities living around such CTL plants.

According to the US Department of Energy's Idaho National Lab, approximately 12-14 barrels of water are used for every barrel of liquid coal². Therefore, the water requirement necessary to meeting the needs of an 80,000 BPD liquid coal plant could require sourcing about 40 million gallons of water per day (14 billion gallons per year). The 40 million gallons of water per day needed for an 80,000 BPD liquid coal facility is enough water to meet the domestic needs of more than 200,000 people³. Therefore, it is beyond comprehension that a water intensive technology like CTL is being propagated to curb the problem of oil shortage at the cost of human misery.

Why spend taxpayer's money to increase CO₂?

The countries that would build CTL plants would be spending billions in loans, tax incentives and price guarantees to lock in a technology that produces more greenhouse gases than gasoline does. This is unacceptable at a time when leading scientists from all over the world are warning that greenhouse gases must be cut by at least 60 percent over the next half a century to avert the worst consequences of global warming. Instead of spending billions to subsidise a



massively polluting industry, we should be investing in efficiency and in renewable energy; technologies that can help us constrain global warming today.^v Any CTL plant will lead to an increase in coal mining, which will not only exacerbate the problem of water pollution but will bring other impacts to communities. The increased coal mining will also result in methane emissions from the mines, which are a powerful heat-trapping gas and are the second most important contributor to global warming after carbon dioxide. Methane is about 21 times more powerful at warming the atmosphere than carbon dioxide (CO₂).^{vi}

CTL and climate injustice

The coal-to-liquids has progressed from being an experimental technology to a panacea to feed the oil-starved world. The proposed CTL world conference in Paris is an example of how people are still addicted to cheap fossil fuel, even if comes at the cost of millions of people dying or losing their livelihoods in Africa and Asia. It is the same rich class, which is working hard to keep their energy intensive lifestyles with a minimal cost. It is distressing to see that the coal, which has been responsible for the present day

situation of global warming and climate change, is sold as an alternative fuel to run the cars of rich people in developed and developing countries.

The world would not solve the climate change crisis unless action is taken to reduce carbon dioxide and other emissions. The need of the hour is to move away from the fossil fuel based economy and reduce the reliance on coal. The industrialized countries have to take a lead in solving the problem of global warming, whereas developing countries have to also take certain responsibilities. However, the whole push for CTL in the US, China and India is a regressive step in the given context of climate change. We do not want to repeat the same mistake, which got us here and it is the responsibility of the current generation to pass on a livable world to our future generation. 🌱

Endnotes

ⁱ This is the last year that The groundWork Report was able to access figures for local site emissions as opposed to global emissions.

ⁱⁱ David Hawkins (Director Climate Policy Center, NRDC) testimony to the Committee on Energy and Natural Resources United States Senate April 24th, 2006ⁱ

ⁱⁱⁱ Joanne Yawitch, DEAT, Energy Summit September 2007

^{iv} www.un.org/events/water/TheRighttoWater.pdf

^v Ibid 2

^{vi} <http://www.epa.gov/methane/scientific.html>

³ Based on EPA's estimate of 200 gallons of water per person per day, <http://www.epa.gov/watrhome/you/chap1.html>



Sasol's Secunda CTL plant—the single largest emitter of CO₂ in the World Picture courtesy ERA



Lies, spin and deceit

By Bobby Peek

The residents in South Durban are, as usual, being lied to by both industry and the city of Durban

South Durban has been rocked by two severe tank explosions within two months of each other. On the 18th of September six tanks at Island View Storage were gutted in a chemical blaze which resulted in elevated levels of air pollution and dead fish from water pollution in the Durban bay. Just two months later, on the 19th of November, Engen oil refinery had a storage tank with 7 million litres of petrol burn to the ground after it burnt for 58 hours.

Lies, spin and deceit – these are the three words that come to mind when I reflect back on these incidents. Whether it was the city manager, the emergency control people, the city health officials, national Department of Environmental Affairs and Tourism (DEAT), or the company representatives themselves – it seems that all of these entities were in one or other way selective with the truth. Well, to be more forgiving of them, they did not actually know what was going on, so we can't really say that they were lying.

Since then many of the people whom I have spoken to on both these issues have been amazed at the sheer audacity of the people who 'were in charge' - about how they were trying to spin the situation.

They all claimed that they had the situation under control, and the most riveting statement made during this time of crisis was by none other than our city manager, Dr Michael Sutcliffe, who indicated that because "it took place at night, people could see it from very far so they thought it was much closer than it actually was" and "every time we have a major disaster ... we urge people to remain calm and stay in their homes until they are instructed to evacuate". Well, when you live across a road which is a few meters away from a 20 foot fence and all you can see out of your front window are tanks, you are close. It does not need daylight to inform you of such, and you cannot remain calm. You can smell it, see it and hear it and you rightfully panic. But to rub salt

in the wounds of people, Dr Sutcliffe goes on further to deny that there was any chaos in the area. Dr Sutcliffe has never had the opportunity to live next to such facilities, and to have had the experience of carrying a bed-ridden mother away from such an inferno. I have, during one of the Engen fires, and to say things are chaotic is mild: they are potentially dangerous and deadly.

So, after trying to convince people that the situation was safe, the spin industry of both government and industry kicked into place. Coupled with the spin, Mr Kobus Ehlers, Manager Director of Island View Storage, uses the National Key Points Act to actively withhold information and indicates that he cannot 'elaborate on what solvents were leaked'. On national television he said that he did not know what was in the tanks, but he was sure it did not pose a danger! Some reasons I would postulate for him being so evasive and not releasing the information are firstly that he did not know what was in the tank; secondly, he did know, and he knows that the information, if released, will indicate the severity of the situation; and thirdly, maybe the tanks that burnt were not permitted to hold the chemicals that they were holding on that fateful evening. Engen, on the other hand, had their media spin doctors at work from the beginning on this. In a press statement they claim that "an independent authority has captured air samples several times in surrounding communities. The analysis is not immediate, but once we receive the results we will forward these to a toxicologist to give advice on potential health or environmental impacts, if any." We do not need the results to go to a toxicologist, we are capable of understanding the results for ourselves.

While I can understand the spin of Dr Sutcliffe and the evasiveness of Mr Ehlers and the Engen Manager Mr Oosthuizen, I was expecting a more honest response from the officials who are tasked with the day-to-day operations of ensuring that we have a right to



and environment that is not harmful to our health and well-being. But what we are getting instead is deceit and a process of managing public decent. Raj Phillip of the Department of Water Affairs and Forestry, in responding to the concerns of the dead fish in the Durban bay, indicated that this was to be expected but that "the chemicals are not something you would drink and I'm sure, even with fish, it would be dangerous. But I wouldn't say they were toxic." Well then why did the fish die?

Closer to home we have our Department of Health spokesperson, Mr Selva Mudaly, squirming through a variety of tight corners when questioned on the impact on community air. He is upfront, at least, in his admittance of spin when he indicates that the contents of the air sample report cannot be released as it needed to be accompanied by a press statement in the Island View incident.

Finally, we have to view the local political response to this, and in a recent letter to the media, long time National Party and Democratic Alliance politician Mr Duncan du Bois indicated that the 'unexpected is always the unscripted'. Well this was not unexpected. The same area had a leak of more than 25 tons of tetra-ethyl lead in March 2001, and this city did not inform the residents of the leak when it occurred,

nor did they do any environmental monitoring in the community neighbourhood. In March 2005 I questioned Dr Sutcliffe on the Emergency Evacuation Plans for south Durban. In the Sunday Tribune he indicated that there was a plan, but we have still not been briefed on the plan or seen the plan. So this was scripted, scripted by the nexus of collusion between corporate power and a weak and submissive government.

But as civil society actors we also need to take some responsibility for the situation we are in. We have known of the danger, and we continue to try and 'engage' with the system to seek a constructive way forward. It is clearly not working. We need another form of engagement and that is engaging with the people to foster and support a groundswell of resistance to corporate power and government complacency.

The reality of the situation is that the city did not know what was in the tank, they do not have an emergency evacuation and response plan – despite what Dr Sutcliffe aggressively maintains – that the community is aware of and they were in chaos on the evening! For how much longer are we going to listen to lies, spin and deceit from government and industry in south Durban? 📌



Emergency staff looking on while the Engen tank still burns the day after exploding.

Photo courtesy Independent Newspapers



The democratic process in action

By Jane Harley

When Abahlali baseMjondolo marched to present the mayor of Durban with a memorandum, they discovered once again, that the democratic process in eThekweni is less than perfect

On Friday, 28 September 2007, shack dwellers from the Abahlali baseMjondolo movement marched in order to present a memorandum to eThekweni mayor, Obed Mlaba. The march had been approved in writing, marshals had been elected and trained and the leaders had met with the police to ensure that all went smoothly.

Despite having arranged with the mayor that he would receive the memorandum, on the day he was not there. The protestors felt that this was a sign of disrespect, and refused to move until the mayor had honoured their protest. The Sunday Tribune¹ reports: "Then, without warning, police, armed with a water cannon, rubber bullets and teargas, tried to disperse the crowd. The Sunday Tribune witnessed the chaos as several people, including children, were injured and 14 people were arrested."

Protestors are unexpectedly sprayed with a water canon during the September 28 march. Photo courtesy Abahlali baseMjondolo



Testimony by a number of church leaders says: "As leaders in various churches and ecumenical organisations, we were present in the march organised by Abahlali... The march was conducted in a disciplined manner, with the clear and stated intention being to deliver a memorandum of demands to the Mayor. Whilst the marchers were waiting for the Mayor to arrive to receive the memorandum, the SAPS chose to attack the people assembled at the agreed upon venue. We wish to state clearly, as eyewitnesses, that prior to this attack by the police:

no participant of the march threatened any violence, or threw, or threatened to throw, stones or sticks or any objects at the police, or any members of the public; no orders were given by the police calling for the dispersal of the people assembled, nor were any instructions or warnings given by the police; no "warning shots" or anything of that nature were given by the police.

Mayor Mlaba was reported as saying that "he was not aware of a legal march taking place, but he did not see anything wrong with someone else receiving the memorandum... anyone could receive the memorandum, which was just a document raising awareness about something."

One of the issues addressed in the memorandum is the "Slums Act".

The KZN Elimination and Prevention of the Re-Emergence of Slums Bill 2006, which appears to supersede PIE, came into effect at the beginning of October, 2007. The stated objects of the Act are to eliminate slums; to prevent the re-emergence of slums; to promote co-operation between the department and municipalities in the elimination and prevention of re-emergence of slums; to monitor the performance of the department and municipalities in the elimination and prevention of re-emergence of slums and to improve the living conditions of the communities in the Province.

The provisions within the Act are largely tautologous and most things could have been quite adequately handled under other existing legislation. It would appear that the single reason that the Act came into being was to place a legal obligation upon landowners to make their land and buildings secure against illegal occupation, and to force them to evict the people on their land should it currently be illegally occupied.

Prior to the law being enacted, the spokesman for housing, Lennox Mabaso², said: "The Bill has nothing against poor people who have genuine need for

¹ Sunday Tribune, Police action incurs church wrath, October 07, 2007, Edition 1, Lerato Matsaneng

² Plea to premier over slum Bill, July 15, 2007, Edition 2, Chris Makhaye and Luke Reid

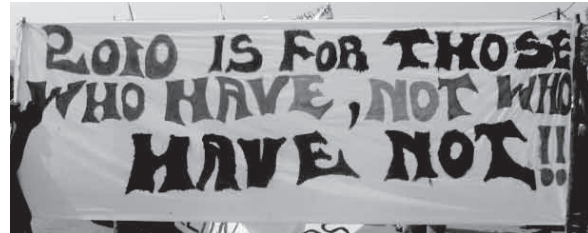
housing and it says very clearly that existing informal settlements will not be demolished before people are allocated houses³. The Bill is against the shack farmers - people who have more than one shack for the sake of renting. It is also against people who rent out their RDP houses and return to shacks, and people who invade vacant land and build new shacks." The idea of the bill being primarily to control slum lords, rather than slum dwellers, was much touted at the time. In the end, however, the single provision which prohibits the use of substandard accommodation for financial benefit⁴, and a following provision which allows the municipality to force an eviction of tenants from such accommodation should the landlord not do so himself, appears to be hard to enforce within the shack scenario. There does not appear to be any penalty for a person who does hire out substandard accommodation. On the other hand, anyone who tries to prevent an eviction could be subject to a R20 000 fine.

In comment to opposition to the Bill, Lennox Mabaso said: "ignorance is a potent weapon for those who deliberately want to undermine the facts... The arguments provided by [them] ... are a clear indication of the danger posed to the nation by a lack of reading."⁵ Maybe Mr Mabaso didn't read the press statement⁶ issued by Abahlali before the parliamentary hearings.

In his article, Lennox Mabaso lays the fact of slums on "previous oppressive governments" and says "[a]s for the charges that the bill is aimed at evicting people... ahead of 2010... this is just plain absurd." It might be telling, however, that Mayor Mlaba, after the recent forced removal of street vendors in Durban, said that this was part of the council's pre-2010 plan. He is reported⁷ as saying: "It is happening everywhere. We have cleaned many areas in the city and also townships. This is a wonderful opportunity for us to clean up areas that have become unsavoury."

Mabaso has stated that: "the promulgation of the bill will not result in a wholesale or apartheid-style

eviction of people from informal settlements before alternative land has been found or secured for their relocation....The Elimination and Prevention of Re-emergence of Slums Bill is not about the inhumane eviction of people from where they live. This is not 'Operation Murambatsvina'⁸, but a revolutionary and long-term solution to the challenge of slums and slum conditions."



On the 5th of October, however, after shacks were demolished in the Sea Cow Lake area, he says:⁹ "We want to reiterate that it is illegal to erect new shacks at this stage, because it contravenes the Prevention of the Emergence of Slums Act, which states that, as from October 1, any shacks erected would be considered illegal. The only shacks recognised are those that were identified before the Act came into being."¹⁰

At a meeting on 9 October, Ma Nkikine, who was arrested at the September 28 march, and shot in the back 6 times with rubber bullets, said¹¹ that she "remembered the names and actions of those who had continuously knocked down the shacks where she had lived during the apartheid times. The change since apartheid seems very little – and sometimes it feels like it was better before."

The on-going betrayal of the poor is perhaps summed up by S'bu Zikode: "My heart is torn apart when in my own country, in broad daylight like on Friday the 28 September 2007 it is made so clear that the poor are not Citizens. When they try to sweep us out of the cities it is clear that we are not citizens. When they beat us to stop us speaking it is clear that we are not citizens."¹²

³ This is not, in fact, clear at all. The Act says "An owner... MUST, within the period determined... institute proceedings for the eviction of the unlawful occupiers". As to where these evictees should go, "the municipality MAY identify or acquire land ... for the purpose of establishing a transit area to be utilized for the temporary accommodation of persons who are evicted from a slum pending the acquisition of land or buildings for their permanent accommodation."

⁴ 5. The owner or person in charge of a building or structure may not allow persons to use such building or structure for accommodation purposes and in return for financial benefit if such building or structure has not been approved by the municipality...

⁵ The Witness, Wed 18 Jul 2007, Op-Ed piece

⁶ You can find this at <http://abahlali.org/node/1629>

⁷ Daily News, Evicted informal traders seek legal redress, October 08, 2007 Edition 1, Bongani Mthembu

⁸ Zimbabwe's controversial 2005 "Operation Drive Out the Trash"

⁹ The Mercury, October 5, 2007, Edition 2, Chaos as shackdwellers go on rampage, Ntokozo Mfusi.

¹⁰ There does not appear to be anything in the Act that justifies this statement. I have written to Mr Mabaso, asking him on which passage from the Act this statement is based, but I have not heard back from him.

¹¹ Reported in "Notes after an Abahlali baseMjondolo meeting with church leaders, at Kennedy Road, 9 October 2007", <http://abahlali.org/node/2815>

¹² S'bu Zikode, letter Silencing the Right to speak, is Taking away Citizenship, Sunday 30 September 2007



Trash ovens in Kenya

UNEP have sponsored a trash oven to help deal with rubbish in Kibera, a large Kenyan slum. The oven uses a superheated steel plate inside an incinerator box to turn drops of water into steam. This releases oxygen, which allows temperatures to go up to about 500°C, which is purportedly sufficient to burn discarded sump oil from vehicles, a big problem in the slums.

Youth workers, paid a few shillings, collect rubbish from door to door, and feed this into the oven. Residents can pay to use the cooker to prepare hot meals and to get hot water for washing, thus reducing the need to use wood from the rapidly dwindling forests in the area.

The pilot cooker has proved to be a great success, despite the fact that it spews out acrid, foul smelling smoke, and Kenya's largest supermarket chain has pledged funding for twenty more such ovens.

One shudders to contemplate the number of dioxins, furans and heavy metals that the residents of Kibera might be ingesting with their much loved chai.

The Bank of the South

A new "Bank of the South" is to be launched on 5 December 2007. It is an alternative to the Washington-dominated International Monetary Fund (IMF) and the World Bank. It will make development loans to member countries and focus on regional economic integration. Unlike the Washington-based international financial institutions, the new bank will not impose economic policy conditions on its borrowers. The bank will focus only on Latin America, and is expected to start with capital of about seven billion dollars, raised from member country contributions. The bank will be governed on a one-country, one-vote basis.

Another Environmental Hero

Von Hernandez, who was in South Africa earlier this year to help groundWork and colleagues from a number of other NGOs and CBOs with their comments on the Waste Bill, has been named an environmental hero by Time Magazine.

Von was awarded this title for his work in the Philippines against waste incinerators. Manila creates 6000 tons of trash each day and it was felt that instead of landfills, one of which collapsed in 2000 and killed more than 200 people, incinerators would be a hot idea. He campaigned vigorously against this and as a result the Philippines became the first country in the world to ban incineration.

Now there is a high awareness in the Philippines about the toxic effects of waste incinerators and their long-term impacts on the environment, and focus is on composting and recycling.

Von Hernandez was awarded the Goldman Environmental Prize for Asia in 2003 for his work challenging waste incineration.

Congratulations, Von.

See <http://www.goldmanprize.org/node/107>

Titanium mining on the Wild Coast moves a step closer

Who's ever heard of ilmenite? Well, it's an important ore needed to manufacture titanium and there's eleven billion Rands worth of it in a 22km stretch of ground between the Wild Coast Sun and Mkambati. Despite resistance from various groups, the national Department of Minerals and Energy has accepted the Australian stock exchange-listed Mineral Commodities (MRC) mining right application. This allows MRC to embark on an official public participation process.



Biowatch SA loses costs appeal

In July 2000, Biowatch SA, a non-profit organisation acting in the public interest, made a first request for information about how permitting decisions for GM crops are made.

In August 2002, having not had any success in getting the information they required from the Department of Agriculture, Biowatch SA served papers on the Department, naming the Registrar for Genetic Resources, the Executive Council for Genetic Resources and the Minister of Agriculture as respondents. In February 2003 Monsanto applied to join the proceedings as a co-respondent, on the grounds that they had a direct and substantial interest in these proceedings. In May 2004 the case was heard in the Pretoria High Court and in February 2005 Acting Judge Dunn handed down his order in the matter.

In terms of this Biowatch were given most of the information that they had requested and the judge, Eric Dunn, upheld their right to have access to the information and accepted that they had needed to go to court in order to get it. He never the less went against the accepted principle that costs should follow the result of litigation and ordered that Biowatch SA pay the legal costs of Monsanto, saying that Biowatch SA had been too general in their request for information and this had forced Monsanto to go to court to protect its interests. This despite the fact that Monsanto had joined in the action at its own request!

In July 2005 Biowatch was granted permission to appeal the costs order, and the appeal was heard in April 2007. The resulting judgement, handed down in November 2007, ordered Biowatch to pay all of Monsanto's original costs, as well as all of the appeal costs: probably a total of close to R1 million.

Could the message to watchdog groups be any clearer? Mess with big business at your peril because even if you're right, and the courts say you're right, it's going to cost you.

See <http://www.biowatch.org.za/>

Khulumani v. Barclays et.al. to go ahead

Throughout the apartheid era large corporations provided the weapons, finances, and oil that the Apartheid government required for its very existence. None of these companies appeared before the Truth and Reconciliation Commission, despite being asked to do so. 87 individual South Africans, each a victim of human rights abuses during apartheid, brought suit against against 23 multinational corporations, charging them with aiding and abetting Apartheid. Strong opposition from the South African and American Governments resulted in an appeal, but on the 12th of October the U.S. Court of Appeals for the Second Circuit ruled that Khulumani v. Barclays et.al. could go ahead.

This is a very important decision. By allowing the lawsuit to be heard the Court is allowing the possibility that corporations could be held to account for human rights abuses outside of their home countries. If this case can be won by the plaintiffs, the days of large companies actively supporting illegitimate regimes could be over.

The 2030 Challenge

Architects 2030 is an organisation whose goal is to achieve a dramatic reduction in the global-warming-causing greenhouse gas emissions of the Building Sector by changing the way buildings and developments are planned, designed and constructed. They have challenged the architectural and building communities to reduce building energy use by at least 50%. They claim that as buildings use 76% of all the energy produced by coal plants, this reduction will negate the need for new coal plants.

See www.architecture2030.org/



Peak Poison

The groundWork Report 2007 is about energy in the 21st Century. In the 19th Century, Britain became the first properly industrial power and was fuelled by coal. In the 20th Century, the USA took the industrial lead and oil was, and still is, the fuel of choice. The growth of industrial and economic power throughout these two centuries has been staggering and the world is now made to work on the assumption that growth is never ending. This growth depends on ever growing energy supplies. Within the next few years, however, global oil production will be in decline and there is no alternative energy source available to compensate for that loss.

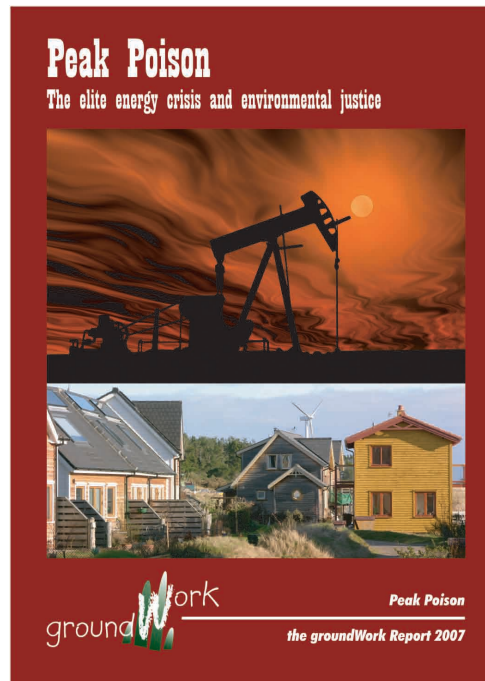
'Peak oil' is the moment when half of what can be pumped from the earth has been used and what is left is the dirtier, heavier and more difficult half. Extracting and refining the first half, the 'easy oil', was a filthy process that visited destruction on neighbouring communities. Producing the next half will be even more polluting and destructive and substitutes for conventional oil – Canada's tar sands, Venezuela's extra heavy oils

or South Africa's coal-to-liquids technology – are dirtier still. South Africa's elites have always relied on cheap and dirty energy to fire up the economy. They are now making capital on rising energy prices but still selling cheap to capital, energy and pollution intensive industries. Hence the title of the report: Peak Poison.

The report focuses on the energy crisis but locates it in relation to two other dimensions of the present crisis. First, the economic and political system presided over by the US is increasingly unstable. Second, climate change is gathering momentum and is just one aspect of a broader environmental crisis. The report explores the implications of this triple crisis for environmental, social and economic justice. At the end of the fossil fuel bonanza, another world will become inevitable. Whether people allow the political and economic elite to lead them

into a world of growing destruction or take charge to create a world of mutual solidarity is the central challenge of the age.

The report is available at <http://www.groundwork.org.za/Peak%20Poison.pdf>



Join the groundWorkers Union

groundWork seeks to bring about environmental justice in a system based upon principles of fairness and solidarity. If you want to show solidarity with groundWork's objectives, you can now join the groundWorkers' Union. The dues are R50.00 a year and this year you will receive this great t-shirt and a black cap with the groundWorkers' Union badge, plus an extra badge to sew onto whatever you want!

To sign up now, download a form from our webpage at www.groundwork.org.za or call us on 033-342-5662 and we will get one to you.

