

Crunch time for clean energy

The recession has cut low-carbon funding and piled pressure on Copenhagen, says **Mark Newham**

INTERNATIONAL plans to combat global warming by switching to low-carbon energy technology have been handicapped by the world financial crisis, according to new figures seen by The Sunday Times.

The data will be worrying for world leaders who tomorrow begin nearly two weeks of talks in Copenhagen to hammer out a new global agreement to cut carbon emissions.

According to New Energy Finance (NEF), the research firm, funding for clean energy schemes this year will fall to \$125 billion (£75 billion), down nearly a fifth from last year. The drop ends seven years of growth in which global low-carbon funding soared from \$22 billion in 2002 to \$155 billion last year. The decrease would have

been even greater had the world's governments not stepped in to support the sector with billions in economic stimulus cash.

The fall creates a worrying scenario. In a report to the United Nations, NEF said that \$500 billion a year needs to be invested in clean energy schemes by 2020, rising to some \$590 billion annually by 2030, if carbon dioxide output is to be capped at 450 parts per million. Scientists say that if atmospheric carbon exceeds this level, there will be catastrophic environmental consequences.

The low-carbon sector was doing well until the credit crunch struck in 2007. Up to that point investment in green companies and projects was growing at an annual average of 60%. The revers-



Call to action: protesters in London yesterday drumming up sup

GREEN IDEA



Car skin generates its own electricity

A professor has come up with a way for cars to generate electricity from the wind. Yiannis Andreopoulos at City College of New York has invented a polymer device that he said can be embedded in the body of a car or plane and will generate a current from turbulence in the air. A car could, in theory, be covered in the paper-thin material. The device will have to get better, however. The first one-inch by one-inch model generated a mere 40 volts.

al of fortunes underlines the need for political leaders to produce a new global warming treaty to succeed the Kyoto protocol after it expires in 2012.

The two biggest polluters, America and China, did not sign up to the Kyoto protocol. This time they have made a public commitment to set binding pollution reduction targets and claim to support carbon cap and trade schemes.

However, a definitive deal is not expected at Copenhagen and businesses fear that the policy vacuum could weaken the sector. Recent claims that the director of the influential Climatic Research Unit at the University of East Anglia may have manipulated data have further damaged sentiment.

Public money is already playing a significant role in propping up the sector. The International Energy Agency said: "Without the stimulus provided by government fiscal packages, renewable [energy] investment would have fallen [from the 2008 level] by almost 30%."

In the short term, more government cash will be needed.

A survey by the UK's Renewable Energy Association found that more than 75% of its members were having difficulty getting loans and new equity, putting projects and green-energy jobs at risk.

Venture capital and private equity firms are sitting on hundreds of billions they raised in the boom years but have been slow to invest

ENERGY AND ENVIRONMENT

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ty firms are sitting on hundreds of
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it while the overall state of the
economy remains shaky. Tom
Murley, chairman of the British
Venture Capital Association's ener-
gy, environment and technology
group, said the group's 10 member
firms had a combined pot of £10 bil-
lion to spend.

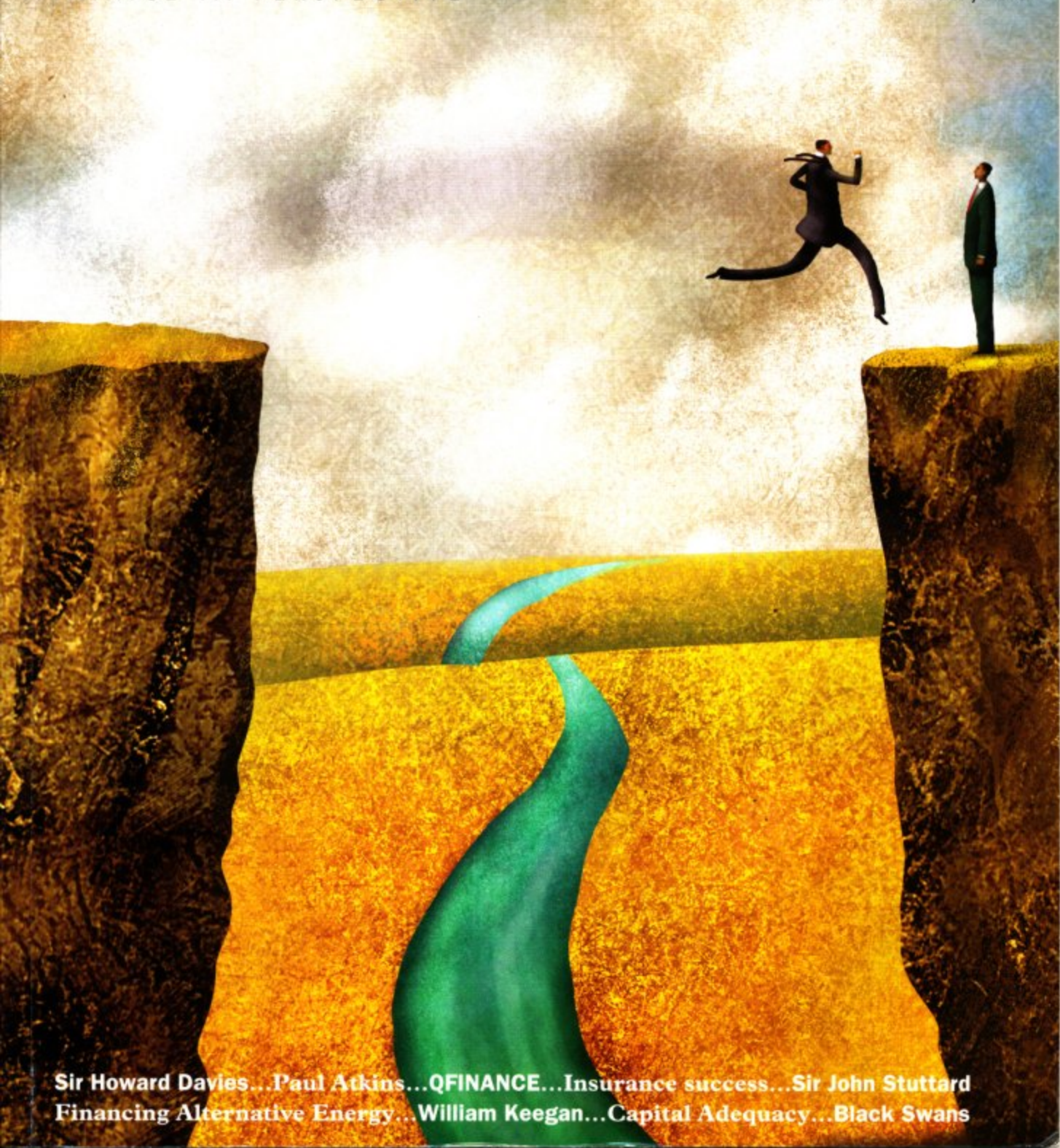
The lack of money in the rest of
the market means they have the
pick of the deals. "The world's gov-
ernments are beginning to show
sincere commitment towards
ensuring a low-carbon, energy-
secure future," he said. "We
remain bullish."

On a global scale, however, the
industry has taken a step back and
is farther from NEF's goal of
\$500 billion in annual investment
than it was a year ago.

QUANTUM

FINANCE IN PERSPECTIVE

Issue 10 February 2010



Sir Howard Davies...Paul Atkins...QFINANCE...Insurance success...Sir John Stuttard
Financing Alternative Energy...William Keegan...Capital Adequacy...Black Swans

From a standing start at the turn of the century, the renewable energy sector has blossomed into a fully-fledged, \$130 billion-a-year industry and investor sentiment is bullish about continuing rapid growth. **Mark Newham** examines the prospects and how the industry is being financed.

Cleaning Up

Improving technology efficiency, rapidly falling costs and concrete evidence of a genuine international commitment towards increasing the contribution of renewable energy technologies (RETs) to global energy supply have combined to cement the clean energy sector as a top investment target.

The figures for investment in RETs – solar, wind, ocean, hydro, biofuel and geothermal power systems – speak for themselves. Annual RET funding inflows have quadrupled in the last four years alone to reach \$155 billion in 2008, says investment analyst New Energy Finance (NEF), the financial world's source of choice for clean energy investment data.

Although the global financial crisis is expected to clip some 20 per cent off that figure to bring it down to \$120-130 billion in 2009, investor interest remains strong and few forecast anything other than a swift return to the upward investment spiral.

NEF predicts investment levels could reach \$200 billion globally in 2010, with the public component more than doubling to \$60 billion as the effect of financial stimulus packages kicks in.

If the world is serious about moving to a low carbon economy, says NEF in a research paper commissioned by the United Nations, that return is imperative. To attain the sort of CO₂ cuts the world is talking about, says NEF, annual investment in RETs and other clean energy technologies will need to rise to some \$500 billion by 2020, rising to \$590 billion by 2030.

This view is echoed by the International Energy Agency. IEA Executive Director Nobuo Tanaka believes that if CO₂ atmospheric content is to be held at levels relating to a 2°C global temperature rise, the world's current 18 per cent total energy contribution from renewables (including large hydro) will have to rise to 40 per cent, while non-hydro RET capacity will need to multiply twelve-fold.



A significant portion of the funding required will have to come from the global financial sector, and those specialising in this area such as Tom Murley, head of renewable energy investments at HgCapital and chairman of the British Venture Capital Association's Energy, Environment and Technology Board, see plenty of opportunities.

The 12 fund managers comprising the EETB, says Murley, are backing their judgement with substantial investment. They have already raised £10bn (\$16.5bn) for a sector they believe will generate healthy returns for at least the next 20 to 30 years. International RET expansion commitments will keep the pot boiling nicely, he says, and venture capitalists will fill the financing gap – caused by the absence of debt financing to support the industry due to the financial crash.

Indeed, says the BVCA, the world's venture capital and private equity players are "sitting on a vast amount of dry powder" built up over the last few years, and many have targeted RETs as the next big thing. At the height of the worst recession since the war, Murley's own company, HgCapital, has had its "best-ever investment deployment year" in the clean energy sector and "is seeing many attractive investment opportunities for experienced investors with capital to invest".

The London-based firm has a £300m (\$450m) fund currently supporting more than 30 projects with a total capital value of more than £1bn (\$1.5bn). HgCapital, says Murley, is in the sector for the long term – unlike some who rushed in the middle of the decade and are now sitting on the sidelines nursing burned fingers.

"Some brand-name companies made costly mistakes and have since left the space, adjusted their investment

strategies or brought in more energy experience. We've seen a lot of redefining of business plans this year," he says.

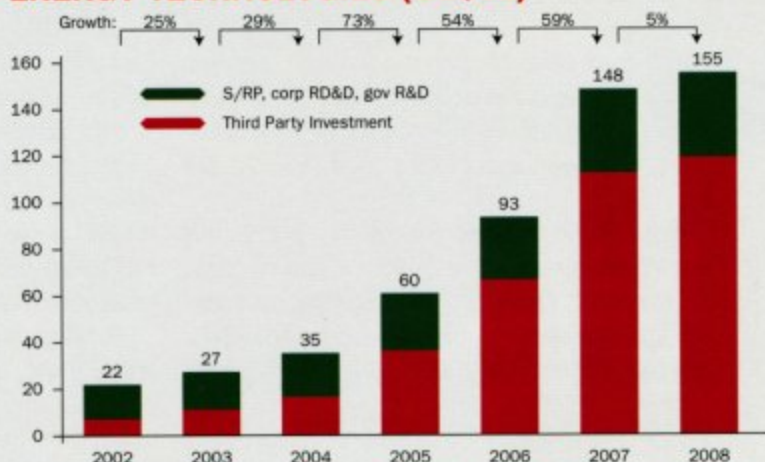
Wal van Lierop, president and CEO of Vancouver-based Chrysalix Energy Venture Capital, agrees. Having closed 15 clean energy investment deals in 2009, the same as in 2008 and 2007, Van Lierop argues that a good knowledge base is critical for anyone investing in clean energy technologies. He says that "without it there's still a huge risk of losing your shirt, as some well-known players have found to their cost. It will be those who learn to dance with the elephants who will be the last men standing in the overall clean tech industry, which is expected to take the bulk of the \$1 trillion total energy industry growth projected to be seen up to 2030."

The key is being able to differentiate between the various parts of the clean energy business. Van Lierop says that there are sectors he will not become involved with, such as corn-based ethanol and the automotive industry. "There is too much vested interest to battle against there," he says. "You've got to pick technologies that can implement change."

That is also the approach of billionaire entrepreneur Jim Mellon. Photovoltaic (PV) solar energy is his general interest, and the materials needed to make them are his specific focus. Mellon believes the PV industry will be "bigger than the internet" and that those who control the materials will be those in ultimate control of the market. That is why he has taken a major shareholding in Emerging Metals, a mining company recovering minerals essential to PV manufacture.

Financial entrepreneurs and investors are also looking at how to exploit in an environmentally acceptable

CHART 1 – GLOBAL INVESTMENT IN RENEWABLE ENERGY TECHNOLOGIES (US\$bn)



Source: New Energy Finance.

Notes: 1. NEF's 2009 estimate of US\$125bn not shown. Needs to be added to show decline.

2. Average annual growth 2004-2007 = 62 percent

3. If growth remains constant at 62 percent this would put 2008 at US\$240bn and 2009 at \$390bn. Chart needs redrawing to reflect this

way the virtually unlimited reserves of hydrogen contained in the ocean depths. Bob Hamburger, chairman and chief executive of AGI Corporate Finance, has focused on this area, and AGI has set up a \$1 billion Water Capital Fund to back exploitation research projects. If they find what they need, there is the potential to produce considerable financial returns.

Some investors have a strategy of targeting more established technologies. The clean-investment strategy of Louis van Pletzen, a partner in Denham Capital, is to stick with technologies which have a track record for producing good returns.

Of the \$4.5 billion Denham has earmarked for energy sector funding, \$1.25bn still has to be allocated – the investment criteria is heavily weighted in favour of tried and tested technologies producing proven paybacks.

Projects like the \$200m solar power project Denham is funding in a high solar radiation region of Italy are more likely to find favour with Van Pletzen

than less proven technologies like offshore wind farms located in testing, corrosive environments.

Other banks argue that this is an over-cautious approach. Augusta & Co has helped arrange funding for an array of wind energy projects both on and offshore and is always looking for new opportunities to match financial resources with need, largely through capital equity placements.

Augusta, says merchant bank partner James Knight, can now call on some 700 financial institutions to back a sector he believes is well on the way towards full-scale industrialisation.

"The financing of bankable, deliverable projects in this sector continues to mature at a fast pace, and we're finding demand for our services as strong as ever," says Knight. "While debt financing has become challenging, thanks to the credit crunch, we're finding more equity capital coming into the sector and the prospects for this year (2010) look bright."

Another approach is to create a fund



of funds. This was adopted by Osmosis, set up in 2008 with the purpose of helping interested parties make sense of the wealth of private equity opportunities and funding sources seeking to cover the needs of a rapidly developing industry.

Its latest product is a fund reported to be in the region of £200m (\$300 million) targeting in particular largely "mature" RETs, wind and solar power projects. "International renewable energy technology deployment plans encourage us to take a long-term view of these investments," says Jim Totty, a partner at Osmosis Capital.

Osmosis is just one of many investors taking this view. Recent research tends to support the standpoint of many in the clean energy industry that the

sector isn't far from being in a position to compete with the more conventional energy supply technologies.

In fact, says New Energy Finance in its UN-commissioned report, RETs have already reached that stage in one respect. NEF says that "2008 was the first year that investment in new power generation capacity sourced from renewable energy technologies (including large hydropower) was more than the investment in fossil-fuelled technologies".

Even though this position is likely to be reversed because of the credit crunch, there is confidence in the sector that this is only a short-term setback. As confidence returns to the marketplace, investor enthusiasm for RETs is expected to rebound.

But will it be enough? As optimistic as market analysts are, no one is in any doubt that RET investment needs to skyrocket if it is to get anywhere near the \$500 billion which NEF argues must be spent every year on technology deployment to keep greenhouse gas levels down to internationally-agreed limits.

The scale of the challenge is clear. The \$120-130 billion injected into the RET industry in 2009 was just a fifth down on 2008. But, in reality, this was 70 per cent short of the \$390 billion level projected for 2009, had the 60 per cent annual average rate of investment growth over 2004 to 2007 not tailed off dramatically to 5 per cent in 2008 and then shrunk into negative territory last year (2009). **Q**

BRIGHT PROSPECTS FOR WASTE MANAGEMENT

As the costs of waste disposal rise, the trend may well be towards waste prevention and cleaner manufacturing operations.

MAKE no mistake, the cost of dumping your rubbish is set to rise sharply. Legislation in Westminster and Brussels will ensure it does. The polluter is going to be made to pay.

On the face of it, that would seem to be yet more bad news for industry just at a time when it needs it least. Added costs for waste disposal make unpleasant reading on balance sheets already suffering at the hands of inflation, recession and crippling interest rates.

But there are a surprising number of positive elements to this scenario, especially for those involved in the business of managing, monitoring and controlling the waste of others. Some analysts have even gone so far as to declare the waste management business "recession-proof".

Indeed, there are few companies associated with the sector which have suffered as much as, say, the manufacturing industry. Some are even exhibiting positively blooming results. Shanks & McEwan, one of Britain's biggest waste management companies, returned pre-tax profits up 37 per cent to £23.9m for 1990/91, even after the purchase of toxic waste disposal specialist Rechem was taken into account. One of Shank's rivals, Leigh Interests, fared

even better, surging 77 per cent to a pre-tax profit of £14.8m despite an outlay of £37m for HT Hughes.

Hughes was one of the few waste disposal companies to suffer last year. Its core business centred on disposing of building waste – an industry finding new bottoms to bottom-out into every week.

But Hughes definitely represents the minority case. A survey of the waste management industry by stockbroker James Capel found the industry has a p/e ratio of 19 compared with an average of 11 for stock represented on the FT-Actuaries industrial index. And that was before the teeth of the government's Environmental Protection Act (EPA) and a host of Directives from the European Commission began to gnaw at the roots of indiscriminate waste disposal adding value to responsible waste management activities.

Rising costs

No-one now doubts that the cost of disposing of waste will rise in line with the cumulative layers of protection being provided for the environment. The CBI predicts the cost of dealing with Britain's yearly 100m tonnes of waste will climb from £3bn now to £7bn in 1992, even without an increase in waste generation. The Department of the Environment estimates a 50 per cent rise in the cost of disposal to landfill sites in the short term from their current level of anything from £5 to £20 per tonne depending who you're negotiating with.

ICI announced last year that the cost of dumping chemical waste at its own dedicated sites would be increased 10-fold to £150/t to match costs in Germany and the Netherlands. The extra revenue will be channelled to fund ICI's waste reduction processes. The company claims to have earmarked £1bn to halve its waste output over the next five years.

The source of the soaring expense of dealing with waste rests mainly in three pieces of legislation. First is the EPA which places a "duty of care" on waste producers and disposers to ensure waste is dealt with in an environmentally-acceptable manner – meaning a general rise in the cost of operating disposal facilities.

The Act also introduces the concept of Integrated Pollution Control obliging in-

dustry to operate in a manner satisfying guidelines set by HM's Inspectorate of Pollution. Although the guidelines set out how plant should operate using the Best Available Techniques *Not Entailing Excessive Cost*, accommodating them will inevitably mean higher production costs.

The second source of legislation is Brussels where the EC is seeking agreement on two Directives – "Landfill of Waste" and "Civil Liability for Damage Caused By Waste". If passed unamended, these would not only set a heavy liability on disposal site operators for environmental damage caused but would require the setting up of a substantial aftercare fund to finance contamination clean-up operations in the absence of a "disappeared" waste dump operator.

The Directives might also require some form of insurance against landfill site leakage into the environment – policies insurance companies are reluctant to provide in the light of US pollution claims.

And just to fan the flames, the EC is currently studying a plan to add a pollution tax to all polluting processes which could cost Europe's industry about ECU20bn (£14.3bn) every year.

But where there are losers there are also gainers. The waste management companies should end up on the positive side so long as their operations are clean. They will be joined by companies providing environmental protection hardware, monitoring and advice services.

The Centre for Exploitation of Science and Technology calculates that protecting Britain's environment will cost £140bn over the next ten years.

For those having to find the necessary capital for this clean-up campaign, such cost estimates make depressing reading. But according to studies carried out by organisations as diverse as the CBI and Erasmus University of the Netherlands, there is a distinct silver lining to the gloom. Waste, they find, equals loss. Reducing waste streams saves substantial amounts of money and the economics of waste prevention are now being seen in a new positive light.

If you think that's far-fetched, ask the Danish textile dye company Fjeltstervang Farveri. Instead of paying out DKr18m (£1.6m) to bring its waste water treatment plant in line with Danish effluent regulations it was persuaded to invest an extra DKr7m and clean-up its entire manufacturing plant using technology provided by Britain's RG Foster Textile Machinery.

The result is not only the cleanest and most advanced fabric dyeing process in the textile industry but one of the most cost-effective. The improvements produce a better end-product, cut water consumption by 90 per cent, cut energy consumption by 25 per cent and have boosted production sufficiently to produce a claimed capital cost write-down period of under two years.

MARK NEWHAM



Waste equals loss.

DUTY OF CARE

The tightening of the law comes with the introduction of waste management licences. But the system is still far from perfect.

"YOU are not obliged to say anything, but anything you do say will be taken down and may be used in evidence" is a phrase generally restricted for use in the apprehension of criminals trying to avoid having their collars felt. But that is just what some unwitting people have been hearing lately – representatives of companies applying for licences to transport and dispose of waste.

Since 1 April, no joke, everyone transporting and disposing of waste must be in possession of a licence to do so, issued by their local waste regulation authority (WRA). If you've been operating without one, you have been breaking the law and can be arrested, charged and prosecuted. Those who have just realised this and are only now applying for a licence are technically turning themselves in when applying and some have been duly cautioned by WAR officials.

The law in question is part II of the Environmental Protection Act 1990 (EPA), section 34, relating to Duty of Care in waste disposal designed to ensure that no longer can waste producers disclaim responsibility for their waste once passed on to a waste disposal contractor. It works on the chain reaction principle. Waste can only be passed on to a contractor designated as an "authorised person" holding a WAR licence to transport or dispose of waste. That should, the authorities hope, prevent indiscriminate dumping of wide varieties of waste by cowboy operators.

Fine in principle, but is the law working? To some extent yes, but there's some way to go yet before it's possible to assess its effect accurately. What is known is that the first prosecutions have already taken place under Duty of Care and some companies have been blowing the whistle on others for breaching the regulations.

Although they are unlikely to be proud of the fact, a restaurateur and a demolition contractor on Merseyside set legal history recently by becoming the first to be successfully prosecuted under Duty of Care by the Merseyside Waste Disposal Authority. Mr Habib Islam and J Doyle & Co (Demolition) were found guilty of fly-tipping building rubble waste which did not match materials described in the transfer documents.

The case has opened the door to an

avalanche of potential prosecutions against large and small waste carriers alike. Another recent case in Manchester saw the offender having to find £23,000 to avoid spending time at Her Majesty's pleasure. At Magistrates Court level, offences under the regulations carry a maximum fine of £20,000 and/or up to six months imprisonment for the person deemed responsible. If the case goes to Crown Court, the fine can be unlimited and the maximum prison term is five years in cases involving the dumping or treating of the most toxic wastes without the relevant licence.

Tighter rules to come

According to Steve Webb of the National Association of Waste Disposal Contractors (NAWDC) some company directors have been avoiding prosecution by effecting disappearing acts with their companies. This will be prevented from next April when, under further tightening of waste regulations in the EPA, directors of any company in breach of the law remain liable regardless of whether the company

is still operating or not. In fact, the director may well carry that liability over to other companies with which he or she subsequently becomes associated.

The tightening of the law comes with the introduction of waste management licences issued by WRAs to organisations involved in treating, keeping or disposing of waste. And to prevent abuse of the licensing system, the law says licences, once granted, cannot be given up until the WAR in question is satisfied that the site used for disposal is unlikely to be an environmental hazard in future years.

To ensure they are not implicated in illegal dumping, waste site operators have been carefully checking that the waste the carrier wants to dump is, in fact what it says it is and that the carrier has a licence to transport the waste. Not only have there been instances of carriers being turned away from sites but dump operators have been notifying WRAs of inconsistencies.

In this respect at least, the regulations seem to be working. It was intended from the outset that the law would be essentially self-regulating with no link in the chain wanting to become implicated in the nefarious activities of other links.

Even so, the system is far from perfect. Geoff Cooper of the London WAR reports that to date, 8,000 organisations in London involved in waste disposal have applied for licences to operate. That leaves anything from 2,000 to 7,000 still to come forward. Extrapolated nationally, the figures indicate there could be anything from 32,000 to 150,000 firms still operating outside of the waste licensing laws.

MARK NEWHAM,
EDITOR, ENVIRONMENT BUSINESS NEWSLETTER



Weeding out the cowboy operators.

SPECIAL REPORT

IOSCO ANNUAL CONFERENCE

Following are several reports of developments at the 23rd annual conference of the International Organization of Securities Commissions (IOSCO), held September 12-18 in Nairobi, Kenya. They were written by Mark Newham, BNA's special correspondent in Nairobi.

■ IOSCO

'Milestone' Documents Adopted On Regulation, Cross-Border Offerings

NAIROBI—The International Organization of Securities Commissions at its annual conference here adopted two key documents aimed at improving investor protection, ensuring fair markets, and cutting international capital-raising costs.

The documents, described by IOSCO as "important milestones in the work of the organization," were adopted without significant alteration to the text in draft form. Both documents were released for public comment earlier this year (see *WSLR*, July 1998, page 25).

Objectives And Principles Of Regulation

The first document—"Objectives and Principles of Securities Regulation"—sets out 30 principles of securities regulation designed to enhance investor protection; encourage fair, efficient, and transparent markets; and reduce systemic risk.

These objectives, according to the document, can be met by adhering to the eight categories of principles relating to: the regulator, self-regulation, enforcement of securities regulation, cooperation in regulation, issuers, collective investment schemes, market intermediaries, and the secondary market.

IOSCO said that the principles—adopted after "extensive public consultation"—will provide guidance to regulators and will be a "yardstick against which progress towards effective regulation can be measured."

The principles, IOSCO said in its final communiqué on the conference, "clearly reflect IOSCO's commitment to the establishment and maintenance of consistently high regulatory standards by securities regulators."

Cross-Border Offerings

The second document adopted at the meeting—"Disclosure Standards to Facilitate Cross-Border Offerings and Listings of Multinational Issuers"—represents "an important step forward in reducing the costs of cross-border capital raising without sacrificing investor protection," IOSCO said. The document is divided into 10 sections detailing standards for identifying and de-

scribing company activity, including methods for presenting financial information, offerings, and listings.

The disclosure standards, IOSCO said, will become effective upon implementation by member jurisdictions. The secretariat recommended that its members "take all appropriate steps in their respective jurisdictions to accept a disclosure document containing the information set forth in the Standards."

The communiqué also said the standards contained in the document "are only one component of IOSCO's efforts to facilitate cross-border offerings and listings by multinational issuers." The organization is also addressing as a top priority the issue of accounting standards for cross-border offerings, in cooperation with the International Accounting Standards Committee. The communiqué said IOSCO is also "reviewing the International Auditing Practice Committee standards in order to establish a process to comment on the standards as for the IASC."

At a panel discussion to review the documents adopted at the meeting, John R. Thompson, chairman of the executive committee of the International Association of Insurance Supervisors (IAIS), said he was "quite impressed" with IOSCO's Objectives and Principles document. IAIS, he said, has been working to develop a similar document, and the IOSCO work will be valuable in the work of IAIS in producing its own objectives and principles document.

Cooperation Between Regulators

Thompson also stressed the need for cooperation between regulators of all financial services markets. "I see all regulators as part of the same team," he said, "dependent on each other like a team of mountain climbers We all have the same ultimate goal: a financial marketplace that is efficient, fair, safe, and stable When one of us falls, the others feel it Recent events in Asia highlight this fact only too well."

He added that the issue of information sharing needs to be addressed as a priority if the necessary cooperation between regulators is to be achieved. However, Thompson warned, the disclosure of certain information can create the potential for conflict. "From our standpoint, we are concerned that the material impact, that is, financial difficulty or even insolvency, could be realized by the very act of disclosure."

John G. Walsh, executive director of the Group of Thirty (formally the Consultative Group on International Economic and Monetary Affairs), applauded IOSCO's Objectives and Principles document, saying it provides "a set of benchmarks against which progress

courts throughout the country, and in the two administrative proceedings.

Microcap companies are typically thinly capitalized and are often not required to file periodic reports with the SEC. Securities of microcap companies may be quoted on the over-the-counter Bulletin Board operated by the National Association of Securities Dealers, Inc., in the Pink Sheets operated by the National Quotation Bureau, and on the Nasdaq Small Cap Market. In any of these trading mediums, public information is limited and a small number of brokers control the market, the SEC noted.

In a statement announcing the various civil injunctive and administrative actions, SEC Enforcement Director Richard Walker said that the agency is "dedicated to ferreting out and prosecuting those who prey on innocent investors. Our actions against the scam artists charged in today's actions, who issue and sell these phony investments, demonstrate that the Commission's coordinated attack against microcap fraud is paying dividends."

For his part, SEC Chairman Arthur Levitt said that "[p]utting microcap fraudsters out of business is a top priority of this Commission, and I am pleased with the progress we've made. Investors can help this effort and protect themselves by asking tough questions, not giving their money to strangers and reporting suspicious behavior. While securities fraud may never become extinct, we are working to put microcap fraudsters on the endangered species list."

Purported New Technology. Among the targets in the SEC sweep was a Utah company claiming to have developed a new data transmission technology called "Digital Wave Modulation." The company's stock soared from \$3.50 to more than \$40 a share. Prices collapsed when the company failed to produce a promised prototype, "but not before the company's chairman and his children sold approximately \$3 million worth of their shares," the commission alleged.

Another of the cases alleges that a biotech firm in Las Vegas falsely claimed the company had an exclusive license to market "breakthrough" medical devices. The company also lied about its efforts to market a new line of nutritional supplements, the commission charged. In other matters, two individuals and their newsletter concern were charged with accepting cash and stock payments from issuers of microcap securities in exchange for favorable reviews in a purportedly independent newsletter, the SEC asserted.

For more information about the SEC's campaign to stop microcap fraud, see the SEC's microcap fraud information center at <http://www.sec.gov/news/extra/microcap.htm>. For hotlinks to information on each of the SEC cases, see <http://www.sec.gov/news/micronew.htm>.

International Developments

IOSCO Adopts 'Milestone' Documents To Protect Investors, Cut Capital Costs

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Both documents, described by IOSCO as "important milestones in the work of the organisation," were adopted without significant alteration to the text in draft form.

Principles of Regulation. The first document—"Objectives and Principles of Securities Regulation"—sets out 30 principles of securities regulation, designed to enhance investor protection; encourage fair, efficient, and transparent markets; and reduce systemic risk.

These objectives, according to the document, can be met by adhering to the eight categories of principles relating to: the regulator, self-regulation, enforcement of securities regulation, cooperation in regulation, issuers, collective investment schemes, market intermediaries, and the secondary market.

IOSCO said that the principles—adopted after "extensive public consultation"—will provide guidance to regulators and will be a "yardstick against which progress towards effective regulation can be measured." The principles, IOSCO said in its Final Communique on the meeting, "clearly reflect IOSCO's commitment to the establishment and maintenance of consistently high regulatory standards by securities regulators."

Cross-Border Offerings. The second document adopted at the meeting—"Disclosure Standards to Facilitate Cross-Border Offerings and Listings of Multinational Issuers"—represents "an important step forward in reducing the costs of cross-border capital raising without sacrificing investor protection." The document is divided into 10 sections detailing standards for identifying and describing company activity, including methods for presenting financial information, offerings, and listings.

The disclosure standards, IOSCO said, will become effective upon implementation by member jurisdictions. The secretariat recommended that its members "take all appropriate steps in their respective jurisdictions to accept a disclosure document containing the information set forth in the Standards."

The Communique also said the standards contained in the document "are only one component of IOSCO's efforts to facilitate cross-border offerings and listings by multinational issuers." The organization is also addressing as a top priority the issue of accounting standards for cross-border offerings in work with the International Accounting Standards Committee. The communique says IOSCO is also "reviewing the International Auditing Practice Committee standards in order to establish a process to comment on the standards as for the IAS."

At a panel discussion to review the documents adopted at the meeting, John R. Thompson, chairman

of the Executive Committee of the International Association of Insurance Supervisors (IAIS), said he was "quite impressed" with IOSCO's Objectives and Principles document. IAIS, he said, has been working to develop a similar document and the IOSCO work will be valuable in the work of IAIS in producing its own objectives and principles document.

Cooperation. Thompson also stressed the need for cooperation between regulators of all financial services markets. "I see all regulators as part of the same team," he said, "dependent on each other like a team of mountain climbers . . . We all have the same ultimate goal: a financial marketplace that is efficient, fair, safe and stable . . . When one of us falls, the others feel it . . . Recent events in Asia highlight this fact only too well."

He added that the issue of information sharing needs to be addressed as a priority if the necessary cooperation between regulators is to be achieved. However, Thompson warned, the disclosure of certain information can have the potential for conflict. "From our standpoint, we are concerned that the material impact, that is financial difficulty or even insolvency, could be realized by the very act of disclosure."

John G. Walsh, Executive Director of the Group of Thirty (formally the Consultative Group on International Economic and Monetary Affairs) applauded IOSCO's Objectives and Principles document, saying it provides "a set of benchmarks against which progress toward effective regulation of securities markets can be measured." "High standards of supervision—if properly implemented—will not only protect investors but reduce the level of risk," Walsh told the meeting.

One problem with the principles, he said, is that they are general, and are "not specific enough to hold anyone's feet to the fire." However, this is "inevitable" as business practices vary from country to country and even from firm to firm. Moving from principles to progress, he said, will require "having individual supervisors take the principles on board." The fact that the principles have been developed by supervisors "suggests they will be taken seriously by national authorities and will therefore have consequences," he concluded.

Regulate Sales, Not Offers. While calling the IOSCO Objectives and Principles document "a great piece of work," William J. Williams of Sullivan & Cromwell, New York, pointed out that it takes the approach taken by many countries in attempting to make a distinction between public and private offerings. Under most securities laws, he explained, a public offering triggers a filing with a regulator and certain disclosure requirements. These requirements, implicitly or explicitly, are not imposed on private offerings, he added.

However, he said, this distinction increasingly is being blurred and is no longer viable or practical. As more and more information is disseminated about private placements—a development spurred by technology and competition to provide information—private placements have effectively become public, he said.

The answer to the erosion of this distinction is to abandon the regulation of offers in favor of regulating sales, he said. In Williams' view, greater protection should be offered to buyers rather than offerees and quantitative (numerical) triggers should be substituted for qualitative triggers.

Whether an issuer is subject to filing and disclosure requirements, Williams explained, should depend on the number of shareholders—either currently or expected after a proposed offering. Some shareholders—such as institutional investors and possibly others meeting "qualitative or experience tests" could be excluded from the count, he added.

Williams told the meeting that the U.S. Securities and Exchange Commission is currently engaged in "a significant reassessment" of the 1933 Securities Act and how it operates in the private and public offering context. The commission is expected soon to propose changes to regulations issued under the '33 Act, he added.

Williams also suggested that current regulatory and legal penalties imposed on those who abuse the laws of the financial markets "are no longer adequate" and are "crude instruments."

"Ideally," Williams said, "there should be a broad arsenal of increasingly severe self-regulatory and regulatory penalties (censure, cease and desist orders, suspensions, revocations and monetary penalties), civil liabilities and criminal sanctions. The punishment should fit the crime."

Both documents referred to here can be found on the IOSCO web site: www.iosco.org

By MARK NEWHAM

International Developments

IOSCO Approves Draft Report Concerning Internet Securities Activity

NAIROBI, Kenya—Warning that use of the Internet "is profoundly affecting the evolution of financial service activities," the International Organisation of Securities Commissions has endorsed for publication a draft version of a report—*Securities Activity on the Internet*—produced by its Technical Committee.

The four-part report said that while the "non-physical or de-materialised nature of securities transactions makes the Internet an appealing medium for the financial services industry . . . the explosion in Internet use presents new challenges for securities regulators and self-regulatory organisations." The decision to release the draft report was made during IOSCO's annual meeting, held Sept. 12-18 in Nairobi.

The report concluded that electronic communication and "interactivity may not fit neatly within the parameters of statutes, regulations and directives originally intended for a telephone and paper-based environment thus creating unnecessary regulatory burdens or unintended regulatory gaps. Moreover, the very qualities that make the Internet a valuable tool for investors and the securities industry may render it a convenient tool to perpetrate securities fraud and other violations."

The IOSCO report addresses the regulatory and enforcement issues posed by securities activities conducted over the Internet and sets out a list of three prime objectives, five key principles, and 24 recommendations for regulatory authorities to consider when developing procedures to regulate securities trading on the Internet.



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"It should be noted that the amount of pesticide reported used is not necessarily an accurate indicator of trends in pesticide use," DPR said, explaining that replacing a more toxic pesticide with a less hazardous compound may involve higher rates of use and multiple applications of the new compound.

For 1994's figure of 199.5 million pounds used, most of that (183.4 million pounds) was for production agriculture. The remainder of the 1994 figure was for post-harvest commodity treatment (3.7 million pounds), structural fumigation (5.1 million pounds), landscape maintenance (1.3 million pounds), and all other reported uses (5.7 million pounds). The category "all other reported uses" includes right-of-way weed control, mosquito abatement, vertebrate pest control, and fumigation of non-food items such as lumber and furniture, according to DPR.

In the press release, Paul Gosselin of DPR said the use reporting data help the department "make critical decisions on pesticides based on real world information on actual pesticide use." DPR has used the data to decide how to protect endangered species from pesticide use, and to track pesticide use in areas susceptible to ground water contamination, according to Gosselin, assistant director of DPR's Enforcement, Environmental Monitoring, and Data Management Division.

Top Ingredients Used

The top 10 active ingredients used in California (with uses given in parentheses) in 1994 are:

- Sulfur (fungicide), 70.5 million pounds;
- Petroleum oil (dormant tree treatment), 19.6 million pounds;
- Methyl bromide (soil and structure fumigant), 16.9 million pounds;
- Metam sodium (soil fumigant), 11.2 million pounds;
- Copper hydroxide (fungicide), 3.7 million pounds;
- Glyphosate (herbicide), 3.7 million pounds;
- Sodium chlorate (cotton defoliant), 3.6 million pounds;
- Mineral oil (various uses), 3.5 million pounds;
- Copper sulfate (fungicide), 3.1 million pounds; and
- Chlorpyrifos (insecticide), 3.1 million pounds.

The top five agricultural uses of pesticides in California in 1994 were on grapes, with 58 million pounds used; cotton, with 15 million pounds; tomatoes, 15 million pounds; almonds, 14 million pounds; and oranges, 8 million pounds.

The counties with the highest use of active ingredients were Fresno, with 37.6 million pounds; Kern, with 22.1 million pounds; Tulare, with 17 million pounds; San Joaquin, with 13 million pounds; and Madera, with 10.8 million pounds.

Print copies of DPR's report on pesticide use are available for \$10.00 each and can be ordered from Cashier, California Department of Pesticide Regulation, 1020 N St., Sacramento, Calif. 95814-5624. Data summaries also can be downloaded at no cost from the publications section of DPR's Internet Web Page (<http://www.cpdrr.ca.gov>). □

HazMat Transport

SHIPS CARRYING HAZARDOUS WASTE BARRED FROM SUEZ CANAL BY EGYPT

NAIROBI, Kenya — Transporting toxic waste around the globe has been made more difficult by Egypt's crackdown on hazardous cargoes traveling through the Suez Canal.

Recently updated Egyptian regulations say no vessel with such cargoes on board may enter the canal unless the shipper receives transit permission from Egypt's Environmental Authority (EEA) before the cargo is loaded aboard the shipping vessel. Additionally, shippers carrying hazardous cargoes are now required to prove they have unlimited liability insurance covering damage caused by spillage.

Previously, shippers applied for permission to enter the canal from the Suez Canal Authority (SCA) either en route to the canal or on arrival, and the insurance requirement was less stringent.

Although Egypt tightened its regulations covering such cargoes on Dec. 4, 1995, the new requirements came to light only recently when the SCA refused entry to a ship carrying toxic waste from Zanzibar in East Africa to the United Kingdom for treatment.

That cargo — 265 metric tons of waste chemicals and obsolete pesticides including DDT — arrived at Mombasa in late December and remained on the dock for three months while protracted negotiations between the shipper and the EEA continued. Eventually, permission to enter the canal was refused and the shipment was loaded onto a ship destined for Beira in Mozambique where it was transferred to another vessel heading for Europe via Durban in South Africa.

Egypt's decision to tighten its transit regulation is designed to strengthen the U.N.'s Basel Convention of the Control of Transboundary Movements of Hazardous Waste and their Disposal.

However, according to interested parties, it is being applied unilaterally as the declaration — made Oct. 15, 1995 — was not accepted by the Convention's Secretary General following objections from the United Kingdom, Finland, Italy, the Netherlands, and Sweden on the grounds that it was made too late for inclusion in the Convention. Nevertheless, Egypt instigated the declaration and, by doing so, ironically appears to be undermining the Basel Convention, which calls for hazardous wastes to be shipped to centers equipped to deal with the wastes "in an environmentally sound manner."

Few countries in the Middle East and Africa have such capabilities, and wastes from the region would normally be shipped through the Suez Canal to Europe for treatment and safe disposal. This shipment, say those involved, was endeavoring to follow those guidelines. In a project funded by the Dutch government, the waste had been collected from 26 sites in Zanzibar by a British toxic waste disposal specialist, Rechem International, and was being shipped to Rechem's plant in South Wales, U.K., for disposal.

As of May 16 no confirmation had been received from Rechem that the cargo is nearing its U.K. destination.

News

United Nations

Compromise Will Change UNEP Governance; Program Mandate Could Change Significantly

NAIROBI, Kenya—A last-minute deal between opposing factions of the U.N. Environment Program's Governing Council at its meeting here April 3-4 narrowly averted a UNEP shutdown.

The compromise may change the way UNEP is governed and significantly alter its program mandate.

Delegates to the meeting reached agreement on the prime sticking point—the way UNEP is governed—just minutes before the reconvened meeting's time ran out. The meeting initially adjourned Feb. 7 when the meeting's time allowance expired.

A UNEP press statement issued in the early hours of April 5 said: "After two days of debate, delegates decided to establish a High-level Committee of Ministers and Officials in Charge of Environment, as a subsidiary organ of the Governing Council.

"The new committee will have the mandate to consider the international environmental agenda and to make reform and policy recommendations to the Governing Council. It will also provide guidance and advice to UNEP's executive director, enhance UNEP's collaboration and cooperation with other multilateral bodies . . . and will help mobilize adequate and predictable financial resources for UNEP."

In the statement, UNEP Executive Director Elizabeth Dowdeswell said: "We now have a global forum of environment ministers—a means of keeping environmental issues at the top of the international political agenda where they belong."

Controversial Proposal. It was the proposal to establish the committee that led to the meeting's adjournment Feb. 7.

The committee was originally proposed in a UNEP policy paper, *Review of the Governing Structures of UNEP*, distributed to Governing Council members on Oct. 15, 1996. Its aim was to strengthen UNEP management through the establishment of an intersessional advisory body of 15-20 "high-level" members of the Governing Council who "should bring broad environmental competence" to the decisionmaking process.

In spite of assurances that the body is not designed to dictate policy to the Governing Council and to the Committee of Permanent Representatives (CPR), many CPR members viewed the proposal as an erosion of their mandates and strongly opposed it. Members said privately that the body would inevitably be composed primarily of representatives of developed world governments, mainly ministers of the environment, thus removing the developing world from the policy-making process.

Opposition to the proposal led to the closure of the Feb. 7 meeting with the United Kingdom, United States,

and Spain threatening to withhold their contributions to the UNEP budget unless the proposal was accepted.

Committee Numbers Key. The compromise appears to have been reached by increasing the number of committee members. From the 15-20 members originally proposed, the number was raised to 27 in an April 2 document prepared for the meeting by the chairman of the Working Group on Governance and was subsequently increased again to 36 by delegates attending the April 3-4 meeting. UNEP staff monitoring the meeting said they believed the increase was designed to accommodate more representatives from developing countries.

Had the meeting failed to resolve the issue, UNEP's future would have been "in crisis," Arnaldo Jose Gabladon, the Governing Council's president, told BNA.

Had the factions not reached a compromise, Gabladon said, the issue would have gone to the U.N. General Assembly for a decision. This action would have further eroded the General Assembly's view of UNEP's ability to govern itself and would have reinforced the campaign to close UNEP altogether.

Despite the compromise, debate over UNEP's governance is likely to simmer on until a special session of the UNEP Governing Council meets Nov. 12-14 to review the results and decisions of "Earth Summit +5," the U.N. General Assembly's special session planned to review progress in implementing Agenda 21 of the U.N. Conference on Environment and Development (UNCED). Earth Summit +5 is slated for June 23-27 at U.N. headquarters in New York.

Dowdeswell's Future Uncertain. Meanwhile, speculation abounds in UNEP over whether the committee will be able to function effectively with its enlarged membership—making it in effect a shadow Governing Council—and over the future of Dowdeswell.

Her tenure as executive director of UNEP is far from certain, and her position would be further undermined if a draft report now before the U.N. Secretary General is accepted without amendment.

In its draft form—a copy of which was obtained by BNA—the report pointedly accuses Dowdeswell and her deputy, Reuben Olembo, of mismanaging UNEP.

The report, *Review of the United Nations Environment Program (UNEP) and the Administrative Practices of its Secretariat, including the United Nations Office in Nairobi*, compiled by Karl Theo Paschke, under secretary general for the U.N. Office of Internal Oversight Services and dated Dec. 10, 1996, implies that few of the goals UNEP was established to accomplish are being met and that scarce resources are being squandered through inept management.

The report spells out in clear language the reasons behind UNEP's failure to deliver: the absence of delegation of authority compounded by "the frequent and extended absences of the executive director (Dowdeswell)

and the deputy executive director (Olembo) from the Nairobi headquarters."

"Managerial and administrative reform in UNEP requires a firm hand at the helm," says Paschke's report. "If the executive director has to travel much of the time, there has to be a second in command in charge of UNEP headquarters, with the authority and determination to put changes into effect."

Without the captain on the bridge, the report implied, the crew effectively runs the ship any way it likes, and takes full advantage of the captain's absence by spending UNEP's budget on unnecessary, undocumented activities.

"The team," said Paschke, "could not find a single document . . . that provides a comprehensive picture of the activities and the corresponding resources by sub-program."

Moreover, the team's research uncovered a high incidence of consultancies awarded without the necessary documentation detailing terms of reference of work required, deadlines for the work, or identification of the consultant—and there were "a number of cases where no consultant report could be furnished by management."

Recommendations. In conclusion, Paschke said the absence of any one comprehensive document reflecting UNEP's overall implementation and achievements means "the U.N. Secretary General's report to the General Assembly on UNEP's program performance does not present a complete picture of the activities implemented by UNEP"—another way of telling the General Assembly that UNEP has failed in its mission and will continue failing unless urgent actions are taken to trim waste and increase accountability and transparency.

Paschke recommended that UNEP:

- Urgently "clarify with its stakeholders its post-UNCED role and function;"
- Develop a "clear plan of action for the next five years;"
- Take "immediate steps" to produce "one single budget document" and "put in place a system of program oversight;"
- Strengthen the UNEP Environmental Economics Unit;
- Review the dispersal of financial authorization "to ensure financial coherence" and develop "clear guidelines for disbursements on consultants/advisers and on the establishment of posts;"
- Give compliance with the recommendations of the Board of Auditors "the priority it deserves;" and
- Assess the organizational structure with a view to reducing its top-heaviness."

U.K.'s Gummer Possible Successor? Many UNEP insiders privately interpret this last point as U.N.-speak for recommending the termination of Dowdeswell's contract, probably at the year's end. Senior UNEP sources say a successor is already being sought and that the name of John Gummer, current U.K. environment minister, is being mentioned. Gummer is said to be actively lobbying for the post as a hedge against the results of the forthcoming U.K. general election, due May 1.

If there is any one issue that is likely to unseat Dowdeswell it is that of the Mercure satellite project, a \$12-million gift from the European Space Agency. It was Dowdeswell who called for the Governing Council

to sanction the project, designed to connect UNEP with the rest of the U.N. system through a high-grade telecommunications link and that was thought, said the Paschke report, to "provide UNEP with the capacity to receive and transmit on a global basis the large amounts of data associated with its environmental monitoring function."

But despite substantial spending by UNEP on the project, it remains inoperable and, Paschke implied in his report, is probably useless anyway. "The necessary legal and administrative formalities have not been completed with the authorities of the host country" and "there is a degree of incompatibility between the UNEP system and the U.N.'s."

Kenya Called Intransigent On Satellite. During the Jan. 27-Feb. 7 meeting of the UNEP Governing Council, Dowdeswell and Kenya's foreign affairs minister, Kalonzo Musyoka, signed an agreement enabling UNEP to install the necessary equipment for UNEP to connect to the Mercure satellite. But UNEP officials said the Kenyan government remains intransigent on allowing full use of the system and that UNEP is still required to communicate with other U.N. agencies via Kenya's outdated, high-cost, state-owned telecommunications system.

According to Paschke's report, "It remains legitimate to wonder why issues of compatibility and operationalizing host government concurrence were not fully resolved before the UNEP Governing Council was asked to approve the gift. It is imperative that a decision be taken by the responsible parties within the U.N. secretariat and within UNEP."

By MARK NEWHAM

Pesticides

Lawsuit by Growers Alleges DuPont, Others Hid Benlate Evidence

TAMPA, Fla.—Attorneys for four ornamental plant growers March 25 filed a fraud and racketeering class action lawsuit against DuPont and several individuals and representatives, alleging they hid evidence showing the fungicide Benlate DF 50 could damage plants (*Exotic Botanicals Inc., v. E.I. DuPont de Nemours & Co., FlaCirCt, No. 97-661-CA-08, complaint, 3/25/97*).

Filed in Dade County Circuit Court, the lawsuit by Exotic Botanicals Inc., and other growers alleges violations of the Racketeer Influenced and Corrupt Organizations Act, strict liability in tort, negligence, fraud, and breach of express warranty.

Class Could Include 800 Plaintiffs. According to a 72-page complaint by attorneys with the Miami firms of Kozyak, Tropin & Throckmorton and Cooper & Wolfe, the potential class could total 800 plaintiffs.

In addition to the company, named as defendants were Atlanta-based Crawford & Co., which was said to have represented the chemical maker in the investigation of claims by Benlate buyers or users; Orlando attorney Thomas Burke, who the suit said acted as DuPont's national coordinator for all Benlate-related litigation; Edgar S. Woolard Jr., DuPont's former chairman and