

# *How to assess your green fraud risks*

*Our review of the green  
fraud risks you may face  
and the steps we can help  
you take to mitigate or  
eliminate them.*



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**Table of abbreviations**

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CAR	Climate Action Reserve
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide equivalent
CRC	Carbon Reduction Commitment
ERU	Emission Reduction Unit
ETS	Emissions Trading Scheme
EU	European Union
EUA	European Union Allowance
EU ETS	European Union Emissions Trading Scheme
GS	Gold Standard
GHG	Greenhouse Gas
JI	Joint Implementation
Mt	Metric Tonne
OTC	Over the counter
REDD	Reduced Emissions from Deforestation and Forest Degradation
sCER	Secondary Certified Emission Reduction
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Voluntary Carbon Standard

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# Introduction

*Sustainable business practices are no longer a ‘nice to have’ but a business imperative. So much so that companies are going above and beyond regulations in order to demonstrate their licence to operate.*



Pressure to conform to a sustainability agenda is coming from customers, investors, employees, industry bodies and the media. This agenda is evolving into a critical part of an organisation's business model, and their relationships, opening up new market opportunities and supporting cost efficiencies.

But all changes in business activities also raise the risk of fraud and abuse. Sustainability is no exception. The potential for fraud tends to be greater in new markets, when information is imperfect, standards of measurement and verification are

not harmonised and governance is weak. The sustainability marketplace, taken as a whole, is all of these things.

To a large extent, the types of fraud appearing are not new. They represent the application of tried and tested fraudulent practices to the sustainability arena. A comprehensive and robust design, rather than an ad hoc, piecemeal approach, is essential for a successful sustainability strategy. An awareness of the risk of potential fraud and the need to incorporate measures to protect against it are part of that process.

Sustainable business practices, including a company's mitigation and carbon markets activities, are disclosed as either financial or non-financial data. In this paper, PwC examines some of the *green fraud risks* that companies face when engaged in such activities and the steps they can take to mitigate or eliminate them.

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# *An overview of the carbon markets*

For the purposes of this paper we have divided the carbon markets into three areas:

Emissions trading schemes, the development of project based carbon credits and the voluntary carbon market. We consider the fraud risks in each of these areas in turn.

The principles of both emissions trading and project based carbon credits were established by the 1997 United Nations Kyoto Protocol: a binding legal agreement under which developed countries accepted targets for limiting or reducing greenhouse gas emissions. Countries with targets were given an assigned amount of emissions units for the period 2008-12. Those countries with surplus units during that period can sell them to those with a shortfall.

In addition to emissions trading, the Protocol established two 'project based mechanisms' which provide an incentive for investment in low carbon projects:

- Clean Development Mechanism ('CDM')
- Joint Implementation ('JI')

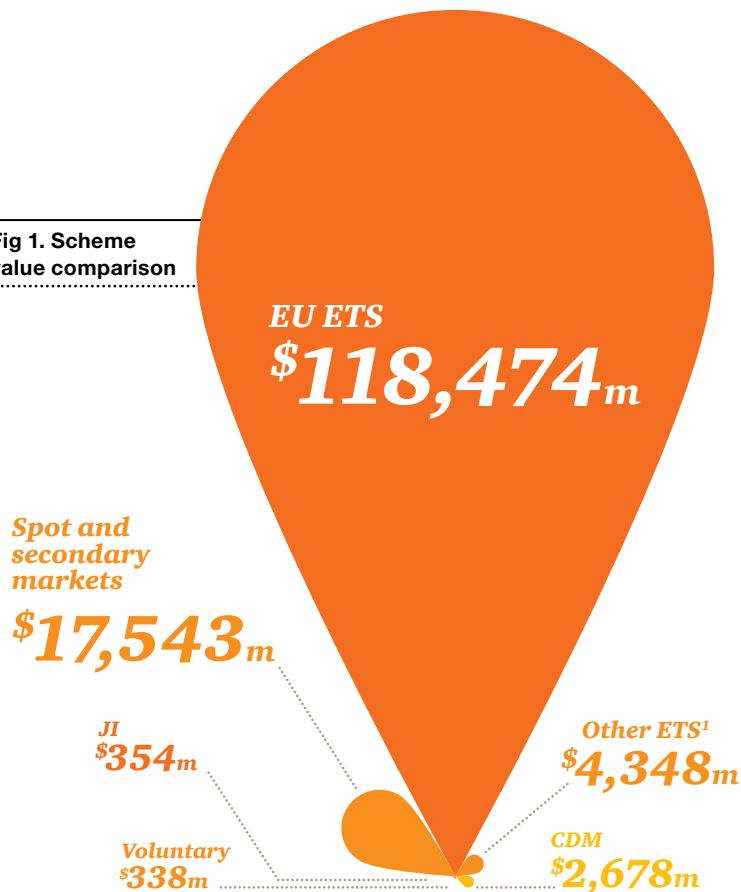
The CDM seeks to encourage low carbon investment and sustainable development in developing countries by permitting industrialised countries or companies to finance greenhouse gas emissions reduction projects in those countries in return for offset credits. JI works in a similar fashion to CDM, except that the projects are between two developed countries.

By putting a price on carbon, carbon markets such as these help stimulate investment in low carbon technologies and reduce emissions.

In order to achieve its target under the Kyoto Protocol, the European Union (EU) has established a number of policies to tackle emissions growth.

The EU's flagship climate policy is the EU Emissions Trading Scheme (EU ETS), which covers approximately 11,000 installations across Europe or half the EU's GHG emissions. In the first phases of the EU ETS (2005 – 2012) companies have received a free allocation of EU allowances and are obliged to surrender each year an equivalent number of allowances to match their CO<sub>2</sub> emissions. Subject to certain limits installations may also use credits generated by the project based mechanisms.

**Fig 1. Scheme value comparison**



Type	Scheme	Unit	Volume (CO <sub>2</sub> e)	Value
Emissions trading	EU ETS	EUA	6,326mt	\$118,474m
	Other ETS <sup>1</sup>	Various	1,035mt	\$4,348m
	Spot and secondary markets	Various including sCER	1,055mt	\$17,543m
Project based mechanisms	CDM	CER	211mt	\$2,678m
	JI	ERU	26mt	\$354m
	Voluntary market	Voluntary	46mt	\$338m
<b>Total</b>			<b>8,699mt</b>	<b>\$143,735m</b>

<sup>1</sup> Source: The World Bank: State and Trends of the Carbon Market 2010 (this data relates to 2009, which is the most recently available).

There are other Trading Schemes such as Chicago and New South Wales.

The EU ETS is by far the largest scheme in the carbon markets accounting for over 80% of the volume of carbon units traded in 2009. The table indicates the relative size of each of these schemes.

A number of exchanges and trading platforms exist that enable companies to undertake secondary trading in CDM generated credits and spot and forward trading over a wide range of carbon credits. These include BlueNext, Climex, European Climate Exchange, European Energy Exchange, and the Green Exchange.

Outside of the regulated markets there also exists the voluntary carbon market. This has emerged to enable businesses and individuals to offset their emissions on a voluntary basis. The voluntary market accounted for less than 1% of the volume of carbon credits and allowances traded in 2009. However, for the majority of consumers, voluntary offsetting is their only interaction with the carbon market and so the voluntary market receives a considerable degree of media attention.

## *The mechanics of an Emissions Trading Scheme: EU ETS*

In 2009, the total value of the global carbon market was \$144bn, of which the EU ETS accounted for the vast majority, with a value of \$119bn.

Under the EU ETS, limits on emissions are set by EU member states and agreed with the European Commission. The ceiling for emissions is set for individual installations in sectors covered by the scheme, for example, a power plant, or refinery. The total of all the individual installations' emissions allowances form the country's national allocation plan (NAP), which in turn contributes to the overall national emission target set by the Commission.

The underlying unit of the EU ETS is the EU Allowance (EUA) – one unit represents the right to emit one tonne of carbon dioxide. EUAs can be banked between different years and across trading phases. Each year, all companies in the scheme must surrender a number of EUAs equal to their independently verified, annual emissions for the previous calendar year. Verification of actual emissions is conducted annually by an independently accredited entity. These allowances are then cancelled

so that they cannot be used again.

Until 2012 over 90% of EUAs were given away to installations free of charge on the basis of prior needs for generating emissions. From 2013, in the next phase of the scheme, it is expected that at least 50% will be auctioned and as the emissions targets get tougher the value of carbon credits is expected to rise. This scheme is also being expanded to include aviation and to cover other greenhouse gases

Installations emitting more than their allocation must purchase additional EUAs and those that emit less can sell their excess EUAs. In addition installations can use CERs and ERUs to offset their emissions subject to limits set by the countries in which they are located.

Within the EU ETS, allowances can be traded privately between companies, through a broker in the over the counter (OTC) market, or on a recognised exchange. The proportion of carbon trading conducted on exchanges is steadily increasing and now accounts for about 50 per cent of transactions, according to World Bank data.

# Fraud in emissions trading

Here we investigate some of the recent fraudulent activities particularly associated with emissions trading and consider the actions companies can take to protect themselves.

## **Cyber hacking**

The EU ETS hit the headlines in January 2011 when, in reaction to recurring security breaches in national registries over the previous two months, the European Commission took the unprecedented step of suspending trading for a minimum of one week while it requested that minimum security standards were implemented across the member states.

The attacks involved fraudsters hacking into national registries including Greece, Austria and the Czech Republic and illegally transferring an estimated 2 million EUAs (worth in excess of €28m) illegally out of certain accounts.

This is not the first time cyber fraudsters have targeted the EU ETS. An attack on Romania's registry account in late 2010 resulted in approximately 1.6 million (worth in excess of €22m) EUAs being stolen.

## *PwC comments*

*This recent attack is the largest of its kind in the history of the EU ETS.*

*Companies (and physical persons) participating in the EU ETS should undertake an immediate review of the contents of their accounts and any recent activity on such accounts.*

*Furthermore participants must perform a review of their own security measures to ensure that appropriate internal safeguards are in place and adhered to defend against cyber attacks and fraud more generally.*

*The need for a large scale investigation into the national registries information security and participant KYC criteria leading to their harmonisation will be a subject of continued debate in 2011.*

*The recent thefts are of such a magnitude and complexity to have been likely perpetrated by coordinated and organised crime rings rather than by one or two hackers. The apprehension of the perpetrators is compounded as there is no reason to believe that such hackers are physically based in the EU and while these criminals remain at large the ongoing threat of further attacks remains.*

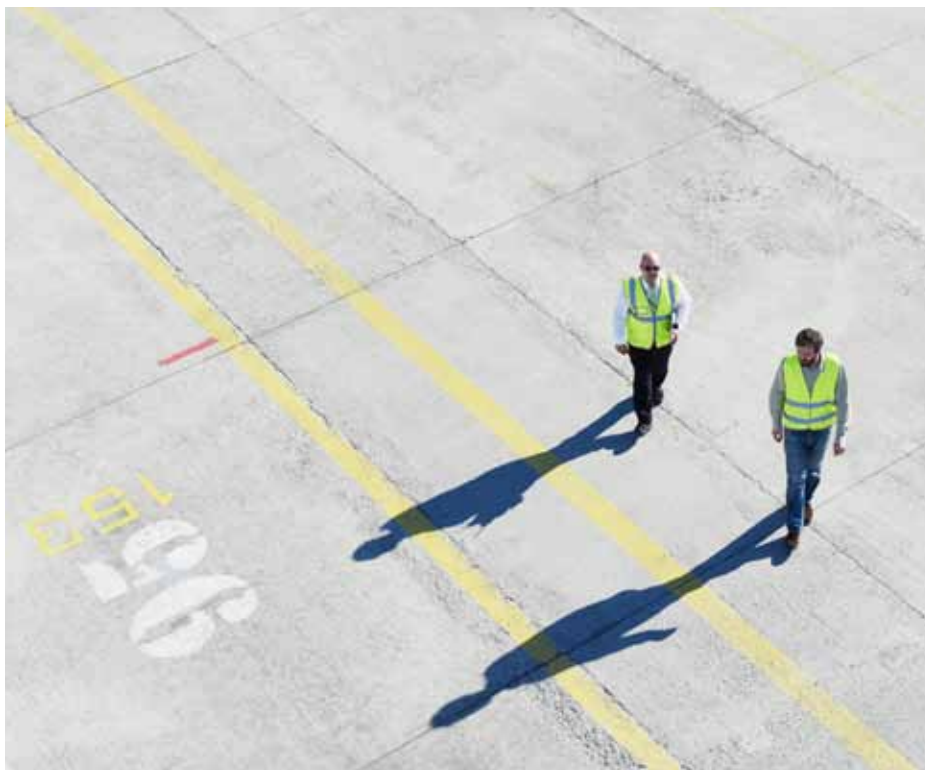


## Phishing

Phishing is when the fraudster pretends to be a bank or, in the case below, an emissions registry and attempts to obtain account information from victims online.

In February 2010 thousands of companies around the world received emails from fake emissions registries asking them to re-register their accounts. Seven German companies, out of 2,000 targeted, submitted their details and six were subject to theft as the hackers were able to hi-jack their credentials and transfer carbon credits into other accounts the fraudsters controlled. An estimated 250,000 permits worth more than €3m were stolen.

The UN Framework Convention on Climate Change secretariat, (which supports the operation of the Kyoto Protocol), has said it is aware of at least nine attempts at fraudulent transactions.



### *PwC comments*

*Phishing fraud is on the rise in the banking sector. As with cyber hacking the online nature of the communications means that the criminals can operate across borders, making them even harder to shut down. Such attacks are set to continue and now encompass carbon trading. Online fraudsters are becoming more sophisticated and educating themselves in new markets, once they realize there is value in defrauding them.*

*Companies should be vigilant in respect of requests they receive for information in relation to their carbon offset activities. Similar diligence and vigilance to that over company bank details should apply. Employees should be trained to treat any unsolicited communications with a healthy scepticism and verify their authenticity.*

## **Recycling or double selling carbon credits**

In March 2010 it emerged that recycled Carbon Emission Reduction certificates had been sold to unwitting buyers in the European carbon markets. The CERs had already been “used”, having been previously surrendered to the Hungarian government in compliance with the EU ETS, and as such were invalid for re-use in the European market.

Double selling (a fraud specific to fraud in the compliance market) takes advantage of the lack of a common registry of allowances and credits, by selling allowances twice to unsuspecting clients. This incident led to the EC amending the relevant Registries Regulation.

### *PwC comments*

*At all times companies need to be wary of who they are buying from and should undertake basic verification procedures (akin to the ‘know your customer’ criteria in Financial Services) to satisfy themselves that the allowances and carbon credits they are purchasing are valid. This may involve contacting National Registries and seeking expert advice.*

*For example, for the EU ETS, the Community Independent Transaction Log records the issuance, transfer, cancellation, retirement and banking of allowances that take place in the registry.*



## **Market Abuse**

In the UK seven types of behaviour can amount to market abuse. These range from the better known insider dealing to the lesser known distortion and misleading behaviour i.e. giving a false or misleading impression of supply or demand or otherwise distorting the market in an investment.

Unsurprisingly for such a new market there are some areas of the carbon market that may fall outside existing cross border financial services regulation. In June

### *PwC Comments*

*Companies need to understand their particular market abuse risks, foster a strong control environment and build a robust response plan to deal with any instances of market abuse they discover. PwC can advise on best practice, drafting policies and procedures and identifying key risks in current procedures. We can also assist in the investigation of suspected market abuse.*

2010 the European Commission issued a tender to seek advice on how to ensure a sufficient level of protection from market abuse in the EU ETS carbon market. It is expected that the findings will be available in 2011.

# *Fraud in the project based markets*

Subject to certain limits, companies within the EU ETS can use carbon credits from CDM and JI to meet their compliance obligations.

Clean Development Mechanism projects take place in developing countries. Examples include renewable energy, such as wind power, land-fill gas capturing and energy efficient projects. On successful registration these projects generate tradable credits (CERs) which make them economically viable.

JI Projects generate Emission Trading Units (ERUs). Each is the equivalent to an emission reduction of one tonne of CO<sub>2e</sub>.

Trading of these project-based credits faces similar threats of fraud to the Emissions Trading examples already described. However the nature of project-based activity, particularly in developing countries can make it susceptible to bribery, corruption and other fraudulent activities.

The UN regulatory framework around the CDM provides some checks against potential fraud. Project approval is overseen by the CDM Executive Board of the UNFCCC and each project is subject to a process of independent validation culminating in Executive Board approval for registration. Each year a registered project's annual emissions are also subject to independent verification and approval.

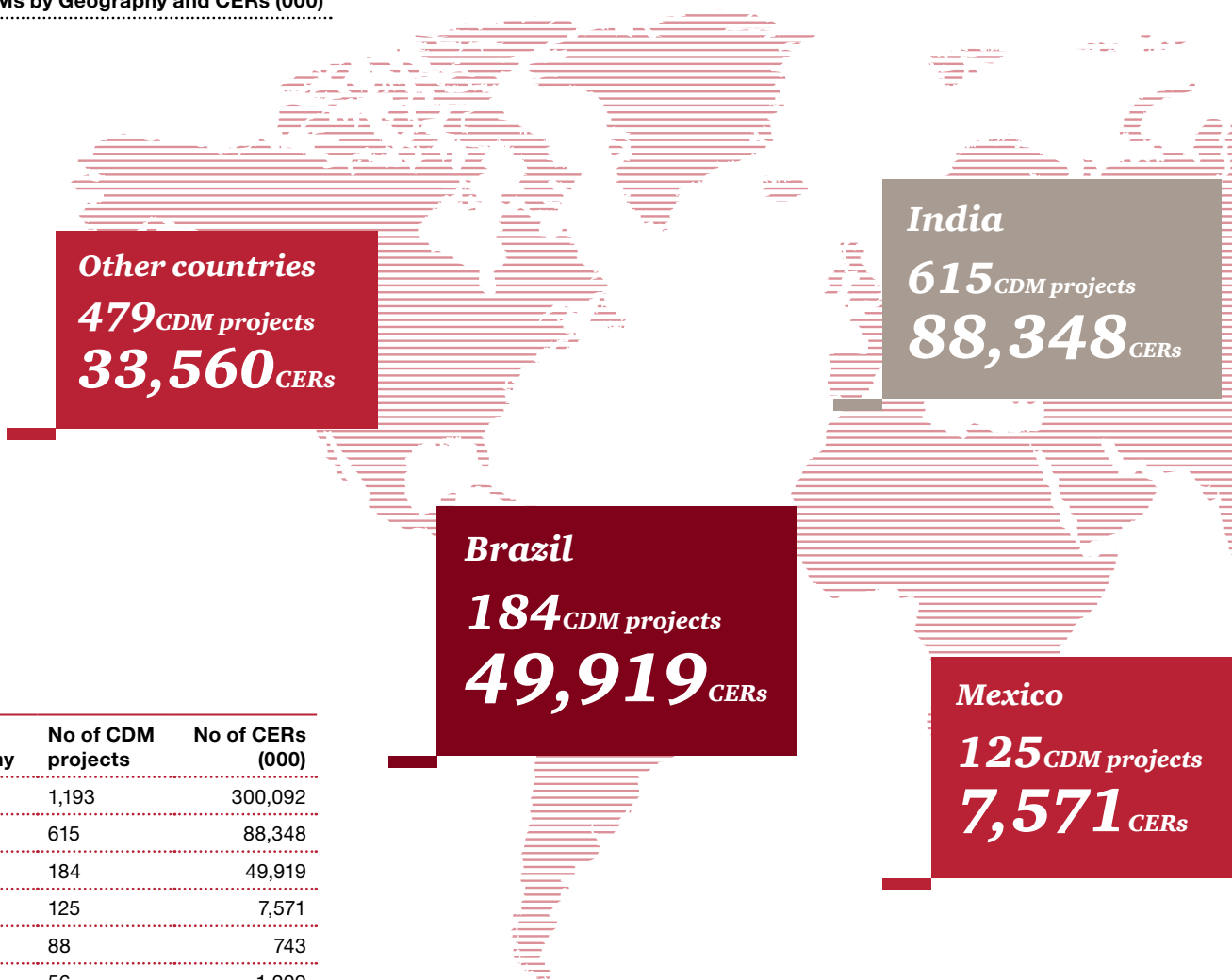
## *The Requirement for Additionality in CDM projects*

Additionality is a necessary criteria for acceptance that must be demonstrated by project developers under the CDM. It is established when the project in question:

1. Reduces emissions below the Business As Usual (BAU) scenario;
2. Requires access to carbon finance through the sale of CERs to makes it viable; and
3. Leads to a transfer of technologies to the host country.

This area presents opportunities for interpretation and this gives the fraudster a greater likelihood of being able to have a fraudulent scheme approved.

**Fig 2. CDMs by Geography and CERs (000)**



CDMs by Geography	No of CDM projects	No of CERs (000)
China	1,193	300,092
India	615	88,348
Brazil	184	49,919
Mexico	125	7,571
Malaysia	88	743
Indonesia	56	1,209
Republic of Korea	51	65,483
Other countries	479	33,560
<b>Total</b>	<b>2,791</b>	<b>546,926</b>

Source: United Framework Convention on Climate Change, February 2011.



## China

**1,193** CDM projects

**300,092** CERs

## Republic of Korea

**51** CDM projects

**65,483** CERs

## Indonesia

**56** CDM projects

**1,209** CERs

## Malaysia

**88** CDM projects

**743** CERs

According to a survey conducted in March 2010 by Point Carbon<sup>1</sup>, an information provider for the carbon market, 15% of 890 respondents from organisations covered by carbon regulation said they had seen fraud, embezzlement, or corruption in a CDM or JI project, with China – perhaps unsurprisingly given that it hosts over 42% of the CDM projects - the country mentioned most often.

Fraud, embezzlement and corruption are concerns that companies should be alert to, no matter where the project is based.

The payment of kickbacks by developers was the most commonly mentioned fraud, although falsification of accommodation and travel expenses by verifiers was also

highlighted. The survey respondents admit that these tend to be embedded practices in the developing countries concerned, rather than specific to the CDM and while they do not necessarily affect the legality or environmental integrity of the credits, they can pose significant reputational risks. Once again, companies need to be vigilant to old types of frauds, in new markets.

When considering carbon offset projects in the unregulated voluntary sector, these risks increase further as the protection offered by the UN approval and verification process is absent. The lack of a single set of standards or rules in the voluntary sector also increases its susceptibility to fraud. Potential carbon offset frauds include:

- Overstating the initial starting point for emissions (baseline fraud);
- Falsification of the scientific claims for the promised carbon reduction to show additionality;
- Over-calculation of the amount of carbon credits generated by the project;
- Multiple selling of the same project or credits by falsifying records;
- False selling of a project that does not even exist; and
- Bribery of government officials to facilitate approvals or to secure rights in developing countries.

<sup>1</sup> Point Carbon 2010: "Carbon 2010 - Return of the Sovereign", Tvinnereim, E and Røine, K.

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### *PwC comments*

*Companies need to apply the same due diligence and rigour to project based carbon markets as they would for their own project planning, financing and approvals.*

*A significant risk companies face from fraud in a carbon offset project is potential reputational damage. This applies equally to those purchasing carbon credits for compliance purposes, to companies voluntarily offsetting their own carbon emissions or selling carbon offsets to their customers.*

*The issues faced with project based markets are similar to those that companies face when investing in emerging markets. Fraud is a heightened risk in such countries and companies need to protect themselves by investing in a sufficient degree of due diligence.*

*For example, the International Air Transport Association, with the support of PwC, has launched its Global Offset Programme which is approved under the UK Government's Quality Assurance Scheme for Carbon Offsetting as a Reseller.*

*The rules of the scheme require the offset provider to calculate emissions accurately and to use good quality Kyoto compliant offsets to be allowed to use the Quality Mark. The reputational enhancement from being an assured carbon offset provider would be seriously undermined in the event of association with fraud.*

*The introduction of the UK Bribery Act will have a significant impact on companies engaged in project based mechanisms. Under the new Act, "failure to prevent bribery" is a corporate offence unless the company can show that it had "adequate procedures" in place to avoid such an outcome. If a company engages a third party as an agent to purchase carbon offsets on its behalf and that agent pays a bribe, then the company is likely to be held liable.*

Clearly, the introduction of the Bribery Act reinforces the need for companies to conduct due diligence to minimise the threat of fraud:

- Carbon offset purchasers in the voluntary market should check the credentials of project developers, verify standard setters and others involved in the process.
- Where companies have operations in the countries in which they intend to purchase carbon offsets, they may be in a position to carry out their own due diligence. Companies should choose carbon offset projects that can be visited by their overseas offices – preferably unannounced – to verify the existence and scope of the project.
- The difficulty for many companies when purchasing offsets is that they move outside their normal operating comfort zone, because they are unfamiliar with the geography or the technology, or they may be purchasing a portfolio of credits in different countries. In such circumstances there may be a role for independent third party due diligence.

## ***The UK Bribery Act***

A significant enhancement to bribery legislation in the UK, the Bribery Act received royal assent in 2010 and is expected to come into force in 2011.

For UK registered corporates, there are four potential offences:

- A general offence of offering or paying bribes;
- A general offence of accepting or agreeing to accept bribes;
- A specific offence of bribing a foreign public official; and
- An offence of failing to prevent bribery on the corporate's behalf.

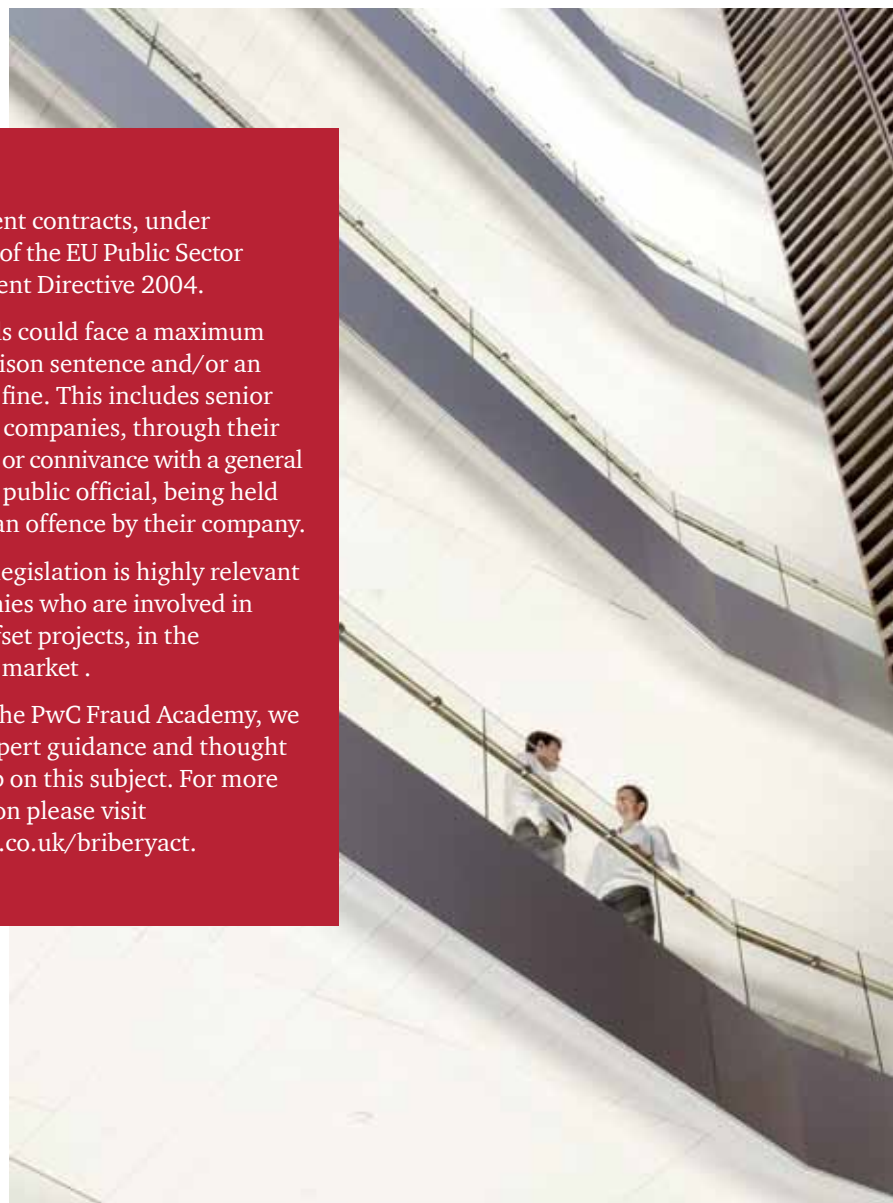
Corporate bodies found guilty could face unlimited fines and may be disbarred from tendering for

Government contracts, under Article 45 of the EU Public Sector Procurement Directive 2004.

Individuals could face a maximum 10 year prison sentence and/or an unlimited fine. This includes senior officers of companies, through their consent to or connivance with a general or foreign public official, being held liable for an offence by their company.

This new legislation is highly relevant to companies who are involved in carbon offset projects, in the voluntary market .

Through the PwC Fraud Academy, we deliver expert guidance and thought leadership on this subject. For more information please visit [www.pwc.co.uk/briberyact](http://www.pwc.co.uk/briberyact).



### ***Reduction in Emissions through Deforestation and Degradation (REDD+)***

Deforestation and forest degradation account for nearly 15% of global greenhouse gas emissions, more than the entire global transportation sector and second only to the energy sector. Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to create a financial incentive for the protection of existing forests, through actions that prevent deforestation or degradation. This can be achieved either through carbon trading or direct payment for forest protection and management. “REDD+” goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

The potential eligibility of REDD+ credits within the compliance market continues to be discussed at the international climate change negotiations and within the current compliance markets (e.g. the EU-ETS). Compliance market demand for REDD+ credits would create a significant financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development.

REDD+ projects have, however, thus far been confined to the voluntary sector of the carbon market, where the lack of regulation and standards has made them more susceptible to fraud.

‘For example, in June 2010, allegations of bribery and corruption were reported between a UK based carbon trading company and officials in Liberia relating to one fifth of Liberia’s forest. The Liberian Government reacted by establishing a special presidential investigative committee whose recommendations may lead to prosecutions.

In order for REDD+ to become established, local capacity building must be prioritised in order to ensure that the countries hosting such forestry projects have sufficient measurement, reduction and verification capacity to credibly monitor the projects.

With the political will and funding in place, much of the challenge going forward is to develop consistent and effective policies, alongside implementation and monitoring procedures. In response to this need, PwC and the World Business Council for Sustainable Development have jointly developed the Sustainable Forest Finance Toolkit.

The toolkit offers guidance for assessing prospective forestry sector investments on sustainability issues; an illustrative approach for evaluating a portfolio of legacy forestry clients; guidance on issues of strategic and operational importance in designing a pragmatic and clear forestry policy; and a model forestry procurement policy. For more information please visit [www.pwc.co.uk/eng/issues/forest\\_finance\\_home.html](http://www.pwc.co.uk/eng/issues/forest_finance_home.html).

#### *PwC comments*

*Very substantial funding is now being directed towards national REDD+ institutional capacity building and project activities that support avoided deforestation. Donor nations have committed significant ‘fast start’ funding through development aid and the private sector is starting to mobilise funding for some early project activity. These projects are typically in remote locations in developing countries, often with uncertain or emerging legislative environments and institutional frameworks. This lack of transparency involves a higher risk of fraud, bribery and corruption, and requires careful due diligence and support from expert advisers.*



# Fraud in the voluntary market

Alongside the compliance markets are the unregulated voluntary markets. These emerging markets are driven primarily by the demand for carbon offsets from environmentally aware companies and consumers.

The voluntary markets have grown organically around a number of voluntary standards which have been sponsored by various NGOs and business organisations, with the institutional frameworks required to support their development lagging behind the compliance market. For instance, until recently, most voluntary carbon credits traded on this market were not recorded in external registries, increasing the risk of fraud through double-selling.

The voluntary market accounts for less than 1% in volume terms and 0.2% in monetary terms of total carbon instruments traded in 2009, yet there is recognition that the reputation of carbon markets as a whole could be disproportionately affected by the occurrence of fraud.

In an effort to address these issues, and reflecting the gradual maturity of the scheme, the voluntary market is increasingly regulating itself. There are now two main public carbon registries for the voluntary market, the Voluntary Carbon Standard (VCS) Registry and the Gold Standard (GS) registry. In the US a voluntary registry in California, the Climate Action Reserve (CAR) registry has also emerged.

In addition, a group of 11 carbon reduction and offset providers created the International Carbon Reduction Offset Alliance in 2009. Its role is to advocate rigorous standards in the voluntary carbon market.

## *PwC comments*

*In addition to being susceptible to the risks highlighted in the previous sections, extra attention must be paid in the voluntary market to the standards that are being adhered to. The standards will affect the price of the voluntary credits and companies should research such projects, conduct any necessary due diligence and seek expert assistance.*

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# *Non-financial reporting*

Current requirements for companies to report on sustainability issues vary widely across jurisdictions.

Under the UK Companies Act, directors have a duty to consider and report on the material social and environmental implications of their business, but there are no formal requirements on what to report.

In the UK a recent consultation on emissions reporting, indicates that further regulation and mandatory reporting, in this area is to be expected.

In the US, the Securities and Exchange Commission voted in early 2010 to provide guidance to companies to disclose the effects of climate change on their businesses. While many organisations have begun to disclose information through voluntary programmes, the stakes become higher whenever information is included in public regulatory filings.

The three main challenges in the reporting of non-financial information are measurement, systems and assurance:

## ***Measurement***

Reporting of financial information is well established, and with convergence of IFRS with US GAAP accounting standards underway, there could eventually be one clearly defined and globally consistent financial accounting standard. But it has taken more than a century to arrive at this point. In contrast, non-financial reporting is a new area, with competing rather than consistent standards. For example, for greenhouse gases there is a global standard – the Greenhouse Gas Protocol, which is used by about 70% of companies globally. But almost one third of companies measure their carbon emissions according to different standards.

## **Systems**

The majority of systems used to collect non-financial data are either immature or not well established across organisations. Most businesses use simple spreadsheet systems at present, in stark contrast to the sophisticated systems used for the collection and consolidation of financial information. Only the latter ensures the correct data enters the system, that it is checked and that the output is complete, accurate and robust.

## **Assurance**

Credible independent third parties provide assurance over financial information, to provide confidence in its integrity and facilitate the efficient operation of capital markets. As sustainability becomes a more important issue which fundamentally affects the business model of an organisation and its performance, companies will want the material non-financial information to be disclosed and independently assured. Currently a wide range of service providers exist, from large-scale firms to environmental boutiques to stakeholder panels, all providing different levels of assurance.

Financial sanctions do not yet apply in the sustainability arena. However companies risk reputational damage and the potential loss of customers if they are exposed as 'greenwashers'.

The trend is towards imposing financial sanctions for inferior sustainability performance. In the UK, the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) is a mandatory carbon tax, which will now cover all organisations using more than 6,000MWh per year of electricity (equivalent to an annual electricity bill of about £500,000). Participants will provide data to the Government on their energy usage, that will be published in a league table and in addition will need to purchase CRC allowances from 2012 as a tax. Revenue from the sale of such allowances is expected to total £1 billion a year by 2014/15.

## **Non-financial reporting risks**

- 'Cherry picking' to report only sustainability successes;
- Changing the measurement basis to prevent comparability of year-to-year data;
- Fraudulently manipulating the way data is measured or processed through simple spreadsheet systems or changing of key assumptions to show improving sustainability performance;
- Choosing less rigorous providers to gain assurance of fraudulent sustainability improvements.

*PwC comments*

*To reduce measurement risks, companies need to define specific criteria and design a transparent, consistent approach to communicating their outcomes, either through their annual report, sustainability report and/or company website.*

*As recognition of the value of sustainability improves and the scrutiny of non-financial information increases, companies will demand more rigorous assurance capabilities, drawing on both the skills of traditional financial assurance and combining this with in-depth knowledge of the carbon markets and sustainability issues.*



***Reporting the facts: Typico plc***

PwC has developed the world's first illustration for business climate change and greenhouse gas emissions reporting. Adopted by the Climate Disclosure Standards Board and the CBI as the illustration for reporting in this area, the reporting model is based on a year in the life of a fictional multinational manufacturing company, called Typico.

Typico suggests what companies should be reporting to explain their position and performance in carbon and climate change, and it seeks to show the alignment between strategy, risk, opportunity, management and performance of the business. Typico illustrates the importance with which the reporting of non-financial information is being treated by stakeholders.

Available to download at  
[www.pwc.co.uk/eng/publications/carbon\\_reporting.html](http://www.pwc.co.uk/eng/publications/carbon_reporting.html)

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# What's next?

The rapid growth in the green economy and climate finance will inevitably attract the interest of fraudsters. Some areas where we expect to see more fraud and market abuse include:

## ***Cyber-crime***

Fraudulent activity by computer hackers is on the increase. The recent illegal activity in emission trading registries has highlighted the risks, and the potential rewards, of cyber crime in these new markets.

## ***New carbon markets***

A number of countries are planning new carbon and green energy markets. New markets can provide easy pickings for fraudsters, with inexperienced players and unproven or inadequate systems and infrastructure to support the market.

## ***Development assistance***

Very substantial funds are being committed by donor nations and multilateral organisations to support climate action in the developing world. Bribery and corruption are particular risks in many of these markets.

## ***REDD+***

Avoided deforestation is attracting substantial development aid, as well as increasing interest from the private sector. We expect to see more fraud in this important new area of climate action.

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