



**Global Corruption Report: Climate Change
A User's Guide**

Working Draft

Transparency International (TI) is the global civil society organisation leading the fight against corruption. Through more than 90 chapters worldwide and an international secretariat in Berlin, TI raises awareness of the damaging effects of corruption and works with partners in government, business and civil society to develop and implement effective measures to tackle it.

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Part 1: An introduction to the User's Guide to the Global Corruption Report: Climate Change

Climate change is perhaps the most complex global governance challenge the world has ever faced. The global response to climate change will demand unprecedented international cooperation, deep economic transformation and resource transfers at a significant scale.

Corruption threatens to jeopardise these efforts. Many of the institutions, governance processes and initiatives designed to mitigate and adapt to climate change are vulnerable to a broad range of corruption risks. These range from undue influence on policies and regulations, to misallocation of funds, and manipulation of markets, reporting and verification mechanisms.

The Global Corruption Report: Climate Change (GCR) brings together the foremost academic experts and leaders from business, government and civil society, to discuss the major corruption and governance risks that societies face when implementing a comprehensive collective policy response to global warming. As the first comprehensive publication to address the corruption dimension of climate change, the GCR on climate change will be a significant milestone in the debate on the major global policy challenge of our time.

Twelve TI National Chapters from around the world contributed case studies to the report. These reports provide a national-level look at many of the challenges to climate governance, from public management of carbon market assets (TI Slovakia, TI Hungary), to fighting corruption in land management and the forest sector (TI Kenya, TI Nicaragua, TI Papua New Guinea), to considering how tools traditionally used for anti-corruption in business practices can be applied for transparency in climate governance (TI UK, TI Colombia).

The GCR team at the TI Secretariat began drafting and editing the GCR in mid-2009, and the draft report was completed in October 2010. The GCR is due to be published by Earthscan Publishers, London and will be launched in May 2011.

Following a presentation of the broad outline and recommendations of the draft GCR at the TI Annual Members Meeting in Bangkok in November 2011, it was decided that it would be helpful to produce a User's Guide to the Global Corruption Report in order to assist in understanding the major themes in the report. It is intended that the User's Guide can be read as a primer for and companion to the GCR.

How to read the User's Guide

Part 2 of the User's Guide is intended to introduce readers to the general concepts within climate change, climate governance and corruption. The glossary of terms and FAQ provide the entry point. This is followed by the Executive Summary of the Global Corruption Report.

Part 3 then introduces the reader to the core content of the GCR. Structured in the same format as the GCR, it lays out the main challenges in climate governance, mitigation (measures undertaken to reduce greenhouse gas emissions), adaptation (efforts underway to adapt to the effects of climate change already underway) and in forestry (a sector

afforded particular attention in climate policy). Each section provides a short introduction to the topic, outlining associated corruption/accountability/transparency risks, a list of articles in the GCR relevant to this topic, an explanation of how the climate-issue may relate to an issue of interest to the chapter (for example, budget monitoring, corporate disclosure, etc.). Each is completed by a list of organisations and roster of experts working on the issue, which should serve as a useful resource.

This completes the User's Guide survey and explanation of the core content of the GCR, from which the reader may then explore areas of interest in more detail in the GCR.

Part 2: Understanding the concepts of climate change and corruption

2.1 FAQs for the Global Corruption Report

Frequently Asked Questions

1. What is climate governance?

Climate governance is an umbrella phrase to cover the management of all the issues to do with projects and schemes designed to combat the effects of climate change. This includes the decision-making process for the generation, management, use and delivery of climate financing, the building of new low-carbon and climate-proofing infrastructure and the stewardship of forests among others.

The price tag for climate change will be no less than US\$100 billion annually from 2012, while some estimates place total financial flows at up to US\$700 billion by 2020. Good climate governance will reduce the risks of corruption and ensure that the funds to combat climate change are properly spent.

2. What does the report cover?

The *Global Corruption Report: Climate Change* outlines many of the traditional corruption risks that could undermine climate governance, exacerbated by the large scale of climate change funding flowing through untried channels.

The book is arranged into sections that cover the key aspects of climate governance. These include climate policy, decision making, mitigation, adaptation and forestry.

More than 50 experts from 20 countries investigate different aspects of climate governance under these headings. Topics include:

- **Policy capture:** building safeguards to ensure decision-making and policies are not influenced by special interests
- How rigorous oversight of complex market mechanisms, such as carbon trading, can eliminate **fraud**
- How transparency can help prevent the embezzlement or misappropriation of **funds**
- The **green resource curse:** how countries that have minerals needed for green technologies must be transparent about how these are exploited

3. What is climate change mitigation and where are the corruption risks?

Mitigation refers to strategies, programmes or policies for reducing global emissions of greenhouse gases, or increasing the capacity of natural or manmade systems to store CO₂ emissions.

Strategies for reducing global greenhouse gas (GHG) emissions include increasing energy efficiency; large-scale introduction of renewable or alternative energies, the introduction of financial incentives, such as carbon markets and changing consumption patterns.

Carbon markets seek to put a value on mitigation. In a carbon market, a central authority sets a limit for the amount of emissions that can be produced and awards permits or credits to entities regulated under that cap. Governments or companies that produce more emissions than they have permits for can buy credits from other entities that have reduced emissions. Under an offset scheme, regulated parties may buy carbon credits generated from emissions reduction projects *not* regulated by the cap, most often located in developing countries.

For example, a German factory emits greenhouse gases above its target, but buys carbon credits to make up for it from a wind-power plant in India.

Carbon markets have already been adopted in a number of regions and countries as a method for reducing emissions, and the value of the leading carbon market has now reached about US\$144 billion. As of April 2011 the price for one ton of CO₂ emissions was about US\$15.

Climate institutions need guidelines, independence and capacity to monitor and verify that credits are awarded for genuine emissions reductions.

Part four of the book documents cases of fraud in carbon markets where companies claim credits for hypothetical emission reductions, as well as other ways that climate commitments can be exaggerated.

Transitioning to technologies that reduce emissions will also place increasing demand on certain natural resources, such as land for biofuels and minerals, such as lithium used in electric cars. Growing exploitation of these resources should benefit, not harm local communities. In countries where governance is weak, foreign acquisition of land for biofuels has been accompanied by reports of forced evictions and inadequate compensation for local communities.

Part 4 of the book also includes additional examples of risks related to the transition to a low-carbon economy, including how incentives for renewable energy can fuel fraud in the absence of proper oversight.

4. What is climate change adaptation and where are the corruption risks?

Adaptation measures will seek to protect the hundreds of millions of people who will become more and more vulnerable to climate change through rising sea waters and extreme weather conditions.

The number of recorded disasters has increased from 200 to 400 per year over the past two decades, and 90 per cent of them are climate-related, according to the UN Office for the Coordination of Humanitarian Affairs (OCHA). By 2015, 375 million people could be affected by climate disasters annually.

The cost of building **climate-resistant infrastructure** – be it flood walls, drainage systems or storm shelters – could be more than US\$100 billion annually by 2030.

None of the 12 countries the World Bank singled out as most vulnerable to either drought, floods, storms or rising sea levels scores higher than 3.6 on Transparency International's *Corruption Perceptions Index* (where 0 is extremely corrupt and 10 is very clean).

Part five of the book sets out transparency measures that can make adaptation finance more effective and explores other areas where corruption can exacerbate the impact of climate change.

5. Why is there a special section on forestry?

Forests cover 30% of the earth's surface. Deforestation accounts for 18% of global greenhouse gas emissions. Forests also act of a natural 'sink' for storing carbon emissions, and are therefore a valuable means to mitigate climate change when left untouched. However, forestry ranks among the world's most corrupt sectors, especially prone to illegal logging. Countries where forestry is a large economic driver also rank poorly on TI's Corruption Perceptions Index.

UN REDD – Reducing Emissions from Deforestation and Degradation – is a mechanism to offer financial incentives for developing countries to reduce forest related emissions. The GCR assesses the risks and safeguards needed in implementing REDD in countries with poor forest governance records, including the validation of projects and appropriation of carbon rights. It also looks closely at the potential for violations of the rights of indigenous peoples.

The future performance of REDD, which became operational in Cancun in December 2010, will greatly influence developed states' commitment to climate finance processes as an effective means to combat climate change.

This is dealt with in part five of the book.

6. Where will climate finance come from, and who will oversee it?

Climate financing will come from many sources including government aid, bilateral support, multilateral organisations, development agencies and private sector financing. It will also come through carbon markets that allocate saleable credits to projects or strategies that result in reduction of greenhouse gas emissions (such as trees planted, factory pollution reduced, etc). A portion of the sale of credits can be reinvested in

climate-related activities. In the case of offset projects, financial support stimulates investment in low carbon technology.

Governments at the Cancun climate negotiations in December 2010 agreed to jointly mobilise US\$30 billion a year of fast track climate change funding for 2010–2012, and US\$100 billion a year by 2020 to address the mitigation and adaptation needs of developing countries.

Much of this funding will flow through untested channels, and needs to be disbursed quickly. This increases the need for good management.

Because climate financing will come from several different sources, a lack of common reporting and accounting criteria will make it hard to track it and compare results of what was funded, and with what impact on the environment.

7. Where might the impacts of climate change be exacerbated by corruption?

The impacts of climate change will be felt all over the world, in developed and developing countries alike. However, in countries where governance is poor, the response to climate change will be particularly weakened, putting lives and livelihoods at risk.

Many of those countries judged most vulnerable to the most visible effects of climate change by the World Bank – drought, flooding, storms or rising sea levels – are also countries where experts perceive high levels of corruption in public services, according to TI's Corruption Perceptions Index (CPI), as the table below shows.

Climate-related event	Country/hot spot (high risk)*	Government effectiveness score**	Corruption Perceptions Index score***
Drought	Malawi	30.3	3.3
	Ethiopia	39.8	2.7
	Zimbabwe	2.4	2.2
Floods	Bangladesh	22.7	2.4
	China	63.5	3.6
	India	53.6	3.4
Storms	Philippines	55.0	2.4
	Bangladesh	22.7	2.4
	Madagascar	33.2	3.0
Sea-level rise	Maldives	44.1	2.5
	Vietnam	45.5	2.7
	Egypt	43.1	2.8
Reduced agricultural production	Sudan	5.2	1.5
	Senegal	51.2	3.0
	Mali	21.8	2.8

Notes:

* Examples taken from World Bank Environment Department, *Convenient Solutions to an Inconvenient Truth* (Washington, DC: World Bank, 2009), p.19.

** Daniel Kaufman et al., *Governance Matters VIII: Aggregate and Individual Governance Indicators 1996–2008*, Policy Research Working Paper no. 4978 (Washington, DC: World Bank, 2009).

***TI, Corruption Perceptions Index 2009; see www.transparency.org/policy_research/surveys_indices/cpi/2009.

Almost 300 million people live in the five countries most vulnerable to climate change. None of these countries score more than 3.6 on the CPI.

Part five of the book deals with some of the corruption problems that can arise when climate disasters strike, and people are forced to become climate refugees.

8. How can transparency make climate change efforts more effective?

Transparency and accountability are the best safeguards against corruption. Public access to information and participation in climate change policy arenas will make sure that decisions are not influenced only by special interests, which are often corporate.

If civil society groups have access to information about adaptation and mitigation projects, they can monitor provide oversight and verify that projects achieve the emissions-reductions or climate-proofing benefits that they claim.

For mitigation projects there are potential conflicts of interest throughout oversight structures, where the experts in charge of monitoring, reporting and verification either hold several posts or are paid by the projects that they are overseeing.

The *Global Corruption Report: Climate Change* makes a series of recommendations to governments and international bodies about the strong need for public participation and civil society oversight in the administration and decision making processes that will govern climate change finance.

TI's recommendations can be found in the executive summary.

9. How will Transparency International build on the recommendations in this book?

In 2011 Transparency International launched its Climate Governance Programme to follow up on the areas of weak governance and high corruption risk identified in the Global Corruption Report. The programme will aim to help civil society play a role in monitoring climate change programmes, starting in six pilot countries (Bangladesh, Dominican Republic, Kenya, Maldives, Mexico and Peru), where TI National Chapters will map the actors involved in climate finance and carry out risk assessments of such within their country.

In 2009, TI began a programme on improving transparency and accountability of forest governance in the Asia-Pacific region. Part of this work is to train TI national chapters in Papua New Guinea, Indonesia and the national contact in Vietnam to monitor the UN anti-deforestation programme (REDD) and contribute to reporting and verification on its impact.

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2.2 Glossary of climate terms

A

Aarhus Convention

A convention that commits 45 European and Central Asian countries to practical principles of environmental justice. Widely regarded as a standard-setter on access to environmental information and norms of participation in this area, the convention is the only legally binding instrument that implements the Rio Declaration on Environment and Development's principle 10 on public participation. The convention's provisions include access to environmental information, early and ongoing public involvement in decision-making, transparent and user-friendly processes, an obligation that authorities consider public input, a supportive infrastructure and effective means of enforcement and appeal.

Adaptation

Actions in response to actual or expected climatic stimuli that seek to reduce the vulnerability of natural and human systems to the adverse effects of climate change. Especially important in developing nations, which are expected to be worst affected.

For example: construction of barriers to protect against rising sea levels, or conversion to crops capable of surviving high temperatures and drought. (*BBC climate change glossary*)

Adaptation Fund

A fund established to finance adaptation projects and programmes in developing countries particularly vulnerable to the adverse effects of climate change. The fund became operational in 2009 and is supervised and managed by the Adaptation Fund Board (AFB), but also administered by the Global Environmental Facility (GEF).

The Adaptation Fund is the first financial instrument under the UNFCCC and its Kyoto Protocol that is not based solely on voluntary contributions from developed countries. It receives a 2 per cent share of proceeds from project activities under the Clean Development Mechanism (CDM). Consequently, the amount of money that will be available from the Adaptation Fund depends on the extent to which the CDM is used and on the price of carbon. As of July 2010 the Adaptation Fund had received US\$160 million, of which US\$112.5 million was generated through CDM activities.

Additionality

A project activity is 'additional' if human-made emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (3/CMP.1, Modalities and procedures for a clean development mechanism, as defined in Article 12 of the Kyoto Protocol Annex, paragraph 43).

Additionality is a principal condition for the eligibility of a project under the Clean Development Mechanism (see below)

The Ad-Hoc Working Group on Further Commitments for Annex I Parties to the Kyoto Protocol

UN working group established in 2005 to discuss further commitments for industrialised countries

under the Kyoto Protocol post 2012.

Ad Hoc Working Group on Long-term Cooperative Action

A UN working group established at the 2007 COP13 in Bali to enable the “full, effective and sustained implementation of the Convention” through cooperative action beyond the expiration of the Kyoto Protocol in 2012.

Afforestation

The process of covering bare or agricultural land with trees (*FAO*)

Annex 1 Parties

Annex I Parties comprise the industrialized countries that were members of the OECD in 1992, plus countries with economies in transition, including the Russian Federation, the Baltic States, and several Central and Eastern European States (*UNFCCC Glossary*).

Forty countries plus the European Union are classified as Annex 1. Under the Kyoto Protocol, Annex 1 Parties committed to reduce their greenhouse-gas emissions to 1990 levels by the year 2000 and later committed to further reduce emissions by 5.2% below the 1990 level in the period 2008-2012.

Annex I countries are required under the Kyoto Protocol to report their GHG emissions, to submit annual greenhouse gas inventories and under the UNFCCC to provide national communications every 4-5 years.

[see also *Non-Annex 1 Parties*, below]

Annex II Parties

A subsection of Annex I. Consists of the 24 original OECD member states and the European Union. These countries have a special obligation to provide financial resources and facilitate technology transfer to enable developing countries to undertake emissions reduction activities and to help them adapt to adverse effects of climate change. (*UNFCCC Glossary*)

Assigned Amount Units (AAUs)

A Kyoto Protocol unit equal to 1 metric tonne of CO₂ equivalent. Parties with commitments under the Kyoto Protocol to reduce or limit GHG emissions were issued AAUs corresponding to their emissions reductions targets. AAUs may be exchanged through emissions trading.

‘Astroturf’

Organisations that simulate the appearance of broad public support for a special interest issue. Astroturf organisations are not driven by grassroots support but by private interest groups such as corporations or industry associations.

B

Baseline

A baseline is essentially an idea of “what if nothing happens” (see *Business as Usual*). Baseline emission calculation is done to estimate how much emission would be generated without the CDM project. Having a baseline is critical to assess whether the project meets additional criteria, and how much CERs can be issued

Benchmarking (in relation to emissions allowances)

Distributing allowances to entities regulated by an emissions caps on the basis of the performance of the most efficient installations in a given sector.

Biofuels

Any kind of fuel made from living things, or the waste they produce. Most often "biofuels" refers to ethanol and diesel, made from crops including corn, sugarcane and rapeseed. Their use in place of fossil fuels cuts greenhouse gas emissions because the plant fuel sources capture carbon dioxide from the atmosphere. (UNFCCC)

These fuels can be used for any purposes, but the main use is in the transportation sector. Many governments, including those in the European Union (EU), China, India, Brazil and the US, have established targets and mandatory quotas for biofuels in transportation.

Business-as-Usual (BaU)

In the context of climate change, BaU usually refers to greenhouse gas emissions rates that are expected to occur in the absence of mitigation efforts.

C

Cap-and-trade system

A market-based system for managing and reducing greenhouse gas emissions. A "cap" or limit is placed on emissions by governments or intergovernmental bodies. Carbon credits are then issued that allow companies, countries or regions to emit a determined amount of greenhouse gases, as long as the aggregate emissions are less than the set cap. Entities that need to produce more emissions can buy permits from other entities that have spare credits to sell because they have not reached their emissions limit. In certain systems (e.g. the EU ETS) entities can also offset their emissions by purchasing credits generated by emissions reductions from mitigation projects situated in areas that are not covered by a cap, usually in developing countries.

Carbon Capture and Sequestration (CCS) technology

A broad term that encompasses a number of technologies that can be used to capture CO₂ from point sources, such as power plants and other industrial facilities; compress it; transport it mainly by pipeline to suitable locations; and inject it into deep subsurface geological formations for indefinite isolation from the atmosphere. (World Resources Institute)

Carbon Disclosure Project (CDP)

Independent not-for-profit organization that records climate change information (greenhouse gas emissions, water management and climate change strategies) from corporations from across the world.

Carbon markets

A popular but misleading term for a trading system through which countries may buy or sell units of greenhouse-gas emissions in an effort to meet their national limits on GHG emissions, e.g. the EU-ETS. The term comes from the fact that carbon dioxide is the predominant greenhouse gas and other gases are measured in units called "carbon-dioxide equivalents." Carbon markets may be compliance driven or voluntary. (UNFCCC)

Carbon rights

Not yet defined, but broadly understood as the right to exploit the benefits of reduced carbon emissions and carbon storage (<http://redd-net.org/themes/carbon-rights>)

Carbon taxation

A tax levied on the burning of fossil fuels, according to their carbon content. The aim of such a tax is to increase the overall cost of using fossil fuels with a view to incentivise the increased use of alternative energy sources.

Certified Emission Reductions (CERs)

CERs refer to the credits generated by CDM projects. One CER is equivalent to a reduction of one

tonne of carbon dioxide. *(CDM Watch)*

Climate Investment Funds (CIF)

Financing instruments under the World Bank (therefore not accountable to the UNFCCC) that aim to drive low-carbon and climate-resilient development.

Clean Development Mechanism (CDM)

The Clean Development Mechanism (CDM) is one of the three flexible mechanisms contained in the Kyoto Protocol. It allows emission-reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one tonne of CO₂. These CERs can be traded and sold, and used by industrialized countries to meet a part of their emission reduction targets under the Kyoto Protocol. The mechanism stimulates sustainable development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction limitation targets. *(CDM Website)*

The CDM is also the main source of income for the UNFCCC Adaptation Fund, which was established to finance adaptation projects and programmes in developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change. The Adaptation Fund is financed by a 2% levy on CERs issued by the CDM.

Clean Technology Fund (CTF)

One of the World Bank Climate Investment Funds, the CTF aims to promote scaled-up financing for demonstration, deployment and transfer of low-carbon technologies with significant potential for long-term greenhouse gas emissions savings. *(UN Energy)*

Climate migration

Displacement stimulated by the effects of climate change. Estimates of the number of people forced to migrate as a result of climate change are hotly debated, however the numbers could be as high as 200 million people by 2050.

Concentrated Solar Power (CSP)

A method of generating electricity from solar energy on a grand scale. CSP utilises large arrays of solar-tracking mirrors to convert the sun's energy into steam to drive generators. *(towards-sustainability.co.uk)*

Conference of the Parties (COP)

The management body of the UNFCCC. It currently meets once a year to review the Convention's progress. The most recent meeting of the Parties, COP16, took place in Cancún, Mexico in November 2010.

Copenhagen Accord

A document that delegates at the COP 15 to the UNFCCC agreed to "take note of" at the final plenary on 18 December 2009.

The Accord set a goal of limiting global warming to below 2 degrees Celsius (3.6 Fahrenheit) above pre-industrial times, but left each nation to set its own targets for 2020. The accord agreed to raise \$30 billion from 2010-2012 and \$100 billion climate aid annually by 2020 to help poor nations slow emissions growth and cope with impacts such as floods, droughts and rising sea levels.

The accord was strongly criticised for being too weak, and also for the lack of inclusiveness, whereby a small group of countries – Brazil, China, India, South Africa and the US – negotiated and agreed the accord, and other countries were then asked to adopt it in plenary without prior deliberations.

D

Deforestation

Direct human-induced conversion of forested land to non-forested land.

Degradation (relating to forests)

Does not involve a reduction of the forest area, but rather a **qualitative decrease** in its condition, this being related to one or a number of different forest ecosystem components (vegetation layer, fauna, canopy or cover, soil etc), to the interactions between these components, and more generally to its functioning. *(FAO)*

Designated Operational Entities (DOEs)

Independent auditors accredited by the CDM Executive Board (CDM EB) to validate project proposals or verify whether implemented projects have achieved planned greenhouse gas emission reductions. *(UNFCCC)*.

DOEs are paid directly by project developers, which could undermine their independence. They have been criticised for "rubberstamping" CDM projects even where there are unverifiable or highly dubious claims of the mitigation potential of projects.

Double-counting of emissions

When the same allowances are used by various entities to meet their emissions reduction targets. Particularly a risk with voluntary markets.

Example: If developing countries adopt voluntary reductions targets, there is a risk of double-counting: emissions reductions generated from mitigation or REDD projects could be counted against national emissions and sold as credits to allow the same amount of pollution in developed countries.

E

Environment impact assessments (EIAs)

An assessment of the possible positive or negative impact that a proposed project may have on the environment.

EU Emissions Trading Scheme (ETS)

A cap and trade system that includes the 27 EU member states and Norway. The EU ETS began in 2005 and covers nearly a half of European CO₂ emissions.

There is a "cap", or limit imposed on the total amount of certain greenhouse gases that can be emitted by the factories, power plants and other installations in the system. Within this cap, companies receive emission allowances which they can sell to or buy from one another as needed. The limit on the total number of allowances available ensures that they have a value.

At the end of each year each company must surrender enough allowances to cover all its emissions, otherwise heavy fines are imposed. If a company reduces its emissions, it can keep the spare allowances to cover its future needs or else sell them to another company that is short of allowances. The flexibility that trading brings ensures that emissions are cut where it costs least to do so.

The number of allowances is reduced over time so that total emissions fall. In 2020 emissions will be 21% lower than in 2005. *(EU ETS website)*

In 2009 the total value of EU ETS trading rose to nearly US\$119 billion, making it the largest

carbon market currently in operation.

F

Fast-start funding

A pledge made at COP15 and reaffirmed at COP16 of US\$30 billion from developed countries to be delivered between 2010 and 2012 for adaptation and mitigation actions in developing countries.

Forest

The UNFCCC defines "forest" as an area of 0.05-1 hectares in size with 10 to 30 percent covered by canopy consisting of trees that reach a height of at least 2-5 meters at maturity.

There are concerns over the limited nature of the definition, as it could allow for the logging of old-growth forests and encourage plantation forestry, leading to mono-cropping and food insecurity

Forest management

"Forest management" is a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest in a sustainable manner (*UNFCCC*)

G

Geoengineering

The deliberate large-scale manipulation of the planetary environment to counteract anthropogenic climate change; deemed to be a last resort method if the climate reaches a catastrophic tipping point. Although geoengineering projects could be undertaken locally, the consequences could be global.

Potential geoengineering technologies fall into two categories. The first and most technically feasible today would be to blot out or dim the Sun with a haze of sulphur dioxide, artificially enhanced cloud cover or ceramic discs suspended in space between the Earth and the Sun. The second category involves removing and storing atmospheric carbon, often by changing the ecosystem and fostering plant growth to assist with the removal.

Global Environmental Facility (GEF)

An independent financial organization, set up in 1991 under the World Bank, the GEF provides grants to developing countries and countries with economies in transition for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. These projects benefit the global environment, linking local, national, and global environmental challenges and promoting sustainable livelihoods.

In 1994, at the Rio Earth Summit, the GEF was restructured and moved out of the World Bank system to become a permanent, separate institution, and was entrusted to become the financial mechanism for the UN Framework Convention on Climate Change. The GEF manages the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF), and administers the Adaptation Fund. (*GEF Website*)

'Greenwashing'

The practice of claiming that products or services are more environmentally friendly than they actually are, for example, by using misleading statistics or touting the benefits of a single green product to improve the reputation of an entire company or industry.

Greenhouse gases

The atmospheric gases responsible for causing global warming and climate change. The major GHGs are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Less prevalent --but very powerful -- greenhouse gases are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆). (*UNFCCC*)

H

I

Intergovernmental Panel on Climate Change (IPCC)

The Intergovernmental Panel on Climate Change (IPCC) is the leading international scientific body for the assessment of climate change. It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts. (IPCC website)

The IPCC is an intergovernmental body and is open to all member countries of the United Nations (UN) and WMO. Currently 194 countries are members of the IPCC. Governments participate in the review process and the plenary Sessions. Thousands of scientists from all over the world contribute to the work of the IPCC on a voluntary basis as authors, contributors and reviewers. None of them is paid by the IPCC. Their work is supported by a central IPCC Secretariat.

The IPCC reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change. The IPCC's Assessment Reports are widely recognized as the most credible existing sources of information on climate change. The latest one is "Climate Change 2007", the IPCC Fourth Assessment Report. The Fifth Assessment Report is due in 2014.

J

Joint Implementation (JI)

One of the three flexible mechanisms set up by the Kyoto Protocol. Similar to the CDM but smaller in scope, JI enables an industrialized country (or a private entity within that country) committed to an emissions cap to finance a GHG reduction project in another country that also has an emissions cap.

It allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party) to earn emissions reductions units (ERUs) from an emission-reduction or emission removal project in another Annex B Party. Each ERU is equivalent to one tonne of CO₂, which can be counted towards meeting its Kyoto target. (*JI*)

K

Kyoto Protocol

An international agreement standing on its own, and requiring separate ratification by governments, but linked to the UNFCCC. The Kyoto Protocol, among other things, sets binding targets for the reduction of greenhouse-gas emissions by industrialized countries.

The major distinction between the Protocol and the Convention is that while the Convention **encouraged** industrialised countries to stabilize GHG emissions, the Protocol **commits** them to do so. (*UNFCCC*)

The Protocol was adopted in 1997. The detailed rules for the implementation of the Protocol, the "Marrakesh Accords" were adopted at COP 7 in 2001. To date, 191 states have signed and ratified the Kyoto Protocol.

L

Least Developed Countries Fund (LDCF)

A fund established under the UNFCCC in 2001 and operated by the GEF that relies on voluntary contributions from developed countries. The fund supports a work programme to assist Least Developed Country Parties to carry out, *inter alia*, the preparation and implementation of national adaptation programmes of action (NAPAs). (UNFCCC)

As of May 2010 US\$221 million had been pledged under this fund, and US\$135 million had been allocated.

Leakage

Carbon leakage is the shift of production from installations covered under emissions trading to areas not covered by such schemes. In forestry, leakage occurs if deforestation projects that are avoided through financial incentive programmes simply encourage deforestation—and therefore loss of carbon storage—in other areas.

Local Governments for Sustainability (ICLEI)

An international association of over 1220 local government members from 70 different countries that have made a commitment to sustainable development.

ICLEI provides technical consulting, training, and information services to build capacity, share knowledge, and support local government in the implementation of sustainable development at the local level.

Local Government Climate Roadmap

Established by local government associations from around the world to advocate for a strong and comprehensive global agreement on climate change mitigation and adaptation. The Roadmap is a process that started during COP13 in December 2007 and was designed as a two-year advocacy journey campaigning for a strong and comprehensive post-2012 global climate agreement. (ICLEI)

M

Measuring, reporting, verifying (MRV)

The 2007 Bali Action plan introduced a new construct with its requirement that certain actions be “measurable, reportable and verifiable.” In relation to mitigation, MRV refers to the accurate monitoring of GHG emissions. However, the term MRV can also be used in relation to ensuring the effectiveness and transparency of adaptation projects and climate finance. Strong MRV systems are fundamental to ensure transparency and accountability at all stages of funding and implementing climate change projects, and provide an important means of tracking parties’ progress individually and collectively toward reducing emissions, as well as linking actions by developing countries to support for actions by developed countries.

Risks of weak MRV systems include: without stringent MRV requirements, industries may exaggerate their baseline emissions data so as to make ‘reductions’ easier at a later date; the use of unreliable emissions data in carbon markets can result in the over-allocation of carbon credits, making efforts to reduce emissions less ambitious than they ought to be.

Mitigation

A human intervention to limit greenhouse gas emissions, either through the reduction of GHG sources or by enhancing sinks to capture them. Mitigation involves measures to prevent climate change and is distinguished from adaptation, which involves acting to tolerate its effects.

Examples include: using fossil fuels more efficiently for industrial processes or electricity

generation; switching to solar energy or wind power; improving the insulation of buildings, and expanding forests and other "sinks" to remove greater amounts of carbon dioxide from the atmosphere (*UNFCCC Glossary*)

N

Nationally Appropriate Mitigation Actions (NAMAs)

NAMAs, first introduced in the 2007 Bali Action Plan (an outcome of COP13), can be any range of activities determined by a **developing country** to reduce GHG emissions. Examples include, establishing cap-and-trade programmes, implementing carbon taxes, or introducing technology deployment programmes or sustainable development initiatives.

Three general types might be envisaged: unilateral NAMAs, requiring no international funding; supported NAMAs, using international financing, capacity-building or technology support from developed countries; and credited NAMAs, earning credits from the international carbon market.

National Adaptation Programmes of Action (NAPAs)

Documents prepared by least developed countries (LDCs) identifying urgent and immediate needs for adapting to climate change.

As of October 2008, the UNFCCC secretariat had received NAPAs from 38 LDCs. The main content of NAPAs is a list of ranked priority adaptation activities and projects, as well as short profiles of each activity or project, designed to facilitate the development of proposals for implementation of the NAPA

The preparation and implementation of NAPAs are funded by the Least Developed Country Fund (LDCF) (*UNFCCC*)

National implementing entity (NIE)

The responsible institution at the national level that can endorse Adaptation Fund proposals on behalf of a government can be either a national implementing entity (NIE) or a multilateral implementing entity (MIE). The NIE is responsible for the project/program design and management, and for all financial issues, monitoring and reporting. An NIE can be any organisation that receives AF accreditation, including academic institutions, civil society organisations, or government departments. (CISDE[1])

Non-Annex I Parties

Countries that have ratified or acceded to the United Nations Framework Convention on Climate Change but are not included in Annex I of the Convention and so are not obliged to limit emissions under the Kyoto Protocol. Mostly developing countries, this includes countries with rapidly growing economies such as China, South Africa, India and Brazil.

O

Offsets (carbon offsets)

A carbon offset is a reduction in emissions of CO₂ or CO₂ equivalent that compensates for the same amount of emissions elsewhere. Governments or businesses that must reduce their emissions under a cap-and-trade system will often finance offset projects in areas not regulated by a cap to earn emissions reductions credits which allow them to maintain or increase their emissions levels. Offset projects therefore are not designed to reduce global emissions levels, but to keep levels of emissions the same. The largest offsetting scheme is the UN Clean Development Mechanism (CDM). Common offset projects include renewable energy projects such as development of hydroelectric dams, wind farms, solar power and development of biofuels.

P

Permanence

Refers to carbon benefits accrued that are irreversible. A forest offset project, for example, would be impermanent if it lacked an insurance mechanism to replace any carbon lost due to forest fire

Photovoltaics

a technology which uses a device (usually a solar panel) to produce free electrons when exposed to light, resulting in the production of an electric current (*clean-energy-ideas.com*). Photovoltaics have come under increasing demand in the transition to a low-carbon economy.

Q

R

Reducing Emissions from Deforestation and forest Degradation (REDD):

REDD is the major international initiative to leverage forest policies for climate change. REDD was developed from a proposal in 2005 by the Coalition for Rainforest Nations. Two years later, the proposal was taken up at the Conference of the Parties to the UNFCCC in Bali (COP-13). The reduction of emissions from deforestation and the enhancement of forest carbon sinks was formally endorsed by the COP in Cancun in December 2010 and REDD funding is already available to assist selected countries in preparing for REDD.

The REDD concept resembles emissions trading schemes such as the Clean Development Mechanism (CDM), except that developing countries (non-Annex I) would be compensated by developed countries (Annex I) for activities that result in reduced carbon emissions through **avoiding deforestation or forest degradation**. REDD is attractive to policy-makers partially because the associated costs are expected to be low (US\$0.4–5.6 t⁻¹ 15 C from avoided deforestation).[2]

REDD+

An expansion of the REDD idea, extending beyond deforestation and forest degradation, and including the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (*REDD website*). This is the concept upon which present UNFCCC negotiations are based.

REDD+ readiness

The term readiness can be loosely defined as the process leading to the point at which a country is deemed (or deems itself) ready to engage in REDD+. The assessment of whether a country is ready for REDD+ can be made against technological, economic, institutional or governance related criteria. Many of the REDD+ programmes operating today are preparing countries to engage in REDD+ by, for example, strengthening the national institutions that will implement REDD+ activities.

Reforestation

the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was forested but that has been converted to non-forested land (*UNFCCC - 16/CMP.1, Annex, paragraph 1*)

'Renewables'

Energy derived from resources that are naturally regenerative or are practically inexhaustible, such as biomass, heat (geothermal, solar, thermal gradient), moving water (hydro, tidal, and wave power), and wind energy. Municipal solid waste may also be considered a source of renewable (thermal) energy. (*businessdictionary.com*)

Resource curse

The paradox where nations with abundant natural resources (such as oil, minerals, timber) tend to suffer very poor economic development. This paradox is explained through various theories, one of which is that a government's reliance on revenues earned from natural resources rather than on a tax base provided by citizens makes it less accountable. Where accountability is lacking, funds generated from natural resources may be mismanaged, poorly invested or siphoned off to an elite minority that seeks to concentrate power.

The development of a low-carbon economy will place intense demand on natural resources that are particularly useful for new technologies. There is therefore concern that this new found demand, and sizeable money transfers in areas of weak governance could trigger a new, "green resource curse".

S

Sectoral Crediting

A proposed design for carbon markets which would have entire industrial sectors in developing economies meet an emissions cap and sell credits derived from this reduction.

Special Climate Change Fund (SCCF)

A fund established under the UNFCCC in 2001 and operated by the GEF that relies on voluntary contributions from developed countries. The fund is intended specifically to finance projects relating to: adaptation; technology transfer and capacity building; energy, transport, industry, agriculture, forestry and waste management; and economic diversification in developing countries.

As of May 2010 US\$94 million had been pledged under the SCCF and US\$85 million had been allocated.

T

U

UN Conference on Environment and Development (or Earth Summit)

International conference in Rio de Janeiro in 1992, where 154 countries signed the UNFCCC and adopted the Rio Declaration on Environment and Development.

UN Framework Convention on Climate Change (UNFCCC)

An international treaty signed by 154 countries at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992. The objective of the treaty is to stabilize greenhouse gas (GHG) concentrations in the atmosphere at a level that will prevent dangerous interference with the climate system. The UNFCCC entered into force in March 1994. The Protocol to the Convention, signed in Kyoto in 1997, has more powerful and legally binding measures.

V

Vulnerability

The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity. (UNFCCC)

2.3 Executive Summary of the GCR

Climate change is arguably the greatest governance challenge the world has ever faced. Addressing it requires a degree of urgency, trust, cooperation and solidarity that tests the limits of conventional mechanisms and institutions to manage public goods. It requires transformational shifts in our economies that may eventually dwarf the dramatic changes brought on by the Industrial Revolution. Climate change affects livelihoods and challenges lifestyles. It exerts immense pressure on the social and political fabric of communities around the world, against the backdrop of tremendous uncertainty about the precise scope and pace of the next steps that will be taken to remedy it, particularly at the global level.

A robust system of climate governance – meaning the processes and relationships at the international, national, corporate and local levels to address the causes and effects of climate change – will be essential for ensuring that the enormous political, social and financial investments by both the public sector and the private sector made in climate change mitigation and adaptation are properly and equitably managed, so that responses to climate change are successful. The stakes are high: we must invest significantly to achieve a low-carbon future, and we must make sure this investment is effective. Despite difficulties in reaching consensus at the international level, states, companies and civil society actors are converging around the need to establish clear rules and compliance mechanisms for addressing climate change. Good governance of the climate can enhance the process, making it more transparent, accessible and equitable for all.

Climate change is not just a challenge to established approaches to governance, however; it also transcends established typologies of corruption. Corruption is defined by Transparency International as the abuse of entrusted power for private gain. Entrusted power is not only the power a citizen confers to a public office holder. It is the power that future generations have vested in all of us, in our stewardship role for the planet. Likewise, abuse for private gain goes beyond corruption in the forms it so often takes – the misappropriation of funds, bribery in the awarding of contracts, and nepotism, all of which undermine good climate governance – and extends to new arenas. These include the distortion of scientific facts, the breach of principles of fair representation and false claims about the green credentials of consumer products – evidence of which is documented in this report. Such practices can be devastating in a policy arena in which uncertainty abounds and trust and cooperation are essential.

Why is corruption, in particular, a risk in addressing climate change? As the Global Corruption Report explores at length, the efforts to prevent and respond to climate change will have an enormous price tag. Where huge amounts of money flow through new and untested financial markets and mechanisms, there is always a risk of corruption. Some estimate total climate change investments in mitigation efforts alone at almost US\$700 billion by 2020. Public investments of no less than US\$250 billion per annum will eventually flow through new, relatively uncoordinated and untested channels. In addition, pressure already exists to 'fast-track' solutions, further enhancing the risk of corruption.

Corruption risks are also high because of the level of complexity, uncertainty and novelty that surrounds many climate issues. Essential concepts, such as what should count as a forest, or how to establish additionality (meaning whether projects could happen in any case without support), are still being debated. Rules for geoengineering, perhaps the most risky and consequential human intervention in our biosphere, are still largely absent. New tools to

measure the environmental integrity of carbon offsets are relatively untested. Early evidence presented in this report suggests that there are many regulatory grey zones and loopholes that are at risk of being exploited by corrupt interests. Careful monitoring, quick learning and an active approach to closing entry points for corruption are essential to ensure that strong governance enables the success of these new tools and instruments at this most critical stage.

Another aspect of climate governance that demands urgent attention is the inequality of the current processes for individuals and groups most directly affected by climate change. Contributions to the Global Corruption Report shed light on those most adversely affected by climate change: indigenous and rural poor communities in remote locations, the urban poor living in precarious settlements, and displaced persons who require resettlement. All these groups share commonalities. They bear the brunt of the effects of climate change; they are meant to be the main beneficiaries of adaptive action; and yet they are usually the most marginalized voices in the political system. This starkly highlights the need for accountable climate governance.

An overarching message of the *Global Corruption Report* is that *a dramatic strengthening of governance mechanisms can reduce corruption risk and make climate change policy more effective and more successful*. The quality of climate governance – the degree to which policy development and decisions are participatory, accountable, transparent, inclusive and responsive, and respect the rule of law – will help determine how well it addresses inherent corruption risks. The report brings together more than 50 recognized experts to present the first comprehensive analysis of corruption and climate change, and it includes a set of policy recommendations.

Making climate governance work: designing processes for accountability and integrity

The scale and complexity of the climate change challenge and the financial investments required to make it work mean that a well-coordinated system of accountable decision-making is essential.

Important decisions on climate change are taken in many institutional settings – more than the spotlight on some high-profile international meetings would suggest

Overwhelming attention to high-profile intergovernmental meetings on climate change makes their outcomes seem uniquely critical. Although this arena is extremely important, action is dispersed across a multitude of fora and actors from international to local level, reflecting the extraordinary scope and diversity of climate policy issues.

There are currently more than 500 multilateral environmental agreements, many relevant to climate change. Important climate decisions are not deliberated and decided upon only by conferences of state parties in Copenhagen or Cancún. The overall response to climate change is perhaps even more critically shaped in many national and regional venues, from Beijing, Brussels and Brasilia to Delhi and Washington. Many new hybrid initiatives that link public and private stakeholders play a role, and so do cities and local governments that can notch up the standards of commitments – or water them down.

The extent of transparency, accountability and inclusive participation varies widely across these policy-making fora. Standards need to be consistently high to pave the way for sound

climate policies that avoid the many potential risks of policy capture and forum-shopping, regulatory arbitrage and hold-ups that are associated with such a dispersed governance landscape and that all have the potential to undermine effective global action.

The attention and record attendance that a few key climate policy processes enjoy make it easy to overlook persistent disparities in influence, even in these settings

High visibility does not equal effective transparency and attendance does not equal proportionate influence. Transparency practices for the United Nations Framework Convention on Climate Change (UNFCCC), the most visible forum for climate policy-making, lag behind established standards practised in other settings. Likewise, record turnout and attention for the Copenhagen summit and a handful of other headline events cannot mask persistent disparities in representation. In Copenhagen, the top five polluting countries were able to field more than three times the number of official delegates than the five countries considered to be most affected by climate change. By 2009 the combined number of registered observer organizations to the UNFCCC from Canada, the UK and the US had reached more than 400, while on the developing country side only Brazil, China and India managed to register more than 10 groups. In sum, high-profile international venues for climate policy-making may garner sufficient attention and raise prospects for better climate governance instruments, but there is a long way to go to achieve an effective and inclusive voice for all stakeholders.

The lobbying landscape is diversifying, and the associated risk of undue influence is higher than ever

The advent of green industries as lobbyists, as a counterweight to lobbying by energy and other sectors dominated by the need for fossil fuels, might suggest that by now a rather balanced spectrum of interests underpins deliberation about climate policies. As the Global Corruption Report documents, this is not the full picture. At US national level, oil and gas interests alone outspent the clean energy sector by a factor of eight in lobbying in 2009. In the European Union, business groups contributed more than twice the number of policy positions to an important climate policy deliberation process in 2004 than environmental groups.

Even an equal presence of both green and brown lobbying does not guarantee climate policies in the public interest. As the report shows, double policy capture may occur when a lack of action on polluters exists alongside strong support for influential green interests. Mandatory lobbying registries are still not required in the majority of Organisation for Economic Co-operation and Development (OECD) countries, however, and the quality of internal and external disclosure by businesses on their level of public engagement and activities related to climate change remains mixed.

Elsewhere in the world, the matrix of interests and influence does not bode well for balanced consideration of all interests. In China and India, for example, the actors in the fossil fuel and power sector likely to lose most from progressive climate policies are often large, state-controlled conglomerates with close linkages to the highest echelons of political power. All this requires that close attention be paid in order to avoid policy capture and results that serve the few rather than the many, which would be bad for accountability and bad for the planet.

Mitigation: strategies for reducing carbon emissions

Mitigation efforts aim to slow climate change by reducing the amount of greenhouse gases (GHGs) emitted globally, or increasing the capacity to capture emission in natural sinks, such as forests, or through technological innovation. Leading mitigation approaches include the establishment of carbon markets, mandated emission standards and energy efficiency policies, and voluntary initiatives to move towards a low-carbon economy. Even though some of these approaches are at relatively early stages of development, adequate governance safeguards should be put in place from the outset to ensure that they can best achieve their objectives.

A robust system for the measuring, reporting and verification (MRV) of emissions is crucial to transparency, and ultimately to the success of mitigation strategies

Accurate MRV is critical, not only to reducing GHG emissions at the national level but also to enable investors to make informed decisions about business sustainability. Although many methods and initiatives are currently in place to measure, report and verify emissions, more resources and training are needed to improve this information. In developing countries, a lack of technical capacity or financial resources makes the development of ongoing emissions data collection difficult, and a lack of expert reviewers may mean that formal reporting on national emissions is not subject to sufficiently robust verification.

Without stringent MRV requirements in developing and developed countries alike, the risks include incentives for industries to exaggerate their baseline emissions data so as to make 'reductions' easier at a later date. The use of unreliable emissions data in carbon markets can result in the over-allocation of carbon credits, making efforts to reduce emissions less ambitious than they ought to be. The result is mitigation strategies that do not reduce emissions and that support the market in the short term only through possible windfall profits for some major polluters, with the climate losing out.

The need to measure, report and verify extends beyond emissions, as the entire industry emerging around the green economy needs to establish the legitimacy of its no- or low-carbon growth credentials. While government attempts to support green technologies are laudable, regulatory oversight must keep pace with expanding industrial activity, as financial incentives have already led some project developers to falsely claim projects to be finished in order to reap heightened profits.

As a critical mechanism for mitigation, carbon markets need safeguards to reduce the risk of corruption, as well as to ensure their sustainability and capacity to reduce greenhouse gas emissions

Carbon markets have been adopted in a number of regions and countries as a method for reducing GHG emissions, and the value of leading carbon markets has now reached some US\$144 billion. These initiatives hold the potential to reduce emissions, but they are also politically created and publicly funded markets trading in an intangible commodity.

The European Union's Emissions Trading Scheme (ETS) has shown that carbon markets are susceptible to undue influence from vested interests, which in the case of the ETS may have contributed to the over-allocation of carbon permits. The result was windfall profits of €6–8 billion for Europe's four largest power producers.¹ Weak governance of these critical markets can create a lose-lose scenario, in which over-allocation of permits and the resulting low

carbon prices provide a disincentive for business to find new low-carbon means of production, and potentially can bring about market collapse.

The path to a green economy should create opportunity for developing countries, by addressing governance concerns directly; the risk if it does not is that global inequalities will be sustained and deepened

The roll-out of renewable energy sources, such as solar and wind power, is crucial to mitigation and requires considerable private investment. According to a recent study in the North Africa region, however, almost 70 per cent of the potential investors interviewed considered regulatory risk, including corruption, to be likely – and a serious impediment to investment.

Significant changes will need to be introduced to bring about a viable low-carbon infrastructure. Many countries believed to be characterized by weak governance or corruption will have a central role to play in this transition. For example, some of the new land required for biofuels, which are slated to comprise 10 per cent of global transport fuels by 2030, is being sought in countries that rank below global averages in the control of corruption, the rule of law and political stability indicators.

Not only land but also minerals such as lithium (demand for which is expected to grow dramatically with the coming of electric cars, for example) are often found in countries that lack strong governance and integrity systems. As these natural resources become crucial to the low-carbon economy, steps must be taken to guarantee transparency in the flows of money that governments receive for access to them. The drive to prevent climate change should not result in a new resource curse, a *green* resource curse, condemning poorer countries to miss the opportunity for economic development while others profit from their wealth in the growth of the green economy. Existing standards such as the Extractive Industries Transparency Initiative (EITI) can play an important role in this regard.²

Building effective adaptation to climate change

Strengthening citizen participation is essential to adaptation governance, as adaptation will take place in countries with high corruption risks

Systems need to be put in place to make sure that the planning and prioritization of projects is transparent and encourages local ownership and long-term sustainability by ensuring the participation of those most directly affected. The introduction of 'direct access' to funds through the Kyoto Protocol Adaptation Fund requires that national entities will need to be established for managing adaptation funds, and that they are equipped with the resources and capacity to fulfil their fund allocation and monitoring role. To date, however, only US\$200,000 has been designated per country for the development of national adaptation programmes of action (NAPAs) in the least developed countries, and it is still unclear how much money will be provided for capacity-building.

In addition, effective adaptation governance ultimately also depends on the functioning of other checks and balances, including courts, law enforcement and a vigorous media and civil society. Broader systems of governance need to be strengthened in many countries where adaptation is needed most. None of the 20 countries most affected by climate change score higher than 3.6 on the Corruption Perceptions Index, in which 0 is extremely corrupt and 10

is very clean. Strengthening adaptation processes is essential, and yet it must be a part of broader governance reforms.

Oversight at the implementation stage is critical to the success of adaptation programmes

Much adaptation to climate change will consist of large-scale infrastructural development, such as enhancing flood control systems or protecting drinking water from salt water infiltration. In construction costs alone, corruption is currently estimated to cost the developing world some US\$18 billion a year. Adaptation without oversight presents a twofold risk of diverted funds *and* substandard work, however, which may put populations at even more risk of climate extremes. In Turkey, where an earthquake killed 11,000 people in 1999, a half of all structures failed to comply with building regulations. Important lessons can be learnt from the humanitarian and development sectors to enhance understanding of how to avoid corruption undermining adaptation efforts, as well as from existing multi-stakeholder initiatives such as the Construction Sector Transparency Initiative (CoST).³

Strengthening coordination, mutual accountability and operational transparency in the governance of adaptation funds is essential to building the trust needed for sustainable climate change policy

The disbursement of adaptation funding extends across various bilateral and multilateral streams, including six specific bilateral climate funds, two World Bank Climate Investment Funds and the UNFCCC and Kyoto Protocol funds, including the new Green Climate Fund. All have diverse governance systems and different rules of engagement, making accountability to those affected by climate change rather complicated. Nearly a half of US pledges for fast-start funding made in Copenhagen and Cancun are to be routed through the World Bank in 2011, and therefore subject to its governance frameworks.

An effective common reporting framework for adaptation funding is essential for tagging and tracking funds that come through the system. At present it remains difficult to distinguish between overseas development assistance and dedicated 'new and additional' adaptation funding. Fixed criteria for 'new and additional' funds will ease measurement and reduce the risks of manipulation. They will also allow the clarity that is necessary for development and adaptation funding to have an impact that is coordinated and of greatest benefit to those most harmed by changes to Earth's climate.

A focus on forestry

Forests play a pivotal role in climate policy, yet a track record of entrenched corruption in the sector demands preventative and proactive action

Enhancing forestry governance is a priority of the highest order to mitigate climate change. High international demand for timber, weak land ownership rights and marginalized indigenous communities present singular challenges to accountable and sustainable forestry. Each year US\$10–23 billion worth of timber is illegally felled or produced from suspicious origins. These practices are aided by legal loopholes and deeply engrained corruption schemes, whereby local power brokers use forest assets not only for personal enrichment but also for buying political support or influence.

These factors need to be addressed early on for REDD (Reducing Emissions from Deforestation and forest Degradation), as the major international initiative to leverage forest policies for climate change. REDD readiness programmes (pledges currently amount to around US\$3.5 billion) have the potential to address some of the national-level capacity loopholes, but are not a panacea for addressing corruption in the sector.

Robust systems for monitoring and reporting are essential to reducing corruption risks and ensuring the sustainability of forest projects

Funds of up to US\$28 billion a year are expected to flow once REDD programmes are fully operational. As has already been observed in mitigation initiatives such as the UN Clean Development Mechanism (CDM), robust monitoring mechanisms have to be put in place in order to avoid the inappropriate validation of projects, the verification of fictitious projects and the overestimation, double-counting or fraudulent trade of carbon credits. These risks are particularly salient for forestry. Oversight in the forest sector is difficult, since much activity takes place in remote areas. Ensuring the sustainability of forests and the security of carbon credits means that measures need to be put in place to ensure that deforestation does not begin once the financial benefits of REDD have been realized (permanence), or relocate to other areas where REDD programmes are not in place (leakage).

Public participation at the local level is essential to the success of forestry governance

Forest communities' full participation in the REDD process is crucial to make sure that they reap the benefits of the REDD programme and that finances to curb deforestation are not diverted. Putting local communities in charge of managing their forests, or at least giving them a big role in this process, can lead to improved forest conditions and local livelihoods. Forest communities are already becoming victims of fraud as carbon brokers and project developers have moved aggressively to secure carbon rights through non-transparent negotiations with government officials. Increased funding for forests will need to be matched with strong coordination and oversight in order to ensure that the money reaches the communities that need it yet does not increase incentives for corruption.

Actions for sustainable climate governance

The *Global Corruption Report* clearly demonstrates that better climate governance will ultimately require the genuine commitment and cooperation of all stakeholders, from governments and business to non-governmental organizations (NGOs), scientists and society at large. Moreover, integrity in climate policy requires an entire system of interlocking checks and balances. Key ingredients and areas for action include the following.

Generating and making publicly available accurate information

This is in terms of who is responsible for what emissions, who is advocating for what policy, which money goes where and for what, what sized carbon footprint should accompany consumption or investment choices, and so on. This kind of disclosure is essential to assign responsibilities more clearly and improve accountability among stakeholders.

Tracking, benchmarking and comparing the capacity and performance of emitters, regulators, funders and governments

Benchmarking diagnostics generate invaluable pressure for accountability, help detect red flags for corruption and identify priorities for governance reform. Some early examples are described in this report and illustrate how important these mechanisms can be, showing, for

example, underperformance on the part of key verification providers in carbon markets and the lack of monitoring capacity for forest carbon issues.

Matching capacity at all levels to the scale of the challenge

A mismatch in enforcement or monitoring capacity means that on-site spot checks are too infrequent – or even completely absent – to be a deterrent, and effectively sanctions corrupt practices. A mismatch between the supply and demand of specialized skills means that key experts end up wearing multiple hats and the potential for conflicts of interests grows. A mismatch between financial flows and the capacity for financial management opens the door to corruption.

Anchoring climate governance firmly in existing frameworks for integrity and accountability

Climate governance must draw on a wide range of existing accountability mechanisms. It can invoke and support the UN Convention against Corruption; it can use and help to develop anti-corruption mechanisms, from ombudsmen to whistleblowing mechanisms; and it can engage with and foster the growing range of social accountability initiatives, from social audits to collaborative monitoring, that are springing up at community level.

A major scaling up of investment and considerable economic change awaits us as a result of climate change. We must accompany this process with the best possible governance we can, to ensure the equitable outcomes we need for the planet and for future generations. Based on the findings of the Global Corruption Report, Transparency International makes the following key proposals to climate stakeholders.

Recommended actions for governments

1 Incentivize and design key climate policy instruments so as to promote independence and reduce conflict of interest

Governments need to make sure that relevant oversight bodies are staffed by salaried professionals, with technical expertise, who have proven themselves to be free from conflicts of interest stemming from personal stakes in carbon markets, offset or adaptation projects or additional representative roles in climate negotiations. Governments should also push for project validators to be hired and paid for their services through a centralized fund rather than by project developers. Environmental agencies and government watchdogs cannot act effectively if they offer services to, or have stakes in, the very same bodies they are meant to regulate. The financial crisis showed us that misaligned incentives and conflicts of interest in rating agencies, for example, can bring markets to the brink of collapse. A repeat of this debacle in the carbon markets would spell both financial and climate disaster.

2 Ensure transparency in flows of funding for mitigation and adaptation

State parties to the UNFCCC must develop standard criteria for reporting on the financing of projects. Monitoring, reporting and evaluation systems need to be adaptable to various contexts, while enabling systematic reporting.

International finance mechanisms should provide clear and consistent guidance to national implementing agencies on the required standards for managing adaptation in their countries, from planning processes through to the management of funds, the implementation of projects and final evaluation. States need to ensure that mitigation and adaptation funds also increase national monitoring and reporting capacity. In the context of adaptation, countries with strong national systems should then be in a position to access financing

directly from international financing mechanisms in order to fulfil adaptation activities, with an emphasis on domestic accountability – from governments to people – in the determination of funding priorities.

3 Monitor and oversee national climate policy and projects effectively

Government subsidies and support for the development of low-carbon infrastructure must be matched by strong oversight and regulatory institutions in order to protect public funds against fraud, particularly when the introduction of infrastructure is technically complex and requires specialized knowledge. National entities should exist with the capacity to monitor the disbursement and implementation of funds and apply tools for identifying corruption in the implementation of projects. They should also create space for independent civil society input into monitoring efforts.

4 Treat anti-corruption safeguards as integral elements in the design of adaptation and mitigation action

It is essential to build checks and balances into the core structures of climate policies as and when they are built. If the financial crises of recent years offer a central lesson, it is that oversight and regulation find it very difficult to play catch-up and restore order after markets have collapsed and trust has evaporated amid fraudulently inflated asset bubbles. Getting oversight and regulations for the carbon market correct from the start is essential in order to avoid a similar fate. Likewise, the green economy provides a boon for some commodities, from lithium in Bolivia to biofuels in Indonesia and to land for solar energy projects in northern Africa. Putting in place public financial management and sound oversight before the revenues start flowing is essential for those countries that stand to profit. The opportunity offered by the green economy must not transform into a green resource curse, similar to the pernicious effect that failed governance has had on oil-rich countries.

5 Step up policy coordination and bring key departments into line on climate change issues

Inconsistencies, ambiguities and loopholes in conjunction with poor policy coordination across departments present potential opportunities for exploitation in terms of arbitrage and corruption. Climate change is the archetypical cross-cutting issue and naturally concerns many parts of the executive arm of government; not everyone is walking in the same direction, however. Climate policies and governance are often inconsistent and ill-coordinated at best and subject to explicit inter-departmental power struggles at worst. Strong leadership, clearly assigned responsibilities and vigorous inter-agency coordination are key, and they need to be strengthened everywhere so as to corruption-proof climate governance.

6 Build robust mechanisms for representation and public engagement that can cope with the increased public demand

Climate change has entered public consciousness to stay. The ensuing upsurge in attention and engagement is understandable, since everyone is a stakeholder – and a custodian of future generations and our common planet. The 90,000 comments received on a key UNFCCC report and record turnouts for the global climate change summits have strained established mechanisms for consultation and engagement to their limit, however. More educational outreach and capacity-building are required if people are to contribute meaningfully, and if governments are to process, channel and aggregate all this attention.

Recommended actions for business

7 Be a powerful voice in climate policy through open engagement and disclosure; it is an essential plank of corporate citizenship and a marker of commitment to climate change

Reporting carbon footprints and carbon policies is not enough. The role of businesses in shaping the response to climate change goes beyond their own emissions. Businesses fight for their interests with lobbying powers that no other interest group can match in scale and sophistication, and they do so increasingly on issues related to climate change. Companies must disclose their climate policy engagement. As important shapers of policy outcomes, they bear responsibility to account for their positions, for the coalitions they participate in and the causes and groups they support. At the international level, business can also play an important part in demanding policy frameworks that set ambitious, fair and sustainable parameters, and should do so openly and in cooperation with other relevant stakeholders. Once companies know what is expected of them, they are in a position to put more productive energy into how to get there, including disclosing their efforts.

8 While going green, adhere to strong compliance, an anti-corruption regime and best corporate governance practice

Business opportunities in adaptation or mitigation activities, such as large-scale infrastructure construction projects or public tenders in other fields, pose many well-known corruption challenges for the private sector. Various tools and action templates to counter these risks effectively are available, from internal training and transparent compliance systems to joint action initiatives such as integrity pacts, the EITI and the CoST to stamp out corruption in specific high-risk situations. Businesses need to embrace these tools firmly and transfer them to their climate-change-related activities.

Given the high percentage of mitigation costs that will have to be borne by companies participating in the financial markets, the time is right to embed the highest standards for transparency and accountability in these emerging market mechanisms.

9 Commit ample resources to transparency, the disclosure of carbon emissions and green climate action

Good internal oversight mechanisms must include transparency. Major companies are now reporting systematically on emissions, but this reporting needs to be easily interpretable by non-expert groups and mainstreamed into sustainability reporting in order to reach the widest group of stakeholders.

Reporting on green action can also extend to other governance areas, such as internal codes of conduct. Such reporting should include the involvement of the board of directors, be set against benchmarks that measure progress over time, be accessible to stakeholders and the broader public when applicable and include independent processes of verification.

Accurate and publicly accessible reporting needs to be accompanied by a strong commitment not to abuse marketing techniques for 'greenwashing' products in an attempt to make them more palatable to climate-change-aware customers. Lifestyle changes and appropriate consumer choices are critical to avoiding a climate crisis. Companies that misrepresent the climate impact of their products fatally undermine this information flow, stall progress in moving towards a climate-friendly economy and, ultimately, erode consumer trust.

Recommended actions for civil society

10 Undertake independent oversight and monitoring in terms of governance and corruption risk in climate change issues

Increasingly, civil society has a critical role to play in measuring countries' commitments to reduce emissions, including the quality of monitoring and reporting, as well as the

disbursement and implementation of climate funding. The fulfilment of these activities could be strengthened by incorporating anti-corruption tools and indicators into existing assessment criteria, however, and promoting 'open budget' and other public sector transparency tools in the climate change arena.

11 Encourage the public's participation in and oversight of policy development at the local, national and international levels

Civil society must play a bridging role, ensuring that the public is aware of national climate policies and decision-making on local projects. Civil society also needs to assist communities to engage with international schemes and, in the case of REDD, ensure that local communities understand carbon rights and retain the use of their resources.

Climate governance includes civil society's active engagement in national and international policy development, which goes some way to guarantee that the voices of the most marginalized are heard. Civil society must nonetheless advocate for a more sustained commitment from institutions and businesses that public participation has to be secured in local, national and international decision-making processes, including the UNFCCC.

Civil society in relevant countries should also seek to engage governments in the development of national action plans for adaptation, mitigation actions and their REDD readiness programmes in order to make sure that transparency and accountability are duly incorporated.

12 Build broader coalitions for integrity in climate governance and ensure that the interests of all stakeholders are represented and taken into account

Civil society is, arguably, more coordinated and sophisticated in its engagement on climate than on any other global public policy issue. Civil society will be even more effective in the climate change arena, however, if it consolidates its diverse areas of experience, from the environment to development, to humanitarian assistance and human rights, to the anti-corruption movement. With environmental NGOs in the lead, civil society coalitions have already taken great steps forward in presenting a unified voice, but much more can be done to raise visibility and create common approaches that cut across different NGO sectors. Conversely, much more can be done to integrate and mainstream anti-corruption approaches into the work of climate change organizations. It is hoped that the Global Corruption Report will contribute to greater NGO cooperation on this urgent issue.

Part 3: Using the Global Corruption Report

This section looks more closely at the content of the GCR that holds national-level relevance.

3.1 Climate governance

What is 'climate governance'?

'Climate governance' can be understood as the processes that currently exist at the international, national, corporate and local levels to address the causes and effects of climate change. This incorporates international conventions, norms and regulations, which are applied through intergovernmental institutions, compliance mechanisms and funding bodies.

Good climate governance needs to be at the centre of effective responses to climate change, including the disbursement and use of huge finances. The current system of climate governance, however, is diverse and fragmented, and lacks connectivity to those most affected by climate change. Efforts to strengthen the architecture of climate governance will therefore have to build in safeguards against risk, including corruption risks, in order to build trust and having meaningful effect on the ground.

What are the current challenges in climate governance?

The basis of climate policy remains **climate science**. Recent allegations of non-transparency by scientific peer-review bodies illustrate the need to instill a stronger culture of transparency and enhance the capacity of these processes to respond to public comments during peer review processes, in order to strengthen public trust. The same transparency also still needs to be applied to developments in **geoengineering**, which, in the absence of any international requirements for disclosure, are currently shielded from public scrutiny and debate.

For articles in the GCR that address climate science, see: 3.1, Sheila Jasanoff, Climate science: the world is its jury. On geoengineering, see Graeme Wood, 4.9, Engineering the Earth: considering accountability and the last resort.

A current **lack of trust** in international forums is one of the reasons that a fully functioning system of climate governance is not yet in place. The present mistrust is founded on suspicion among states in international negotiations, particularly between those that are historically responsible for climate change and those that are most likely to suffer its effects. At the same time, civil society faces its own challenges of ensuring representation of interests at the international level. Nonetheless, states have now converged around the need to develop clear rules and compliance mechanisms for mitigation and adaptation.

For articles in the GCR that address lack of trust at the international level, see: 1.0 Defining the challenge; 2.1 Peter Newell, From global power politics to collective governance; 3.6 Anthony Giddens, Personal view: a fresh approach to climate politics

The **limited provision for public participation** in the UNFCCC has also resulted in slow institutional responses to the need for wider engagement and access to information, which would lead to increased public ownership in the process. Access to information, while in principle supported, can still be improved in practice.

For articles in the GCR that address public participation and access to information in international processes, see 2.1 Peter Newell, From global power politics to collective governance; 3.3 Michael Stanley-Jones, The Aarhus Convention; 3.4 Gareth Sweeney, Civil society and the climate change process.

Policy capture and undue influence are fundamental risks. The scale of the transition has created powerful national lobby groups and 'astroturf' organisations, which can adversely affect progress through undue political influence and media manipulation. Where carbon markets have been established, market players are seen to be involved in setting the rules to their benefit. As a result of lobbying activities, the power sector, for example, has a surplus of permits far above its actual emissions in Europe.

For articles in the GCR that address undue influence, see: 2.1.1, Anne-Therese Gullberg, Business and NGO lobbying on EU climate policy; 2.2.2., Paul Blumenthal, US climate policies: A snapshot of lobbyist influence

Conflict of interest is a pervasive corruption risk in climate governance at the international and national level. In Spain a number of civil servants allegedly authorised licences for photovoltaic plants to companies owned by relatives (Calleja, 4.7.1). At the international level, CDM Executive Board members are not excluded from occupying conflicting positions, such as membership of national approval boards, for example (Schneider, 4.3).

For articles in the GCR that address conflicts of interest, see 4.3, Lambert Schneider, The trade-offs of trade: realities and risks of carbon markets

Resources of organisations and experts

Global Corruption Report experts:

Paul Blumenthal, Sunlight Foundation
David Dodman and David Satterthwaite, International Institute for Environment and Development (IIED)
Anne Therese Gullberg, Center for International Climate and Environmental Research (CICERO)
Peter Haas, University of Massachusetts
Sheila Jasanoff, Harvard University
Shahanaz Mueller, Deloitte Forensic & Dispute Services
Peter Newell, University of East Anglia
Sudhir Chella Rajan, Indian Institute of Technology

Organisations:

Transparency International Climate Governance Programme:

lclges@transparency.org

Climate Policy Initiative: <http://www.climatepolicyinitiative.org/>

Mary Robinson Foundation: Climate Justice: <http://www.mrfcj.org/>
World Resources Institute: Projects in Governance and
Access: <http://www.wri.org/projects/governance>

3.2 Mitigation

What does mitigation mean in relation to climate change?

Mitigation refers to strategies, programmes or policies for reducing global emissions of greenhouse gases, or increasing the capacity of natural or manmade systems to sequester or maintain carbon dioxide (CO₂). Natural CO₂ sinks include forests and oceans, while human-made methods for sequestering carbon, such as through a system called carbon capture and storage are currently in development, though potentially years from being ready.

Strategies for reducing global greenhouse gas (GHG) emissions include increasing energy efficiency; large scale introduction of renewable or alternative energies, such as solar, wind or hydro energy; the introduction of emissions trading schemes, or carbon markets (see below); and changing consumption and lifestyle patterns towards more climate-friendly strategies.

The Global Corruption Report does not try to identify the best solutions for climate change or the options least susceptible to corruption. Instead it considers some of the major themes in the current debate on climate change—effective measurement of GHGs, prevalence of carbon markets, business responsibilities in relation to climate change, the transition to a low carbon economy—and considers transparency opportunities and risks associated with each.

Why is measuring greenhouse gas emission correctly so important?

Accurate measurement, reporting and verification (MRV) of greenhouse gas emissions is essential because this information informs the design, implementation and enforcement of strategies to reduce emissions and slow or stop climate change. Some examples of how GHG measurement is used include:

- The **Kyoto Protocol** relies on national GHG inventories to determine whether participants meet their agreed-upon emissions limits,
- **carbon markets** require standardized methodologies to confirm that emissions reductions credits accurately reflect the amount of emissions reduced,
- **corporate** executives and investors rely on GHG inventories to assess financial or reputational risk associated with their emissions
- **consumers** increasingly call for information on emissions of various products to make informed choices. (Fransen, 4.1, p. 107).

Who measures emissions?

Parties to the UN Framework Convention on Climate Change have to keep national GHG inventories; regulation often mandates that major industrial installations must keep GHG inventories, while many corporations not regulated by law may nevertheless choose to develop voluntary inventories. Responding to investor or consumer demand, many

companies now track emissions associated with a specific good or service. Finally, project-level emissions accounting is necessary to quantify the impact of GHG mitigation projects that generate emissions reductions credits for sale in carbon markets. (Fransen, 4.1, p.108)

What are the risks in measurement?

If measurements are intentionally or unintentionally incorrect or inaccurately reported, mitigation strategies or projects based on those measurements may not achieve the climate benefits they are designed to. While great strides have been made in improving GHG reporting standards, there are still areas where GHG information is sparse or some GHG accounting elements are open to manipulation (Fransen, 4.1, p.107-108).

Double-counting is one problem. At the moment, if a company is meeting a voluntary goal to reduce emissions, it can reduce its emissions from a source, claim that as a reduction in its GHG inventory, and then sell credits from the emissions reductions to another company that wants to exceed its emissions reductions target. Thus the emissions reductions are counted twice: first by the company that actually reduced the emissions, and then by the company that purchased the emissions reductions credits (Fransen, 4.1, p.111).

Double-counting could also be a problem as developing countries start to develop mitigation strategies. If these countries have emissions reductions projects registered under the Clean Development Mechanism (see below), it is possible that these emissions reductions will be counted twice—once against the country's national emissions reduction target and a second time by the company or country that purchases the emissions reductions credit to *offset* their own emissions. (Fransen, 4.1 p.111; Osornio, et. al, 4.2, p.124)

Capacity to measure, report and verify (MRV) emissions is also a serious challenge at national and international level. Historically, developing countries (or, non-Annex 1 countries) have not had the resources to develop ongoing GHG inventories (Fransen, 4.1, p.113). More international funding and support is expected to be dedicated to helping developing countries build ongoing and comprehensive GHG inventories, but capacity must also be in place at the UN level to ensure that these GHG inventories, as well as the inventories of developed (Annex-1) countries, can be reliably verified. At present there is a shortage of qualified technical reviewers to oversee Annex-1 inventories—a shortage that will be exacerbated by more frequent inventory submissions from developing countries. Without enough qualified reviewers in place, deliberate or unintentionally incorrect emissions data can go unnoticed.

Conflicts of interest in emissions verification on mitigation projects (see below).

See also: **REDD/Forestry section in this User's Guide.**

For articles in the GCR that address GHG measurement, see:

- 4.1 Taryn Fransen, Greenhouse gas accounting: a foundation for sound climate governance;
- 4.2 Juan Pablo Osornio et. al, Measuring, reporting and verification of NAMAs and their support: considering capacity, corruption and commitments;
- 4.3 Lambert Schneider, The trade-offs of trade: realities and risks of carbon markets;
- 4.3.5 Gernot Wagner et. al, Sectoral crediting: getting governance right from the beginning;
- 6.3 Christopher Barr, Governance risk for REDD+: how weak forest carbon accounting can create opportunities for corruption and fraud.

3.2.1. Carbon Markets

What are carbon markets? How do they work?

Because of their prevalence in the debate on mitigation approaches, carbon markets receive considerably more attention in the report than other methods of reducing emissions (such as energy efficiency policies, renewable portfolio standards, or changes in consumption habits). While many consider carbon markets to be a low-cost and efficient method for reducing global emissions, others have voiced concern that the markets are vulnerable to significant shortcomings in transparency, open to corruption, and at risk of gaming.

Broadly speaking, carbon markets take two forms, cap-and-trade and offsetting.

Cap-and-trade: Governments or intergovernmental bodies determine a cap on the total amount of GHGs that can be emitted by participating regions, countries or companies and then auction or freely distribute allowances to participants. The entities must surrender an allowance for each tonne of carbon they emit. Participants that release fewer tonnes of emissions than allowances they hold may sell their unused allowances to companies or countries that need additional allowances to cover their emissions. (Schneider, 4.3, p. 131)

Under the Kyoto Protocol, 40 developed countries agreed to participate in a cap-and-trade scheme. In addition to this international trading scheme, the most prominent cap-and-trade scheme is the European Union's Emissions Trading Scheme (EU ETS), which covers nearly a half of European CO₂ emissions. Other schemes exist in New Zealand, and the northeast United States, and many other schemes are under discussion around the world (Schneider, 4.3, p.131)

Offsetting: With offsetting, entities regulated by an emissions cap can offset their emissions by purchasing credits generated by emissions reductions from uncapped sources, such as projects to reduce emissions in developing countries.

The UN Clean Development Mechanism is the most well-known offsetting mechanism: emissions reductions projects earn certified emission reductions which are then purchased by industrialised countries to meet their reduction target. Joint Implementation is a similar, but much smaller programme, enabling an industrialised country (or a private entity in that country) that is committed to an emissions cap to finance a GHG reduction project in another country that also has an emissions cap. (Schneider, 4.3, pp. 131-132).

Voluntary carbon markets: In addition to these compliance markets, there are also voluntary carbon markets. Actors in these markets are not driven by a mandatory emissions cap, but are often businesses that expect they will have to reduce emissions under an eventual compliance system, or that wish to offset their emissions as part of their corporate responsibility efforts. Governments or individuals may also participate in the voluntary market to offset their own emissions. (Marcello, 4.3.3, p. 155)

What are some major risks in carbon markets?

Carbon markets present some unique challenges:

- The commodity that is traded—GHG emissions allowances—exist as a result of political regulation, with the initial distribution of the commodity being politically defined.
- These are new markets, regulatory oversight also has to be built from the ground up and is susceptible to influence from vested interests.
- Neither buyer nor seller has an inherent interest in the quality of the commodity. Buyers do not face compliance risks if they purchase allowances that do not represent real emissions reductions. Maintaining the integrity of the market might be more difficult. (Schneider, 4.3, p. 132).

Other major risks are associated with:

Setting an ambitious cap: An emissions cap set too high creates an abundance of permits, potentially leading to no emission reductions at all, and creating little incentive for investment in low-carbon technology. Entities regulated under a cap-and-trade system may have an incentive to lobby for a generous cap as the system is being established. (Schneider, 4.3, pp. 132-133).

Issuing allowances: Regulated industries either receive emissions via auction or for free (or through some combination of the two). Regulated industries have an incentive to lobby for free allocation of allowances, but receiving free allowances means that polluters do not pay for their emissions. In some cases regulated industries have received allowances for free and then attributed a monetary value to the permits which they passed on to their consumers. (Schneider, 4.3, pp. 133-134). A case study from Hungary illustrates how vested interests may have tried to influence the issuing of allowances in that country (Baranyai, 4.3.2, pp. 148-150).

Offsets additionality: For offset projects to create real emissions reductions, they must be proven to be additional—meaning that it must be demonstrated that projects could not be implemented without the revenues earned from selling offset allowances. If the projects would have happened even without this added financing, then they actually increase total emissions. This is because the offset project entitles an entity that purchases the allowance to increase their emissions. With no real corresponding deduction in emissions, the result is a net increase (Schneider, 4.3, pp.134-135).

Demonstrating additionality is difficult because it requires showing the intention of the project developer when he or she took investment decisions. Such an assessment can be very subjective, and it is likely that a number of approved mitigation projects are not additional. Likewise, demonstrating that real emissions reductions have occurred because of mitigation projects is based on consideration of a hypothetical situation in which no project was introduced.

Offsets sustainability: In both the CDM and voluntary markets, offset projects should contribute to sustainable development. In practice however, sustainable development benefits of offset projects are often low. With the CDM, host governments that must approve a project's sustainable development benefits face financial losses if they reject projects. If private sector purchasers of offset credits fail to ensure the sustainability of the projects they support, they can contribute to damaging communities and put themselves at reputational

risk (Schneider, 4.3, pp. 136-137, Marcello, 4.3.4, pp.159-160). A case study from TI Sri Lanka suggests that procedures for demonstrating environmental sustainability are not always as robust as they need to be (TI Sri Lanka, 4.3.3, pp.151-154).

Third-party verification: Private accredited companies or individuals are responsible for ensuring the quality of emissions reductions projects and verifying that emissions reductions correspond to the claims made by the project developers. Many problems have been identified with the validation/verification process, but one of the most concerning is that verifiers are paid directly by the project developer, challenging the independence of verifiers (Schneider, 4.3, pp. 137-138).

Effective market oversight: The institutions that oversee the carbon markets must be independent and technically informed. In the case of the CDM Executive Board, the potential for conflict of interest is present since board members can also hold roles as climate change negotiators, or manage large government CDM purchasing programmes, for instance. Board members are asked to rely on 'personal discretion' in determining whether conflicts of interest exist. In addition to avoiding conflicts of interest, the markets must have enough oversight to protect against fraudulent behaviour, such as VAT fraud (Schneider, 4.3, pp. 139-140).

Managing public assets: Depending on the market, some assets generated may be held in public coffers and as such must be managed with accountability and transparency (Schneider, 4.3, pp. 140-141). A case study from TI Slovakia demonstrates that this is not always the case (TI Slovakia, 4.3.1, pp.145-147).

For articles in the GCR that address carbon markets, see:

- 4.3 Lambert Schneider, The trade-offs of trade: realities and risks of carbon markets;
- 4.3.1 Emília Sičáková-Beblavá and Gabriel Šípoš, Slovak public see no credit in government's carbon trading;
- 4.3.2 Gábor Baranyai, Permit politics: Hungary's CO₂ allowances
- 4.3.3 TI Sri Lanka, Shortcomings and short cuts: Sri Lanka's Environmental Impact Assessments
- 4.3.4 Thomas Marcello, Voluntary carbon markets: successes and shortfalls
- 4.3.5 Gernot Wagner et. al., Sectoral crediting: getting governance right from the beginning;
- 6.3 Christopher Barr, Governance risk for REDD+: how weak forest carbon accounting can create opportunities for corruption and fraud.

What sort of responsibility does the private sector have with regard to stopping climate change?

The private sector will be a major factor in whether and how climate change is slowed or stopped. Businesses need to reduce the amount of emissions associated with the provision of goods and services and have to be a major driver shift towards a low-carbon infrastructure.

In addition to measuring and reporting on their emissions through mandatory or voluntary reporting programmes, businesses have a number of responsibilities with regards to combating climate change (Schuchard and Ediger, 4.5, p. 170). The article on the voluntary carbon markets describes the need for due diligence by private sector companies who

purchase offset credits. In addition, the private sector needs to be clear and direct in its policy disclosure and honest in its public commitment to addressing climate change:

Transparent policy engagement: In Europe and North America especially, the business lobby has considerable weight in climate change policy making (see articles by Blumenthal and Gullberg, part 2). the GCR suggests the introduction of mandatory lobbying registries where they are not already existing in order to shed light on who is lobbying on climate change issues, who is being lobbied and how what sums of money are being spend (see pages xxviii, and p.150).

While the private sector can be a positive force for climate change action, undue influence on the climate change policy process can also result in weak climate change legislation, or a stop on action altogether (Levy, 4.4, pp. 166-167, Schuchard and Ediger, 4.5, pp. 171-171).

Regardless of the actions governments can take, the private sector must do more to engage responsibly on the issue of climate change. Transparency in policy engagement on climate change can take the form of any number of actions. Responsible and comprehensive reporting on climate change must occur alongside basic elements including:

- Disclosing corporate processes
- Engaging the board of directors in climate policy
- Seeking independent verification of results. (Schuchard and Ediger, 4.5, pp. 172-173).

A case study from *Transparencia por Colombia* discusses how a survey used to track and improve corporate governance among utility companies has relevance for increasing transparency and consumer understanding about energy efficiency and other climate-related issues. (Balcázar et al., 4.5.1, pp. 175-179)

Honest advertising: As climate change becomes more of a concern, claims of 'greenwashing' abound. Greenwashing is the use of publicity to convince consumers that a product or service is more environmentally benign than it really is, or to suggest that the benefits of one green product extend to an entire company or industry (Pearce, 4.6, p. 180).

Government standards have gone some way in helping control greenwash, but to be truly meaningful, these standards must be strengthened. Consumers can also play a positive role by 'naming and shaming' instances of greenwash, but ultimately, companies must meet the public expectation that their products are services are represented as no less and no more climate-friendly than they actually are (Pearce, 4.6, pp. 184-185).

Other business responsibilities follow below, in the discussion of a potential "green resource curse".

For articles in the GCR that relate to business influence and responsibility towards climate change, see:

- 2.2 Anne Therese Gullberg, *Equal Access, unequal voice: business and NGO lobbying on EU climate policy*
- 2.2.2 Paul Blumenthal, *US climate policies: a snapshot of lobbyist influence*
- 2.4.1 Sudhir Chella Rajan, *Vested or public interest? The case of India*
- 4.3.2 Gábor Baranyai, *Permit politics: Hungary's CO₂ allowances*
- 4.3.4 Thomas Marcello, *Voluntary carbon markets: successes and shortfalls*
- 4.4 David Levy, *Climate change, corporate change: shifting business models towards the climate change*

4.5 Ryan Schuchard and Laura Ediger, Policy engagement: a missing link in corporate reporting
4.5.1 Alma Rocío Balcázar et. al., Colombia: measuring transparency policies and mechanisms in public utilities
4.6 Fred Pearce, Enabling green choices: ensuring consumers receive accurate, actionable information on the climate change impacts of their consumption choices
4.8 Stefan Bringezu and Raimund Bleischwitz, Preventing a resource curse fuelled by the green economy

What kinds of risks are specifically associated with development of green infrastructure?

Earlier chapters in the governance section of the report argue that even as green industry gains a louder voice in political debate, there is no guarantee that the most appropriate solutions are being supported by governments. Instead, it may mean that green industries which command the most political sway—rather than the industries that hold the most potential for low-carbon transformation—may be the recipients of government support. (Blumenthal, 2.2.2, p. 48)

Governments must recognise that corruption in their countries may serve as a damper to private sector investment in renewable energy. An initial study of the introduction of renewable energy sources in North Africa suggests that investors perceive corruption and poor-quality bureaucratic procedures to be a possible disincentive towards investing in solar power in these countries, as these risks increase the cost of investment (Komendantova and Patt, 4.7, p. 187-193).

Governments that introduce financial incentives to roll-out renewable energy will have to match these initiatives with sufficient oversight mechanisms to ensure that corruption does not undermine these good intentions (TI Spain, Tono Calleja, 4.7.1, pp. 194-196).

Finally, development of a green infrastructure will lead to greater demand on a number of natural resources, notably, land—for use in biofuels, and certain minerals and metals, like lithium, gallium or rare earth metals, for use in the low-carbon technologies. Many of the countries that possess these natural resources in abundance also rank poorly in governance indicators that include 'corruption', 'law and order' and 'bureaucratic quality' (Bringezu and Bleischwitz, 4.8, p. 197).

Many things can be done to prevent a replay of the resource curse in these countries, including building on initiatives such as EITI or Publish What You Pay to promote disclosure of industry payments and host government earnings for these resources. Companies purchasing land in foreign countries should sign codes of conduct that promote adherence to social and environmental standards and consultation with affected communities. International conventions such as the UN Convention against Corruption can also help to thwart a green resource curse by criminalising bribery of public officials and making it more difficult to hide assets illegally gleaned from resource revenues (Bringezu and Bleischwitz, 4.8, pp. 202-204).

An article on the development of lithium exploitation in Bolivia explores the need for continued public access to information and widespread public participation (Ribera and Requena, 4.81., pp. 207-210).

For articles in the GCR having to do with the transition to climate-friendly infrastructure, see:

- 2.2.2 Paul Blumenthal, US climate policies: a snapshot of lobbyist influence
- 2.3 David Dodman and David Satterthwaite, Urban governance and climate change policy
- 2.4 Sudhir Chella Rajan, Vested or public interest? The case of India
- 4.7 Nadeja Komendantova and Anthony Patt, Could corruption pose a barrier to the roll-out of renewable energy in North Africa?
- 4.7.1 Tono Calleja, Spain: Can incentivising solar energy invite fraud?
- 4.8 Stefan Bringezu and Raimund Bleischwitz, Preventing a resource curse fueled by the green economy.
- 4.8.1 Marco Octavio Ribera and Cecilia Requena, Bolivia’s lithium, opportunities and challenges

What is geoengineering? Why is it mentioned in the report?

Geoengineering—the intentional manipulation of the Earth and its atmosphere on a planetary scale—is being considered by some scientists as a last-ditch effort for addressing some of the impacts of climate change. Geoengineering is often viewed with scepticism because it could distract from the urgent need to reduce greenhouse gas emissions, and because there is no regulatory apparatus to control research or trials of geoengineering techniques. Though it could be easy for private sector interests or single nations to engage in geoengineering, for example by dimming the Sun with artificially-enhanced cloud cover or by removing and storing carbon found in the atmosphere, the results could be felt globally and with uneven consequences across regions. While it is likely that research on geoengineering will move forward, the article in the GCR points to some of the risks currently associated with a lack of accountability in this research and calls for a wide and inclusive debate on how and whether geoengineering research should develop and how (Wood, 4. 9, pp. 211-214).

See, 4.9 Graeme Wood, Engineering the Earth: considering accountability and the last resort

Resources: Experts and Organisations

Global Corruption Report Experts

Taryn Fransen, World Resources Institute

Juan Pablo Osornio, Abt Associates

Ingmar Schumacher, Banque Centrale du Luxembourg

Lambert Schneider: formerly of the Öko Institute, now with the UNFCCC

Thomas Marcello, Bloomberg New Energy Finance

Gernot Wagner, Environmental Defense Fund

David Levy, University of Massachusetts

Ryan Schuchard, Laura Ediger, BSR (formerly, Business for Social Responsibility)

Fred Pearce, Author and Columnist

Nadejda Komendantova, International Institute of Applied Systems Analysis

Marco Octavio Ribera, Liga de Defense del Medio Ambiente
Graeme Wood, Journalist

Organisations

GENERAL

Center for Clean Air Policy: www.ccap.org

Center for Public Integrity-Climate Change Investigation:
www.publicintegrity.org/investigations/climate_change/

Germanwatch: www.germanwatch.org/klima/en.htm

Pew Center on Global Climate Change: www.pewclimate.org

World Resources Institute: www.wri.org

Germanwatch: www.germanwatch.org/start/english.htm

World Bank Climate Investment Funds: www.climateinvestmentfunds.org

EMISSIONS REPORTING

Carbon Disclosure Project: <https://www.cdproject.net>

GHG Protocol: www.ghgprotocol.org/

IPCC Taskforce on Greenhouse Gas Inventories: <http://www.ipcc-nggip.iges.or.jp>

UNFCCC Reporting Requirements:

http://unfccc.int/national_reports/annex_i_ghg_inventories/reporting_requirements/items/2759.php

ON CARBON MARKETS

Bloomberg New Energy Finance: <http://bnef.com/> (subscription service)

CDMWatch: www.cdm-watch.org

The Corner House: www.thecornerhouse.org.uk

'Carbon Trading: How it works and why it fails' *Critical Currents*, Dag Hammarskjöld Foundation Occasional Paper Series, 2009. (Available at:

<http://www.dhf.uu.se/publications/critical-currents/carbon-trading-%e2%80%93-how-it-works-and-why-it-fails/>)

Ecosystems Marketplace: www.ecosystemmarketplace.com

Environmental Defense Fund: www.edf.org

European Commission on EU ETS: http://ec.europa.eu/clima/policies/ets/index_en.htm

UN Clean Development Mechanism: <http://cdm.unfccc.int/>

UN Joint Implementation:

unfccc.int/kyoto_protocol/mechanisms/joint_implementation/items/1674.php

International Emissions Trading Association: www.ieta.org

Point Carbon: www.pointcarbon.com (subscription service)

World Bank State of the Carbon Markets 2010: (Available at:

http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/State_and_Trends_of_the_Carbon_Market_2010_low_res.pdf)

ON ADVERTISING

AccountAbility: www.accountability.org

Consumers International: www.consumersinternational.org

Greenwashing Index: www.greenwashingindex.com/

Sins of Greenwashing: www.sinsofgreenwashing.org/

ON LAND ACQUISITION FOR BIOFUELS

International Institute for Environment and Development: www.iied.org

The Oakland Institute: www.oaklandinstitute.org

Wuppertal Institute for Climate, Environment and Energy (Research Group 3: Material Flows and Resource Management): www.wupperinst.org

FIAN: www.fian.org

UN Food and Agriculture Organization (FAO) <http://www.fao.org/nr/tenure/voluntary-guidelines/en/>

World Bank Report: 'Rising global interest in farmland: Can it yield sustainable and equitable benefits?' (Available at www.landgovernance.org/node/76)

ON GEOENGINEERING

ETC Group: www.etcgroup.org

The Royal Society (UK): <http://royalsociety.org/Geoengineering-the-climate>

3.3 Adaptation

What does adaptation mean in relation to climate change?

Adaptation to climate change involves 'adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities'. In the context of climate governance, international commitments under the UNFCCC, primarily for developed countries, require that states both mitigate emissions of greenhouse gases, but also assist most affected countries to adapt to the already present effects of climate change.

What are the corruption risks related to adaptation finance?

The focus of international attention on adaptation relates to the generation, management and transfer of funds. The framework is currently very fragmented, comprising of various funds under the UNFCCC processes [key among these are the Green Climate Fund, Adaptation Fund], multilateral banks [including the Climate Investment Funds, or CIFs], bilateral donors and in the form of development aid (Klein, p. 220-222; Dobson p. 234) This fragmentation makes it difficult to track states contributions against their commitments, and to separate required 'new and additional' funding from already-earmarked official development assistance. There is currently no centralised system to tag and track adaptation finance, raising the risk of **double-counting contributions**.

For articles in the GCR that address the framework for adaptation funding, see:
5.1 Richard Klein, Show me the money; Ensuring equity, transparency and accountability in adaptation finance
5.1.1 Rebecca Dobson, Fast track funding; Is there an emerging parallel structure for climate finance?
5.2 Britta Horstmann, Promoting an effective and transparent use of funds through the Adaptation Fund

The composition of decision-making bodies such as the CIFs can also give rise to risks of personal **conflicts of interest** or **undue influence by donor countries**, although the composition of bodies such as the Adaptation Fund has set the standard in ensuring more equitably representative bodies (Horstmann, p. 246). **Limited access to information and public participation** in the approval of projects and the disbursement of funds also limits oversight by persons on the ground most affected by climate change, and most informed to assess the local sustainability of projects.

For articles in the GCR that address the composition of funding bodies, see:
5.1 Richard Klein, Show me the money; Ensuring equity, transparency and accountability in adaptation finance
5.1.1 Rebecca Dobson, Fast track funding; Is there an emerging parallel structure for climate finance?
5.2 Britta Horstmann, Promoting an effective and transparent use of funds through the Adaptation Fund

What other corruption risks exist in relation to adaptation to climate change?

It is well established that the poorest countries, and those least responsible for climate change, will suffer the worst consequences. It is also prevalent that many of the most affected countries operate under poor systems of governance.

Infrastructure: Adaptation to climate change will largely involve 'adaptations' to ongoing development activities, or have the same character as such activities. Investment in large scale infrastructure, for example, will run the risk of falling foul to the same corruption risks that affect the construction sector, from needs assessments to bid designs (where corruption can skew priorities), contract awards, implementation, and final accounting and auditing of projects. (Lewis, p. 257) This can be exacerbated by the lack of specialised expertise in adaptation construction, increasing procurement monopolies and exposing communities to further vulnerability through poor construction (Lewis, p.255). The Global Corruption Report provides examples of existing tools that can be applied to identify such risks and implement standards, such as the Project Anti-Corruption System (PACS) , which covers all elements from monitoring to procurement commitments, through to reporting and enforcement. (Krishnan, p. 264)

For articles in the GCR on climate proofing development:

5.3 James Lewis, Climate proofing development: corruption risks in adaptation infrastructure

5.3.1 Chandra Krishnan, Climate change, infrastructure and corruption

Migration: One of the most extreme forms of adaptation to climate change is mass migration due to increased scarcity of resources, bringing increased inequality, insecurity, conflict and increased susceptibility to corruption risks, from checkpoint bribery and rent-seeking, embezzlement of relocation funding, to official complicity in trafficking of persons overseas (Boas and Dobson, p. 277). Current gaps in legal protection for climate refugees, and the failure to recognise climate migrants as a specific group under the UNFCCC, mean that the normative framework for protection is at a very early stage.

Humanitarian assistance: Disaster response programmes have also been shown to be vulnerable to corruption on account of the external environment and limited internal controls. The likely sudden injections of resources into disaster prone areas due to climate change increases the need to strengthen control and oversight of humanitarian assistance efforts (Hees, p. 288).

For articles on increased corruption risks on account of the effect of adaptation:

5.4 Ingrid Boas and Rebecca Dobson, Disrupting lives: climate migration and corruption

5.4.1 Sheila Masinde and Lisa Karanja, The plunder of Kenya's forests: resettling the settlers and holding the loggers accountable

5.4.2 Grit Martinez and Teun Bastemeijer, Climate change adaptation and water integrity: a global challenge to address local realities

5.5 Roslyn Hees, When disaster strikes: corruption and rapid response in climate-related relief and recovery

Resources of organisations and experts:

Global Corruption Report external experts:

Richard J. T. Klein, Stockholm Environment Institute
Adil Najam, Boston University
Britta Horstmann, German Development Institute
James Lewis, Datum International
Segundo Romero, De La Salle University, and Aileen Laus,
The Asia Foundation, Philippines
Grit Martinez and Teun Bastemeijer, Water Integrity Network
Roslyn Hees, Transparency International

Organisations:

Adaptation Fund: <http://www.adaptation-fund.org/>
Construction Sector Transparency Initiative: <http://www.constructiontransparency.org/>
Germanwatch Adaptation Fund NGO Network: <http://www.germanwatch.org/klima/af.htm>
Global Environmental Facility, adaptation: <http://www.thegef.org/gef/adaptation>
Global Environmental Governance: <http://www.environmentalgovernance.org/>
International Institute for Environment and Development:
<http://www.iied.org/theme/1/Evaluating%20Adaptation/projects>
International Organization for Migration: <http://www.iom.int/jahia/Jahia/activities/by-theme/migration-climate-change-environmental-degradation/cache/offonce/>
Overseas Development Institute:
<http://www.odi.org.uk/work/themes/details.asp?id=6&title=climate-change>
Stockholm Environment Institute: <http://sei-international.org/regional-knowledge-sharing>

Transparency International Climate Governance Programme:
contact, Lisa Elges: ljelges@transparency.org

3.4 REDD+/Forestry

Why does the GCR have a special section on forestry?

Deforestation has serious consequences for whether we will be able to mitigate climate change. Land-use changes, including deforestation, are responsible for about 18 per cent of annual greenhouse emissions (Alley, 6.1, p. 299).

This special section of the GCR focuses on the current roll-out of the United Nations Reducing Emissions from Deforestation and forest Degradation (REDD) programme. REDD, and especially the version now on the table and known as REDD+, presents opportunities to address ongoing governance challenges associated with forestry, but introduces the potential for new forms of corruption as well. As REDD+ was formally endorsed by the Conference of Parties in Cancún, understanding both the opportunities and risks presented by REDD is extremely important for stakeholders based in countries that will host REDD+ programmes.

Why is forest governance such a challenge?

Corruption and illegality are notoriously pervasive in the tropical timber industry. The World Bank estimates that each year US\$10-23 billion worth of timber is illegally felled or produced from suspicious origins (Alley, 6.1, p. 299). The majority of the world's forests are owned by governments (see next section) and while indigenous groups and local communities often have long-standing and legitimate claims to the forests on which they depend, these groups usually have only minimal legal authority to manage the forests (Hatcher/Bailey, 6.2, p. 319).

Illegality in the forestry sector is marked by corruption in the bidding process for logging concessions, forest management related to concessions, over-harvesting, under-declaring timber volumes, cutting outside permitted areas tax evasion and state failure to prosecute perpetrators (Alley, 6.1, p. 300). Political leaders bestow exploitation rights on key ministers and military or business elites in return for political, military or financial support, and corruption often persists down to local forestry authorities.

Such illegality is supported by external drivers including a failure by the international community to address corruption even as it supports national forest strategies and individual logging operations, and persistent international demand for cheap timber (Alley, 6.1, p. 301).

For articles on Forest Governance see:

6.1 Patrick Alley, Corruption: A root cause of deforestation and forest degradation

6.1.1 Iftekhar Zaman and Manzoor e-Khuda, Climate change and corruption leave the world's largest mangrove forest in peril

6.2 Jeffrey Hatcher and Luke Bailey, Governance in the world's tropical forests: Where will REDD+ land?

What is REDD+? How will it work?

The importance of forests in mitigating climate change led to the formal introduction of REDD at the 2007 conference of the UN Framework Convention on Climate Change (UNFCCC). REDD is an incentive-based mechanism for developing countries to protect standing forest and rehabilitate degraded forests. REDD+ aims to provide further incentives for the conservation and enhancement of carbon stocks.

It is expected that once REDD+ programmes become fully operational, they will disburse up to US\$28 billion/year to reduce deforestation by up to 50 per cent (Barr, 6.3, p. 329).

The institutional architecture of REDD+ is still evolving, but two models of REDD+ programmes are envisaged:

Fund-based models will channel REDD+ financing to recipient countries and projects through a dedicated fund established by the UNFCCC COP. Financing options are currently being explored by the UN Ad-Hoc Working Group on Long-term Cooperative Action, which will report on its recommendations at the COP17. At present, funding for UN REDD is provided through multilateral and bilateral channels.

Market-based models link forest-related emission reductions with the demand for carbon offsets in global carbon markets. Tropical countries would be compensated for reducing forest carbon emissions and/or enhancing carbon stocks relative to a national baseline. REDD+ carbon credits would be traded in either voluntary or compliance markets. In compliance markets carbon emitters in developed countries would purchase REDD+ carbon credits to offset their own emissions (Barr, 6.3, p. 330-331).

Does REDD+ help stop corruption or does it create corruption risks?

REDD+ can improve forest governance by increasing funding for governance reforms, greater scrutiny of the national forestry sector and the creation of new opportunities for forest communities to claim their rights from the central government. (Hatcher/Bailey, 6.2, p. 315-316).

Yet the massive influxes of cash provided under REDD+ will need to be protected against corruption and mismanagement from recipient country governments. For REDD+ to be successful, changes are needed in two key areas:

Institutional Governance: Political stability, rent-seeking, property rights and transparency need to be addressed at the institutional level in countries that will receive REDD+ support. Many of the countries that will participate in REDD+ suffer very high levels of corruption and poor governance (Alley, 6.1, p. 299, Hatcher/Bailey, 6.2, p. 317). Weak institutional capacity could prevent accurate reporting of emissions on which REDD+ depends (Hatcher/Bailey, 6.2, p. 317).

Forest Governance: This encompasses conditions of forest tenure, forest management, land-use planning and revenues. REDD 'works' only if money reaches those who own the timber and forests, so that they have a financial incentive to not exploit their forests for timber. The majority of the world's forests are legally owned by governments, though indigenous peoples often have legitimate claim to the land or to forest resource

(Hatcher/Bailey, 6.2, p. 317). Often there is a high degree of uncertainty surrounding statutory and customary ownership rights to forests and forest resources. In many countries, ownership rights to carbon remain unclear; if carbon credits are derived from REDD+ projects, contestation over forest ownership can be expected to increase. (Hatcher/Bailey, 6.3, p. 318-320).

Proponents of REDD+ say that corruption can be avoided, as payments will only be made if carbon emissions are reduced. But for this to be the case, REDD+ programmes must have effective institutions for measuring, reporting and verifying (MRV) forest-based emission reductions and carbon stock enhancements.

Measuring, reporting and verifying REDD+ projects is crucial to the programme's success, but can it be done reliably?

Many countries that will participate in REDD+ have a limited capacity to measure and verify changes in forest carbon emissions and carbon stocks. As part of the REDD+ readiness programme, bilateral and multilateral donor organizations are working with developing forest countries to build institutional capacity and national and subnational MRV programmes. But it could take at least a decade for many REDD+ countries to have adequate MRV programmes (Barr, 6.3, p. 333).

It is also conceivable that powerful state elites could seek to control MRV institutions to influence how payments are allocated. Senior political military leaders and military officers in timber-rich countries frequently seek to control the institutional mechanisms through which economic rents associated with forests are distributed. The ability to influence the validation and verification process could enable well-placed state elites to channel REDD+ payments to favoured projects, regardless of whether they qualify (Barr, 6.3, p. 334).

Major risks in MRV systems include:

Inappropriate validation: REDD+ projects must be validated to ensure that they qualify for funding. This validation includes determining whether the methodologies meet REDD+ requirements, whether the planned activities will generate projected emissions reduction or carbon stock enhancements and whether the estimated reductions or enhancements would go above and beyond those that would have occurred without REDD+ funding. If it is likely that the project would have been carried out without REDD+ funding, then the benefits are not 'additional' and the project should not qualify for funding (Barr, 6.3, p. 335).

Overestimation of carbon benefits: Once a REDD+ project is underway, there may be strong incentives for MRV participants to overestimate carbon emissions reductions and/or carbon stock enhancements. When project sponsors include state elites or their business partners, national MRV agencies or individual staff members may be subject to political pressure or be offered bribes to "verify" carbon benefits that are higher than the benefits actually achieved (Barr, 6.3, p. 335).

Validators and verifiers have to "compete vigorously to win business" creating the potential to please clients by overestimating the positive carbon impacts of REDD+ projects. Overestimation can occur through: selection of methodologies for measuring key variables (such as the site-selection for field-based data collections, assumptions in the methodology (Barr, 6.3, p. 336).

Verification of fictitious projects: Validation and verification agencies could be persuaded through political pressure or bribery to sign off on projects that do not exist. Project developers or government officials could seek REDD+ payments for forest areas that are under no immediate threat of deforestation or degradation (Barr, 6.3, p. 336).

Double-counting and fraudulent trade of carbon credits: Commercial fraud in the trading of carbon credits has emerged as a serious crime. In some instances unscrupulous brokers are suspected to have sold fictitious credits for carbon projects that do not actually exist. Companies may have also sold the same credits to multiple buyers – a practice known as 'double-counting'... One of the main reasons that carbon markets are vulnerable to fraudulent trading practices is that the commodity being traded – the carbon credit – is intangible and poorly understood by many buyers. (Barr, 6.3, p. 337)

Misappropriation of carbon rights: Anticipating the considerable profits to be made from forest carbon once REDD+ is fully under way, carbon brokers and project developers have moved aggressively to secure the carbon rights for large tracts of tropical forest. Often working closely with government officials, they have frequently negotiated contracts allowing them to sell the carbon sequestered in forests that are owned by local communities.

Representatives of forest peoples' organisations have raised concerns that it is common for these negotiations not to be conducted in a free and open manner, and that the significant disparities of information and power can lead to the fraudulent misappropriation of local landowners' carbon rights (Barr, 6.3, p. 338).

Permanence: A central challenge for REDD+ lies in the risk that forest carbon emissions reductions may not be long term. The carbon benefits achieved by a particular REDD+ project could be reversed if the site is degraded or deforested after verification. This could be due to natural causes; a failure on the part of project sponsors to maintain forest cover, encroachment from other stakeholders, or policy changes encouraging the conversion of the site to another land use (Barr, 6.3, p. 338).

The risks of non-permanence becomes especially problematic for REDD+ credits that are traded in carbon markets. If non-permanence is perceived to be a significant risk for credits generated under REDD+, it can be anticipated that buyers will shift to other sectors to purchase compliance-grade offsets (Barr, 6.3, p. 338).

Leakage: In the context of REDD, leakage occurs if deforestation projects that are avoided through financial incentive programmes simply encourage deforestation—and therefore loss of carbon storage—in other non-project areas. National MRV programmes will have to ensure that leakage does not occur in REDD+ programmes (Barr, 6.3, p. 332).

Additional risks include...

Market risks: To manage the commercial risks associated with non-permanence, REDD+ planners are considering various liability mechanisms, including strategies through which these risks can be securitised. Introducing liability mechanisms into REDD+ could bring a certain degree of moral hazard: if project owners are aware that the long-term success of their projects is ensured, they may have a perverse incentive to minimise the resources they commit to managing the sites – particularly if substantial portions of the payments are made early in the crediting period. (Barr, 6.3, p. 339)

National governments may be required to provide guarantees that project owners will fulfil their agreements. If project owners with permanent credits fail to meet their obligations or disappear, the ultimate liability will probably revert to the government of the selling country shifting responsibility for private risk to public institutions.

A growing number of analysts are questioning whether the world's rapidly expanding markets for carbon credits may cause a financial bubble. Carbon credits are a new type of derivatives contract, in which a supplier agrees to deliver a commodity (carbon emissions reductions) at an agreed point in the future. By packaging the risks associated with carbon credits into novel and complex financial securities, the institutions involved are spreading these risks among a much larger group of actors and amplifying these risks as well (Barr, 6.3, p. 339-340).

Social and economic risks for indigenous groups and local communities: REDD+ is not just about counting carbon but about complex social, ecological and economic relationships in the forest areas where the carbon is found. REDD+ is based on restrictive land-use regulation, and if it is not carefully implemented, it has the potential to infringe on local people's rights to access, use and manage the forests on which they depend. These risks are exacerbated because many of the countries eligible for REDD+ readiness programmes are considered fragile states, often characterised by poor governance. (Hatcher/Bailey, 6.2, p. 315).

A number of organisations have voiced concern over the manner in which national consultations with civil society and indigenous peoples on REDD+ planning have been conducted (Hatcher/Bailey, 6.2, p. 318). Forests are remote and beyond the public gaze. The risks persist that countries that have demonstrated a record of human rights abuses and a disregard for engaging local peoples in natural resource management will not be able to implement REDD+ fairly and with the consent of those most affected by the plans.

For articles on REDD see:

- 6.1 Patrick Alley, Corruption: A root cause of deforestation and forest degradation
- 6.2 Jeffrey Hatcher and Luke Bailey, Governance in the world's tropical forests: Where will REDD+ land?
- 6.3 Christopher Barr, Governance risk for REDD+: how weak forest carbon accounting can create opportunities for corruption and fraud
- 6.3.1 Sarah Dix, Hypothetical Offsets: Carbon trading and land rights in Papua New Guinea
- 6.3.2 Manoj Nadkarni, Is Norway rocking the REDD Boat?

Which countries are participating in REDD+?

Countries receiving direct support from REDD+ for national programmes are: Bolivia, Cambodia, Democratic Republic of the Congo, Indonesia, Panama, Papua New Guinea, Paraguay, The Philippines, Solomon Islands, Tanzania, Vietnam, Zambia.

REDD also supports 17 other partner countries: Argentina, Bangladesh, Bhutan, Central African Republic, Colombia, Costa Rica, Ecuador, Gabon, Guatemala, Guyana, Kenya, Mexico, Nepal, Nigeria, Republic of Congo, Sri Lanka and Sudan.

Resources: experts and organisations

Global Corruption Report experts

Patrick Alley, Global Witness

Jeffrey Hatcher, Luke Bailey, Rights and Resources Initiative

Christopher Barr, Woods and Wayside International

Manoj Nadkarni, Manager, Forest Governance Integrity Programme

Organisations

Center for International Forestry Research (CIFOR): www.cifor.cgiar.org/ and <http://www.forestsclimatechange.org/index.html>

Coalition for Rainforest Nations: www.rainforestcoalition.org/

FERN: www.fern.org/about-us

UN Food and Agriculture Organization (FAO), UN REDD: www.fao.org/climatechange/unredd/en/

Global Witness: www.globalwitness.org

Greenpeace International: www.greenpeace.org

International Institute for Environment and Development:

www.iied.org/natural-resources/key-issues/forestry/redd-protecting-climate-forests-and-livelihoods

REDD-Monitor: www.redd-monitor.org

Rights and Resources Initiative: www.rightsandresources.org/

UN-REDD Programme: www.un-redd.org/

World Bank Forest Carbon Partnership Facility: www.forestcarbonpartnership.org/fcp/

World Resources Institute (WRI): www.wri.org/

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