ENCLOSURES

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1. Major Concepts

1.1 Corporate Social Responsibility

1.1.1. Corporate Social Responsibility (CSR) is a concept whereby companies integrate social and environmental concerns in their business operations and in their interactions with their stakeholders on a voluntary basis. The European Multi-Stakeholder Forum, an outgrowth of the 2000 Lisbon Summit, where the European Council first pushed for adoption of CSR principles by business, adopted this definition in its final report on Corporate Social Responsibility. The subject of corporate social responsibility has risen to the top on the agenda of policymakers, managers and social activists in recent times. Economic and social concerns are increasingly impacting an organisation's economic, brand and reputation standing. One motivation for it is the emerging legislation on corporate governance, compulsory minimum number of non-executive directors, and disclosure of greater details of the operations and finances of an enterprise. The three keys to an effective CSR policy are commitment, clarity and congruence with corporate values. Clarity is all-important because social responsibility is a broad term, and it needs to be debated and hammered out to meet each company's circumstances. Congruence is about ensuring that the company's attitude to its responsibilities towards society is consistent with the way in which it runs the whole business, i.e. its values and culture.

1.1.2. The critical issues in the debate on CSR centre around the definition of the boundaries or the extent of the activities, the metrics for evaluation or setting standards, as well as the scope and limitations of voluntary action through a management initiative. The aspect of management initiative raises the issue whether business leaders can be expected to be proactive in their meeting the needs of society. Should they interpret their responsibility beyond taking all possible steps to mitigate the undesirable effects of industrialization? Public support for companies to take social responsibilities into account is increasing. Institutional shareholders now regard it as an issue which Boards should address. Corporations are beginning to understand the concept of social responsibility and are taking to it in their own interest. CSR is a process by which a corporation is able to reach out to its people as well as a link through which ideas and issues flow back to the corporation. It is a vital connect without which, over time, business will cease to have relevance. The financial sector, too, is beginning to wake up to a range of non-financial issues.

1.2. Non-Financial Reporting

The practice of non-financial reporting started largely in response to pressure from non-governmental organisations (NGOs), which claimed that many firms lacked social and environmental responsibility. It has long been recognised that a company's financial health is dependent on much more than the assets on its balance sheet and the movements on its profit and loss account. Intangible assets, such as a company's reputation and employees, are critical to a company's worth, yet there is no legal obligation on companies to reveal anything about them. The reputation of a company influences its financial health. Reputation has the power to create value for a company. The benefits of a strong reputation include the ability to attract customers, employees and investment; to motivate employees and suppliers; and to differentiate the company from its competitors. A strong reputation also helps protect value, as it can lessen the impact of scrutiny, crises and competitive attack. Non-financial reporting is an opportunity to communicate in an open and transparent way with stakeholders. In their non-financial reports, firms volunteer an overview of their environmental and social impact during the previous year. The information in non-financial reports contributes

to building up a company's risk. The importance of non-financial disclosure in the overall assessment of a company's risk profile is steadily gaining ground.

1.3. Sustainable Development

1.3.1. Sustainable development is broadly defined as the advancement of economic development while maintaining the quality of environmental and social systems. Incorporating Environmental & Social (E&S) issues into development is important because environmental resources provide a basis for social and economic development. The principles of sustainable development are important in all industrial and commercial sectors, as all activities have the potential to influence social and environmental welfare quality. The financial sector is of particular importance, as this sector is able to affect many projects and the development trends that result from them.

1.3.2. There is much that the financial sector can do to assist efforts to achieve sustainability. Internal efforts to make day-to-day operations cleaner, more efficient, and supportive of social structures can help. Integrating E&S issues into strategic operations is also important. In this way, financial institutions not only ensure that internal activity is sustainable, but they can also help financing itself become more sustainable.

1.3.3. Sustainable finance is financing that places importance on the environmental and social consequences of projects and financial products, rather than just the economic impact. This can encompass incorporating E&S assessments into financial analysis, or developing products with an explicit E&S focus, such as sustainable & responsible investment (SRI) funds. SRI (sustainable and responsible investment/socially responsible investment) is an investment strategy that identifies investment targets that carry net E&S benefits, or no net E&S detriment, as well as provide financial growth.

2. International Initiatives

Internationally, several initiatives are underway, of which the overarching initiative is the United Nations Environment Programme Finance Initiative (UNEP FI). Other major international initiatives include the Global Reporting Initiative (GRI), Equator Principles, Collavecchio Declaration on Financial Institutions, London Principles, etc., which have helped in increasing the awareness levels as regards CSR and SD among all concerned. A common theme running through all these initiatives is the articulation of civil society's expectations of the financial sectors role and responsibilities with respect to sustainability. John Elkington coined the term 'triple bottom line' to describe social, environmental, and financial accounting, and his sustainable development think-tank, SustainAbility, released its first survey, benchmarking non-financial reporting. SustainAbility has released its sixth such benchmarking survey, Risk & Opportunity: Best Practice in Non-Financial Reporting, with the United Nations Environment Programme (UNEP) and Standard & Poor's. The survey ushers in a new era, predicting the full integration of sustainability and financial reporting by 2010.

2.1. United Nations Environment Programme Finance Initiative (UNEP FI)

UNEP FI is a major international initiative involving the financial sector in sustainable development. A separate annexure (**Annex I**) gives details of this initiative. Of the more than 200 financial institutions, worldwide, there is not a single Indian entity among the signatories.

2.2. Global Reporting Initiative (GRI)

2.2.1. GRI is an initiative at the global level to standardize NFR, which the institutions adopt and has become the de facto standard internationally. GRI is a long-term, multi-stakeholder, international process whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines. These Guidelines are for voluntary use by organizations for reporting on the economic, environmental, and social dimensions of their activities, products, and services. The aim of the Guidelines is to assist reporting organizations and their stakeholders in articulating and understanding contributions of the reporting organisations to sustainable development. Leading companies are beginning to build stakeholder trust and simultaneously improve their business performance by measuring and reporting on both financial and non-financial indicators related to such issues as environmental management, worker relations and social responsibility. They are creating a new kind of competitive advantage by linking value and values, to position themselves as the companies of choice among customers, employees, investors, suppliers, business partners and local communities.

2.2.2. GRI is now a permanent, independent organisation, with a distinguished Board of Directors, and global headquarters in Amsterdam, Netherlands. The Board has fiduciary, financial, legal, and overall strategic responsibilities for GRI. Broadly representative advisory groups on policy (the Stakeholder Council) and technical issues (the Technical Advisory Council) ensure that the GRI's core values of inclusiveness and transparency are sustained. Organisational Stakeholders support GRI's mission, contribute to the annual budget and elect the Stakeholder Council. A write up on GRI is furnished in **Annex II**.

2.3. International Finance Corporation (IFC)

International Finance Corporation (IFC), the World Bank affiliate, has developed an environmental and social review procedure by which it determines the adequacy of the various projects which it finances. The IFC, a member of the World Bank Group, is the largest multilateral source of loan and equity financing for private sector projects in the developing world. IFC's environmental and social review procedure outlines the process by which IFC determines the adequacy of the project sponsor's environmental assessment for a proposed project and works with the project sponsor to address environmental and social issues and opportunities associated with the project. The purpose of the environmental and social review is to ensure that the project complies with applicable IFC environmental and social polices and meets the applicable guidelines. In sectors where no appropriate IFC policies or guidelines exist, IFC applies internationally recognized standards. The project sponsor must ensure compliance with host country requirements. Environmental and social review involves a broad range of environmental, social, technical, commercial and legal issues and requires input from various members of the project team. The Investment Department has line responsibility for overall performance of a project, including its environmental and social performance. IFC monitors the environmental and social performance of projects in its investment portfolio.

The Equator Principles developed under the aegis of IFC, provide a common framework for the project finance industry based on an external benchmark, viz., the World Bank and IFC sector-specific pollution abatement guidelines and IFC safeguard policies. The "Equator Principles" are a set of voluntary environmental and social guidelines for ethical project finance. These principles commit banks and other signatories to not finance projects that fail to meet these guidelines. The principles were conceived in 2002 on an initiative of the International Finance Corporation (IFC) and launched in 2003. Since then, many major banks across the world have adopted the Principles. The Principles have become the de facto standard for all banks and investors on how to deal with potential social and environmental effects of projects to be financed. The Principles apply to projects over 10 million US Dollars. On July 6, 2006, the Equator Principles Financial Institutions (EPFIs) announced the launch of the final revised Equator Principles, increasing the scope and quality of the existing standards. The revised principles reflect the recent revisions to the IFC's Performance Standards, upon which the Equator Principles are, in-part, based (**Annex III**).

2.5. Collevecchio Declaration on Financial Institutions

Financial institutions (FIs), such as banks and asset managers, must play a positive role in advancing environmental and social sustainability. This declaration calls on FIs to embrace six main principles (**Annex IV**), which reflect civil society's expectations of the role and responsibilities of the financial services sector in fostering sustainability. The vast majority of FIs do not play a proactive role in creating financial markets that value communities and the environment. As companies, FIs concentrate on maximizing shareholder value, while as financiers they seek to maximize profit; this dual role means that FIs have played a key role in creating financial markets that predominantly value short-term returns. These brief time horizons provide strong incentives for companies to put short-term profits before longer-term sustainability goals, such as social stability and ecological health. As major actors in the global economy, FIs should embrace a commitment to sustainability that reflects best practice from the corporate social responsibility movement, while recognizing that voluntary measures alone are not sufficient, and that they must support regulations that will help the sector advance sustainability.

3. Global Warming

3.1. Greenhouse Effect

3.1.1. Global warming (also called the greenhouse effect) describes the gradual increase of the air temperature in the earth's lower atmosphere. The term greenhouse effect is used to describe the warming effect that certain gases have on the temperature of the earth's atmosphere under normal conditions. Since the Industrial Revolution 200 years ago, mankind has been releasing extra quantities of greenhouse gases into the atmosphere, which trap more heat, enhancing the natural greenhouse effect. The "enhanced" greenhouse effect is the direct result of human activities. Man-made emissions of carbon dioxide, more than any other greenhouse gas, have contributed most to the enhancement of Earth's natural greenhouse effect, about 60% since the late 18th century when man-made greenhouse gas emissions began to increase. Methane, nitrous oxide and the CFCs have contributed about 20%, 4% and 12% respectively.

3.1.2. If the climate changes in response to an enhanced greenhouse effect as current computer models have projected, global average surface temperature could be anywhere from 1.4 to 5.8°C (with a best estimate of 3°C) higher by the end of the 21st century. To put this temperature change into context, the increase in global average surface temperature, which brought the Earth out of the last major ice age 14,000 years ago, was of the order of 4 to 5°C. This climate change took thousands of years. Man-made global warming, in contrast, may occur at a rate that is unprecedented on Earth.

3.1.3. Such a rapid change in climate will probably be too great to allow many ecosystems to suitably adapt, and the rate of species extinction will most likely increase. In addition to impacts on wildlife and species biodiversity, human agriculture, forestry, drylands, water resources and health will all be affected. Such impacts will be related to changes in precipitation (rainfall and snowfall), sea level, and the frequency and intensity of extreme weather events, resulting from global warming. It is expected that the societies currently experiencing existing social, economic and climatic stresses will be both worst affected and least able to adapt. These will include many in the developing world, low-lying islands and coastal regions, and the urban poor.

3.2. Extent of the Problem

3.2.1. Global warming has grown over time and the extent of the problem is increasing daily. Worldwide temperatures have climbed more than 0.5 degrees Celsius over the past century and the 1990s were the hottest decade on record. This slow but steady warming has had an effect on about 420 physical processes of animal and plant species on all continents. The results of global warming continue to have effects on the globe, recently becoming more noticeable than ever. Glaciers, like the snows of Kilimanjaro, are disappearing from mountaintops around the globe. Coral Reefs are dying off as seas are raising and increasing in heat. Areas like Asia and Africa are facing drought and the Arctic permafrost is starting to melt. This warming could lead to changes in the growing seasons, wide-spread droughts, coastal flooding and even catastrophic changes in the weather. Potential effects that could result in the future if global warming continues to increase are quite plentiful. These effects include: rising seas, uninhabitable land, suffering public health, and devastating wildlife changes. Some scientists believe that global warming could paradoxically throw the world into another ice age.

3.2.2. In an effort to decrease the accumulation on greenhouse gases in the earth, the nations of the world presented the Kyoto Protocol. The protocol was laid in 1997 by the members of the United Nations and was presented to all countries so that a global effort could be taken in reducing greenhouse gas emissions.

3.2.3. The largest cause of global warming is due to human activity. The only effective solution to global warming is to solve the accumulation of greenhouse gases that are caused by human control. Several reductions can be made by the average individual. The prevention of energy wastage can make a great difference on the globe. The factors that cause global warming are quite numerous and plentiful. Global warming has grown to become a greater problem over time. The extent of the problem has been seen through statistics and the effect it has had on the world. Although these effects are very visible, further damage can be prevented.

3.3. Stern Review – The Economics of Climate Change

The Stern Review on the Economics of Climate Change is a report on the effect of climate change and global warming on the world economy compiled by Sir Nicholas Stern (Head of the UK Government Economic Service and former Chief Economist of the World Bank) for the government of the United Kingdom. Released on October 30, 2006, the Stern Review is one of the first, major government-sponsored reports on global warming. Its main conclusions are that one percent of global GDP is required to be invested in order to mitigate the effects of climate change, and that failure to do so could risk a recession worth up to twenty percent of global GDP. Stern's report suggests that climate change threatens to be the greatest and widestranging market failure ever seen, and it provides prescriptions including environmental taxes to minimize the economic and social disruptions. A Summary of Conclusions of the Report is furnished at **Annex V**.

3.4. The Happy Planet Index

The Happy Planet Index (HPI) is an index of human well-being and environmental impact, introduced by the new economics foundation (nef), in July 2006. The index is designed to challenge well-established indices of countries' development, such as Gross Domestic Product (GDP) and the Human Development Index (HDI), which are seen as not taking sustainability into account. In particular, GDP is seen as inappropriate, as the ultimate aim of most people is not to be rich, but to be happy and healthy. The HPI is based on fairly utilitarian principles - that most people want to live long and fulfilling lives, and the country which is doing the best is the one that allows its citizens to do so, whilst avoiding infringing on the opportunity of future people and people in other countries to do the same. Infringement on the opportunity of future people and people in other countries is proxied for using the ecological footprint per capita, which attempts to estimate the amount of natural resources required to sustain a given country's lifestyle. A country with a large ecological footprint uses more than its fair share of resources, both by drawing resources from other countries, and also by causing permanent damage to the planet which will impact future generations. The HPI is best conceived as a measure of the environmental efficiency of supporting well-being in a given country. Each country's HPI value is a function of its average subjective life satisfaction, life expectancy at birth, and ecological footprint per capita. The exact function is complex, but conceptually it approximates multiplying life satisfaction and life expectancy, and dividing that by the ecological footprint.

3.5 The Kyoto Protocol

3.5.1. The Kyoto Protocol to the United Nations Framework Convention on Climate Change is an amendment to the international treaty on climate change, assigning mandatory emission limitations for the reduction of greenhouse gas emissions to the signatory nations. The objective is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."

3.5.2. As of December 2006, a total of 169 countries and other governmental entities have ratified the agreement (representing over 61.6% of emissions from Annex I countries). Notable exceptions include the United States and Australia. Other countries, like India and China, which have ratified the protocol, are not required to reduce carbon emissions under the present agreement.

3.5.3. The Kyoto Protocol establishes the following principles:

 Kyoto is underwritten by governments and is governed by global legislation enacted under the UN's aegis

• Governments are separated into two general categories: developed countries, referred to as Annex I countries (who have accepted GHG emission reduction obligations and must submit an annual greenhouse gas inventory); and developing countries, referred to as Non-Annex I countries (who have no GHG emission reduction obligations but may participate in the Clean Development Mechanism).

• Any Annex I country that fails to meet its Kyoto obligation will be penalized by having to submit 1.3 emission allowances in a second commitment (to commence after 2012) period for every ton of GHG emissions they exceed their cap in the first commitment period (i.e, 2008-2012).

• By 2008-2012, Annex I countries have to reduce their GHG emissions by an average of 5% below their 1990 levels (for many countries, such as the EU member states, this corresponds to some 15% below their expected GHG emissions in 2008). While the average emissions reduction is 5%, national limitations range from 8% reductions for the European Union to a 10% emissions increase for Iceland; but since the EU intends to meet its obligation by distributing different rates of reduction among its member states,[4] much larger increases (up to 27%) are allowed for some of the less developed EU countries .Reduction limitations expire in 2013.

• Kyoto includes "flexible mechanisms" which allow Annex I economies to meet their GHG emission limitation by purchasing GHG emission reductions from elsewhere. These can be bought either from financial exchanges (such as the new unrelated-to-Kyoto EU Emissions Trading Scheme) or from projects which reduce emissions in non-Annex I economies under the Clean Development Mechanism (CDM), or in other Annex-1 countries under the JI.

• Only CDM Executive Board-accredited Certified Emission Reductions (CER) can be bought and sold in this manner. Under the aegis of the UN, Kyoto established the Bonn-based Clean Development Mechanism Executive Board to assess and approve projects ("CDM Projects") in Non-Annex I economies, prior to awarding CERs.

3.5.4. What this means in practice is that Non-Annex I economies have no GHG emission restrictions, but when a GHG emission reduction project (a "GHG Project") is implemented in these countries, that GHG Project will receive Carbon Credit which can be sold to Annex I buyers.

3.5.5. Carbon Trading is discussed at 4.4.

4. Related Recent Initiatives

Some of the related, recent initiatives that have taken place are enumerated below.

4.1. FT Sustainable Banking Awards

The FT Sustainable Banking Awards were created in the year 2006 by the Financial Times in association with the International Finance Corporation to acknowledge the progress that banks have made in integrating social, environmental and corporate governance objectives into their operations while maximising shareholder value. The goal is to highlight initiatives that work and to reward progress on the journey towards sustainability. The awards, now in their second year, include new regional prizes for emerging markets banks and a special award for achievement in carbon finance. The awards are intended to act as a catalyst for further innovation in sustainable banking, helping to encourage best practice and transparency in the way banks approach sustainability and stimulate debate on the role banks can or should play in the area of sustainability. The awards are given in five categories - Sustainable Bank of the Year, Emerging Markets Sustainable Bank of the Year, Sustainable Bankers of the Year, Sustainable Deal of the Year and Sustainable Energy Finance Deal of the Year.

4.2. The World in 2050– A Report by PricewaterhouseCoopers– March, 2006

A report by John Hawksworth (Head of Macroeconomics at PricewaterhouseCoopers' UK firm) titled 'The World in 2050: Implications global growth for carbon emissions and climate change policy' states that the rapid economic growth of emerging countries such as China and India – together with continued, more moderate growth in today's advanced economies – could have serious long-term consequences for global energy consumptions and carbon emissions. The projections demonstrate that if countries sit back and adopt a "business as usual" approach, the result could be a more than doubling of global carbon emissions by 2050. Based on current scientific thinking, this could have potentially serious, longer-term implications in terms of global warming and related climate change. On the other hand, a scenario such as the "Green Growth Plus" strategy outlined in the report, could allow for continued healthy growth whilst controlling carbon emissions. The Report refers to the emerging 'E7' economies (China, India, Brazil, Russia, Indonesia, Mexico and Turkey) and contends that as they increase in size to overtake the current G7 countries (US, Japan, Germany, UK, France, Italy and Canada), the emerging 'E7' economies will increasingly provide the motor for global growth and could account for almost half of global carbon emissions by 2050.

4.3. Environmental Degradation

Edward Luce, the author of the book titled 'In Spite of the Gods' which deals with the rise of Modern India, has referred to 'wholesale environmental degradation' as the second large challenge facing India. The author says that while India accounts for 4% of the global carbon-dioxide emissions, its share of the responsibility for global warming will escalate rapidly. The quality of air and water in India is declining as rapidly as the economy is improving (without being factored in as a cost). The author argues that India should develop a coherent strategy for the sake of both its environment and its economy.

4.4. Carbon Trade

4.4.1. Amidst growing concern and increasing awareness of the need for pollution control in the context of climate change, the concept of carbon credit came into vogue as a part of an international agreement popularly known as Kyoto Protocol(KP). It is a voluntary treaty signed in December 1997 by most of the countries including the European Union, Japan and Canada (excluding US & Australia) to reduce Greenhouse gas (GHG) emission by 5.2% below 1990 levels from 2008- 2012. The KP aims to tackle global warming by setting target levels for nations to reduce greenhouse gas emissions worldwide. It is estimated that carbon trading will double to at least \$ 60 billion this year. The scheme allows developed nation polluters to fund emissions cuts in developing countries, which is cheaper than cutting emissions at home.

4.4.2. The KP provides for three innovative mechanisms that enable countries or operators in developed countries to acquire GHG reduction credits

Three flexibility mechanisms under the KP are as under.

i) Joint Implementation (JI) – A developed country with relatively high costs of domestic greenhouse reduction would set up a project in another developed country. JI projects reduce emissions in the host country and free up part of their total amount which can then be transferred to the investor country in the form of Emission Reduction Units (ERUs) which are subtracted from the host country's allowed emissions and are added to the total allowable emissions of the investor country. ERU generated by a project must be verified by an external body.

ii) Clean Development Mechanism (CDM). – A developed country can sponsor a greenhouse gas reduction project in a developing country. The CDM is designed to meet objectives to address the sustainable development needs of the host country. The Project Design Document is submitted to the National CDM Authority for validation which is registered in the host country. After verification by the CDM Executive Board, Certified Emmission Reduction (CER)* is issued. The Designated Operational Entity (DOE) periodically checks (once in a year) whether emission reduction has actually taken place.

*The CER unit is equivalent to one tonne of CO₂

iii) International Emission Trading /Carbon Trading (IET) -

Under IET, countries can trade in the international carbon credit market to cover their shortfall in allowances. Countries with surplus credits can sell them to countries with quantified emission limitation and reduction commitments under the Kyoto Protocol.

4.4.3. Mechanics of Carbon Trade

The idea behind carbon trading is quite similar to the trading of securities or commodities in a marketplace. Carbon would be given an economic value, allowing people, companies or nations to trade in it. If a nation bought carbon, it would be buying the rights to burn it, and a nation selling carbon would be giving up its rights to burn it. The value of the carbon would be based on the ability of the country owning the carbon to store it or to prevent it from being released into the atmosphere. A market would be created to facilitate the buying and selling of the rights to emit greenhouse gases. The industrialized nations, for which reducing emissions is a daunting task, could buy the emission rights from another nation whose industries do not

produce as much of these gases. The market for carbon is possible because the goal of the Kyoto Protocol is to reduce emissions as a collective international endeavour.

4.4.4. Carbon Markets

Carbon Credits are traded at CO 2E Exchange in UK, CDM Exchange in Europe and the Chicago Climate Exchange, which has announced a license agreement with Multi Commodity Exchange of India to trade in pollution as commodity. For most of the traders there is no standard contract for purchasing carbon, as it is not easy to find out prices. Emission reduction transactions range from simple spot purchases and sales to structured options and direct investment. Carbon prices range from euro 6 -12 per tonne of CO₂, depending upon bank guarantee.

4.4.5. Demand for Carbon Credit

It is expected that demand for carbon credit is expected to grow for the following reasons.

i) Projected shortfalls in developed countries and higher relative abatement cost will attract buying carbon credit from developing countries where cost is less.

ii) To comply with EU Emission Treaty Scheme, European companies will have to buy carbon credit.

iii) European Bank for Reconstruction and Development (EBRD) acts as financier of emission reduction projects. The EBRD is positioned to purchase carbon credits. It may arrange funds from shareholders or access donor funds for implementation of CDM projects.

iv) The World Bank has taken a leading position announcing its willingness to buy emission reductions to be generated after 2012.

4.4.6. Indian Scenario

India acceded to the KP in August, 2002. India is in a position to reap maximum benefits from the global carbon trade. According to estimates, India could emerge as one of the largest beneficiaries accounting for 31% of the world's total carbon trade which is expected to rake in at least 5-10 billion dollars over a period of time. India, being a developing country, is exempted from the requirements of adherence to the Kyoto Protocol. However, it can sell the Carbon Credit to the developed countries. The National Clean Development Mechanism Authority receives projects for approval. Till February 2007, the National CDM Authority has approved 526 projects in the area of Biomass based cogeneration, energy efficiency, Municipal Solid Waste, Renewables such as Wind, Small Hydro projects, etc. These projects would generate 357 million CERs by the year 2012, if all these projects get registered with the CDM Executive Board. The Ministry has started a project to sensitise and encourage States to take a lead. Initially, five states Andhra Pradesh, Rajasthan, Karnataka, Punjab, Maharashtra were given seed funding to set up their own CDM facilities. Most of the carbon credit consultants, including international players are planning to set up shop in India.

5. Plan of Action

5.1. Environmental and social concerns have today become major considerations for determining the viability of a project. Environmental and social consequences have to be taken into account to ensure that a project is environmentally and socially sound and sustainable. The world over leading companies are beginning to build stakeholder trust and simultaneously improve their business performance by measuring and reporting on both financial and non-financial indicators related to such issues as environmental management, worker relations and social responsibility.

5.2. In the financial sector too there is a visible trend to promote environmentally and socially responsible lending and investment in emerging markets. Banks are beginning to recognize that they have a social responsibility to fulfill as they emerge from the shadow of traditional banking. Responsible banking is the new approach born out of the new market realities.

5.3. Banking and finance's immediate environmental and social impacts are relatively low because most of those impacts are delivered through the activities of other businesses that rely on financial institutions – the businesses in a loan or investment portfolio. However, despite the relatively indirect nature of their environmental and social impacts, banks need to examine the effects of their lending and investment decisions.

5.4. All business activities have some environmental and social impact that typically results from substandard environmental and social practices, including:

- over-use and wastage of natural resources
- environmental damage caused by continuing polluting activities
- persistent damage caused by past polluting practices
- damage caused by accidents and mishaps
- use of environmentally sensitive materials

5.5. All these impacts have ramifications to business. The risks that such impacts create can be legal, financial, and reputational, and banks themselves are increasingly accountable for the effects their portfolios have on the environment and society. The costs that can be incurred by a business operating without regard to environmental and social issues include:

- pollution clean up costs
- fines
- increased waste handling costs
- costs from damaged assets with reduced value
- legal claims
- regulatory delays
- reduced public regard, and reduced sales

The risks that often get transferred to financial institutions include:

- increased loan defaults
- decreased value of investment and loss of collateral due to decreased asset values
- liability for damages arising from negligent investment advice
- loss of reputation and standing as a result of association with polluting businesses

5.6. Incorporating environmental and social criteria into business decision-making can reduce the impacts of operating activities. Therefore, financial institutions that implement strategies incorporating environmental and social issues in lending and investment should be able to better assess, mitigate, document and monitor risks associated with financing and investment. Such strategies can be implemented by financial institutions by adopting the approach of sustainable development. The banking sector is of particular importance, as this sector is able to affect many projects and the development trends that result from them.

5.7. There is much that banks can do to assist efforts to achieve sustainability. Internal efforts to make dayto-day operations cleaner, more efficient, and supportive of social structures can help. Integrating environmental and social issues into strategic operations is also important. In this way, financial institutions not only ensure that internal activity is sustainable, but they can also help financing itself become more sustainable. Sustainable finance places importance on the environmental and social consequences of projects and financial products, rather than just the economic impact. This can encompass incorporating environmental and social assessments into financial analysis, or developing products with an explicit environmental and social focus, such as sustainable & responsible investment (SRI) funds. SRI (socially responsible investment) is an investment strategy that identifies investment targets that carry net environmental and social benefits as well as provide financial growth.

5.8. In order to be able to make an impact, banks need to integrate the concepts of Corporate Social Responsibility (CSR) and Sustainability with their business strategy. This can be done through:

1. Commitment to Sustainability

Banks must expand their missions from ones that prioritize profit maximization to a vision of social and environmental sustainability.

2. Commitment to 'Do No Harm'

Banks should commit to do no harm by preventing and minimizing the environmentally and/or socially detrimental impacts of their portfolios and their operations.

3. Commitment to Responsibility

Banks should bear full responsibility for the environmental and social impacts of their transactions.

4. Commitment to Accountability

Banks must be accountable to their stakeholders, particularly those that are affected by the activities and side effects of companies they finance.

Banks must be transparent to stakeholders, not only through robust, regular and standardized disclosure, but also through being responsive to stakeholder needs for specialized information on banks' policies, procedures and transactions.

5.9. Transparency in disclosures can be implemented by banks through Sustainability Reporting, a process for publicly disclosing an organisation's economic, environmental, and social performance. Through sustainability reporting, banks can report on progress against performance goals not only for economic achievements, but for environmental protection and social well-being. The GRI guidelines provide a generally accepted framework that can simplify report preparation and assessment, helping both reporters and report users gain greater value from sustainability. The Global Reporting Initiative (GRI) is a long-term, multi-stakeholder, international process whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines.

5.10. As attention intensifies and focuses on the emerging philosophy of Responsible Banking, banks can make a positive impact on economic development by influencing environmental, social and ethical outcomes by integrating the principles of Corporate Social Responsibility and Sustainable Development and Sustainable Reporting with their business strategy.

United Nations Environment Programme - Finance Initiative (UNEP FI)

Background

The United Nations Conference on the Human Environment (Stockholm, 1972), established the United Nations Environment Programme (UNEP) as the environmental conscience of the United Nations (UN) system. Since its inception, UNEP has had a mandate to encourage economic growth compatible with the protection of the environment. This element of UNEP's role was considerably enhanced at the UN Conference on Environment and Development (The Earth Summit) (Rio de Janeiro, 1992), which placed great emphasis on promoting sustainable development - "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." UNEP has worked closely with industry in developing environmental management strategies, and started working with forward-looking organisations in the financial services sector at the beginning of the 1990s.

UNEP was convinced that the financial sector had a valuable contribution to make in protecting the environment while maintaining the health and profitability of their businesses.

Launching the UNEP Finance Initiatives

The concept of the UNEP Finance Initiatives was launched in 1991 when a small group of commercial banks, including Deutsche Bank, HSBC Holdings, Natwest, Royal Bank of Canada, and Westpac, joined forces with UNEP to catalyse the banking industry's awareness of the environmental agenda. In May 1992, in the run up to the Rio Summit that year, the UNEP Statement by Banks on the Environment and Sustainable Development was launched in New York, and the Banking Initiative was formed.

This Initiative, which operated under the auspices of the United Nations Environment Programme, engaged a broad range of financial institutions, including commercial banks, investment banks, venture capitalists, asset managers, and multi-lateral development banks and agencies - in a constructive dialogue about the nexus between economic development, environmental protection, and sustainable development. The Initiative promoted the integration of environmental considerations into all aspects of the financial sector's operations and services. A secondary objective of the initiative was to foster private sector investment in environmentally sound technologies and services.

Engaging insurers and reinsurers

In 1995, UNEP joined forces with a group of leading insurance and reinsurance companies, including General Accident, Gerling Global Re, National Provident, Storebrand, Sumitomo Marine, & Fire, Swiss Re, as well as pension funds, to launch the UNEP Statement of Environmental Commitment by the Insurance Industry. In this voluntary commitment, signatory companies pledge that they will aim at achieving a balance of economic development, the welfare of people and a sound environment. The Statement acknowledges the principles of sustainable development and the precautionary principle. It also calls upon insurers to incorporate environmental considerations into their internal and external business activities.

In 1997, the Insurance Industry Initiative(III) was formed to fund research activities, and to sponsor awareness meetings and workshops and the annual regular meetings of the Initiative.

Building the Initiatives

This same year, the UNEP Statement by Banks on the Environment and Sustainable Development was redrafted, in order to broaden its appeal to the wider financial services sector At this stage, the Banking Initiative was renamed the Financial Institutions Initiative (FII).

From 1999, both the Financial Institutions Initiative (FII) and Insurance Industry Initiative (III) started to work more closely together on issues of mutual interest, and UNEP FI's core working groups were formed - the Climate Change Working Group, the Asset Management Working Group, and the Environmental Management and Reporting Working Group.

The first UNEP FI Global Roundtable to be co-convened by the FII and III was held in Frankfurt (2000).

Merging the UNEP Finance Initiatives

At the 2003 Annual General Meeting (Geneva), the UNEP Financial Institutions Initiative (FII) and the UNEP Insurance Industry Initiative (III) agreed to merge, forming one Initiative to be known as the UNEP Finance Initiative. Both groups have been, over the last number of years, collaborating very closely together through the Initiatives' work programmes and regional activities and this formalization was the final step in that process, and will allow the Secretariat and Steering Committee to develop an integrated work programme with added value for all signatory institutions.

The Initiative continues to receive government recognition for it work via UNEP's Governing Council, the Commission on Sustainable Development, and through various environmental conventions, such as the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change.

The UNEP Finance Initiative currently has over 160 signatory institutions from over 44 countries.

Annex II

Global Reporting Initiative

The Global Reporting Initiative (GRI) is a long-term, multi-stakeholder, international process whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines.

Who is responsible for GRI?

From 1997 until spring 2002, GRI was a project of CERES and the UN Environment Programme. GRI is now a permanent, independent organisation, with a distinguished Board of Directors, and global headquarters in Amsterdam, Netherlands. The Board has fiduciary, financial, legal, and overall strategic responsibilities for GRI. Broadly representative advisory groups on policy (the Stakeholder Council) and technical issues (the Technical Advisory Council) ensure that the GRI's core values of inclusiveness and transparency are sustained. Organisational Stakeholders support GRI's mission, contribute to the annual budget and elect the Stakeholder Council. The Secretariat coordinates and implements the Board's plans and advisory groups' work.

What are Organisational Stakeholders?

Organisational Stakeholders (OS) -- comprising organisations of any type, size, and location -- are a critical element in GRI's governance structure. OS from business, civil society advocacy organisations, labour, and mediating institutions (e.g., foundations, governments) elect the Stakeholder Council which, in turn, appoints the GRI Board of Directors. OS also support GRI's mission and contribute to the annual budget.

Who participates in GRI?

The GRI is open to all individuals and organisations with an interest in sustainability reporting. More than 5,000 individuals from over 80 countries, representing corporations, governments, non-governmental organisations, consultancies, accountancy organisations, business associations, rating organisations, universities, and research institutes are in the GRI network. They contribute to the ongoing development of the Guidelines and related materials.

What is sustainability reporting?

Sustainability reporting is a process for publicly disclosing an organisation's economic, environmental, and social performance. Many companies find that financial reporting alone no longer satisfies the needs of shareholders, customers, communities, and other stakeholders for information about overall organisational performance. Through sustainability reporting, organisations report on progress against performance goals not only for economic achievements, but for environmental protection and social well-being. Reporting also helps drive sustainable governance, in which organisations include issues such as globalisation, income disparity, and ecological vitality in top-level decision-making.

What are the benefits of reporting?

There are multiple benefits to both report preparers and report readers. For reporting organisations, the Guidelines provide a tool for management, increased comparability and reduced costs of sustainability, brand and reputation enhancement, differentiation in the marketplace, protection from brand erosion resulting from the actions of suppliers or competitors, networking and communications. For report readers, the Guidelines are a useful benchmarking tool, corporate governance tool and an avenue for long-term dialogue with reporting organisations.

Why are Sustainability Reporting Guidelines needed?

For financial reporting, companies follow a generally accepted reporting framework. Without a similar framework, sustainability reports lack the features that could make them broadly useful: credibility, consistency, and comparability. Already, more than 2,000 companies have voluntarily published environmental, social, or sustainability reports. These, however, are not comparable and may fail to address the full spectrum of stakeholder interests. A generally accepted framework can simplify report preparation and assessment, helping both reporters and report users gain greater value from sustainability reporting. Because the development costs of the Guidelines and other GRI documents is shared among multiple users, the overall transaction cost for reporters is considerably lower than the costs that might be involved in developing an 'own company' or 'own sector' reporting framework.

Are the Guidelines a code of conduct?

The GRI Guidelines are not a code of conduct or principles. The GRI, however, can be used to support such codes and principles. The Guidelines do not specify performance levels and are not to be construed as a performance standard.

Who has published reports based on the GRI Guidelines?

Organisations in the auto, utility, consumer products, pharmaceuticals, financial, telecommunications, transport, energy and chemicals sectors, among others, in addition to public authorities and non-profits, have published reports that adopt part or all of the Guidelines.

Who should use the Guidelines for reporting?

Organisations of all sizes and types operating in any location should use the Guidelines. The core Guidelines are not specific to any single industry sector. The Guidelines were developed primarily with the needs of business organisations in mind, but other types of organisations such as government agencies and not-for-profit organisations can also use the Guidelines.

What are the sustainability reporting principles?

GRI views reporting principles as integral to the reporting framework. The principles ensure that reporters and report users share a common understanding of the underpinnings of a GRI-based report. The 11 principles (outlined in the Guidelines) help ensure that reports facilitate comparison over time and across organisations, and credibly address stakeholders' concerns.

> The principles of transparency, inclusiveness, and auditability form the framework for a report.

> The principles of **completeness**, **relevance**, and **sustainability** context inform decisions about what to report.

> The principles of **accuracy**, **neutrality**, and **comparability** relate to ensuring report quality and reliability.

Finally, the principles of **clarity** and **timeliness** inform decisions about access to the report.

Is a CEO or Board statement essential for "in accordance" reporting?

Yes. Inclusion of a high-level statement asserting that the report represents a balanced and reasonable presentation is essential for elevating accountability for sustainability matters. It communicates to readers that the organisation considers sustainability reporting a serious endeavour.

Do the Guidelines help to explore the value of a company?

The true value of a company is not always contained in its financial report. Significant market value derives from intangible assets such as reputation, capacity to innovate, and commitment to social well-being. Preparing a sustainability report based on the GRI Guidelines will help to identify various components of a company's value that are not always apparent when simply assessing its financial performance.

Do the Guidelines suggest how to report?

The Guidelines do not offer methodologies for preparing reports—they focus on what to report. The Guidelines contain suggestions for customising a report within the GRI reporting framework.

The Equator Principles

The Equator Principles state that endorsing banks will only provide loans directly to projects under the following circumstances:

• The risk of the project is categorized in accordance with internal guidelines based upon the environmental and social screening criteria of the International Finance Corporation (IFC).

• For all medium or high risk projects (Category A and B projects), sponsors complete an Environmental Assessment, the preparation of which must meet certain requirements and satisfactorily address key environmental and social issues.

• The Environmental Assessment report addresses baseline environmental and social conditions, requirements under host country laws and regulations, applicable international treaties and agreements, sustainable development and use of renewable natural resources, protection of human health, cultural properties, and biodiversity, including endangered species and sensitive ecosystems, use of dangerous substances, major hazards, occupational health and safety, fire prevention and life safety, socio-economic impacts, land acquisition and land use, involuntary resettlement, impacts on indigenous peoples and communities, cumulative impacts of existing projects, the proposed project, and anticipated future projects, participation of affected parties in the design, review and implementation of the project, consideration of feasible environmentally and socially preferable alternatives, efficient production, delivery and use of energy, pollution prevention and waste minimization, pollution controls (liquid effluents and air emissions) and solid and chemical waste management.

• Based on the Environmental Assessment, Equator banks then make agreements with their clients on how they mitigate, monitor and manage those risks through an 'Environmental Management Plan'. Compliance with the plan is required in the covenant. If the borrower doesn't comply with the agreed terms, the bank will take corrective action, which if unsuccessful, could ultimately result in the bank canceling the loan and demanding immediate repayment.

• For risky projects, the borrower consults with stakeholders (NGO's and project affected groups) and provides them with information on the risks of the project.

If necessary, an expert is consulted

The Principles apply to projects over 10 million US dollars. In early 2006, the financial institutions behind the Principles launched stakeholder consultations and negotiations aimed at revising the principles. The draft revised principles were met with criticism from NGO stakeholders, who in a joint position paper argued that the draft fails by ignoring the most serious critiques of the principles: a lack of consistent and rigorous implementation.

Revised Equator Principles Launched in 2006

On July 6, 2006, the Equator Principles Financial Institutions (EPFIs) announced the launch of the final revised Equator Principles. The revised principles reflect the recent revisions to the International Finance Corporation's (IFC) Performance Standards, upon which the Equator Principles are, in-part, based.

• The Equator Principles apply globally and to all sectors and have been revised in the following ways:

• The Principles apply to all project financings with capital costs above USD 10 million. This threshold was lowered from USD 50 million

• The Principles now also apply to project finance advisory activities

• The revised Principles now specifically cover upgrades or expansions of existing projects where the additional environmental or social impacts are significant

• The approach in applying the Principles to countries with existing high standards for environmental and social issues has been streamlined

• Each EPFI is now required to report on the progress and performance of Equator Principles' implementation on an annual basis

• Stronger and better social and environmental standards, including more robust public consultation standards

NGOs welcomed the revisions but remained cautions, arguing that the EPs still suffered from fundamental governance and accountability problems. They want the EP banks to adopt more robust governance and implementation systems, such as a procedure for dealing with "free riders" and a regular reporting requirement.

Institutions which have adopted the Equator Principles

As of February, 2006, the following institutions had adopted the principles:

ABN AMRO Bank, N.V., Banco Bradesco, Banco do Brasil, Banco Itaú, Banco Itaú BBA, Bank of America, BMO Financial Group, BTMU, Barclays plc, BBVA, BES Group, Calyon, CIBC, Citigroup Inc., Credit Suisse Group, Caja Navarra, Dexia Group, Dresdner Bank, EKF, FMO, Fortis, HSBC Group, HVB Group, ING Group, JPMorgan Chase, KBC, Manulife, MCC, Mizuho Corporate Bank, Millennium bcp, Nedbank Group, Rabobank Group, Royal Bank of Canada, Scotiabank, Standard Chartered Bank, SMBC, The Royal Bank of Scotland, Unibanco, Wells Fargo, WestLB AG, Westpac Banking Corporation.

Annex IV

Collevecchio Declaration on Financial Institutions

Commitments to six Principles

An appropriate goal of FIs should be the advancement of environmental protection and social justice rather than solely the maximization of economic growth and/or financial return. To achieve this goal, FIs should embrace the following six principles:

1. Commitment to Sustainability - FIs must expand their missions from ones that prioritize profit maximization to a vision of social and environmental sustainability. A commitment to sustainability would require FIs to fully integrate the consideration of ecological limits, social equity and economic justice into corporate strategies and core business areas (including credit, investing, underwriting, advising), to put sustainability objectives on an equal footing to shareholder maximization and client satisfaction, and to actively strive to finance transactions that promote sustainability.

2. Commitment to 'Do No Harm' - FIs should commit to do no harm by preventing and minimizing the environmentally and/or socially detrimental impacts of their portfolios and their operations. FIs should create policies, procedures and standards based on the Precautionary Principle to minimize environmental and social harm, improve social and environmental conditions where they and their clients operate, and avoid involvement in transactions that undermine sustainability.

3. Commitment to Responsibility - FIs should bear full responsibility for the environmental and social impacts of their transactions. FIs must also pay their full and fair share of the risks they accept and create. This includes financial risks, as well as social and environmental costs that are borne by communities.

4. Commitment to Accountability - FIs must be accountable to their stakeholders, particularly those that are affected by the activities and side effects of companies they finance. Accountability means that stakeholders must have an influential voice in financial decisions that affect the quality of their environments and their lives -- both through ensuring that stakeholders rights are protected by law, and through practices and procedures voluntarily adopted by the FIs.

5. Commitment to Transparency - FIs must be transparent to stakeholders, not only through robust, regular and standardized disclosure, but also through being responsive to stakeholder needs for specialized information on FIs' policies, procedures and transactions. Commercial confidentiality should not be used as an excuse to deny stakeholders information.

6. Commitment to sustainable markets and governance - FIs should ensure that markets are more capable of fostering sustainability by actively supporting public policy, regulatory and/or market mechanisms, which facilitate sustainability and that foster the full cost accounting of social and environmental externalities.

STERN REVIEW: The Economics of Climate Change –Summary of Conclusions

There is still time to avoid the worst impacts of climate change, if we take strong action now

The Stern Review on "The Economics of Climate Change" was announced by the Chancellor of the Exchequer, UK in July, 2005. The 'Summary of Conclusions' of the Review are given below.

The scientific evidence is now overwhelming: climate change is a serious global threat, and it demands an urgent global response. This Review has assessed a wide range of evidence on the impacts of climate change and on the economic costs, and has used a number of different techniques to assess costs and risks. From all of these perspectives, the evidence gathered by there view leads to a simple conclusion: the benefits of strong and early action far outweigh the economic costs of not acting.

Climate change will affect the basic elements of life for people around the world -

access to water, food production, health, and the environment. Hundreds of millions of people could suffer hunger, water shortages and coastal flooding as the world warms. Using the results from formal economic models, the Review estimates that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more. In contrast, the costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1% of global GDP each year.

The investment that takes place in the next 10-20 years will have a profound effect on the climate in the second half of this century and in the next. Our actions now and over the coming decades could create risks of major disruption to economic and social activity, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th century. It will be difficult or impossible to reverse these changes. So prompt and strong action is clearly warranted. Because climate change is a global problem, the response to it must be international. It must be based on a shared vision of long-term goals and agreement on frameworks that will accelerate action over the next decade, and it must build on mutually reinforcing approaches at national, regional and international level.

Climate change could have very serious impacts on growth and development

If no action is taken to reduce emissions, the concentration of greenhouse gases in the atmosphere could reach double its pre-industrial level as early as 2035, virtually committing us to a global average temperature rise of over 2°C. In the longer term, there would be more than a 50% chance that the temperature rise would exceed 5°C. This rise would be very dangerous indeed; it is equivalent to the change in average temperatures from the last ice age to today. Such a radical change in the physical geography of the world must lead to major changes in the human geography– where people live and how they live their lives.

Even at more moderate levels of warming, all the evidence – from detailed studies of regional and sectoral impacts of changing weather patterns through to economic models of the global effects – shows that climate change will have serious impact on world output, on human life and on the environment.

All countries will be affected. The most vulnerable – the poorest countries and populations – will suffer earliest and most, even though they have contributed least to the causes of climate change. The costs of extreme weather, including floods, droughts and storms, are already rising, including for rich countries.

Adaptation to climate change – that is, taking steps to build resilience and minimise costs – is essential. It is no longer possible to prevent the climate change that will take place over the next two to three decades, but it is still possible to protect our societies and economies from its impacts to some extent – for example, by providing better information, improved planning and more climate-resilient crops and infrastructure. Adaptation will cost tens of billions of dollars a year in developing countries alone, and will put still further pressure on already scarce resources. Adaptation efforts, particularly in developing countries, should be accelerated.

The costs of stabilising the climate are significant but manageable; delay would be dangerous and much more costly

The risks of the worst impacts of climate change can be substantially reduced if greenhouse gas levels in the atmosphere can be stabilised between 450 and 550ppm CO_2 equivalent (CO_2e). The current level is 430ppm CO_2e today, and it is rising at more than 2ppm each year. Stabilisation in this range would require emissions to be at least 25% below current levels by 2050, and perhaps much more. Ultimately, stabilisation – at whatever level – requires that annual emissions be brought down to more than 80% below current levels.

This is a major challenge, but sustained long-term action can achieve it at costs that are low in comparison to the risks of inaction. Central estimates of the annual costs of achieving stabilisation between 500 and 550ppm CO₂e are around 1% of global, if we start to take strong action now.

Costs could be even lower than that if there are major gains in efficiency, or if the strong co-benefits, for example from reduced air pollution, are measured. Costs will be higher if innovation in low-carbon technologies is slower than expected, or if policy-makers fail to make the most of economic instruments that allow emissions tube reduced whenever, wherever and however it is cheapest to do so. It would already be very difficult and costly to aim to stabilise at 450ppm CO₂e. If we delay, the opportunity to stabilise at 500-550ppm CO₂e may slip away.

Action on climate change is required across all countries, and it need not cap the aspirations for growth of rich or poor countries

The costs of taking action are not evenly distributed across sectors or around the world. Even if the rich world takes on responsibility for absolute cuts in emissions of 60-80% by 2050, developing countries must take significant action too. But developing countries should not be required to bear the full costs of this action alone, and they will not have to. Carbon markets in rich countries are already beginning to deliver flows of finance to support low-carbon development, including through the Clean Development Mechanism. A transformation of these flows is now required to support action on the scale required.

Action on climate change will also create significant business opportunities, as new markets are created in low-carbon energy technologies and other low-carbon goods and services. These markets could grow to be worth hundreds of billions of dollars each year, and employment in these sectors will expand accordingly.

The world does not need to choose between averting climate change and promoting growth and development. Changes in energy technologies and in the structure of economies have created opportunities to decouple growth from greenhouse gas emissions. Indeed, ignoring climate change will eventually damage economic growth. Tackling climate change is the pro-growth strategy for the longer term, and it can be done in a way that does not cap the aspirations for growth of rich or poor countries.

A range of options exists to cut emissions; strong, deliberate policy action is required to motivate their take-up

Emissions can be cut through increased energy efficiency, changes in demand, and through adoption of clean power, heat and transport technologies. The power sector around the world would need to be at least 60% decarbonised by 2050 for atmospheric concentrations to stabilise at or below 550ppm CO_2e , and deep emissions cuts will also be required in the transport sector.

Even with very strong expansion of the use of renewable energy and other low carbon energy sources, fossil fuels could still make up over half of global energy supply in 2050. Coal will continue to be important in the energy mix around the world, including in fast-growing economies. Extensive carbon capture and storage will be necessary to allow the continued use of fossil fuels without damage to the atmosphere.

Cuts in non-energy emissions, such as those resulting from deforestation and from agricultural and industrial processes, are also essential. With strong, deliberate policy choices, it is possible to reduce emissions in both developed and developing economies on the scale necessary for stabilisation in the required range while continuing to grow.

Climate change is the greatest market failure the world has ever seen, and it interacts with other market imperfections. Three elements of policy are required furan effective global response. The first is the pricing of carbon, implemented through tax, trading or regulation. The second is policy to support innovation and the deployment of low-carbon technologies. And the third is action to remove barriers to energy efficiency, and to inform, educate and persuade individuals about what they can do to respond to climate change.

Climate change demands an international response, based on a shared understanding of long-term goals and agreement on frameworks for action

Many countries and regions are taking action already: the EU, California and China are among those with the most ambitious policies that will reduce greenhouse gas emissions. The UN Framework Convention on Climate Change and the Kyoto Protocol provide a basis for international co-operation, along with a range of partnerships and other approaches. But more ambitious action is now required around the world.

Countries facing diverse circumstances will use different approaches to make their contribution to tackling climate change. But action by individual countries is not enough. Each country, however large, is just a part of the problem. It is essential to create a shared international vision of long-term goals, and to build the international frameworks that will help each country to play its part in meeting these common goals.

Resources

- Economist, Nov 6, 2004
- IFC Website
- Business Line's Journal on Management December 2004 issue
- A Brief History of Sustainability Reporting by William Baue Women's Feature Service, August
- 2004

NevilleWardDirect

- Reuters News Service
- Risk & Opportunity: Best Practice in Non-Financial Reporting by John Elkington
- Environmental Aspects of Sardar Sarovar dam by Ashish Kothari and Rahul N.Ram
- BankTrack info@banktrack.org www.banktrack.org
- www.wwf.ch
- info@wwf.ch
- http://www.globalreporting.org Global Reporting Initiative Website
- www.ft.com/sustainablebanking
- http://science.howstuffworks.com/carbon-trading.htm
- http://www.investopedia.com/ask/answers/04/060404.asp
- http://www.ace.mmu.ac.uk/eae/Global_Warming/Older/Impacts.html
- http://www.pwc.k12.nf.ca/cida/manifesto/globalwarming.html
- http://www.sciencedaily.com/releases/2007/04/070413111521.htm
- http://www.pwc.com/extweb/pwcpublications.nsf
- http://www.hm-treasury.gov.uk/independent_reviews/ stern_review_economics_climate_change/ stern_review_report.cfm
- http://www.equator-principles.com/
- http://www.foe.org/camps/intl/declaration.html
- http://www.unep.org/
- https://www.clsa.com/public/about_clsa/index.cfm
- http://www.ft.com/cms
- http://www.aseed.net/index2.php?option=com_content&do_pdf=1&id=312
- http://www.carbontrading.com/ct/ct2.htm