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EMBA #9

Does Environmental Responsibility and Corporate Social Responsibility create Value for a Company?

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Does Environmental Responsibility and Corporate Social Responsibility create Value for a Company?

Final Project presented to Academic Director of Business School São Paulo as partial fulfillment of the requirements for the grant of a certificate of completion of the Executive Master of Business Administration

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São Paulo

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Inspiration Source

In 1851 Seattle, Chief of the Suquamish and other Indian tribes around Washington's Puget Sound, delivered what is considered to be ***one of the most beautiful and profound environmental statements ever made****. The city of Seattle is named for the chief, whose speech was in response to a proposed treaty under which the Indians were persuaded to sell two million acres of land for $150,000.*

Follows below the letter wrote by the Chief Seattle as an answer to the President of the United States, Millard Fillmore, which is the inspiration source for this Final Assignment.

Chief Seattle's Thoughts

"How can you buy or sell the sky, the warmth of the land? The idea is strange to us.

If we do not own the freshness of the air and the sparkle of the water, how can you buy them?

Every part of this earth is sacred to my people. Every shining pine needle, every sandy shore, every mist in the dark woods, every clearing and humming insect is holy in the memory and experience of my people. The sap which courses through the trees carries the memories of the red man.

The white man's dead forget the country of their birth when they go to walk among the stars. Our dead never forget this beautiful earth, for it is the mother of the red man. We are part of the earth and it is part of us. The perfumed flowers are our sisters; the deer, the horse, the great eagle, these are our brothers. The rocky crests, the juices in the meadows, the body heat of the pony, and man --- ***all belong to the same family****.*

So, when the Great Chief in Washington sends word that he wishes to buy our land, he asks much of us. The Great Chief sends word he will reserve us a place so that we can live comfortably to ourselves. He will be our father and we will be his children.

So, we will consider your offer to buy our land. But it will not be easy. For this land is sacred to us. This shining water that moves in the streams and rivers is not just water but the blood of our ancestors. If we sell you the land, you must remember that it is sacred, and you must teach your children that it is sacred and that each ghostly reflection in the clear water of the lakes tells of events and memories in the life of my people. The water's murmur is the voice of my father's father.

The rivers are our brothers, they quench our thirst. The rivers carry our canoes, and feed our children. If we sell you our land, you must remember, and teach your children, that the rivers are our brothers and yours, and you must henceforth give the rivers the kindness you would give any brother.

We know that the white man does not understand our ways. One portion of land is the same to him as the next, for he is a stranger who comes in the night and takes from the land whatever he needs. The earth is not his brother, but his enemy, and when he has conquered it, he moves on. He leaves his father's grave behind, and he does not care. He kidnaps the earth from his children, and he does not care. His father's grave, and his children's birthright are forgotten. He treats his mother, the earth, and his brother, the sky, as things to be bought, plundered, sold like sheep or bright beads. His appetite will devour the earth and leave behind only a desert.

I do not know. Our ways are different than your ways. The sight of your cities pains the eyes of the red man. There is no quiet place in the white man's cities. No place to hear the unfurling of leaves in spring or the rustle of the insect's wings. The clatter only seems to insult the ears. And what is there to life if a man cannot hear the lonely cry of the whippoorwill or the arguments of the frogs around the pond at night? I am a red man and do not understand. The Indian prefers the soft sound of the wind darting over the face of a pond and the smell of the wind itself, cleaned by a midday rain, or scented with pinon pine.

The air is precious to the red man for all things share the same breath, the beast, the tree, the man, they all share the same breath. The white man does not seem to notice the air he breathes. Like a man dying for many days he is numb to the stench. But if we sell you our land, you must remember that the air is precious to us, that the air shares its spirit with all the life it supports.

The wind that gave our grandfather his first breath also receives his last sigh. And if we sell you our land, you must keep it apart and sacred as a place where even the white man can go to taste the wind that is sweetened by the meadow's flowers.

So we will consider your offer to buy our land. If we decide to accept, I will make one condition - the white man must treat the beasts of this land as his brothers.

I am a savage and do not understand any other way. I have seen a thousand rotting buffaloes on the prairie, left by the white man who shot them from a passing train. I am a savage and do not understand how the smoking iron horse can be made more important than the buffalo that we kill only to stay alive.

What is man without the beasts? If all the beasts were gone, man would die from a great loneliness of the spirit. For whatever happens to the beasts, soon happens to man. All things are connected.

You must teach your children that the ground beneath their feet is the ashes of our grandfathers.** So that they will respect the land, tell your children that the earth is rich with the lives of our kin. Teach your children that we have taught our children that the earth is our mother. **Whatever befalls the earth befalls the sons of earth. If men spit upon the ground, they spit upon themselves.

This we know; the earth does not belong to man; ***man belongs to the earth****. This we know. All things are connected like the blood which unites one family.* ***All things are connected.***

Even the white man, whose God walks and talks with him as friend to friend, cannot be exempt from the common destiny. We may be brothers after all. We shall see. One thing we know which the white man may one day discover; our God is the same God.

You may think now that you own Him as you wish to own our land; but you cannot. He is the God of man, and His compassion is equal for the red man and the white. The earth is precious to Him, and to harm the earth is to heap contempt on its creator. ***The whites too shall pass; perhaps sooner than all other tribes. Contaminate your bed and you will one night suffocate in your own waste.***

But in your perishing you will shine brightly fired by the strength of the God who brought you to this land and for some special purpose gave you dominion over this land and over the red man.

That destiny is a mystery to us, for we do not understand when the buffalo are all slaughtered, the wild horses are tamed, the secret corners of the forest heavy with the scent of many men and the view of the ripe hills blotted by talking wires.

Where is the thicket? Gone. Where is the eagle? Gone.

The end of living and the beginning of survival.*"*

Approval Certificate

This Executive MBA final project is hereby approved.

Prof. Carlos Tasso Eira de Aquino
Dean

Prof. Thomas Brull
Advisor

Dedicatory

I dedicate this work for my parents, Wedmeyer and Rosalba, who always supported me and gave me strength to carry on. I could not reach this far without their love, orientation and friendship.

I also dedicate this work to someone who I met during this Executive MBA course and changed my life forever… someone who I love so much and hope to build beautiful things with... someone who supported me and are with me in good and bad moments and want to spend the rest of our lives together... Luli Plank!

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Summary *(in Portuguese)*

Sustentabilidade Corporativa, guiada pela implementação de Responsabilidade Ambiental e Social Corporativa, é uma estratégia de negócios que cria valor a longo prazo para os acionistas, através de oportunidades e gerenciamento de riscos decorrentes do desenvolvimento econômico, ambiental e social. Companhias corporativamente sustentáveis agregam valor a longo prazo para os acionistas através de estratégias de gerenciamento com relação ao potencial de mercado para produtos e serviços sustentáveis, e ao mesmo tempo reduzindo ou evitando com sucesso danos ambientais e reclamações sociais e custos/riscos associados.

A qualidade da estratégia e gerenciamento da companhia, bem como a sua performance ao lidar com as oportunidades e riscos advindos do desenvolvimento econômico, ambiental e social, pode ser quantificada e utilizada para identificar e selecionar as companhias líderes com o intuito de avaliar a segurança do investimento. DJSI e ISE-BOVESPA são indicadores que confirmam que a responsabilidade ambiental e social corporativa leva a companhia a aumentar o valor da sua ação e a credibilidade de investidores.

Companhias líderes em suntentabilidade mostram altos níveis de competência em lidar com os desafios industriais e globais envolvendo questões tais como:

- Integrando aspectos de longo prazo econômicos, ambientais e sociais nas estratégias de negócios, enquanto mantêm competitividade global e a reputação da marca;

- Retornos e flexibilidade financeira, em termos de crescimento econômico a longo prazo e transparência na contabilidade financeira;
- Cliente e produto a longo prazo através de programas de fidelidade, conseguidos em investimentos no gerenciamento da relação com o cliente e na inovação dos produtos e serviços, considerando responsabilidade ambiental e social corporativa onde aplicáveis;
- Definição de padrões de governança corporativa e engajamento com essas partes interessadas, incluindo códigos de conduta e de reporte público (por exemplo, diretrizes do GRI);
- Recursos humanos, através da manutenção da capacidade e satisfação dos colaboradores pela implementação da práticas de gerenciamento de conhecimento e aprendizado organizacional melhor da categoria, bem como programas de remuneração e benefícios.

Responsabilidade ambiental e social corporativa geram valor para os acionistas por tornar viável o acesso ao capital e linhas de crédito, inovação, licença para operar concedida pelas partes interessadas, taxas de juros otimizadas, acesso a novos mercados e reputação forte. Portanto, a implementação de programas de responsabilidade ambiental e social corporativa cria valor para a companhia.

Summary *(in English)*

Corporate Sustainability, lead by the implementation of Environmental Responsibility (ER) and Corporate Social Responsibility (CSR), is a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments. Corporate sustainable companies achieve long-term shareholder value by gearing their strategies and management to harness the market's potential for sustainability products and services while at the same time successfully reducing and avoiding environmental damages, social claims and related costs/risks.

The quality of a company's strategy and management and its performance in dealing with opportunities and risks deriving from economic, environmental and social developments can be quantified and used to identify and select leading companies for investment purposes. DJSI and ISE-BOVESPA are indicators that being environmental and social responsible lead the company to increase its stock valuation and investors' credibility.

Leading sustainability companies display high levels of competence in addressing global and industry challenges in a variety of issues, such as:

- Integrating long-term economic, environmental and social aspects in their business strategies while maintaining global competitiveness and brand reputation;

- Financing returns and flexibility, in terms of long-term economic growth and transparent financial accounting;
- Customer and product over the long-run, by fostering loyalty through investment in customer relationship management and product/ service innovation considering ER and CSR where applicable;
- Governance and stakeholder, by setting the highest standards of corporate governance and stakeholder engagement, including corporate codes of conduct and public reporting (i.e. GRI guidelines);
- Human resources, by maintaining workforce capabilities and employee satisfaction through best-in-class organizational learning and knowledge management practices, remuneration and benefit programs.

ER and CSR allow companies to generate value for shareholders by enabling better access to capital, enhanced innovation, strengthened stakeholder “license to operate”, optimized interest rate, access to new markets and strengthened reputation. Therefore, the implementation of ER and CSR practices creates value for a company.

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List of Abbreviations and Acronyms

AAI	-	All Appropriate Inquiry (M&A Standard)
ABNT	-	Brazilian Association of Technical Norms
ASTM	-	American Society for Testing and Materials
BMP	-	Best Management Practices
BSP	-	Business School São Paulo
CAPM	-	Capital Asset Pricing Model
CEBDS	-	Conselho Empresarial Brasileiro para o Desenvolvimento Sustentável
CERCLA	-	Environmental Response, Compensation, and Liability Act of 1980
CFO	-	Corporate Financial Officer
CRM	-	Customer Relationship Management
CSR	-	Corporate Social Responsibility
DJSI	-	Dow Jones Sustainability Index
EBITDA	-	Earnings Before Interest, Taxes, Depreciation and Amortization
EHS	-	Environmental, Health and Safety
EMS	-	Environmental Management System
EPA	-	Environmental Protection Agency
EPFI	-	Equator Principles Finance Institution
EPS	-	Earnings per Share
ER	-	Environmental Responsibility
ESA	-	Environmental Site Assessment
ETHOS	-	Brazilian Institute of Companies and Social Responsibility
FTSE	-	English organization (Financial Times & London Stock Exchange)
GRI	-	Global Reporting Initiative
HS	-	Health and Safety
IBGC	-	Brazilian Institute of Corporate Governance
IFC	-	International Finance Corporation
IMF	-	International Monetary Fund
ISE	-	Índice de Sustentabilidade Empresarial (BOVESPA)
ISO	-	International Standards Organization
M&A	-	Mergers & Acquisitions
RIO	-	Required Investment in Operations
ROE	-	Return on Equity
ROI	-	Return on Investment
ROIC	-	Return on Invested Capital
UN	-	United Nations
WACC	-	Weighted Average Cost of Capital
WBCSD	-	World Business Council for Sustainable Development

Abstract

ATTACHMENT A	-	Equator Principles, July 2006
ATTACHMENT B	-	IFC Policy and Performance Standards on Social & Environmental Sustainability and Policy on Disclosure of Information
ATTACHMENT C	-	IFC Exclusion List
ATTACHMENT D	-	Global Reporting Initiative (GRI)
ATTACHMENT E	-	Dow Jones Sustainability Index (DJSI) and its Criteria

Introduction

This paper was prepared by student Priscylla Moro do Carmo, as the Final Assignment of the Executive Master of Business Administration Program class # 9 (EMBA #9). Prof. Thomas Brull is the Advisor of the student in this Assignment.

Governments, private and public organizations have been trying to adapt to a highly competitive global business environment, a world that has accentuated the need of implementing creative ways to improve themselves and survive in this new environment. Many issues have been discussed and a great emphasis is given to the companies' competitiveness into the productive channels they are inserted into. Sustainability is one of the themes discussed in the business environment and some companies have been implementing it as a way of differentiate themselves in the business environment and create, somehow, a competitive advantage.

Nevertheless, may we assume that Environmental Responsibility and Corporate Social Responsibility create value for a corporation? Why companies and big worldwide corporations are aiming to be registered at Dow Jones Sustainable Indexes (DJSI[1]), FTSE Group[2] and/or ISE-BOVESPA[3]?

[1] *Launched in 1999, the Dow Jones Sustainability Indexes are the first global indexes tracking the financial performance of the leading sustainability-driven companies worldwide.*

[2] *The independent company owned by The Financial Times and the London Stock Exchange, which business is the creation and management of indexes and associated data services, on an international scale.*

[3] *ISE - Índice de Sustentabilidade Empresarial da BOVESPA (Corporate Sustainability Index of São Paulo Stock Exchange), launched on December 2005.*

As defined by Global Reporting Initiative (GRI), the goal of sustainable development is to *"meet the needs of the present without compromising the ability of future generations to meet their own needs."* GRI's definitions and concepts are adopted as reference for this paper.

This Final Assignment has the main objective of making an inter-relation between Corporate Finance, in terms of value creation for a company and sustainability. The student aims to analyze if a company may really create value by implementing environmental sustainable programs, meaning environmental practices and social programs with the communities and consumers, among others.

This Final Assignment is structured into 5 sections, starting with the basic concepts and initial discussions of Sustainability in **Section 1**, which is needed once sustainability and related concepts are subjectively understood and, depending on the understanding we have, these programs may take different paths to be implemented in a company.

Section 2 discusses the relation between Corporate Finance, Environmental Responsibility and Corporate Social Responsibility. In this Section, under the framework of Corporate Finance and the determinants of a firm value, Sustainability is added and integrated into it, in order to study the interface between the social and environmental performances and the economical model of profit and losses of a company.

Section 3 contains the results of case studies in private companies which have already deployed sustainable programs (social and/or environmental) or are in the way to implement them. Data was collected through both interviews with representatives of the company's Sustainable Development Dept. or documentation analysis.

Section 4 discusses the results obtained in the Case Studies described in Section 3. It evaluates key performance indicators in terms of value creation for a company. In this Section, a SWOT Analysis is applied in order to better analyze the implementation of a Sustainable Program in a company, its strengths and weaknesses, opportunities and threats as well as its relation with the external scenario in which the company is inserted into.

Section 5 presents the conclusions of this Final Assignment.

The methodology used in this Final Assignment includes:

- Research in literature, technical magazines and published articles relating to Sustainability, Environmental Sustainability, Corporate Social Responsibility and Corporate Finance.
- Interviews with representatives of the Sustainable Development Dept. at private worldwide companies, in order to learn by experience.
- Research in the websites of private and worldwide companies, registered at DJSI and/or ISE-BOVESPA, in order to obtain and analyze their reports on sustainability.
- Analysis of all the data obtained and discussions with the Advisor Prof. Thomas Brull.
- Report writing.

1. Concepts and Initial Discussion

This Section presents the basic concepts and initial discussions of Sustainability and its related concepts, needed to better understand this Final Assignment.

Sustainable Development:

Sustainable development was first addressed in the 1970's during the first modern upsurge of interest in environmental issues. "Our Common Future", developed by the World Commission on Environment and Development in 1987, provides a working definition that has largely been accepted ever since. The commonly accepted definition, *"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs",* is only one of over sixty other the definitions of the same principle.

However, an anti-thesis currently applies. It is common to refer to our present society as being 'materialistic', and this widely accepted cliché hides a deeper truth. If material goods really mattered to us, we would spend a great deal more time preserving them and any other aspect of the material world that we could affect. Instead, the consumer-oriented approach leads to our swift acceptance (and just as swift abandonment) of the next, newest, latest product or service. In reality, it is not materials that fascinate us, but the abstract values that we invest in them. Embracing sustainable development will certainly require deep understanding of such issues.

Most of those involved in this discussion accept that there are three main interrelated areas of concern under the sustainable development banner: Social, Environmental and Economy.

Sustainable Development & Economics:

The idea of sustainable development has certainly stirred debate, but it has yet to produce a viable working model of what it seeks to replace, and this is viewed by many as its greatest weakness. If the current systems are working then why attempt to 'mend' something that isn't 'broken'? Others see the lack of a new model as a testament to the strength of vested interests that would be displaced or challenged by such new theories and practice. The continued debate does, however, force clarification at a time when our deepest and most fundamental understanding is called upon. It is part of the continual human desire to synthesize wisdom from our ever-expanding web of knowledge.

In terms of Economics, one of the conclusions reached about environmental and social costs is that industry and business have traditionally not accounted for the costs of their own environmental and social impacts. The growth of interest in 'green accounting' is matched by the efforts of economists to determine monetary values for aspects of the environment previously excluded from economic models. But is it possible to carry out a cost benefit analysis of intangibles such as the air we breathe, and even if it is technically feasible, is it something that helps inform our future choices?

For companies, even the best environmental management system inside an organization, used to account all the environmental and social costs, is not well implemented if the corporation does not take into consideration environmental concerns at the strategic decision-making level. Eco-efficiency alone, say critics, simply allows 'business as usual', even if it is in an environmentally and socially more acceptable way. However, our abilities in this area have not yet had the sufficient widespread practice, or economical advantages proved, to become fully integrated into management disciplines.

Corporate Social Responsibility:

The research on CSR shows the existence of two different moments: first, the idea of CSR is understood and discussed, considering its related legal aspects; second, actions are taken to define and propose the operational procedures to implement social responsible behavior and practices.

The idea of CSR was first discussed in US, as a way to determine the role played by a corporation, in relation to the society, in social, political and economical contexts in the beginning of XX century. According to Sheldon (1970), the company responsibility in relation to the society exists as the corporations should render services to the community and are responsible for its welfare.

In his work, Sheldon recognizes that this perception came as an answer to the growing social demands relating to corporate behavior resulting of the strengthen of non-governmental organizations and the increasing claims against corporations, which became easier due to the communication technology improvement. The society started to charge from corporations a social responsible behavior. According to Sheldon, responsibilities of corporations include the quality of its goods, accessible prices and adequate wages.

Mary Parker Follett defines the corporate role surpasses the objectives of productivity maximization and shareholders profits towards addressing the society demands. For her, corporations are powerful social players, manager of many resources and political active. Follett defines also the CSR as an integrant part of business, as a characteristic of goods, prices and production processes adopted by the corporations.

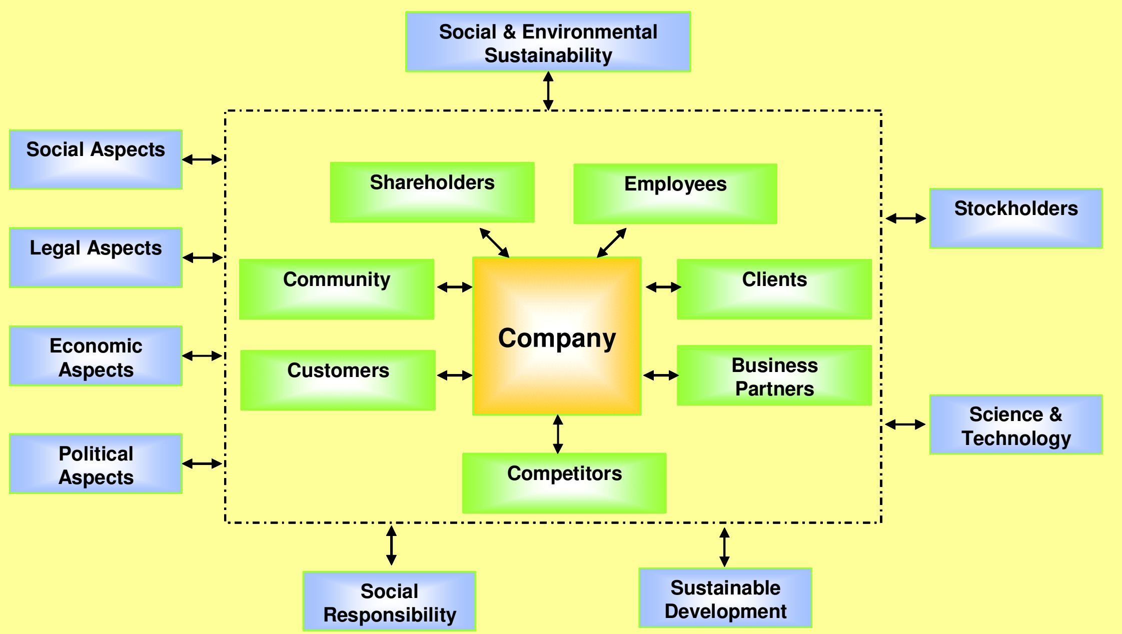
As from the middle of XX century, researchers started to define and formalize CSR concept, the second moment of CSR dedicated to implement those concepts. CSR has already been linked to production and sales and, from this moment on also comprises groups inter-related to corporations, among them local communities which are directly affected by industrial activities.

Davis (1960) explains that corporations, as the society productive units, are also responsible for its economical development as well as the human development of employees. Business managers influence employment availability, inflation /deflation behavior and the competitive conditions maintenance in the market.

Johnson (1971) defends that socially responsible actions may generate profits in long term for corporations, due to its condition of articulating different groups' interests. For instance, addressing employee's interests may be positive for companies because it may increase his/her motivation and commitment to the organization, adding value therefore.

Currently, to explain the CSR concept, we need to understand the micro and macro environments where companies are inserted into, as shown in Illustration 1.

Illustration 1. Company's micro and macro environments



As shown in Illustration 1, the micro-environment where the company is inserted into involves many players, or the so called stakeholders. The stakeholders are the interested parties in the company's activities and operations and are the following: the shareholders, representing the company itself; the employees, representing the company's workplace (internal environment); the community, representing the external environment where the company is installed; business partners, clients & customers and competitors, representing the marketplace.

All the stakeholders are integrated in the macro environment, represented by the scenario where the company is inserted into, involving politics, economics, regulation or legal aspects, social aspects, science, technology and investors (stockholders).

Outside stockholders are taking an increasing interest in the activity of companies. Most look to the outer circle - what the company has actually done, good or bad, in terms of its products and services, in terms of its impact on the environment and on local communities, or in how it treats and develops its workforce. Out of the various stockholders, it is financial analysts who are predominantly focused - as well as past financial performance - on quality of management as an indicator of likely future performance and the company's ability to generate profits.

Following this sense, a simple definition for Corporate Social Responsibility (CSR) means how companies manage their business processes to produce an overall positive impact on the communities they are inserted into or on society in general, or how companies manage and keep social and environmental sustainability. Moreover, CSR is defined as a strategic management tool in which the inter-relations between the company itself and all its contact groups are managed on a ethical basis and may be used as a way to strength such relationships (Mariana Starling Cordeiro, 2003).

As defined by ETHOS Institute, CSR is "*a way to conduct business making the company a partner and co-responsible for social development. The social responsible company has the ability of hearing the interests of different parties (shareholders, employees, outsourced companies, suppliers, consumers, community, govern and environment) incorporating them into the strategic planning of its activities, addressing to all demands and not only the shareholders' interests.*"

It is important to mention that CSR is not philanthropy, which is basically social actions made by companies to promote the community good, through community councils and associations, non-governmental organizations and others).

Corporate Social Responsibility is focused in the business chain linked to the company and comprises concerns of all interested parties (shareholders, employees, outsourced companies, suppliers, consumers, community, govern and environment, and not only the community itself), which demands and needs are addressed and are incorporated into its business. Corporate Social Responsibility deals directly with corporate business and the way companies conduct it.

The research allowed finding other definitions for CSR, as follows:

- The World Business Council for Sustainable Development in its publication "Making Good Business Sense" by Lord Holme and Richard Watts, used the following definition. "Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large".

  The same report gave some evidence of the different perceptions of what this should mean from a number of different societies across the world. Definitions as different as: "CSR is about capacity building for sustainable livelihoods. It respects cultural differences and finds the business opportunities in building the skills of employees, the community and the government" from Ghana, through to "CSR is about business giving back to society" from the Philippines.

- Traditionally in the United States, CSR has been defined much more in terms of a philanthropic model. Companies make profits, unhindered except by fulfilling their duty to pay taxes. Then, they donate a certain share of the profits to charitable causes. It is seen as tainting the act for the company to receive any benefit from the giving.
- The European model is much more focused on operating the core business in a socially responsible way, complemented by investment in communities for solid business case reasons. This model may be more sustainable because:
  - Social Responsibility becomes an integral part of the wealth creation process - which if managed properly should enhance the competitiveness of business and maximize the value of wealth creation to society. This is the essence of this report.
  - When times get hard, there is the incentive to practice CSR more and better - if it is a philanthropic exercise which is peripheral to the main business, it will always be the first thing to be cut when things are difficult.
  - But as with any process based on the collective activities of communities of human beings (as companies are) there is no "one size fits all". In different countries, there will be different priorities, and values that will shape how business act.

Corporate Governance:

In this work, I will consider Corporate Governance or Corporate Sustainability as a major topic which comprises, among other factors, Corporate Social Responsibility and Environmental Responsibility as part of it. It is my understanding that Corporate Governance has to do with the survival of the business. In other words, the company must be sustainable in all factors, in order to exist in the future, as far as economics, political and social aspects are concerned. In this sense, Corporate Social Responsibility and Environmental Responsibility refer to the contribution that companies may add to the Sustainable Development of the Earth.

According to the Brazilian Institute of Corporate Governance (IBGC), Corporate Governance is "*a corporate managing and monitoring system, involving relations with the Owners, Board of Directors, Officers, Independent Auditors, and Fiscal Council. Good corporate governance practices are geared to add value to a company, facilitate its access to capital and contribute to its perpetuation.*"

As per the Code of Corporate Governance (IBGC, 2006), Corporate Governance helps private companies to: (i) increase company value; (ii) improve corporate performance; (iii) facilitate access to capital at lower costs[1], and (iv) contribute to the long term survival of the company, applying as basic principles Transparency, Fairness, Accountability and Corporate Responsibility.

TRANSPARENCY - More than the duty to inform, management should cultivate the desire to inform, knowing that good internal and external communications, particularly when spontaneous, straightforward and fast, lead to an atmosphere of trust, both internally and externally. Communications should not be confined to the economic and financial performance, but also contemplate other aspects – including intangible values – which drive managerial actions, such as the market, strategies, and activities leading to the creation of value.

Transparency principle is consistent with the reporting model proposed by the Global Reporting Initiative (GRI), in which reporting on economic, environmental and social performance by all organizations is as routine and comparable as financial reporting.

FAIRNESS - Fairness typically conveys fair and equal treatment of all minority groups, whether of owners or other stakeholders, such as associates, customers, suppliers, or creditors. Discriminatory attitudes or policies, under any pretext, are entirely unacceptable. This principle is consistent with Social Responsibility definition and aim.

[1] *"Access to capital" should be understood as the public or private offering of shares, long-term loans, and even reinvestment of cash flow funds.*

ACCOUNTABILITY - Corporate governance agents should account for their actions to those who have elected them, and fully answer for all their acts throughout their terms of office.

CORPORATE RESPONSIBILITY - Directors and Officers must gear their efforts to the life-long existence of their organizations (long-term vision, sustainability) and should therefore include social and environmental concerns in defining businesses and operations of their company. Corporate responsibility is a broader view of corporate strategy, contemplating all kinds of relations with the community where the company operates. The "social role" of the company should include the creation of wealth and job opportunities, work force skills and diversity, promotion of scientific advancements through technology, and improved standards of living through educational, cultural, social, and environmental initiatives. This principle should include preferred treatment of local people and resources.

In this sense, Corporate Governance (or Corporate Sustainability) should be understood as a set of plans, procedures and programs in a company, relating to:

- Economic responsibilities (development of products and goods that do not damage the environment and consumers' health);
- Legal responsibilities (payment of taxes over products and goods, compliance with legislation, and others);
- Ethical responsibilities;

– Philanthropy (creation of institutes and helping funds to local communities and entities, donation);
– **Environmental responsibility** (related to sustainable development);
– **Corporate Social Responsibility**;
– Social development of the community where the company is installed.

Considering the importance of these inter-relations in the micro and macro levels for a corporation, the development of coordination models for these relationships may be considered a challenge as relevant as the development of corporate management tools.

Although there is no fixed regulation to be covered by Corporate Sustainable practices, as mentioned before these generally cover issues related to economics, environment, employees and the local community. Recommended scope of work to define a strategy to deploy Corporate Sustainability in a specific company includes:

(1) approaching that the company, meaning its shareholders, are willing to consider. Corporate Sustainability must be implemented from top to bottom, once it needs to have financial support to do so;
(2) setting of priorities related to the main issues of the organization;
(3) setting of Corporate Sustainability values consonant to the company's values;
(4) finding the gaps between where the company is currently in and where it is willing to get;

(5) setting Corporate Sustainability key performance indicators and establish targets for that;
(6) acknowledging the company's weaknesses and set up action plans to improve;
(7) issuing annual reports, in order to release information to all stakeholders of the company and ask for feed-back on possible improvements.

One thing is for sure: the pressure on business to play a role in sustainable issues will continue to grow. Over the last ten years, institutions which have grown in power and influence have been those which can operate effectively within a global sphere of operations. These are effectively the corporations and the NGOs. Those institutions which are predominantly tied to the nation state have been finding themselves increasingly frustrated at their lack of ability to shape and manage events. These include national governments, police, judiciary and others.

There is a growing interest, therefore, in businesses taking a lead in addressing sustainable issues in which they have an interest where national government have failed to come up with a solution. That is not to say businesses will necessarily provide the answers - but awareness is growing that they are occasionally better placed to do so than any other actors taking an interest.

The many criticisms of Environmental Responsibility (ER) and Corporate Social Responsibility (CSR) programs are divided into six essentially different statements. In brief they are:

1. ER is just part of public-relations to trick an increasingly skeptical public.
2. CSR is just another word for corporate philanthropy and that the contribution which a business directly makes to the welfare of society (or "the planet") is to be viewed as largely independent of its profitability.
3. ER and CSR are misleading as such practices divert attention from key issues.
4. CSR ignores development economics and its concerns with capitalism, neo-liberalism and, anyway, are just a proxy to introduce socialism through the backdoor.
5. The social and environmental responsibilities of business begin and end with increasing profits. That is all companies are really worried about.
6. ER and CSR are frauds because companies cannot be left to self-regulate.

On the opposite site, the many advantages of implementing ER and CSR practices allow a corporation to:

1. Reduce costs, risks and liabilities due to environmental and social issues, increasing profitability;
2. Improve operational efficiency, also increasing profitability;
3. Increase legal compliances, reducing the risk of penalties and fines due to legal non compliances;

4. Improve social and environmental performance indicators, taking advantage of a better image facing community, clients & customers, consumers and regulatory agencies (stakeholder recognition);
5. All the items above increase the shareholder value.

The next section discusses ER and CSR practices as an integrated part of the corporate finance, in order to conclude which of the both visions exposed above is correct and provide an answer to the main question: ***"Does Environmental Responsibility and Corporate Social Responsibility create Value for a Company?"***

2. Corporate Finance and its relation with Environmental Responsibility and Corporate Social Responsibility

Shareholders are the owners of a corporation and they purchase stocks because they want to earn an adequate return on their investment related to the risk they are exposed to. Shareholders are, in general, risk averse, meaning that the higher the risk, the higher the required rate of return on the Project. In most of corporations, shareholders may be represented by board of directors, who then hire managers to run the company on a day-to-day basis. Managers are supposed to be working on behalf of shareholders, so they must pursue policies that enhance shareholder value. Consequently, the primary's objective of managers is the shareholder wealth (value) maximization.

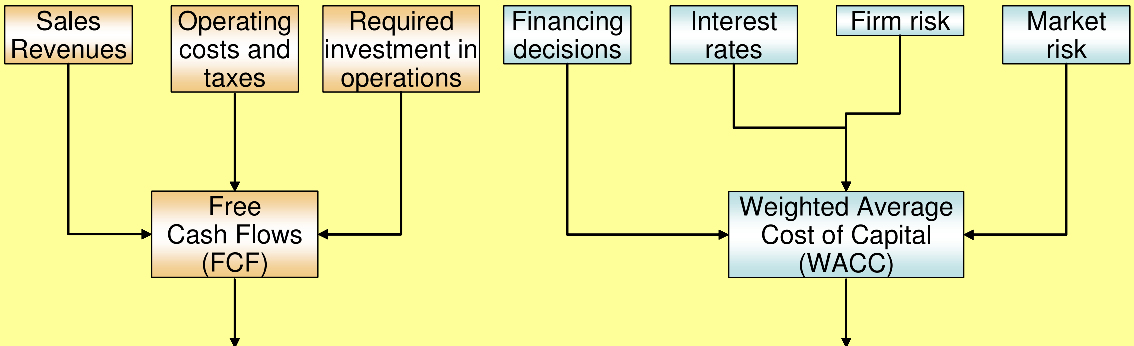
There are many opportunities for value maximization, considering employee's welfare, the good of the community and of society at large. That is when Environmental Responsibility and Corporate Social Responsibility apply. Nevertheless, managers should be aware and not forget that they are dealing with the shareholders' investments, who then need to approve it and be willing to implement that, too. The Corporate Mission, Policies and Guidelines should be aligned to the shareholders' interests and aspirations.

On the other hand, if a company attempts to maximize its fundamental stock price, in general, it is good for the society. This means that the same actions which increase the fundamental stock prices' value also benefit society, once the company adopts conducts in order to avoid fraudulent accounting, violating safety guidelines and environmental legal standards and, in the macro environment, damaging the community where it is inserted into or the consumers who buy its products. In some extent, the owners of stock are the society because nowadays most of individuals access (direct or indirect) to invest in the stock market. So, when taking decisions, managers are responsible for increasing also the wealth of the individuals who believed in the company and trusted their investments in it. Also, stock price maximization requires efficient, low-cost businesses to produce high-quality goods and services at the lowest possible cost – companies need to develop products and services that consumers need and desire, which leads to new technologies and innovation, meaning that a corporation should be sustainable. In this way, companies may increase sales and create value for customers, maximizing, therefore, its stock price. Employees benefit should not be forgotten: when stock increases, in general, companies also grow and add more employees, thus benefiting the society, or in some cases, not only adding more employees but also improving the quality of life of the already employed people.

In order to understand how managers may create value for the company and maximize shareholders wealth, it is needed to understand what determines a company's value.

The company' value is determined by its ability to generate cash flows in the present and in the future. The important cash flow is the free cash flow, because it is available (or free) for distribution to all of the company's investors, including creditors and stockholders. As shown in Illustration 2, the three primary determinants of free cash flow are: (1) sales revenues, (2) operating costs and taxes and (3) required investments in operations.

Illustration 2. Determinants of free cash flow*



$$\text{Value} = \frac{FCF_1}{(1 + WACC)^1} + \frac{FCF_2}{(1 + WACC)^2} + \ldots + \frac{FCF_n}{(1 + WACC)^n}$$

Source: Financial Management, Theory and Practice, E.Brigham and M. Ehrhardt

As noticed in Illustration 2, the free cash flow is one of the factors that contributes for the value creation of a firm. Financing decisions taken by a firm, interest rates at what it is subjected to, the firm risk relating to its activities/management guidelines and the market risk comprising the political and economical scenarios determines the WACC – Weighted Average Cost of Capital, which is the other factor contributing for the value creation of a firm.

Summarizing it, a firm generates sales, pays its costs and taxes, and makes the necessary investments in assets to support its growth. The result is free cash flow, which is available for distribution to all investors. The firm's capital structure and the risk of its operations determine the total risk of the free cash flows to the investors. This risk is combined with the level of interest rates in the economy and investors' overall attitude toward risk, resulting in the rate of return that investors require, which is the WACC to the company. Finally, the stream of expected future free cash flows, combined with the WACC, determine the value of the company.

The following sections detail each one of such determinants, considering their relationship with ER and CSR practices and the value creation for a company.

2.1 Sales Revenues:

Revenues on sales depend on the current level of unit sales, the price per unit and expected growth rates and are one of the determinants of the free cash flow of a firm.

Managers can increase unit sales and, therefore, the company's cash flow, by truly understanding the needs of its customers and then, providing goods and services that customers need.

Also, managers should understand the market, in order to know its competitors and all the players competing for the same customer, with the objective of being able to differentiate its product, service or brand in the terms agreed within the competitive environment, government agencies and legal regulations. This differential should not be easily replicated by competitors and have the period of high growth and high prices/sales extended for as long as possible.

Sales and revenues may increase or decrease depending on the perception of customers about the firm, meaning its brand, product or service.

According to the research made by AKATU Institute "Discovering the Conscious Consumer – A New Vision of the Brazilian Reality", consumers use their bargain power to influence the behavior of companies, in general, as follows: the universe of Brazilian consumers researched was split in three categories: social and environmentally conscious (aware of environmental and social actions in favor of the collective); socially and environmentally committed (own interests moved) and population (not aware of social and environmental principles, but most of times moved by solidarity). The research concluded that:

- Consumers consider the environment when buying goods: 42% of the conscious ones; 17% of the committed ones and 14% of the population;
- Consumers having social concerns when buying goods: 28% of the conscious ones, 14% of the committed ones and 14% of the population;
- Consumers who do not buy goods as a punishment measures for not environmental or social responsible companies: 42% of the conscious ones, 17% of the committed ones and 17% of the population.

The research made by AKATU Institute does not predict trends but, analyzes the current scenario, considering:

(1) the growing discussions on social and environmental matters among society, universities, non-governmental organizations (NGOs), government and private companies;
(2) public campaigns on these matters;
(3) passing of environmental bills in a more frequent basis;

(4) growing enforcement by public agencies relating to legal compliance with environmental and social standards;

(5) the inclusion of environmental matters in school, since pre-school under the requirements established by Federal Law 9,795/99 – the Brazilian Environmental Education Policy, article 9, we can assume that the social and environmentally conscious consumers are going to increase in the coming years. This means that society has been paying more attention and mobilizing for a good environment and products that do not damage the environment now or in the future.

In this sense, ER and CSR practices may be a market differential, by valuing the brand's image facing customers, meaning increase of sales of the social and environmental responsible goods.

Of course there are costs to adopt ER and CSR practices and procedures and incorporate them in the company's brand and goods/services. Nevertheless, these costs may be treated as operating costs or investments in operations, referred in the next items.

However, sustainability initiatives and strategies also provide opportunities for product differentiation - a key component of competitive advantage. Many leading companies are repositioning their products and services as part of their attempt to reduce their environmental or social impacts. In the process, they have helped differentiate their products in a manner that has enhanced their competitive position.

For example, efforts to address greenhouse gas emissions have catalyzed the development of new clean energy technologies such as fuel cells, electric vehicles, and increasingly powerful and efficient wind turbines. Companies face varying opportunities in these new technologies, and disclosure of information on sustainability initiatives and strategies can help clarify the degree to which a company is poised to take advantage of these new opportunities.

The environmental and social performance of companies can also have significant affect on intangible assets such as brand image and consumer goodwill, which are recognized as key to company reputation and trust. These issues are especially sensitive for companies selling directly to consumers in highly competitive markets. Nevertheless, if the company is B2B-oriented, environmental and social performance may also be a market differential, as many worldwide companies are ultimately demanding good related practices to their suppliers.

The diamond industry, responding to public pressure regarding human rights abuses associated with mines in certain countries, has changed technology where diamonds were mined. Information on product stewardship initiatives and efforts to enhance the positive environmental and social lifecycle impacts of products can point to areas of possible competitive advantage.

Similarly, in certain industry sectors, ER and CSR practices are most significant to assessing the future ability of the company to preserve brand value and reputation. For instance, the Brazilian company NATURA has adopted a business strategy based on environmental preservation and social responsible practices, claiming that its products are manufactured using natural raw-materials raised in sustainable environments/communities. NATURA's selling strategy is based on this and the company's image and brand are highly connected to sustainable environments and communities. Therefore, ER and CSR practices are vital for NATURA; if the Company is involved in environmental damages and/or social bad situations, it may mean loss of market, loss of sales and, finally, loss of free cash flow to NATURA. Being environmental and social responsible is a matter of not only value creation, but also keeping all the value gathered from the implementation of these practices, which is already incorporated in NATURA's business sustainability.

2.2 Operating Costs and Taxes:

Operating costs and the need of paying taxes also impact a company's cash flow. This amount of cash determines the after-tax profit available to investors, after the company pays its employees and suppliers and it will compose the free cash flow of a company.

Managers can increase operating profit by reducing direct expenses, such as labor (number of employees and/or number of working-hours of employees) and materials (by using lower costing or less effective raw materials and/or reducing the quantity of power, water and fuels, among other inputs); however, measures should be taken in order not to use low quality materials which leads to costly production problems and, consequently, the need of spending more money to recover it.

Considering operating costs, the implementation of corporate responsible programs including, but not being limited to, employees training, development of safety and environmental procedures, as well as communities benefit programs increase the company's operating costs in the first moment, impacting its cash flow in the beginning, but increasing it and saving money in the long term.

Current trends and by analyzing particular cases lead us to understand that the implementation of ER and CSR practices may be interpreted as a way to strength the relationship of the company with its interested parties and, also, considering the company's operations, as a way to gain productivity, lower turnover and reduce natural resources used to produce goods.

Environmental Responsibility has huge effect on operating profits and should help a company to develop action plans to control and reduce risks related to:

- **Environmental, Health and Safety (EHS) aspects and related impacts** of the plant's current operations (air, water, effluents, chemicals, etc.);
- **Waste** handling and disposal practices;
- **Buried tanks** used to store hazardous or flammable chemicals;
- **Soil and shallow groundwater or surface water contamination;**
- **Non compliances** with EHS regulations;
- **Critical operational situations** at the plant, which may reach or cause any damage to the local community, as far as EHS practices are concerned;
- **Emergency situations,** considering the plant itself, employees, local community and the environment;
- **EHS impacts from past uses** of the plant site.

The situations above are predicted in the Brazilian Regulations, including laws, decrees, ordinances, instructions and technical standards that the company must comply with. Once the company does not comply with any of such regulations and, moreover, the related noncompliance leads to a critical and somehow impacting situation, the legislation obliges the company to recover and remediate it.

The Brazilian Environmental Regulations have been developed in the last three decades and, according to the article "An Environmental Road Map for Entering Emerging Markets" (Boehm, 1996), the Brazilian Environmental Regulations may be classified as developed. According to the author, Germany, Japan, Netherlands and United States have a highly developed environmental legal framework, being well-defined and having comprehensive laws and regulations at a national level, with formal enforcement programs, focus on sustainable economic development and high-performance environmental management; Australia, Brazil, France and Singapore are considered to be developed in terms of environmental legal framework, having mature regulatory requirements at the national, provincial, and local levels (and enforcement of same), following the lead of highly developed countries.

The Brazilian Legal Environmental Framework may be summarized in three main regulations, as mentioned below:

- **The Federal Constitution**, passed in 1988, established in its Chapter VI, article 225, paragraph 3, that conducts and activities considered harmful to the environment shall subject the individual or legal or corporate wrongdoers to penal and administrative sanctions, in addition to the obligation to repair the damages caused.
- **The National Environmental Policy**, established by Federal Law 6,938/81, which in its article 14, paragraph 1, defines that the polluter is obliged to pay for or to repair damages caused by its activities and operations to the environment or third parties, independent of the existence of guilty. Also, this regulation introduces the Public Legal Suit applicable to environmental damages in Brazil.
- **The Brazilian Environmental Crime Law** (Federal Law 9,605, passed on February 12, 1998, regulated by Federal Decree 3,179, dated September 21, 1999) establishes criminal and administrative penalties and fines derived from activities and operations which damage the environment. Fines from R$ 50 to R$ 50 million may be enforced by the local Environmental Protection Agency (EPA) to the company, depending on the scenario, extension and type of damage, number of people affected, the procedures in place to deal with the situation and the company's historical behavior.

> According to such regulations, fines may be applied in case of environmental damages and pollution caused by: air/liquid effluents emissions; waste disposal; soil, groundwater and surface water contamination; disturb or damage to public health; lack of environmental licensing and others. Beyond the penalty, the company still has to spend money to recover and remediate the situation.

Penalties, infractions and other legal processes filled against the company, as well as the costs to recover and remediate the situation increase a company's operating costs, help to decrease free cash flows or make it negative, once operating costs is one of the variables that compose free cash flows. That is when ER may help the company to prevent loss of money due to fines and environmental remediation costs. One thing is for sure: we can measure the amount of money needed to implement Environmental Responsible programs and it impacts the firm's cash flow in the short term. But, in the long run, ER may be worth to implement. And the reason for that is too simple: it is easy to determine tangible losses such as fines, recovering and remediation costs; however, it is very hard to determine the extension and damage derived from image/brand loss and loss of credibility as a good company (these are considered intangible values). It will depend on several factors which may vary depending on the scenario under it occurs. The implementation of ER and CSR practices help to avoid financial damages caused not only by tangible values, but also by intangible ones; these practices help to preserve the good image of the company's brand.

Therefore, companies are currently being encouraged to act on the prevention, in order to avoid future damages which may cause damages for several interested parties, depending on the proportion it takes, including impacts to local communities, employees, company's assets, shareholders and stockholders who invested their money believing in the growth of the company.

Investment in pollution control as well as in social responsible programs is considered tangible, since the company can measure it and determine how it will be applied in the business overtime, in order to minimize the first impact in the cash flow. Recovering and remediation costs can be defined, but depending on the extension and scenarios where it occurs may involve intangible values, being difficult to determine and, therefore, define the amount of money to be saved as a reserve to cover future damages related to EHS and social issues. And, most of times, the company should have it available to immediately recover from the damage and provide indemnifications to the people injured. It is not a matter of distributing cash along time, in order to minimize its impacts in the cash flow, but rather having it available to immediate application, which means a great leak in the cash flow at one single time.

Another advantage of ER, related to savings in operating costs, can be obtained by implementing natural resources minimization programs, if applicable to the type of company being considered.

Consider the Illustration 3 below:

Illustration 3. IFC's view on operating costs

Pollution prevention adds value to the company, increasing its free cash flow due to economies in operating costs, if process wastes and outflows can be returned to be reprocessed, recycled or added as a secondary input to the beginning of the industrial process.

Practical and true cases lead us to believe that it is better to prevent than to remediate, because costs are lower to implement than to correct. Follow below situations to illustrate that.

- As per the Yearly Report published by NATURA in 2003, in that year the company growth was 26.8%, comparing to the growth of the company in 2002. Nevertheless, as a result of the programs implemented relating to the reduction of natural resources consumption, the company reduced water consumption in 4.5% and power in 9%. These statements allow us to conclude that the company, although reduced the consumption of inputs, giving the idea of "reducing the production", actually the backwards really happened: the company gained productivity. Of course, some reengineering processes may be adopted, but this is part of the reduction and minimization programs. Probably, NATURA did not reduce the quantity of water in the process… but re-treated it and/or reused it in operational activities as make up or washing water and paid less for less noble water usages. In addition, the company states also that waste recycling practices saved R$ 100,000 per year, which would be spent on adequate final disposal of wastes through incineration at outsourced companies. Probably, wastes minimization programs and recycling procedures have been implemented to allow such saving.

- Another practical and true example is PETROBRÁS. On January 18, 2000, the second most severe accident happened in Baía de Guanabara, Rio de Janeiro city/RJ. Due to a fail in the oil pipes from Duque de Caxias Refinery (REDUC), one of the production plants of PETROBRÁS, approximately 1.3 million of liters of crude oil were released into Baía de Guanabara. The most severe accident happened in 1975, due to a release from the ship "TARIK" into this water body.

  After the release of 1.3 million of liters of crude oil, the oil reached an extension of 50 km^2, including the wetland of Guapimirim (an Environmental Protected Area), beaches at Ilha de Paquetá and Ilha do Governador, fauna and flora species, causing damages to the local population in social and economical terms. Baía de Guanabara, once used by the local population for fishing and tourism purposes, was contaminated and became unfeasible for these purposes. PETROBRÁS stated that the accident was caused by a fail in the installation project of oil pipeline PE-2 and that there was no excuses for it. PETROBRÁS also assumed all the costs relating to emergency procedures and remediation processes.

  During the years 2000 and 2004, PETROBRÁS caused several accidents relating to oil spills and leakages, including also the accident occurred in Paraná State, Araucária city, where REPLAN (another refinery) is located.

Due to the environmental impacts in Baía de Guanabara, PETROBRÁS had to pay a fine of R$ 50 million, applied by IBAMA, the National Environmental Protection Agency. It was the first fine filled against a company of that value, applying the concepts defined in the Environmental Crimes Law, since it was passed in 1998. Summarizing the economical impact for PETROBRÁS, the company had to pay for: (i) the fine itself; (ii) emergency costs to recover the oil leaked; (iii) the remediation costs to partially de-pollute Baía de Guanabara; (iv) social costs, relating to fishing and tourism used by communities based on the banks of Baía de Guanabara to help subsistence and provide food.

PETROBRÁS lost image and the public opinion turned against the company, due to several negative marketing published by the media at that time.

- One famous example is the Mantovani Landfill, located in State of São Paulo, Brazil. This landfill operated from 1974 to 1984 and during this period, approximately 174.000 tons of solid wastes (hazardous and non hazardous) were disposed of in its property. Wastes came from 69 different companies, which had hired the landfill for final disposal of a great range of wastes. On July 1987, CETESB interdicted the landfill. A Law Suit was filled by the Public Ministry against the landfill and condemned the owner to remediate the site. By 2001, environmental remediation was still on the paper and nothing had been done. A Local Prosecutor filled a legal process (“Inquérito Civil # 001/ 2001”) in order to sign a Commitment Term (CT) with all the companies that had disposed of wastes on the landfill. The CT was signed by 42 companies, out of 69. Emergency corrective actions and site diagnosis were estimated in R$ 6,079,358.00, but the amount of money provided by all the companies summed R$ 2,795,232.00 (using volume of waste disposed of on the site as ratio criteria). After the diagnosis, the total remediation cost was estimated in R$ 17,697,000.00, to be spent along 10 years. Sharing criteria is based on wastes management items applicable for each company, during the time that the landfill was operating. Remediation is currently on going and the companies are paying for irresponsible environmental practices taken in past.

NATURA, PETROBRÁS and Mantovani landfill cases exposed above lead us to notice that the implementation of ER practices may create financial value to the company, as far as prevention procedures and correction measures are concerned.

2.3 Required Investment in Operations (RIO):

Required investment in operations (RIO) is the third factor affecting the free cash flow of a company, being also a co-determinant for the value creation of a company.

RIO is the amount of money a company must invest in its operations (including assets such as factories, equipment, computer systems and inventory). Briefly, it takes cash to create cash. However, we should understand that every Real invested in operations is a Real that is unavailable for distribution to investors. Therefore, reducing asset requirements increases cash flows and, consequently, the stock price.

For example, companies that implement just-in-time inventory systems generally increase their cash flows because they have less cash tied up in inventory. It is expensive to keep large inventories, but this should be a decision taken by the company's managers aligned with shareholders' interests. The decision of keeping it large or short will depend on the type of activity and, a basic reason that must be considered is the product life cycle. As an example, IT companies have products with a very short lifecycle; automotive companies have medium lifecycle goods; pulp and paper and textile companies are considered to have long-term products.

Keeping short life cycles, however, increases the operating costs relating to processes and systems that must be implemented to assure the good quality and compliance with technical standards of the company's products (less quantity of goods narrows the margin of errors, if the company must have the product available for selling and delivery). In this sense, quality control systems, such as ISO 9000 should be considered – however, it will not be discussed in this work, as it is my understanding that this type of system is not considered an ER or CSR practice.

Nevertheless, considering ER, the Brazilian Environmental Legal Framework establishes that environmental, health and safety (EHS) aspects and impacts generated by industrial processes must be minimized and the legal standards must be complied with. Managers should consider it when a new project comes to idea. EHS regulations must be complied since the project feasibility study, the plant start up, operation and decommissioning phases. Investments must be done in order to have all the plant's phases complying with the legislation, avoiding fines and penalties due to EHS non compliances. It should be considered that the main Brazilian Environmental Regulations, described in Section 3.2, also establish suspension of activities, to be applied by the local EPAs, depending on the type and relevance of non compliance. As an example, according to the data presented by Energias do Brasil S.A., EHS investments in a project of a hydroelectric power plant represents at least 20% of the total investment to build the plant.

The Company has it very clear and is aware of the need of complying with such regulations, once if it does not, it simply does not get the plant operating.

The implementation of ER programs may be considered, as well, as an investment to be made in order to improve the company's operations, develop action plans to ensure compliance with legal regulations and, therefore, avoid situations of non compliance, penalties and fines.

Once again, as already mentioned investment in pollution control as well as social responsible programs are considered tangible, since the company can measure it and determine how it will be applied in the business overtime, in order to minimize the first impact in the cash flow. Recover and remediation costs, as defined above, are most of times associated to intangible costs, once it may be related to loss of image/brand, being very difficult to determine and, therefore, define the amount of money to be saved as a reserve to cover future damages related to EHS and social issues.

There is no shortcut to creating lasting value. It takes hard work to increase sales, cut costs and reduce capital requirements, but this is the formula for creating free cash flow and, also, a healthy company (economical, environmental and socially).

2.4 Weighted Average Cost of Capital (WACC):

Financial managers must take decisions on how to finance the firm. In particular, what mix of debt and equity securities should be issued? Also, what percentage of current earnings should be retained and reinvested rather than paid out as dividends? Along with these financing decisions, the general level of interest rates in the economy, the risk of the firm's operations, and the stock market investors' overall attitude toward risk (market risk) determine the rate of return that is required to satisfy a firm's investors. This is a return from invertors' perspectives, but it is a cost from the company's point o view. Therefore, it is called the Weighted Average Cost of Capital (WACC). The WACC is one of the determinants of the firm's value.

In a free economy, capital from providers with available funds is allocated through the price system to users that have a demand for funds. The interaction of the provider's supply and the users' demand determines the cost (or price) of money, which is the rate users pay to providers. Therefore, interest rate is the cost of capital.

In general, the quoted (or nominal) interest rate on a debt security, r, is composed of a real risk-free rate of interest, r*, plus several premiums that reflect inflation, the riskiness of the security, and the security's marketability (or liquidity). This relationship can be expressed as follows:

Quoted interest rate = r = r* + IP + DRP + LP + MRP

Where:

r	=	The quoted, or nominal, rate of interest on a given security.
r*	=	The real risk-free rate of interest – it is the rate that would exist on a riskiness security if zero inflation were expected.
IP	=	Inflation premium, equal to the average expected inflation rate over the life of the security.
r_{RF}	=	**r* + IP**, and it is the quoted risk-free rate of interest on a security such as a US Treasury bill (T-Bill), which is very liquid and also free of credit risk.
DRP	=	Default risk premium or credit risk, which represents the possibility of an issuer not pay interest or principal at the stated time and in the stated amount. DRP is zero for T-Bill, but it rises as the riskiness of issuers increases.
LP	=	Liquidity or marketability premium. This is a premium charged by lenders to reflect the fact that some securities cannot be converted to cash on short notice at a reasonable price. LP is very low for T-Bill and securities issued by large, strong firms, but it is relatively high on securities issued by very small firms.
MRP	=	Maturity risk premium, charged due to long-term bonds are exposed to a significant risk of price declines. The longest the term, the higher MRP.

It is possible to relate ER and CSR to interest rates, as far as credit risk and the general risk perception of the firm are concerned, as discussed below:

- Credit risk can be higher if the firm, among other factors, is involved in legal suits or any other legal procedure relating to ER (land contamination and its costly remediation; damage to public health and high due expenses; etc.). It may not be enough money to pay money providers.

- Also, credit risk can be higher if the market perception of the firm is bad, due to environmental damages, pollution events and legal suits, among other situations. Investors are not willing to invest money in a company perceived as "bad". Investors are usually risk averse.

In some cases, a credit line for a company that has not implemented ER and CSR practices may be unachievable or may have interest rates increased due to higher risk exposure.

One practical example of the relation between interest rates/loans with ER and CSR is the Equator Principles, launched in 2003 by the International Finance Corporation (IFC) - the private sector arm of the World Bank Group, responsible for financing investments in the developing world.

The Equator Principles are a set of guidelines developed for managing Environmental (including Health and Safety) and Social issues related to the financing of development projects. Those Principles ensure that the financing project is developed in a manner that is socially responsible and reflect sound environmental management practices. These principles are intended to serve as a common baseline and framework for the implementation of IFC's individual, internal environmental and social procedures and standards for project financing activities across all industry sectors globally.

IFC only provides loan if these Principles are accomplished by the company (direct loan) or by the finance institution (bridge loan), called EPFI – Equator Principles Finance Institution.

In 2003, the Equator Principles were signed and adopted by ten leading banks (EPFI) from seven countries. Worldwide banks like ABN AMRO Bank, N.V., Barclays plc, Citigroup, Inc., Crédit Lyonnais, Credit Suisse First Boston, HVB Group, Rabobank Group, UNIBANCO, The Royal Bank of Scotland, WestLB AG, and Westpac Banking Corporation have signed and adopted those Principles, applying them globally to project financings in all industry sectors. These banks underwrote approximately $14.5 billion of project loans in 2002, representing approximately 30% of the project loan syndication market globally in 2002, according to Dealogic (market researchers). Currently, 41 banks, among which five Brazilian banks – Bradesco, Banco do Brasil, Itaú, Itaú BBA and UNIBANCO, have already signed and adopted the Equator Principles and represent approximately 80% of the budget for project finance worldwide. Project finance, an important financing method in private-sector development globally, refers to the financing of projects where the repayment of the loan is dependent upon the revenues that a project is expected to generate once it is up and running.

In July 2006 the Equator Principles were revised and re-launched, to incorporate learning and experiences of the adopting financial institutions in implementation over the previous three years and also to reflect changes to the IFC Performance Standards. The new Equator Principles have increased scope of application, stronger and improved social and environmental standards - particularly in the area of public consultation - and include a performance and progress reporting requirement for adopting institutions.

Nowadays, the Equator Principles shall be applied to all loans for projects with a capital cost of $10 million or more, as per the Principles' review on July 2006. Before that, these Principles were required for loans above $ 50 million. However, the EPFI may apply those Principles for projects under $10 million, e.g. Itaú applies them for projects above $5 million.

The Equator Principles must be adopted by any company which aims to get a loan from IFC or by any bank which desire to maintain a bridge loan anchored by IFC to its clients.

Attachment A comprises the full Equator Principles reviewed in July 2006. Attachment B shows a brochure of the IFC Policy and Performance Standards on Social & Environmental Sustainability and Policy on Disclosure of Information.

The Equator Principles translate the increasing environmental and social conscious worldwide and are the statement that financial institutions are concerned on these matters. All bad experiences and loss of money relating to environmental damages have brought to attention of financial institutions that is cheaper to prevent than to remediate, considering that a remediation most of time may be even more expensive than the asset value.

It is possible to state that companies will have to adjust their environmental and social behavior in order to continue to be eligible to loans from IFC or from financial institutions that adhered to the Equator Principles (EPFI).

Another way to classify the risk of a company is to adopt the bond rating criteria. Since the early 1900's, bonds have been assigned quality ratings that reflect their probability of going into default. Major probabilities of default increase the firm risk. The three major rating agencies are Moody's Investors Service (Moody'), Standard & Poor's Corporation (S&P) and Fitch Investors Service.

According to Eugene F. Brigham and Michael C. Ehrhardt, authors of the book Financial Management – Theory and Practice, the Bond Rating Criteria used by Moody's, S&P and Fitch to classify the risk of a firm considers both qualitative and quantitative factors related to finance and other concepts: financial ratios; mortgage, subordination and guarantee provisions; sinking funds; maturity, stability; **regulation/compliance with pertinent legal requirements**; antitrust; overseas operations; accounting policies; **environmental factors; product liability** (how safe is the product) pension liabilities and **labor unrest**.

The bond rating designation used by S&P and Moody's are shown in Table 1. Basically, the triple- and double-A bonds are extremely safe, meaning that the company has a low risk for investors due to the accomplishment of most of the criteria described above, including ER and CSR practices. Single-A and triple-B bonds are also strong enough to be called investment grade bonds and they are the lowest rated bonds that many banks and other institutional investors are permitted to hold safely. Double-B and lower bonds are speculative (junk bonds) and have a significant probability of going into default, due to the lack of programs to accomplish the classification criteria. It is possible to assume that a company that lacks ER and CSR practices has higher probability of causing an environmental damage and, consequently, soil and groundwater contamination, for example. Having to pay for the cleanup, less money is due to dividends payment and investors return, increasing the possibility of default.

Table 1: Moody's and S&P Bond Ratings

	Investment Grade				***Junk Bonds***			
Moody's	Aaa	Aa	A	Baa	Ba	B	Caa	C
S&P	AAA	AA	A	BBB	BB	B	CCC	D

It is important to mention that changes in a firm's bond criteria affect both its ability to borrow long-term capital and the cost of that capital. The lower is the classification, the higher interest rates will be charged to obtain a loan.

The Equator Principles, mentioned before, also define another approach for the company's classification, considering its operations, products manufactured and related risks. Follows below the categories in which companies requiring loans are classified - before becoming eligible for getting a loan from IFC and other EPFI:

- **Category A:** significant adverse environmental impacts, irreversible, affect vulnerable groups or ethnic minorities, involve involuntary displacement and resettlement, or affect significant cultural heritage sites. CSR program required: Environmental Impact Assessment (EIA). Ex.: Mining, construction of dams and reservoirs, waste disposal, O&G, large infra-structure projects, etc.;
- **Category B:** specific environmental impacts, site specific and few are irreversible. Potential adverse environmental impacts on human populations or environmentally important areas. Less adverse than Category A. CSR program required: Environmental Assessment (EA). Ex.: pulp and paper mills, hotel/tourism, cement manufacture, etc.
- **Category C:** minimal or no adverse environmental impacts. CSR program required: none. Ex.: software companies.

- **Exclusion list:** the main activities not eligible to a loan from IFC are related to the production of weapons, alcoholic beverages, tobacco, radioactive materials, gambling, pesticides/herbicides, phase out chemicals, childhood labor, among others. The full list is comprised in Attachment C.

Although the IFC's classification considers only the adverse possible impacts to be caused by its activities, operation and products, not relating to the same sort of financial criteria used by Moody's and S&P, it may be understood as a financial driver once the company may not be linked to any activity included in the Exclusion List and must have ER and CSR implemented according its categorization, in order to become eligible to receive a loan from IFC or other EPFI. As mentioned earlier, if the company does not accomplish them, it does not get the loan. This is evident that ER and CSR are more and more related to finance and the value creation for a company.

One of the reasons that may contribute for a given stock to move up or down in the market is the public perception of the company (relating to image and risk perception). ER and CSR practices improve the market perception of a company in the market, due to its principles of environmental protection (avoiding costly damages caused by pollution), ethics and good policies for employees and communities where the company is inserted into. In order to get a positive market perception from ER and CSR practices, the company must be transparent and let the public know about those.

With this aim, Global Reporting Initiative (GRI) was launched in 1997 as a joint initiative of the U.S. non-governmental organization Coalition for Environmentally Responsible Economies (CERES) and United Nations Environment Program with the goal of enhancing the quality, rigor, and utility of sustainability reporting. The initiative has enjoyed the active support and engagement of representatives from business, non-profit advocacy groups, accounting bodies, investor organizations, trade unions, and many more. Together, these different constituencies have worked to build a consensus around a set of reporting guidelines intending to achieve worldwide acceptance.

GRI guidelines are internationally recognized and comprise a set of principles for reporting on an organization’s economic, environmental, and social performance, in a consistent and independently verifiable external document. The GRI Guidelines contain a detailed process for company disclosure on environmental, economic and social issues, as well as for reporting on governance structures management systems and stakeholder engagement activities. It includes: taxes of all types paid, human rights strategy and management, non-discrimination, core labor rights, policies and procedures for managing community impacts and others. The GRI Guidelines support benchmarking and assessment of sustainability performance, with respect to codes, standards and voluntary initiatives, as well as serve as an instrument to facilitate stakeholder engagement. Attachment D presents details on the Global Reporting Initiative.

According to the GRI, for the two thousand or more companies worldwide that are already reporting, the business justification for economic, environmental, and social reporting is fact, not hypothesis and the main reason and benefit of reporting are, among others, to maintaining and strengthening the **"license to operate"** given by the society and local communities where the company is inserted into. Also, transparency is the value and a goal that underlies all aspects of sustainability reporting - transparency is one of the values that guides Corporate Governance, as discussed in Section 1 – Concepts and Initial Discussion.

Compared with financial reporting, which is targeted primarily at one key stakeholder - the shareholder - sustainability reporting has a large and diverse audience. Stakeholder engagement plays an important role in helping to ensure that a report achieves its primary purpose: providing information that meets the needs of the organization's stakeholders.

Therefore, stakeholders expect to be able to trust an organization's sustainability report. To benefit from the process of sustainability reporting, organizations themselves also want to take steps to enhance the credibility of their reports. This contributes to building stakeholder's trust and to continual improvement in the quality of reporting systems and processes. Consultation with stakeholders is the best way to ascertain stakeholder's perceptions and expectations about building credibility (which, as previously said, can be considered intangible value).

Another instrument that allows the company to get a positive market perception from ER and CSR practices, following the principle of transparency as part of the Corporate Governance, is the financial indexes: Dow Jones Sustainability Indexes (DJSI – originally American), FTSE Group Indexes (originally English) and BOVESPA Sustainability Index (ISE – originally Brazilian). I will take as an example the DJSI and the ISE.

Launched in 1999, the DJSI is the first global index tracking the financial performance of the leading sustainability-driven companies worldwide. Based on the cooperation of Dow Jones Indexes, STOXX Limited and SAM Group indexes provide asset managers with reliable and objective benchmarks to manage sustainability portfolios.

Currently, 56 DJSI licenses are held by asset managers in 14 countries to manage a variety of financial products including active and passive funds, certificates and segregated accounts. In total, these licensees presently manage over 3.3 billion of Euros or 4.1 billion of American dollars based on the DJSI (DSJI Review, September 2005).

The Dow Jones Sustainability World Indexes (DJSI World) cover the top 10% of the biggest 2,500 companies in the Dow Jones World Index in terms of economic, environmental and social criteria. As a benchmark for European sustainability investments, the Dow Jones STOXX Sustainability Indexes (DJSI STOXX) cover the leading 20% in terms of sustainability of the companies in the Dow Jones STOXXSM 600 Index. The Dow Jones EURO STOXX Sustainability Index (DJSI EURO STOXX) is the Eurozone subset of the DJSI STOXX and, thus, tracks the financial performance of sustainability leaders in this particular region. The selection of index components follows a rule-based process defined in the DJSI Guidebooks. It is based on a thorough assessment of general and industry specific sustainability criteria covering economic, environmental and social issues.

According to the DJSI Review (2004), over the universe of 2,500 companies for DJSI World and 600 companies for DJSI STOXX, invitations were sent to 2,500 companies, among which 978 were analyzed, being 370 in North America, 359 in Europe, 128 in Japan, 100 in Asia and Pacific (except Japan), 11 in Latin America and 10 in South Africa. A total of 522 completed the survey and 467 were announced as (new or remaining) DJSI members. In 2003, 771 were analyzed, being 254 in North America, 352 in Europe, 74 in Japan, 84 in Asia and Pacific (except Japan), 7 in Latin America and 7 in South Africa. A total of 487 completed the survey and 478 were announced as DJSI members. PricewaterhouseCoopers (*PwC*) was the external company leading the assurance of the research process and its quality.

DJSI Review (2004) states that stocks of the companies members of DJSI grew a total of 146% from December 2003 to June 2004, compared to 108% of DJI (regular index that does not take into account ER and CSR criteria in its evaluation and in the companies' selection processes).

DJSI considers, as reference, the following definition to assess companies: *"Corporate Sustainability is a business approach to create long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments."* Accounting for issues such as corporate governance, climate change, supply chain standards, and labor practices, the annual review of the DJSI family is based on a thorough assessment of corporate economic, environmental and social performance. The assessment results, which are assured by an external auditor, also provide detailed information about recent sustainability developments in the corporate world. The selection of companies for the indexes is based on a "best in class" approach, i.e. the aim of the assessment is to identify the best companies in each sector.

The benefits for a company to participate in the DJSI are:

- **Sustainability investing:** Shares of DJSI members are recommended for sustainability investing. The company may, therefore, directly benefit from the growing demand for sustainability-related investments.

- **Benchmarking feedback:** All companies participating will receive a benchmarking report free of charge. This report covers all criteria assessed and shows the company's sustainability performance compared to the industry average and the sector's best-in-class company on a global basis.
- **Reputation and brand:** Identification as a global sustainability leader in a sector can enhance the company's reputation in the eyes of stakeholders, financial analysts and the public at large.
- **DJSI member label:** Companies that qualify for the DJSI will receive the DJSI member label for internal and external marketing and communication purposes.

The DJSI Review conducted in 2005, points the following trends on sustainability:

- Sustainability is continuing its move from corporate strategy and operations into product and service offerings.
- Companies are converging in first generation sustainability themes such as corporate governance and environmental reporting.
- Transparency and accountability along the whole supply chain are increasingly visible through policies and control mechanisms.
- **Sustainability indicators are increasingly linked to financial value drivers and integrated into Annual Reports.**
- Corporations widely recognize and acknowledge the importance of human capital management for their success.
- Overall, sustainability performance continues to advance across all sectors.

Attachment E comprises detailed information on DJSI and its criteria.

The other index taken for analyzing the market perception on the company and its influence on the value creation is the ISE – *Índice de Sustentabilidade Empresarial da BOVESPA* (Corporate Sustainability Index of São Paulo Stock Exchange).

On December 1st 2005, the ISE was launched by São Paulo Stock Exchange (BOVESPA). BOVESPA believes that the economical development is closely related to the Brazilian society welfare. The ISE reflects the return from a portfolio composed by corporations whose actions are taken towards the best performance of all the dimensions of the corporate sustainability. It has been created to become a reference brand to socially responsible investments and a motivator for good practices among the Brazilian corporations.

Currently, 28 companies participate in the ISE, which have been selected by BOVESPA, according to the methodology established by Fundação Getúlio Vargas and the sponsorship from the International Finance Corporation - IFC. These companies represent 34 stocks of twelve sectors and have been selected among 63 which had answered a questionnaire distributed by the index managers. Totally, 121 companies, responsible for the 150 stocks most negotiated in BOVESPA, had received the questionnaire.

The ISE is similar to DJSI and was discussed by eight institutions (ABRAPP, ANBID, APIMEC, BOVESPA, ETHOS Institute, IFC, IBGC and the Brazilian Ministry of the Environment). The following industries were excluded from the ISE and are not allowed to apply for the membership: alcohol, tobacco and weapons.

The companies currently participating in the ISE are: ALL-América Latina Logística, Aracruz Celulose, Belgo Mineira, BRADESCO, Banco do Brasil, BRASKEM, CCR Rodovias, CELESC, CEMIG, CESP, COPEL, COPESUL, CPFL Energia, DASA Diagnósticos da América, ELETROBRAS, ELETROPAULO, EMBRAER, GOL Linhas Aéreas Inteligentes, Iochpe-Maxion, Itaú, Banco Itausa, NATURA, Perdigão, Suzano, Bahia Sul Papel e Celulose, Tractebel Energia, UNIBANCO, Votorantim Celulose e Papel and WEG.

Therefore, DJSI and ISE turn evident that even more and more ER and CSR practices are inserted in strategic decisions taken by a company and such decisions are linked to the value creation. DJSI and ISE translate that the integrated assessment of economic, social and environmental criteria must be understood with a strong focus on long-term shareholder value due to a good market perception of the member company.

2.5 Other Issues – Mergers & Acquisitions (M&A):

It is possible to integrate ER and CSR roles in the business transaction life cycle: when the company is buying assets, the main objective is to minimize liability's incorporation to the business. When the company is operating, ER and CSR may be optimized in order to minimize operation costs, as discussed in Section 2.2 – Operating Costs and Taxes. When the company is selling, closing or divesting assets, the main objective is to maximize the return on the investment and environmental liabilities must be considered.

M&A is usually a decision of investment. The economic driving force is that M&A and divestitures are the way companies reconfigure themselves, in order to remain active in business. Typical questions involving M&A situations are: Does the company have enough money to acquire a new plant or any other asset in order to support its growth and, consequently, its future survival in the market? Moreover, *should* the company acquire a new asset? Or, instead, should the company sell an asset that does not represent the required return on the invested capital (ROIC) or may not be aligned to the current business of the company? Should the company simply proceed the decommission of a plant or a production line of a good which is not considered cash cow[1] or star[2] or question mark[3] anymore and, instead, has become a dog[4]?

[1] ***Cash cow:*** *type of good that generates strong cash flow. No investments are necessary, but instead it may provide profits to finance growth of question marks or stars types of products;*
[2] ***Star:*** *type of good that generates considerable income. However, investments are necessary to make future growth feasible;*
[3] ***Question mark:*** *type of good that has a potential to become star or cash cow. The company should either invest more funds for growth or consider disinvesting;*
[4] ***Dog:*** *type of good that generates little profit. Company should not invest in it anymore and, instead, may consider withdrawing.*

Questions like the ones mentioned above arise in a process of M&A and a full analysis of possible scenarios must be reviewed in order to be used as subsidies for the decision making. Most likely liabilities or reasonable worst case scenarios must be provisioned following international techniques, as a manner of having the best judgment of present and past variables and turning them into the company's future vulnerability and sensitivity. Based on the future situation predicted through such techniques, it is possible to evaluate if the deal worth in financial terms. Such techniques, just to mention it, are considered to be legal regulations, corporate standards, best management practices (BMP), ISO Standards, ASTM Standards and All Appropriate Inquiry (AAI) Standards.

In other words, M&A leads to an evaluation named *due diligence*. A *due diligence* is the complete assessment of potential risks at a company or a business itself. The aim of a *due diligence* process is to identify all potential risks to support a decision maker (i.e. CFO, COO & CEO of a company) during the M&A process and it should consider costs versus risks of the subjected company or business.

The result of a *due diligence* is the identification of potential *deal breakers* at an early stage of the M&A process and, based on such identification, the decision maker may conclude if the transaction will generate profit for the company in the near future, or not.

A full *due diligence* process involves the evaluation of all aspects of the business/company, such as: financial, legal, commercial/market, technical/engineering, insurance, pensions and, among them ER practices represented here by EHS aspects and how the company deals with that or if any potential liability exists or may exist in the near future and lead the company to lose money and not have the required ROIC.

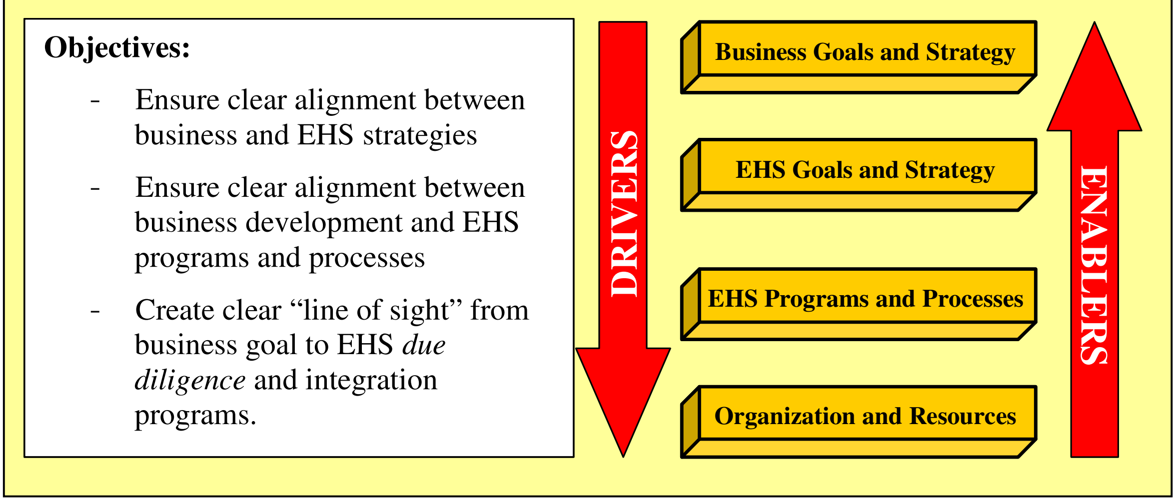
Table 2 shows the relation between the business issues and the EHS issues in a transaction, during a *due diligence* process.

Table 2: Relation between the Business Issues and the EHS Issues in a Transaction

	Before (company's internal processes)	**During (*due diligence*)**	**After (integration)**
Business issues	- Align business and EHS goals & expectations	- Influence the strategic decision - Influence the deal - Influence the contract among parts	- Grow value - No surprises - Prevent liabilities
EHS issues	- Internal processes (business plan continuity) - Known roles / risk thresholds	- Inform the tactical decisions - Identify deal breakers	- Integrate EMS - Correct or manage liabilities
	Better decisions going in	***Better valuation from the deal***	***Better alignment of EHS & business outcomes***

Illustration 4 shows the objectives of an environmental *due diligence* and its alignment with the business strategy.

Illustration 4. Aligning EHS with Transaction Goals



The *due diligence* process involving the environmental aspects of a company may be divided in two main tasks: i) the Phase I Environmental Site Assessment (ESA); ii) the Phase II ESA.

As mentioned before, the life cycle of a transaction may be guided by the integration of the business itself with ER and CSR in its phases of buying, operation and selling/closure/divestiture. Table 3 presents the relation between business drivers and EHS roles on the business strategy and the following phases of the transaction itself, integration of the new business, operation and selling or closure/divestiture of assets.

Table 3: Relation between the Business Drivers and the EHS Roles on the Business Strategy and its Phases

	Business Strategy	**Transaction**	**Integration**	**Operation**	**Closure - Divestiture**
Business Drivers	- Growth - Diversification - Geographical Expansion - Consolidation - Sustainable Profits - Competitive Actions - Survival	- Execute Business Strategy	- Optimize value of transaction - Achieve EHS risk management - Assurance - Minimize risks	- Assurance - Cost reduction - Reduce reserves - Risk reduction - Productivity - Quality/Growth - Business continuity - Protecting reputation - Being a good neighbor	- Minimizing losses - Cost reduction - Asset/cash recognition - Transfer liability - Reconfiguration/ Disposals - Portfolio rationalization
EHS Roles	- Clear internal process for EHS involvement in transaction - Clear connections with the internal business community - Know your EHS costs - Maximize information – Minimize cost	- Transaction due diligence should serve the business objectives - Execute due diligence - Leverage outcomes of due diligence - Prepare for integration	- Capture or harvest indemnities - Leverage outcomes of due diligence - Resources to achieve ends - Best practices given business context - Understanding of risk tolerances (culture)	- Systematic method/ processes - Dashboard metrics tied to business objectives - No additional liability - No surprises - Need to know what you don't know	- Preparing for exit or closure - Capture value - Define/create end-point

The EHS *due diligence* can be taken as an example for financing decisions and how ER and CSR practices and issues may influence the business needs and decisions related to tactical deal issues, strategic company issues and integration needs after the deal, if it is relating to an acquisition or agreement obligations remaining after the deal, if it is relating to a closure or divestiture.

Tactical deal issues are influenced by legal compliance and site contamination liability; strategic company issues are influenced by amounts needed as a reserve, product and supplier risks and reputation risks; integration needs are influenced by what the company bought and what it gets and the total budget for appropriate integration and infrastructure; agreement obligations should be defined based on liabilities that may remain along years before reach normal conditions and a total amount of money should be retained in order to support the needs during such time.

The Phase I ESA is the overall evaluation of all the main environmental aspects and impacts of the company, relating them to operational, emerging, event, management and integration risks. These aspects and impacts are the following: environmental site setting (geology and hydrogeology); environmental controls; permitting; noise; hazardous materials used on site and their management; solid and hazardous wastes; water and wastewater; air emissions; soil and groundwater potential contamination or any liability that the site already carries concerning contamination on site and off site.

The Phase I indicates the need of carrying out the Phase II, which has the main objectives of taking samples of soil and groundwater in indicated areas where there is a potential for contamination due to the presence of chemicals or other situations, in order to better estimate the environmental liabilities of the company (if any).

The Phase I also indicates constraints to the company growth, relating to environmental matters such as operations/infrastructure, permitting and resources constraints. Sometimes, the business may be discontinued due to an environmental related constraint.

Historically and by my experience, the main issues that may represent the higher costs and cause a relevant impact on the deal itself are related to hazardous wastes and their final disposal, as well as soil and groundwater contamination already existent on site. When the contamination already exists on site, it should be evaluated if it already has migrated off-site and, in this case, a very complex situation must be considered relating to remediation costs, indemnifications to the community and immediate neighbors reached and impacted by the contamination, loss of image and how to deal with the public agencies and the press (disclosure). These situations may be considered *deal breakers* as far as ER is concerned along the evaluation process. Follows below practical examples relating to EHS liabilities and how they influenced the negotiation of selling / acquiring / merging:

- In 2003, a worldwide company that produces batteries decided to buy a 40 years old battery plant located in Brazil and started a *due diligence* process of the target company. A major investor of this company was a Brazilian Bank and agreed with the *due diligence* process. No company names will be cited here due to confidentiality agreements taken during my assistance to one of the companies involved in the deal, but this process is an excellent example on how important EHS issues may become along the process.

  The main environmental issues of this case are:

  - The target company has never developed an EHS Management;
  - A major liability concerning soil contamination with heavy metals was found during the EHS investigations;
  - The total cost for investigating and performing the remediation of this liability was estimated in almost US$ 2 million;
  - Just as reference, if the liability had reached US$ 5 million, it would become a *deal breaker*. The value of US$ 5 million represents around 10% of the total value that was being negotiated;
  - The deal was done and the liability value was discounted on the final price, meaning that the seller lost US$ 2 million on the bidding price and on the return of investment. This loss would not have happened if the company had implemented low cost measures of EHS good practices to comply with legal standards in order to prevent soil contamination.

- Another example relates to the fact that a bank, which formerly held a mortgage on a parcel of land, later purchased the land at a foreclosure sale and continued to own it, had to reimburse the United States for the cost of cleaning up hazardous wastes on the land, when those wastes were dumped prior to the bank's purchase of the property.

  From July 7, 1944 to December 16, 1980, Herschel McLeod, Sr. and Nellie McLeod owned the piece of property now the subject of this litigation, a 117 acre farm located near the town of California, Maryland in St. Mary's County, Maryland. The parties have dubbed this property the California Maryland Drum site. During the period of the McLeod's ownership, the McLeods engaged in a business relationship with Maryland Bank & Trust Co. (MB & T), the contours of which are disputed by the parties. It is undisputed, however, that during the 1970's, MB & T loaned money to Herschel McLeod, Sr. for two of his businesses — Greater St. Mary's Disposal, Inc. and Waldorf Sanitation of St. Mary's, Inc. The bank knew that McLeod operated a trash and garbage business on the site, but the record does not state at what point the bank became aware of this. The mortgage of US$ 335,000 was made by MB & T on McLeod property or the California Maryland Drum site. The bank became the mortgagee of the tract and had not performed a *due diligence* assessment, or any other environmental assessment to know in advance what the environmental risks of the deal were. The borrower (McLeod) defaulted, and the bank instituted a foreclosure suit.

The Bank took title for the property, on May 1982. In April 9, 1986, the bank was liable for response costs of more than US$ 550,000 (632 F.Supp. 573, Civ. A. No. N-84-4026, Maryland, US), by the State and Federal US authorities, who determined that it was a contaminated waste site requiring cleanup under the Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"). These costs relate to recover the expenses incurred by the United States Environmental Protection Agency ("EPA") for removal of hazardous wastes from the toxic dump site known as the McLeod property or the California Maryland Drum site. The remediation costs exceeded the total value of the mortgage and the property itself.

This case reflects the need for lenders to adopt a rigorous environmental screening policy on new loans as well as on property which they are considering foreclosing on. Environmental assessments must be done in order to protect lenders from law claims and from third party purchasers, from the lender thereby, making contaminated property difficult to sell and recover the investment.

The examples above illustrate that bad environmental practices or even the nonexistence of ER at all have driven companies to experience loss of free cash flow and financial damages. Sometimes, the environmental liability may turn the business unfeasible. That is the main reason why companies are even more concerned with the environment and including environmental as a primary concern to their businesses.

In this sense, it is possible to define the main drivers that have been leading the increasing concern relating to the environment and its evaluation in a *due diligence* process:

- Greater attention to risks and liabilities during transactions;
- Greater regulation for all industrial sectors, globally;
- Greater need for transparency/stakeholder pressure and awareness of ER and CSR;
- New issues on horizon – e.g. climate change and focus on energy use;
- Environment becoming the mainstream and its definition is becoming widening.

From now on, once the environment definition is becoming widening, it is also possible to figure out some trends for a *due diligence* process:

- A wider scope for ESA, including CSR, Environmental Management System (EMS), Health and Safety (HS);
- A tailored approach involving financial vs. trade clients;
- Detailed cost breakdown for the issues identified;
- Working in integrated teams with other advisors, as far as environmental, financing, legal and other matters are concerned.

3. Case Studies

The companies selected as Case Studies for this Final Assignment were chosen due to the fact of being, if not the leader, one of the leading companies with relevant market share in their segments.

The Case Studies presented herein were based in the following methodology for data collection: (i) interviews with representatives of the company's Sustainable Development Dept.; (ii) research in the company's website, in order to obtain published documents to allow an analysis of the current situation regarding the implementation of ER and/or CSR practices and related results.

This Section describes the data obtained (results) for each one of the companies taken as Case Studies. Section 4 comprises the analysis and discussion of such results.

The following companies were taken as Case Studies:

1. **Nestlé** (food sector, being B2B and B2C goods);
2. **Philips** (consumer electronic products – B2C, among other Business Units);
3. **Alcoa** (aluminum industry – B2B, as its main Business Unit);
4. **Energias do Brasil** (power generation, distribution and trade, being B2B and/or B2C business);

3.1. Nestlé

Company's Overview:

Nestlé is today the world's biggest food and beverage company. The Company has its headquarters in Vevey, Switzerland and was founded in 1866 by Henri Nestlé. Sales at the end of 2005 were $91 billions of Swiss Francs (CHF), with a net profit of CHF 8 billions. Nestlé is present in over 100 countries, having around 500 factories and employing 250,000 people. Half of the production and sales are located in developing countries. In Latin America, Nestlé works with over 280,000 farmers and sales revenues represent more than CHF 11 billions in 2005 (an increase of 19.3% compared to sales revenues in 2004). The Company has a strong portfolio of brands and innovations driving growth and owns 21 brands with sales over CHF 1 billion, among them: NESTLÉ, NESCAFÉ, NESTEA, MILO, NESQUICK, STOUFFER'S, HOT POCKETS, MAGGI, BUITONI, LEAN CUISINE, PURINA, FRISKIES, COFFEEMATE, NIDO, DREYER'S, EDY'S. Today Nestlé is present in different markets with the following main brands:

- **Coffee**	Nescafé, Taster's Choice, Ricoré, Ricoffy, Nespresso, Bonka, Zoégas, Loumidis
- **Water**	Nestlé Pure Life, Nestlé Aquarel, Perrier, Vittel, Contrex, S.Pellegrino, Acqua Panna, Levissima, Arrowhead, Poland Spring, Deer Park, Ozarka, Hépar, Ice Mountain, Zephyrhills
- **Other beverages**	Nestea, Nesquik, Nescau, Milo, Carnation, Libby's, Caro, Nestomalt, Nestlé
- **Shelf stable**	Nestlé, Nido, Nespray, Ninho, Carnation, Milkmaid, La Lechera, Moça, Klim, Gloria, Svelty, Molico, Nestlé Omega Plus, Bear Brand, Coffee-Mate
- **Chilled**	Nestlé, Sveltesse, La Laitière, La Lechera, Ski, Yoco, Svelty, Molico, LC1, Chiquitin

- **Ice cream**	Nestlé, Antica Gelateria del Corso, Dreyer's/Edy's, Drumstick/Extrême, Maxibon/Tandem, Mega, Mövenpick, Sin Parar/Sem Parar/Non Stop
- **Infant nutrition**	Nestlé, Nan, Lactogen, Beba, Nestogen, Cerelac, Neslac, Nestum, Guigoz, Good Start
- **Performance nutrition**	PowerBar, Pria, Musashi
- **HealthCare nutrition**	Nutren, Clinutren, Peptamen, Modulen
- **Bouillons, soups, seasonings, pasta, sauces**	Maggi, Buitoni, Thomy, Winiary,Torchin
- **Frozen foods (prepared dishes, pizzas)**	Stouffer's, Lean Cuisine, Hot Pockets, Buitoni, Maggi
- **Refrigerated products (cold meat products, dough, pasta, pizzas, sauces, snacks)**	Nestlé, Buitoni, Herta, Toll House
- **Chocolate, confectionery and biscuits**	Nestlé, Crunch, Cailler, Galak/Milkybar, Kit Kat, Smarties, Butterfinger, Aero, Polo
- **FoodServices and professional products**	Chef, Davigel, Minor's
- **Petcare**	Purina, Friskies, Fancy Feast, Alpo, Gourmet, Mon Petit, Felix, Dog Chow, Cat Chow, Pro Plan, Purina ONE, Beneful, Tidy Cats
- **Pharmaceutical company**	Alcon
- **Pharmaceutical and cosmetic joint ventures**	Galderma, Laboratoires innéov
- **Associated company**	L'Oréal (equity interest)

The Company's strategy is guided by several fundamental principles. Nestlé's existing products grow through innovation and renovation while maintaining a balance in geographic activities and product lines. Long-term potential is never sacrificed for short-term performance. The Company's priority is to bring the best and most relevant products to people, wherever they are, whatever their needs, throughout their lives.

Since its creation, the Nestlé Company has aimed at building a business based on sound human values and principles. While Nestlé Corporate Business Principles will continue to evolve and adapt to a changing world, the Company is committed to the following Business Principles in all countries, taking into account local legislation, cultural and religious practices:

- Nestlé's business objective is to manufacture and market the Company's products in such a way as to **create value that can be sustained over the long term for shareholders, employees, consumers, and business partners**.
- Nestlé does not favor short-term profit at the expense of successful long-term business development.
- Nestlé recognizes that its consumers have a sincere and legitimate interest in the behavior, beliefs and actions of the Company behind brands in which they place their trust and that without its consumers the Company would not exist.
- Nestlé believes that, as a general rule, legislation is the most effective safeguard of responsible conduct, although in certain areas, additional guidance to staff in the form of **voluntary business principles** is beneficial in order to ensure that the **highest standards are met** throughout the organization.
- Nestlé is conscious of the fact that the success of a corporation is a reflection of the professionalism, conduct and the **responsible attitude** of its management and employees. Therefore recruitment of the right people and ongoing training and development are crucial.
- Nestlé continues to maintain its commitment to follow and respect all applicable local laws in each of its markets.

Nestlé's strategic priorities are focused on delivering shareholder value through the achievement of sustainable, capital efficient and profitable long term growth.

The combination of its four pillar strategy with efficiency initiatives enabled by GLOBE (Global Business Excellence - the company’s worldwide network and data system; saving program launched in July 2000) will deliver market share growth and margin improvement. Nestlé four pillar strategy is based on: operational performance; product innovation and renovation; product availability; consumer communication.

Nestlé has two profit margin improvement and efficiency programs: 1) FitNess (focused on reducing administrative costs by 1% of the Food & Beverage sales between 2003 and 2007, or approximately CHF 1 billion, or an average of CHF 200 millions per year); 2) Operation 'Excellence' 2007 (on going since 2005 up to 2007, with expected average gross savings of CHF 1 billion per year).

Consumer communication is made through interactive relationships with customers as a complement to more traditional communication opportunities. The focus of all communication is to ensure that the Company’s brands appeal to today's consumers, thereby building brand loyalty. Nestlé is committed to offering consumers high-quality food products that are safe, tasty and affordable. The Nestlé Seal of Guarantee is a symbol of this commitment.

Company's Information on ER and CSR:

Follows below the data collected relating to this company:

1. Source of information:	Interview with the company's representative and information gathered in the company's website.
2. Date:	July 18th, 2006
3. Company's representative:	Mr. Ailton Storolli
4. Job Title:	Corporate Environmental Manager, Brazil
5. Company's understanding by Corporate Sustainability:	Nestlé Policy on Sustainable Development is based on the United Nations (UN): "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".
6. Company's understanding by Environmental Responsibility:	The Nestlé Policy on the Environment was published in 1991 to define the Company's worldwide strategy on environmental issues and to state its long-standing commitment to environmentally sound business practices. It is communicated internally within the Nestlé Group and externally to all interested parties and institutions. Following its publication, the Nestlé Environmental Management System (NEMS) was established to consolidate all environmental measures taken by the Nestlé Group. The NEMS is being implemented across Nestlé's entire business. Today, preserving natural resources and minimizing waste has become a part of day-to-day business for its employees and is an integral part of its strategy to achieve global competitiveness. The 1999 update of The Nestlé Policy on the Environment reiterates its strong environmental commitment and reflects its priorities as it moves into the new millennium. The application of the Nestlé Policy on the Environment at every level of its operation forms an essential part of the Nestlé Corporate Business Principles and enables the Company to contribute to sustainable development. **Nestlé's Commitment to Environmentally Sound Business Practices:** Nestlé respects the environment, supports sustainable development and is committed to environmentally sound business practices throughout the world. To fulfill this commitment, Nestlé: - integrates environmental principles, programs and practices into each business; - strives for the continuous improvement of its environmental performance through application of the Nestlé Environmental Management System (NEMS); - complies with applicable environmental legislation. Where none exist, Nestlé's own internal rules are applied; - provides appropriate information, communication and training to build internal and external understanding concerning the Company's environmental commitment.

	This commitment also includes principles relating to research and development; supply chain (agricultural, manufacturing, packaging, distribution and marketing); information, communication and training; compliance with legislation and environmental management through the NEMS.
7. Company's understanding by Corporate Social Responsibility:	For Nestlé, CSR is not something that is imposed from the outside, but is an inherent part of the Nestlé business strategy and Nestlé Business Principles, which guide the way the Company operates. As stewards of large amounts of shareholders' capital, it is the Company's belief that, in order for a business to create value for its shareholders over the long term, it must also bring value to society. Therefore, the Company has as its fundamental principle of CSR developing and creating long term value for society as it is creating long term value for shareholders. Nestlé think that they can't do the one without the other and this approach to business Nestlé believes is what's helped the Company to develop a reputation for CSR. In the very first edition of the *Nestlé Management and Leadership Principles*, it is stated clearly: "Nestlé investments must be good for the countries where the Company operates, as well as good for the firm." Therefore, while CSR and sustainability represents a set of useful principles and practices. This is particularly true in developing countries, where Nestlé often needs to improve business conditions, by improving the capabilities of farmers, creating a skilled workforce and developing improved standards in order to operate successfully. Nearly half its factories are in the developing world; they must meet the same standards for food quality, safety and business practices that it has in the developed world. CSR code of practice comprises the Nestlé Corporate Business Principles (refer to the Company's Overview) and supports 10 UN Global Compact Principles (among which Consumers, Environment, Employees, Suppliers, Governments). It has personally involvement of the CEO and it is audited internally. Considering Nestlé's chain (agricultural suppliers, employees and associates, customers and society), every activity in the value chain impinges on social factors in the locations where the company operates - refer to Illustration 5. In addition, responsive CSR is necessary, but not sufficient to confer a sustainable competitive advantage. Nestlé understands that generic social issues such as good citizenship and responsive philanthropy (responsive CSR) helps to remedying negative value chain impacts and, aligned wit best practices, contribute to having a strategic differentiation in social investments that improve the competitive context through activities outside the ordinary course of business (strategic CSR).
8. Does the company have a specific department for treating those subjects?	Yes. The Company's headquarters has a specific department to deal with those subjects, which is responsible for developing it, getting the stakeholders approval and deploying for the Business Units spread in over 100 countries. In Brazil, there is a specific department responsible for implementing and reporting ER and CSR practices to the Company's headquarters.

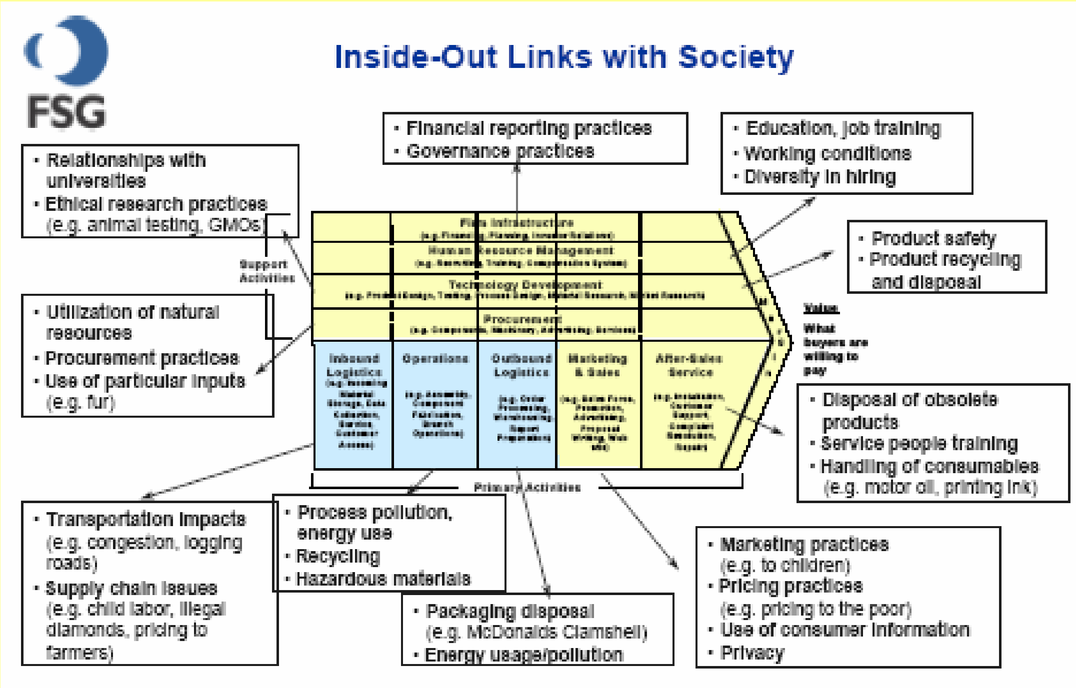
9. Is there any inter-relation between these subjects (or the company's specific department for those) and the strategic decisions to be taken in the company?	For Nestlé, the competitiveness of companies depends heavily on such things as: - Improving skill levels; - Safe working conditions; - A sense of equal opportunity; - A transparent, corruption-free business environment; - Trusted rule of law; - Low levels of pollution. In addition, the Company believes that the health of a society depends on: - A strong economy; - Employable workers; - Citizen engagement and sound government; - Strong cultural, educational and research institutions; - Low levels of pollution. Nestlé believes that there is no inherent conflict between economic and social objectives, but a long-term interdependence. CSR is also engaged to the Nestlé Management and Leadership Principles and is among Nestlé and the UN Millennium Development Goals.
10. Does the company have programs related to Corporate Sustainability, ER, CSR?	Worldwide Examples: **The Coffee case: the commitment of Nestlé to sustainable coffee,** over a problem relating to the succession of overproduction/shortage and impact on prices (supply & demand), with consequences for the planters, for the whole coffee sector and its image. Consumers concerned by production's methods. Nestlé coffee activities lasts for about 30 years and the actions taken by the Company considered the three pillars of sustainability; Nestlé Policy on Sustainable Development; the economic viability (role of diversification); social responsibility and environmental protection. Actions taken were: 1- The Nestlé commitment for international platforms supporting the implementation of sustainable coffee production; 2- Specific Nestlé projects with its main suppliers: common projects for common strategy; 3- Nescafé factories with green coffee direct procurement (15% of Nestlé needs) & technical assistance to growers. Anticipation of sustainable efforts - 55% of Nescafé produced in developing countries. **The Milk Case:** Districts in Chile, México, Colombia and Brazil. Nestlé helped to developing a source of supply and rural economies simultaneously, in Caquetà, Colômbia. Actions were taken for improving animal nutrition, improvements through genetics, developing farm infrastructure and consequently, improving farm income. With highest production, Nestlé has supply assured for its production, from reliable and qualified producers. For example, the milk production from cows increased on na average of 9 to 10 liters of milk per day, whereas 30 years ago it wasn't expected more than 2 liters per animal.

	Others: the sustainable agricultural initiative in Nicaragua; Nescafé Partner's Blend in El Salvador and Ethiopia; Nespresso in Costa Rica. Local (Brazil) Examples: Nestlé has implemented the NEMS in 21 plants located in Brazil. Therefore, practices related to ER such as energy/water consumption reduction, packaging materials usage reduction, chemicals consumption reductions, wastes generation reduction, effluents treatment, among others, were implemented in those facilities. The Company has a validation process through independent auditors, who are responsible for checking and subsidizing each plant certification by Nestlé. The NEMS is improved through the setting of yearly reviewed targets, which must be pursued and achieved by each plant annually. The NEMS is being implemented in other new factories recently acquired by the Company and, also, in its distribution centers. Corporate Governance outlines the implementation of the CARE Program, a Compliance of Audit of Human Resources, Safety, Health and Environmental Practices. This program involves the areas related to social and environment; quality (safety food & Nestlé Quality System); human resources and safety. The Company believes that such areas, if not well managed, may cause impacts in internal as well as external environments, damaging the firm's reputation and credibility outside. That is the main reason motivating the implementation of the CARE program, along with the worldwide customers' pressures over the Company to implement good ER and CSR practices (i.e. McDonald's, Carrefour).
11. Are the costs for implementing these programs available?	Relating to the implementation of NEMS, Nestlé estimates an invested amount of US$ 1 million, comprehending 21 factories in Brazil, during the period from 1999 to 2005. Around US$ 57 million were invested in technical projects for environmental compliance, in the same period.
12. Does the company have an evaluation (performance indicators) of improvement in those areas?	Yes. In Brazil, as well as in all the plants worldwide, the Company controls the Key Performance Indicators (KPIs) for the programs implemented through NEMS – refer to question 10, Brazil Examples.
13. Is the information on value creation available? How does the company evaluate gains and losses?	For Nestlé Brazil, the Company estimates savings around US$ 55 million, relating to avoided costs (energy/ water/ fuel/ chemicals consumption reduction projects, no fines, wastes recycling and generation reduction, among others). It is the Corporate Environmental Manager perception that, over this value, it should be added the intangible value, linked to avoid of accidents and maintenance of a good Company's image & reputation, credibility by invertors, society and consumers.
14. Does the company believe on intangible values relating to ER and CSR?	Yes. The Company believes that the following situations consist of risks and pressures over its business and are the motivators for implementing ER and CSR practices: - Reputation and image loss; - NGO's pressures over the business;

	- Regulation and the need for compliance of its operations; - Consumers' pressures over the products and the Company; - Internal policies and the need of compliance with corporate standards.
15. Is the company perceptive for behavior changes in the consumer market for its products?	Yes, and that is one of the motivators listed in question 14, for the implementation of ER and CSR practices. The Company understands that if it does not understand the consumers and provide for their needs, its sustainability on business is jeopardized.
16. What has leveraged the company to adopt programs relating to ER and CSR?	Lots of cases happened involving Nestlé's brand along the years. Out of those, two situations may be taken as examples, where the lack of a good perception of ER and/or CSR practices have lead the Company to experience financial damages due to image loss: - **Águas São Lourenço, State of Minas Gerais, Brazil (São Lourenço Drinking Water Fountain):** São Lourenço city, located in Minas Gerais State, Brazil, is a tourism-levered place, due to its hydro mineral water fountains. Águas São Lourenço is a mineral water fountain, which has been exploited since the beginning of 1900's. Nestlé started to operate this fountain in 1992, with the acquisition of Perrier worldwide. Currently, Nestlé owns the rights to exploit this water fountain, pack it in bottles and trade as mineral water. Since 1994, it has discontinued the production of Nestlé Pure Life, a salt-added purified water. Although Nestlé had all the pertinent legal rights and permits to exploit mineral water fountains in this city, as well as kept compliant with the Brazilian legal drinking water standards, the Company had problems with a local NGO (Cidadania pelas Águas). This NGO, with a particular perception of the Company, went on public with data and conclusions about the water fountain that were being exploited by Nestlé and the local environmental situation. The data exposed by the NGO has never been scientifically or legally attested. On the other hand, Nestlé did not consider a concern at that time, because it had the permits from DNPM (Departamento Nacional de Produção Mineral) and ANVISA (Health Agency at the federal level), being regularly evaluated by certified auditors (Bureau Veritas and DNPM), who identified that Nestlé's operations were being done according to the Brazilian regulations. Nowadays, Nestlé still operates in São Lourenço, exploiting, bottling and trading Águas São Lourenço. However, Nestlé Pure Life is not produced nor traded in Brazil by Nestlé anymore. The Company states that Nestlé Pure Life has been discontinued in Brazil due to changes in regulation passed by DNPM in 1994. - **Nestlé Purina, Pet Food poisoning, Venezuela:** During the years 2004 and 2005, as a result of pet food consumption for Domestic Animals (Dogs and Cats) made in Venezuela by Purina Nestlé, approximately well over 400 dogs as well as cats have perished (data updated in February 21st, 2005).

	The main basic symptoms were: vomits, decay, loss of appetite, urine with strong scent. Syndrome: acute hepatitis (irreversible damage of the liver) and generally violent death of respiratory stroke. Nestle knew since October 2004 about the contamination of pet foods prepared by them and, nevertheless, did not bother to take immediate and proper corrective action, neither the general public was informed. In earlier 2005, Nestlé announced via the local press (in a very small article) the retrieval of some of the production lines within the Venezuelan market and other Countries within the Andean Pact, (Dog Chow, Cat Chow, Faithful, Friskies, Perrarina, Puppy Chow, K-Nina, Nutriperro, Hoop, Gatsy and Pajarina), as the source of deaths of pets. Nestle committed itself to study, cover medical expenses and reimburse cost of all food bags (by showing the proper proof of purchase), as well as death of the pets. The Pain and grief caused to hundreds of pet owners is not a matter of payment in monetary rewards. Nowadays, it continues with advertising of pet foods in the Venezuelan Web page. Still Nestlé continues selling in several stores and or supermarkets around the country. In both cases presented above, the press went against the Company, turning the public perception also against Nestlé and the firm experienced financial damages due to image loss.
17. Is this company a member of DJSI or ISE?	Nestlé S.A. is member of DJSI.
18. What is the bond rating for this company?	The ratings on Switzerland-based Nestlé S.A. and its related entities, the largest player worldwide in the stable and cash-generative branded and packaged food industry, reflect the group's superior business profile and cash flow generation, and the sustained improvement of its financial profile. Free cash flow has averaged slightly more than CHF6 billion in each of the past four years, attesting to the group's superior cash flow generation abilities. Although a big portion of operating cash flow is distributed to shareholders through dividends and/or share buybacks, there is still headroom for acquisitions without jeopardizing the minimum ratios consistent with an 'AAA' rating. EBITA increased by 9% in 2005, despite tough market conditions in Europe. Nestlé's strong brand recognition gives the group a competitive advantage against the mounting popularity of private-label brands in Western Europe. Debt is concentrated in Nestlé's operating subsidiaries around the world and serviced by local cash flow, while the parent company in Switzerland holds most of the group's cash.
19. Does the company reports under GRI standards?	No information available.
20. What is the trend company?	Becoming a company known for its good ER and CSR practices worldwide.

Illustration 5. Social factors in the value chain, in locations where Nestlé operates*



From the Company's website.

3.2. Philips

Company's Overview:

Royal Philips Electronics of the Netherlands is one of the world's biggest electronics companies, as well as the largest in Europe, with 161,500 employees in over 60 countries and sales in 2005 of Euro 30.395 billion. Active in over 60 businesses, and with more than 115,000 registered patents, Philips is currently number one in the world market for electric shavers and DVD recorders. Philips is also a global leader in lighting, in TV, video and audio products, and in medical diagnostic imaging systems. Within the cyclical goods market, Dow Jones recently ranked the Company as the global leader in sustainability.

In a world in which technology increasingly touches every aspect of daily life, Philips pursue to bring 'Sense & Simplicity' to consumers with advanced, easy to use products that are designed specifically to meet their needs. To do this, the Company keeps focusing on the areas of Healthcare, Lifestyle and Technology.

- **Healthcare:** Philips combine its expertise in medical technology with the clinical know-how of its customers to produce solutions that meet not just the needs of individual patients, but also enable healthcare professionals to work faster, easily and cost-effectively. Its medical customers have ranked the Company as # 1 in cardiovascular X-ray, digital X-ray and ultrasound, patient monitoring systems, nuclear medicine, cardiology systems and critical care systems. Key products are: Brilliance CT scanners. Panorama MR, Xtenity, iU22.

- **Lifestyle:** Philips believes that every moment people spend at home (or away from work) should be enjoyable and uncomplicated: time spent recharging their batteries or simply enjoying themselves. That's why the Company continues to develop products designed to help make life simpler and more relaxing, whether watching TV, adjusting the lighting in bedroom, cleaning teeth, listening to music or simply making coffee in the morning. Key products: Voice over Internet Protocol phones, Wireless Music Center, Smart Touch XL, Ambilight TV.
- **Technology:** It is the driving force of Healthcare and Lifestyle products. And in today's world, in which increasingly more aspects of people's lives are being enabled by technology, it is the continuing Philips tradition of innovation that will enable it to provide the solutions that realize the full potential of fast-evolving digital technologies. Key products: Nexperia chip family. X-by-Wire automotive technology. NFC wireless technology. Xenon care headlight bulb. Blu-ray disc.

Philips is engaged in the following businesses:

- **DAP:** Domestic Appliances and Personal Care employs approximately 8,200 people worldwide and operates in five business areas: Shaving & Beauty; Home Environment Care; Food & Beverage; Oral Healthcare and Consumer Health and Wellness. It maintains sales and service organizations in 60 countries and runs manufacturing operations in the Netherlands, Austria, Poland, the USA, Brazil, China and Singapore.

- **Lighting:** Lighting employs approximately 44,000 people worldwide and operates in four business areas: Lamps; Luminaries; Lighting Electronics; and Automotive Lighting, Special Lighting and UHP. It maintains sales and service organizations in over 60 countries and runs manufacturing operations in the Netherlands, Belgium, France, Germany, the United Kingdom, Poland, the USA, Mexico, Brazil, India, Indonesia, Thailand, the People's Republic of China and South Korea.
- **Semiconductors:** Semiconductors employs approximately 36,000 people worldwide and operates in five business areas: Communications; Consumer; Automotive; Identification and Multimarket. It maintains sales and service organizations in 60 countries and runs manufacturing operations in the Netherlands, Belgium, France, Germany, the United Kingdom, the USA, Hong Kong, Singapore and Taiwan.
- **Medical Systems:** Medical Systems employs approximately 30,000 people worldwide and operates in three main business areas: Diagnostic Imaging Systems; Customer Services and Clinical Solutions. It maintains sales and service organizations in 63 countries and runs manufacturing operations in the Netherlands, Germany, Finland, Israel and the USA.

- **Consumer Electronics:** Consumer Electronics employs approximately16,000 people worldwide and operates in three main business areas: Connected Displays; Home Entertainment Networks and Mobile Infotainment. It maintains sales and service organizations in 50 countries and runs manufacturing operations in Belgium, France, Hungary, Mexico, Argentina, Brazil, India and China. Philips' substantial investment in R&D has generated many breakthrough inventions, such as the Compact Cassette system and the laser based optical disc systems CD-Audio, CD-ROM, CD-R/RW, SACD and various DVD-formats.

Philips is involved in the following joint ventures and participations: LG.Philips LCD (32.9%); LG.Philips Displays (50%); TSMC (Taiwan Semicondutor Manufacturing Co.Ltd. (16.4%); FEI Company (25%); Inter Trust Technologies Corporation (49.5%); Philips Medical Capital - USA, Europe (40%); TPV Technology Limited (15%). At the end of 2005, the Corporate Venturing portfolio comprised some ten companies in which Philips has a minority stake and, in some areas, an active business relationship.

Strategic alliances are an important part of business at Philips. They enable the Company to bring new products to the market that it would not have been able to develop on its own. Philips combines with a number of leading global companies to build advanced products and services that touch the lives of people everyday.

Philips has over 30 partnerships with other market leaders in their fields. Here is a selection of some of them: *Epic* (enterprise software, medical imaging and monitoring IT solutions that integrate patient information), *InBev* (brewing industry), *Sara Lee* (coffee machines), *Visa* (chip technology in credit cards) and *Yahoo!* (develop and deliver Yahoo! content and Internet services).

The Company's Vision and Vision/Values and Strategy are the following:

- ***"Mission:*** *We improve the quality of people's lives through the timely introduction of meaningful technological innovations.*
- ***Vision:*** *In a world where technology increasingly touches every aspect of our daily lives, we will be a leading solutions provider in the areas of healthcare, lifestyle and enabling technology, aspiring to become the most admired company in our industry as seen by our stakeholders.*
- ***Values:*** *Delight customers; deliver on commitments; develop people; depend on each other.*
- ***Brand Promise:*** *Our brand promise is 'Sense and simplicity'. It encapsulates our commitment to delivering products and solutions that are advanced, easy to use, and designed to meet the needs of all our users, wherever in the world they may be.*
- ***Strategy:*** *We will:*
    - *increase profitability through re-allocation of capital towards opportunities offering more consistent and higher returns;*
    - *leverage the Philips brand and our core competencies in healthcare, lifestyle and technology to grow in selected categories and geographies;*
    - *build partnerships with key customers and suppliers, both in the business-to-business and business-to-consumer areas;*

- *continue to invest in maintaining world-class innovation and leverage our strong intellectual property position;*
- *strengthen our leadership competencies;*
- *drive productivity through business transformation and operational excellence."*

Relating to Corporate Governance, for many years Philips has pursued a consistent policy to enhance and improve its corporate governance in line with US, Dutch and international (codes of) best practices. In its two-tier corporate structure, the executive management is entrusted to the Board of Management under the supervision of the independent Supervisory Board. Both the Supervisory Board and the Board of Management are accountable to the General Meeting of Shareholders for the performance of their functions.

Continuously striving to improve relations with its shareholders, Philips has incorporated a disclosure policy and follows an active investor relations approach.

The Philips General Business Principles govern the Company's business decisions and actions throughout the world, applying equally to corporate actions and the behavior of individual employees when on company business. They incorporate the fundamental principles on which all Philips activities are or should be based: integrity, fair trade, non-discrimination and equal opportunities.

Philips Business Excellence is to pursue to continuously explore new ways to improve products and to offer innovative products to its consumers. That's why the Company has created a program through which it will reach higher and higher quality levels in all products and services. In fact, this quality improvement program affects all employees and all processes, in every country, division or department, encompassing everyone from Board of Management to the shop floor.

The program is "BEST' - BUSINESS EXCELLENCE THROUGH SPEED AND TEAMWORK", which describes a set of methods and tools by which the Company continuously improve its efforts. Previous successful initiatives are incorporated in the program to make sure learning as much as possible from successes in the past. Through the Best Program, all the employees are committed to improving processes in-line with the company's strategic targets. Measures are: i) Customers are fully satisfied by the quality of products and services; ii) Employees develop and use their full potential; iii) Shareholders get a premium return on their investment; iv) Suppliers choose to work with us as this generates superior value for both. v) The larger community appreciates its contribution to the quality of life. There are several tools and approaches in the BEST initiative. The core tool used to assess business maturity and direct improvement is the Philips Business Excellence (PBE) model. This is an exact copy of the Excellence model of the European Foundation for Quality Management (EFQM). The PBE tool is supported by many other tools, such as Breakthrough Management, Balanced Scorecard, One Page Strategy and Process Survey tools (PST). PSTs are maturity grids designed around specific processes.

They give a clear insight into the areas for improvement and help to identify which steps should be taken to reach those improvement targets. The PSTs are fully compatible with the EFQM's widely-used excellence model, and have been provided to the EFQM free-of-charge.

Philips has been a member of the World Business Council for Sustainable Development (WBCSD) since 1993. The WBCSD is a coalition of 180 international companies united by a shared commitment to sustainable development via the three pillars of economic growth, ecological balance and social progress. Members are drawn from more than 35 countries and 20 major industrial sectors. The organization and its members also benefit from a global network of 50 national and regional business councils and partner organizations involving some 1,000 business leaders globally.

Company's Information on ER and CSR:

Follows below the data collected relating to this company:

1. Source of information:	Interview with the company's representative and information gathered in the company's website.
2. Date:	July 6th, 2006
3. Company's representative:	Mr. Marcus Nakagawa
4. Title:	Regional Sustainability Office – Latin America
5. Company's understanding by Corporate Sustainability:	Philips states that sustainability offers a world of opportunities to improve quality of life and create value for individuals, communities and the company. Philips firmly believes that socially and environmentally sound behavior contributes to sustained profitable growth and value creation.

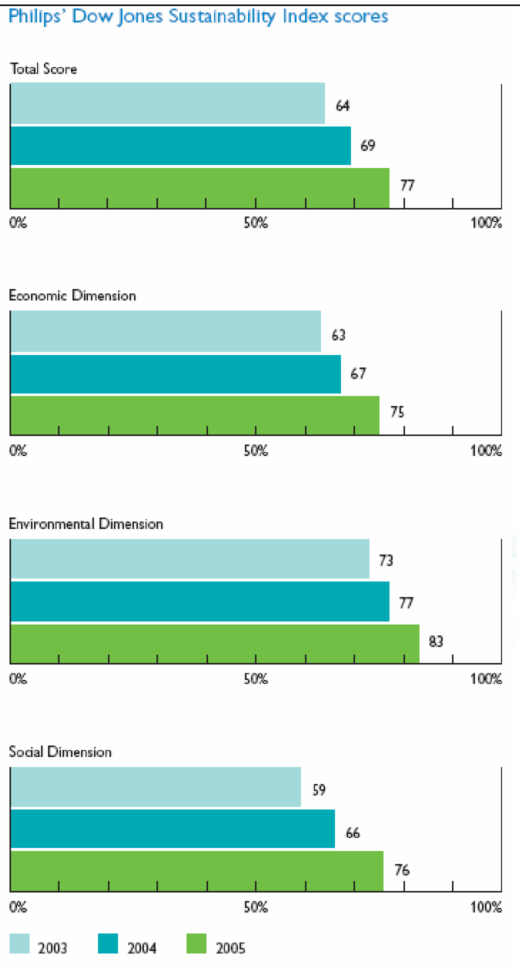
	At Philips, there is the understanding that the Company is in the unique position to link its brand heritage to the challenge of improving the quality of people's lives. This is what Philips has done since its founders started the company. For Anton and Gerard Philips there was no difference between business and sustainable business. Putting people at the center was inherent in their way of doing business. Philips has long been integrating the triple bottom line, striving for economic prosperity, environmental quality and social equity. Sustainability is built into the Company's heritage, its values and its commitment to improve the quality of people's lives. Philips has made great strides in building knowledge and creating awareness of sustainability throughout the Company. Now Philips is taking its commitment to a higher level. In keeping with its philosophy of continuous improvement, it is working to strengthen its performance against the triple bottom line. The Company's efforts is wide-ranging, from improving its process of reporting on its sustainability performance to stakeholder dialogue to supplier management to diversity and inclusion to EcoVision (the Environmental Program – refer to Question 10). The Company states that sustainable development is a necessity and the right thing to do. It's also its way of doing business – an investment that creates value and secures its future.
6. Company's understanding by Environmental Responsibility:	Philips understands, as the basis of its sustainable business principle, to develop products which can cause as minor environmental impacts as possible. In this sense, products are designed lighter, with less use of toxic substances and energy consumption reduced, considering the possibility of recycling by the end of products' useful life, packing reductions. The Company believes that it is better to prevent than to remediate. In Latin America all the Company's plants are certified under ISO 14,001.
7. Company's understanding by Corporate Social Responsibility:	Philips philosophy is based in four responsibilities: individual, environmental, economical and social. In social side, the Company launches programs and projects to be first implemented to its employees, being afterwards deployed to the external community. The four responsibilities supports the Corporate Social Responsibility at Philips.
8. Does the company have a specific department for treating those subjects?	Sustainability is governed within the Company by: - Philips Sustainability Board at Group level. - Sustainability Councils in product divisions, regions, India and China, and in Philips Research. The sustainability network includes employees in nearly all functional areas, including Communications, Global Marketing Management, Finance, Investor Relations, Supply Management, Human Resource Management, Legal, Mergers and Acquisitions, Design, Strategy, Quality and Research. In Brazil, there is a Corporate Sustainability Area, which serves all the Company's plants in the country and is responsible for deploy the corporate programs on sustainability. Also, the Company has an Environmental Area, separately from the Sustainability Area.

9. Is there any inter-relation between these subjects (or the company's specific department for those) and the strategic decisions to be taken in the company?	Philips understands that environmental responsibility is directed linked to the strategic planning of the Company and, everyday, products, services and processes are reviewed, planned and produced keeping environmental responsibility as a concern to be addressed. That is how the Company keeps its business sustainable.
10. Does the company have programs related to Corporate Sustainability, ER, CSR?	Guided by the basic principle that prevention is better than cure, Philips works to minimize the impacts of its products, processes and services. To meet this challenge, Philips began establishing a series of four-year action programs more than a decade ago: - The Environmental Opportunity (1994-1997) - EcoVision I (1998-2001) - EcoVision II (2002-2005) - EcoVision III (2006-2009) The Environmental Opportunity had a series of measurable targets to guide actions of all employees. EcoVision programs have targets involving environment and its relation with products development, packaging solutions and suppliers' management. These series of programs are monitored in all facilities worldwide. EcoVision is based in six main criteria, the Green Focal Areas: weight, use of toxic substances, energy consumption, recycling and final disposal, useful life cycle of the product and its package. In 2006, the Company started to implement the Program EcoVision III, which will last until 2009. After having successfully completed EcoVision II environmental action program, the Company is now beginning a new four-year program to improve its overall environmental performance. EcoVision III targets have been developed with an eye toward enhancing the Company's position in environmental performance. The 2006 Sustainability Management Agenda supports the Company's goals, with a strong focus on: - Achieving KPIs, which include several new items as well as the KPIs from 2005. The additional KPIs include perception measures on employee engagement and inclusion, based on responses to Employee Engagement Survey. - Recognizing, measuring and leveraging the contributions of its sustainable business portfolio to its revenue stream. - Sustaining its leading position in the environmental area with the launch of the Philips EcoVision III program. - Furthering the roll-out of the Supplier Sustainability Involvement Program to its supply base.
11. Are the costs for implementing these programs available?	No information was found relating to investments mad in the programs referred in Question 10.

12. Does the company have an evaluation (performance indicators) of improvement in those areas?	In 2005, Philips committed to a solid Sustainability Management Agenda for 2005 with a sharp focus on: measuring Key Performance Indicators (KPIs), tracking labor indicators, risk and compliance management reporting, and developing the next four-year environmental action program. In 2005, the Company stated that for the first time, it identified KPIs at company level and used them to measure its performance. Worldwide achievements highlights are: - The Company more than doubled the number of Green Flagship products launched on the market compared to 2004, as well as the number of those that use less energy than their predecessors or competitors. - The Company started five New Sustainable Business Initiative projects that can benefit people and contribute to the Company's growth. - Philips received a 100% return on its supplier sustainability self-assessment tool, which it uses to support its supplier audit activities. - Labor indicators: labor issues (including working hours, HIV/AIDS, remuneration, collective bargaining, non-discrimination, child and forced labor, training and education, attraction and retention) are covered in the Philips General Business Principles (GBP) and its revised GBP Directives. Further, the Company tracks its social policies by measuring employee perception related to the following key areas: inclusion, human capital development and employee engagement. - Risk and compliance management reporting: the Company published reported violations of the GBP on an aggregated level for the first time in its Sustainability Annual Report 2004, released in February 2005. The results of EcoVision II tracked by Philips Brazil are the following: - Packaging: reduction of 2% the volume of packages, using the smart design of lighting recipients. - Energy: energy consumption reduced 25%, over the mandatory target of 10% and the recommended target of 20%, due to the reduction pf costs in sectors like Semiconductors and Lighting, renewing or optimizing equipment and production lines. - Wastes: manufacturing wastes reduced 23%, accomplishing the mandatory target of 20%, through improvement in production lines mainly in Lighting facilities. - Water: water consumption reduced 36% in the Company's facilities, accomplishing both mandatory (15%) and recommended (205) targets. Semiconductors were the better division in this item. - Restricted substances: Brazil reduced 93% the consumption of toxic substances, above the mandatory target (70%), due to the increase in water-based substances consumption. - Hazardous substances: the use of heavy metals decreased 94%, 64% more than the mandatory target, due to the decrease in using toluene and xylene in lighting products. - Relevant substances: Brazil reduced 46% in nitrogen dioxide and sulfur dioxide emissions. (refer to Table 4)

13. Is the information on value creation available? How does the company evaluate gains and losses?	No information found relating to how much in terms of value has been gained with the reductions accomplished.
14. Does the company believe on intangible values relating to ER and CSR?	It is the Company's belief that socially and environmentally sound behavior contributes to sustained profitable growth and value creation. The Company's founders, Anton and Gerard Philips, saw no difference between business and sustainable business. Putting people at the center was inherent to their way of working. Only people can realize the Company's strategy, sustain and develop its capabilities and ultimately deliver on promises to external stakeholders. Accordingly, the Company is further developing and leveraging its people competencies, e.g. embedding diversity and inclusion in career development programs. This is essential in order to secure the quality of leadership required to take the company forward – leaders who pursue market insight, establish innovative strategies, inspire commitment, leverage capabilities, champion people's growth and drive relentlessly for results. The Company aims to create One Philips – a focused, market driven company geared to delivering sustained profitable growth. One Philips is all about unlocking synergies. The belief that by working together the Company can create more value than the sum of the parts, that by working together we can achieve further growth at the interfaces between the three domains. In essence, One Philips is a mindset and a way of working focused on maximizing value creation for the company and its customers by leveraging its competencies and resources across the areas of healthcare, lifestyle and technology. The One Philips culture is the sum of how the Company conduct itself, what it believes in and how it works within the company and interact with customers. Delight Customers, Deliver on Commitments, Develop People and Depend on Each Other are the values that guide the Company in everyday working lives.
15. Is the company perceptive for behavior changes in the consumer market for its products?	Philips understands that it can't make a real promise unless you know exactly what is being promised – and a brand promise is no exception. Philips is committed to delivering "sense and simplicity" in every product to the consumer. Philips is committed to deliver products, services and solutions that are relevant and meaningful to consumers because they have been specifically designed to meet their needs. And because these products and services are advanced, they offer exciting new ways to meet those needs. Philips uses to validate its efforts through consumer research and, then, is able to continuously check that it really is delivering 'sense'. "Simplicity" really refers the Company's ability to provide easy access to those meaningful benefits. As a company, it is committed to differentiate all its products and services by providing easier access than anyone else.

16. What has leveraged the company to adopt programs relating to ER and CSR?	Philips has been involved in public situations, as follows: The Company operates other manufacturing facilities that were previously owned by Philips Electronics North America Corporation ("Philips"). Philips agreed to indemnify the Company for any and all losses, damages, liabilities and claims relating to environmental matters resulting from certain activities of Philips occurring prior to December 29, 1988 (the "Environmental Indemnity Agreement"). Philips has fully performed its obligations under the Environmental Indemnity Agreement, which terminates on December 29, 2008. Four matters covered by the Environmental Indemnity Agreement are currently pending. Philips has entered into Consent Orders with the Environmental Protection Agency ("EPA") for one site and the North Carolina Department of Environment, Health and Natural Resources for a second site, whereby Philips has agreed to pay required response costs. On October 22, 1998, the Company was joined as defendant in an action involving a site formerly occupied by a business it acquired in Illinois. Philips has accepted the defense of this action pursuant to the terms of the Environmental Indemnity Agreement. For the fourth site, the EPA has notified us it intends to carry out the final remediation itself. The EPA estimates that this remedy has a present net cost of approximately $14.5 million. The EPA has named over 40 persons or entities as potentially responsible parties at this site, which includes certain facilities that we acquired in 2000. This matter has been tendered to Philips pursuant to the Environmental Indemnity Agreement for those facilities that were acquired from Philips. Its potential liability at any of these sites is affected by several factors including, but not limited to, the method of remediation, its portion of the materials in the site relative to the other named parties, the number of parties participating, and the financial capabilities of the other potentially responsible parties once the relative share has been determined. No assurance can be given, however, that additional environmental issues will not require additional, currently unanticipated investigation, assessment or remediation expenditures or that Philips will make payments that it is obligated to make under the Environmental Indemnity Agreement. Philips is also continuing an existing environmental remediation program at a facility acquired in 2000 and, currently, estimates that this project will take eighteen years to complete, at a total cost of approximately $1.2 million.
17. Is this company a member of DJSI or ISE?	In 2005, Philips was nominated as a member in the Dow Jones Sustainability Index for the third year consecutive. Philips is also listed in the Dow Jones STOXX Sustainability Index and the Dow Jones EURO STOXX Sustainability Index, which comprise the leading companies in terms of sustainability from Europe and the Eurozone. The graphics below show the DJSI scores accomplished by Philips:



Philips was among the Global 100 Most Sustainable Corporations in the World, a global business ranking unveiled at the World Economic Forum in Davos, Switzerland, in January 2005. From a pool of over 2,000 fi rms representing such global indexes as the S&P 500, FTSE 350 and EURO STOXX, the top 100 were selected on their ability to manage strategic opportunities in new environmental and social markets.

Philips once again ranked top in sustainability among companies on the Amsterdam Stock Exchange (AEX).

The Dutch Sustainability Research report uses seven criteria in its assessment, including company ethics, environment, corporate governance, employee engagement and societal engagement.

The FTSE4Good Index Series has been designed to measure the performance of companies that meet globally recognized corporate responsibility standards, and to facilitate investments in those companies. Philips continues to be included in this index in 2005.

18. What is the bond rating for this company?	Over the last few years, the Consumer Electronics division was repositioned for future profitability and cost-effectiveness. Standard & Poors defines Philips Global as A- for long-term bonding; A-2 for short-term one. Outlook is stable. Moody's classifies Philips Global as A3 for long-term bonding; P-2 for short-term one. Outlook is also stable.
19. Does the company reports under GRI standards?	Yes. Philips is an organizational stakeholder for the Global Reporting Initiative (GRI). According to GRI, organizational stakeholders "are a critical element in GRI's governance structure and the foundation for sustaining the GRI as an open, democratic and global institution".
20. What is the trend for the company?	The Company is committed to the ambition of being one of the best companies in the world: the best to trade with, work for, and invest in.

Table 4: Philips' Key Performance Indicators

Key Performance Indicators		2005 Objective	2005 Actual	2006 Objective
Social				
Health and safety	Level of absenteeism (%)	2%	2%	2.0%
	Number of lost workday injury cases/1,000 FTE	7	7	6.5
Human capital	Women at executive level (%)	6%	5%	6%
	Asians at executive level (%)	7%	8%	9%
	Inclusion Index (% favorable: 2004 = 54%)			> Level 2004
	Employee Engagement Index (% favorable: 2004 = 58%)			> Level 2004
Business				
New Sustainable Business Initiative	2005: number of new projects **2006: succesful results of running projects**	3	5	2
	Number of people that benefit from projects	15,000	20,000	50,000
Environment	2005: number of Green Flagship products with energy consumption as one of the focal areas **2006: number of new Green Flagships**	5	34	35
Sustainable business	**Sales from sustainable business**			3%
Supplier involvement	2005: returned sustainability self-assessments **2006: on-site assessments of critical suppliers (%)**	100%	100%	20%
Communication				
Stakeholder dialogue	2005: number of countries with monitoring program **2006: quarterly issue-grid reporting**	40	40	Start Q2
Internal communication	Sustainable messaging measured amongst employees as favorable (%)	53%	62%	70%
External communication	Number of favorable clippings in top level printed media	50	322	> Level 2005
Reporting				
Verification	Level of assurance	moderate	moderate	moderate
Compliance	**Comparative (2005 vs 2004) reporting of alleged violations and number of corrective actions in 2005**			In report 2005
Performance	**Quarterly results reporting on KPIs**			In 2006

Bold = New for 2006 Realized Not realized

3.3. Alcoa

Company's Overview:

Alcoa is the world's leading producer of primary aluminum, fabricated aluminum, and alumina and is active in all major aspects of the industry. Alcoa serves the aerospace, automotive, packaging, building and construction, commercial transportation, and industrial markets, bringing design, engineering, production, and other capabilities of Alcoa's businesses as a solution to customers.

In addition to aluminum products and components, Alcoa also makes and markets consumer brands including Reynolds Wrap®, Alcoa® wheels, and Baco® household wraps. Among its other businesses are vinyl siding, closures, fastening systems, precision castings, and electrical distribution systems for cars and trucks.

The company has 129,000 employees in 43 countries. According to the information gathered in the company's website, in 2005 it was 10 times safer to work for Alcoa than it was in 1991.

Alcoa makes a very sustainable product: almost 70% of the aluminum ever produced is still in use, equaling 480 million metric tons (529 million tons) of a total 690 million metric tons (761 million tons) manufactured since 1886.

Every day, worldwide, Alcoa:

- Mines 85,800 tons of bauxite and 27,300 tons of coal;
- Refines 34,300 tons of alumina;
- Smelts 9,550 tons of aluminum;
- Recycles 2,300 tons of aluminum;
- Manufactures 8,810 tons of aluminum products;
- Produces 166 million closures for beverage and food containers;
- Assembles wire harnesses for 20,400 vehicles;
- Generates 96,000 MWH of electricity;
- Purchases $27 million in goods and services.

In 2005, highlights of Alcoa performance include the following:

- Total revenues of US$26.2 billion, the highest in the company's history.
- Profits of US$1.23 billion, the second highest in the last five years.
- Debt-to-capital ratio of 30.8%, which was within the Company’s target range despite investments in an aggressive growth strategy.

The Company’s Vision and Values are the following: *“At Alcoa, our vision is to be the best company in the world--in the eyes of our customers, shareholders, communities and people. We expect and demand the best we have to offer by always keeping Alcoa's values top of mind:*

- ***Integrity:*** *Alcoa’s foundation is our integrity. We are open, honest and trustworthy in dealing with customers, suppliers, coworkers, shareholders and the communities where we have an impact.*

- ***Environment, Health and Safety:*** *We work safely in a manner that protects and promotes the health and well-being of the individual and the environment.*
- ***Customer****: We support our customers' success by creating exceptional value through innovative product and service solutions.*
- ***Excellence****: We relentlessly pursue excellence in everything we do, every day.*
- ***People:*** *We work in an inclusive environment that embraces change, new ideas, respect for the individual and equal opportunity to succeed.*
- ***Profitability****: We earn sustainable financial results that enable profitable growth and superior shareholder value.*
- ***Accountability****: We are accountable – individually and in teams – for our behaviors, actions and results. We live our Values and measure our success by the success of our customers, shareholders, communities and people."*

The Company has developed the Alcoa Business System, or ABS, which is an integrated set of principles and tools used to manage Alcoa businesses. The three overarching principles of ABS are: make to use; eliminate waste; people linchpin the system. These principles are briefly explained below:

- The Make to Use principle begins with Alcoa customers and is based on the ideal of: single-piece production; on demand; defect free; at the lowest possible cost; made safely .This principle is based on customer usage, as opposed to making to inventory.

- The Eliminate Waste principle drives toward the ideal of exposing and solving problems, when and where they occur, to continuously improve the cost, quality and speed of all manufacturing and business processes.
- The third principle drives to create the people environment, engaging all associates in identifying and solving the problems linked to transition from "make to inventory" to "make to use" and the continuous improvements in costs, quality, and speed.

While ABS is about improvements, it has also led to significant cost savings. At the end of 2003, Alcoa completed a three-year cost challenge program with annual savings of $1.012 billion, exceeding a $1.0 billion goal. This followed $1.1 billion in annual savings achieved in the company's 1998-2000 cost challenge. And in January 2004 Alcoa announced a new cost savings program for 2004-2006, which calls for a reduction of $1.2 billion in annual expenditures by the end of 2006. Upon completion of the 1998-2006 programs the company will have eliminated more than $3.3 billion in annual costs while building closer ties to customers and building for the future.

While ABS has helped deliver substantial savings, there are significant opportunities ahead in both savings and in extending the entire business system of the company: of the more than 350 operating locations of the company, approximately 100 have realized significant gains, major improvements, or are on to setting new benchmark performance.

At its other approximately 270 operating locations, it is either initiating ABS or realizing the early gains that can be achieved. The Company is using its years of experience applying ABS to systemically capture improvements faster and transfer knowledge across the organization more quickly. Where it was initially operations-based, it is now redefining value propositions and evolving into a market-driven company based on new operational capabilities, products, and technologies.

In January 2005, Alcoa was named top three most sustainable corporations in the world at the World Economic Forum in Davos, Switzerland. At the end of 2005, Alcoa was also named one of the top green companies in the world by BusinessWeek magazine and the Climate Group in recognition of its performance in reducing greenhouse gas emissions. In 2006, the Company was again recognized as one of the world's most sustainable companies. These honors recognized the ability to meet the "triple bottom line," understood as the measure of value that balances the environmental, social, and economic impacts of a business.

<u>Company's Information on ER and CSR</u>:

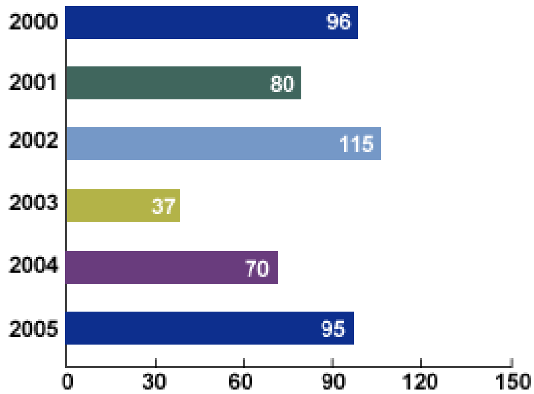
Follows below the data collected relating to this company:

1. Source of information:	Interview with the company's representative and information gathered in the company's website.
2. Date:	July 7th, 2006
3. Company's representative:	Mr. Maurício Born
4. Title:	Environmental, Health and Safety Corporate Manager
5. Company's understanding by Corporate Sustainability:	At Alcoa, sustainability is defined as using the Company's values to build financial success, environmental excellence, and social responsibility through partnerships in order to deliver net long-term benefits to its shareholders, employees, customers, suppliers, and the communities in which the Company operates.

	The commitment to sustainability has a long history in the Company and is evident every day—from the way the Company applies its values to its strategic framework for sustainability supported by clear targets for measuring progress toward achievement of Alcoa's vision for 2020. As reported in 2004 Sustainability Report, the key challenge is to integrate sustainability into the organization in a more systematic way. Progress has been made and counted so far: - Alcoa formed a sustainability team in 2004. During 2005, the group met and sought external viewpoints—from other companies and non-governmental organizations—to give a critique on the company's performance. The feedback has been used to assist the firm in the development of its new reporting structure, which provides easier access to case studies and current performance data. - A key step taken during 2005 to further integrate sustainability principles into the businesses and operating practices was the review and revision of the 2020 Strategic Framework Sustainability (refer to Question 10). - Other improvements are related in the next questions. ***Issues and Challenges*** As stated in 2005 Sustainability Report, the Company has worked on key issues for its business, as described below: *Climate Change* Alcoa maintained 25% reduction goal in greenhouse gases from 1990 levels despite the growth it experienced. In recognition of its performance in reducing these emissions, *BusinessWeek* magazine and the Climate Group named the Company one of the top green companies in the world (refer to Question 10). *Engagement with Stakeholders* The Company has continued to develop its internal and external stakeholder engagement processes. The Iceland Sustainability Initiative is being used as a model in training programs and with its community advisory boards throughout the world. The emphasis is on seeking earlier input from stakeholders in the communities where it operate—not just for its growth projects, but also for existing plant upgrades, expansions, and ongoing activities. Internally, the Public Issues Committee of the board discusses key sustainability issues throughout the year. In 2005, the committee reviewed public issues associated with expansion projects in Russia, Africa, Trinidad, Iceland, and Jamaica; reviewed environmental matters in Australia; and carried out other responsibilities enumerated in the committee charter.

	Other *Issues and Challenges* are related to *energy strategy* (where concepts of ER and CSR are widely considered as limiting conditions to the development of new projects); *products* (considering innovation for customers, mainly in the automotive sector); *biodiversity; technology* (considering supply chain and industry matters); *facility end-of-life activities* (considering strategies to adopt with community). In addition to the clear definition and framework for sustainability, Alcoa encourages its employees to interpret the meaning of sustainability on a personal level, worldwide.
6. Company's understanding by Environmental Responsibility:	Alcoa understands that environmental responsibility means to operate in a manner that protects and promotes the health and well-being of the environment. This is a core value to Alcoa. Alcoa has been widely recognized by government and non-government agencies around the world for its environmental stewardship, and this success is driven by the firm's people. The business leaders understand the critical importance of minimizing impacts and maximizing opportunities related to the environment in the products it offers and the processes and operations required to manufacture them. Its strategic direction and execution on environmental objectives is supported by more than 500 environmental professionals worldwide, backed by numerous relationships with external experts in areas key to its operations.
7. Company's understanding by Corporate Social Responsibility:	Alcoa understands as Corporate Social Responsibility the role that the Company plays to all the stakeholders, meaning the interested parties which some how are influenced by the Company's activities, among them: its employees, community, supply chain and customers.
8. Does the company have a specific department for treating those subjects?	In 2005, Alcoa formalized a more structured leadership council for its Environment, Health, and Safety (EHS) function. The council's mission is to provide the appropriate people, processes, and systems worldwide to allow its businesses to succeed in meeting objectives flowing from its 2020 strategic framework. In Brazil, there is an Environmental, Health and Safety (EHS) Corporate Department, structured to apply Alcoa's Vision and Values as well as the corporate programs related to ER and CSR. This Department has also been responsible for implementing sustainable programs, involving both the internal and external partners and communities (refer to Question 10).
9. Is there any inter-relation between these subjects (or the company's specific department for those) and the strategic decisions to be taken in the company?	Alcoa clearly states in its Annual Reports that environment, social, health and safety issues are widely considered in its business units, operations and services (refer to Questions 5, 6 and 7).

10. Does the company have programs related to Corporate Sustainability, ER, CSR?	In 2001, Alcoa developed an initial set of long-range goals to be achieved by 2020, with routine measurement to track its progress. The Company updated these goals in early 2006 as part of a larger initiative to enhance Alcoa's sustainability framework - ***2020 Strategic Framework for Sustainability***. The goals are intended to be aggressive, requiring innovation and collaboration and are still under review. Based on progress and the ever-changing needs of global communities in which it operates, these goals will be adjusted as required to continue to drive the Company in the right direction and show Alcoa's willingness to lead in environmental stewardship. The revised framework is built around six focus areas (refer to Table 5): - Economic benefit - Respect and protect people: employees - Respect and protect people: communities - Safe and sustainable products - Meet the needs of current and future generations through efficient resource use - Accountability and governance Alcoa have made significant progress against many of its goals, such as meeting the 25% reduction in greenhouse gases seven years before the 2010 deadline and achieving a 50% reduction in land filled waste before the 2007 goal. In other areas, its progress has been less than desired. In these cases, the Company will be open about its progress and state specific measures aimed at bringing focus to these areas. For example, progress remains slow toward its goals concerning the use and discharge of water. The Company is taking specific steps this year to clarify the goals, prioritize interim objectives, and identify specific plans for those operations that account for the majority of Alcoa's total water consumption. Alcoa's progress toward reducing sulfur dioxide (SO_2) and mercury emissions has also proved challenging. The Company is installing additional control technology in 2006 to address the SO_2 emissions, and its refining operations are developing detailed plans to identify short- and long-term measures that will facilitate progress toward the reduction of mercury emissions. Helping drive the Company's performance is its corporate-level EHS management system, which was certified to the ISO 14001 standard for the second year in a row in 2005. Alcoa was one of the first corporations to obtain this certification. Before the 2020 Strategic Framework for Sustainability, Alcoa had already implemented EHS programs relating to water and wastewater control; waste (hazardous and non-hazardous) management; chemicals and hazardous materials control; air emissions control; emergency response procedures, among other issues, in the facilities worldwide.

	Currently, Brazil is implementing a Sustainability Program named Programa REVER, in partnership with Philips and BASF. The project started in January 2006 and its methodology comprises stakeholder consultation, internal interviews, communication comparative analysis and recommendations. The Program has the main objective of evaluating the Company's performance through direct results, results relating interested parties and to the business, comprising the following themes: company's essence; business strategy; sustainability and responsible action to the environment, society and economics. Results and conclusions are expected to be presented in December, 2006.
11. Are the costs for implementing these programs available?	Alcoa dedicates a significant portion of its capital expenditures to address environmental, health, and safety issues at operating locations. The graphic below summarizes the Company's Environmental Capital Expenditures in millions of US dollars spent. ***Environmental Capital Expenditures*** *Millions of US dollars spent*  Capital expenditures for environmental purposes in the period 2001-2002 reflect the upgrading of environmental standards at facilities of newly acquired companies—Reynolds (2000), Cordant (2001), Ivex (2002), and Fairchild (2002). Concurrently, significant expenditures also occurred as a result of bringing aluminum smelters to new regulatory standards in the United States. Spending in 2003 is reflective of the success in previous years to upgrade acquired locations to Alcoa standards, as well as a greater emphasis on non-capital solutions to environmental issues through the use of the Alcoa Business System, which engages people at the operating level to develop and implement solutions. Increases in 2005 reflect the upgrading of newly acquired Russian facilities.
12. Does the company have an evaluation (performance indicators) of improvement in those areas?	Alcoa has implemented measurement systems, in order to be aware of the progress resulted of ER practices. The EHS Metrics are a set of key performance indicators implemented in all facilities worldwide, driving the Company in an uniform and systematic way to make their interpretation easier by the firm's headquarters.

	The EHS Metrics comprise targets and indicators relating to hazardous and solid wastes generation, chemicals usage, environmental non compliances and incidents involving effluents discharge, spills, noise, among others. According to the data gathered, the review and subsequent revision of the 2020 Strategic Framework for Sustainability helped make the Measurement Systems more comprehensive in terms of sustainability principles. This document also comprises targets and metrics that help guide the businesses and measure its progress toward the vision for 2020. Alcoa understands that providing this clear measurement of the progress both internally and externally will lead to stronger tactical planning for businesses through an integrated approach. Alcoa provides ongoing updates about the Company's progress against these targets and metrics in the sustainability reporting.
13. Is the information on value creation available? How does the company evaluate gains and losses?	As an example Alcoa Australia, in 2004, accounted a net after tax profit of A$ 674.1 million – an increase of A$ 17.2 million on 2003. Although the Company increased, environmental resources usage or emissions decreased along the year, due to the efforts of the Company to implement ER programs. For example, fluoride emissions from smelters at Point Henry plant (Australia) were registered to be 0.51 kg of fluoride per ton of aluminum produced; in 2003, this index was 0.98 kg of fluoride per ton of aluminum produced and in 2002 the index was registered in 2.10. Smelters at Portland facility had 0.34, against 0.34 equally in 2003, but a reduction from 0.38 as registered in 2002. Alcoa Australia operations used 30,279 million liters of water in 2004, mostly in alumina refining, but accounted a saving of 80 megaliters of water per year. The Company published the following data relating to economical indexes: - total CAPEX (in millions of A$): 158.3 in 2004 and 25.3 in 2003 for growth; - net profit after tax (in million of A$): 674.1 in 2004 and 656.9 in 2003; - revenues (in A$ million): 2,969 in 2004 and 2,923 in 2003. Another example is Alcoa Brazil. Aluminum production increased from 273,737 ton in 2003 to 301,350 ton in 2004. Alumina production increased from 1,013,024 ton in 2003 to 1,074,340 ton in 2004. Investments in environment accounted R$ 21,850,158 in 2003 and R$ 21,865.047 in 2004. Water consumption increased from 4.5 million of cubic meters in 2003 to 4.6 million of cubic meters in 2004, but a reduction was made since 2002, as it was 5.8 million of cubic meters in this year. Wastes generated in the process decreased from 78,947 ton in 2003 to 78,509 ton in 2004. The Company's gross profits increased 14.7% from 2003 to 2004 and net profits registered an increase of 29.3% in the same period.

14. Does the company believe on intangible values relating to ER and CSR?	According to the information gathered, as Alcoa primary business is highly dependent upon environmental resources (aluminum mining), it is very easy to suffer due to the public bad perception of the Company. All the values and programs that have been implemented by the Company so far reflect the seeking of a good image to the market and all the stakeholders, considered intangible values.
15. Is the company perceptive for behavior changes in the consumer market for its products?	Yes. Although the Company holds mostly B2B goods, examples are related to the incentive kept by the Company to the aluminum recycling in society. Brazil is one of the countries where aluminum recycling has been maintained in high standards, above Japan and other developed countries' indexes. The need for recycling, pointed by society, leveraged Alcoa to participate in the joint venture with the companies Tetrapak and Klabin, to develop a new technology to recycle long-life aseptic packages. Alcoa participates in the World's First Carton Packaging Recycling Plant, located in Piracicaba, Brazil, using the innovative plasma technology, together with the other two companies (May 2005). The plasma process separates aluminum and plastic, components of the aseptic package. This innovative process constitutes a significant enhancement to the current recycling process for carton packaging, which up until now, separated paper, but kept plastic and aluminum together. The plasma process, with efficiency around 90%, provides another option for recycling, allowing for the return of all three components of the package to the productive chain as raw material. Alcoa, which supplies thin-gauge aluminum foil to Tetra Pak for aseptic packaging, uses the recycled aluminum to manufacture new foils. This project synthesizes the best that sustainability can offer, in the form of partnering, technological innovation, environmental enhancement and social development. This is an example where the associated companies, the environment and the local community, represented here by the recycling cooperatives, win. Another example which is being lead by Alcoa Brazil relates to aluminum wheels. Customers have increased their good perception of wheels made of aluminum and their advantages have been largely published by the Company. Aluminum wheels are lighter than the traditional ones, increasing the capacity of the vehicle's useful load; they are more resistant and durable, offering better performance and driving conditions; in addition, maintenance costs are lower and due to less weight they allow fuel saving, even in terms of air emissions to the atmosphere (less black smoke and particulate matters, due to less quantities of fuel burned).
16. What has leveraged the company to adopt programs relating to ER and CSR?	According to the data gathered in interviews, the main driver to implement ER and CSR programs was the dialogue with society, which is imperative to keep the social license to operate and grow. Other cases that may have motivated the company to implement such practices are related to environmental damages in past, as follows.

	Alcoa is also involved in proceedings under the Superfund or analogous state provisions regarding the usage, disposal, storage or treatment of hazardous substances at a number of sites in the U.S. The company has committed to participate, or is engaged in negotiations with federal or state authorities relative to its alleged liability for participation, in clean-up efforts at several such sites. As an example, since 1989, Alcoa has been conducting investigations and studies of the Grasse River, adjacent to Alcoa's Massena, New York plant site, under order from the U.S. Environmental Protection Agency (EPA) issued under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as Superfund. Sediments and fish in the river contain varying levels of polychlorinated biphenyl (PCB). The range of costs associated with the remedial alternatives (2002 Report) is between **$2 million and $525 million**. Alcoa believes the alternatives that should be selected are those ranging from monitored natural recovery ($2 million) to a combination of moderate dredging and capping ($90 million). A reserve of $2 million has been recorded for any potential losses, as no one of the alternatives is more likely to be selected than any other. Representatives of various U.S. federal and state agencies and a Native American tribe, acting in their capacities as trustees for natural resources, have asserted that Alcoa and Reynolds may be liable for loss or damage to such resources under federal and state law based on Alcoa's and Reynolds' operations at their Massena, New York and St. Lawrence, New York facilities. While formal proceedings have not been instituted, the company continues to actively investigate these claims. Since 1990 Alcoa has undertaken investigations and evaluations concerning alleged releases of mercury from its Point Comfort, Texas facility into the adjacent Lavaca Bay pursuant to a Superfund order from the EPA. In March 1994, the EPA listed the "Alcoa (Point Comfort)/Lavaca Bay Site" on the National Priorities List, and the EPA entered into an administrative order on consent, EPA docket # 6-11-94, requiring the company to conduct a remedial investigation and feasibility study under EPA oversight. The remediation cost is fully reserved. The company is negotiating a Consent Decree with the United States under which it will undertake to implement the remedy. The company and certain federal and state natural resource trustees, who previously served Alcoa with notice of their intent to file suit to recover damages for alleged loss or injury of natural resources in Lavaca Bay, have cooperatively identified restoration alternatives and approaches for Lavaca Bay. The cost of such restoration is reserved and Alcoa anticipates negotiating a Consent Decree with the trustees under which it will implement the restoration.

	In October 1998, Region V of the EPA referred various alleged environmental violations at Alcoa's Lafayette, Indiana operations to the civil division of the U.S. Department of Justice (DOJ). The alleged violations relate to water permit exceeding as reported on monthly discharge monitoring reports. Alcoa and the DOJ entered into a tolling agreement to suspend the statute of limitations related to the alleged violations in order to facilitate settlement discussions with the DOJ and EPA. The parties have been able to reach settlement and a consent decree concluding this matter was executed in January 2002. In July 2001, the Louisiana Department of Environmental Quality (DEQ) filed an administrative law proceeding, docket # 2001-5918-EQ, against Discovery Aluminas, Inc. (Discovery), an Alcoa subsidiary, and Waste Management, Inc. (Waste Management) seeking civil penalties for alleged infractions of DEQ's hazardous waste regulations. Both Discovery and Waste Management have denied the allegations and formal discovery is proceeding. In 1994, the EPA added Reynolds' Troutdale, Oregon primary aluminum production plant to the National Priorities List of Superfund sites. Alcoa is cooperating with the EPA and, pursuant to a September 1995 consent order, docket number 1094-01-19-106, between Reynolds and EPA Region 10, is working with the EPA to identify cleanup solutions for the site. Following curtailment of active production operations and based on a further evaluation of remedial options, the company has determined the most probable cost of cleanup. This amount has been fully reserved. On October 24, 2001, the Texas Natural Resource Conservation Commission (TNRCC) approved an Agreed Order concerning Alcoa's Point Comfort Operations. The Agreed Order required corrective actions and fines for various violations of the Clean Air Act that were self-reported to the TNRCC by Alcoa. The Order required payment of a fine of $145,000. In lieu of one-half of the fine, Alcoa agreed to purchase a hazardous material response vehicle for the Calhoun County Local Emergency Planning Committee. TNRCC deferred an additional $36,000 fine contingent upon completion of the terms of the Order. On December 26, 2001, three citizens groups filed an action in the U.S. District Court for the Western District of Texas against Alcoa. The groups alleged that activities conducted in the mid-1980s at the Alcoa power plant in Rockdale, Texas triggered various requirements under the Clean Air Act and the Texas Clean Air Act and that the plant did not comply with those requirements. The groups also alleged that the plant violated opacity limits. On January 29, 2002, the company filed its answer to the complaint denying the allegations. In addition, on January 9, 2002, the TNRCC issued a Notice of Enforcement and EPA Region VI issued a Notice of Violation against Alcoa.

	Neither constitutes final agency action. Nevertheless, both notices asserted that activities conducted in the mid-1980s at the Alcoa power plant in Rockdale, Texas triggered requirements under the Clean Air Act and/or the Texas Clean Air Act and that the plant did not comply with those requirements. The company is engaged in settlement negotiations with the TNRCC and EPA. To meet the terms of a newly issued decision by the Western Australia Minister for the Environment amending the license regulating emissions from the Wagerup alumina refinery, AWAC was required to implement projects to reduce emissions of odors and nitrogen oxides at the Wagerup facility. If the Wagerup facility does not complete the projects, Wagerup's alumina production must be reduced by approximately 6% to the production limits of the prior license until the projects are completed. Currently, as stated in the sustainability reports, Alcoa anticipates the need of remediation in the sites where its plants operate and issues related to ER are considered in the decision taken by the Company with regards to decommissioning or selling for future activities, no matter what type of activity is considered.
17. Is this company a member of DJSI or ISE?	Alcoa was first named a component of the DJSI in 2001 and renamed in 2002, 2003 and 2004. No information was found relating to years 2005/2006.
18. What is the bond rating for this company?	Standard and Poor's Rating Services' (S&P) long-term debt rating of Alcoa is A- and its short-term rating is A-2. In January 2005's outlook is negative, as S&P cited higher capital expenditures in 2005 and future years. Moody's Investors Service long-term debt rating of Alcoa and its rated subsidiaries is A2, and its short-term debt rating of Alcoa is Prime-1.
19. Does the company reports under GRI standards?	Yes. The Company keeps in its website a section named GRI index, in which all the items comprised in GRI Guidelines are covered and indicated where the information is found.
20. What is the trend for the company?	The level of sustainability training increased significantly during 2005 at both the business unit and plant levels and the Company states that it will continue in 2006. The focus of the training is how to integrate sustainability thinking into business planning processes, projects, upgrades, expansions, etc. The Company is seeking to better integrate those issues through its employees.

Table 5: Alcoa's 2020 Strategic Framework for Sustainability (under review)

	Draft Target	Draft Metric
ECONOMIC BENEFIT		
1	Maintain a strong balance sheet	Debt to total capitalization consistently between 25% and 35%
	Draft Target	**Draft Metric**
RESPECT & PROTECT PEOPLE: EMPLOYEES		
2	Elimination of occupational illnesses and injuries	Zero fatalities Zero lost workday rate Zero total recordable injuries From base year 2006, achieve at least a 20% reduction in the number of employees requiring protective measures against unacceptable noise levels by 2008 From base year 2006, achieve at least a 20% reduction in the number of employees requiring protective measures against unacceptable workplace exposure to chemicals by 2008
3	Healthy workforce	Number of employees participating in healthy workforce initiatives
4	Ensure a workforce that reflects the diversity of the communities everywhere we operate	*Further consultation required for metric to be developed*
5	Increase workforce performance	100% of salaried employees receiving annual performance feedback by 2006
	Draft Target	**Draft Metric**
RESPECT & PROTECT PEOPLE: COMMUNITIES		
6	All Alcoa operations understand the communities in which they operate	100% of manufacturing locations implemented the Alcoa Community Framework by 2010
7	Contribute to healthier, safer, and more sustainable communities everywhere we operate	40% of employees within a business unit or region volunteered in the community through ACTION, Bravo!, or Week of Service
	Draft Target	**Draft Metric**
SAFE & SUSTAINABLE PRODUCTS		
8	Increase recycling of aluminum	25% recycled aluminum content in fabricated products by 2010; 50% by 2020
	Draft Target	**Draft Metric**
MEET THE NEEDS OF CURRENT AND FUTURE GENERATIONS THROUGH EFFICIENT RESOURCE USE		
9	Improve resource use to reduce environmental "footprint"	From base year 2005: 10% reduction in selected material use by 2010 2006: Collect data

		2007: Commence reporting From base year 2000: 50% reduction in landfill waste by 2007; 75% reduction by 2010; 100% reduction by 2015 Reduce energy intensity by 10% by 2010 60% reduction in process water by 2009; 70% by 2010 From base year 1990: 25% reduction in greenhouse gas emissions by 2010. Assuming success with the inert anode technology, a 50% reduction by 2010
10	Practice cleaner production to reduce environmental emissions/impacts	From base year 2000: 60% reduction in sulfur dioxide (SO_2) by 2010 50% reduction in volatile organic compounds (VOCs) by 2008; 60% reduction by 2010 30% reduction in nitrogen oxides (NOx) by 2007; 50% reduction by 2010; 85% reduction by 2015 80% reduction in mercury emissions by 2008; 90% reduction by 2010; 95% reduction by 2015 Zero water discharge by 2020
	Draft Target	**Draft Metric**
ACCOUNTABILITY & GOVERNANCE		
11	High audit performance	No material weaknesses in the design or operation of internal controls over financial reporting, which are reasonably likely to adversely affect Alcoa's ability to record, process, summarize, and report financial information
12	Ethics and compliance	Resolution of 90% of cases reported on the Compliance Line within 12 working days by 2009

3.4. Energias do Brasil

Company's Overview:

Energias do Brasil is a holding company with investments in the electricity sector, consisting of electricity generation, distribution and commercialization in four important Brazilian states - São Paulo, Espírito Santo, Mato Grosso do Sul and Tocantins.

EDP - Energias de Portugal, one of the largest European electric sector operators, is the controlling shareholder of Energias do Brasil, which started listing its shares on the São Paulo Stock Exchange's Novo Mercado in July 2005, after committing to the highest standards of corporate governance, which include issuing common shares only with voting rights and offering minority shareholders 100% tag along rights.

The group's generation installed capacity, presently at 516 MW, will almost double to 1,043 MW during the course of 2006, as the result of the conclusion of three generation projects, the most important of which being the Peixe Angical hydroelectric power plant (452 MW) on the Tocantins river. Energias do Brasil distributed a total of 23.1 thousand GWh of electricity during 2005 to approximately 3.0 million consumers, serving a population of approximately 10 million inhabitants.

For its distribution activities, the group has three wholly-owned subsidiaries: Bandeirante Energia S.A. - "Bandeirante" (Alto Tietê, Vale do Paraíba and Litoral Norte do Estado de São Paulo), Espírito Santo Centrais Elétricas - Escelsa (state of Espírito Santo) and Empresa Energética de Mato Grosso do Sul S.A. - Enersul (state of Mato Grosso do Sul).

The group's generation activities include participations in the following projects:

- **EDP Lajeado Energia S.A.** - "Lajeado" - a 59.93%-owned company that manages Energias do Brasil's 26,70% stake in the Luís Eduardo Magalhães hydroelectric power plant on the Tocantins river ("Lajeado").
- **Enerpeixe S.A.** - A 60% stake in the company that is constructing the Peixe Angical hydroelectric project on the Tocantins river, in partnership with Furnas Centrais Elétricas S.A. (40%). The plant is scheduled to go into operations in May 2006.
- **Energest S.A.** - A sub-holding company of Energias do Brasil that handles the assets resulting from the deverticalization of generation and distribution assets effected by Escelsa and Enersul. Energest owns 15 power plants with total installed capacity of 277 MW.

Commercialization is carried out by its subsidiary Enertrade - Comercializadora de Energia S.A., one of the most active players in Brazil's dynamic free electricity market which traded a total of 6,400 GWh in 2005.

Energias do Brasil's strategy is defined by its vision: to become one of the leading companies in the Brazilian electric sector, focused on creating shareholder value. As part of this vision, it seeks to achieve **sustainable growth** in the electricity generation, distribution and trading markets, positioning itself as a key player in the development of the Brazilian electric sector and in a position to be able to identify the best opportunities in the lines of business in which it operates, consistent with the guidelines set in its strategic planning process. Four key thrusts were deemed to be key to these objectives:

- to exploit the growth opportunities in the Brazilian market, initially in the field of electric power generation, within rigorous standards of return on investment;
- to maintain its focus on operating efficiency and synergy gains from effective management of its distribution network;
- to manage its business with financial discipline, giving priority to liquidity and scale of operations to support the company's expansion plans;
- to use to its advantage the support of an international group with vast experience in competitive markets to improve its management capabilities.

Energias do Brasil and its subsidiaries have been awarded with the main following Awards and Honors:

- **Energias do Brasil:** Honorable Mention - IR Magazine Awards Brazil 2006, Category of Best Investor Relations in the IPO, by the IR Magazine; Third place in the ranking of best share offers in 2005, Category of Initial Public Offers, by InfoMoney; Fernando Pini Graphic Excellence Award, Category of Best Annual Report 2004/2005, by the Brazilian Graphic Industry Association;
- **Bandeirante:** Alto do Tietê Corporate Social Responsibilty Award, Category of Bandeirante Community Education Program, by *Mogi* News newspaper; TOP Social, Category of Bandeirante Community Education Program, by the Brazilian Sales Managers Association (ADVB);
- **Escelsa:** 3rd Finalist, Category of Occupational Health and Safety Management Award, by Fundação COGE;
- **Enersul:** National Conservation and Rational Use of Energy Award 2005, Category of Medium-sized distribution companies; SESI Quality on the Job Award – MS, by SESI/MS.

Company's Information on ER and CSR:

Follows below the data collected relating to this company:

1. Source of information:	Interview with the company's representative and information gathered in the company's website.
2. Date:	June 26th, 2006
3. Company's representative:	Mr. Pedro Sirgado
4. Title:	Environment and Sustainability Manager
5. Company's understanding by Corporate Sustainability:	Energias do Brasil has developed the **Principles for the Sustainable Development of Energias do Brasil,** consistent to its strategy: 1. **Value creation** o Create shareholder value o Increase productivity and efficiency, and reduce exposure to risks related to the economical, environmental and social impact of its activities o Commit to costumer orientation, ensuring high quality of service o Integrate environmental and social aspects in planning and decision making processes 2. **Efficiency use of resources** o Promote the development of cleaner and more efficient energy technologies o Develop means of generation based on renewable energies o Promote the rational use of energy o Promote the innovation in products, services and sustainable technologies as well as the knowledge transference to the society 3. **Environment protection** o Minimize the environmental impact of all its activities o Participate in initiatives that contribute to the preservation of the environment and the promotion of the biodiversity o Extend the use of environmental criteria to the entire value chain(*) 4. **Integrity** o Ensure the observance of ethical standards in the conduction of business o Respect human rights in its sphere of influence o Elaborate specific codes of conduct 5. **Dialog with Stakeholders** o Ensure an open, transparent and trustful relationship with the different stakeholder groups o Establish stakeholder communication channels and integrate their concerns o Report performance in a credible, objective way in its economical, environmental and social dimensions 6. **Human capital management** o Reinforce management systems to ensure health, safety and well-being of workers o Promote the development of individual skills and reward excellence and merit o Reject abusive and discriminatory practices and promote the inclusion in all operations and in the value chain

<table>
<tr><td></td><td>7. Promotion of electric to energy access
Promote reliable and generalized access to electric energy
Adopt a transparent and socially fair price policy
Develop means of electricity generation with appropriate quality at a minimum cost
8. Support to social development
Support social and cultural promotion initiatives, based on transparent assessment of importance to the community
Promote technology transfer to developing countries
Support the activities of local and communitarian development
(*) For Energias do Brasil, the value chain comprises critical suppliers, logistic, clients and customers.</td></tr>
<tr><td>6. Company's understanding by Environmental Responsibility:</td><td>The Energias do Brasil companies are aware of the importance of their environmental responsibilities and have adopted managerial procedures intended to reduce and control the environmental impact of their activities. The creation of Energias do Brasil as a holding company has made it easier to formulate group-wide corporate plans for environmental issues.</td></tr>
<tr><td>7. Company's understanding by Corporate Social Responsibility:</td><td>Energias do Brasil understands Corporate social Responsibility as an integrant part of its Mission: the Company's Mission is to operate in the Brazilian power sector, with high standards of service excellence for customers, returns to the shareholders, recognition and reward for employees and the exercise of social corporate responsibility.
Following the corporate reorganization carried out in 2005, the Company proceeded to develop a corporate policy for social and cultural investments.</td></tr>
<tr><td>8. Does the company have a specific department for treating those subjects?</td><td>Energias do Brasil has just started to implement the Project Vanguarda, in which it is defined the new structure of the Company. This new structure is still not fully formalized, but it is for sure that the holding will have what is called a Virtual Center of Corporate Services (CVSC), comprising the following departments:
- Corporate development; HR strategic management and auditing, under the CEO guidance;
- Investor relations; accounting; corporate finance for risk management; planning and controlling, under the CFO guidance;
- Development and organization; institutional communication; regulatory affairs; energetic planning; legal advisor, under the VPC guidance;
- Environment and sustainability under the VPG guidance.
These corporate services will serve the business units of the Company, which are: Shared Services, Distributing Services, Strategic Generation and Strategic Trading.
It is relevant to mention that each of the power generation plants has its own area dedicated to the environment and sustainability.</td></tr>
</table>

9. Is there any inter-relation between these subjects (or the company's specific department for those) and the strategic decisions to be taken in the company?	It is the Company's view that these subjects are crucial for its sustainable growth, meaning the growth of its operations and activities. Energias do Brasil has inserted these values on its Letter of Values. Energias do Brasil's mission and values are based in the following purposes: - **Respect** – for customers, suppliers, employees, shareholders, the community and the environment; - **Efficiency** – to add value for customers, employees and shareholders, creating and implementing innovative and effective solutions; - **Transparency** – to make transparency one of the core values of the group's companies in their interaction with customers, employees, shareholders and regulators; - **High standards** – To require the highest standards as the rule for its operations and the basis for its decisions; - **Ethics** – To comply with the highest standards of ethics in all its activities. Those purposes are consistent with the concept of Corporate Governance.
10. Does the company have programs related to Corporate Sustainability, ER, CSR?	Yes, refer to question 11.
11. Are the costs for implementing these programs available?	Environmental investments, including all projects directly related to electricity generation, distribution and trading amounted to R$138.1 million in 2005, 570.4% more than in 2004. The bulk of this was invested in the field of generation (R$128.8 million), the result of the construction work on the Peixe Angical hydroelectric power project on the river Tocantins, where the Company has invested in environmental programs related to the acquisition of land (R$48.2 million), deforestation and clearing of the area destined for the water reservoir (R$19.9 million), urban resettlement (R$17.7 million) and restoration of the highway infrastructure (R$20.0 million). Reportedly, the Company is aware that environmental investments represents around 20% of the total budget needed to install a hydroelectric power plant and these investments are treated as high priority once the company needs the License to Operate – a virtual license from the community and NGO's, beyond the license from the environmental agency. The Corporate Policy for Social and Cultural Investments envisages creating a centralized fund to provide resources for all the Energias do Brasil companies. R$6.4 million was invested during 2005 in developing and supporting projects in the fields of education and culture, priority being given to the education of children and adolescents.
12. Does the company have an evaluation (performance indicators) of improvement in those areas?	No. The Company has not implemented evaluation processes yet.
13. Is the information on value creation available? How does the company evaluate gains and losses?	No data was presented relating to value creation.

14. Does the company believe on intangible values relating to ER and CSR?	The Company believes that ER and CSR are of a great importance for the business sustainability and growth. This belief may be attested by the Company's application to participate in the ISE (BOVESPA New Market) in which it has to make evident that those values are closely related to the Company's strategy and make them transparent to the society and investors. Also, EDP – Energias de Portugal has submitted for the third year consecutive the DJSI Questionnaire. It has not been yet announced if the Company become a DJSI member for the year 2006.
15. Is the company perceptive for behavior changes in the consumer market for its products?	No data presented.
16. What has leveraged the company to adopt programs relating to ER and CSR?	No data presented.
17. Is this company a member of DJSI or ISE?	Refer to question 14.
18. What is the bond rating for this company?	The following classification was found for Energias do Brasil subsidiaries: - Bandeirante Energia: Ba3/Stab (S&P) - Excelsa: B+/Pos (S&P) and B2/Stab (Moody's)
19. Does the company reports under GRI standards?	No. Published annual reports follow the international accounting and financial standards.
20. What is the trend for the company?	According to its Vision, Energias do Brasil intends to be one of the leading companies in the Brazilian electric sector, focused on the creation of value and sustentability.

4. Discussion and Analysis of Results

Section 4 discusses the results obtained in the Case Studies described in Section 3. It evaluates key performance indicators in terms of value creation for a company. In this Section, a SWOT Analysis is applied in order to better analyze the implementation of a Sustainable Program in a company, its strengths and weaknesses, opportunities and threats as well as its relation with the external scenario in which the company is inserted into.

Considering the companies taken as Case Studies (Section 3), all of them belong to different market or industry sectors. The objective here is not making a comparison between them, but to analyze if ER and CSR programs (or sustainability programs) have added value to each company, comparing the gathered data with the theory explained in Section 2 – Corporate Finance and its Relation with Environmental Responsibility and Corporate Social Responsibility.

Among the companies taken as Case Studies in this Final Assignment, it is possible to notice that:

- All of them are implementing or have already implemented sustainability programs launched by their corporations worldwide: Nestlé is implementing the *CARE* Program; Philips has the *EcoVision* Program, which is already in its third version; Alcoa is implementing the *2020 Strategic Framework for Sustainability,* which is under review; Energias do Brasil is currently developing the Sustainability Department to follow the sustainable practices developed by the major shareholder EDP – Energias de Portugal;

- All the companies have environmental and corporate social polices and those principles are inserted into their corporate visions and missions. All of them have implemented environmental programs and have key performance indicators to measure and evaluate progress. Limited to the data presented, it is possible to interpret that investments to implement such programs are lower than any correction measure that companies may be obliged to implement in the future, and they have experienced advantages on reducing operational costs due to reductions on the consumption of environmental resources (water, energy, packing, chemicals, fuels, others) – refer to Nestlé and Alcoa practical examples. It should be added to these tangible values the intangible value of accidents avoid, loss of image and loss of market share.

- All those companies are members of DJSI (Nestlé, Philips and Alcoa) or have already applied for ISE-BOVESPA (Energias do Brasil) and, therefore, may be interpreted as sustainable investments by stockholders. Being members of DJSI or ISE, it may be understood as a "certification" that the company is environmental and social responsible, as per all the assessment criteria considered by DJSI/ISE-BOVESPA, and those issues are considered along with the economical drivers in the strategic plans of the companies.

- Nestlé and Alcoa have been leveraged to implement ER and CSR programs due to bad cases involving the company's names/brand, where the press went against each one of them, turning the market perception also against the companies, leading them to experience financial damages due to image loss. Therefore, Nestlé and Alcoa experienced negative market perception and, for certain period of time, were interpreted by the market as not environmental or social responsible companies;

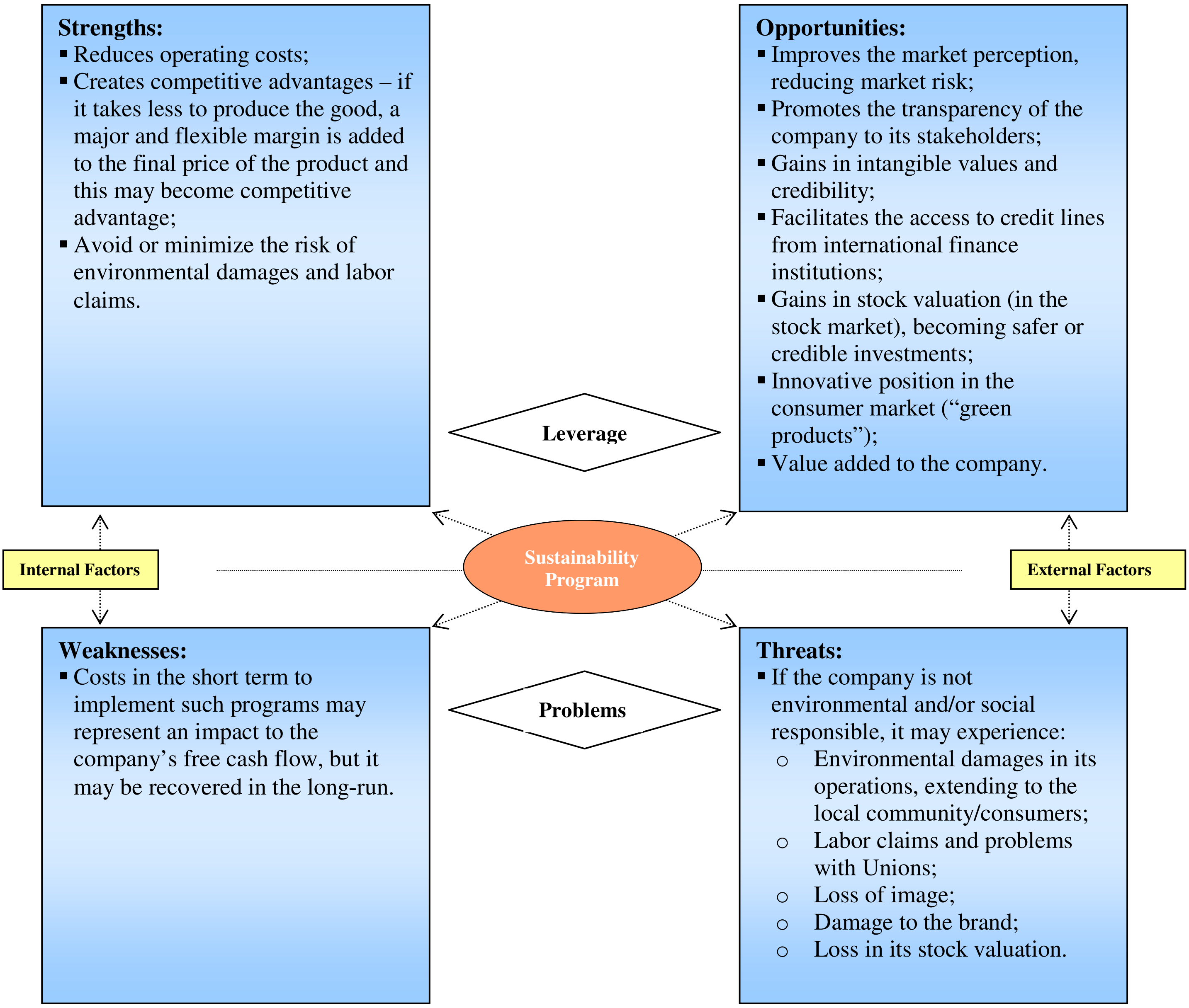
- Philips and Nestlé, although belong to different industry sectors, have some divisions engaged in B2C markets. So, both companies are able to participate in the consumer market taking advantages of delivering environmental responsible goods. As described in Section 2.1 – Sales Revenues, based on market surveys, consumers are increasing their perception on this type of products and this may be considered a strong trend. Therefore, although the development of such products demands investments, these may be recovered in the future, with profits;

- Philips and Alcoa reports under GRI guidelines and may take advantages on being transparent and credible for stockholders. Being DJSI members, these companies are certainly sustainable investments for stockholders;

- Philips and Alcoa is classified as AA companies by the Bond Rating Criteria (S&P or Moody's); Nestlé is classified as AAA; Energias do Brasil is a B+ company. Although this criteria is less demanding in terms of ER and CSR than the DJSI/ISE-BOVESPA ones, these companies are safe investments for stockholders.

- All the companies believe that, in order to be a sustainable company, environmental and social issues are as important as economic ones and those three pillars must be integrated in the company's vision and strategic plans for the future. Therefore, all the companies believe in intangible values, meaning the value added due to being a social and environmental responsible company, gaining in market perception (reducing market risk) and in the accessibility to credit lines (reducing credit risk) from international finance institutions.

Based on the data described in Section 3 – Case Studies, it is possible to interpret the implementation of Sustainability Programs using the SWOT Analysis, as follows below:



The SWOT analysis lead us to believe that there are much more opportunities to implement a Sustainability Program than threats, when considering the company's external factors. One thing is for sure: we can measure the amount of money needed to implement Environmental Responsible programs and Corporate Social Responsibility and they impacts the firm's cash flow in the short term. But, in the long run, ER and CSR are worth to implement. And the reason for that is too simple: it is easy to determine tangible losses such as fines, recovering and remediation costs; however, it is very hard to determine the extension and damage derived from image/brand loss and loss of credibility as a good company (intangible values). It will depend on several factors which may be variable depending on the current situation when it occurs. The implementation of ER and CSR practices help to avoid financial damages caused not only by tangible values, but also by intangible ones; these practices help to preserve the good image of the company's brand.

5. Conclusions

Based on the theory and case studies presented in this paper, it is possible to conclude that ER and CSR, as far as pollution prevention techniques are concerned, adds value to the company, increasing its free cash flow due to economies in operating costs, if process wastes and outflows can be returned to be reprocessed, recycled or added as a secondary input to the beginning of the industrial process.

Legal regulations are drivers for the implementation of ER and CSR practices, once the company may be subjected to fines and penalties due to any event that cause environmental damages which could be avoided or minimized by keeping the firm compliant with legal regulations. Fines and penalties cause negative impact in the free cash flow, reducing the value of the company.

Trends in the society behavior lead us to believe that ER and CSR practices may be a market differential, by valuing the brand's image facing customers, meaning increase of sales of the social and environmental responsible goods.

ER and CSR also affect the Weighted Average Cost of Capital (WACC) for a company. If the company implement ER and CSR practices, it should be able to reduce its credit risk and the general perception of the firm's risk by investors. It creates value considering financial drivers such as debt and stock valuation, once it is better classified by the Bond Rating Criteria (S&P and Moody's). By implementing ER and CSR practices, the company facilitates its access to credit lines at international finance institutions, i.e. IFC and Equator Principles Finance Institutions (EPFI), and/or gets more financing flexibility through lower interest rates, so these practices adds value for a company in terms of loans.

By improving its corporate governance, through the concept of transparency, the company gets a good market perception by consumers, customers and investors, and this is achieved through the Global Reporting Initiative (GRI) guidelines, and/or if the company becomes a member of DJSI/ISE-BOVESPA.

ER and CSR allow companies to generate value for shareholders by enabling better access to capital, reducing operating costs, enhanced innovation, strengthened stakeholder "license to operate", optimized interest rate, access to new markets and strengthened reputation. Therefore, the implementation of ER and CSR practices creates value for a company.

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Attachments

ATTACHMENT A	-	Equator Principles, July 2006
ATTACHMENT B	-	IFC Policy and Performance Standards on Social & Environmental Sustainability and Policy on Disclosure of Information
ATTACHMENT C	-	IFC Exclusion List
ATTACHMENT D	-	Global Reporting Initiative (GRI)
ATTACHMENT E	-	Dow Jones Sustainability Index (DJSI) and its Criteria

ATTACHMENT A

IFC Equator Principles, July 2006

July 2006

The "Equator Principles"

A financial industry benchmark for determining, assessing and managing social & environmental risk in project financing

www.equator-principles.com

PREAMBLE

Project financing, a method of funding in which the lender looks primarily to the revenues generated by a single project both as the source of repayment and as security for the exposure, plays an important role in financing development throughout the world.[1] Project financiers may encounter social and environmental issues that are both complex and challenging, particularly with respect to projects in the emerging markets.

The Equator Principles Financial Institutions (EPFIs) have consequently adopted these Principles in order to ensure that the projects we finance are developed in a manner that is socially responsible and reflect sound environmental management practices. By doing so, negative impacts on project-affected ecosystems and communities should be avoided where possible, and if these impacts are unavoidable, they should be reduced, mitigated and/or compensated for appropriately. We believe that adoption of and adherence to these Principles offers significant benefits to ourselves, our borrowers and local stakeholders through our borrowers' engagement with locally affected communities. We therefore recognise that our role as financiers affords us opportunities to promote responsible environmental stewardship and socially responsible development. As such, EPFIs will consider reviewing these Principles from time-to-time based on implementation experience, and in order to reflect ongoing learning and emerging good practice.

These Principles are intended to serve as a common baseline and framework for the implementation by each EPFI of its own internal social and environmental policies, procedures and standards related to its project financing activities. We will not provide loans to projects where the borrower will not or is unable to comply with our respective social and environmental policies and procedures that implement the Equator Principles.

[1] **Project finance** is "a method of funding in which the lender looks primarily to the revenues generated by a single project, both as the source of repayment and as security for the exposure. This type of financing is usually for large, complex and expensive installations that might include, for example, power plants, chemical processing plants, mines, transportation infrastructure, environment, and telecommunications infrastructure. Project finance may take the form of financing of the construction of a new capital installation, or refinancing of an existing installation, with or without improvements. In such transactions, the lender is usually paid solely or almost exclusively out of the money generated by the contracts for the facility's output, such as the electricity sold by a power plant. The borrower is usually an SPE (Special Purpose Entity) that is not permitted to perform any function other than developing, owning, and operating the installation. The consequence is that repayment depends primarily on the project's cash flow and on the collateral value of the project's assets." Source: *Basel Committee on Banking Supervision*, International Convergence of Capital Measurement and Capital Standards ("Basel II"), November 2005. http://www.bis.org/publ/bcbs118.pdf.

July 2006

SCOPE

The Principles apply to all new project financings globally with total project capital costs of US$10 million or more, and across all industry sectors. In addition, while the Principles are not intended to be applied retroactively, we will apply them to all project financings covering expansion or upgrade of an existing facility where changes in scale or scope may create significant environmental and/or social impacts, or significantly change the nature or degree of an existing impact.

The Principles also extend to project finance advisory activities. In these cases, EPFIs commit to make the client aware of the content, application and benefits of applying the Principles to the anticipated project, and request that the client communicate to the EPFI its intention to adhere to the requirements of the Principles when subsequently seeking financing.

STATEMENT OF PRINCIPLES

EPFIs will only provide loans to projects that conform to Principles 1-9 below:

Principle 1: Review and Categorisation
When a project is proposed for financing, the EPFI will, as part of its internal social and environmental review and due diligence, categorise such project based on the magnitude of its potential impacts and risks in accordance with the environmental and social screening criteria of the International Finance Corporation (IFC) (Exhibit I).

Principle 2: Social and Environmental Assessment
For each project assessed as being either Category A or Category B, the borrower has conducted a Social and Environmental Assessment ("Assessment") process[2] to address, as appropriate and to the EPFI's satisfaction, the relevant social and environmental impacts and risks of the proposed project (which may include, if relevant, the illustrative list of issues as found in Exhibit II). The Assessment should also propose mitigation and management measures relevant and appropriate to the nature and scale of the proposed project.

Principle 3: Applicable Social and Environmental Standards
For projects located in non-OECD countries, and those located in OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database, the Assessment will refer to the then applicable IFC Performance Standards (Exhibit III) and the then applicable Industry Specific EHS Guidelines ("EHS Guidelines") (Exhibit IV). The Assessment will establish to a participating EPFI's satisfaction the project's overall compliance with, or justified deviation from, the respective Performance Standards and EHS Guidelines.

The regulatory, permitting and public comment process requirements in High-Income OECD Countries, as defined by the World Bank Development Indicators Database, generally meet or exceed the requirements of the IFC Performance Standards (Exhibit III) and EHS Guidelines (Exhibit IV). Consequently, to avoid duplication and streamline EPFI's review of

[2] **Social and Environmental Assessment** is a process that determines the social and environmental impacts and risks (including labour, health, and safety) of a proposed project in its area of influence. For the purposes of Equator Principles compliance, this will be an adequate, accurate and objective evaluation and presentation of the issues, whether prepared by the borrower, consultants or external experts. Depending on the nature and scale of the project, the assessment document may comprise a full-scale social and environmental impact assessment, a limited or focused environmental or social assessment (e.g. audit), or straight-forward application of environmental siting, pollution standards, design criteria, or construction standards. One or more specialised studies may also need to be undertaken.

these projects, successful completion of an Assessment (or its equivalent) process under and in compliance with local or national law in High-Income OECD Countries is considered to be an acceptable substitute for the IFC Performance Standards, EHS Guidelines and further requirements as detailed in Principles 4, 5 and 6 below. For these projects, however, the EPFI still categorises and reviews the project in accordance with Principles 1 and 2 above.

The Assessment process in both cases should address compliance with relevant host country laws, regulations and permits that pertain to social and environmental matters.

Principle 4: Action Plan and Management System
For all Category A and Category B projects located in non-OECD countries, and those located in OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database, the borrower has prepared an Action Plan (AP)[3] which addresses the relevant findings, and draws on the conclusions of the Assessment. The AP will describe and prioritise the actions needed to implement mitigation measures, corrective actions and monitoring measures necessary to manage the impacts and risks identified in the Assessment. Borrowers will build on, maintain or establish a Social and Environmental Management System that addresses the management of these impacts, risks, and corrective actions required to comply with applicable host country social and environmental laws and regulations, and requirements of the applicable Performance Standards and EHS Guidelines, as defined in the AP.

For projects located in High-Income OECD countries, EPFIs may require development of an Action Plan based on relevant permitting and regulatory requirements, and as defined by host-country law.

Principle 5: Consultation and Disclosure
For all Category A and, as appropriate, Category B projects located in non-OECD countries, and those located in OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database, the government, borrower or third party expert has consulted with project affected communities in a structured and culturally appropriate manner.[4] For projects with significant adverse impacts on affected communities, the process will ensure their free, prior and informed consultation and facilitate their informed participation as a means to establish, to the satisfaction of the EPFI, whether a project has adequately incorporated affected communities' concerns.[5]

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[3] The **Action Plan** may range from a brief description of routine mitigation measures to a series of documents (e.g., resettlement action plan, indigenous peoples plan, emergency preparedness and response plan, decommissioning plan, etc). The level of detail and complexity of the Action Plan and the priority of the identified measures and actions will be commensurate with the project's potential impacts and risks. Consistent with Performance Standard 1, the internal **Social and Environmental Management System** will incorporate the following elements: (i) Social and Environmental Assessment; (ii) management program; (iii) organisational capacity; (iv) training; (v) community engagement; (vi) monitoring; and (vii) reporting.

[4] **Affected communities** are communities of the local population within the project's area of influence who are likely to be adversely affected by the project. Where such consultation needs to be undertaken in a structured manner, EPFIs may require the preparation of a Public Consultation and Disclosure Plan (PCDP).

[5] **Consultation** should be "free" (free of external manipulation, interference or coercion, and intimidation), "prior" (timely disclosure of information) and "informed" (relevant, understandable and accessible information), and apply to the entire project process and not to the early stages of the project alone. The borrower will tailor its consultation process to the language preferences of the affected communities, their decision-making processes, and the needs of disadvantaged or vulnerable groups. Consultation with Indigenous Peoples must conform to specific and detailed requirements as found in Performance Standard 7. Furthermore, the special rights of Indigenous Peoples as recognised by host-country legislation will need to be addressed.

In order to accomplish this, the Assessment documentation and AP, or non-technical summaries thereof, will be made available to the public by the borrower for a reasonable minimum period in the relevant local language and in a culturally appropriate manner. The borrower will take account of and document the process and results of the consultation, including any actions agreed resulting from the consultation. For projects with adverse social or environmental impacts, disclosure should occur early in the Assessment process and in any event before the project construction commences, and on an ongoing basis.

Principle 6: Grievance Mechanism
For all Category A and, as appropriate, Category B projects located in non-OECD countries, and those located in OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database, to ensure that consultation, disclosure and community engagement continues throughout construction and operation of the project, the borrower will, scaled to the risks and adverse impacts of the project, establish a grievance mechanism as part of the management system. This will allow the borrower to receive and facilitate resolution of concerns and grievances about the project's social and environmental performance raised by individuals or groups from among project-affected communities. The borrower will inform the affected communities about the mechanism in the course of its community engagement process and ensure that the mechanism addresses concerns promptly and transparently, in a culturally appropriate manner, and is readily accessible to all segments of the affected communities.

Principle 7: Independent Review
For all Category A projects and, as appropriate, for Category B projects, an independent social or environmental expert not directly associated with the borrower will review the Assessment, AP and consultation process documentation in order to assist EPFI's due diligence, and assess Equator Principles compliance.

Principle 8: Covenants
An important strength of the Principles is the incorporation of covenants linked to compliance. For Category A and B projects, the borrower will covenant in financing documentation:

a) to comply with all relevant host country social and environmental laws, regulations and permits in all material respects;

b) to comply with the AP (where applicable) during the construction and operation of the project in all material respects;

c) to provide periodic reports in a format agreed with EPFIs (with the frequency of these reports proportionate to the severity of impacts, or as required by law, but not less than annually), prepared by in-house staff or third party experts, that i) document compliance with the AP (where applicable), and ii) provide representation of compliance with relevant local, state and host country social and environmental laws, regulations and permits; and

d) to decommission the facilities, where applicable and appropriate, in accordance with an agreed decommissioning plan.

Where a borrower is not in compliance with its social and environmental covenants, EPFIs will work with the borrower to bring it back into compliance to the extent feasible, and if the borrower fails to re-establish compliance within an agreed grace period, EPFIs reserve the right to exercise remedies, as they consider appropriate.

Principle 9: Independent Monitoring and Reporting
To ensure ongoing monitoring and reporting over the life of the loan, EPFIs will, for all Category A projects, and as appropriate, for Category B projects, require appointment of an independent environmental and/or social expert, or require that the borrower retain qualified and experienced external experts to verify its monitoring information which would be shared with EPFIs.

Principle 10: EPFI Reporting
Each EPFI adopting the Equator Principles commits to report publicly at least annually about its Equator Principles implementation processes and experience, taking into account appropriate confidentiality considerations.[6]

DISCLAIMER

The adopting EPFIs view these Principles as a financial industry benchmark for developing individual, internal social and environmental policies, procedures and practices. As with all internal policies, these Principles do not create any rights in, or liability to, any person, public or private. Institutions are adopting and implementing these Principles voluntarily and independently, without reliance on or recourse to IFC or the World Bank.

[6] Such reporting should at a minimum include the number of transactions screened by each EPFI, including the categorisation accorded to transactions (and may include a breakdown by sector or region), and information regarding implementation.

July 2006

Exhibit I: Categorisation of projects

As part of their review of a project's expected social and environmental impacts, EPFIs use a system of social and environmental categorisation, based on IFC's environmental and social screening criteria, to reflect the magnitude of impacts understood as a result of assessment. These categories are:

- **Category A** – Projects with potential significant adverse social or environmental impacts that are diverse, irreversible or unprecedented;

- **Category B** – Projects with potential limited adverse social or environmental impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; and

- **Category C** – Projects with minimal or no social or environmental impacts.

Exhibit II:
Illustrative list of potential social and environmental issues to be addressed in the Social and Environmental Assessment documentation

In the context of the business of the project, the Assessment documentation will address, where applicable, the following issues:

a) assessment of the baseline social and environmental conditions
b) consideration of feasible environmentally and socially preferable alternatives
c) requirements under host country laws and regulations, applicable international treaties and agreements
d) protection of human rights and community health, safety and security (including risks, impacts and management of project's use of security personnel)
e) protection of cultural property and heritage
f) protection and conservation of biodiversity, including endangered species and sensitive ecosystems in modified, natural and critical habitats, and identification of legally protected areas
g) sustainable management and use of renewable natural resources (including sustainable resource management through appropriate independent certification systems)
h) use and management of dangerous substances
i) major hazards assessment and management
j) labour issues (including the four core labour standards), and occupational health and safety
k) fire prevention and life safety
l) socio-economic impacts
m) land acquisition and involuntary resettlement
n) impacts on affected communities, and disadvantaged or vulnerable groups
o) impacts on indigenous peoples, and their unique cultural systems and values
p) cumulative impacts of existing projects, the proposed project, and anticipated future projects
q) consultation and participation of affected parties in the design, review and implementation of the project
r) efficient production, delivery and use of energy
s) pollution prevention and waste minimisation, pollution controls (liquid effluents and air emissions) and solid and chemical waste management

Note: The above list is for illustrative purposes only. The Social and Environmental Assessment process of each project may or may not identify all issues noted above, or be relevant to every project.

Exhibit III: IFC Performance Standards on Social and Environmental Sustainability

As of April 30, 2006, the following list of IFC Performance Standards were applicable:

- Performance Standard 1: Social & Environmental Assessment & Management System
- Performance Standard 2: Labor and Working Conditions
- Performance Standard 3: Pollution Prevention and Abatement
- Performance Standard 4: Community Health, Safety and Security
- Performance Standard 5: Land Acquisition and Involuntary Resettlement
- Performance Standard 6: Biodiversity Conservation and Sustainable Natural Resource Management
- Performance Standard 7: Indigenous Peoples
- Performance Standard 8: Cultural Heritage

Note: The IFC has developed a set of **Guidance Notes** to accompany each Performance Standard. While not formally adopting the Guidance Notes, EPFIs or borrowers may use the Guidance Notes as useful points of reference when seeking further guidance on or interpretation of the Performance Standards. The IFC Performance Standards, Guidance Notes and Industry Sector EHS Guidelines can be found at www.ifc.org/enviro

Exhibit IV: Industry-Specific Environmental, Health and Safety (EHS) Guidelines

EPFIs will utilise the appropriate environmental, health and safety (EHS) guidelines used by IFC which are now in place, and as may be amended from time-to-time.

IFC is using two complementary sets of EHS Guidelines available at the IFC website (www.ifc.org/enviro). These sets consist of all the environmental guidelines contained in Part III of the World Bank's Pollution Prevention and Abatement Handbook (PPAH) which went into official use on July 1, 1998 and a series of environmental, health and safety guidelines published on the IFC website between 1991 and 2003. Ultimately new guidelines, incorporating the concepts of cleaner production and environmental management systems, will be written to replace this series of industry sector, PPAH and IFC guidelines.

Where no sector specific guideline exists for a particular project then the PPAH's General Environmental Guidelines and the IFC Occupational Health and Safety Guidelines (2003) are applied, with modifications as necessary to suit the project.*

The table below lists both the World Bank Guidelines and the IFC Guidelines as of March 1, 2006.

Industry Specific EHS Guidelines:

World Bank Guidelines (PPAH)	IFC Guidelines
1. Aluminum Manufacturing	1. Airports
2. Base Metal and Iron Ore Mining	2. Ceramic Tile Manufacturing
3. Breweries	3. Construction Materials Plants
4. Cement Manufacturing	4. Electric Power Transmission and Distribution
5. Chlor-Alkali Plants	5. Fish Processing
6. Coal Mining and Production	6. Food and Beverage Processing
7. Coke Manufacturing	7. Forestry Operations: Logging
8. Copper Smelting	8. Gas Terminal Systems
9. Dairy Industry	9. Geothermal Projects
10. Dye Manufacturing	10. Hazardous Materials Management
11. Electronics Manufacturing	11. Health Care
12. Electroplating Industry	12. Life & Fire Safety
13. Foundries	13. Occupational Health and Safety
14. Fruit and Vegetable Processing	14. Office Buildings
15. General Environmental Guidelines	15. Offshore Oil & Gas
16. Glass Manufacturing	16. Polychlorinated Biphenyls (PCBs)
17. Industrial Estates	17. Pesticide Handling and Application
18. Iron and Steel Manufacturing	18. Plantations
19. Lead and Zinc Smelting	19. Port and Harbor Facilities
20. Meat Processing and Rendering	20. Rail Transit Systems
21. Mini Steel Mills	21. Roads and Highways
22. Mixed Fertilizer Plants	22. Telecommunications
23. Monitoring	23. Tourism and Hospitality Development
24. Nickel Smelting and Refining	24. Waste Management Facilities
25. Nitrogenous Fertilizer Plants	25. Wastewater Reuse
26. Oil and Gas Development (Onshore)	26. Wildland Management
27. Pesticides Formulation	27. Wind Energy Conversion Systems
28. Pesticides Manufacturing	28. Wood Products Industries

29. Petrochemicals Manufacturing	
30. Petroleum Refining	
31. Pharmaceutical Manufacturing	
32. Phosphate Fertilizer Plants	
33. Printing Industry	
34. Pulp and Paper Mills	
35. Sugar Manufacturing	
36. Tanning and Leather Finishing	
37. Textiles Industry	
38. Thermal Power Guidelines for New Plants	
39. Thermal Power Rehabilitation of Existing Plants	
40. Vegetable Oil Processing	
41. Wood Preserving Industry	

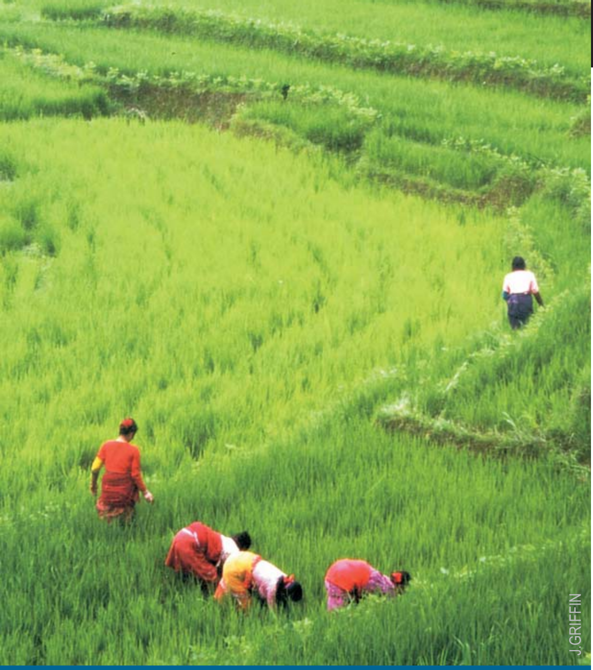
* Exception (the following are World Bank Guidelines not contained in the PPAH and currently in use)

Mining and Milling - Underground
Mining and Milling - Open Pit

ATTACHMENT B

IFC Policy and Performance Standards on Social & Environmental Sustainability and Policy on Disclosure of Information

IFC Policy and Performance Standards on Social & Environmental Sustainability and Policy on Disclosure of Information



Policy Highlights

The proposed Sustainability Policy & Performance Standards and Disclosure Policy support and reflect IFC's commitment to sustainability. They introduce:

- **New, better, and broader standards** that strengthen IFC policies to protect people and the environment, engage communities, and achieve high-impact development.
- **A new, outcomes-based approach** that moves from a system of rules to a system of principles with clear requirements for client performance and project outcomes.
- **Greater transparency** through more disclosure of information to the public.
- **Clarity, by better defining roles** and responsibilities in a clear, concise and comprehensive way for IFC and its private sector clients, thus increasing accountability.

For more information,
visit the policy review website:
www.ifc.org/policyreview

International Finance Corporation
World Bank Group

New, Better and Expanded Standards

The Performance Standards are a major step forward in strengthening all aspects of IFC's social and environmental policies:

- **New standards.**

  Integrated Assessment and Management Systems: a new standard integrates social and environmental assessments and requires use of management systems to ensure effective performance in these areas throughout a project's life

  Labor Rights: a new standard addresses all four core ILO labor standards (forced labor, child labor, nondiscrimination, and freedom of association and collective bargaining) and requires a comprehensive approach to labor and working conditions.

  Community Health and Safety: a new standard requires firms to consider a project's effects on health and safety in the surrounding community beyond the project itself.

  Pollution Prevention and Abatement: a new standard requires clients to prevent or minimize pollution and its impact on the environment and quantify a project's greenhouse gas emissions.

- **Expanded social review.** Integrated social and environmental assessment means that the performance standards now encompass all vulnerable groups and related social issues, while continuing to put special attention on the complexity of involuntary resettlement, Indigenous Peoples and cultural heritage. It also includes:

  Human Rights. IFC now references human rights and incorporates key concerns including adequate housing, security of tenure, and voluntary princples on security into its performance standards.

- **Increased community engagement.** IFC requires early and informed community participation in developing a project and ongoing community engagement throughout a project's life cycle. Related new requirements:

  Broad community support. IFC must be satisfied that this is in place before it supports large projects with significant impacts.

  A grievance mechanism must be established by the community to address any community concerns.

- **New comprehensive approach to biodiversity.** IFC is expanding its focus beyond preservation of natural habitats to a broader view of protection and conservation of biodiversity.

  Habitat destruction and *invasive alien species* are recognized as the major threats to biodiversity, and the standard specifies how to address them in natural and modified habitats.

  Sustainable management of all renewable natural resources is required, to be demonstrated by *independent certification* in sectors such as forestry.

New Outcomes-based Approach

IFC's new approach moves from a system of rules to one of principles with clear requirements for implementation and outcomes.

Experience show that good outcomes derive from whether or not a company can run all aspects of its business well. IFC's role is to help clients identify the risks that are intrinsic to their business and then help them manage those risks well. Better-run businesses mean fewer impacts, better risk management, better outcomes, and better bottom lines.

- **Integrated business model.** The standards require clients to have in place effective management systems to manage social and environmental risks as an integral part of their overall operations and business model. This has proven to be key to good outcomes — systems in place to carry out requirements on a day-to-day basis and to address issues as they arise over the life of a project.

- **Required actions tailored to specific risks**. Since no policy can anticipate all scenarios and risks, the Performance Standards define clear outcomes and help companies identify and assess the risks specific to the project. The requirements for achieving specific outcomes go into an Action Plan, which is disclosed to the public and becomes part of the legal agreement with IFC.

- **Adaptable means to strong outcomes**. The new approach lets companies consider diverse means, and seize new opportunities, for achieving required outcomes. This enables the private sector to do what it does best—manage projects efficiently, innovate, improve performance over time—for the long-term benefit of local people and the environment.

A Clearer Policy Structure

The new policy structure is clearer and defines the roles and responsibilities of IFC and its private-sector clients and thereby increases accountability. The new structure revises the existing Disclosure Policy and separates the current Safeguard Policies into two modules, one for IFC, the other for the private sector:

- **The Sustainability Policy** defines IFC's responsibility for supporting project performance in partnership with clients.
- **The Performance Standards** define clients' roles and responsibilities for managing their projects and the requirements for receiving and retaining IFC support. The standards include client requirements to disclose information to the public.
- **The Disclosure Policy** defines and expands IFC's obligations to disclose information about itself as an institution and its activities.

Three other supporting documents, which are not policy, serve as advisory or reference material for the new policy framework:

- **Guidance Notes**, which are companion documents to the Performance Standards and provide additional guidance to clients (and IFC staff) in fulfilling their roles and responsibilities under the standards.
- **Environmental and Social Review Procedure**, which gives direction to IFC staff in implementing the Sustainability Policy and reviewing compliance and implementation by private sector projects.
- **Environment, Health & Safety (EHS) Guidelines,** which are technical guidance informing those parts of the new policy structure related to environmental, health and safety issues.

Greater Transparency through Disclosure

Transparency is an important business value of IFC and is central to achieving strong social and environmental outcomes. The new policies clarify and expand the responsibilities of IFC and its clients to disclose information.

More disclosure by IFC. The draft Disclosure Policy improves IFC's process for disclosing information and expands the types of information disclosed. A new, request-driven disclosure process and internal review mechanism makes it easier for the public to:

- request information
- receive a timely response or an explanation if any of the request is denied
- challenge disclosure decisions by filing a complaint with the proposed Disclosure Policy Advisor, whose role will be to review these decisions

An expanded group of documents for routine disclosure includes:

- IFC's budget and business plan, and minutes from IFC Board meeting
- annual reporting on the aggregate development impact of IFC's activities and investments
- a summary of IFC's environmental and social review as well as information on expected development impacts in the public Summary of Proposed Investment for each investment project

More disclosure by client companies. The Policy and Performance Standards define responsibilities for timely disclosure by IFC's clients in support of community engagement throughout the life of a project. Requirements include:

Disclosure of key information at the beginning of a project, including its size, purpose, and duration; potential risks and impacts; social and environmental assessment; and the Action Plan to address any problems identified.

Ongoing disclosure to address implementation of the Action Plan and issues raised by affected communities, particularly those related to health, safety, and the environment.

About the International Finance Corporation

The International Finance Corporation is the private sector arm of the World Bank Group and is headquartered in Washington, D.C. IFC coordinates its activities with the other institutions of the World Bank Group but is legally and financially independent. Its 178 member countries provide its share capital and collectively determine its policies.

The mission of IFC is to promote sustainable private sector investment in developing and transition countries, helping to reduce poverty and improve people's lives. IFC finances private sector investments in the developing world, mobilizes capital in the international financial markets, helps clients improve social and environmental sustainability, and provides technical assistance and advice to governments and businesses. From its founding in 1956 through FY05, IFC has committed more than $49 billion of its own funds and arranged $24 billion in syndications for 3,319 companies in 140 developing countries. IFC's worldwide committed portfolio as of FY05 was $19.3 billion for its own account and $5.3 billion held for participants in loan syndications. For more information, visit **www.ifc.org**

ATTACHMENT C

IFC Exclusion List

The IFC Exclusion List defines the types of projects that IFC **does not** finance.

IFC does not finance the following projects:
- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements.
- Production or trade in weapons and munitions.[i]
- Production or trade in alcoholic beverages (excluding beer and wine).[i]
- Production or trade in tobacco.[i]
- Gambling, casinos and equivalent enterprises.[i]
- Trade in wildlife or wildlife products regulated under CITES.[ii]
- Production or trade in radioactive materials.[iii]
- Production or trade in or use of unbonded asbestos fibers.[iv]
- Purchase of logging equipment for use in primary tropical moist forest.
- Production or trade in pharmaceuticals subject to international phase outs or bans.
- Production or trade in pesticides/herbicides subject to international phase outs or bans.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.

A reasonableness test will be applied when the activities of the project company would have a significant development impact but circumstances of the country require adjustment to the Exclusion List.

All financial intermediaries (FIs), except those engaged in activities specified below*, must apply the following exclusions, in addition to IFC's Exclusion List:
- Production or activities involving harmful or exploitative forms of forced labor[v]/harmful child labor.[vi]
- Commercial logging operations for use in primary tropical moist forest.
- Production or trade in products containing PCBs.[vii]
- Production or trade in ozone depleting substances subject to international phase out.[viii]

* When investing in **microfinance** activities, FIs will apply the following items in addition to the IFC Exclusion List:
- Production or activities involving harmful or exploitative forms of forced labor[v]/harmful child labor.[vi]
- Commercial logging operations for use in primary tropical moist forest.
- Production or trade in products containing PCBs.[vii]
- Production or trade in ozone depleting substances subject to international phase out.[viii]
- Production or trade in wood or other forestry products from unmanaged forests.
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals.[ix]
- Production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples.

*When engaged in **trade finance**, given the nature of the transactions, FIs will apply the following Exclusion List:
- Production or activities involving harmful or exploitative forms of forced labor[v]/harmful child labor.[vi]

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements.
- Production or trade in weapons and munitions.[i]
- Production or trade in alcoholic beverages (excluding beer and wine).[i]
- Production or trade in tobacco.[i]
- Gambling, casinos and equivalent enterprises.[i]
- Trade in wildlife or wildlife products regulated under CITES.[ii]
- Production or trade in radioactive materials.[iii]
- Production or trade in or use of unbonded asbestos fibers.[iv]
- Commercial logging operations or the purchase of logging equipment for use in primary tropical moist forest.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.
- Production or trade in products containing PCBs.[vii]

Footnotes

[i] This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operations.

[ii] CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora. A list of CITES listed species is available from the Environment Division.

[iii] This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.

[iv] This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

[v] Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[vi] Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

[vii] PCBs: Polychlorinated biphenyls - a group of highly toxic chemicals. PCBs are likely to be found in oil-filled electrical transformers, capacitors and switchgear dating from 1950-1985.

[viii] Ozone Depleting Substances (ODSs): Chemical compounds which react with and deplete stratospheric ozone, resulting in the widely publicized 'ozone holes'. The Montreal Protocol lists ODSs and their target reduction and phase out dates. A list of the chemical compounds regulated by the Montreal Protocol, which includes aerosols, refrigerants, foam blowing agents, solvents, and fire protection agents, together with details of signatory countries and phase out target dates, is available from the Environment Division.

[ix] A list of hazardous chemicals is available form the Environment Division. Hazardous chemicals include gasoline, kerosene and other petroleum products.

ATTACHMENT E

Global Reporting Initiative

Structure of a report following GRI Guidelines

	Category	Aspect
Economic	Direct Economic Impacts	Customers Suppliers Employees Providers of capital Public sector
Environmental	Environmental	Materials Energy Water Biodiversity Emissions, effluents, and waste Suppliers Products and services Compliance Transport Overall
Social	Labour Practices and Decent Work	Employment Labour/management relations Health and safety Training and education Diversity and opportunity
	Human Rights	Strategy and management Non-discrimination Freedom of association and collective bargaining Child labour Forced and compulsory labour Disciplinary practices Security practices Indigenous rights
	Society	Community Bribery and corruption Political contributions Competition and pricing
	Product Responsibility	Customer health and safety Products and services Advertising Respect for privacy

According to the GRI, for the two thousand or more companies worldwide that are already reporting, the business justification for economic, environmental, and social reporting is fact, not hypothesis and the main reasons and benefits of reporting are:

- Today's strategic and operational complexities require a continual dialogue with investors, customers, advocates, suppliers, and employees. Reporting is a key ingredient to building, sustaining, and continually refining stakeholder engagement.

- Reports can help communicate an organization's economic, environmental, and social opportunities and challenges in a way far superior to simply responding to stakeholder information requests.
- Companies increasingly emphasize the importance of relationships with external parties, ranging from consumers to investors to community groups, as key to their business success. Transparency and open dialogue about performance, priorities, and future sustainability plans helps to strengthen these partnerships and to build trust.
- The process of developing a sustainability report provides a warning of trouble spots (and unanticipated opportunities) in supply chains, in communities, among regulators, and in reputation and brand management. Reporting helps management evaluate potentially damaging developments before they develop into unwelcome surprises.
- Sustainability reporting helps sharpen management's ability to assess the organization's contribution to natural, human, and social capital. This assessment enlarges the perspective provided by conventional financial accounts to create a more complete picture of long-term prospects. Reporting helps highlight the societal and ecological contributions of the organization and the "sustainability value proposition" of its products and services. Such measurement is central to maintaining and strengthening the **"license to operate"**.

- Sustainability reporting may reduce volatility and uncertainty in share price for publicly traded enterprises, as well as reducing the cost of capital. Fuller and more regular information disclosure, including much of what analysts seek from managers on an ad hoc basis, can add stability to a company's financial condition by avoiding major swings in investor behavior caused by untimely or unexpected disclosures.

The Reporting proposed by GRI has the aim of contribute to an ongoing stakeholder dialogue, once reports alone provide little value if they fail to inform stakeholders or support a dialogue that influences the decisions and behavior of both the reporting organization and its stakeholders. This provides a point of reference against which reporting organizations and report users can approach the challenge of developing effective and useful reporting practices. Also, transparency is the value and a goal that underlies all aspects of sustainability reporting. Transparency is defined as the complete and balanced disclosure of information on the issues and indicators required by stakeholders to make decisions, and on the processes, procedures, and assumptions used in preparing those disclosures.

Any company of any size, nature, industry sector or nationality may apply the Guidelines and it allows the company to communicate: 1) actions taken to improve economic, environmental, and social performance; 2) the outcomes of such actions; and 3) future strategies for improvement.

However, the Guidelines do not govern an organization's behavior. Rather, they help an organization describe the outcome of adopting and applying codes, policies, and management systems.

Compared with financial reporting, which is targeted primarily at one key stakeholder - the shareholder - sustainability reporting has a large and diverse audience. Stakeholder engagement plays an important role in helping to ensure that a report achieves its primary purpose: providing information that meets the needs of the organization's stakeholders. However, the inclusion of information (including performance indicators) identified through stakeholder consultation is a critical additional step in furthering the utility of an organization's sustainability report; it is also one of the fundamental principles underlying GRI reporting. Since stakeholder consultation often involves a range of parallel discussions with different constituencies, it is important to document the interactions that result in the organization's selection of indicators and to explain these in the report. While GRI emphasizes the importance of stakeholder feedback in drafting reports, it does not offer specific guidance on how to conduct stakeholder engagement. Guidance is available in the IFC and World Bank Guidelines.

The current version of the GRI Guidelines (2002) may be downloaded from GRI Website (www.globalreporting.org).

ATTACHMENT E

Dow Jones Sustainability Index (DJSI) and its Criteria

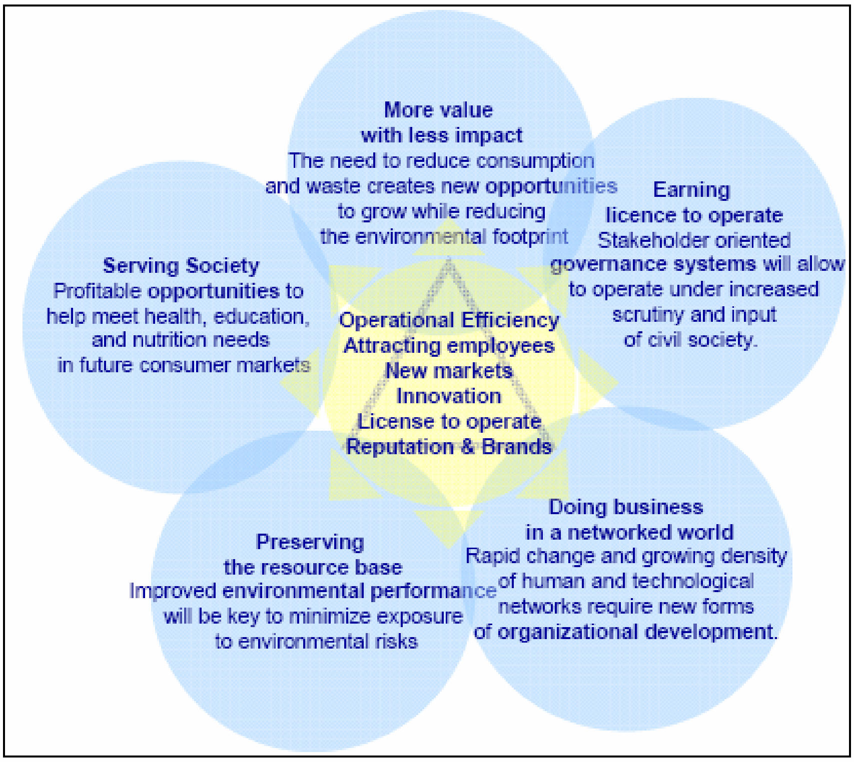
The DJSI family currently includes global, European and Eurozone benchmarks. On September 23rd 2005, this range was expanded with the launch of the Dow Jones Sustainability North America Index (DJSI North America) and the Dow Jones Sustainability United States Index (DJSI United States). The new indexes track the performance of North America's sustainability leaders to provide investors objective and dedicated benchmarks for sustainability driven equity portfolios in this important market.

SAM uses the following sources of information to conduct the DJSI assessment: online questionnaire; company documents and policies; media and stakeholder analysis and the company interaction and visits. After that a company may be announced as a member of the DJSI. The assessment criteria are linked to a company‘s value drivers in certain areas:

- Operational efficiency and risk reduction;
- Aligning and attracting employees;
- New markets;
- Innovation;
- Stakeholders‘ license to operate;
- Reputation and brands.

The illustration below shows the integration among the issues evaluated by SAM and the value creation in a company.

Linking sustainability to the drivers of financial value within a company*



****Based on the WBCSD Study "Tomorrow's markets", adopted by SAM Research.***

SAM's criteria can also be grouped along the three dimensions of corporate sustainability: the economic, social and environmental dimension. In 2005, the criteria took by SAM to assess the companies was based on the following:

- Economic:
    - Corporate Governance;
    - Investors Relations;
    - Risk & Crisis Management;
    - Codes of Conduct, Compliance, Corruption & Bribery;
    - Customer Relationship Management (CRM).

- Social:
    - Labor Practices Indicators;
    - Human Capital Development;
    - Talent Attraction & Retention;
    - Stakeholder Engagement;
    - Corporate Citizenship & Philanthropy;
    - Social Reporting.
- Environmental:
    - Environmental Policy & Management;
    - Environmental Performance;
    - Environmental Reporting.

Each one of the issues analyzed - economic, social and environmental – are weighted equally, representing 33% each on the company's score. The media and stakeholder analysis can add up to 50% of the weighting in a criteria and covers issues such as:

- Price Fixing, Insider Trading, Financial Statement Frauds;
- Corruption & Bribery;
- Corporate Governance Breaches;
- Extensive Layoffs & Labor Disputes;
- Environmental Accidents;
- Workplace Accidents & Occupational Health;
- Environmental, Workplace and Human Rights in Supply Chain.

The media and stakeholder analysis helps to verify a company's involvement and management of critical economic, social and environmental issues or crisis situations. Cases identified in the MSA can lead to exclusion of the DJSI anytime during the year. The methodology to perform this analysis is based on the following: access to global media databases and news service, e.g. Factiva, a joint venture between Dow Jones & Co and Reuters; screening of more than 8,000 news services and journals; structured dialogue with key opinion leaders, industry "watchdogs", and NGOs; following an issue mapping, SAM Research produces an index of key words that is fed into media and database services.

In summary, DJSI uses a consistent rule-based methodology through primary research and direct contact to companies worldwide. The assessment criteria is the same for all industries, all sectors and it is reviewed annually. No sector is excluded. This means that the company must be able to, beyond become a member of DJSI, maintain itself included in it, through the implementation of ER and CSR best practices, compliance and monitoring. Companies may be invited to apply for the registration and, if it submits the criteria fulfilled, after its evaluation by an external auditor, the company may be approved to become a DJSI member. If it does not accomplish the maintenance requirements for the following year, the company is invited to leave the membership.