

The Economic Return From Environmental Impact Assessment: A Financial Services Industry Perspective

Prepared by

Dr. Ahmad Gaber

Professor of Chemical Engineering, Cairo University
and President, Chemonics Egypt

Past , Current and future Environmental Problems

Past :

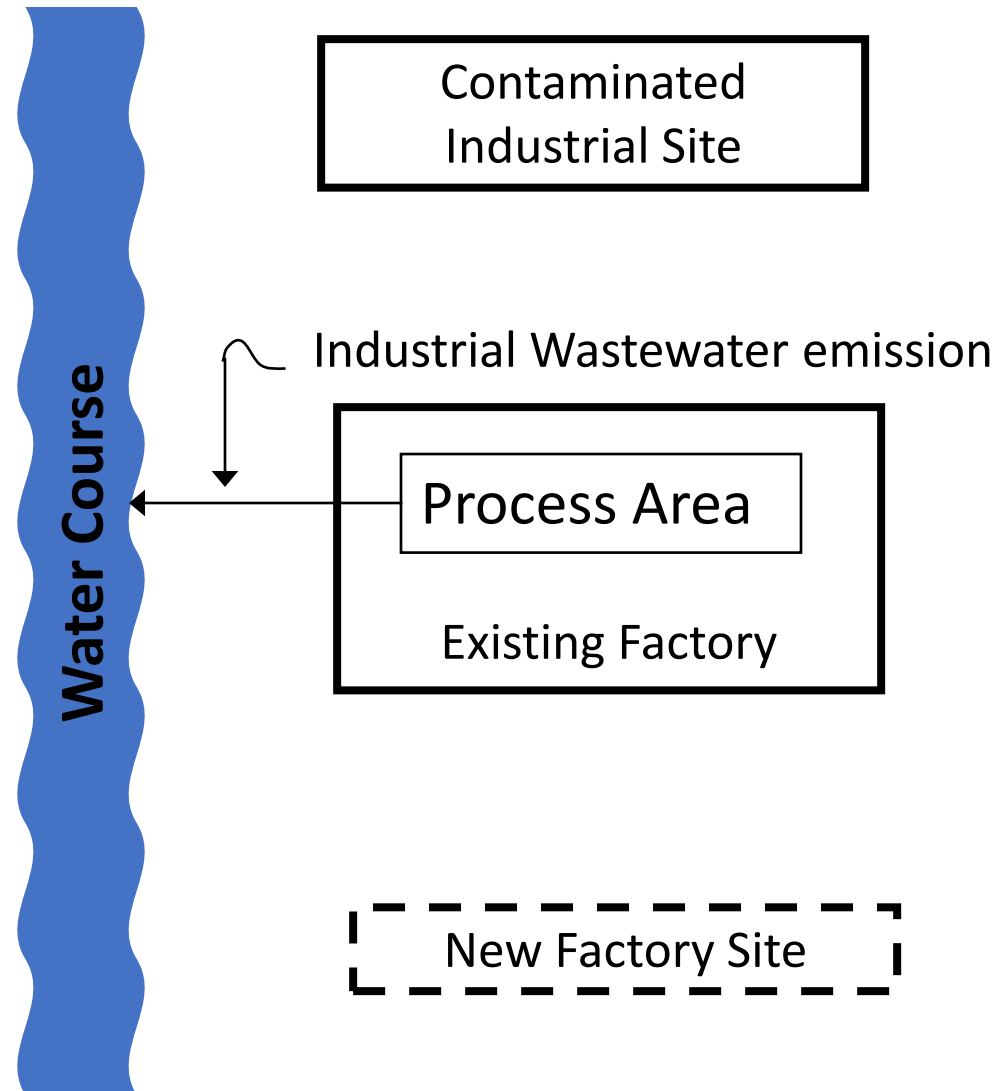
Specific magnitude of soil
(and groundwater?)
Contamination

Current :

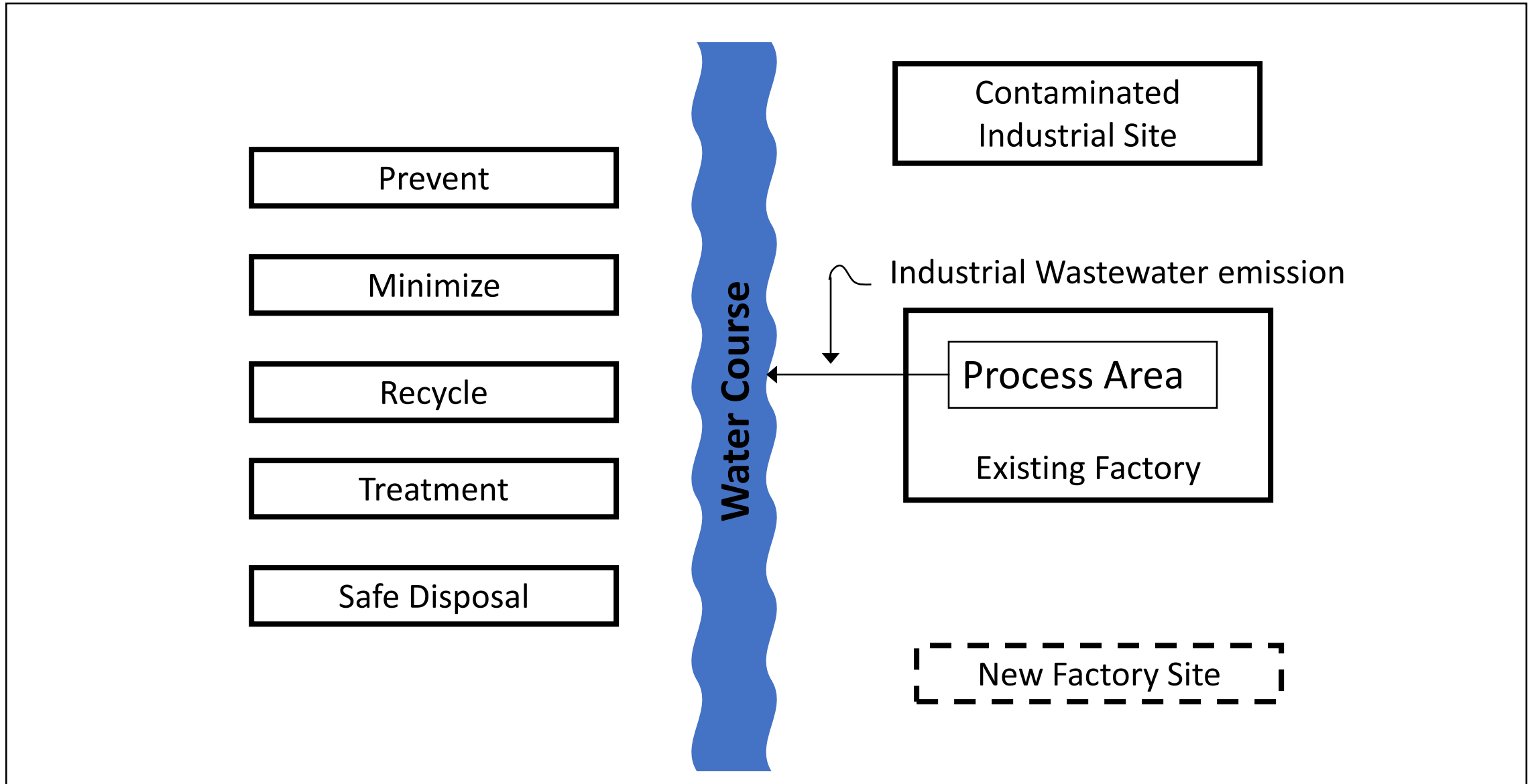
Violation leading to :
Material losses ,water
course pollution liability

Future:

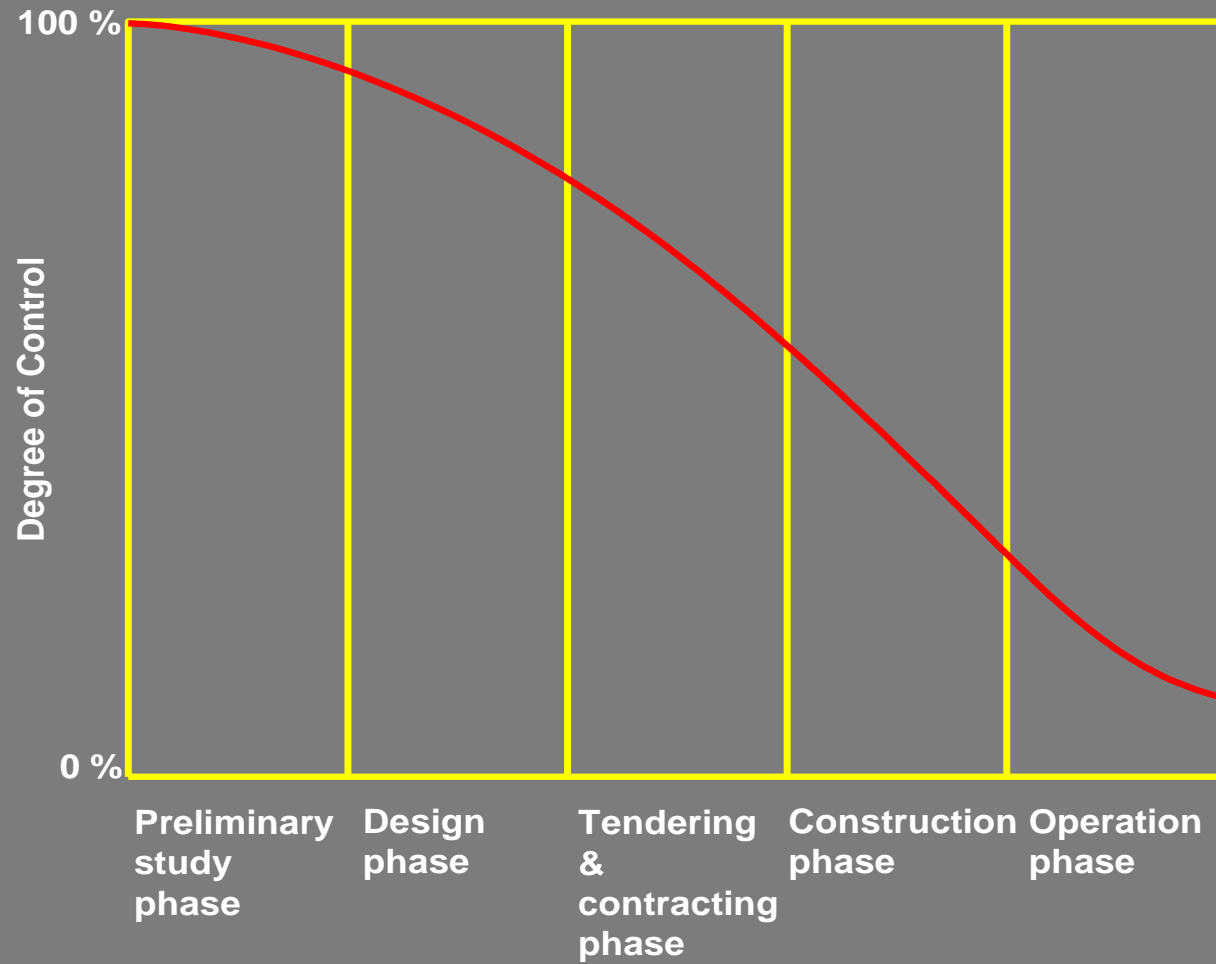
EIA is required to:identify
potential problems, specify
mitigation measures



Mitigation Strategy



Degree of Control - Project Life Cycle



Environmental Consideration

Q1: Does it pay to be Environmentally Oriented in Making New Investment Decisions or in Running an Established Firm?

Recent Research (1)

Arguments have been presented to support either the view that pollution abatement is a cost burden on firms and is detrimental to competitiveness, or that reducing emissions increases efficiency and saves money, giving firms a cost advantage. In an effort to resolve this seeming paradox, the relationship between emissions reduction and firm performance was examined empirically for a sample of S&P 500 firms using data drawn from the Investor Responsibility Research Center's Corporate Environmental Profile. The results indicate that efforts to prevent pollution and reduce emissions drop to the "bottom line" within one to two years of initiation.

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3M Company Case

Between 1975-1990

a 50% reduction in total emissions
has been achieved



\$500 million savings through

- lower raw material cost
- lower disposal cost
- lower compliance and liability costs.



A model for "3P":

(Pollution Prevention Pays)

Texaco Case

Texaco Plans to invest \$ 1.5 billion per year over the next five years on environmental compliance and emission reduction equivalent to three times the book value of the company and twice its current asset base

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Study Hypotheses

- (i) Hypothesis 1. Emissions reduction in time period t will enhance operating performance (ROS) in time period $t + 1$ through lower raw material, compliance, disposal and liability costs.
- (ii) Hypothesis 2. Emissions reduction in time period t will enhance operating performance (ROA) in time period $t + 1$ through the more efficient use of assets.
- (iii) Hypothesis 3. Emissions reduction in time period t will enhance financial performance (ROE) in time period $t + 1$ through corresponding improvements in ROS and ROA.

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Study Hypotheses

- (iv) Hypothesis 4. Emissions reduction in time period t will show no relationship to operating or financial performance in that period as time is required for cost savings to be captured.
- (v) Hypothesis 5. Emissions reduction will enhance the operating and financial performance more for firms with higher emissions levels than those with lower emissions levels.

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Study Findings

The results of the study suggest that it does indeed pay to be green. Efforts to reduce emissions through pollution prevention appear to drop to the bottom line within one to two years after initiation.

Operating performance (Return on Sales, ROS; and Return on Assets, ROA) is significantly benefited in the following year, whereas it takes about two years before financial performance (Return on Equity, ROE) is affected. These are general findings based on a sample drawn from a broad range of industries, the results may be even more significant for particular industries where emissions and effluents are especially prominent.

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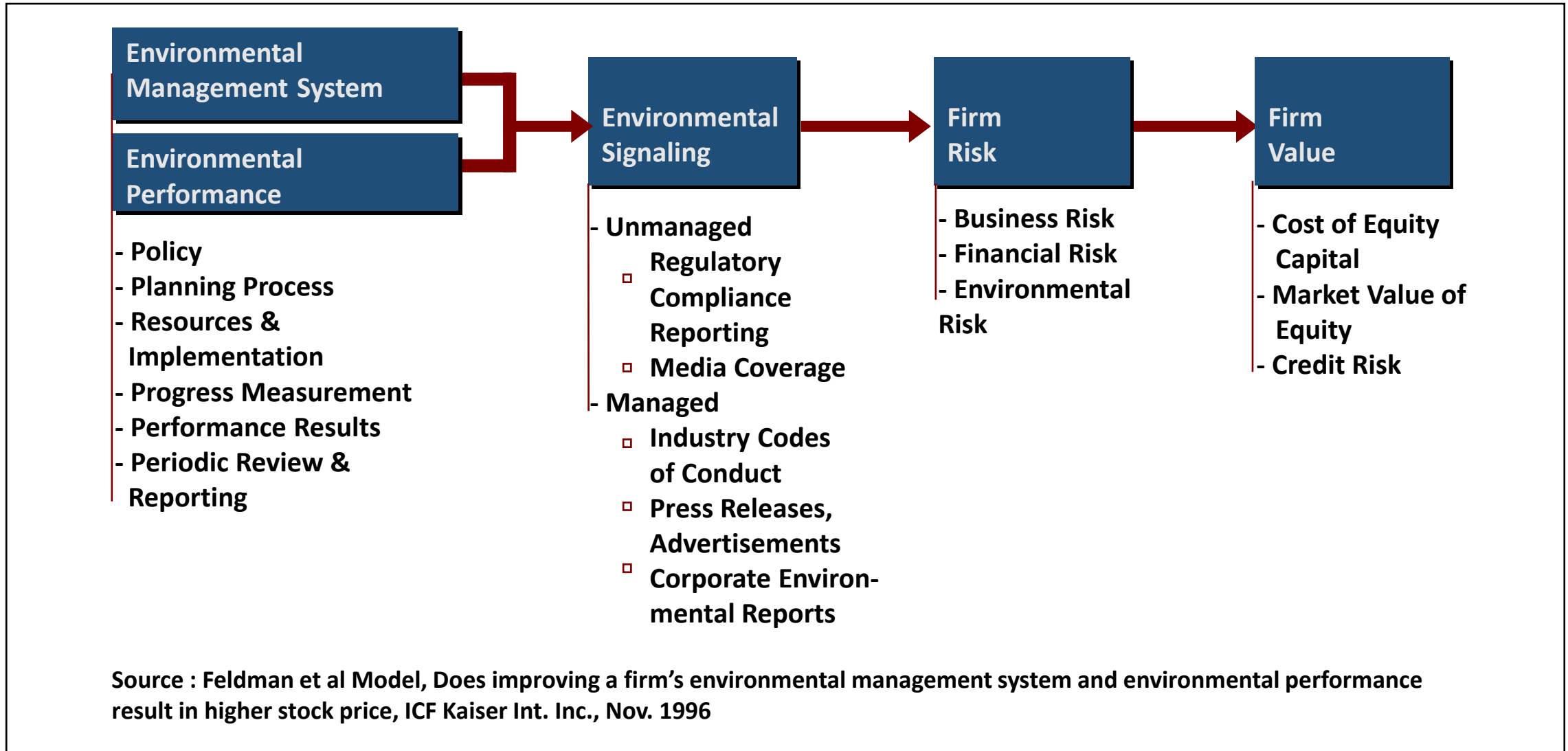
Recent Research (1)

Title: Does Improving A Firm's Environmental Management System and Environmental Performance Results in a Higher Stock Price?

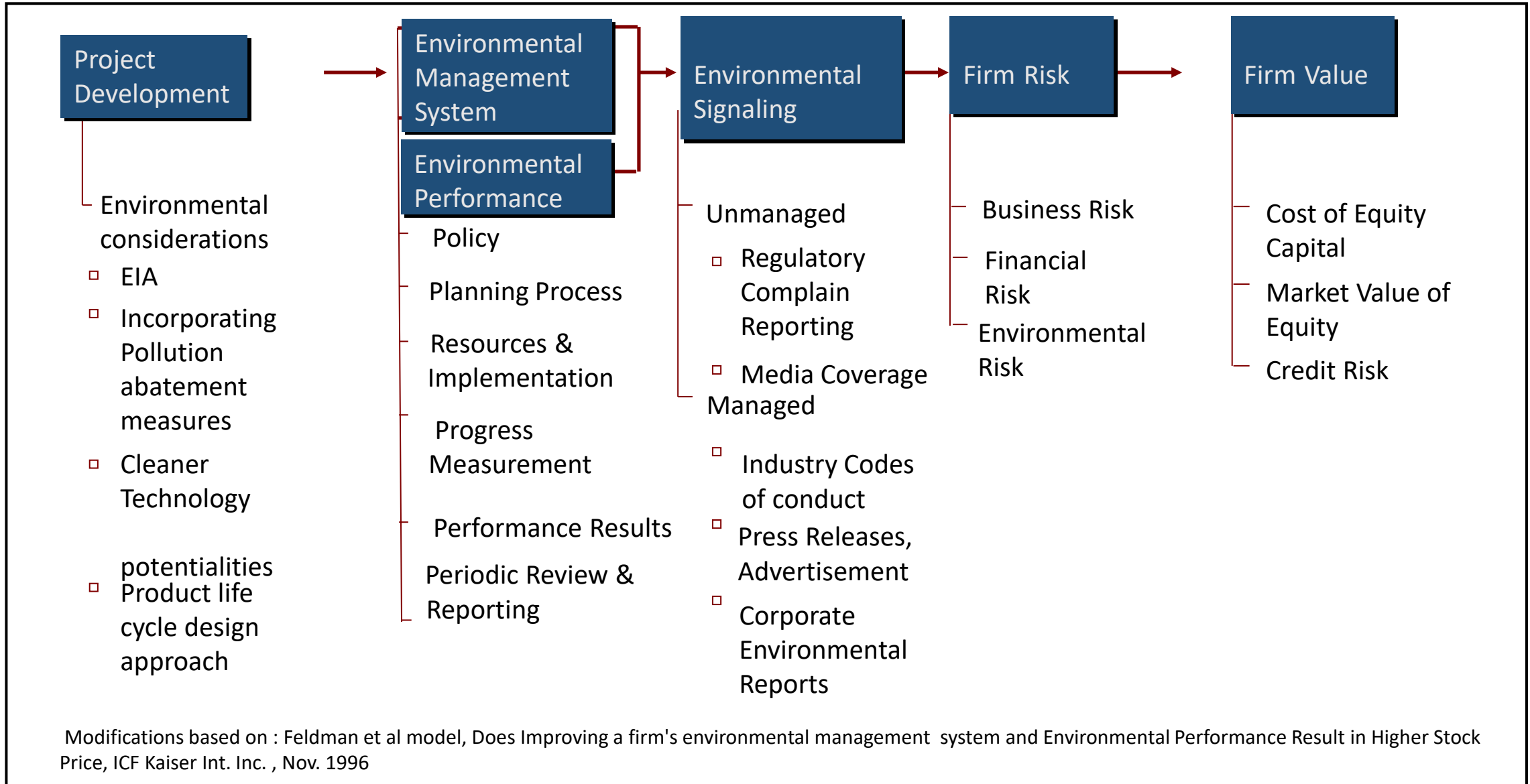
Summary:

The authors developed and tested a conceptual model that establishes some of the linkages among environmental improvement initiatives and expected or actual enhancements in the firm's sales, earnings competitive position, investment risk profile or market value. The paper provides the results of quantitative application of this model to a large sample of public companies in the U.S.

Conceptual Model Linking Corporate Environmental Management and Performance with Firm Value



Conceptual Model Linking Project Development, Environmentally Management and Performance with Firm Value



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Study Main Findings:

The study results suggest that adopting a more environmentally proactive posture has, in addition to any direct environmental and cost reduction benefits, a significant and favorable impact on the firm's perceived riskiness to investors and accordingly, its cost of equity capital and value in the market place.

Environmentally "Sound" Firms Stand higher chance to create additional Value for Stockholders through being less Risky Business.(being accorded a lower cost of capital)

Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

Recent Research (3)

Title: Global Survey on Environmental Policies and Practices of the Financial Services Industry: The Private Sector.

Summary:

This research, sponsored by the National Wildlife Federation, was designed to serve as a barometer of how the global banking community is currently looking at and managing environmental issues. In order for the industry and other involved groups to better advance the integration of environmental issues into the core credit and investment decision-making processes at the world's financial institutions, it is critical to understand how the industry sees itself both today and in the future. This research is another step in the continuing progress on this issue, and is designed as a building block for future efforts. The four key areas explored by this research were:

1. Pre-commitment environmental due diligence programs;
2. Environmental monitoring or corrective action and programs triggered by environmental issues;
3. Natural resource, environmental technology, or waste minimization targeted investments or credit extension programs; and
4. Partnership activities related to cost justified/revenue generating natural resource utilization.

Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

The Fleet Factors Case (1990):

The Fleet Factors case - this land mark decision resulted in Fleet Financial, a large US-based financial institution, being held 100% liable for all site clean-up costs under US Environmental Protection Agency (EPA) issued CERCLA (i.e., Superfund) regulations. The basis for the liability was that Fleet had had the ability and opportunity to influence its client, Swainsboro Paint, in its environmental practices. In the court's opinion, Fleet had failed to adequately supervise the environmental degradation caused by Swainsboro. When Swainsboro Paint went bankrupt and Fleet foreclosed to protect its collateral, which was its legal right, it became an owner/operator under USEPA's CERCLA definitions. (The reason that all foreclosures do not result in banks being listed as owners, is that the regulation does have an "innocent landowner" clause that allows a landholder who is not affecting activities on the property, but is simply in possession of the property for a short period of time, to avoid, from a CERCLA perspective, being viewed as an owner/operator).

Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

Following the “Fleet Factors Case” Landmark:

- ❑ Several dozen banks signed a UNEP sponsored position paper on Banking and the Environment early 1992 that emphasized the links between lending and investing and sustainable development.
- ❑ Several other events between the years 1993 and 1995 continued to illustrate the global connection between finance and the environment, including: (1) guidelines issued by the US Federal Deposit Insurance Corporation (FDIC) in February, 1993 (n. 2), (2) the formation of an association of US commercial banks, called the Environmental Bankers Association, focused on environmental banking issues in late 1993, (3) the first global survey on banking practice and the environment, “Global Survey on Environmental Policies and Practices of the Financial Services Industry”, conducted in the summer of 1994 by Environment and Finance Enterprise and sponsored by UNEP and Salomon,

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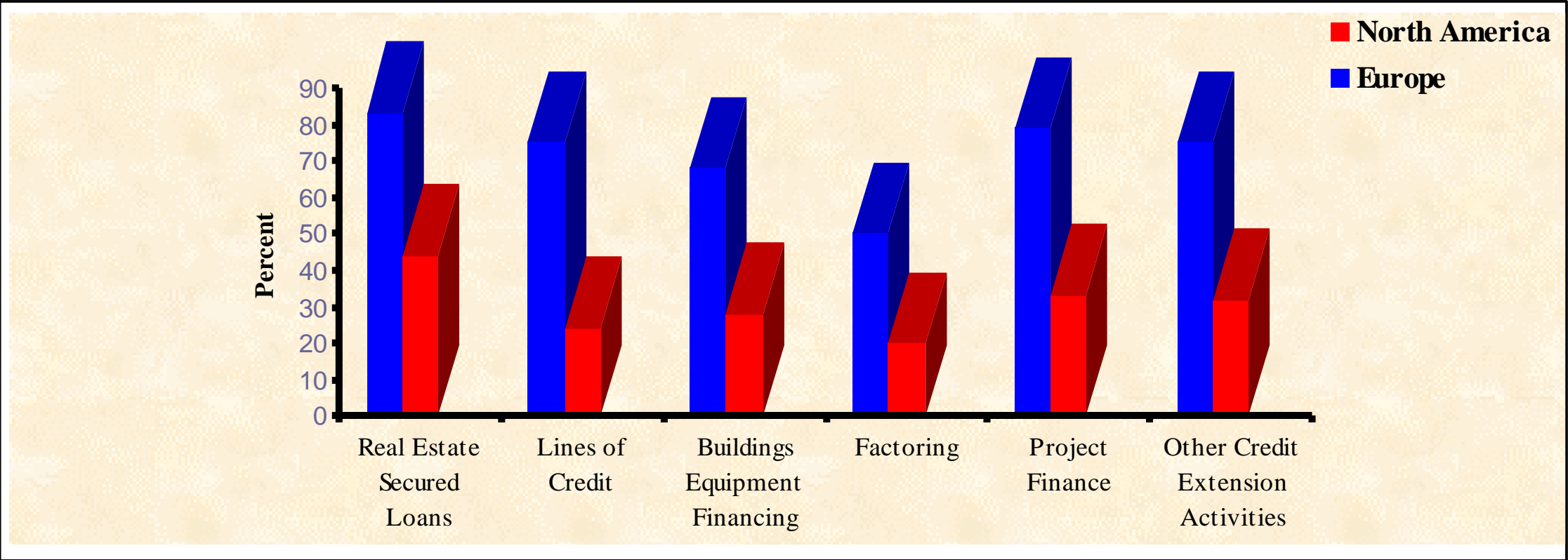
, and (4) the first and second international meetings of environmental bankers in the fall of 1994 and winter of 1995 (hosted by UNEP). Events in 1996 continue to focus on the environment and the lending/investing symbiosis. For example, the first mainstream investment fund based on environmental matrixes that claims it could generate an improvement of several hundred basis points over comparable investment strategies was launched in London. In addition, we have seen the creation of an insurance position paper similar to the UNEP 1992 banking paper, and the release of several dozen research based analytical papers in the last 24 months that show a positive correlation between pro-active environmental activity by Fortune 1000 companies and a better bottom line.

Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

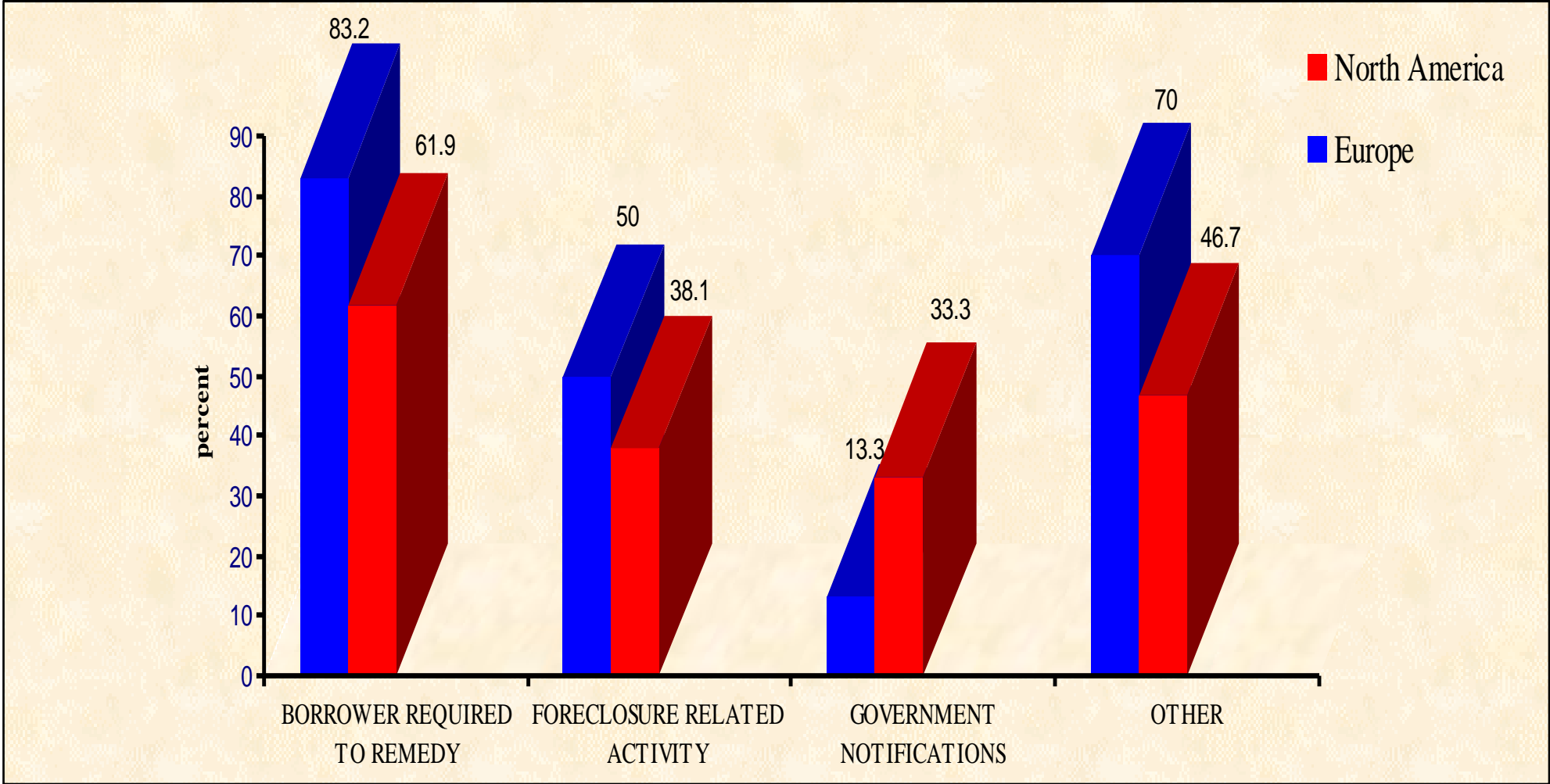
Purpose of the Study:

1. Gather information about institutions' current policies and programs as they relate to: (a) upfront due diligence on (1) non-real estate collateralized loans and other forms of credit extensions, (2) equity activities (IPO's, project finance, limited partnership investments, stock or bond purchases, etc.), (3) real estate secured loans, (b) environmental monitoring activities and programs on loans or investments already made, (c) corrective actions, foreclosure, and government notification, (d) environmental business focused investments or debt extension programs, and (e) interest in recent public sector institutional shifts towards working more with the private sector on developing world investments and loans.
2. Determine what level of interest commercial and investment banks have in establishing a working group that looks beyond lender liability and includes other financial intermediaries not limited to commercial banks.

Percentage of respondents who expect institution, over the next three years to "materially" or "Somewhat" place a greater emphasis on environmental risk quantification prior to committing funds



Extent that Institutions will "likely" or "Possibly" Implement/expand corrective actions over next 3 years



Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

Implications (Examples):

- A. Environmental issues are becoming part of the credit decision making in real estate securitized transactions.
- B. Environmental due diligence review process is added to non-real estate securitized loans and may be in the overall credit review process.
- C. Decision makers believe that there is a financial benefit (either a reduction in losses or an increase in revenues) to be derived from these additional environmental reviews.
- D. Some institutions have established environmental business units that focus on lending to or investing in environmental companies.

Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

Recent Research (4)

Title: Research on the Financial Impact of Environmental Events and Issues on the Property and Causality Insurance Industry.

Background:

The Property & Casualty (P&C) Insurance Industry has undergone significant change over the last 20 years in response to environmental issues and risks. Originally the industry was unaware that environmental issues were relevant to its business. This was followed by a period during which a new specialty product line of environmental insurance was introduced. Later, in the 1980s, many believed that the Industry might financially collapse because of the severity of asbestos and environmental (A&E) claims. Today, environmental issues remain important, but are perceived as manageable in the long run - even having the potential to represent a financial opportunity.

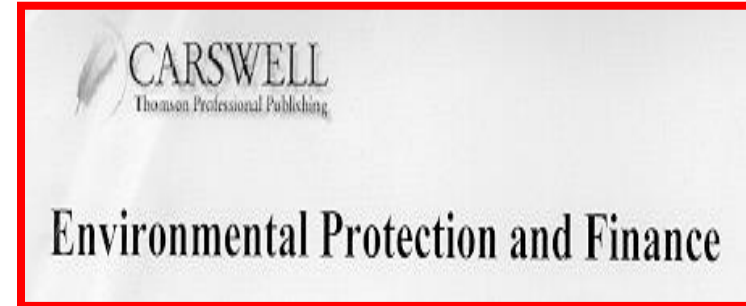
Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

Stated Value of the Research:

- A&E and other industry-related ecological issues have been acknowledged as one of the greatest threats to the financial viability of the property and casualty insurance business. However, little is known about exactly how specific issues have affected the stock price of the industry and specific firms.
- Different firms have employed various approaches to dealing with these issues over a wide range of time horizons. This report will attempt to assess how these decisions have impacted stock price of the different firms.
- The research will attempt to evaluate if, and how, public disclosure and reporting help or hurt a firm's stock price.
- The report will attempt to identify specific A&E related activities that have a direct cause and effect relation to stock price performance.
- The research will examine how Wall Street analysts look at and evaluate a firm's approach to A&E and other ecological issues related to risk management in order to ascertain what correlation exists, if any, between these activities and stock price.

Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

Studies



Associations



Consulting Firms



Q2: How the Financial Services Industry is Dealing with Environmentally Issues?

ISO 14000 Environmental Standards and The Financial Services Industry

Introduced in the fall of 1996, the ISO 14001 standard for environmental management systems (EMS) could prove to be beneficial for the financial services industry. Underpinned by several more technical standards. ISO 14001 - Environmental Management Systems is the capstone of the 14000 series and is the sole focus of this document.

Potential Value of ISO 14001 to a Financier

Poor environmental practices by clients can pose a variety of risks for financial institutions, including loan default, secured-creditor liability, and low return on investment. Many financial institutions now undertake due diligence activities to uncover pre-existing environmental conditions - for example, the ASTM E 1527 site assessments for secured real estate - but few collect information on management activities that can affect future risks. ISO 14001 might provide financiers with a means to gauge these risks.

In Summary :

1. The traditional driving force for corporations to focus on environmental responsibility is the regulatory enforcement. Today, the financial institutions, insurance companies, investors and shareholders are demanding greater environmental responsibility in many parts of the world.
2. It does pay to be Environmentally Responsible in making new Investment Decisions or in Running an Established Firm.

EIA is a proactive environmental Risk Management Tool which would help the Financial Services Industry to Protect and Enhance Net Income and Assets.

3. The Financial Services Industry has responded to the challenge by:
 - conducting in-depth studies
 - developing review systems
 - dealing with specialized firms (e.g. Eco-rating)
 - establishing “Environmental Bankers Associations”