

International Finance Corporation



Environmental Risk Management in Lending and Investment







Agenda

-  Introductions
-  Reality check: is environment a risk?
-  Systematic approaches to environmental risk management
-  Case study
-  Q&A Discussion

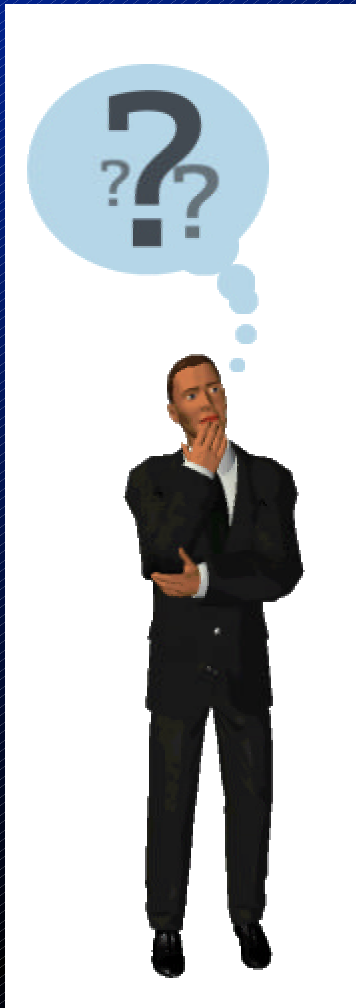
Reality Check

-  Private equity VC syndicates
-  US\$20 million capital to invest
-  Select deals from list of investment opportunities
-  Who has created investor value?

The Bottom Line....

-  Environment is potentially a significant business issue
-  There's an upside as well as a downside
-  First appearances can be deceptive
-  Range from simple issues to complex challenges and subtle interactions

Systematic environmental risk management



 What Do You Do When
A Business **Customer** Asks
to Borrow **\$\$\$**?

Before Customer can Borrow MoneyYou:



- **ASK QUESTIONS**
- **REVIEW DOCUMENTS**
- **VISIT THE SITE**
- **EVALUATE PAST PERFORMANCE**
- **ASSESS FUTURE PERFORMANCE**

**....You Conduct Risk Management
Activities**





What are the Sources of the Risks You Currently Manage?

You Manage the Bank's Exposure to Risks Arising from:



- **FINANCIAL** ISSUES
- **BUSINESS** ISSUES
- **LEGAL** ISSUES
- **SECURITY** ISSUES
- **MANAGEMENT** ISSUES

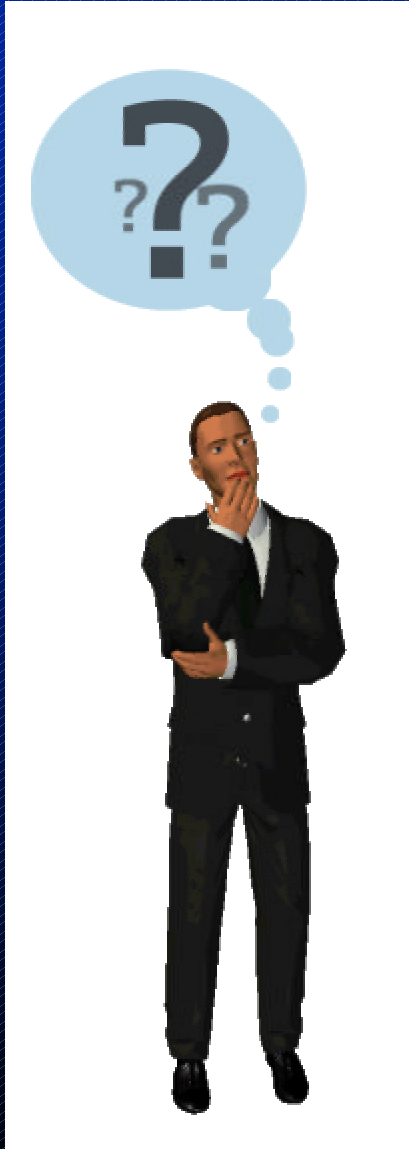
.....Need to add
ENVIRONMENTAL ISSUES



Why Add Environmentally Derived Risks?

- **Every business activity has some inherent environmental, health & safety risks**
- **If clients don't properly manage those inherent environmental health & safety risks, they can create environmentally derived financial, legal and reputational risks & liabilities for your clients**
- **If you don't manage the bank's exposure to those risks and liabilities, they can also become financial, legal and reputational risks and liabilities for the bank**

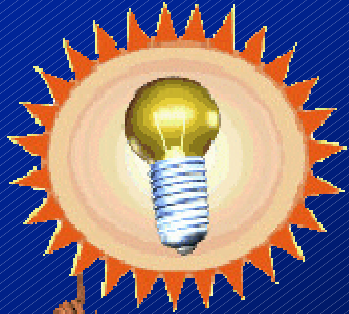




 **What Determines
The Nature and Extent
of the Client's
Environmental Risks?**



The Nature and the Extent of
Your Client's Environmental
Risks Are **PRIMARILY**
DETERMINED by the
INHERENT ACTIVITY
RISKS:



 **LOW**

 **MEDIUM**





 **HIGH**



EXAMPLE OF SECTORAL RISKS:

FOOD PROCESSING

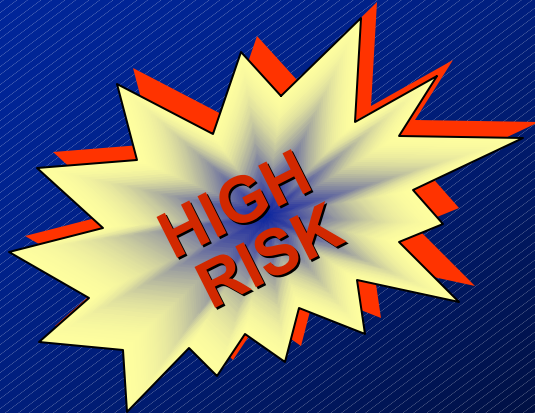
**MEDIUM
RISK**

-  **HEALTH IMPACT** if product is contaminated
-  **High water use creates WASTEWATER issues***
-  **High volume of SOLID WASTE for disposal***
-  **Potential Nuisance due to ODOUR, NOISE**

***BUSINESS OPPORTUNITY**



EXAMPLE OF SECTORAL RISKS:



PETROCHEMICAL REFINERY

- Risk of **EXPLOSIONS** and **FIRE**



Potential for **SITE CONTAMINATION**



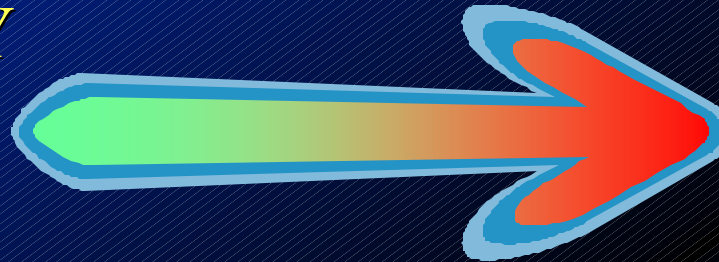
Risk of **GROUNDWATER CONTAMINATION**



HEALTH Risks from **VAPOURS**

Environmental Impact Across Sectors

**RELATIVELY
CLEAN**

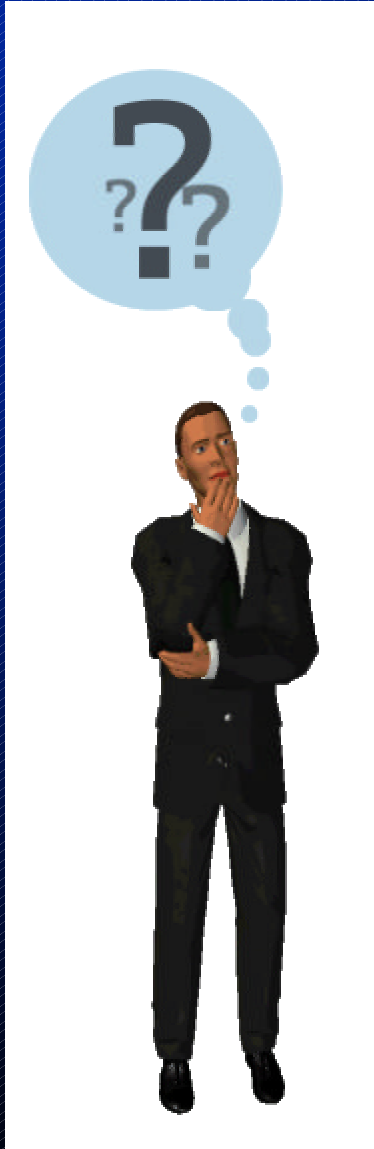


**POLLUTING or
DAMAGING**

- 
- Accountancy
 - Advertising
 - Banking
 - Insurance
 - Internet Services
 - Other services

- 
- Food Processing
 - Health Services
 - Packaging
 - Pharmaceuticals
 - Printing
 - Tourism & Leisure




- 
- Chemicals
 - Cement
 - Energy
 - Forestry
 - Mining
 - Paper



 **What Determines Whether
the Client's Environmental,
Health & Safety Risks Become
Financial or Legal Liabilities
to the **Client**?**

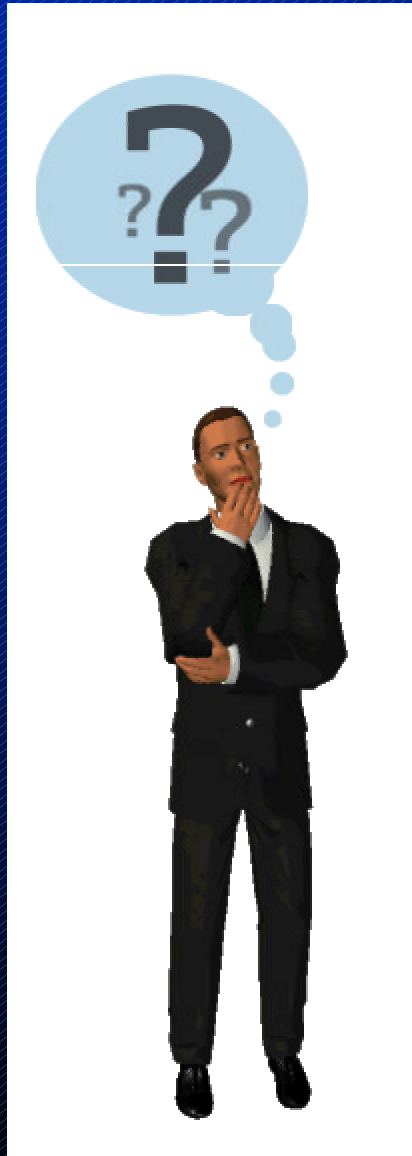


Whether Environmental Risks Become Liabilities for the Client is Determined by the Client's....

-  Environmental Awareness
-  Environmental Behaviour
-  Resources to Manage Risks

Environmentally-Derived Risks for the Bank

- ❏ Inability of the client to **make payments** due to unexpected environmental costs
- ❏ Over valuation of **assets offered for security**
- ❏ Decrease in the **value of security** due to environmental impairment during the term of the loan
- ❏ Legal Liability for **clean-up**
- ❏ Damage to the **bank's reputation** by association with environmentally damaging or controversial activities

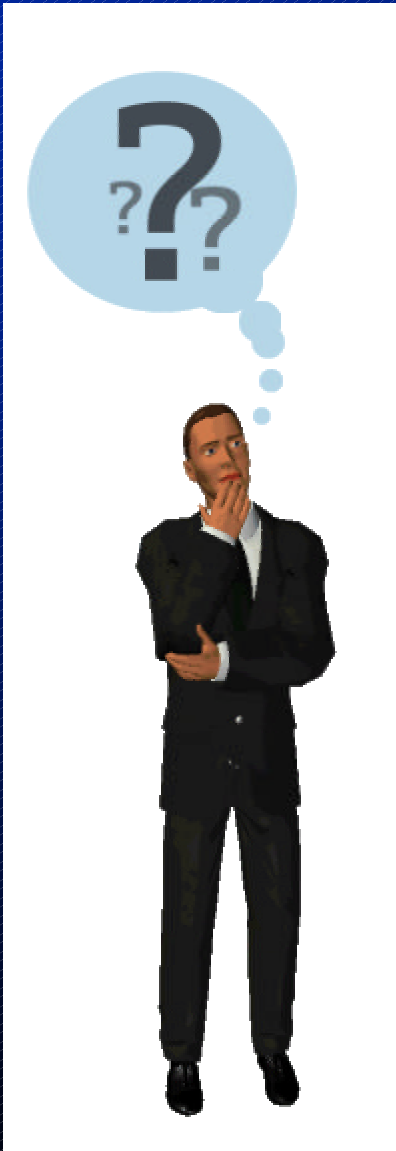


 What Determines Whether the
**Client's Environmental, Health
& Safety Risks Become
Environmentally-Derived Risks
to a **BANK**?**



FACTORS Contributing to Environmentally-Derived **RISKS** and **LIABILITIES** for a **BANK**:

- **Business Activity Risk**
- **Client's Behavior**
- **Bank's Exposure**



BANK'S EXPOSURE to Environmentally-Derived Risks:



WHO ??







WHAT ??



HOW ??



EXPOSURE to Environmentally-Derived Risks is Determined by:

-  **Size/Type of the Transaction**
-  **Term of the Transaction**
-  **Type of Security (Cash, Land)**
-  **Terms/Conditions of the Loan****

Implementing
ENVIRONMENTAL
RISK
MANAGEMENT
Procedures



Key features of Environmental Due Diligence Procedures

- ◆ **IDENTIFY** environmentally-derived, potential liabilities for the **bank** in transactions
- ◆ **ASSESS** the **awareness, commitment** and **resources** of the **client** to manage the environmental risks creating those potential liabilities
- ◆ **EVALUATE** the **possible financial implications** of those environmental risks & client's behaviour to the bank
- ◆ **MANAGE** and **CONTROL** the **bank's exposure to environmentally-derived liabilities**



Environmental Due Diligence Procedure

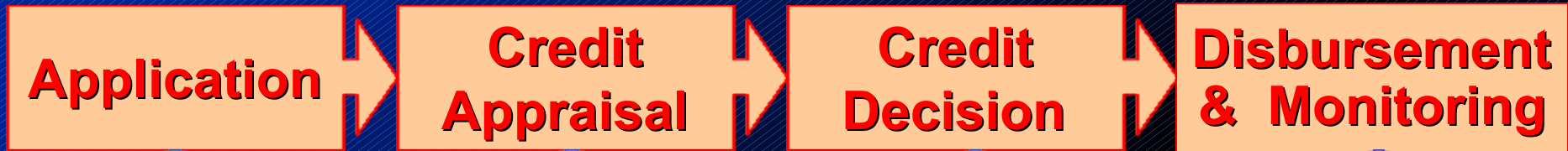
Phase1 - **Environmental Screening**

Phase2 - **Environmental Risk Appraisal**

Phase3 - **Environmental Risk Control**

Phase4 - **Environmental Risk Reporting/Monitoring**





- Business Activity Risk List

- Sub-Sectoral Guideline
- Environmental Overview
- Site Visit Questions

- Environmental Covenants

- Environmental Reports
- Monitoring Reports



PHASE 1 - ENVIRONMENTAL SCREENING

Application 

**Environmental
Screening**

- Business Activity Risk List


 **Supporting Tools**




PHASE 1 - ENVIRONMENTAL SCREENING

ACTIONS

Screen transactions against
Business Activity Risk List

 **SUPPORTING
TOOLS**

 Business Activity
Risk List

 **Identify the relative level of risk
to the bank** associated with the
proposed transactions in order to
identify appropriate level of risk
management activity

OUTPUT

**Document Environmental
Risk Rating**
(High, Medium or Low)




PHASE 2 - ENVIRONMENTAL APPRAISAL

**Credit
Appraisal**



**Environmental
Appraisal**



- Sub-Sectoral Guideline
 - Environmental Overview
 - Site Visit Questions
- 



Supporting Tools

PHASE 2 - ENVIRONMENTAL APPRAISAL

Site Visit Questions



**Sub-Sectoral
Guideline**



**Environmental
Overview**



- ◆ **Key Processes**
- ◆ **Environmental Risks/Solutions**
- ◆ **General Environmental Indicators**
 - ◆ **Environmental Opportunities**
- ◆ **Management Issues /Questions**






PHASE 2 - ENVIRONMENTAL APPRAISAL

ACTIONS

 **Based on the Environmental Risk Rating (ERR) Carry out the Following**

TOOLS

-  Sub-Sectoral Guideline
-  Environmental Overview
-  IFC Site Visit Checklist

Low Risk

- Site Visit
- Compliance Check

Medium Risk

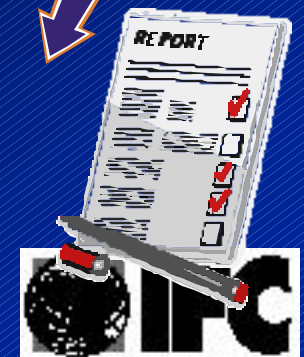
- Site Visit
- Compliance Check
- Discussion with the Customer

High Risk

- Site visit
- Compliance Check
- Environmental Audit




OUTPUT

Complete Environmental Section of Pre-Loan Investigation Report



PHASE 2 - ENVIRONMENTAL APPRAISAL

Supporting Tools

-  Sub-Sectoral Guideline
-  Environmental Regulations
-  IFC Site Visit Checklist



- **Collect information until satisfied that the risks are fully understood and the implications have been evaluated**
- **Review environmental permits and compliance**
- **Assess client's awareness, commitment, resources**
- **Consider whether collateral may be impaired**
- **Identify environmental opportunities**

VALUING SECURITY

 Ensure VALUATION OF SECURITY incorporates ENVIRONMENTAL ISSUES

- **CONTAMINATION** of PROPERTY
- **OUTDATED** TECHNOLOGY
- **PRESENCE** of STORED HAZARDOUS WASTES

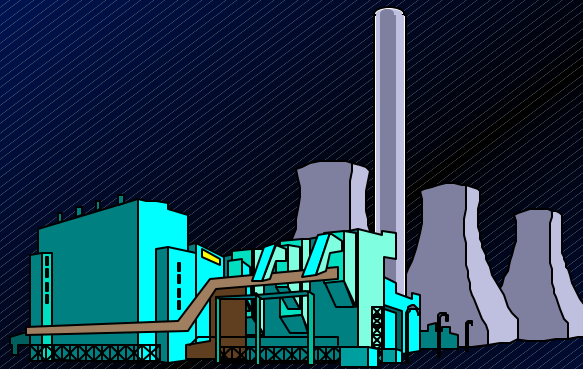


Environmental Investigations

1950 1960 1970 1980 1990 2000 2010 2020 2030 2040

Past / Current
Operations

Future
Operations



For projects involving
existing or past
impacts -

**Environmental
Audit**

Phase I and II






For projects involving
potential future
environmental impacts -

**Impact Assessment
or
Analysis**



Environmental Investigations

Environmental Audits - When?

-  Activities associated with high environmental risk
-  Medium risk projects where there is evidence of material risk
-  Where preliminary investigations raise particular issues:
 -  potential for contamination
 -  on-going non-compliance problems

Environmental Investigations

Environmental Audits:

-  addresses past and current operations;
-  identifies and appraises key environment, health and safety problems;
-  identifies legal compliance problems;
-  provides recommended solutions and improvement measures;
-  costings and timings.

Environmental Investigations

Cleaner production assessment:

 Can be a solution to problems

 Can generate additional lending and investment opportunities

 Could cover:




 energy efficiency issues;

 resource use efficiency;

 waste management.








Environmental Investigations

Environmental Assessments - When?

-  Greenfield or new developments
-  Projects involving major expansion or changes to facilities and / or processes
-  As required by national legislation

Environmental Investigations

Environmental Assessments:

-  describes site, facilities and surroundings;
-  describes planned changes;
-  assesses environmental impact of project;
-  discusses alternatives;
-  discusses mitigating measures;
-  includes a monitoring plan
-  might include summary of public consultation;

Environmental Investigations

Possible outcomes:

1. No risks identified - **Proceed with loan**
2. Some risks which can be controlled - **Agree risk control mechanism, proceed with loan**
3. Serious risks for which there are no obvious control measures - **Reject Loan**



PHASE 3 - ENVIRONMENTAL RISK CONTROL

**Credit
Decision**

**Environmental
Risk Control**

- Environmental Covenants

 **Supporting Tools**



PHASE 3 - ENVIRONMENTAL RISK CONTROL

ACTIONS




Judge if the **Risks** are **Acceptable**

 **TOOLS**

 Sample
Environmental
Covenants

Draft covenants to **control risk** and
ensure adequate reporting

 **CREDIT COMMITTEE REVIEW**

-  Note Environmental Activity Risk Rating
-  Review Environmental Appraisal Documentation
-  Ensure Environmental Risk is Acceptable

OUTPUT

**Environmental Covenants
in Agreement**

PHASE 3 - ENVIRONMENTAL RISK CONTROL

✦ **CONSIDER
MEASURES**

to

**CONTROL
RISK to
BANK**

including:

- **Warranties and Representations**
- **Indemnities**
- **Insurance or Guarantees**
- **REPORTING REQUIREMENTS**
- **MANAGEMENT ACTIONS**

**Supporting
Tools**

**Examples of Environmental
Covenants**



Environmental Action Plans

GENERAL COMPANY ISSUES

1. Site Setting

1.1 There are a number of residential residences located within the 50m sanitation zones of the Main Plant, Branch No.1 and the Treacle Plant.

Action	Cost	CompletionDate
Switoch will develop a plan setting out the implications of future relocation of the plants.	Management issue	N/A

2. Waste Management

2.1. None of the Switoch facilities maintain records of waste transfer documentation, other than invoices and receipts.

Action	Cost	CompletionDate
Switoch will develop an appropriate waste management system.	Management issue	1st disbursement

3. Health and safety

3.1. Machine guarding was absent throughout the facilities.

Action	Cost	Completion Date
The effectiveness of machine guarding will be reviewed, and the necessary measures taken to reduce the risks to operators.	\$20,000 - \$60,000 for all sites	1997



SITE:

<i>Issue</i>	<i>Recommended Action</i>	<i>Cost-Estimate (000 DM)</i>	<i>Priority</i>	<i>Date</i>
Hazardous waste is currently put in temporary storage on-site or is disposed of with municipal waste. XXX has identified the need for a new temporary storage facility at PBF.	Waste management programme needs to be developed to include: <ul style="list-style-type: none">• segregation• permits XXX has invited tenders for a mobile incineration plant to treat all its hazardous wastes.	100	A	1996
		7,900	A	Design 1995 Construction 1996
Large quantities of organic solvents are emitted to air.	Air emissions monitoring will be required. Some form of emissions abatement maybe required before 2005.	90	A	1996 - 1997
		700 to 3,500	C	Before 2005
Replace compressor units containing R12	XXX has identified the need for replacement.	90	C	1996
Reduce water consumption	XXX has successfully reduced water demand and has other measures planned to further this initiative.		N/A	1995 onwards
Develop energy conservation programme	XXX has identified a programme of energy-saving measures to be implemented at various sites. Priority should be given to implementation if cost-effectiveness proven.	18,000	B	1995 onwards

PHASE 4 - ENVIRONMENTAL MONITORING

**Disbursement
& Monitoring**

**Environmental
Risk Reporting
& Monitoring**

- Environmental Reports
- Monitoring Reports

 **Supporting Tools**



PHASE 4 - ENVIRONMENTAL MONITORING

IMMEDIATE REPORTING REQUIREMENTS:

 NOTIFICATIONS Received from Environmental Health & Safety Authorities (e.g. Fines)

 SUBMISSIONS to Environmental, Health & Safety Authorities (e.g., Reports, Responses)

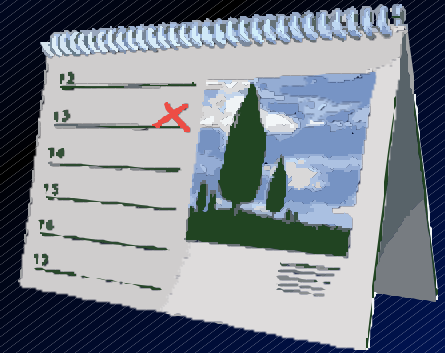
 MATERIAL INCIDENTS of Non-Compliance

 COMPLAINTS Regarding Environmental or Health & Safety Issues



Phase 4 - Environmental Risk Reporting

ANNUAL REPORTING REQUIREMENTS



- Certification of Environmental Compliance
- Status of Management/Action Plans
- Environmental Investments Made
- Environmental Opportunities Identified

Environmental Section of the Pre-Loan Investigation Report



- **Environmental Compliance History and Current Status**
- **Outstanding Environmental Issues**
- **Environmental Risk Control Measures Recommended**
- **Environmental Opportunities**



SUMMARY & CONCLUSIONS



Customer's
Environmental
Behavior



"Deep
Pockets"

Public
pressure



"Regulatory
Enforcement"

Type of Business
Activity



Nature of loan
Amount/Term
Type of security
Conditions

