Risk Management: Principles, Methodologies and Techniques

Peter Getugi
Internal Audit Manager
ILRI

NAIROBI  22 JUNE, 2010
Session Objectives

What is Risk Management?

Why is Risk Management importance rising?

The ERM Framework

Best Practices in RM

Risk Management in ILRI
Risk Management: Not such a new subject.....

First Definition:

The process of analysing exposure to risk and how best to handle the exposure
Second Definition

RISK MANAGEMENT:

- A process applied across the enterprise
- Designed to identify potential events that may affect the entity: positive as well as negative
- Manage risks (and opportunities) to be within its risk appetite
- Provide reasonable assurance regarding the achievement of the entity’s objectives
A Center’s achievement of its vision and mission is influenced by:

- Research Strategy and Project Portfolio
- People
- Physical Infrastructure
- Intellectual and Germplasm Assets
- Finance
- Technology
- Internal Processes
- External Environment

These factors present the Centre with both opportunities and risks.
The opportunities and risks facing a Centre can be classified as those affecting:

- Operational Effectiveness
- Safety and Security
- Financial Integrity and Compliance
- Efficiency
- Legal Compliance
Definitions

Organizations pursue **opportunities** to achieve their objectives.

**Risks** are those occurrences that will have an adverse impact on the organization’s objectives, resulting from inadequate or failed systems or processes, mistakes or external events.
How to Identify Risks:

- Brainstorming
- Interviews
- Self assessment
- Risk questionnaires
- Facilitated workshops
Why the attention on more formalized risk management?

- Makes good business sense
- Fulfills stakeholder expectations for high standards of governance
- Meets donor requirements for assurance
- Helps avoid surprises!
Why the attention on more formalized risk management?

- Increased competition for scarce resources
- Increased external scrutiny from government, donors, the public regulatory institutions, Journalists, Board
- Increased level of litigations
How to use an ERM (Enterprise Risk Management) framework to identify and manage risks.
The ERM Framework

Entity objectives can be viewed in the context of four categories:

- Strategic
- Operations
- Reporting
- Compliance
The ERM Framework

ERM considers activities at all levels of the organization:

- Entity-level
- Division or subsidiary
- Business unit processes
The ERM Framework

The eight components of the framework are interrelated ...
1. Internal Environment

- Establishes a philosophy regarding risk management. It recognizes that unexpected as well as expected events may occur.

- Establishes the entity’s risk culture.

- Considers all other aspects of how the organization’s actions may affect its risk culture.

- Tone at the top.
2. Objective Setting

- Is applied when management considers risks strategy in the setting of objectives.

- Forms the risk appetite of the entity — a high-level view of how much risk management and the board are willing to accept.

- Risk tolerance, the acceptable level of variation around objectives, is aligned with risk appetite.
3. Event Identification

- Differentiates risks and opportunities.

- Events that may have a negative impact represent risks.

- Events that may have a positive impact represent natural offsets (opportunities), which management channels back to strategy setting.
4. Event Identification

- Involves identifying those incidents, occurring internally or externally, that could affect strategy and achievement of objectives.

- Addresses how internal and external factors combine and interact to influence the risk profile.
5. Risk Assessment

- Allows an entity to understand the extent to which potential events might impact objectives.

- Assesses risks from two perspectives:
  - Likelihood
  - Impact

- Is used to assess risks and is normally also used to measure the related objectives.
6. Risk Assessment

- Employs a combination of both qualitative and quantitative risk assessment methodologies.
- Relates time horizons to objective horizons.
- Assesses risk on both an inherent and a residual basis.
7. Risk Response

- Identifies and evaluates possible responses to risk.

- Evaluates options in relation to entity’s risk appetite, cost vs. benefit of potential risk responses, and degree to which a response will reduce impact and/or likelihood.

- Selects and executes response based on evaluation of the portfolio of risks and responses.
8. Control Activities

- Policies and procedures that help ensure that the risk responses, as well as other entity directives, are carried out.

- Occur throughout the organization, at all levels and in all functions.

- Include application and general information technology controls.
A strong system of internal control is essential to effective enterprise risk management (ERM).
### Impact vs. Probability

<table>
<thead>
<tr>
<th>Impact</th>
<th>Probability</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
<td><strong>High Risk</strong></td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td><strong>Medium Risk</strong></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td><strong>Low Risk</strong></td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td><strong>Medium Risk</strong></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td><strong>Low Risk</strong></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td><strong>Low Risk</strong></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td><strong>Medium Risk</strong></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td><strong>Low Risk</strong></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td><strong>Medium Risk</strong></td>
</tr>
</tbody>
</table>

- **Share**: High Risk
- **Mitigate & Control**: Medium Risk
- **Accept**: Control
- **Control**: Medium Risk
## Example: Call Center Risk Assessment

<table>
<thead>
<tr>
<th>HIGH IMPACT</th>
<th>MEDIUM RISK</th>
<th>HIGH RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of phones</td>
<td>Credit risk</td>
<td>Low Risk</td>
</tr>
<tr>
<td>Loss of computers</td>
<td>Customer has a long wait</td>
<td>Entry errors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOW IMPACT</th>
<th>MEDIUM RISK</th>
<th>HIGH RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraud</td>
<td>Equipment obsolescence</td>
<td>Repeat calls for same problem</td>
</tr>
<tr>
<td>Lost transactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee morale</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PROBABILITY
- Low
- Medium
- High
9. Information & Communication

- Management identifies, captures, and communicates pertinent information in a form and timeframe that enables people to carry out their responsibilities.

- Communication occurs in a broader sense, flowing down, across, and up the organization.
10. Monitoring

Effectiveness of the other ERM components is monitored through:

- Ongoing monitoring activities.
- Separate evaluations.
- A combination of the two.
Risk Appetite

Amount of risk exposure or potential adverse impact an organization is willing to accept/retain.

Think of organizations recently with high risk Appetite, and high risk tolerance.

- BP ?
- CoE (new constitutional process?)
- FIFA ?
What is your risk appetite?
Best practices and action steps

There are several best practices and action steps management can take to improve their strategic risk assessments such as:

-Ascertain your risk appetite

-Define risk broadly incorporating many types of risk;

-Recognize the downsides as well as the opportunities of risk;
Best practices and action steps

- Develop a culture of evaluating and identifying risks at multiple levels so critical risks filter up to top decision makers.

- Examine the total cost of risk, including financial and non-financial costs;

- Board and Management should collaborate and work together.
Best practices and action steps

- Develop a disciplined process to consider risk in strategic discussions;
- Designate an owner of the risk identification process;
- Require Managers to prioritize risks based on likelihood and impact.
Best practices and action steps

- Identify and monitor risks that could interfere with strategic goals;

- Require annual written reports on each high-priority risk being monitored;

- Reassess priority risks at the board level at least once a year as circumstances change;
Best practices and action steps

- Look for risks that are being omitted
- Move risk identification deeper into the institution to employees most likely to first see risks;
- Benchmark your risk practices with other institutions; and
- Repeat the process as risk management is a continuous process, not a one-time endeavor.
Case Study: Enterprise Risks

WHAT COULD BRING THE BUSINESS TO A GRINDING HALT:
   IN DAYS?
   IN WEEKS?
   IN MONTHS?
   IN 5 YEARS?
CAN WE PREVENT IT?
HOW PREPARED ARE WE TO RECOVER?
Discuss: Top Risks in ILRI
Other risks to consider?
Case Study: Identifying ILRI Risks
Common ILRI Objectives

Effectiveness:

- Protection and effective use of germplasm collections
- Integrity and security of information
- Continued operations in the event of significant natural, political, social and other disruptions
Common ILRI Objectives

Efficiency and Economy:
- Efficient and economical use of funds
- Protection of Center physical property
- Protection of Center data and intellectual property rights/protection against third party restrictions on use
Common ILRI Objectives

Financial Integrity and Compliance:

- Adequate funds to meet medium term plans and short term obligations

- Compliance with financial obligations to staff

- Compliance with external financial reporting obligations
Common ILRI Objectives

Legal and other Compliance:
- Compliance with host country agreements
- Compliance with donor agreements
- Compliance with partnerships and other third party legal obligations
Common ILRI Objectives

Safety and Security:

- Safe working environment for staff and visitors
- Safe staff travel
- Avoid environmental damage from Center operations
- Center premises secure against unauthorized intrusion
## Typical ILRI Risks

<table>
<thead>
<tr>
<th>Effectiveness</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance of Center research mission</td>
<td>Poor quality of research activities</td>
</tr>
<tr>
<td></td>
<td>Mismatch of skills with business needs</td>
</tr>
<tr>
<td></td>
<td>Inability to attract or retain appropriate staff</td>
</tr>
</tbody>
</table>
## Typical ILRI Risks

<table>
<thead>
<tr>
<th>Financial integrity and compliance</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate funds to meet medium-term plans and short-term obligations</td>
<td>Inadequate reserves for medium-term liquidity</td>
</tr>
<tr>
<td></td>
<td>Significant foreign exchange losses</td>
</tr>
<tr>
<td></td>
<td>Misappropriation or misuse of Center cash funds</td>
</tr>
</tbody>
</table>
## Typical ILRI Risks

<table>
<thead>
<tr>
<th>Legal and other Compliance</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with host country agreements and donor agreements</td>
<td>Non-compliance with host country requirements</td>
</tr>
<tr>
<td></td>
<td>Loss of host country privileges and immunities</td>
</tr>
<tr>
<td></td>
<td>Non compliance with donor agreements</td>
</tr>
</tbody>
</table>
Typical ILRI Risks

<table>
<thead>
<tr>
<th>Safety and Security</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe and secure working environment for staff and visitors</td>
<td>Staff downtime due to preventable or treatable medical conditions</td>
</tr>
<tr>
<td></td>
<td>Staff exposed to dangerous travel conditions</td>
</tr>
<tr>
<td></td>
<td>Damage or theft of Center property by intruders</td>
</tr>
</tbody>
</table>
Where to from here?

- REPORTING TO THE BOARD
- PUBLIC REPORTING
- INTERNALIZING THE PROCESS
Thank you!