



CCAF-FCVI^{INC}



MAKING RECOMMENDATIONS WITH A DOMINO EFFECT

Auditor General of Canada
Vérificateur général du Canada

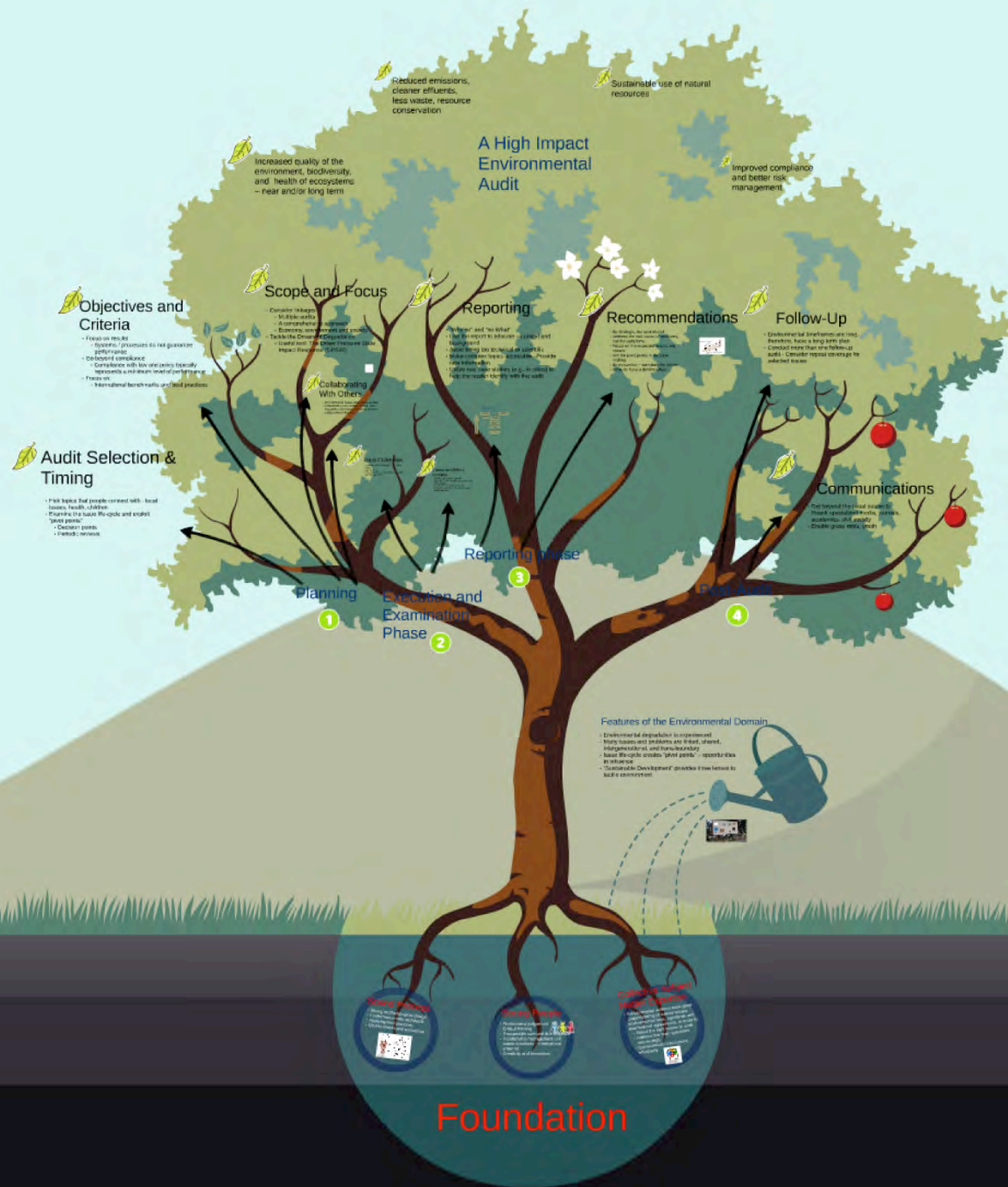


OFFICE OF THE
Auditor General
of British Columbia

THE BIG PICTURE

- The CCAF Discussion Paper *How to Increase the Impact of Environmental Performance Audits:*

“Through careful topic selection, planning, execution, and reporting, it is possible to increase the impact of environmental performance audits and achieve improve environmental quality.”



RECOMMENDATIONS “101”

- **Recommendations play a crucial role in having an impact**
- Well designed recommendations are...
 - Results-oriented (focused on *what* to achieve not necessarily *how* to achieve it)
 - Specific and clear enough to allow for monitoring progress (even by a different auditor)
 - Practical, such that an entity can implement them in a reasonable timeframe
 - Informed by root cause analysis

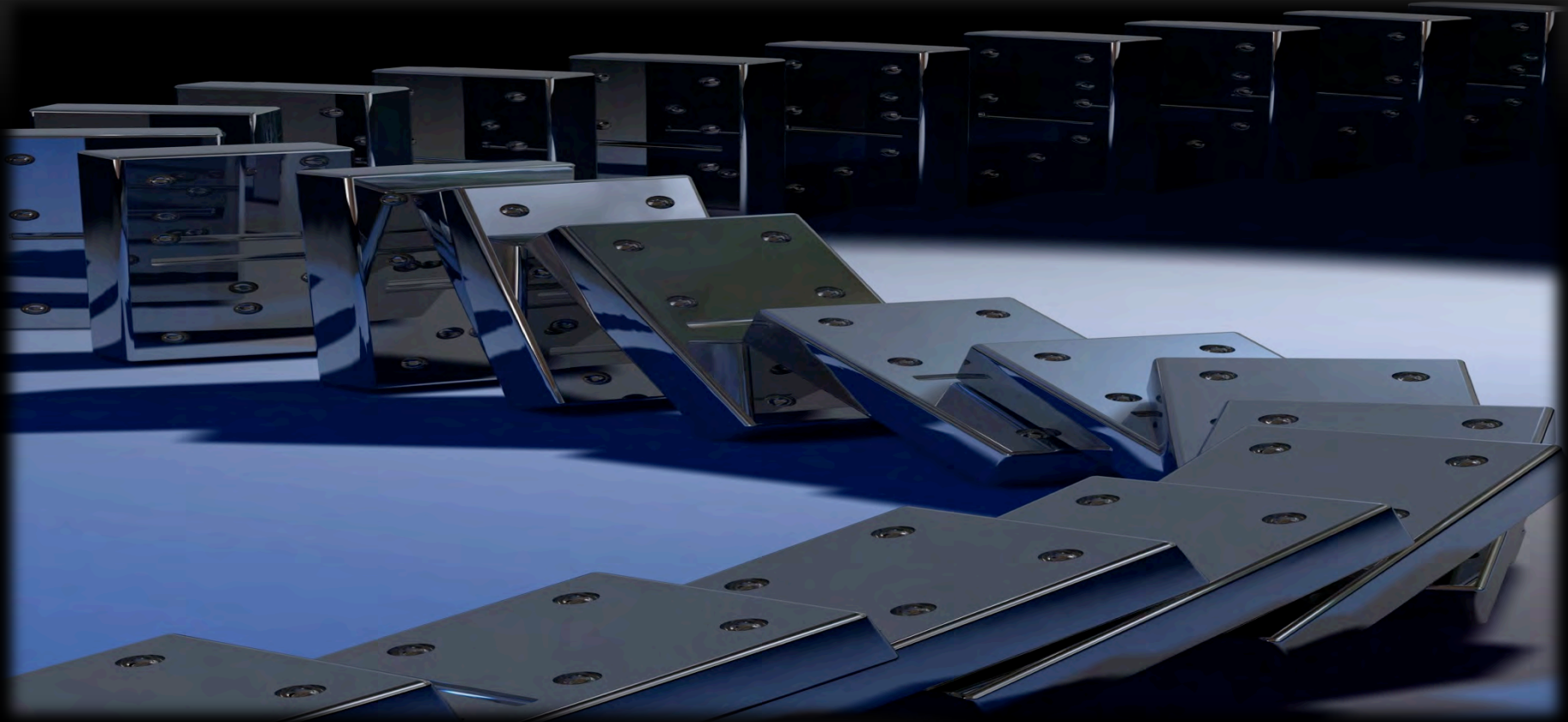
OUR NEW FOCUS AND PROPOSITION

Performance auditors can increase the impact of their environmental performance audits by designing recommendations to have a **“domino effect”**

CONTINUUM OF RECOMMENDATIONS



THE DOMINO EFFECT



WHAT IS THE “DOMINO EFFECT”?

- The “falling domino” principle
 - *“You have a row of dominoes set up, you knock over the first one, and what will happen to the last one is the certainty that it will go over very quickly.”* (Dwight D Eisenhower 1954)
- “a series of similar or related events occurring as a direct and inevitable result of one initial event” (Collins Dictionary)
- “a cumulative effect where one event initiates a succession of similar events” (Merriam Webster Dictionary)
- Similar to the “ripple effect”

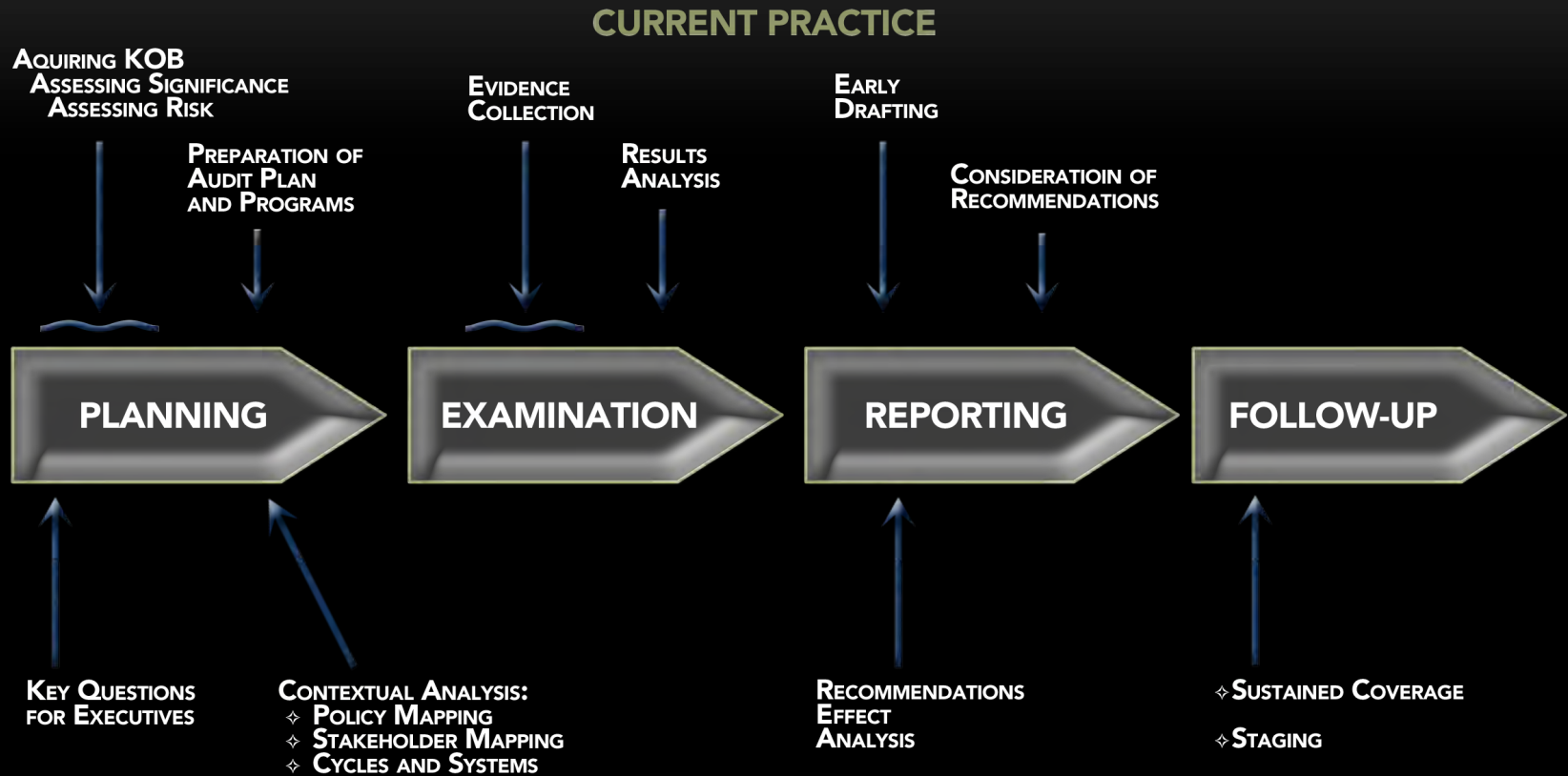
AUDIT RECOMMENDATIONS WITH A “DOMINO EFFECT”

- Go beyond the immediate audit finding or deficiency to create an effect, change or improvement on
 - other parts of the practice or system used to manage the issue at hand
 - related practices or systems in the same organization
 - practices or systems in other organizations
 - other related government policies
 - the economy or in society at large.

IF DONE WELL, AUDIT RECOMMENDATIONS WITH A DOMINO EFFECT...

- May be linear and predictable but may also be non-linear and unpredictable
- Are scalable, based on geography, players, time, scope
- Touch on the three dimensions of sustainable development
- Allow comparison over time – before and after should be measurable

PROCESS SUGGESTIONS



PROPOSED ADDITIONAL ACTIVITIES

THE DOMINO EFFECT “MINDSET”

- Achieving recommendations with a domino effect involves applying a “mindset” in all phases of performance auditing
- Consultation – from the beginning to the end – is key
 - Audited entities
 - Stakeholders
 - Experts

THE PLANNING PHASE

- Position the audit topic in a broader context
- Engage senior managers early
- Undertake “**contextual analysis**” of the subject matter
 - Policy Mapping
 - Stakeholder Mapping
 - Cycles and Systems

EARLY ENGAGEMENT OF SENIOR MANAGERS

- Have frequent discussions to shape thinking
- Discuss with senior managers:
 - constraints hindering progress and what would need to change to remove these
 - other concurrent reviews or events, which present the opportunity to combine impacts
 - the interests and agendas of influential internal and external players
- Don't be afraid to discuss possible recommendations at the planning phase, emphasizing that you are anticipating not prejudging the audit findings. Ask them what recommendations to avoid!

POLICY MAPPING - WHAT

- A technique that enables strategic decision-making in complex policy environments
- Provides a documented (and sometimes visual) assessment of the policy and legislative environment affecting an audit topic
- Informs a “roadmap” with options and recommendations by
 - Creating an image that captures critical elements of the problem’s landscape (players, authorities, missions)
 - Analysing element links and relationships
 - Identifying areas of “friction” (conflicts, overlaps and settled areas)
 - Formulating options to identify priorities and close gaps

POLICY MAPPING – HOW

- Identify the primary and related “policies” which can include legislation, international treaties, and formal government-wide and departmental policies
- Identify the respective lead organizations (and their related roles)
- Demonstrate the linkages and relationships between the policies and the lead organizations
- Identify areas of “friction” (contradictions between policies) or “unintended” effects

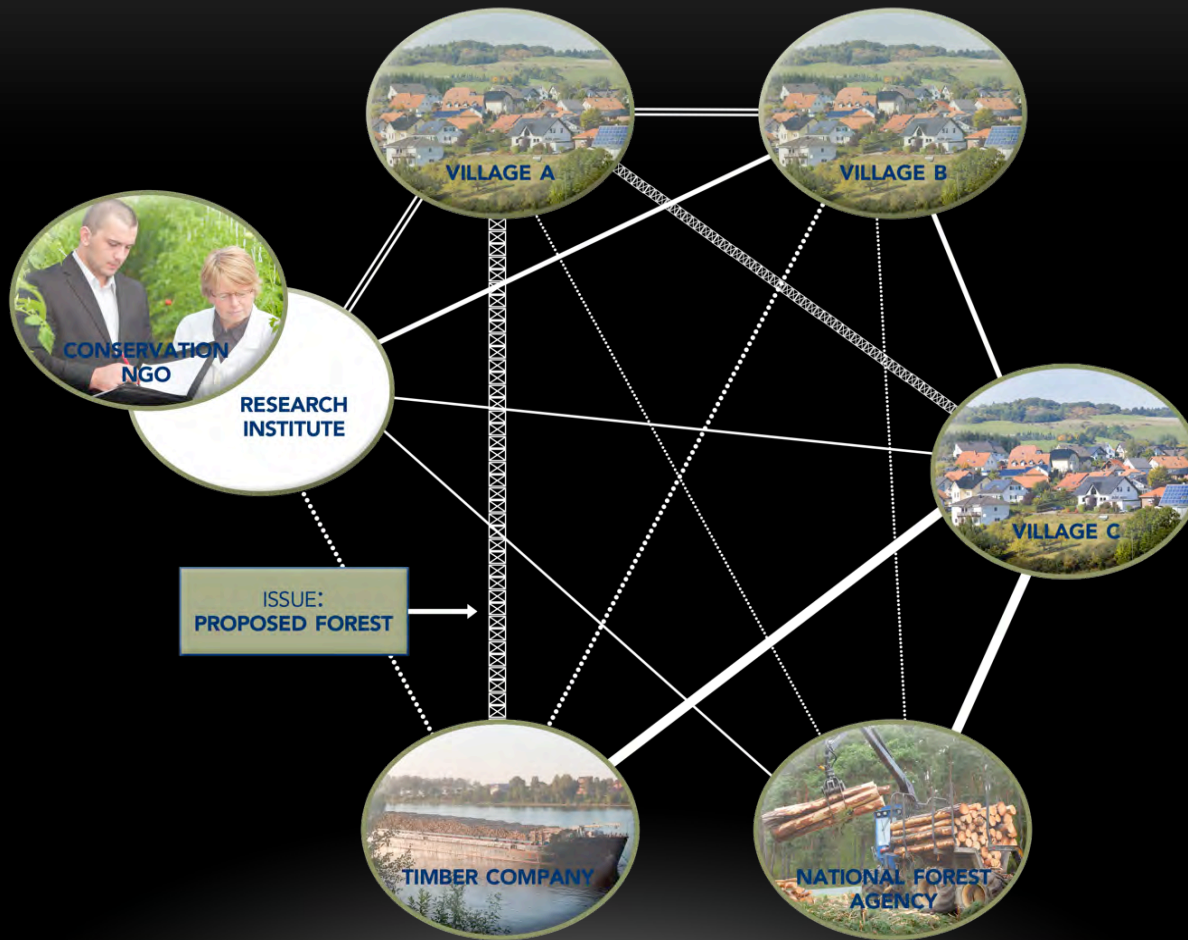
STAKEHOLDER MAPPING – WHAT

- A tool that identifies individuals or groups that are likely to be impacted by a proposed recommendation
- Can be “Community-Based” or “Interest-Based”
 - To determine potential “resistors” and “supporters” of recommendations
 - Involves classifying stakeholders based on degree of impact and the power of influence

STAKEHOLDER MAPPING - HOW

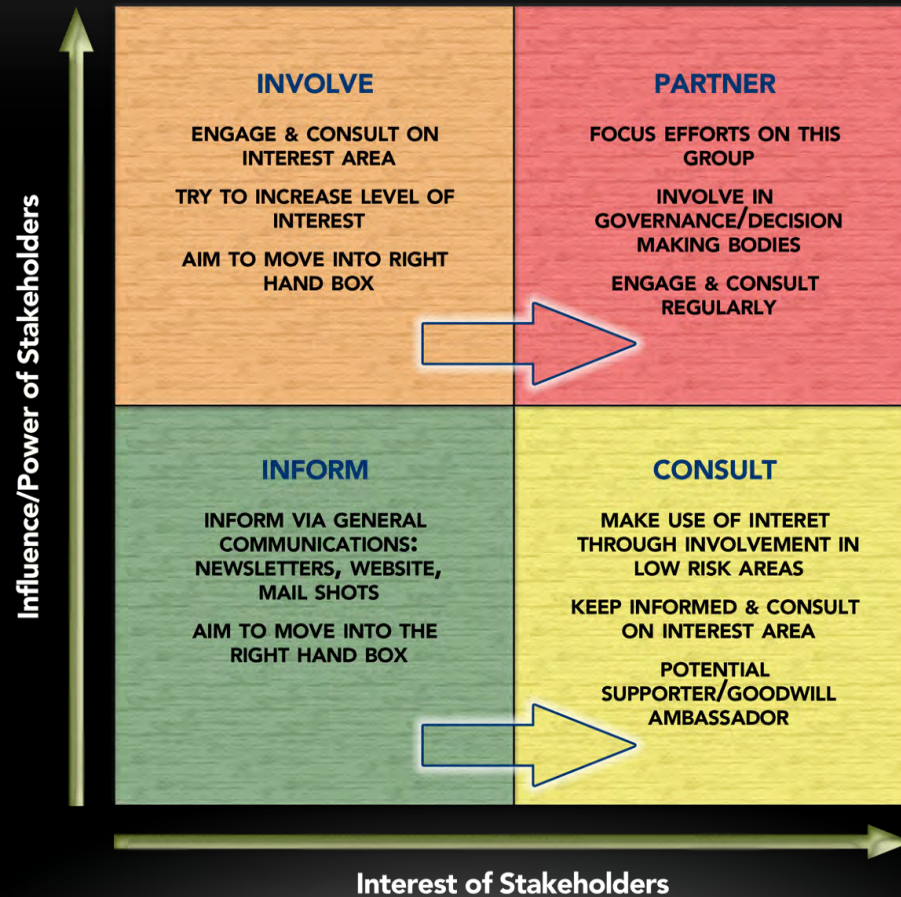
- Builds on information identified in policy mapping
- Identify the primary and other related players (Ministries, Agencies, NGOs, businesses, academic, etc.) and their respective roles
- Categorize the stakeholders according to impact and power of influence and place them on the matrix
- Prioritize those which will be most impacted and have the most influence on the adoption and implementation of the recommendations

STAKEHOLDER MAPPING - COMMUNITY



——— POSITIVE RELATIONSHIP the stronger the relationship, the thicker the line
 - - - - - CONFLICT the more severe, the thicker the line
 INFORMAL OR INTERMITTENT LINKS
 = = = ALLIANCES

STAKEHOLDER MAPPING - INTERESTS



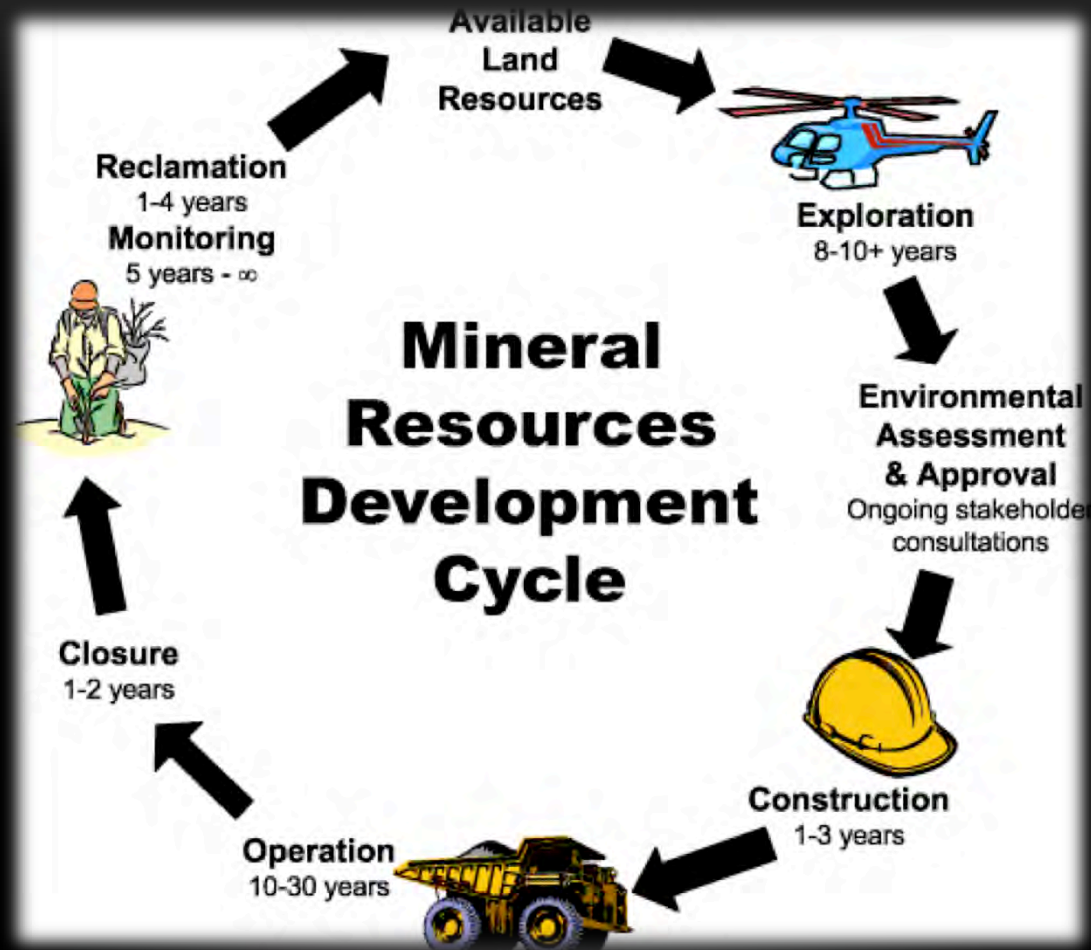
CYCLES AND SYSTEMS

- Many environmental issues operate within the context of a larger natural (ecosystem) cycles or management systems
 - Watershed Cycle
 - Minerals Extraction
 - Regulatory Enforcement
 - Climate Change – The Carbon Cycle
 - Sustainable Agriculture - Economic Development and Trade

WATERSHED (NATURAL) SYSTEM



MINERALS EXTRACTION LIFE CYCLE



REGULATORY CYCLE



THE EXAMINATION PHASE

- Continuous enquiry and consultation (including with experts)

THE REPORTING PHASE

- Undertake “recommendations effect analysis”
- Could involve “backcasting”: Describe a future end state or vision and consequently delineate the activities, measures and milestones that are needed to deliver this end state
- Could involve “forecasting”: Starting in the present, use modelling, scenarios and visioning to speculate about or predict the potential effects of a recommendation

DRINKING WATER EXAMPLE: SCENARIO

- **Government Policy:** Provide safe drinking water to citizens at optimal costs.
- **Performance Audit Objective:** Quality and cost of providing drinking water to citizens.
- **Hypothetical Audit Findings:** Declining water quality and expensive new water treatment plant proposal.

DRINKING WATER: TYPICAL RECOMMENDATION

- **Typical Recommendation:** Increase water tax/fee to cover new drinking water production plant.
- **Results:** Fails to address water pollution issue and to improve ecological services from source watershed.

DRINKING WATER: CONTEXTUAL ANALYSIS (1)

- Early engagement of senior managers:
 - Identify limits of water policies and tools
 - Obtain information on best practices
 - Identify policies to change and key stakeholders to consult and engage

- Policy mapping:
 - Identify the policy framework affecting water usage and water related activities
 - Identify new policies to facilitate shift from existing situation to a water pricing and watershed management situation

DRINKING WATER: CONTEXTUAL ANALYSIS (2)

- Stakeholder mapping:
 - Identify actors that can support, oppose and participate in a water pricing and watershed management approach

- Cycles and Systems
 - Understand watershed component, risks and functions in order to develop and efficient water pricing and watershed management approach

DRINKING WATER: DOMINO RECOMMENDATIONS

- **Domino Recommendation:** Implement a watershed management approach to reduce pollution load and water consumption by maximizing ecological services capacity.
- **Likely Results:** Watershed management improves ecological services and water quality.

DRINKING WATER: DOMINO EFFECTS

- Reduce water treatment costs
- Extend life of existing drinking water production plant
- Encourage upstream water users to consider their downstream impacts
- Better water risk identification, assessment and management
- Improved knowledge of water quality, flow and watershed ecosystem functions
- Facilitate investments in green infrastructures to improve ecological services from watershed

MINING EXAMPLE: SCENARIO

- **Government Policy:** Regulate mining industry to protect the environment and maximize social and economic benefits.
- **Performance Audit Objectives:** To determine the adequacy of assurances in place to protect the environment throughout the lifecycle of the mine.
- **Hypothetical Audit Findings:** Environmental monitoring is insufficient to ensure environmental protection. Financial assurance provided by operators is insufficient to cover environmental reclamation.

MINING: TYPICAL RECOMMENDATION

- **Typical Recommendation:** Ensure adequate security deposit is taken to provide for reclamation.
- **Likely Result:** Focus is on one part of the lifecycle, after a problem has already occurred. The high cost of a security deposit may discourage investment in the project which provides employment and benefits to the community. It may also discourage investment in other controls to ensure safety and environmental protection in the first place.

MINING: DOMINO RECOMMENDATION

- **Domino Recommendation:** Identify risks at each stage of the lifecycle of the mine and implement environmental monitoring and regular reporting to ensure environmental protection.
- **Likely Result:** Focus is on identifying risks and managing actions needed to ensure environmental protection throughout the lifecycle, and not just at the end of its life. Focus is on a safety and environmental protection culture – preventing a mess rather than cleaning it up after it happens.

MINING: DOMINO EFFECTS

- Mine development creates training and employment opportunities for local communities, often in rural, remote or First Nations communities
- Increased economic activity benefits local community
- Increased royalties and taxes to governments benefit the country/ province
- A safety culture creates a positive view of government and industry by society and they will be less likely to oppose the development of mines
- Increased research into clean mining technology, monitoring
- The environment is protected – water, land and wildlife/aquatic habitat
- Problems are prevented before they happen – much more cost effective

FORESTRY EXAMPLE: SCENARIO

- **Government Policy:** Manage the public forest to maximize current and long-term benefits to the public.
- **Performance Audit Objective:** To determine the adequacy of the government's management of the public forest.
- **Hypothetical Audit Findings:** Declining productivity, lack of reforestation, climate change affecting forest health.

FORESTRY: TYPICAL RECOMMENDATION

- **Typical Recommendation:** Develop an adequate plan to manage forest.
- **Likely Result:** Focus is on internal process that focuses on developing a plan but does not focus on actions needed.

FORESTRY: DOMINO RECOMMENDATION

- **Domino Recommendation:** Implement a silviculture regime based on future forest objectives and climate change impacts.
- **Likely Result:** Focus is on actions needed to reduce risk that future forest does not meet our objectives for it. Future forest will contain species planned for volume, quality, location and resilient to climate change.

FORESTRY: DOMINO EFFECTS

- Employment opportunities for seedling production, planting, thinning, brushing
- Increased economic activity
- Increased revenue to government
- Positive view of government by society
- Greater public use of the forest
- Greater stability for forest communities
- Increased research into climate/forest dynamics
- Wildlife/aquatic habitat enhanced thru silviculture treatments
- Forest carbon sequestration increased
- Soil quality enhanced
- Erosion control increased

ENERGY EXAMPLE - SCENARIO

- **Government Policy:** Government mandates organizations to become greener, more energy efficient
- **Performance Audit Objective:** To assess whether a government owned public power utility has implemented appropriate energy efficiency measures
- **Hypothetical Audit Finding:** Power generation facilities use 40 year old technology with no plans to replace. Audit analysis shows economic/environmental benefits to converting to new technology

ENERGY: TYPICAL RECOMMENDATION

- **Typical Recommendation:** Public utility should analyze opportunities for energy efficiency
- **Likely Result:** Study may be carried out but may not lead to action

ENERGY: DOMINO RECOMMENDATION

- **Domino Recommendation:** Public utility should upgrade power generation facility to current standards.
- **Likely Result:** Conversion of old technology to new results in environmental, social and economic benefits.

ENERGY: DOMINO EFFECTS

- Increased economic activity during conversion phase
- Lower power generating costs
- Reduced need for new facilities
- Reduced maintenance costs
- Industry attracted by more stable power supply
- Employee skills enhanced
- Health benefits from air quality improvement
- Air quality improved
- Reduced carbon emissions

FOLLOW-UP TO PREVIOUS AUDITS

- The CCAF Discussion Paper on *How To Increase the Impact of Environmental Performance Audits* highlighted the importance of follow-up
 - “Sometimes it is a good strategy to plan for more follow-up audits.”
 - “Have a long-term plan that includes repeated coverage for selected issues.”
- We suggest to consider the **Mount Everest Analogy** to creating a Domino Effect – “staging” recommendations over time

MOUNT EVEREST ANALOGY



FOLLOW-UP: STAGING RECOMMENDATIONS OVER TIME

- Initial audit – “base camp”
- First follow-up audit: “advanced base camp”
- Subsequent follow-up audit: “ascent camps”

CONCLUSION: BENEFITS OF DOMINO FOCUSED RECOMMENDATIONS

- Value of recommendation is broader, seen as being of value
- Positive impacts on public more clearly understood
- Reflects better the linkages between environment, society, economy
- Cost-benefit balance becomes clearer
- More readily accepted by government



Thank You

CONTRIBUTORS

- OAG BC: Morris Sydor
- OAG Canada: Kimberley Leach, Neil Maxwell, David Wright
- OAG Quebec: Jean Cinq-Mars
- CCAF: Lynne Casiple, Pierre Fréchette, Yves Gauthier, John Reed