Funding Approaches: Orphaned/Abandoned Mines

Presentation to the NOAMI Workshop on Assessing Liabilities & Funding Options
Ottawa – November 3, 2005

By
Joseph F. Castrilli
Barrister & Solicitor
Toronto, Ontario

Introduction

♦ Orphaned/abandoned mines (OAM) (sites where owner cannot be found, or financially unable to pay for cleanup)
♦ Pose environmental, health, safety & economic problems to communities, industry, government in Canada
♦ Since 2001, Mines Ministers action plan has sought to examine/solve problem through NOAMI

Introduction (continued)

♦ Funding Models Task Group (under NOAMI) asked authors to:
  – identify approaches for jurisdictions to consider to fund cleanup of OAM sites;
  – advantages/disadvantages of approaches; &
  – preferred options
♦ Presentation summarizes work done

Scope of Presentation

♦ Background to OAM problem
♦ Principles/criteria for evaluating funding approaches
♦ Funding Approaches - Economic/financial policy theories
♦ Funding Approaches : The Practice – review of what has been done legislatively/non-legislatively in several countries

Scope of Presentation (continued)

♦ Administration/management of OAM funding
♦ Role of legislation in process
♦ Findings & conclusions
♦ Recommendations

Background to OAM Problem

♦ Definitions
♦ Impacts
♦ Examples
♦ Issues
Background: OAM Definitions
- No single definition
- Examples:
  - Closed mine where ownership reverted to Crown because owner out of business, or
cannot be found and site has not been rehabilitated (MAC)
  - Site where responsible parties cannot be found because bankrupt, or left jurisdiction &
government has assumed cleanup costs (AGBC)

Background: OAM Impacts
- Loss of productive land
- Pollution of surface and groundwater
- Contamination of soils and sediments
- Harm to fish, wildlife & vegetation
- Air pollution from dust or toxic gases
- Public safety hazards
- Economic, social costs to communities, government, & industry

Background: OAM Examples
International
- United Kingdom – acid drainage causing severe contamination of streams
- South Africa – many square kilometers of land covered in tailings dumps from gold
  mines; dust potentially adversely affecting health of nearby township residents
- United States – some OAM sites declared “Superfund” sites due to extensive
  contamination

Domestic
- Hundreds of thousands of tons of highly toxic chemicals (e.g. arsenic, cyanide) at
  northern Canada OAMs; estimated cleanup cost to taxpayer at least $1/2 billion (CESD)
- Chemicals & metals in soil, surface water, groundwater at numerous locations around
  British Columbia at levels that may threaten environment & human health (AGBC)

Background: OAM Issues
- Key issues in solving OAM problem are financial & legal (UNEP)
- Who should provide cleanup funds (government or industry, if both, in what proportions
determined by what methods)
- What funding needed influenced by rehabilitation goals/criteria
- How much law reform, if any, needed
Evaluating OAM Funding Approaches: Principles & Criteria

- Sources used to develop principles & criteria to evaluate funding approaches
  - CCME report: contaminated site liability
  - CCME – KPMG report: funding & admin. options for orphan contaminated sites
  - MWC report: mine site remediation financial options
  - Views of respondents for this study

Principles & Criteria Identified

- Polluter/beneficiary pays
- Fairness
- Sustainable development goals
- Openness, accessibility, participation
- Revenue generating capacity
- Administrative ease
- Economic impacts

Principles & Criteria Identified (continued)

- Ability to address existing & future OAMs
- Discourage future site abandonment
- Public perception
- Emergency response

Principles & Criteria: Selected Discussion

- Of the principles/criteria evaluated polluter pays most controversial
- Polluter pays = polluter should internalize pollution costs
- But in OAM context there is no polluter
- Competing views – current mining industry should not be responsible for past actions of others vs. mining industry as a whole bears some responsibility for cost internalization

Principles & Criteria: Summary

- All of the above principles & criteria, with some modification to take into account the unique circumstances surrounding OAMs, appropriate for evaluating potential funding approaches

Funding Approaches: Economic & Financial Policy Theories

- In normal course, government can control external pollution costs through regulatory, tax, subsidy, market trading measures to influence behavior of regulated industry
- OAMs pose different problem because responsible parties no longer exist, or not financially viable, so their behaviour cannot be influenced, yet cleanup problem remains
- Approaches available but controversial
Funding Approaches: Economic & Financial Policy Theories II
♦ Governments could pay for OAM cleanup out of general revenue
♦ Theory: government set the standards of the day, collected taxes & royalties, but did not require or did not enforce rehabilitation
♦ This approach makes all taxpayers responsible for financial resolution of OAM problem

Funding Approaches: Economic & Financial Policy Theories III
♦ Present mining industry could contribute to a fund to pay for OAM cleanup
♦ Theory: generalized notion of polluter pays or internalization of external costs imposed on industry as a whole as cost of doing business in jurisdiction
♦ This approach makes mining industry & consumers of industry products, responsible for financial resolution of OAM problem

Funding Approaches: Economic & Financial Policy Theories IV
♦ Government could provide incentives for mining companies to cleanup OAMs
♦ Incentives could include – tax deductions, liability exemptions, issuance of licence on adjacent site, financial contribution by government in partnership with company
♦ This approach makes both taxpayers & mineral product consumers responsible for financial resolution of OAM problem

Funding Approaches: Economic & Financial Policy Theories V
♦ Government could, without imposing new taxes or fees on mining industry, (1) re-direct portion of existing mining tax revenue, & (2) reduce existing incentives to mining industry & earmark both streams to OAM cleanup
♦ This approach makes both taxpayers & mineral product consumers financially responsible for OAM problem

Funding Approaches: The Practice in Selected Jurisdictions
♦ Report reviewed 17 programs under 5 different funding approaches used in Canada, United States & United Kingdom:
  – Government funded programs: general revenue
  – Federal/provincial cost-sharing: general revenue
  – Levies on industrial production
  – Government-industry partnerships
  – Non-profit organization trust funds

Funding Approaches: Government General Revenue
♦ Federal: northern contaminated sites
♦ Ontario: abandoned mines rehabilitation
♦ Manitoba: orphan mine site rehabilitation
♦ Saskatchewan: northern abandoned mines assessment
Funding Approaches: Federal-Provincial Cost Sharing

- CCME: national contaminated sites remediation
- Federal-Ontario: abandoned uranium mine waste

Funding Approaches: Levies on Industrial Production

- U.S.: SMCRA – Abandoned Mine Reclamation Fund
- U.S.: CERCLA – Hazardous Waste Superfund
- Ontario: ARA – Aggregate Resources Trust (Management of Abandoned Aggregate Properties Program)
- Manitoba: MMA – Quarry Rehabilitation Reserve Fund

Funding Approaches: Levies on Industrial Production (cont.)

- Alberta: OGCA – Oil & Gas Orphan Fund
- U.S.: OPA – Oil Spill Liability Trust Fund
- U.S.: AHMRA – Abandoned Minerals Mine Reclamation Fund (proposed)

Funding Approaches: Government-Industry Partnership

- Federal: Policies on transactions with purchasers of mines abandoned by receivers
- British Columbia: Britannia Mine Rehabilitation Collaboration
- Ontario: ONDM-OMA Collaboration

Funding Approaches: Non-Profit Organization Trust Funds

- United Kingdom: National Groundwork Trust

Funding Approaches: Gov’t General Revenue - Findings

- OAM funding based exclusively on this approach not meet most principles/criteria
- Exceptions where principles/criteria met by this approach:
  - Administrative ease
  - Information accessibility
  - Emergency response
Funding Approaches: Gov’t General Revenue – Findings II
- Drawbacks to exclusive reliance on this approach
  - Unattractive to government
  - Poor public perception
  - Vulnerable to changing government priorities
  - Inability to date to raise adequate funding commensurate with scale of OAM problem

Funding Approaches: Gov’t General Revenue – Findings III
- Survey respondents views on approach
  - Extremely inadequate
  - Poor
  - Non-existent
  - Burdensome to government

Funding Approaches: Federal-Provincial Cost Share - Findings
- More robust than single government level funding, but essentially same findings apply
- Federal funding under CCME contaminated sites program did not attract expected level of provincial funding

Funding Approaches: Industrial Production Levy - Findings
- OAM funding based exclusively on this approach meet, with some exceptions, principles/criteria
- Exception: fairness (where $ used to cleanup sites from industries not contributing to fund established under regime (e.g. AMRF; Superfund)

Funding Approaches: Industrial Production Levy - Findings II
- Further possible exception: capacity to generate enough revenue to cleanup problem (not enough information)
  - Some programs successful in raising funds commensurate with problem (e.g. US – AMRF & coal mines)
  - Some programs less successful due to low levies imposed (e.g. Ontario: MAAP – abandoned pits & quarries)

Funding Approaches: Industrial Production Levy - Findings III
- Further possible exception: capacity to generate enough revenue to cleanup problem (not enough information – cont.)
  - Some programs are hybrids because apply to both currently operating but soon to be abandoned as well as long abandoned/orphaned sites (e.g. Manitoba – pits & quarries; Alberta – oil & gas)
  - Difficult to evaluate adequacy of hybrid approach solely in relation to historical OAMs
Funding Approaches: Industrial Production Levy - Findings IV

- Views of survey respondents on issue of revenue generating capacity:
  - Levy could provide sustainable OAM funding
  - While important levy, by itself, not sufficient given magnitude of OAM problem
  - Levy must not impair producer competitiveness
- Needed: accurate estimate of cleanup cost magnitude by jurisdiction before determine whether industry levy enough by itself

Funding Approaches: Gov’t-Industry Partnership - Findings

- May be site-specific or generic
- Blends indeterminate or determinate level of mining company funds with usually indeterminate level of public funds
- Approach may/may not be consistent with principles/criteria: depends on whether/how much public funding contribution grows over time

Funding Approaches: Gov’t-Industry Partnership - Findings II

- Approach may be partial/short-term solution only unless can be linked to more sustainable institutional arrangement
- In absence of general program, not clear how many partnerships needed/could be arranged, whether approach would have significant impact on problem and, if did not, whether approach would suffer public perception backlash

Funding Approaches: Non-Profit Trust Fund - Findings

- Trust fund analogous to industry-gov’t partnership arranged by non-gov’t entity
- Companies/gov’ts/individuals contribute $ without particular site in mind; similar to industry levy contributed to a fund except voluntary & comes with tax deduction
- Approach may/may not be consistent with principles/criteria: depends on ratio of industry to public funds in Trust

Funding Approaches: Overall Findings

- There are advantages/disadvantages with each funding approach
- No single approach likely to constitute complete solution to OAM cleanup in Canada

Administration & Management: OAM Funding

- Administration models:
  - Department(s) of one government level
  - Joint administration – 2 government levels
  - Special government agency
  - Government-mining industry
  - Government-industry in general
  - Mining industry
  - Industry in general
Administration & Management:
OAM Funding - Findings
♦ Survey respondents divided on model
♦ Views on model characteristics
  – Expertise of mines/environment ministries & industry necessary
  – Need public input, oversight, accountability & no conflict of interest
♦ If model federal-provincial, federal $ could entitle federal gov’t under spending power of Constitution to set national standards

Role of Legislation in Process
♦ Where little/no legislation necessary
  – Continuation of program of discretionary government funding from general revenues
  – Earmarking % of existing revenue streams (e.g. provincial mining tax laws)
  – Reducing existing mining industry subsidies
♦ Where legislation necessary
  – Levy on industrial production
  – Establish dedicated OAM fund

Recommendations
♦ Amend existing/enact new law adopting funding regime for OAM cleanup in each jurisdiction (federal/provincial/territorial)
♦ Design law to eliminate OAM backlog in each jurisdiction within reasonable timeframe (1-3 decades); law should identify minimum máxima $ in Fund at start of each fiscal year

Recommendations - II
♦ Base legislative regimes on mix of following funding approaches:
  – Government funding from general revenues coming from single government level
  – Federal-provincial/federal-territorial government funded cost sharing arrangement (general revenue) where appropriate
  – Levy on mining industry production
  – Government-industry partnerships

Recommendations - III
♦ Base legislative regimes on mix of following funding approaches (cont.):
  – Government re-direction of portion of existing mining tax revenue, & reduction of existing incentives to mining industry & application of both streams to OAM cleanup
  – Interest on $ in Fund, deposits to Fund of fines/admin. penalties imposed on mining industry under this/other laws, donations, etc.
Recommendations - IV
♦ As part of legislative regime, establish OAM Cleanup Fund into which general government revenue, industry levies, other monies deposited annually
♦ Law should specify minimum annual financial appropriation to be made by gov’t & period over which that level of appropriation to continue

Recommendations - V
♦ Where shortfall from declared minimum size of Fund (see slide 46, bullet 2), law should set out how shortfall to be made up for that fiscal year
♦ Law should specify annual levy/levy range to be imposed on each mining company/mining sector/classes within sector & period over which level of contribution to continue

Recommendations - VI
♦ Levy calculation based on
  – Fixed fees per tonne/production, or
  – % of net proceeds from previous year &
  – Take into account credits to industry from (e.g. gov’t industry partnerships)
♦ Levy should achieve certain objectives
  – Not unduly burden mining industry
  – Generate sufficient $ to meet law’s objectives
  – Not exert inflationary effect on economy

Recommendations - VII
♦ Law should set out:
  – Basis for industry-gov’t partnerships (e.g. whether generic, site-specific, or both)
  – Effect of such arrangements on annual levy and tax incentive measures (next recommendation)
♦ Law should amend tax laws to identify:
  – Annual tax revenue being re-directed to Fund
  – Annual reduction of existing incentives to mining industry being re-directed to Fund

Recommendations - VIII
♦ Law should set out its purposes (e.g.):
  – Reclamation & restoration of land & water adversely impacted by past mining, milling, processing, disposal activities at OAM sites
  – Protection of public health, safety and property from extreme danger & adverse effects of OAMs
  – Involve public/First Nations in process

Recommendations - IX
♦ Law should specify lands & waters eligible for cleanup through funding regime (e.g.)
  – Those for which no identifiable responsible person
  – That were reclaimed inadequately/not at all
  – Prior to date specified in the law
♦ Law should specify how/whether funding regime will address sites that become OAM after above date (to avoid future OAMs)
Recommendations - X

- Law should specify OAM cleanup priorities (e.g.)
  - (1) Extreme danger, (2) Adverse effects
- Law should
  - Identify Fund administering entity
  - Include mines/environment/industry expertise
  - Include public input/oversight/accountability
  - Avoid conflicts of interest
  - Consider multi-stakeholder advisory committee

Recommendations - XI

- Rules & regulations for funding regime administration (e.g.)
  - Levy collection, mining production reporting
  - Credits for industry partnership contributions
  - General reclamation requirements/priorities
  - Non-emergency site selection criteria
  - Site considerations (mine drainage, slides, toxic)
  - Community involvement

Recommendations - XII

- In conjunction with these recommendations on funding approaches, eliminate barriers & facilitate community involvement with respect to OAM cleanup
- OAM problem needs comprehensive legal & financial response