



The Mining Association of Canada
ADVOCACY STEWARDSHIP COLLABORATION



**Chamber of Mines
of the Philippines**

Towards Sustainable Mining *Beyond Compliance*

ROCKY DIMACULANGAN

Vice President for Communications and
National Coordinator for TSM
Chamber of Mines of the Philippines

Opportunities will continue to outweigh risks in 2022.

Purpose, long-term value and sustainability are no longer add-ons to business as usual — they are business as usual.

External influences will keep driving risks and opportunities as stakeholder and capital market pressure continues to hold miners accountable.





Top 3 Risks & Opportunities for 2022

1. Environment and Social
2. Decarbonization
3. License to Operate

In 2015, the DENR required mining contractors to secure ISO 14001 Certification for operating mines to ensure adherence to international standards.



Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City
Tel. Nos. (632) 929-66-26 to 29 • (632) 929-62-52
929-66-20 • 929-66-33 to 35
929-70-41 to 43

30 APR 2015

ADMINISTRATIVE ORDER
No. 2015 - 07

SUBJECT: Mandating Mining Contractors to Secure ISO 14001 Certification

WHEREAS, the requirement for mining contractors to undergo ISO Certification will help achieve sustainable growth by the development of an effective environmental management system;

NOW, THEREFORE, the foregoing premises considered, to institutionalize an environmental management system that shall ensure the adherence of local mining operations to international standards as a measure of Responsible Mining in the country, all mining contractors are mandated to secure ISO 14001 Certification in accordance with the following guidelines for the compliance of all concerned:



In 2016, PRRD challenged the Philippine mining industry to adhere to strict international standards, particularly that of Australia and Canada



GMA NEWS ONLINE
YOUR NEWS AUTHORITY

 176
 66
 1
 5
 0


Responsible mining is a key to growing the economy – Duterte spokesperson

Published June 23, 2016 5:08pm

The incoming administration of President-elect Rodrigo Duterte is committed to promoting a robust and dynamic economy, with every sector contributing to its growth including mining, Ernie Abella, the incoming presidential spokesperson, said on Thursday.

"Responsible mining plays a key role in the Philippines," Abella told reporters at a briefing in Davao City.

"The key word here is responsible. And our President has made his position very clear: 'You have to do it right. If you cannot do it right, then get out of mining,'" he added.

Abella noted that the President-elect Duterte has emphasized the application of responsible mining standards similar to those of Canada and Australia to ensure that the environment is protected.

In 2017, Philex came across TSM as possible tool to adequately respond to the challenge of the President.

Later that year, COMP reached out to MAC for a partnership.



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News Economy

COMP adopts TSM initiative

By **Jonathan L. Mayuga** - December 18, 2017

The Chamber of Mines of the Philippines (COMP) has moved to formally and officially adopt Canada's sustainable mining model.

The adoption of Toward Sustainable Mining, or TSM initiative, a mining-sustainability standard developed by the Mining Association of Canada (MAC), is in response to President Duterte's call to the industry to be more responsible in doing business.



ABS-CBN NEWS

Chamber of Mines to adopt Canadian sustainability standard

Share

ABS-CBN News
Posted at Dec 18 2017 12:38 PM

MANILA - The Chamber of Mines of the Philippines said Monday it would adopt a Canadian standard for sustainability in the industry.

The Philippines is the first country in Southeast Asia to adopt the Mining Association of Canada's Towards Sustainable Mining or TSM initiative and the fourth in the world after Finland, Argentina and Botswana, the chamber said.

The TSM requires mining companies to assess their facilities annually for tailings management, community outreach, safety and health, biodiversity conservation, crisis management, and energy use and greenhouse gas emissions management, the chamber said in a statement.

TOWARDS SUSTAINABLE MINING

Mining Association of Canada (OVERVIEW)

- Established in 2004, TSM is a **performance system** that helps mining companies **evaluate and manage** their **environmental and social responsibilities**
- Core Strengths
 - Performance Driven
 - Accountability
 - Transparency
 - Credibility
- Partner Countries: **Argentina, Botswana, Brazil, Finland, Norway, the Philippines, Spain, Australia, Colombia**

TSM Assessment Protocols

Communities and People

- 1 Safety and Health
- 2 Community and IP Engagement
- 3 Crisis Management and Communications
- 4 Child and Forced Labor

Environmental Stewardship

- 5 Tailings Management
- 6 Water Management
- 7 Biodiversity Conservation Management

TSM Assessment Protocols

Communities and People

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- 5 Tailings Management
- 6 Water Management
- 7 Biodiversity Conservation Management

- Formed TWG to align with Global Standard on Tailings Management

TSM Assessment Protocols

Rating System: **C, B, A, AA, AAA**

Communities and People

Safety and Health

Community and IP
Engagement

Environmental Stewardship

Tailings Management

Water Management

Biodiversity
Conservation
Management

TSM Assessment Protocols

Rating System: **PASS, FAIL**

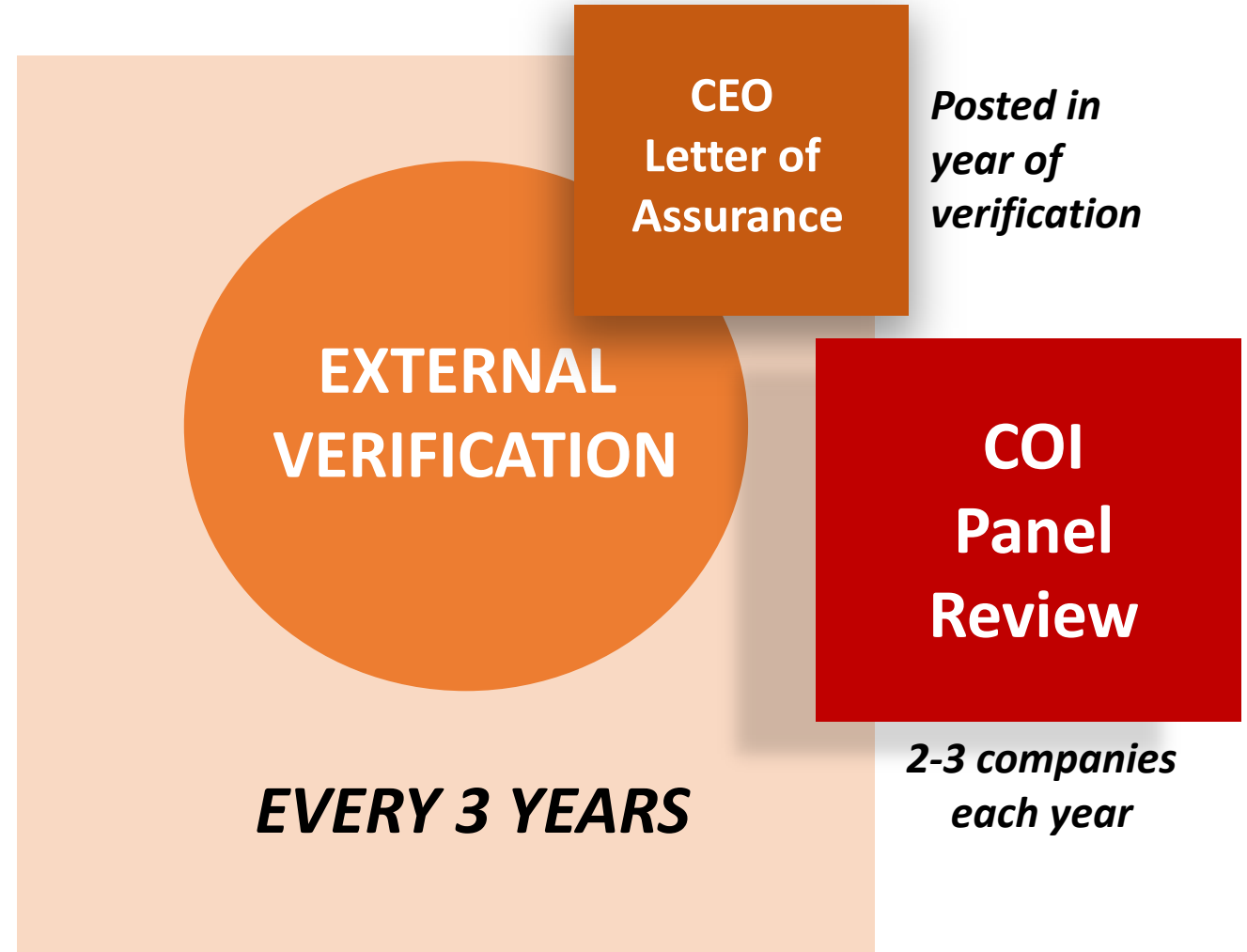
Communities and People

Crisis Management
and
Communications

Child and Forced
Labor

TSM Layers of Verification

(A 3-YEAR CYCLE)



Strict Regulatory Framework

- **AREAS CLOSED TO MINING (AS PER THE MINING ACT)**

- ✓ Old growth or virgin forests, proclaimed watershed areas, mangrove forests, national parks, game/bird sanctuaries, built-up areas including plantations and valuable crops, and all areas covered by the National Integrated Protected Areas System (NIPAS) →

- **NEED FOR SOCIAL/FINANCIAL ACCEPTABILITY**

- ✓ Endorsement of Local Gov't Units (2 out of 3 required)
- ✓ Endorsement of Host Communities to the Social Development & Management Plan (SDMP)
- ✓ “Free & Prior Informed Consent” from Indigenous People, if any (supervised by National Commission for Indigenous People)
- ✓ Declaration of Mine Feasibility

- **STRINGENT ENVIRONMENTAL REQUIREMENTS/REPORTS**

- ✓ Environmental Impact Statement (EIS - required for issuance of ECC)
- ✓ Environmental Compliance Certificate (required for all environmental, social and other permits)
- ✓ Environmental Protection & Enhancement Program (EPEP), includes Final Rehabilitation/ Decommissioning Plan (final environmental requirement for mine development, operation and closure)
- ✓ Annual EPEP – accomplishment for the year and environmental program + budget for following year
- ✓ Tree Cutting Permit



Strict Regulatory Framework

- **MANDATED MINE PERSONNEL**

- ✓ Mine Environmental Protection & Enhancement Officer
- ✓ Community Relations Officer
- ✓ Safety Officer

- **MANDATED ENVIRONMENTAL EXPENSES/FUNDS**

- ✓ 3% to 5% of mining and milling costs annually
- ✓ Final Mine Rehabilitation and Decommissioning Fund
- ✓ Rehabilitation Cash Fund
- ✓ Mine Waste and Tailings Fee Reserve Fund

- **MANDATED SOCIAL EXPENDITURES**

- ✓ 1.5% of operating costs through the SDMP; yearly SDMP report
- ✓ 1% of gross revenues (royalty) to Indigenous Peoples if FPIC satisfactorily completed, among other benefits (negotiated)

- **MONITORING**

- ✓ Quarterly Monitoring by Multi-Partite Monitoring Team composed of Mines & Geosciences Bureau, Environmental Management Bureau, representative of host community, representative of Indigenous Cultural Community (if any) and accredited environmental NGO

More on our plate...

- **DENR DAO 2018-19**, which limited the maximum area that may be disturbed for nickel mines, and mandating the temporary revegetation of areas in excess of allowed areas to be disturbed;
- **DENR DAO 2018-20**, additional guidelines for evaluation and approval of 3-year work program;
- **MGB MC 2018-02**, providing guidance for compliance monitoring/scorecard for mining contracts;
- **DENR DAO 2017-07**, mandating participation by all mining contractors in PH-EITI;
- **MGB MO 20-001**, guidelines for mining projects under care and maintenance;
- **DENR DAO 2015-07**, mandating all mining contractors to secure ISO14001 certification;

WIFM?

- **Good for business and for corporate social responsibility** (TSM companies perform better in social, environmental, business aspects)
- **Increases knowledge, transparency and openness** within local communities.
- Fast-becoming **global standard in responsible mining.**
- **Platform for continuous development.**
- **Provides many feel good and positive news story opportunities.**

WIFM?

- **COI Panelists provide further credibility** to the program and to participating companies.
- **Financial institutions and investors gradually seeing TSM as a reliable standard in evaluating risks for mining firms seeking funding and investments.**
- **Increasingly, TSM is becoming a gauge for responsible sourcing of global consumer brands (e.g., Apple).**
- **“Seal of good housekeeping”.**

COMP and MAC signing

Mutual Cooperation and Licensing Agreement to adopt TSM
December 19, 2017



Community of Interest Advisory Panel

First Meeting and Orientation, Sept. 10, 2019



Community of Interest Advisory Panel



RONALD U. MENDOZA
Academe

- Dean, Ateneo School of Government
- Senior Fellow: EastWest Institute
- Former Executive Director, AIM Policy Center



CIELO MAGNO
NGO/Academe

- Asst. Professor, School of Economics, UP
- CSO Representative, International Board, EITI
- Board Member & Secretary, Bantay Kita



CARLOS PRIMO C. DAVID
Environment

- Professor, Geology and Environmental Science, UP, NIGS
- Member, Panel of Experts, Climate Change Commission



JEROME MARQUEZ, SVD
Religious

- Provincial Superior, Society of Divine Word, Canon Lawyer
- Director, Arnold Jansen Mission Foundation

Community of Interest Advisory Panel



LUCHI CRUZ-VALDES
Media

- Head, News and Information, TV5
- Former co-host, The Probe Team, GMA-7
- Titus Brandsma Awardee for Excellence in Journalism, Catholic Mass Media Awards



GERARD R. SENO
Labor

- National Executive Vice President and National Executive Board – Associated Labor Unions (ALU) - TUCP



EDWIN G. DOMINGO
Policy/Technical

- Former Asst. Director and OIC-Director, MGB
- Former OIC-Asst. Secretary, Foreign Assistance Projects, DENR
- Former Board Examiner for Geology, PRC



JOSE V. MEJIA
Legal

- Senior Partner, Ligon Solis Mejia Florendo Law Firm
- Regular Member, Judicial and Bar Council
- Professor, Commercial Law, De La Salle University

Community of Interest Advisory Panel



LIEZYL LITON-RELLETA
Environment/Forestry

- VP and Project Director, GAIA South Inc.
- Member, Foresters League of the Philippines
- Member, Society of Filipino



ALEXIS BENJAMIN C. ZARAGOZA III
Finance

- Partner, SGV
- University of Chicago Booth School of Business, MBA Honors
- Institute of Chartered Accountants, Australia, Graduate Diploma Chartered Accounting



ROGELIO FRANCISCO M. BANTAYAN JR.
Indigenous Peoples

Executive Director, National Commission on Indigenous Peoples



AL FRANCIS C. BICHARA
Local Government

- Governor, Albay
- Chairman, Bicol Regional Development Council
- Two-term Congressman
- Three-term Governor

'Filipinization' of TSM:

- **Deliberately repetitive and exhaustive:**
 - *conducted from 2018 to mid-2020*
 - *most Protocols underwent 5 Revisions; one still ongoing*
- **Encouraged members' participation to promote ownership, buy in.**
- **End-product has inputs from both COMP members and COI Advisory Panel.**

Highlights of 'Filipinized' TSM

4 Revisions (by COMP Members)



- Incorporated applicable Philippine laws and regulatory processes, e.g., composition of facility level community of interest
- Applied Philippine terms, e.g.,
 - “stakeholders” for “facility level community of interest”
 - “indigenous peoples” for “aborigines” and “First Nations”
- Provided more detailed discussion on standards, compliance with law.
- Added objective measurements/criteria for Indicators
- Major revision: **inclusion of SDMP.**

Review Leaders Present to COI Panel

Feb. 19, 2020



5th Revision (inputs from COI Panel)

- Response to COI Advisory Panel reco: include outcomes as part of TSM criteria; Canada model is “process oriented”
- Further revisions completed by TSM Review Leaders **(July 2020)**:
 - Focus on 3 Protocols:
 - (a) IP and Community Engagement
 - (b) Biodiversity Conservation Management
 - (c) Water Management

TSM Rollouts



- Launched to Chamber members in Mindanao and Luzon-Visayas in August and September 2020, respectively.
- Support expressed by Canadian Ambassador Peter MacArthur, DENR ASec. Nitz Caguioa, MGB Dir. Dodo Moncano, and 14 MGB Regional Directors.



MANILA BULLETIN
BUSINESS NEWS

Topics: Business News Banking and Finance Stock Market

BUSINESS / BUSINESS NEWS / Rollout of int'l mining sustainability standard among miners completed

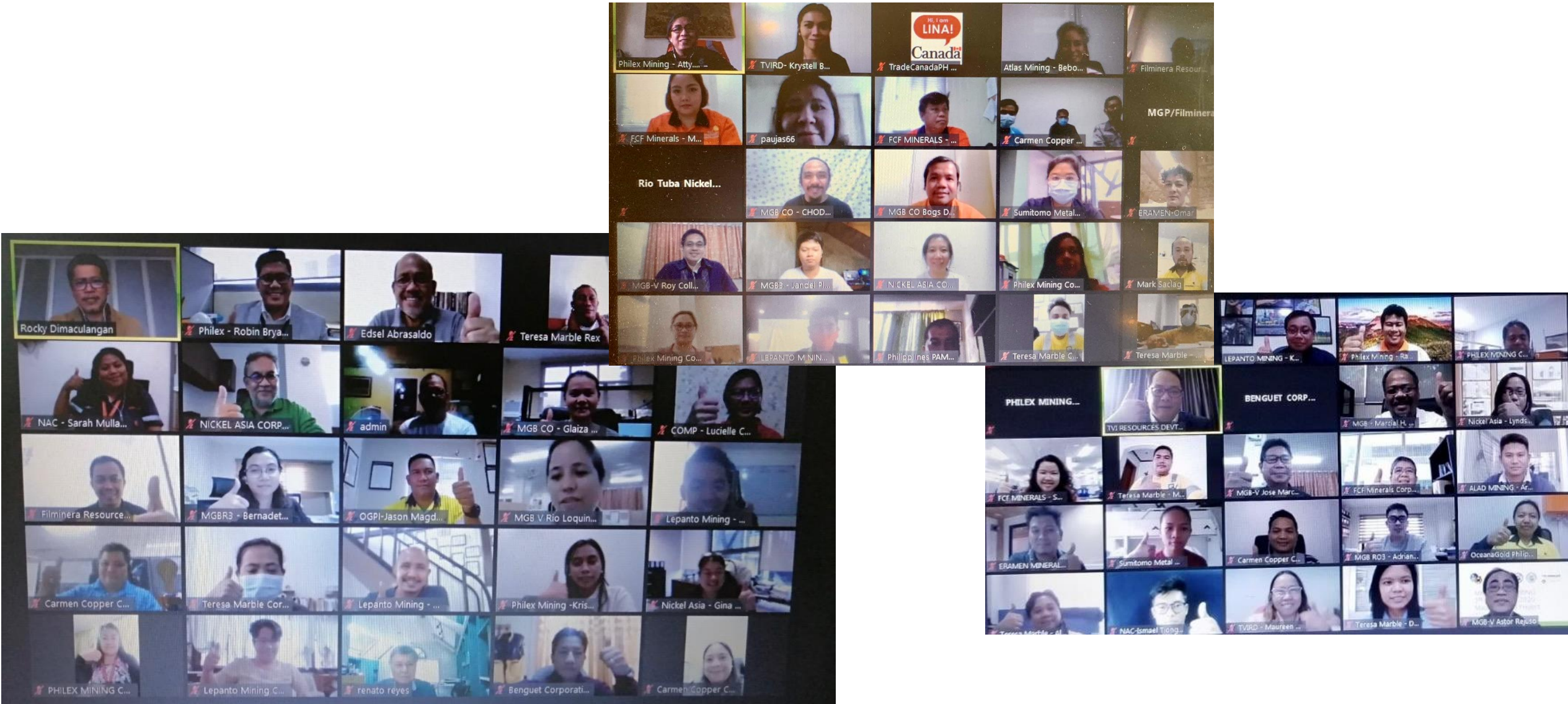
Business, Business News
Rollout of int'l mining sustainability standard among miners completed

Published September 21, 2020, 2:55 PM
by Madelaine B. Miraflor

The Chamber of Mines of the Philippines (COMP), the group of some of the largest mining companies in the Philippines, is now ready to implement the localized version of Towards Sustainable Mining (TSM), an international mining

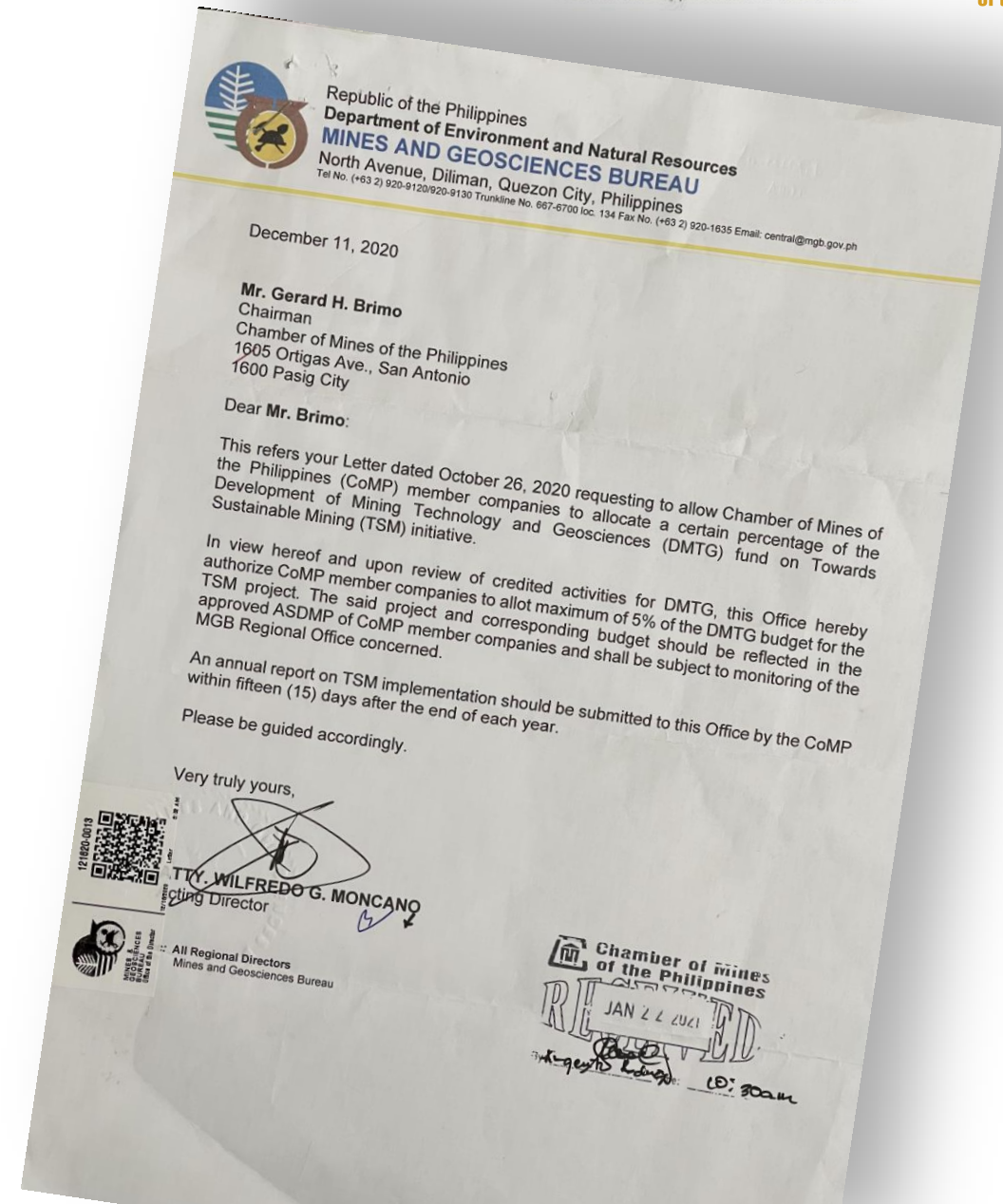
TSM Rollouts

- Total of >200 representatives from Chamber member firms participated.



MGB allows funding for TSM

Extracted from 5% of the Development of Mining Technology and Geosciences (DMTG) Fund, which is 10% of the Social Development and Management Program (SDMP) of operating mining firms.



Next steps from 2021 to 2024

SELF-ASSESSMENT

2021

- Gap Analysis
- Addressing of gaps
- **Voluntary reporting** of self-assessment reports to COMP.
- COMP to identify external verifiers for approval by COI Panel.

SELF-ASSESSMENT

2022

- **Mandatory reporting** of self-assessment results to COMP, COI Panel.
- Approved external verifiers to undergo training with the assistance of MAC.

EXTERNAL VERIFICATION

50% of COMP Members

2023

- External verifiers to audit 50% of companies; the other half will do self-assessment.
- External verification supported by CEO Letters of Assurance.
- **Mandatory reporting** of self-assessment or external verification results to COI Panel.
- **All results to be made available to the public.**
- **Random COI Panel company reviews.**

CEO
Letter of
Assurance

EXTERNAL VERIFICATION

50% of COMP Members

2024

COI
Panel
Review

TSM activities for 2021



1) Search for Verification Service Providers (VSPs or External Verifiers)

- *Finalized TOR for VSPs.*
- *Search for VSPs completed*

Canadian Embassy to subsidize funding for VSP training in 2022.

TSM activities for 2021 *(con't)*



2) Community of Interest Advisory Panel Virtual Meetings

- *July 1 (Program updates, partial list of VSPs)*
- *November (approved list of VSP candidates)*

3) Webinar + B2B for TSM implementing companies

- *July 29*

Case Studies on TSM Experiences and Best Practices + B2B Meetings with Presenters

TIME: *PLENARY SESSION - 8:30AM*

B2B SESSIONS - 10:30AM

DATE: THURSDAY, July 29, 2021

HOSTED BY: **The Embassy of Canada**

MODERATED BY: **Mr. Rocky Dimaculangan**, *TSM National Coordinator*

SPEAKERS



Mr. Gerard H. Brimo
*Chairman
Chamber of Mines
of the Philippines*



Mr. Ben Chalmers
*Senior Vice President
Mining Association of
Canada*

GUEST SPEAKER



H.E. Peter MacArthur
*Ambassador
Embassy of Canada to the
Philippines*

Case Studies on TSM Experiences and Best Practices + B2B Meetings with Presenters

PRESENTERS



Harvey McLeod – P.Eng., P.Geo
*Principal, Klohn Crippen Berger
(Canada)*

TAILINGS MANAGEMENT



Chris Strachotta – RPGeo
*Principal Hydrogeologist
KCB Australia Pty Ltd*

WATER STEWARDSHIP



Kelly Wells – M.Sc., P.Biol.
*Biology Division Manager
Canada North Environmental
Services*

**BIODIVERSITY CONSERVATION
MANAGEMENT**



Jane Shapiro
*SVP & National Crisis
Communications Lead, Hill+
Knowlton Strategies (Canada)*

**CRISIS MANAGEMENT &
COMMUNICATIONS PLANNING**



“The catastrophic dam collapse at Vale’s Corrego de Feijao mine in Brumadinho was a human and environmental tragedy that demanded decisive and appropriate action to enhance the safety and strengthen the governance of tailings facilities across the globe.”

Dr Bruno Oberle
Chair: Global Tailings Review



GLOBAL INDUSTRY STANDARD ON TAILINGS MANAGEMENT

AUGUST 2020

ICMM
International Council
on Mining & Metals



“The catastrophic dam collapse at Vale’s Corrego de Feijao mine in Brumadinho was a human and environmental tragedy that demanded decisive and appropriate action to enhance the safety and strengthen the governance of tailings facilities across the globe.”

Dr Bruno Oberle
Chair: Global Tailings Review

THE STANDARD



Directed at Operators and applies to tailings facilities, both existing and to-be-built.

Operators must use specified measures to prevent the catastrophic failure of tailings facilities, and...

...to implement best practices in planning, design, construction, operation, maintenance, monitoring, closure and post closure activities.

ALIGNMENT ANALYSIS



TSM meets and exceeds the Standard in several respects:

- The Table of Conformance provides more detailed and rigorous performance measurement expectations.
- The tailings management component of TSM reflects years of implementation experience.
- The Indigenous and Community Relationships Protocol reflects almost 20 years of implementation experience; takes a more comprehensive approach to identifying and addressing human and community rights and benefits.
- TSM has an established assurance system.

TSM addresses tailings management governance in a much more detailed and comprehensive manner than the Standard, providing a more thorough foundation to help ensure good governance and informed decision-making throughout the life cycle.

ALIGNMENT ANALYSIS



The Mining Association of Canada

ADVOCACY STEWARDSHIP COLLABORATION

- The TSM Protocols on Tailings Management, Indigenous and Community Relationships, and Water Stewardship are very closely aligned with the Standard in all aspects related to governance, community relationships and water stewardship.
- 1 • Some refinements to TSM that are now captured in the latest version of *A Guide to the Management of Tailings Facilities*.
- 2 • MAC has approved a new TSM Climate Change Protocol; includes requirements related to climate change adaptation, and a new *Guide on Climate Change Adaptation for the Mining Sector*.

ALIGNMENT ANALYSIS



- 1 Some refinements to TSM that are now captured in the latest version of *A Guide to the Management of Tailings Facilities*.

MAC retained the Tailings Management Protocol (2019) but revised its 3 supporting documents, which are:

- Guide to the Management of Tailings Facilities (the Tailings Guide)
- Operation, Maintenance and Surveillance Manual (the OMS Guide)
- The Table of Conformance

ALIGNMENT ANALYSIS



- 2 MAC has approved a new TSM Climate Change Protocol; includes requirements related to climate change adaptation, and a new *Guide on Climate Change Adaptation for the Mining Sector*.

MAC believes this new protocol and guide will further improve TSM alignment with those requirements in the Standard that refer to the potential impacts of climate change.

TWG Action Items

- 1 Review and align COMP Tailings Guide, OMS Guide, and Table of Conformance with MAC's.
- 2 Review and Filipinize the (1) Climate Change Protocol and its supporting document, the (2) Guide on Climate Change Adaptation for the Mining Sector.

** NOTE: Adoption of the Climate Change Protocol will not only align COMP members with tailings facilities with the Global Tailings Standard but also, for nickel producers, with the Responsible Steel standard.*

TSM activities for 2021 *(con't)*



4) Tailings Management Protocol Review and Finalization by TWG

- *First meeting held June 17*
- *Recommendations made to the COI Panel*

Approved TWG Recommendations



- **Revisions to the Tailings Management Protocol:**
 - A minor revision was added to Performance Indicator #2: “Tailings Management System and Emergency Preparedness Measures” to include **“compliance with all applicable regulatory requirements and other compliance obligations”**; and
 - Verbatim adoption of the revised versions of this Protocol’s three reference guides.
- **The Adoption of the Filipinized Climate Change Protocol and its supporting Guide on Climate Change Adaptation for the Mining Sector**

TSM Assessment Protocols

Communities and People

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Environmental Stewardship

- 5 Tailings Management
- 6 Water Management
- 7 Biodiversity Conservation Management
- 8 Climate Change



TSM: BEYOND COMPLIANCE

*“...our reputation as an industry has suffered tremendously by the attacks that we’ve gone through in the fairly recent past... It will take some time and a concerted effort of the industry to prove that it operates responsibly and that communicates its accomplishments. **To my mind, that means not just mere compliance, but going beyond.**”*

*“Let us prove to all and sundry that this is a resilient industry that won’t go away, that we indeed operate responsibly and **go beyond mere compliance.**”*

Mr. GERARD H. BRIMO
Chairman
Chamber of Mines of the Philippines