LAPORAN TAHUNAN
ANNUAL REPORT
2023

LEMBAGA (PENYELIDIKAN DAN KEMAJUAN)
PERUSAHAAN TIMAH

TIN INDUSTRY
(RESEARCH AND DEVELOPMENT) BOARD

ISI KANDUNGAN

LEMBAGA (PENYELIDIKAN DAN KEMAJUAN) PERUSAHAAN TIMAH

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PERUTUSAN PENGERUSI

DATO' SERI MOHD AJIB ANUAR
PENGERUSI,
LEMBAGA (PENYELIDIKAN DAN KEMAJUAN)
PERUSAHAAN TIMAH

Bagi pihak Lembaga, saya amat berbesar hati membentangkan Laporan Tahunan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah bagi tahun kewangan berakhir 31 Disember 2023. Laporan Tahunan ini mengandungi ringkasan usaha-usaha yang dilaksanakan oleh Lembaga Timah dan pencapaiannya sepanjang tahun yang lalu dalam menggalakkan pembangunan di keseluruhan rantaian nilai dan bekalan industri timah Malaysia, sejajar dengan aspirasi Kerajaan bagi melihat sektor sumber mineral menyumbang sekurang-kurangnya 1% kepada Keluaran Dalam Negara Kasar (KDNK) negara seperti yang telah digariskan di dalam Pelan Transformasi Industri Mineral Negara (TIM) 2021-2030.

Laporan ini merangkumi maklumat berkaitan prestasi industri timah tempatan sepanjang tahun, seperti pengeluaran, penggunaan timah domestik serta perkembangan-perkembangan dalam industri ini.

Tahun 2023 merupakan tahun yang signifikan buat industri timah sama ada pada peringkat domestik dan global. Pelbagai peristiwa penting telah berlaku sepanjang tahun tersebut yang mana telah mengukuhkan lagi kedudukan penting logam timah sebagai bahan teknologi yang kritikal untuk masa depan, serta diperkuatkan oleh inisiatif peralihan tenaga, Revolusi Perindustrian Ke-4 (4IR), pelaksanaan komunikasi 5G dan lain-lain kemajuan teknologi.

Harga timah mengalami ketidaktentuan terutamanya pada separuh pertama tahun 2023 apabila ianya meningkat ke paras tertinggi sebanyak USD32,000 setan dan menurun sehingga mencecah paras serendah sebanyak USD22,000 setan. Ketidaktentuan harga timah ini telah berkurangan pada separuh kedua tahun tersebut. Agak ganjil adalah harga timah telah berakhir di penghujung tahun 2023 pada paras yang sama dengan harganya di awal tahun.

Kenaikan dan penurunan harga timah ini telah memberi impak yang ketara kepada para pengguna timah terutamanya pengeluar produk berasaskan timah, apabila mereka perlu berdepan dengan pasaran timah yang sukar diramal sekaligus menyulitkan urusan mereka dalam menetapkan harga produk-produk mereka pada kadar yang kompetitif serta menguntungkan.

Dari segi bekalan, kegiatan eksplorasi timah pada peringkat global terus dilakukan dengan giat di Republik Demokratik Congo, Namibia, Australia dan United Kingdom. Keadaan sebaliknya pula berlaku di peringkat tempatan, apabila kegiatan eksplorasi timah tidak menunjukkan sebarang kemajuan yang memberansangkan. Amatlah malang sekali apabila persekitaran pelaburan mineral kita masih lagi tidak mempunyai daya tarikan meskipun ternyata dari sudut geologi bahawa masih terdapat sumber timah yang ekonomik untuk diterokai. Pentingnya terdapat sumber bekalan timah yang terjamin di peringkat domestik kini terlihat dengan timbulnya sekatan terhadap perlombongan bijih timah di Wilayah Wa, Myanmar bermula Ogos 2023 yang mana secara tiba-tiba telah mencetus kenaikan mendadak terhadap harga timah global. Walaupun peningkatan harga timah akibat daripada sekatan ini hanya sebentar sahaja, namun kejadian sebegini sudah cukup untuk memberi isyarat jelas akan betapa pentingnya sektor huluan industri timah diperkasa bagi memastikan terdapatnya bekalan timah yang mencukupi untuk memenuhi permintaan dari pelbagai sektor ekonomi di negara kita yang bergantung kepada timah sebagai bahan mentah utama.

Tahun 2023 juga telah menyaksikan logam timah diklasifikasikan secara rasmi sebagai bahan kritikal oleh beberapa negara pengeluar timah seperti Indonesia dan Australia. Walaupun impak pengumuman ini masih belum ketara, namun ianya merupakan suatu tindakan perlu dan penting, terutamanya apabila dunia mula bergerak ke arah peralihan tenaga dan 4IR, yang akan membolehkan pengeluaran secara besar-besaran pada kos terendah melalui aplikasi teknologi automasi serta penggunaan tenaga yang bersih, cekap dan mesra alam. Sehubungan dengan itu, Kerajaan telah pun secara tepatnya menyenaraikan timah sebagai salah satu daripada lima mineral strategik negara di dalam TIM 2021-2030 yang akan menyumbang secara signifikan kepada ekonomi negara.

Pada awal penubuhan Lembaga Timah, Malaysia merupakan pengeluar terbesar timah dunia, dan objektif utamanya ketika itu adalah untuk meningkatkan penggunaan timah melalui kegiatan penyelidikan dan pembangunan (R&D), serta aktiviti seranta. Walau bagaimanapun, senario ini telah berubah dengan ketara sejak beberapa tahun kebelakangan ini dan Lem-

PERUTUSAN PENGERUSI

baga Timah perlu menyusun semula strateginya untuk kekal relevan dalam sumbangannya kepada negara. Ianya kini telah menyelaraskan semula keutamaannya ke arah membantu negara dalam menjana pendapatan dengan memanfaatkan kekayaan mineralnya, terutama sumber timah yang berpotensi besar yang masih wujud di negara ini berdasarkan maklumat geologi.

Sebagai sebahagian daripada penjajaran semula fokusnya ini, Lembaga Timah telah mengambil inisiatif untuk menganjurkan Persidangan "*Conference on the Development of Primary Tin Deposits in Malaysia*" (PTC 2023) pada bulan November 2023 bagi mengimbau kembali akan potensi perlombongan endapan timah primer di Malaysia. Dengan lebih daripada 200 orang peserta dari sektor awam, swasta dan akademia, Persidangan ini telah mencapai satu kejayaan besar dalam membangkitkan semula minat terhadap pembangunan industri timah pada peringkat huluan di Malaysia. Sebanyak lapan kertas teknikal telah dibentangkan termasuk dua oleh pakar industri timah dari Australia.

Selain daripada PTC 2023, Lembaga Timah telah memainkan peranan penting dalam menggalakkan dan memudahkan aktiviti penyelidikan berasaskan timah untuk memacu proses rekacipta dan inovasi yang seterusnya akan dapat meningkat dan menambah nilai kepada setiap segmen rantaian bekalan industri. Pada tahun 2023, Lembaga Timah telah meneruskan Program Geran Penyelidikan Lembaga Timah dengan menganugerahkan sebelas Geran Penyelidikan bernilai RM10,000 setiap satu kepada sebelas orang penyelidik terpilih, di mana sepuluh adalah daripada institusi pengajian tinggi tempatan manakala seorang adalah daripada sebuah pusat penyelidikan Kerajaan.

Walaupun Lembaga Timah kini memberi tumpuan yang lebih besar terhadap ekosistem industri huluan timah, ianya tidak mengabaikan para penggiat industri timah di peringkat hiliran. Lembaga Timah masih terus memberikan sokongan pentadbiran kepada Persatuan Pekilang Barangan Keluaran Timah Malaysia (MTPMA), sebuah persatuan yang terdiri daripada para pengeluar tempatan yang menghasilkan barangan berasaskan timah seperti pateri, plat timah dan piuter. Selain daripada sokongan pentadbiran tersebut, Lembaga Timah juga telah memainkan peranannya dalam menerbit dan menyebarkan maklumat berkaitan pengeluaran, ciri-ciri dan perbekalan timah, melalui penerbitan Majalah Persatuan yang diterbitkan empat kali setahun. Majalah tersebut memberikan maklumat terkini tentang perkembangan industri timah tempatan serta menjadi platform kepada syarikat pembuatan barangan berasaskan timah untuk mempromosikan produk-produk mereka.

Melangkah ke hadapan, Lembaga Timah optimis dan yakin bahawa timah akan kekal sebagai satu logam teknologi yang penting dan kritikal bagi masa depan. Ini terbukti dengan terdapatnya unjuran peningkatan permintaan bagi logam timah, terutamanya dalam sektor peralihan tenaga ke arah penggunaan elektrik sebagai sumber tenaga untuk menggantikan enjin pembakaran dalaman. Kami juga yakin bahawa perkembangan pesat dalam teknologi komunikasi, automasi, serta 4IR juga akan memacu permintaan terhadap logam ini.

Lembaga Timah tetap komited dalam misinya untuk membangunkan sumber timah Malaysia secara bertanggungjawab dan mampan bagi membantu negara menjana sumber pendapatan tambahan demi untuk meningkatkan ekonomi negara. Lembaga Timah juga komited untuk mencapai matlamat kemajuan negara, melalui pembangunan mampan serta memenuhi piawaian dalam kerangka Alam Sekitar, Sosial dan Tadbir Urus (ESG). Kami berazam untuk mengukuhkan usaha-usaha kami bagi mengekalkan momentum ini, serta meluaskan jangkauan rangkaian kami kepada para penggiat industri berkaitan dalam usaha memperkasa dan menambah nilai kepada keseluruhan rantaian bekalan.

Sebahagian besar daripada anda mungkin sedia maklum bahawa Kerajaan sedang dalam proses menubuhkan Lembaga Pembangunan Industri Mineral melalui penstrukturan semula Lembaga Timah untuk meliputi mineral-mineral komoditi yang lain. Proses ini masih lagi berjalan tetapi perkembangannya agak perlahan disebabkan wujudnya cabaran-cabaran dari sudut birokrasi. Namun begitu, transformasi Lembaga Timah kepada Lembaga Mineral haruslah dilihat sebagai satu langkah positif yang akan memberi manfaat besar kepada negara dalam jangka masa panjang.

Saya ingin mengakhiri perutusan ini dengan merakamkan penghargaan kepada semua anggota Lembaga atas sokongan yang diberikan kepada saya selaku Pengerusi Lembaga Timah sepanjang tahun 2023. Dalam menjalankan tugas dan fungsi kami, kita telah menerima kerjasama dan bantuan daripada Kementerian Sumber Asli dan Kelestarian Alam (NRES), Jabatan Mineral dan Geosains (JMG), Dewan Perlombongan Malaysia (MCOM) dan badan-badan profesional seperti Institut Kejuruteraan Malaysia (IEM), Institut Geologi Malaysia (IGM), Lembaga Ahli Geologi Malaysia (LAGM), Institut Kejuruteraan Mineral Malaysia (IMEM) dan lain-lain di mana ingin kami rakamkan setinggi-tinggi penghargaan. Saya juga ingin mengucapkan setinggi-tinggi penghargaan kepada Setiausaha Lembaga Timah, Tuan Hj. Muhamad Nor Muhamad dan kakitangan Urusetia. Tanpa kerja keras dan dedikasi mereka, pelaksanaan agenda Lembaga Timah dan penghasilan Laporan Tahunan ini tidak mungkin tercapai.

Salam Malaysia Madani

Dato' Seri Mohd Ajib Anuar
Pengerus

KEANGGOTAAN LEMBAGA TIMAH

ANGGOTA-ANGGOTA WAKIL

(Dicalonkan oleh Dewan Perlombongan Malaysia)

Dato' Seri Mohd Ajib Anuar, SSAP, DIMP - **Pengerusi**
Dato' Sri Hj. Ahmad Omar, SSAP, DIMP
Dato' Dr Ir Patrick Yong Mian Thong, DIMP
[Anggota Ganti: P. Geol. Madzlan Zam]
Hj. Johaizal Dato' Musa

(Dicalonkan oleh Persatuan Lombong-Lombong Cina Se-Tanah Melayu)
Dato' Chin Lean Choong, DPMP, JP
Ir Steve Zhen Xiong Loh

ANGGOTA-ANGGOTA RASMI

(Dicalonkan oleh Yang Berhormat Menteri Sumber Asli, Alam Sekitar dan Perubahan Iklim (NRECC)

Muhammad Rosli Muhammad Jaafar *(sehingga 16 Julai 2023)*
Timbalan Setiausaha, Bahagian Mineral dan Geosains, NRECC

Hj. Hisamuddin Termidi *(sehingga 30 Mac 2023)*
Ketua Pengarah, Jabatan Mineral dan Geosains Malaysia (JMG)
[Anggota Ganti: Datuk P.Geol. Zamri Ramli
Timbalan Ketua Pengarah (Korporat dan Ekonomi Mineral), JMG]

Dr Nazwin Ahmad
Pengarah, Pusat Penyelidikan Mineral (PPM), JMG
[Anggota Ganti: Dr Ismail Ibrahim
Pegawai Penyelidik Kanan, PPM, JMG]

SETIAUSAHA

Hj. Muhamad Nor Muhamad, JSM

KEAHLIAN JAWATANKUASA

JAWATANKUASA PENGURUSAN SERANTA

Dato' Seri Mohd Ajib Anuar, SSAP, DIMP - **Pengerusi**
Dato' Sri Hj. Ahmad Omar, SSAP, DIMP
Dato' Dr Ir Patrick Yong Mian Thong, DIMP
[Ahli Ganti: P. Geol. Madzlan Zam]
Dato' Chin Lean Choong, DPMP, JP
Ir Steve Zhen Xiong Loh
Hj. Johaizal Dato' Musa

JAWATANKUASA AUDIT

Muhammad Rosli Muhammad Jaafar *(sehingga 16 Julai 2023)* - **Pengerusi**
Dato' Sri Hj. Ahmad Omar, SSAP, DIMP
Dato' Chin Lean Choong, DPMP, JP
Hj. Muhamad Nor Muhamad, JSM
Emil Nuruddin Che Jamaludin Mahmud - Setiausaha

ANGGOTA-ANGGOTA WAKIL

DATO' SERI MOHD AJIB ANUAR
Pengerusi
Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah

DATO' SRI HJ. AHMAD OMAR

DATO' CHIN LEAN CHOONG

DATO' DR IR PATRICK YONG MIAN THONG

HJ JOHAIZAL DATO' HJ MUSA

IR STEVE ZHEN XIONG LOH

ANGGOTA-ANGGOTA RASMI

MUHAMMAD ROSLI MUHAMMAD JAAFAR
(sehingga 16 Julai 2023)

HJ HISAMUDDIN TERMIDI
(sehingga 30 Mac 2023)

DR NAZWIN AHMAD

ANGGOTA-ANGGOTA GANTI

P.GEOL. MADZLAN ZAM

DATUK P. GEOL. ZAMRI RAMLI

DR ISMAIL IBRAHIM

SETIAUSAHA

HJ MUHAMAD NOR MUHAMAD

CARTA ORGANISASI

URUSETIA

Lembaga Timah tidak mempunyai kakitangannya tersendiri. Segala urusan keurusetiaan, pentadbiran dan pengkeraniannya dikendalikan oleh kakitangan Dewan Perlombongan Malaysia (MCOM) di bawah dasar perkongsian kos bersama. Urusetia juga mengendalikan pentadbiran Persatuan Pekilang Barangan Keluaran Timah Malaysia (MTPMA), sebuah organisasi yang ditubuhkan oleh Lembaga Timah sebagai menyokong fungsinya dalam memajukan kepentingan dan pembangunan sektor perkilangan hiliran timah. Kakitangan Urusetia terdiri daripada lapan pegawai kanan dan dua kakitangan sokongan pentadbiran termasuk seorang Perunding Teknikal.

ALAMAT URUSETIA

Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah
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PENUBUHAN

Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah (Lembaga Timah) telah ditubuh di bawah Seksyen 4, Ordinan Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah, No. 58 tahun 1953, dan telah beroperasi semenjak tahun 1954. Pada bulan Mac 1991, Ordinan tersebut telah dipinda dan diwarta sebagai perundangan terpinda yang dinamakan Akta Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah No.455 tahun 1953.

Akta ini memperuntukkan bagi kutipan ses ke atas timah yang dieksport dari Malaysia. Ianya juga memperuntukkan penubuhan satu Kumpulan Wang di mana segala kutipan wang sebagai ses hendaklah dimasukkan ke dalamnya. Akta ini juga menubuhkan satu Lembaga Timah bagi mentadbir dan mengurus Kumpulan Wang tersebut untuk tujuan membiayai aktiviti-aktiviti penyelidikan, pembangunan, seranta dan lain-lain bagi manfaat industri timah Malaysia. Mulai Julai 2013, kutipan ses timah telah ditetapkan pada kadar 40 sen sekilogram ke atas bijih timah yang dieksport.

Akta ini juga menubuhkan satu Lembaga Timah bagi ***mentadbir dan mengurus Kumpulan Wang tersebut untuk tujuan membiayai aktiviti-aktiviti penyelidikan, pembangunan, seranta dan lain-lain*** *bagi manfaat industri timah Malaysia.*

OBJEKTIF

1. Untuk membantu membangunkan industri timah yang mampan dan bersepadu sepenuhnya dengan menggalak serta memudahkan pertumbuhan dan pelaburan dalam keseluruhan ekosistem industri timah, termasuk sektor huluan, pertengahan dan hiliran serta rantaian bekalannya.

2. Untuk menjalan dan memudahcarakan aktiviti-aktiviti R&D yang boleh memberi manfaat kepada industri timah di Malaysia.

3. Untuk merangsang, mempopular dan memperluaskan penggunaan timah di dalam industri pembuatan barangan berasaskan timah berdasarkan kelebihan tekno-ekonomi logam tersebut, bagi memberi manfaat kepada kepentingan industri timah di Malaysia.

4. Untuk menghebah dan menyebarkan maklumat mengenai pengeluaran, ciri-ciri, kesediaadaan dan kegunaan timah dalam kehidupan seharian.

5. Untuk menjalankan aktiviti-aktiviti lain yang berkaitan dan bermanfaat kepada industri timah serta pemegang taruhnya.

FUNGSI

1

Merancang dan menggubal strategi-strategi yang wajar bagi pembangunan industri timah tempatan.

2

Merancang dan menggubal dasar-dasar penyelidikan, pembangunan dan seranta yang bersepadu untuk memajukan industri timah tempatan.

3

Memberi bantuan khidmat tekno-ekonomi serta menggalakkan pemindahan teknologi kepada industri timah tempatan.

4

Mewujud dan membangunkan industri pembuatan berasaskan timah dalam pembangunan bersepadu industri timah tempatan.

5

Menganjur aktiviti-aktiviti sokongan lain yang boleh mempertingkat-kan lagi pembangunan serta imej pro-aktif industri timah.

PIAGAM PELANGGAN

1. Memberikan khidmat nasihat pakar mengenai keseluruhan spektrum industri timah.

2. Memperkukuhkan lagi hubungan rapat di antara industri perlombongan dengan Kerajaan.

3. Menggalak dan meningkatkan pembangunan industri pembuatan barangan berasaskan timah di Malaysia.

4. Memberikan perkhidmatan mesra serta maklumat yang jitu dan terkini kepada para pelawat tempatan dan asing.

5. Menyebarkan maklumat tepat mengenai perkembangan semasa industri timah melalui penerbitan-penerbitan yang sahih dan terkini.

6. Menguruskan dengan cekap Kumpulan Wang yang mengandungi kutipan ses untuk memastikan ianya digunakan dengan berkesan bagi pembangunan industri timah Malaysia.

7. Memastikan semua aktiviti-aktiviti seranta, penyelidikan dan pembangunan (R&D) menepati keperluan dan kehendak semasa serta masa depan industri timah dan negara.

AKTIVITI SERANTA & PERHUBUNGAN AWAM

Kesemua aktiviti seranta dan perhubungan awam Lembaga Timah diselia dan diawasi oleh Jawatankuasa Pengurusan Seranta (JPS). Jawatankuasa ini ditubuhkan mengikut Seksyen 6(1) Akta Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah 1953. Ahli-ahli JPS terdiri daripada kesemua enam Anggota Wakil Lembaga, termasuk Pengerusinya, YBhg. Dato' Seri Mohd Ajib Anuar, yang juga adalah Pengerusi Lembaga Timah.

JPS telah bermesyuarat sebanyak lima kali sepanjang tahun 2023, serentak dengan mesyuarat Lembaga, iaitu pada bulan Januari, Mac, Julai, September dan November. Kesemua mesyuarat tersebut diadakan secara hibrid dengan kehadiran beberapa Anggota Lembaga secara fizikal di Bilik Persidangan Urusetia dan selebihnya secara maya. Semua aktiviti seranta dan program yang dijalankan sepanjang tahun telah dilaporkan semasa mesyuarat JPS di mana ianya dibincang dan diluluskan.

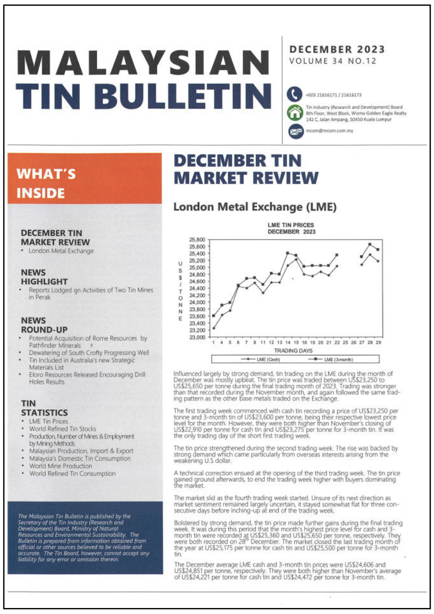
Aktiviti-aktiviti perhubungan awam utama serta program seranta yang telah dilaksanakan pada tahun 2023 adalah seperti berikut:

- Penerbitan;
- Penerimaan pelawat;
- Penganjuran dan penyertaan di dalam persidangan, forum, bengkel dan dialog;
- Khidmat pinjaman; dan
- Khidmat nasihat.

PENERBITAN

Selaras dengan salah satu objektifnya iaitu untuk menghebah dan menyebarkan maklumat mengenai pengeluaran, ciri-ciri dan ketersediaan timah, Lembaga telah menghasilkan tiga penerbitan utama secara berkala, iaitu *Malaysian Tin Bulletin, Malaysian Press Cuttings* dan *Malaysian Tin Products Newsletter* sepanjang tahun 2023. Penerbitan ini disiap sedia dan dihasilkan sendiri oleh kakitangan Urusetia sebelum diedar kepada para penggiat industri, kalangan pertubuhan perlombongan berkaitan serta orang awam secara percuma.

AKTIVITI SERANTA & PERHUBUNGAN AWAM



Malaysian Tin Bulletin
(Buletin Timah Malaysia)

Buletin Timah Malaysia (MTB) merupakan penerbitan media seranta dan perhubungan awam utama Lembaga. Ia diterbitkan di dalam Bahasa Inggeris pada setiap bulan dan diedarkan di dalam dan luar negara. Buletin ini berperanan sebagai sumber maklumat dan rujukan penting berkaitan industri timah serta perkembangannya. Setiap terbitan MTB merangkumi liputan mengenai pasaran timah, data perbekalan dan permintaan, serta berita-berita terkini terhadap unjuran, prospek dan arah aliran industri timah tempatan, serantau dan antarabangsa. Ianya merupakan saluran penting bagi penyebaran maklumat relevan berkaitan industri timah. MTB diterbitkan dalam format digital dan cetakan dengan jumlah edaran sebanyak 1,000 naskah setiap terbitan. Versi digital MTB juga boleh didapati dalam talian dan boleh dimuat turun dari laman web Lembaga.


LEMBAGA (PENYELIDIKAN DAN KEMAJUAN) PERUSAHAAN TIMAH
THE TIN INDUSTRY (RESEARCH AND DEVELOPMENT) BOARD
(KEMENTERIAN SUMBER ASLI, ALAM SEKITAR DAN PERUBAHAN IKLIM)

MALAYSIAN PRESS CUTTINGS
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THE STAR 9/5/2023

Sustainable mining policy in the works

THE STAR 9/5/2023

Malaysian Press Cuttings
(Keratan Akhbar Malaysia)

Keratan Akhbar Malaysia (MPC) merupakan satu lagi media penting bagi penyebaran berita dan maklumat terkini mengenai industri ini. Ia mengandungi koleksi keratan artikel-artikel dari akhbar-akhbar dan lain-lain media cetak yang diterbitkan semula serta diedarkan secara berkala kepada mereka di dalam industri dan lain-lain yang mungkin akan dapat manfaat daripada liputan berita-berita tersebut. Sebanyak 100 naskah diedarkan kepada pihak yang berminat setiap terbitan.

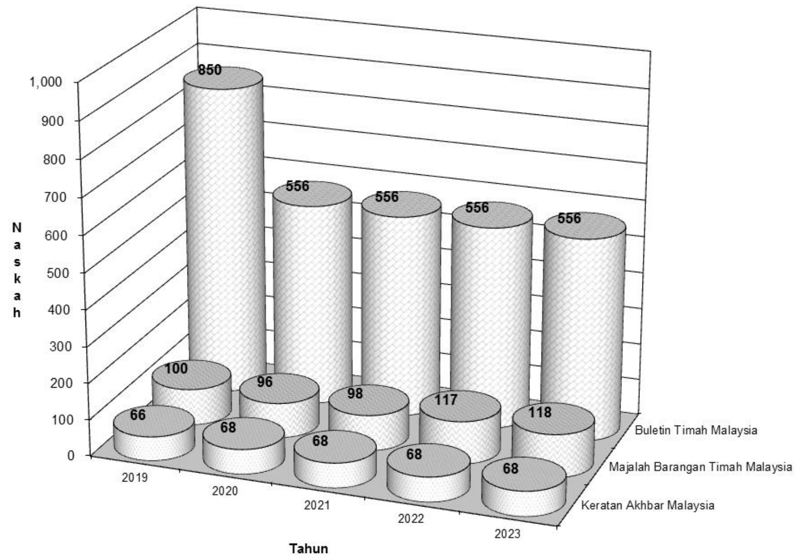
Malaysian Tin Products Newsletter
(Majalah Barangan Timah Malaysia)

Majalah Barangan Timah Malaysia berfungsi sebagai penerbitan rasmi Persatuan Pekilang Barangan Keluaran Timah Malaysia (MTPMA), sebuah persatuan industri yang diurus tadbir oleh Urusetia Lembaga Timah. Ianya diterbitkan pada tiap-tiap suku tahun dan setiap terbitan mengandungi maklumat terkini mengenai aktiviti-aktiviti Persatuan dan ahli-ahlinya, data dan perangkaan berkaitan industri hiliran pembuatan barangan berasaskan timah serta berita-berita berkaitan, di peringkat tempatan dan antarabangsa. Majalah ini diterbitkan dalam format digital dan cetakan dengan sebanyak 250 naskah diedarkan setiap terbitan. Versi digital Majalah ini juga boleh didapati dalam talian dan boleh dimuat turun dari laman web Lembaga.

AKTIVITI SERANTA & PERHUBUNGAN AWAM

Carta 1: Aliran Pengedaran Penerbitan-Penerbitan Lembaga Timah (2019-2023)

Carta 1 ini menunjukkan aliran edaran ketiga-tiga penerbitan utama Lembaga Timah sepanjang tahun 2019 hingga 2023.



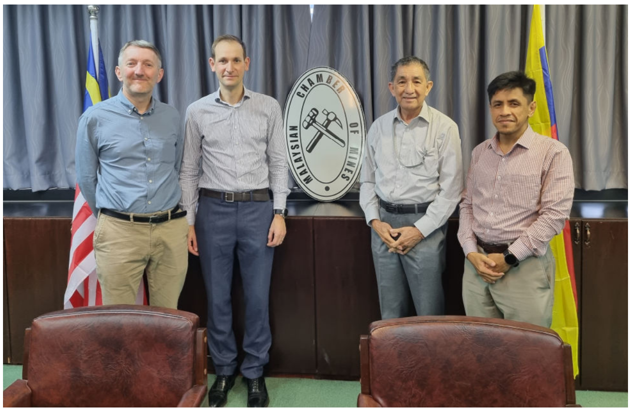
PENERIMAAN PELAWAT

Sepanjang tahun laporan, Urusetia telah menerima kunjungan pelawat-pelawat tempatan dan dari luar negara yang datang dengan tujuan untuk memperoleh maklumat berkenaan potensi sumber mineral negara, aktiviti-aktiviti penerokaan dan perlombongan, perundangan dan peraturan, peluang-peluang pelaburan, sumber-sumber dan rizab-rizab mineral, pekerjaan, data perangkaan yang berkaitan serta maklumat terkini mengenai hal-hal dan isu-isu berkaitan pembangunan industri. Kakitangan Urusetia akan memberi mereka maklumat dan input yang diperlukan serta naskah-naskah penerbitan Lembaga Timah.

Urusetia juga menerima pelbagai pertanyaan dan soalan yang diajukan melalui panggilan telefon, faks, surat, e-mel dan menerusi laman sesawang https://www.lpt.gov.my/ dan malaysianminerals.com. Pertanyaan-pertanyaan tersebut lazimnya datang daripada pihak-pihak yang berminat di dalam industri mineral termasuklah pihak-pihak berkepentingan, agensi-agensi kerajaan, media serta orang awam.

Jumlah pelawat yang berkunjung ke Urusetia pada tahun 2023 menurun sedikit berbanding tahun sebelumnya. Antara pelawat-pelawat yang mengunjungi Urusetia adalah wakil-wakil daripada pertubuhan antarabangsa seperti *British Geological Survey*, institusi pengajian tinggi seperti Universiti Pengurusan dan Teknologi Tunku Abdul Rahman (TAR UMT) serta syarikat-syarikat swasta yang memohon maklumat mengenai industri sumber mineral Malaysia serta meneroka potensi untuk mewujudkan kerjasama dalam bidang perlombongan. Terdapat juga lawatan delegasi dari *Chengdu Centre-China Geological Survey (CDCGS)/ China-ASEAN Geosciences Cooperation Centre (CAGCC)* untuk mengukuhkan kerjasama dalam bidang geosains antara China dan Malaysia serta bagi membincangkan kemungkinan penubuhan *ASEAN-China Geoscience Information Big Data Platform.*

AKTIVITI SERANTA & PERHUBUNGAN AWAM



< Bersama pelawat dari British Geological Survey

^ Bersama pelawat dari CD-CGS/ CAGCC

PENGANJURAN DAN PENYERTAAN DALAM PERSIDANGAN, FORUM, BENGKEL DAN DIALOG

Pada tahun 2023, Lembaga Timah terus bergiat secara aktif melalui penganjuran serta penyertaan di dalam pelbagai persidangan, bengkel, forum, seminar, dialog dan mesyuarat bagi memenuhi pelbagai peranannya termasuk merancang dan merangka strategi-strategi yang sesuai untuk pembangunan industri timah tempatan, serta menganjurkan aktiviti-aktiviti sokongan lain yang boleh meningkatkan lagi pembangunan dan imej pro-aktif industri timah.

Anggota-anggota Lembaga dan kakitangan Urusetia telah memberikan sokongan yang padu serta turut terlibat di dalam beberapa acara yang telah dianjurkan bersama dengan agensi-agensi Kerajaan yang berkaitan seperti Kementerian Sumber Asli, Alam Sekitar dan Perubahan Iklim (NRECC) dan kemudiannya Kementerian Sumber Asli dan Kelestarian Alam (NRES), Jabatan Mineral dan Geosains (JMG) dan pertubuhan-pertubuhan industri seperti Dewan Perlombongan Malaysia (MCOM), serta pelbagai universiti dan institusi pengajian tinggi yang bermatlamat untuk meningkatkan lagi pembangunan timah dan sumber mineral lain di Malaysia.

Acara utama Lembaga pada tahun 2023 ialah Persidangan selama satu hari bertajuk "*The Development of Primary Tin Deposits in Malaysia*" yang berlangsung pada 16 November 2023 di Sunway Putra Hotel, Kuala Lumpur. Lembaga telah menganjurkan Persidangan ini bersama MCOM, dengan kerjasama NRECC dan JMG, serta disokong oleh Institut Geologi Malaysia (IGM), Persatuan Geologi Malaysia (GSM), Persatuan Pengeluar Produk Barangan Timah Malaysia (MTPMA) dan Lembaga Geologi Malaysia (BOG).

AKTIVITI SERANTA & PERHUBUNGAN AWAM

Bertemakan *"Revisiting Malaysia's Potential for Mining of Primary Tin Deposits"*, Persidangan tersebut telah dianjurkan dengan objektif utamanya untuk membangkitkan semula minat bagi membangunkan sumber mineral timah yang berpotensi besar di negara ini.

Persidangan ini telah dirasmikan oleh Ketua Pengarah JMG, YBhg. Datuk P.Geol. Hj. Zamri Ramli bersama Tuan Hj. Shamsul Shahril Badliza Mohd Noor, Setiausaha Bahagian Mineral dan Geosains (BMG) NRECC yang hadir sebagai tetamu kehormat. Persidangan itu telah menarik kira-kira 204 orang peserta daripada sektor awam dan swasta, termasuk agensi-agensi kerajaan yang berkaitan, syarikat-syarikat perlombongan, universiti-universiti dan komuniti perlombongan berkaitan. Selain daripada Ucapan Alu-aluan oleh Pengerusi Lembaga Timah dan Ucapan Perasmian oleh Ketua Pengarah JMG, aturcaranya melibatkan pembentangan lapan kertas teknikal oleh pakar-pakar dalam bidang penerokaan dan perlombongan endapan timah primer dan pemprosesan bijih timah. Persidangan ini diakhiri dengan Perbincangan Panel mengenai *"Revitalising the Primary Tin Mining Industry in Malaysia - Issues and Challenges"*.

Aturcara Primary Tin Conference (PTC) 2023

THURSDAY
16 NOVEMBER 2023

Time	Event	Speaker(s)
08:00	Conference Registration *(Level 9, Ballroom 2)*	
09:00	Welcome Remarks	YBhg Dato' Seri Mohd Ajib Anuar Chairman, Tin Industry (Research and Development) Board President, Malaysian Chamber of Mines
09:30	Speech & Opening Ceremony	YBhg Datuk P.Geol. Zamri Ramli Director General, Department of Mineral and Geoscience Malaysia
10:00	Refreshment Break | Networking *(Foyer)*	
Session Chairperson: P.Geol. Teoh Lay Hock		
10:30	Exploration strategies for primary tin deposits in Peninsular Malaysia.	P.Geol. Dr Teh Guan Hoe Industry Consultant, Malaysia
11:00	Sungai Lembing: Can we find another one?	Dato' P.Geol. Sia Hok Kiang Malaco Mining Sdn Bhd, Malaysia
11.30	Economic primary tin deposits, how to look for one: Our experience at RHT.	P.Geol. Madzlan Zam Rahman Hydraulic Tin Sdn Bhd, Malaysia
12:00	Revitalising Blue Tier Tinfield in Tasmania, Australia: A case study and its implications.	Dr Joe Xie Jianjiao Yunnan Tin Australia
12:30	Networking Lunch *(Level 9, Coffee House)*	
Session Chairperson: P.Geol. Teoh Lay Hock		
14:00	Recent advances in metallurgical assessment of tin ores.	Dr Shengli Zhao ALS Metallurgy Australia
14:30	Application of induced polarised and resistivity methods to investigate the extension of primary tin deposits in the Sungai Lembing Tin Mine, Kuantan, Pahang, Malaysia.	P.Geol. Dr Mohd Rozi Umor Department of Earth Sciences and Environment Faculty of Science and Technology Universiti Kebangsaan Malaysia
15:00	In search of primary tin deposits: The discovery of greisen tin in Karangan, Kulim, Kedah.	P.Geol. Fakhruddin Afif Fauzi Kedah/Perlis/Pulau Pinang State Office Department of Mineral and Geoscience Malaysia
15:30	Enhancing tin grade by removing siderite from primary tin ore.	Mr Costantine Joannes Mineral Research Centre Department of Mineral and Geoscience Malaysia
16:00	Refreshment Break | Networking *(Foyer)*	
16:30	Panel Discussion: "Revitalising the Primary Tin Mining Industry in Malaysia - Issues and Challenges"	Moderator: Assoc Prof. Ir Dr Syed Fuad Saiyid Hashim Panelists: Tuan Hj Kamaruddan Abdullah Dato' P.Geol. Sia Hok Kiang Dr Joe Xie Jianjiao P.Geol. Dr Teh Guan Hoe
17:30	Closing of Conference	

AKTIVITI SERANTA & PERHUBUNGAN AWAM

^ *Di Persidangan Development of Primary Tin Deposits in Malaysia atau Primary Tin Conference (PTC) 2023*

AKTIVITI SERANTA & PERHUBUNGAN AWAM

Sepanjang tahun 2023, anggota-anggota Lembaga Timah dan kakitangan Urusetia telah menyertai pelbagai forum, seminar dan bengkel yang dianjurkan oleh agensi-agensi berkaitan mengenai perkara-perkara dan isu-isu bersangkutan dengan pembangunan timah dan industri sumber mineral secara amnya. Kebanyakan daripada acara-acara ini telah dianjurkan oleh agensi Kerajaan Persekutuan dan Negeri yang berkaitan seperti NRECC atau JMG, dan organisasi-organisasi profesional seperti IGM dan GSM.

Salah satu acara tersebut ialah sesi libat urus penggubalan Dasar Mineral Negara Ke-3 2024 (DMN3) yang dianjurkan oleh NRECC dari 8 hingga 10 Ogos 2023 di Bangi Golf Resort, Bangi, Selangor. Sesi libat urus ini dianjurkan bagi membolehkan Kementerian mengumpul input dan maklum balas daripada pihak berkepentingan berkaitan dalam merangka DMN3 sebelum dasar itu dibentangkan kepada Kabinet, serta untuk memastikan dasar itu mematuhi dasar-dasar Kerajaan lain yang berada di bawah pelbagai kementerian seperti Rancangan Malaysia ke-12 (RMK-12) dan Pelan Induk Perindustrian Baharu (NIMP) 2030. Draf Dasar Mineral Negara ke-3 mengandungi lima komponen, 26 strategi dan 74 inisiatif.

Semasa sesi libat urus ini, para peserta telah dijemput untuk memberikan input dan maklum balas mengenai draf dasar tersebut. Antara isu yang dibangkitkan termasuklah kebimbangan mengenai kemusnahan kawasan hutan akibat aktiviti perlombongan dan kesannya terhadap Hutan Simpan Kekal (HSK) dan Kawasan Sensitif Alam Sekitar (KSAS), dan kebimbangan berkaitan pemulihan dan pemeliharaan kawasan perlombongan pasca aktiviti perlombongan .

^ Di Sesi Libat Urus Draf DMN3

Satu lagi acara anjuran NRECC yang disertai Lembaga Timah ialah Permukiman Pengurusan NRECC 2023, yang telah diadakan dari 5 hingga 8 Julai 2023 di Hotel Hatten, Melaka. Tujuan utama permukiman pengurusan ini diadakan adalah untuk memberi peluang kepada agensi dan jabatan di bawah Kementerian untuk mencadangkan sumber berpotensi yang boleh menjana pendapatan atau hasil tambahan kepada Kerajaan selain daripada sumber-sumber tradisional.

Acara-acara lain yang turut disertai Lembaga Timah pada tahun Laporan ialah Majlis Dialog Belanjawan 2023 yang berlangsung pada 17 Januari 2023 dan Majlis Libat Urus Belanjawan 2024 yang berlangsung pada 14 Julai 2023, kedua-duanya dianjurkan oleh Kementerian Kewangan, serta Program Naratif Ekonomi Madani dan Dialog Belanjawan 2024 yang telah dianjurkan oleh NRECC pada 13 September 2023. Di acara yang kedua itu, YB Menteri NRECC telah menjelaskan peranan NRECC dalam Naratif Ekonomi Madani yang telah diterima pakai oleh Kerajaan perpaduan yang baharu.

^ Di Majlis Libat Urus Belanjawan 2024

AKTIVITI SERANTA & PERHUBUNGAN AWAM

KHIDMAT PINJAMAN

Khidmat pinjaman merupakan aktiviti seranta dan perhubungan awam yang penting yang dilaksanakan oleh Lembaga Timah. Sepanjang tahun laporan, Lembaga Timah telah memberikan khidmat pinjaman dalam bentuk koleksi buku, filem, slaid, video dan cakera padatnya yang berkaitan dengan industri timah kepada pelbagai syarikat perlombongan, Kementerian dan agensi Kerajaan, universiti, sekolah, wartawan, penerbit, pegawai bank dan penganalisa pelaburan. Koleksi gambar-gambar dan pelbagai penerbitannya serta bahan-bahan berkaitan industri perlombongan timah termasuk buku-buku di perpustakaannya juga turut dipinjamkan kepada mereka yang memerlukan bahan-bahan tersebut untuk tujuan-tujuan khusus, seperti penyediaan pembentangan untuk persidangan, seminar, pameran dan sebagainya. Turut disediakan untuk pinjaman ialah sebuah model kapal korek dan diorama lombong pam kelikir untuk tujuan pameran dan sebagainya.

KHIDMAT NASIHAT

Urusetia telah menerima pelbagai pertanyaan khusus sepanjang tahun laporan dalam bentuk panggilan telefon dan emel untuk mendapatkan nasihat dan bantuan mengenai perkara-perkara berkaitan industri sumber mineral di Malaysia. Pertanyaan-pertanyaan tersebut telah diberikan layanan yang sewajarnya oleh kakitangan Urusetia dengan memberikan maklumat dan nasihat serta panduan yang bersesuaian. Untuk pertanyaan yang memerlukan maklumat dan nasihat lanjut, mereka akan dirujuk kepada agensi Kerajaan yang sesuai, seperti NRES dan JMG.

Lain-lain khidmat nasihat yang diberikan oleh kakitangan Urusetia sepanjang tahun laporan meliputi perkara-perkara berkaitan peluang pelaburan perlombongan, urusniaga mineral, hubungan dan jalinan industri, usahasama R&D, modal insan dan lain-lain yang berkaitan dengan industri timah.

Jadual 1 berikut menunjukkan pecahan aktiviti seranta dan perhubungan awam utama, selain daripada penerbitan, yang telah dilaksanakan oleh Lembaga sepanjang lima tahun yang lalu.

Jadual 1: Pecahan Aktiviti-aktiviti Seranta / Perhubungan Awam Utama Lembaga Timah

	2019	2020	2021	2022	2023
Penerimaan Pelawat	49	20	10	20	26
Persidangan/ Forum, dan lain-lain	16	12	18	18	15
Khidmat Pinjaman	19	15	12	14	12
Khidmat Nasihat	20	11	8	13	9

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

Pada tahun 2023, dana penyelidikan, kemajuan dan lain-lain tujuan am telah digunakan untuk menyokong dua aktiviti utama, iaitu, pemberian geran untuk menyokong projek penyelidikan dan pembangunan (R&D) berkaitan timah yang dijalankan oleh penyelidik-penyelidik di universiti tempatan dan menaja penganjuran Persidangan'*Conference on the Development of Primary Tin Deposits in Malaysia*'.

GERAN PENYELIDIKAN LEMBAGA TIMAH 2023

Walaupun tidak mempunyai kemudahan R&D sendiri, Lembaga Timah tetap berperanan dalam membantu R&D dengan menyalurkan geran sebagai satu bentuk suntikan kewangan kepada kegiatan penyelidikan yang relevan yang boleh memberi manfaat kepada industri timah di Malaysia.

Pada tahun 2023, Urusetia telah menerima sebanyak 108 permohonan Geran Penyelidikan Lembaga Timah 2023 daripada 13 universiti awam dan swasta tempatan serta pusat penyelidikan Kerajaan. Daripada permohonan-permohonan ini, Jawatankuasa Dalaman Geran Penyelidikan Lembaga Timah telah menyenarai pendek 23 permohonan sebelum dinilai oleh penilai bebas luar yang menjalankan semakan teknikal secara teliti dan telah memilih 11 permohonan yang layak menerima Geran Penyelidikan Lembaga Timah 2023. Setiap penyelidik ini telah dianugerahkan geran bernilai RM10,000 untuk membantu dalam pembiayaan perbelanjaan yang berkaitan secara langsung dengan penyelidikan mereka.

Daripada jumlah penerima geran tersebut, tiga orang adalah dari Universiti Malaya (UM), manakala Universiti Sains Malaysia (USM) dan Universiti Kebangsaan Malaysia (UKM) masing-masing mempunyai dua orang penerima geran, manakala Universiti Islam Antarabangsa Malaysia (UIAM), Universiti Malaysia Perlis (UniMAP), Universiti Malaysia Kelantan (UMK) dan Pusat Penyelidikan Mineral (PPM) masing-masing mempunyai seorang penerima geran. Topik-topik penyelidikan yang terpilih pula mencakupi pelbagai bidang yang meluas dan pelbagai. Walaupun kebanyakannya masih berkaitan dengan penggunaan timah, senarai anugerah 2023 turut merangkumi beberapa projek penyelidikan di dalam sektor huluan seperti penerokaan timah, pemulihan lombong timah dan penambahbaikan dalam pemerolehan timah daripada proses pengekstrakan bijih timah.

Penerima-penerima Geran Penyelidikan Lembaga Timah 2023

Penyelidik	Institusi	Topik Penyelidikan
Dr Shafie Kamaruddin	IIUM	*Development of an Automated Solder Joint Defect Detection System*
Ts. Dr Rohaya Abdul Malek	UniMAP	*New Advanced Mg-Sn-Mn Alloy as Three-Dimensional (3D) Printing Biomaterial Filament for Medical Impact*
Muhamad Irman Khalif Ahmad Aminuddin	USM	*Cassiterite Geochemistry of the Hulu Perak Tin Deposit: Implication for Ore-Forming Processes and Mineral Exploration*
Dr Ang Wei Lun	UKM	*High Performance Sno2-Graphene Electrodes for Electrochemical Oxidation Treatment of Palm Oil Mill Effluent and Wastewater Reclamation*
Assoc. Prof. Dr Kumara Thevan A/L Krishnan	UMK	*Carbon Sequestration Potential of Bamboo Planting in Tin Mine Rehabilitation Projects: A Survey of Existing Practices and Perceptions*
Assoc. Prof. Dr Faiz Bukhari Mohd Suah	USM	*Recovery of Tin from Tin Mine Tailings Water by Using a Polymer Inclusion Membrane*
Assoc. Prof. Dr Ramesh Kasi	UM	*Corrosion Protection Nanocomposite Coatings based on Tin Oxide (Sno2) Incorporated into Organic Resins*
Datin Prof. Ir Dr Bushroa Abdul Razak	UM	*Physico-Chemical Properties of Tin Dioxide Nano-Films for Antifogging and Self-Cleaning Applications*
Assoc. Prof. Dr Tan Kong Wai	UM	*Organotin Complexes of Boronic Acid as Theranostic Agents*
Costantine Joannes	PPM	*Enhancement of Tin Recovery from Siderite-Primary Tin Ore*
Dr Wong Wai Yin	UKM	*Tin Oxides Supported PT Nanocatalysts as Durable Cathode for Proton Exchange Membrane Fuel Cell Application*

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

KOLABORASI DENGAN ORGANISASI-ORGANISASI DAN INSTITUSI-INSTITUSI LAIN

Lembaga Timah terus bekerjasama rapat dengan UMP dalam memberikan khidmat nasihat dan sokongan khususnya berkaitan pengendalian program ijazah Sarjana dalam Perlombongan dengan Teknologi Mineral. Perunding Teknikal Lembaga, selaku ahli Panel Akademik-Industri (IAP), Fakulti Kimia & Teknologi kejuruteraan Pemprosesan telah membantu menilai kurikulum dan struktur kursus Program M.Scnya untuk memastikan ia kekal relevan dengan keperluan industri.

Lembaga Timah juga bekerjasama rapat dengan agensi-agensi kerajaan lain terutamanya NRES dan JMG, di mana JMG menjalankan kerja-kerja penyelidikan (termasuk penyelidikan berkaitan timah) di Pusat Penyelidikan Mineralnya di Ipoh.

PENJEJAKAN TERHADAP PENYELIDIKAN TIMAH DAN LAIN-LAIN PERKEMBANGAN DALAM INDUSTRI GLOBAL

Untuk sentiasa prihatin dengan perkembangan terkini dalam industri timah di peringkat global, Lembaga Timah meneruskan aktiviti peninjauan menyeluruhnya dengan sumber maklumat utama diperolehi daripada Persatuan Timah Antarabangsa (ITA) yang berpangkalan di United Kingdom, internet dan penerbitan media. Ringkasan perkembangan terkini dibentangkan pada setiap mesyuarat Lembaga. Walaupun sebelum ini fokus utama aktiviti peninjauan itu adalah ke atas aplikasi dan penggunaan timah, tumpuannya sekarang beralih kepada aktiviti-aktiviti huluan yang berkaitan dengan bidang perbekalan meliputi eksplorasi, perlombongan dan pemprosesan timah serta pengeluaran logam timah sekunder daripada aktiviti kitar semula.

AKTIVITI-AKTIVITI KUMPULAN PENYELIDIK TEKNOLOGI PATERI TIMAH (TSTRG)

TSTRG telah ditubuhkan oleh Lembaga Timah pada tahun 2017 sebagai platform bagi komunikasi intelektual di antara para akademik dan industri untuk memajukan industri timah Malaysia melalui program-program yang berkaitan penyelidikan serta forum-forum akademia-industri. Pengerusi TSTRG ialah Prof. Madya Ir Dr Mohd Arif Anuar Mohd Salleh dari UniMAP, yang dibantu oleh beberapa orang penyelidik dari pelbagai universiti di Malaysia sebagai ahli jawatankuasa. Perunding Teknikal Lembaga Timah berperanan sebagai Penasihat manakala kakitangan dari Urusetia Lembaga Timah pula berperanan sebagai pegawai perhubungan.

Pada tahun 2023, TSTRG telah terlibat dalam dua aktiviti yang dianjurkan oleh UNIMAP. Aktiviti yang pertama ialah program *International Mobility-New Colombo Plan* yang telah berlangsung dari 19 November hingga 2 Disember 2023. Dalam program ini, lapan orang pelajar dan dua orang kakitangan dari University of Queensland, bersama 12 orang pelajar dari UniMAP telah menyertai beberapa siri aktiviti untuk meneroka kemajuan dalam pembuatan elektronik di Malaysia. Aktiviti yang kedua pula melibatkan penganjuran *International Research Talk* yang telah berlangsung pada 29 November 2023. Ceramah bertajuk *Advanced Characterisation Techniques for Material Development: Case Studies* telah disampaikan oleh Prof. Dr Kazuhiro Nogita dari University of Queensland, Australia.

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

^ *Peserta-peserta di program International Mobility - New Colombo Plan (NCP)*

^ *International Research Talk disampaikan oleh Prof Dr Kazuhiro Nogita*

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

AKTIVITI-AKTIVITI SEKTOR HILIRAN

Satu lagi fungsi utama Lembaga Timah adalah untuk mempromosi dan menyokong perkembangan aktiviti-aktiviti pada peringkat hiliran industri timah melibatkan sektor pembuatan barangan berasaskan timah. Bagi melaksanakan fungsi ini, Urusetia Lembaga Timah telah meneruskan peranannya dalam memberikan sokongan pentadbiran kepada MTPMA sepanjang tahun laporan. Persatuan ini yang ditubuhkan pada tahun 1989, adalah dipertanggungjawabkan untuk memajukan kepentingan dan pembangunan sektor pembuatan barangan berasaskan timah. Sehingga akhir tahun 2023, keahlian Persatuan terdiri daripada 14 syarikat yang beroperasi dalam tiga sub-sektor hiliran yang utama, iaitu pateri, plat timah dan piuter.

MTPMA ditadbir urus oleh satu Jawatankuasa Pengurusan yang dianggotai sembilan orang yang mewakili ahli-ahli syarikat Persatuan, dan bertanggungjawab menentukan hala tuju strategik Persatuan. Dua Jawatankuasa Kecil, iaitu Jawatankuasa Kecil Sidang Pengarang Majalah dan Jawatankuasa Kecil Pateri telah ditubuhkan oleh Jawatankuasa Pengurusan untuk membantu dalam melaksanakan tugas, tanggungjawab serta menjalankan aktiviti dan program tahunannya. Sepanjang tahun laporan, Jawatankuasa Pengurusan dan kedua-dua Jawatankuasa Kecilnya telah mengadakankan empat mesyuarat secara hibrid selaras dengan keperluan statutorinya, iaitu pada bulan Februari, Mac, Jun dan September. Mesyuarat Jawatankuasa-jawatankuasa Kecil pula telah diadakan pada hari yang sama sebelum mesyuarat Jawatankuasa Pengurusan.

Jawatankuasa Kecil Pateri berperanan sebagai satu platform khusus bagi ahli-ahli Persatuan dari kalangan syarikat pateri untuk sama-sama berbincang mengenai hal-hal yang menjadi kepentingan bersama. Ahli-ahli Jawatankuasa Kecil ini telah memperolehi banyak manfaat dengan menghadiri mesyuarat-mesyuarat tersebut yang berperanan sebagai satu saluran bagi pelaporan serta perkongsian pengetahuan, pengalaman dan jangkaan terhadap pasaran pateri serta lain-lain isu berkaitan dan cabaran-cabaran terhadap industri pateri timah sama ada di peringkat tempatan, serantau dan antarabangsa.

Jawatankuasa Kecil Sidang Pengarang Majalah ditugaskan untuk menyelia penerbitan MTPMA, iaitu *Malaysian Tin Products Newsletter* yang merupakan medium utama seranta dan perhubungan awamnya. Majalah ini mengandungi berita-berita berkaitan industri pembuatan barangan berasaskan timah sama ada di peringkat global dan tempatan, di samping memberikan maklumat terkini mengenai perkembangan dalam Persatuan dan ahli-ahlinya. Ia diedar kepada semua ahli Persatuan, agensi kerajaan, universiti-universiti dan lain-lain pihak berkaitan secara percuma. Persatuan telah meneruskan penerbitan dan mengedarkan Majalah ini dalam tahun 2023 pada setiap suku tahun. Aliran pengedarannya bagi tempoh antara tahun 2019 hingga 2023 ada terdapat di Carta 1.

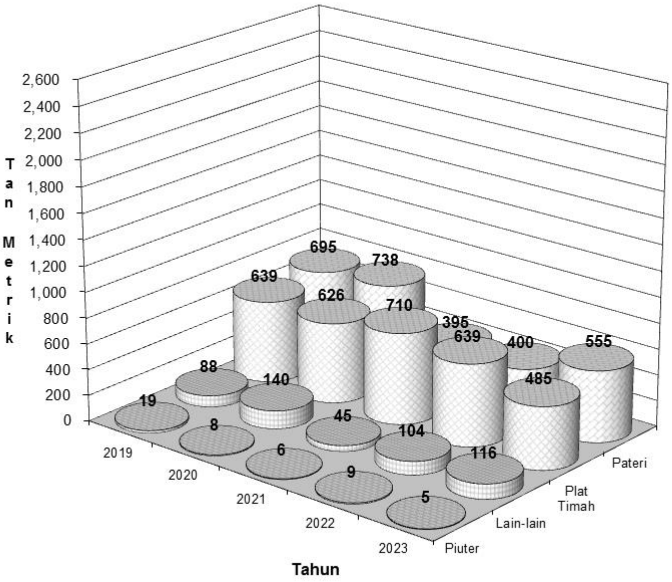
Sektor pembuatan barangan berasaskan timah merupakan pengguna utama logam timah tempatan. Ia merupakan satu sektor tambah nilai penting yang mana juga menyumbang kepada penggantian import dengan membekalkan komponen yang diperlukan kepada keseluruhan industri pembuatan produk negara. Penggunaan timah tempatan oleh sektor pembuatan barangan berasaskan timah telah mencatat sedikit peningkatan pada tahun 2023 sebanyak 0.8% atau 1,152 tan. Penyebab utama kepada peningkatan ini adalah pemulihan ekonomi pasca Covid-19 yang telah menghasilkan permintaan lebih tinggi bagi produk-produk pengguna terutamanya barang-barang elektrik dan peralatan elektronik.

Sub-sektor pateri telah mengatasi sub-sektor plat timah sebagai pengguna domestik terbesar pada tahun 2023. Sepanjang tahun laporan, sub-sektor pateri menggunakan 555 tan timah diikuti sub-sektor plat timah sebanyak 485 tan, dan sub-sektor piuter pula hanya 5 tan.

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

Carta 2: Penggunaan Logam Timah Tempatan (2019-2023)

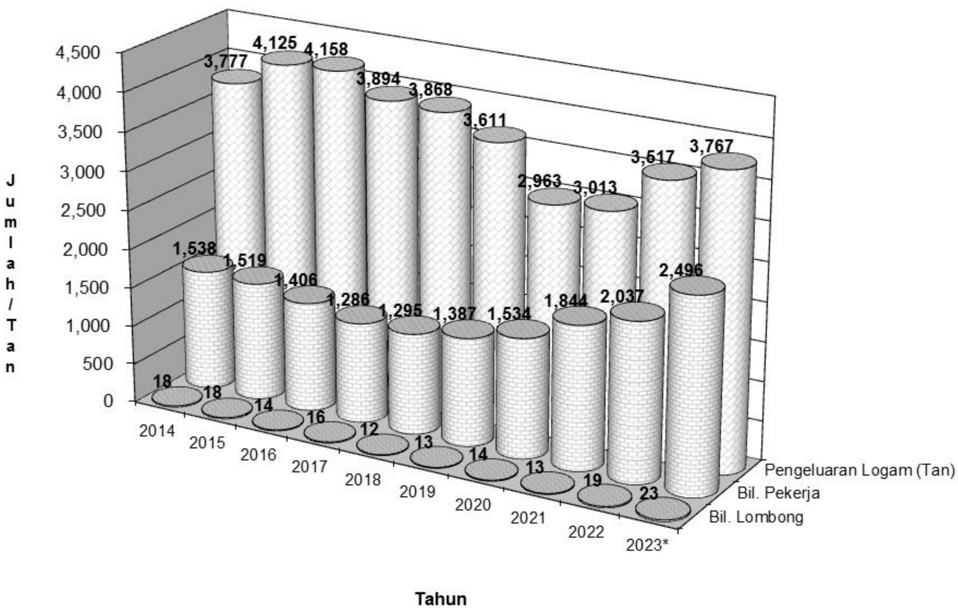
Carta 2 ini menunjukkan penggunaan timah oleh pelbagai sub-sektor industri pembuatan produk berasaskan timah dari tahun 2019 sehingga 2023.



Sumber: Malaysia Smelting Corporation Bhd
Perusahaan Sadur Timah Malaysia Bhd

Carta 3: Perangkaan Industri Perlombongan Timah Malaysia

Carta 3 ini menunjukkan arah aliran aktiviti industri perlombongan timah Malaysia bagi tempoh dari tahun 2014 sehingga 2023.



* - Anggaran

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

PRESTASI INDUSTRI TIMAH GLOBAL DAN PANDANGAN MASA DEPAN

Berikut adalah satu laporan dari Persatuan Timah Antarabangsa (ITA), United Kingdom, berkenaan prestasi timah global pada tahun 2023 serta pandangan terhadap masa depannya. ITA merupakan sebuah organisasi bukan berasaskan keuntungan yang berdedikasi ke arah menyokong industri timah dan memperluaskan kegunaan timah di seluruh dunia. Keahliannya terdiri daripada kebanyakan pengeluar timah utama dunia, dan ia mempunyai data paling komprehensif berkaitan timah global.

Tinjauan Industri Timah - 2023

Spekulasi mendorong ke-arah satu tahun bergolak bagi harga timah

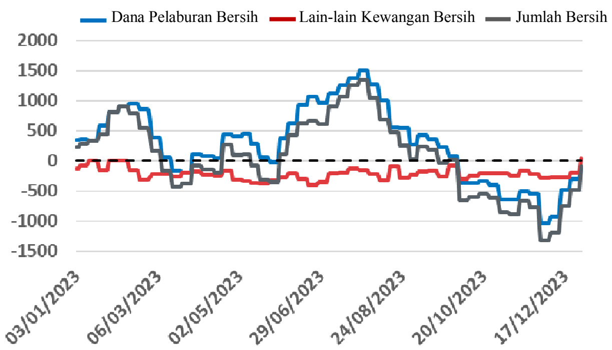
Harga timah berkeadaan tidak menentu di sebahagian besar tahun 2023 dengan berakhir di lingkungan paras $25,000 sepertimana harga di permulaan tahun. Sentimen yang tidak meyakinkan di tengah-tengah prospek ekonomi makro yang lemah menjadi pengheret atas harga logam asasnya yang rendah mencerminkan pasaran yang spekulatif, pemacu utama terhadap pergerakan harga timah dewasa ini.

Sepanjang tahun 2023, harga timah mengalami beberapa sokongan spekulatif signifikan yang berkaitan dengan gangguan bekalan timah, pertamanya di suku pertama tahun tersebut dengan terjadinya tunjuk perasaan politik di Peru dan keduanya di musim panas dengan terdapatnya larangan perlombongan di Wilayah Wa, Myanmar. Namun, sokongan spekulatif itu kemudiannya kembali semula menjadi kedudukan kekurangan jualan yang mencerminkan sentimen tidak meyakinkan dengan pasaran timah akhirnya jatuh ke paras kekurangan jualan ketara sebanyak -1,325 kontrak pada awal bulan Disember. Corak pergolakan harga dan kejatuhan harga secara mendadak terutamanya pada suku ke-empat berkait rapat lebih kepada aktiviti-aktiviti teknikal dan perdagangan dan tidak kepada asas-asas lemah yang mencerminkan pergolakan pasaran baru-baru ini.

Naratif yang berbeza di antara bursa LME dan SHFE terjadi pada separuh kedua tahun 2023 apabila stok LME berkembang pesat mencecah paras tertinggi sebanyak 8,190 tan pada akhir bulan Disember mencermin permintaan lemah yang berterusan, terutamanya di Eropah. Menariknya, gudang LME di Pelabuhan Kelang, Malaysia menyumbang kira-kira 75% daripada keseluruhan stok LME ini. Sebaliknya, stok SHFE merosot secara konsisten di separuh kedua tahun 2023 dan menurun sebanyak 47% dari bulan Ogos sehingga Disember, mencecah paras terendah sebanyak 5,077 tan pada 8 Disember yang menunjukkan pemulihan sederhana bermusim di negeri China dan yang mana jelas menunjukkan pengagihan permintaan global yang tidak setara.

Harga timah tidak menentu
Harga tunai timah LME, AS$

Gangguan bekalan mn makro menurun
Kedudukan spekulatif LME

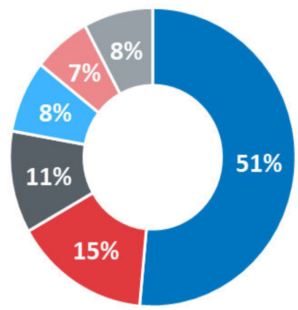


AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

Ketidakseimbangan landskap permintaan disokong oleh teknologi China

Pasaran timah pada tahun 2023 telah mengalami permintaan lemah, terbit dari tekanan-tekanan makroekonomi. Akan tetapi, perbezaan di antara rantau telah memberikan satu gambaran permintaan global yang berlainan di mana sebahagian besarnya terbit dari penggunaan di negeri China yang menyaksikan pertumbuhan sebanyak 3.5% dalam permintaan bagi timah, berbeza dari kemerosotan sebanyak 9.1% yang dialami di seluruh dunia. Secara keseluruhan, penggunaan logam timah global telah merosot sebanyak 2.9% kepada 360,400 tan.

Penggunaan timah global mengikut sektor, 2023

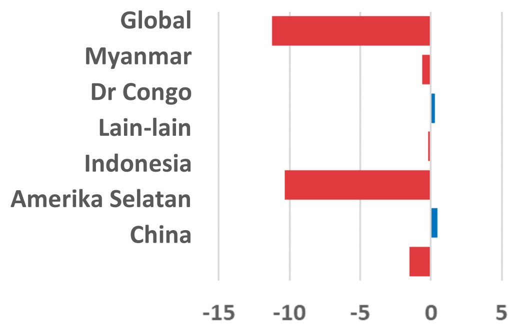


Sebahagian besar pertumbuhan permintaan di negeri China adalah didorong oleh kemajuan dalam teknologi, terutamanya dalam solar dan kenderaan elektrik, serta pemulihan dalam sektor elektronik pada separuh kedua tahun 2023. Negeri China telah mencapai lebih 50% pertumbuhan tahun demi tahun dalam pengeluaran modul fotovoltaik, menambah kapasiti solar yang mengagumkan sebanyak 216.9 gigawatt, lebih besar daripada jumlah kapasiti AS yang merupakan pasaran solar kedua terbesar di dunia. Pasaran EV negeri China juga mencatat pertumbuhan tinggi yang kini merangkumi 60% daripada keseluruhan pasaran global.

Di luar negeri China, keadaannya adalah lebih mencabar. Di Eropah, tekanan inflasi dan angka PMI yang lemah, khususnya di Jerman, telah menjejaskan permintaan yang ketara dalam sektor-sektor seperti plat timah dan kimia. Di peringkat global, kedua-dua pasaran tersebut telah mengecut sebanyak 8% pada tahun 2023. AS telah menunjukkan daya tahan yang lebih tinggi dengan menghindari dari jangkaan kemelesetan ekonomi dan berkemungkinan mencatat satu hasil yang baik dari pasca-monetarinya yang ketat walaupun premium di AS telah turun secara konsisten sepanjang tahun menggambarkan bahawa permintaan semasa adalah lemah.

Kelihatan banyak peningkatan gangguan bekalan

Perubahan keluaran lombong dari rantau utama 2022-2023
Timah dalam konsentrat, '000 tan



Beberapa siri gangguan bekalan telah memberi kesan kepada setiap rantau pengeluar timah utama pada tahun lepas, khususnya di Amerika Selatan, Myanmar dan Indonesia. Akibatnya, bekalan logam timah global dianggarkan telah menurun sebanyak 2.1% pada tahun 2023, suatu kedudukan yang tidak begitu ketara berbanding permintaan yang telah berkurangan.

Jumlah pengeluaran lombong global telah merosot dianggarkan sebanyak 3.9% kepada 285,400 tan pada tahun 2023 di mana sebahagian besarnya merupakan pengurangan pengeluaran dari Indonesia yang dianggarkan telah menurun sebanyak 7.9% pada tahun tersebut.

Yunnan Tin mengekalkan kedudukannya sebagai pengeluar utama logam timah dunia, manakala Minsur kekal berada di tempat kedua walaupun terpaksa menggantung operasi selama lebih dua bulan mulai pertengahan Januari di lombong San Rafealnya berikutan tercetusnya protes politik di Peru. Keadaan tersebut telah mengakibatkan kemerosotan sebanyak 54% pengeluaran dari Minsur pada suku pertama tahun 2023.

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Kemerosotan paling ketara adalah penurunan pengeluaran dari PT Timah sebanyak 22.6% yang menyebabkannya jatuh ke belakang MSC di tempat ke-5. Ini mencerminkan satu penurunan yang lebih ketara dalam bekalan dari Indonesia di mana berlakunya dinamik pasaran yang mencabar meliputi peningkatan persaingan dari syarikat pelebur serta perkembangan dalam landskap kawal selia dan politik. Mulai bulan Jun 2023, kebanyakan syarikat pelebur persendirian kecil yang berdagang di ICDX telah mengalami kelewatan yang berpanjangan dalam memperbaharui lesen eksport mereka selain berlakunya penghijrahan aktiviti perdagangan ketara ke arah JFX yang lebih besar.

Nasionalisasi sumber semakin menjadi tema kebiasaan di seluruh dunia. Perhatian tertumpu kepada pilihan raya presiden di Indonesia pada bulan Februari 2024 dan implikasinya yang dijangkakan ke atas dasar eksport timah. Sementara di Brazil, satu rantau penting yang sedang meningkat naik bagi timah, Presidennya yang baru dipilih juga telah memberikan tumpuan khusus kepada sumber mineral negaranya, serta melancarkan satu kempen tegas bagi menentang kegiatan perlombongan haram. Tindakan ini secara tidak langsung telah turut memberi kesan kepada perlombongan timah yang beroperasi secara sah, mengehadkan ketersediaan bahan mentah dan menjadikan usaha pembaharuan lesen lebih sukar. Di negara jirannya Bolivia, EM Vinto telah mengekalkan kedudukannya di kalangan 10 teratas, walaupun telah mengisytiharkan *force majeure* terhadap operasinya di sebahagian besar tahun 2023.

Pengeluar sekunder Eropah, Aurubis telah melonjak tiga anak tangga ke kedudukan kelapan apabila meningkatkan pengeluarannya sebanyak 13% pada tahun 2023.

10 Pengeluar Logam Timah Teratas 2023

Pengeluaran logam timah (tan)

Kedudukan	Syarikat	2022	2023	Perubahan Tahun ke Tahun (%)
1	Yunnan Tin (China)	77,100	80,100	*4%*
2	Minsur* (Peru)	32,700	31,700	*-3%*
3	Yunnan Chengfeng (China)	20,600	21,800	*6%*
4	Malaysia Smelting Corp (Malaysia)	18,800	20,700	*10%*
5	PT Timah (Indonesia)	19,800	15,300	*-23%*
6	Guangxi China Tin (China)	10,900	12,000	*10%*
7	Jiangxi New Nanshan (China)	10,800	9,500	*-12%*
8	Aurubis Beerse (Belgium)	8,200	9,300	*13%*
9	Thaisarco (Thailand)	9,500	9,200	*-3%*
10	EM Vinto (Bolivia)	10,300	8,800	*-15%*

Data: Data sementara yang dilaporkan kepada ITA dan digenapkan kepada 100t terdekat.
**Termasuk pengeluaran dari anak syarikat Minsur Brazil, Taboca*

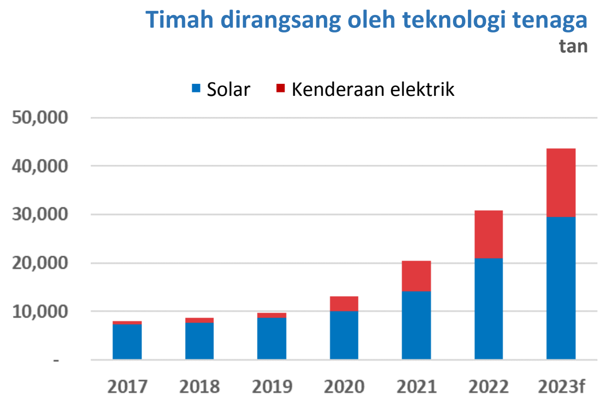
Pasaran tenaga telah memacu penggunaan timah

Peralihan terkini dalam sektor tenaga memperlihatkan landskap yang penuh dengan peluang-peluang cerah bagi timah. Lonjakan dalam penggunaan timah, dipacu keseluruhannya oleh tenaga suria dan kenderaan elektrik, telah memberi sinar baharu setelah berlakunya kemerosotan permintaan ketara pada tahun lepas, khususnya di negeri China. Peningkatan ini sebahagian besarnya terhasil dari pakej rangsangan Kerajaan menyeluruh di negeri China, sekaligus telah merancakkan sektor-sektor ini.

Dalam bidang tenaga suria, peranan timah amat menonjol dalam penghasilan reben suria, yang merupakan komponen kritikal dalam pemasangan modul-modul suria. Penggunaan timah dalam aplikasi ini melonjak sebanyak 40.1% kepada 29,400 tan pada tahun 2023, peningkatan daripada 20,900 tan. Selain itu, sektor kenderaan elektrik turut menyumbang kepada peningkatan pertumbuhan sebanyak 4,300 tan dalam penggunaan pateri, memberi isyarat jelas tentang kedudukan penting timah yang semakin meningkat dalam industri yang berkembang pesat ini.

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

Akan tetapi, kepesatan mendadak ini telah mengakibatkan satu ketidakpadanan dalam dinamika perbekalan. Usaha-usaha pengeluaran di AS dan Eropah kini sedang bergelut untuk kekal seiring dengan kapasiti lebihan yang timbul dari negeri China ketika mana kita sedang menuju ke ambang tahun 2024. Namun begitu, prospek penggunaan timah masih kekal utuh, khususnya menjelang tahun 2030. Pertumbuhan ini dijangka lebih teratur, dipengaruhi oleh rangsangan lanjut daripada inisiatif-inisiatif di AS seperti peraturan IRA, walaupun melibatkan sedikit penjimatan timah.



Selain dari penggunaan-penggunaan utuh ini, potensi timah dalam sektor bateri semakin pesat berkembang. Penilaian penggunaannya dalam bateri ion-litium dan terutamanya dalam bateri ion-natrium semakin mendapat perhatian, dengan pelaksanaan komersilnya dijangka sebelum tahun 2030. Tambahan pula, lain-lain kegunaan inovatif dalam teknologi bateri turut dibangun, seperti pelaburan berprofil tinggi yang telah dibuat baru-baru ini dalam bateri termal berasaskan timah cecair.

Pelbagai jenis teknologi tenaga berasaskan timah turut juga dimajukan di makmal-makmal R&D di seluruh dunia. Sungguhpun bahan suria perovskit timah menghadapi persaingan daripada perovskit alternatif, ianya kekal sebagai pilihan yang lebih meyakinkan bagi proses penukaran tenaga suria yang kos efektif. Tambahan pula, minat yang semakin meningkat terhadap sistem timah cair-metana bagi pengeluaran hidrogen yang mesra alam menggambarkan tentang kepelbagaian dan potensi timah dalam sektor tenaga.

Pendigitalan akan mengembangkan lagi bidang peralatan elektronik

Tatkala dunia digital semakin berkembang pesat, peranan timah, terutamanya dalam sambungan pateri, menjadi semakin penting. Sambungan pateri ini adalah wira yang tidak diheboh-hebohkan dalam bidang elektronik, yang menyediakan cantuman penting di mana setiap bait data bergerak. Ini amat diperlukan dalam konteks memajukan teknologi 5G dan pelaksanaan *Internet of Things* (IoT).

Penggunaan rangkaian 5G merupakan satu lonjakan ketara dalam teknologi komunikasi, yang menyediakan kelajuan yang lebih pantas serta capaian internet yang lebih mantap. Ianya menandakan satu era baharu dalam peralatan pelbagai sambungan dan perkhidmatan. Seiring dengan kemajuan melalui pelbagai peringkat pelaksanaan 5G, bermula daripada pelancaran awal sehingga ke penggunaan meluas, permintaan terhadap pateri berkualiti tinggi, bermaknanya juga untuk timah, akan meningkat.

Pada masa yang sama, IoT sedang merevolusikan cara kita berinteraksi dengan peralatan-peralatan kita. Daripada rumah pintar kepada sistem pengangkutan pintar, IoT bergantung ke atas pelbagai peralatan yang saling bersambungan, di mana setiap satunya memerlukan sambungan pateri yang mantap untuk berfungsi secara optimum. Peranan timah dalam sambungan-sambungan ini amat diperlukan bagi kestabilan dan jangka hayat sistem IoT.

Memandang ke hadapan, ramalan-ramalan ada menyatakan tentang lonjakan besar dalam aliran trafik data serta jumlah bilangan komputer induk yang diperlukan bagi mengendalikan lonjakan ini.

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Dengan pertumbuhan data digital yang begitu pesat, dianggar akan mencecah zettabait pada tahun-tahun akan datang, keperluan untuk mewujudkan pusat-pusat data yang kukuh dan cekap amatlah penting. Pusat-pusat data ini akan banyak bergantung ke atas pateri timah bagi memastikan integriti komponen-komponen elektronik yang tidak terkira begitu banyak bilangannya.

Pandangan bagi Industri Timah

Pasaran timah telah mengakhiri tahun 2023 dalam kedudukan yang unik bercirikan paras bekalan dan permintaan yang amat rendah serta menamatkan tahun 2023 dengan sedikit lebihan di bawah 10,000 tan, tidak termasuk perubahan stok. Melangkah ke tahun 2024, pasaran kelihatan bersedia untuk membuka lembaran baharu ketika mana gangguan bekalan nampak bersedia menghadapi permulaan pemulihan permintaan yang agak berliku.

Permintaan bagi timah diramalkan bercampur-campur namun akan untuk mengukuh, dirangsang oleh faktor ekonomi AS yang bertambah baik dengan penampilan kadar faedah yang lebih rendah, usaha-usaha rangsangan berterusan oleh kerajaan negeri China, serta peralihan berterusan ke arah tenaga hijau. Walaupun keseluruhan landskap ekonomi kekal lemah, pertumbuhan ketara dijangka terjadi dalam sektor teknologi, khususnya di negeri China. Namun demikian, keyakinan ini akan terjejas oleh potensi pelarasan dalam industri solar negeri China, terutamanya atas sebab lebihan kapasiti dan diiringi oleh aliran ke arah penjimatan penggunaan timah. Tampak memberangsangkan adalah sektor elektronik sedang menuju ke arah kebangkitan semula, dengan pasaran semikonduktor diramalkan mencapai pertumbuhan sebanyak 13.1%, menandakan fasa pemulihan yang kukuh.

Proses pemulihan dijangka masih mengambil masa panjang bagi sebahagian dari pasaran penggunaan timah yang telah teruk terjejas. Cabaran masih terus wujud dalam industri plat timah, yang jelas ternyata dalam isu rantaian bekalannya yang berterusan sepertimana kelihatan dari hasrat Nippon Steel untuk mengambil alih US Steel. Sementara itu, kedudukan sektor kimia pula berkait rapat dengan kebangkitan semula pasaran pembangunan hartanah di AS dan negeri China. Walaupun sentimen kelihatan lebih positif di AS, keraguan amat ketara terhadap keberkesanan inisiatif jangka panjang yang diperkenalkan oleh kerajaan China baru-baru ini untuk memulih sektor hartanahnya yang kian merosot.

Dari sudut bekalan, sedikit kesukaran dijangka berlaku pada suku pertama tahun 2023, khususnya disebabkan penguatkuasaan larangan berterusan di Wilayah Wa dan isu-isu berkaitan lesen eksport di Indonesia serta kemerosotan pengeluaran timahnya. Walaupun gangguan ini menimbulkan risiko yang ketara, ianya boleh ditangani dengan lain-lain punca bekalan kelihatan lebih optimistik. Pembukaan semula perlombongan di Wilayah Wa boleh membuka jalan bagi perkembangan teknologi jangka sederhana dan peningkatan dalam penerokaan mendalam. Sementara itu, pengeluaran yang akan bermula dari projek-projek di Afrika seperti Mpama South di Republik Demokratik Congo dan penambahan pengeluaran di Bolivia mampu menyumbang kepada kestabilan bekalan. Amerika Selatan mungkin menunjukkan sedikit pertumbuhan, sungguhpun cabaran alam sekitar, sosial dan tadbir urus (ESG) serta isu politik semasa berkemungkinan mengehadkan pertumbuhan tersebut. Tahap pengeluaran di Indonesia pula kekal menjadi satu perilaku kritikal yang harus diperhatikan.

Pada kesimpulannya, walaupun terdapat cabaran-cabaran besar mungkin berterusan, pasaran timah nampaknya bersedia pulih stabil tetapi dengan penuh ranjau di tahun mendatang.

Imbangan Perbekalan/Permintaan Logam Timah Dunia

'000 tan

	2018	2019	2020	2021	2022	2023	2024 (anggaran)
Pengeluaran Logam Timah Global	385.5	368.4	336.5	379.0	378.1	370.1	369.6
Penggunaan Logam Timah Global	392.8	367.6	361.8	389.0	371.1	360.4	381.9
Imbangan Pasaran Global	**-7.3**	**0.8**	**-25.3**	**-9.9**	**6.9**	**9.7**	**-12.3**

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

AKTIVITI-AKTIVITI PEMBANGUNAN LAIN

Lembaga Timah terus giat aktif dalam melaksanakan dan memberikan sokongan selain penyertaan dalam aktiviti-aktiviti dan program-program lain yang akan memberi manfaat kepada pembangunan industri timah dan sumber mineral pada masa hadapan.

Pada 5 Januari 2023, Lembaga Timah, melalui Pengerusinya, selaku Presiden Dewan Perlombongan Malaysia, memutuskan untuk membangkitkan semula isu mengenai dasar Kerajaan melarang perlombongan di HSK dan KSAS dengan menghantar satu kertas cadangan kepada Menteri NRES untuk menyelesaikan isu tersebut bagi membolehkan sumber-sumber mineral di kawasan-kawasan demikian dibangunkan serta meningkatkan sumbangannya kepada ekonomi negara.

Antara cadangan yang telah dikemukakan untuk menyelesaikan isu tersebut ialah pembentukan satu kumpulan perbincangan berfokus (FDG) bagi menjalankan satu kajian terperinci terhadap kesan keseluruhan dan nilai pulangan kegiatan melombong di dalam kawasan HSK dan KSAS berdasarkan data dan analisis saintifik dan ekonomi. Walaupun maklum balas positif dijangka tidak akan diperoleh serta-merta, para penggiat industri berasa lega apabila mengetahui bahawa pada 11 September 2023, Perdana Menteri telah mengumumkan bahawa Kerajaan akan menyediakan garis panduan bagi pelaksanaan aktiviti perlombongan di HSK, KSAS dan kawasan-kawasan perlindungan. Pada masa yang sama, Lembaga Timah telah meneruskan usaha membentuk FDG.

JALINAN DAN KERJASAMA ANTARABANGSA

Lembaga Timah terus memberikan sokongan padu ke arah menggalakkan kerjasama dan jalinan di kalangan industri, serantau dan antarabangsa. Anggota-anggota Lembaga dan kakitangan Urusetia telah menyertai pelbagai acara di peringkat global dan serantau, seperti persidangan, forum, seminar dan bengkel yang berkaitan dengan pembangunan industri sumber mineral. Melalui penyertaan sedemikian, kerjasama, usahasama dan jaringan yang bermakna dengan organisasi, agensi dan institusi berkaitan mineral, khususnya yang berada di rantau ASEAN dan Asia Pasifik, terus diperkukuh dan dipertingkatkan untuk manfaat bersama semua pihak.

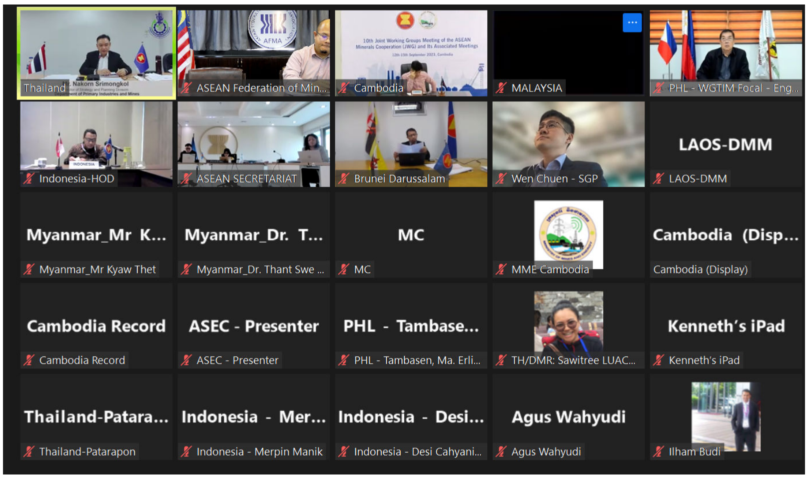
Antara acara-acara utama di peringkat antarabangsa dan serantau yang telah disertai oleh anggota-anggota Lembaga dan kakitangan Urusetia pada tahun 2023 ialah Mesyuarat Para Pegawai Perhubungan Pameran dan Forum Kerjasama Perlombongan China-ASEAN (CAMCFE) 2023 ke-12, Mesyuarat Kumpulan Kerja Bersama bagi Kerjasama Mineral ASEAN (JWG) ke-9 dan Mesyuarat Bersekutunya serta Mesyuarat Kumpulan Kerja Bersama bagi Kerjasama Mineral ASEAN (JWG) ke-10 dan Mesyuarat Bersekutunya.

^ Di mesyuarat JWG ke-9 dan Mesyuarat Bersekutunya

^ Di mesyuarat Para Pegawai Perhubungan CAMCFE 2023 ke-12

AKTIVITI PENYELIDIKAN, KEMAJUAN & LAIN-LAIN

< Di CAMCFE 2023 ke-12



< Di mesyuarat JWG ke-10 Kerjasama Mineral ASEAN dan Mesyuarat Bersekutunya

Kesemua acara tersebut kecuali CAMCFE 2023 telah diadakan secara maya melalui platform mesyuarat dalam talian.

Walaupun MoU di antara Lembaga Timah dan ITA yang ditandatangani pada Mei 2017 telah tamat, anggota-anggota Lembaga dan kakitangan Urusetia masih menerima buletin ITA terbitan setiap dua minggu, iaitu *Tin in the News* dan juga turut menyertai forumnya iaitu *Responsible Tin Supply Group* yang berlangsung secara dalam talian.

Anggota-anggota Lembaga Timah dan kakitangan Urusetia akan terus menghadiri acara serantau dan antarabangsa sedemikian pada masa depan untuk membolehkan mereka memperolehi pandangan, pengetahuan dan pengalaman yang lebih mendalam mengenai prospek-prospek dan aliran masa depan yang mempengaruhi industri timah global, serta mewujudkan dan memperbaharui hubungan dan jalinan kerjasama dan kolaborasi yang bermakna pada masa hadapan.

Penganjuran acara-acara sebegini memberi peluang kepada pelbagai organisasi, institusi, perbadanan dan pemegang taruh dalam industri untuk turut terlibat dalam dialog, interaksi dan jaringan serta bekerjasama dalam mempromosi usahasama di bidang perdagangan dan pelaburan mineral dan logam, termasuk timah. Selain itu, ia juga membolehkan mereka untuk mengetahui akan teknologi-teknologi baharu yang sedang meningkat naik serta pembangunan pelbagai aplikasi baharu untuk timah dan lain-lain mineral/ logam yang berkaitan.

BADAN PENGGANTI BARU

Cadangan untuk membubarkan Lembaga Timah dan fungsinya diambil alih oleh organisasi lain mula tercetus pada tahun 1996. Namun, tiada inisiatif sebenar bagi menjayakan langkah tersebut dilaksanakan sehinggalah tahun 2021 apabila idea penubuhan *Mineral Industry Development Board* atau Lembaga Pembangunan Industri Mineral Malaysia (LPMM) dimasukkan ke dalam TIM 2021-2030.

Sepanjang tahun laporan, beberapa mesyuarat telah diadakan untuk membincang mengenai kaedah perlaksanaan yang terbaik untuk menubuhkan LPMM. Terdapat dua cadangan utama yang telah dipertimbangkan. Cadangan asal adalah untuk menaik taraf dan menyusun semula Lembaga Timah yang sedia ada menjadi Lembaga Mineral dengan meluaskan peranannya yang kini hanya meliputi timah kepada semua komoditi-komoditi mineral. Cadangan kedua melibatkan penggabungan fungsi Lembaga Timah dengan fungsi JMG dan disusuli oleh penstrukturan dan pemecahan keseluruhan fungsi-fungsi di antara dua entiti baharu yang dicadangkan, iaitu LPMM dan GeoMalaysia.

Laporan lengkap mengenai cadangan kedua ini telah disediakan oleh NRECC dan JMG serta dibentangkan kepada Jemaah Menteri untuk pertimbangan pada 17 Disember 2021. Cadangan tersebut telah tidak diterima berikutan ulasan-ulasan dari Kementerian Kewangan dan Jabatan Perkhidmatan Awam yang berpendapat bahawa cadangan tersebut melibatkan pewujudan banyak perjawatan tambahan serta pembiayaan kewangan Kerajaan yang besar.

Pada 7 April 2023, dalam mesyuarat yang dipengerusikan oleh Ketua Setiausaha NRECC ketika itu, YBhg. Dato' Hj. Rosli Isa, satu pembentangan cadangan asal telah dibuat melibatkan pemerkasaan Lembaga Timah yang sedia ada menjadi LPMM dengan jumlah kakitangan yang minimum serta belanjawan operasinya yang rendah. Di satu lagi mesyuarat yang diadakan pada 10 November 2023, Urusetia Lembaga Timah telah dimaklumkan bahawa Kementerian telah memutuskan untuk meneruskan cadangan bagi memperluaskan peranan dan fungsi Lembaga Timah ke dalam LPMM. Kementerian kini sedang mengkaji draf rang undang-undang LPMM, struktur organisasinya yang dicadangkan, anggaran implikasi kewangan yang akan termasuk geran pelancaran, unjuran pendapatan dan belanjawan operasi untuk memastikan LPMM mampan kekal lestari untuk jangka panjang.

Dalam pada itu, dan sementara menunggu penubuhan LPMM, Lembaga Timah tetap komited dalam mencapai matlamat asal penubuhannya selain membantu Kerajaan dalam merealisasikan matlamat yang telah dinyatakan melalui TIM 2021-2030.

Dalam pada itu, dan sementara menunggu penubuhan LPMM, Lembaga Timah tetap komited dalam mencapai matlamat asal penubuhannya selain membantu Kerajaan dalam merealisasikan matlamat yang telah dinyatakan melalui TIM 2021-2030.

PENDAPATAN & PERBELANJAAN

SES

Operasi Lembaga Timah dibiayai sepenuhnya melalui kutipan ses daripada industri perlombongan timah. Ia tidak menerima sebarang peruntukan kewangan daripada Kerajaan Persekutuan. Mulai 16 Julai 2013, kadar ses timah telah disemak semula dan dinaikkan ke 40 sen sekilogram bagi konsentrat timah yang diekspot menurut Perintah Perusahaan Timah (Penyelidikan dan Pembangunan) (Ses) (Pindaan) 2013 bertarikh 28 Jun 2013. Kutipan ses ini diagihkan kepada Kumpulan Wang Penyelidikan, Kemajuan dan Maksud-maksud Am dan Kumpulan Wang Seranta pada kadar 20 sen setiap satu.

Kumpulan Wang Penyelidikan, Kemajuan dan Maksud-maksud Am telah ditubuh mengikut Seksyen 11(b), Akta Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah 1953. Ia membiayai segala aktiviti Lembaga Timah yang berkaitan dengan bidang penyelidikan, kemajuan dan maksud-maksud am kecuali seranta.

Kumpulan Wang Seranta telah ditubuh mengikut Seksyen 11(a) Akta yang sama. Ia membiayai segala aktiviti seranta Lembaga Timah.

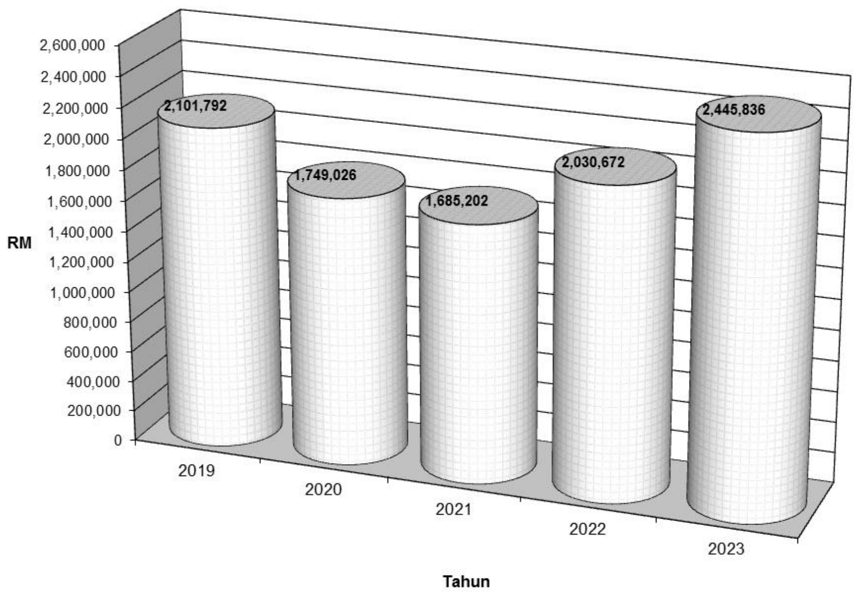
Pada tahun 2023, kutipan ses telah meningkat sebanyak 15 peratus kepada RM2,445,836 daripada RM2,131,238 pada tahun 2022 berikutan dari peningkatan eksport konsentrat timah.

FAEDAH

Pendapatan daripada faedah yang diperolehi di atas simpanan tetap Lembaga di institusi-institusi kewangan yang berlesen berjumlah RM134,605 dalam tahun 2023 berbanding RM81,489 pada tahun 2022. Pendapatan daripada faedah yang diperolehi di atas akaun semasa Lembaga Timah dalam tahun 2023 berjumlah RM4,003 berbanding RM1,111 pada tahun 2022.

Carta 4: Kutipan Ses (2019-2023)

Carta 4 ini menjukkan arah aliran kutipan ses bagi lima tahun kebelakangan.



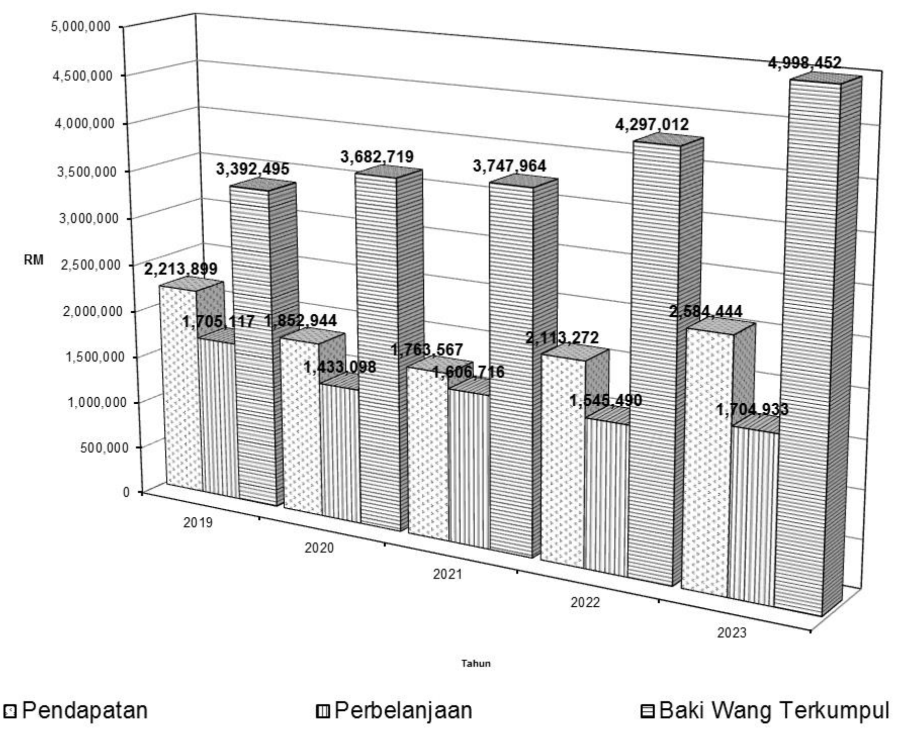
PENDAPATAN & PERBELANJAAN

Perbelanjaan keseluruhan daripada Kumpulan Wang Lembaga Timah pada tahun 2023 telah meningkat berbanding perbelanjaan dalam tahun sebelumnya kepada RM1,704,480 daripada RM1,682,118. Kumpulan Wang Lembaga Timah telah mencatat lebihan pendapatan sebelum cukai yang tinggi dalam tahun 2023 sebanyak RM879,964 berbanding RM531,720 pada tahun 2022.

Dengan lebihan ini dan selepas pembayaran cukai sebanyak RM167,136, baki di dalam Kumpulan Wang Terkumpul Lembaga Timah pada akhir tahun 2023 telah meningkat kepada RM4,998,906 daripada RM4,286,078 pada akhir tahun 2022.

Carta 5 : Jumlah Pendapatan, Perbelanjaan Yang Disatukan & Baki Kumpulan Wang Tekumpul Lembaga (P&K) Perusahaan Timah (2019 - 2023)

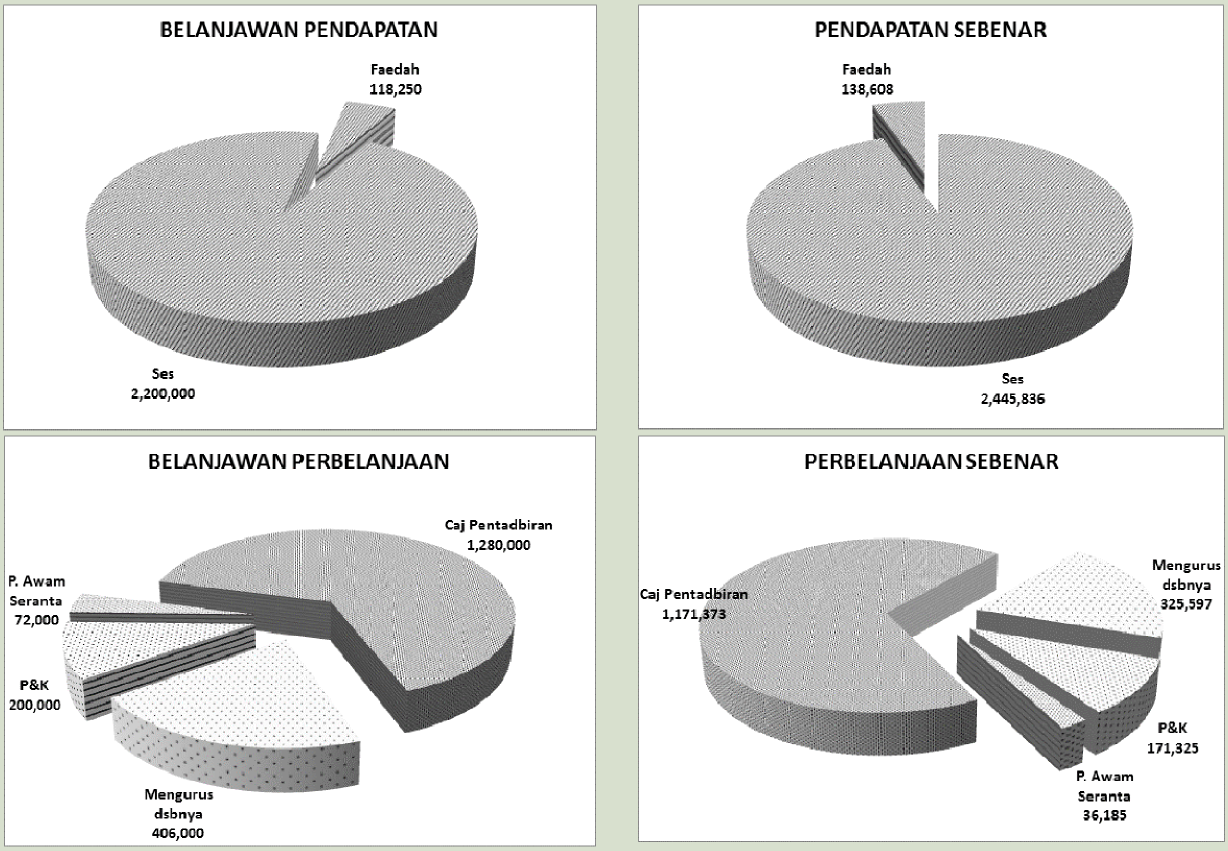
Carta 5 ini menunjukkan kedudukan pendapatan, perbelanjaan yang disatukan serta baki Kumpulan Wang Terkumpul Lembaga Timah bagi tempoh dari tahun 2019 sehingga 2023.



PENDAPATAN & PERBELANJAAN

Carta 6 berikut menunjukkan perbandingan di antara belanjawan pendapatan dan Perbelanjaan yang disatukan dengan pendapatan dan perbelanjaan sebenar Lembaga Timah bagi tahun 2023.

Carta 6 : Belanjawan Pendapatan dan Perbelanjaan Yang Disatukan berbanding yang Sebenar Tahun 2023 (RM), Lembaga (P&K) Perusahaan Timah



JAWATANKUASA AUDIT

Lembaga Timah telah menubuhkan Jawatankuasa Audit selaras dengan kehendak yang dinyatakan di dalam Surat Pekeliling Am Sulit Kerajaan Bil. 2 Tahun 1993, yang telah dipinda melalui Surat Pekeliling No. 3 Tahun 1998. Tanggungjawab utama Jawatankuasa ini adalah untuk mengawasi aktiviti-aktiviti kewangan Lembaga dengan matlamat untuk meningkatkan rasa bertanggungjawab, akauntabiliti serta tadbir urus korporat. Ia juga menyemak dan menilai prosedur-prosedur, kedudukan serta sistem kawalan dalaman kewangan Lembaga, dari masa ke masa, sepertimana perlu.

Ahli Jawatankuasa ini terdiri daripada seorang Anggota Rasmi sebagai Pengerusi, serta dua orang Anggota Wakil Lembaga termasuk Setiausaha Lembaga.

Jawatankuasa Audit telah bermesyuarat sebanyak dua kali sepanjang tahun laporan, dan telah memajukan empat laporan suku tahunan berkaitan penyata kewangan Lembaga serta kedudukannya, termasuk laporan perkara-perkara berkaitan yang terletak di bawah bidang kuasa Jawatankuasa kepada Lembaga untuk perhatian dan pengesahan.

Tanggungjawab utama Jawatankuasa ini adalah untuk mengawasi aktiviti-aktiviti kewangan Lembaga dengan matlamat untuk meningkatkan rasa bertanggungjawab, akauntabiliti serta tadbir urus korporat.

PENYATA KEWANGAN

SIJIL KETUA AUDIT NEGARA
MENGENAI PENYATA KEWANGAN
LEMBAGA (PENYELIDIKAN DAN KEMAJUAN) PERUSAHAAN TIMAH
BAGI TAHUN BERAKHIR 31 DISEMBER 2023

Sijil Mengenai Pengauditan Penyata Kewangan

Pendapat
Saya telah memberikan kuasa kepada firma audit swasta di bawah subseksyen 7(3) Akta Audit 1957 *[Akta 62]* untuk mengaudit Penyata Kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah. Penyata kewangan tersebut merangkumi Penyata Kedudukan Kewangan pada 31 Disember 2023 Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah dan Penyata Prestasi Kewangan, Penyata Perubahan Aset Bersih/ Ekuiti, Penyata Aliran Tunai serta Penyata Prestasi Bajet bagi tahun berakhir pada tarikh tersebut dan nota kepada penyata kewangan termasuklah ringkasan polisi perakaunan yang signifikan seperti yang dinyatakan pada muka surat 49 hingga 54.

Pada pendapat saya, penyata kewangan ini memberikan gambaran yang benar dan saksama mengenai kedudukan kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah pada 31 Disember 2023 dan prestasi kewangan serta aliran tunai bagi tahun berakhir pada tarikh tersebut selaras dengan Piawaian Pelaporan Entiti Persendirian Malaysia (MPERS) dan keperluan Akta Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah 1953 *[Akta 455]*

Asas Kepada Pendapat
Pengauditan telah dilaksanakan berdasarkan Akta Audit 1957 dan International Standards of Supreme Audit Institutions. Tanggungjawab saya dihuraikan selanjutnya di perenggan Tanggungjawab Juruaudit Terhadap Pengauditan Penyata Kewangan dalam sijil ini. Saya percaya bahawa bukti audit yang diperoleh adalah mencukupi dan bersesuaian untuk dijadikan asas kepada pendapat saya.

Kebebasan dan Tanggungjawab Etika Lain
Saya adalah bebas daripada Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah dan telah memenuhi tanggungjawab etika lain berdasarkan International Standards of Supreme Audit Institutions.

Maklumat Lain Selain Daripada Penyata Kewangan dan Sijil Juruaudit Mengenainya
Lembaga Pengarah, Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah bertanggungjawab terhadap maklumat lain dalam Laporan Tahunan. Pendapat saya terhadap Penyata Kewangan Lembaga Pengarah, Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah tidak meliputi maklumat lain selain daripada penyata kewangan dan Sijil Juruaudit mengenainya dan saya tidak menyatakan sebarang bentuk kesimpulan jaminan mengenainya.

Tanggungjawab Lembaga Pengarah Terhadap Penyata Kewangan
Lembaga Pengarah bertanggungjawab terhadap penyediaan Penyata Kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah yang memberi gambaran benar dan saksama selaras dengan Piawaian Pelaporan Entiti Persendirian Malaysia (MPERS) dan keperluan Akta Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah 1953 *[Akta 455]*. Lembaga Pengarah juga bertanggungjawab terhadap penetapan kawalan dalaman yang perlu bagi membolehkan penyediaan Penyata Kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah yang bebas daripada salah nyata yang ketara, sama ada disebabkan fraud atau kesilapan.

Semasa penyediaan Penyata Kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah, Lembaga Pengarah bertanggungjawab untuk menilai keupayaan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah untuk beroperasi sebagai satu usaha berterusan, mendedahkannya jika berkaitan serta menggunakannya sebagai asas perakaunan.

Tanggungjawab Juruaudit Terhadap Pengauditan Penyata Kewangan
Objektif saya adalah untuk memperoleh keyakinan yang munasabah sama ada Penyata Kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah secara keseluruhannya adalah bebas daripada salah nyata yang ketara, sama ada disebabkan fraud atau kesilapan, dan mengeluarkan Sijil Juruaudit yang merangkumi pendapat saya. Jaminan yang munasabah adalah satu tahap jaminan yang tinggi, tetapi bukan satu jaminan bahawa audit yang dijalankan mengikut International Standards of Supreme Audit Institutions akan sentiasa mengesan salah nyata yang ketara apabila ia wujud. Salah nyata boleh wujud daripada fraud atau kesilapan dan dianggap ketara sama ada secara individu atau agregat sekiranya boleh dijangkakan dengan munasabah untuk mempengaruhi keputusan ekonomi yang dibuat oleh pengguna berdasarkan penyata kewangan ini.

Sebagai sebahagian daripada pengauditan mengikut International Standards of Supreme Audit Institutions, saya menggunakan pertimbangan profesional dan mengekalkan keraguan profesional sepanjang pengauditan. Saya juga:

a. mengenal pasti dan menilai risiko salah nyata ketara dalam Penyata Kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah, sama ada disebabkan fraud atau kesilapan, merangka dan melaksanakan prosedur audit yang responsif terhadap risiko berkenaan serta mendapatkan bukti audit yang mencukupi dan bersesuaian untuk memberikan asas kepada pendapat saya. Risiko untuk tidak mengesan salah nyata ketara akibat daripada fraud adalah lebih tinggi daripada kesilapan kerana fraud mungkin melibatkan pakatan, pemalsuan, ketinggalan yang disengajakan, representasi yang salah, atau mengatasi kawalan dalaman;

b. memahami kawalan dalaman yang relevan untuk merangka prosedur audit yang bersesuaian tetapi bukan untuk menyatakan pendapat mengenai keberkesanan kawalan dalaman Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah;

c. menilai kesesuaian dasar perakaunan yang diguna pakai, kemunasabahan anggaran perakaunan dan pendedahan yang berkaitan oleh Lembaga Pengarah;

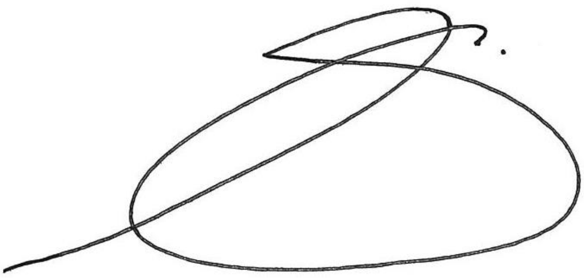
d. membuat kesimpulan terhadap kesesuaian penggunaan asas perakaunan untuk usaha berterusan oleh Lembaga Pengarah dan berdasarkan bukti audit yang diperoleh, sama ada wujudnya ketidakpastian ketara yang berkaitan dengan peristiwa atau keadaan yang mungkin menimbulkan keraguan yang signifikan terhadap keupayaan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah sebagai satu usaha berterusan. Jika saya membuat kesimpulan bahawa ketidakpastian ketara wujud, saya perlu melaporkan dalam Sijil Juruaudit terhadap pendedahan yang berkaitan dalam Penyata Kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah atau, jika pendedahan tersebut tidak mencukupi, pendapat saya akan diubah. Kesimpulan saya dibuat berdasarkan bukti audit yang diperoleh sehingga tariikh Sijil Juruaudit; dan

e. menilai persembahan secara keseluruhan, struktur dan kandungan Penyata Kewangan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah, termasuk pendedahannya, dan sama ada penyata kewangan tersebut telah melaporkan asas-asas urus niaga dan peristiwa-peristiwa yang memberikan gambaran saksama.

Lembaga Pengarah telah dimaklumkan, antaranya mengenai skop dan tempoh pengauditan yang dirancang serta penemuan audit yang signifikan termasuk kelemahan kawalan dalaman yang dikenal pasti semasa pengauditan.

Hal-hal Lain

Sijil ini dibuat untuk Lembaga Pengarah, Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah berdasarkan keperluan Akta Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah 1953 *[Akta 455]* dan bukan untuk tujuan lain. Saya tidak bertanggungjawab terhadap pihak lain bagi kandungan sijil ini.



(DATUK WAN SURAYA BINTI WAN MOHD RADZI)
KETUA AUDIT NEGARA

PUTRAJAYA
30 OKTOBER 2024

PENYATA PENGERUSI DAN SEORANG ANGGOTA LEMBAGA

LEMBAGA (PENYELIDIKAN DAN KEMAJUAN) PERUSAHAAN TIMAH

(DITUBUHKAN DI BAWAH AKTA KUMPULAN WANG (PENYELIDIKAN DAN KEMAJUAN) PERUSAHAAN TIMAH 1953)

Kami, Dato' Seri Mohd Ajib Anuar dan Dato’ Sri Hj. Ahmad Omar, selaku Pengerusi dan salah seorang Anggota Lembaga bagi Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah, dengan ini menyatakan bahawa, pada pendapat Lembaga, Penyata Kewangan yang mengandungi Penyata Kedudukan Kewangan, Penyata Pendapatan Komprehensif, Penyata Perubahan Dalam Ekuiti dan Penyata Aliran Tunai berserta dengan nota-nota kepada Penyata Kewangan di dalamnya, adalah disediakan untuk menunjukkan pandangan yang benar dan saksama berkenaan kedudukan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah pada 31 Disember 2023 dan hasil kendaliannya serta perubahan kedudukan kewangannya bagi tahun berakhir pada tarikh tersebut.

Bagi pihak Lembaga,

DATO’ SERI MOHD AJIB ANUAR
PENGERUSI
Tarikh : 25 JUN 2024
Kuala Lumpur

Bagi pihak Lembaga,

DATO’ SRI HJ. AHMAD OMAR
ANGGOTA LEMBAGA
Tarikh : 25 JUN 2024
Kuala Lumpur

PENGAKUAN PEGAWAI UTAMA YANG BERTANGGUNGJAWAB KE ATAS PENGURUSAN KEWANGAN LEMBAGA (PENYELIDIKAN DAN KEMAJUAN) PERUSAHAAN TIMAH

(DITUBUHKAN DI BAWAH AKTA KUMPULAN WANG (PENYELIDIKAN DAN KEMAJUAN) PERUSAHAAN TIMAH 1953)

Saya, Hj. Muhamad Nor Muhamad, pegawai utama yang bertanggungjawab ke atas pengurusan kewangan dan rekod-rekod perakaunan Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah, dengan ikhlasnya mengakui bahawa Penyata Kedudukan Kewangan, Penyata Pendapatan Komprehensif, Penyata Perubahan Dalam Ekuiti dan Penyata Aliran Tunai berserta dengan nota-nota kepada Penyata Kewangan di dalamnya, mengikut sebaik-baik pengetahuan dan kepercayaan saya, adalah betul dan saya membuat ikrar ini dengan sebenarnya mempercayai bahawa ia adalah benar, dan menurut peruntukan Akta Akuan Berkanun, 1960.

Sebenarnya dan sesungguhnya)
diakui oleh yang penama di atas)
di Kuala Lumpur pada) **HJ. MUHAMAD NOR MUHAMAD**
25 JUN 2024)

Di hadapan saya,

PESURUHJAYA SUMPAH
W 804
SHAIFUL HILMI
BIN HALIM
1 Januari 2023
Hingga
31 Disember 2025
MALAYSIA

Unit C-6-1, Megan Avenue II
No. 12, Jalan Yap Kwan Seng
50450 Kuala Lumpur

**Pesuruhjaya Sumpah
Malaysia**

PENYATA KEDUDUKAN KEWANGAN

PADA 31 DISEMBER 2023

	NOTA	2023 RM	Dinyatakan Semula 2022 RM
ASET BUKAN SEMASA			
Hartanah, Loji dan Peralatan	3	**12,260**	14,970
ASET SEMASA			
Penghutang	4	**258,114**	334,916
Pelbagai Penghutang	5	**71,130**	39,434
Simpanan Tetap	6	**3,990,306**	3,886,646
Wang Tunai di Bank	7	**932,666**	124,641
Bayaran Balik Cukai		**-**	159,788
JUMLAH ASET SEMASA		**5,252,216**	4,545,425
JUMLAH ASET		**5,264,476**	4,560,395
EKUITI DAN LIABILITI			
EKUITI			
Lebihan Terkumpul		**4,998,906**	4,286,078
LIABILITI SEMASA			
Pemiutang dan Perbelanjaan Terakru	8	**265,570**	274,317
JUMLAH EKUITI DAN LIABILITI		**5,264,476**	4,560,395

Nota-nota di muka surat 49 hingga 54 adalah sebahagian daripada penyata kewangan ini.

PENYATA PENDAPATAN KOMPREHENSIF

BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

	NOTA	**2023** RM	Dinyatakan Semula 2022 RM
PENDAPATAN	9	**2,445,836**	2,131,238
PELBAGAI PENDAPATAN	10	**138,608**	82,600
JUMLAH PENDAPATAN		**2,584,444**	2,213,838
PERBELANJAAN			
Perhubungan Awam dan Seranta	11	**36,185**	38,279
Penyelidikan dan Kemajuan	12	**171,325**	121,000
Caj Pentadbiran	13	**1,171,373**	1,194,038
Sewa Pejabat	14	**167,672**	167,672
Perbelanjaan Operasi Lain	15	**155,015**	158,226
Susutnilai	3	**2,910**	2,903
JUMLAH PERBELANJAAN		**1,704,480**	1,682,118
LEBIHAN PENDAPATAN SEBELUM CUKAI	16	**879,964**	531,720
Cukai	17	**(167,136)**	(18,734)
LEBIHAN PENDAPATAN SELEPAS CUKAI		**712,828**	512,986

Nota-nota di muka surat 49 hingga 54 adalah sebahagian daripada penyata kewangan ini.

PENYATA PERUBAHAN DALAM EKUITI

BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

	Kumpulan Wang Seranta	Kumpulan Wang Penyelidikan	Jumlah Disatukan
	RM	RM	RM
Baki pada 1 Januari 2022			
(Seperti diaudit)	1,825,994	1,921,970	3,747,964
Pelarasan tahun lalu	12,564	12,564	25,128
Baki pada 1 Januari 2022			
(Seperti dinyatakan semula)	1,838,558	1,934,534	3,773,092
Lebihan pendapatan bagi tahun 2022 selepas cukai			
- Seperti dilaporkan sebelum ini	320,858	228,190	549,048
- Pelarasan tahun lalu	(18,031)	(18,031)	(36,062)
Seperti dinyatakan semula	302,827	210,159	512,986
Baki pada 31 Disember 2022			
(Seperti dinyatakan semula)	2,141,385	2,144,693	4,286,078
Baki pada 1 Januari 2023	2,141,385	2,144,693	4,286,078
Lebihan pendapatan bagi tahun 2023 selepas cukai	437,382	275,446	712,828
Baki pada 31 Disember 2023	**2,578,767**	**2,420,139**	**4,998,906**

Nota-nota di muka surat 49 hingga 54 adalah sebahagian daripada penyata kewangan ini.

PENYATA ALIRAN TUNAI

BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

	2023	Dinyatakan semula 2022
	RM	RM
ALIRAN TUNAI DARIPADA AKTIVITI OPERASI		
Lebihan Pendapatan Sebelum Cukai	**879,964**	531,720
Pelarasan bagi:		
Pendapatan Faedah	**(138,608)**	(82,600)
Susutnilai	**2,910**	2,903
Aliran Tunai Daripada Aktiviti Operasi Sebelum Perubahan Modal Kerja	**744,266**	452,023
Pengurangan/(Penambahan) Penghutang	**76,802**	(4,286)
Penambahan Pelbagai Penghutang	**(31,696)**	(3,671)
(Pengurangan)/Penambahan Pemiutang dan Perbelanjaan Terakru	**(32,947)**	18,416
Penerimaan Pulangan Cukai	**159,788**	-
Bayaran Cukai	**(143,136)**	(114,750)
Pendapatan Faedah atas Wang Tunai di Bank	**4,003**	1,111
Tunai Bersih Diperolehi Daripada Aktiviti Operasi	**777,080**	348,843
ALIRAN TUNAI DARIPADA AKTIVITI PELABURAN		
Pembelian Hartanah, Loji dan Peralatan	**-**	(1,300)
Pendapatan Faedah atas Simpanan Tetap	**134,605**	81,489
Tunai Bersih Diperolehi Daripada Aktiviti Pelaburan	**134,605**	80,189
PENINGKATAN BERSIH DALAM TUNAI DAN KESETARAAN TUNAI	**911,685**	429,032
Tunai dan Kesetaraan Tunai pada Awal Tahun	**4,011,287**	3,582,255
Tunai dan Kesetaraan Tunai pada Akhir Tahun	**4,922,972**	4,011,287
TUNAI DAN KESETARAAN TUNAI TERDIRI DARIPADA:		
Simpanan Tetap	**3,990,306**	3,886,646
Wang Tunai di Bank	**932,666**	124,641
	4,922,972	4,011,287

Nota-nota di muka surat 49 hingga 54 adalah sebahagian daripada penyata kewangan ini.

NOTA KEPADA PENYATA KEWANGAN

BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

1 MAKLUMAT AM

Lembaga (Penyelidikan dan Kemajuan) Perusahaan Timah (Lembaga Timah) telah ditubuhkan di bawah Seksyen 4 Akta Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah 1953 (Akta 455). Akta ini memperuntukkan kutipan ses atas eksport timah dari Malaysia bagi tujuan membiayai operasi Lembaga Timah ke atas aktiviti-aktiviti penyelidikan, kemajuan, seranta dan aktiviti-aktiviti lain untuk manafaat industri timah di Malaysia.

Sejak 1979, ses telah dikutip pada kadar 3.6377 sen sekilogram timah dieksport. Mulai 16 Julai 2013, kadar ses telah dinaikkan kepada 40 sen sekilogram melalui Perintah Industri Timah (Penyelidikan dan Kemajuan) (Ses) (Pindaan) 2013 bertarikh 28 Jun 2013. Ses ini diagihkan pada 20 sen setiap kumpulan wang Lembaga Timah iaitu Kumpulan Wang Seranta dan Kumpulan Wang Penyelidikan, Kemajuan dan Maksud-maksud Am (Kumpulan Wang Penyelidikan).

Kumpulan Wang Seranta telah ditubuhkan mengikut Seksyen 11(a) Akta Kumpulan Wang (Penyelidikan dan Kemajuan) Perusahaan Timah 1953 bagi membiayai segala aktiviti seranta dan perhubungan awam Lembaga Timah. Kumpulan Wang Penyelidikan telah ditubuhkan mengikut Seksyen 11(b) Akta yang sama untuk membiayai aktiviti-aktiviti yang berhubung kait dengan penyelidikan, kemajuan dan maksud-maksud am.

2 DASAR-DASAR PERAKAUNAN YANG PENTING

2.1 Asas penyediaan

Penyata kewangan telah disediakan berdasarkan kepada asas kos sejarah dan mengikut Piawaian Pelaporan Entiti Persendirian Malaysia (MPERS) yang dikeluarkan oleh Lembaga Piawaian Perakaunan Malaysia (MASB) serta peruntukan-peruntukan di bawah Akta 455. Lembaga Timah telah diberikan pengecualian dari menerima pakai Piawaian Perakaunan Sektor Awam Malaysia (MPSAS) berdasarkan surat dari Jabatan Akauntan Negara Malaysia bertarikh 31 Disember 2019.

2.2 Hartanah, loji dan peralatan

Hartanah, loji dan peralatan disusutnilaikan mengikut kaedah garis lurus sepanjang jangka masa penggunaan aset tersebut pada kadar tahunan seperti berikut:

Perabot dan Kelengkapan	10%
Perkakasan Pejabat dan Pemasangan	10%
Perpustakaan	10%

2.3 Kakitangan urusetia dan perbelanjaan gunasama

Lembaga Timah tidak mempunyai kakitangannya sendiri. Segala urusan pentadbiran, kesetiausahaan dan perkeraniannya dikendalikan oleh kakitangan Dewan Perlombongan Malaysia (Dewan). Ruang pejabat dan perbelanjaan gunasama dikongsi bersama dengan Dewan dan *The Kuala Lumpur Tin Market (KLTM), dan dibahagi-bahagikan mengikut peratusan berikut yang dikemaskini berkuatkuasa mulai 1*

	Lembaga Timah			
	Kumpulan Wang Seranta	Kumpulan Wang Penyelidikan	Dewan	KLTM
Caj Pentadbiran	42.5%	42.5%	10.0%	5.0%
Perbelanjaan gunasama	42.5%	42.5%	10.0%	5.0%

Caj pentadbiran terdiri daripada gaji, elaun perumahan dan bonus kakitangan, caruman kepada Kumpulan Wang Simpanan Pekerja (KWSP) dan Pertubuhan Keselamatan Sosial (PERKESO), dan yuran pe-

NOTA KEPADA PENYATA KEWANGAN

BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

2 DASAR PERAKAUNAN PENTING (*SAMBUNGAN)*

2.3 Kakitangan urusetia dan perbelanjaan gunasama (*sambungan)*

Perbelanjaan gunasama terdiri daripada sewa pejabat, elektrik, setem dan telefon, percetakan dan alat tulis, perbelanjaan am, perbelanjaan perjalanan dan langganan penerbitan.

Perbelanjaan-perbelanjaan di atas didahului pembayarannya oleh Dewan dan kemudiannya dibayar balik oleh Lembaga Timah mengikut asas perkongsian di atas.

2.4 Instrumen kewangan / Aset kewangan

i) Pengiktirafan awal dan pengukuran
Aset kewangan atau liabiliti kewangan di dalam penyata kedudukan kewangan apabila, dan hanya apabila, sebuah entiti dalam Lembaga Timah menjadi pihak kepada peruntukan kontrak instrumen tersebut.

Pada pengiktirafan awal, aset kewangan dan liabiliti kewangan diukur pada nilai saksama, yang secara umumnya merupakan harga transaksi, ditambah kos transaksi jika aset kewangan atau liabiliti kewangan tidak diukur pada nilai saksama melalui keuntungan atau kerugian. Bagi instrumen yang diukur pada nilai saksama melalui keuntungan atau kerugian, kos transaksi dikira sebagai perbelanjaan dalam untung atau rugi apabila ditanggung.

ii) Pengukuran aset kewangan
Untuk tujuan pengukuran berikutnya, Lembaga Timah mengklasifikasikan aset kewangan pada nilai saksama melalui untung atau rugi.

Selain daripada aset kewangan yang diukur pada nilai saksama melalui untung atau rugi, semua aset kewangan lain tertakluk kepada semakan kemerosotan nilai.

iii) Pengukuran liabiliti kewangan
Selepas pengiktirafan awal, Lembaga Timah mengukur semua liabiliti kewangan pada kos yang dilunaskan menggunakan kaedah faedah berkesan, kecuali instrumen derivatif yang merupakan liabiliti, yang mana diukur pada nilai saksama.

iv) Pengukuran nilai saksama instrumen kewangan
Nilai saksama aset kewangan atau liabiliti kewangan ditentukan dengan merujuk kepada harga pasaran yang disebut harga dalam pasaran aktif, dan dengan ketiadaan harga pasaran yang boleh dirujuk, teknik penilaian digunakan.

v) Pengiktirafan keuntungan dan kerugian
Perubahan nilai saksama aset kewangan dan liabiliti kewangan yang diklasifikasikan sebagai pada nilai saksama melalui keuntungan atau kerugian adalah diiktiraf dalam untung atau rugi apabila ia berlaku.

Bagi aset kewangan dan liabiliti kewangan yang dibawa pada kos dilunas, keuntungan atau kerugian diiktiraf dalam untung atau rugi hanya apabila aset kewangan atau liabiliti kewangan tidak lagi diiktiraf atau terjejas, dan melalui proses pelunasan instrumen.

2.5 Tunai dan kesetaraan tunai
Untuk tujuan penyata aliran tunai, tunai dan kesetaraan tunai merangkumi tunai di dalam bank dan simpanan tetap yang sedia ditukar kepada jumlah tunai yang diketahui dan tertakluk kepada risiko perubahan nilai yang tidak ketara.

2.6 Hasil
Hasil mewakili kutipan ses ke atas timah yang dieksport yang diiktiraf berdasarkan asas akruan.
Pendapatan faedah diiktiraf berdasarkan kadar faedah berkesan.

NOTA KEPADA PENYATA KEWANGAN
BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

2 DASAR PERAKAUNAN PENTING *(SAMBUNGAN)*

2.7 Liabiliti dan ekuiti
Liabiliti Lembaga Timah mewakili pemiutang yang diiktiraf berdasarkan asas akruan.
Ekuiti mewakili lebihan terkumpul pendapatan Lembaga Timah berbanding perbelanjaan.

2.8 Cukai pendapatan
Cukai yang dibayar adalah berdasarkan pendapatan boleh cukai untuk tahun semasa. Liabiliti Lembaga Timah untuk cukai semasa dikira menggunakan kadar cukai yang telah digubal pada akhir tempoh pelaporan.

3 HARTANAH, LOJI DAN PERALATAN

	Kumpulan Wang Seranta RM	Kumpulan Wang Penyelidikan RM	Jumlah Disatukan RM
KOS			
Perabot dan Kelengkapan			
Pada 1 Januari 2023	**39,314**	**27,634**	**66,948**
Pada 31 Disember 2023	**39,314**	**27,634**	**66,948**
Perkakasan Pejabat dan Pemasangan			
Pada 1 Januari 2023	**2,465**	**2,465**	**4,930**
Pada 31 Disember 2023	**2,465**	**2,465**	**4,930**
Perpustakaan			
Pada 1 Januari 2023	**1,300**	**-**	**1,300**
Penambahan	**200**	**-**	**200**
Pada 31 Disember 2023	**1,500**	**-**	**1,500**
Jumlah Kos pada 31 Disember 2023	**43,279**	**30,099**	**73,378**
SUSUTNILAI TERKUMPUL			
Perabot dan Kelengkapan			
Pada 1 Januari 2023	**36,129**	**20,001**	**56,130**
Susutnilai Tahun Semasa	**1,143**	**1,141**	**2,284**
Pada 31 Disember 2023	**37,272**	**21,142**	**58,414**
Perkakasan Pejabat dan Pemasangan			
Pada 1 Januari 2023	**985**	**985**	**1,970**
Susutnilai Tahun Semasa	**247**	**247**	**494**
Pada 31 Disember 2023	**1,232**	**1,232**	**2,464**
Perpustakaan			
Pada 1 Januari 2023	**108**	**-**	**108**
Susutnilai Tahun Semasa	**132**	**-**	**132**
Pada 31 Disember 2023	**240**	**-**	**240**
Jumlah Susutnilai Terkumpul pada 31 Disember 2023	**38,744**	**22,374**	**61,118**
NILAI BUKU BERSIH			
Pada 31 Disember 2023	**4,535**	**7,725**	**12,260**
Pada 31 Disember 2022	**5,857**	**9,113**	**14,970**

NOTA KEPADA PENYATA KEWANGAN
BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

		2023	Dinyatakan Semula 2022
4	**PENGHUTANG**	**RM**	RM
	Kumpulan Wang Seranta	**129,057**	167,458
	Kumpulan Wang Penyelidikan	**129,057**	167,458
	Jumlah Disatukan	**258,114**	334,916

		2023	2022
5	**PELBAGAI PENGHUTANG**	**RM**	RM
	Kumpulan Wang Seranta	**32,127**	18,712
	Kumpulan Wang Penyelidikan	**39,003**	20,722
	Jumlah Disatukan	**71,130**	39,434

		2023	2022
6	**SIMPANAN TETAP**	**RM**	RM
	Kumpulan Wang Seranta	**1,999,705**	1,945,674
	Kumpulan Wang Penyelidikan	**1,990,601**	1,940,972
	Jumlah Disatukan	**3,990,306**	3,886,646

		2023	2022
7	**WANG TUNAI DI BANK**	**RM**	RM
	Kumpulan Wang Seranta	**547,550**	67,295
	Kumpulan Wang Penyelidikan	**385,116**	57,346
	Jumlah Disatukan	**932,666**	124,641

		2023	Dinyatakan Semula 2022
8	**PEMIUTANG DAN PERBELANJAAN TERAKRU**		
	Pemiutang	**RM**	RM
	Kumpulan Wang Seranta	**113,957**	64,162
	Kumpulan Wang Penyelidikan	**125,513**	58,727
		239,470	122,889
	Perbelanjaan Terakru		
	Kumpulan Wang Seranta	**20,250**	74,464
	Kumpulan Wang Penyelidikan	**5,850**	76,964
		26,100	151,428
	Jumlah Disatukan	**265,570**	274,317

Termasuk dalam jumlah pemiutang dan perbelanjaan terakru ialah:
(i) Jumlah pemiutang bagi Kumpulan Wang Seranta dan Kumpulan Wang Penyelidikan sebanyak RM113,957 (2022: RM64,162) dan RM125,513 (2022: RM58,727) masing-masing adalah perbelanjaan yang didahulukan oleh Dewan Perlombongan Malaysia.
(ii) Jumlah perbelanjaan terakru bagi Kumpulan Wang Seranta dan Kumpulan Wang Penyelidikan sebanyak RM20,250 (2022: RM74,464) dan RM5,850 (2022: RM76,964) masing-masing adalah peruntukan bagi fi audit dan fi profesional.

		2023	Dinyatakan Semula 2022
9	**PENDAPATAN**		
	Kumpulan Wang Seranta	**RM**	RM
	Kutipan Ses atas Timah Dieksport	**1,222,918**	1,065,619
	Kumpulan Wang Penyelidikan		
	Kutipan Ses atas Timah Dieksport	**1,222,918**	1,065,619
	Jumlah Disatukan	**2,445,836**	2,131,238

NOTA KEPADA PENYATA KEWANGAN

BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

10 PELBAGAI PENDAPATAN

	2023	2022
	RM	RM
Kumpulan Wang Seranta		
Faedah atas Simpanan Tetap	**67,446**	39,404
Faedah atas Akaun Semasa	**2,033**	619
	69,479	40,023
Kumpulan Wang Penyelidikan		
Faedah atas Simpanan Tetap	**67,159**	42,085
Faedah atas Akaun Semasa	**1,970**	492
	69,129	42,577
Jumlah Disatukan	**138,608**	82,600

11 PERHUBUNGAN AWAM DAN SERANTA

	2023	2022
	RM	RM
Kumpulan Wang Seranta		
Tajaan dan Derma	**-**	2,000
Penerbitan "Malaysian Tin Buletin"	**30,600**	30,600
Bayaran Pos "Malaysian Tin Buletin"	**5,585**	5,679
	36,185	38,279

12 PENYELIDIKAN DAN KEMAJUAN

	2023	2022
	RM	RM
Kumpulan Wang Penyelidikan		
Projek Penyelidikan dan Kemajuan	**171,325**	121,000
	171,325	121,000

13 CAJ PENTADBIRAN

	2023	Dinyatakan Semula 2022
	RM	RM
Kumpulan Wang Seranta	**585,571**	597,019
Kumpulan Wang Penyelidikan	**585,802**	597,019
Jumlah Disatukan	**1,171,373**	1,194,038

14 SEWA PEJABAT

	2023	2022
	RM	RM
Kumpulan Wang Seranta	**83,836**	83,836
Kumpulan Wang Penyelidikan	**83,836**	83,836
Jumlah Disatukan	**167,672**	167,672

15 PERBELANJAAN OPERASI LAIN

	2023	2022
	RM	RM
Kumpulan Wang Seranta		
Elektrik	**2,280**	2,189
Setem dan Telefon	**5,612**	5,403
Percetakan dan Alat Tulis	**16,704**	7,552
Perbelanjaan Am	**18,903**	25,747
Langganan Penerbitan	**1,401**	3,253
Perbelanjaan Perjalanan	**27,757**	25,510
Fi Audit	**3,243**	3,150
	75,900	72,804
Kumpulan Wang Penyelidikan		
Elektrik	**2,280**	2,189
Setem dan Telefon	**4,979**	5,184
Percetakan dan Alat Tulis	**5,979**	6,692
Perbelanjaan Am	**19,409**	26,060
Langganan Penerbitan	**7,178**	1,379
Perbelanjaan Perjalanan	**28,917**	32,368
Fi Audit	**3,243**	3,150
Elaun Mesyuarat	**4,300**	6,100
Fi Profesional	**2,830**	2,300
	79,115	85,422
Jumlah Disatukan	**155,015**	158,226

NOTA KEPADA PENYATA KEWANGAN

BAGI TAHUN KEWANGAN BERAKHIR 31 DISEMBER 2023

16 LEBIHAN PENDAPATAN SEBELUM CUKAI

	2023 RM	Dinyatakan Semula 2022 RM
Kumpulan Wang Seranta		
Jumlah Pendapatan	**1,292,397**	1,105,642
Jumlah Perbelanjaan	**(783,014)**	(793,445)
	509,383	312,197
Kumpulan Wang Penyelidikan		
Jumlah Pendapatan	**1,292,047**	1,108,196
Jumlah Perbelanjaan	**(921,466)**	(888,673)
	370,581	219,523
Jumlah Disatukan	**879,964**	531,720

17 CUKAI

	2023 RM	2022 RM
Anggaran Cukai Semasa	**144,000**	114,750
Terlebih peruntukan dalam tahun terdahulu	**-**	(96,016)
Terkurang peruntukan dalam tahun terdahulu	**23,136**	-
Penalti Cukai	**-**	-
Perbelanjaan Cukai	**167,136**	18,734

Cukai pendapatan Lembaga Timah dikira pada kadar cukai berkanun sebanyak 24% ke atas pendapatan boleh cukai bagi tahun kewangan.

18 PROGRAM RASIONALISASI

Kementerian Sumber Asli dan Kelestarian Alam kini sedang dalam proses melaksanakan program penstrukturan di mana Lembaga Timah akan menjadi satu entiti baharu yang dinamakan Lembaga Pembangunan Industri Mineral Malaysia.

19 PELARASAN PENYATA KEDUDUKAN KEWANGAN, PENYATA PENDAPATAN KOMPREHENSIF DAN PENYATA ALIRAN TUNAI

	Seperti dinyatakan sebelum RM	Pelarasan tahun lalu RM	Seperti dinyatakan semula RM
Penyata Kedudukan Kewangan			
Aset			
Penghutang	209,222	125,694	334,916
Ekuiti dan Liabiliti			
Pemiutang dan perbelanjaan terakru	137,689	136,628	274,317
Lebihan terkumpul	4,297,012	(10,934)	4,286,078
		125,694	
Penyata Pendapatan Komprehensif			
Pendapatan	(2,030,672)	(100,566)	(2,131,238)
Caj pentadbiran	1,057,410	136,628	1,194,038
		36,062	
Penyata Aliran Tunai			
Lebihan pendapatan sebelum cukai	567,782	(36,062)	531,720
Penambahan penghutang	96,280	(100,566)	(4,286)
Penambahan Pemiutang dan Perbelanjaan Terakru	(118,212)	136,628	18,416
		-	

20 PEMBENTANGAN PENYATA KEWANGAN

Penyata Kewangan bagi tahun berakhir 31 Disember 2023 telah diluluskan oleh Lembaga Pengarah melalui Resolusi yang bertarikh 25 Jun 2024.

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TIN INDUSTRY (RESEARCH AND DEVELOPMENT) BOARD

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CHAIRMAN'S STATEMENT

DATO' SERI MOHD AJIB ANUAR
CHAIRMAN,
TIN INDUSTRY (RESEARCH AND DEVELOPMENT) BOARD

On behalf of the Board, I am delighted to present the Annual Report of the Tin Industry (Research and Development) Board for the financial year ended 31 December 2023 (FY2023). The Annual Report summarises the efforts undertaken by the Tin Board and its achievements during the year under review to promote the development of the Malaysian tin industry throughout the whole value and supply chain, in line with the Government's aspiration to see the mineral resource sector contributing to at least 1% of the nation's Gross Domestic Product (GDP) as outlined in the Mineral Industry Transformation Plan (TIM) 2021-2030.

The report includes information related to the performance of the local tin industry during the year, such as tin production, domestic consumption and the developments within this industry.

The year 2023 was a significant one indeed for the tin industry both domestically and globally. Various important events had happened throughout the year which had reinforced the importance of tin metal as a critical technology material for the future, underpinned by the energy transition initiatives, 4th Industrial Revolution (IR4), implementation of 5G communications and other technological advances.

Tin prices were volatile especially in the first half of 2023 which saw a peak of USD 32,000 per tonne and a low of USD 22,000 per tonne. There was less volatility in the second half of the year. Strangely, the price of tin started and ended the year at a similar level of USD 25,000 per tonne.

The fluctuation in the price of tin had a great impact on tin consumers particularly manufacturers of tin-based products, as they had to deal with the vagaries of the tin market in pricing their products to remain profitable and competitive.

On the supply side, global tin exploration continued unabated in the Democratic Republic of Congo, Namibia, Australia and the UK. However, back home little progress has been made. Sadly, our mineral investment environment remained unattractive although geologically there are reasons to believe that there are still economic tin resources yet to be discovered. The importance of having a reliable domestic source of supply of tin is well exemplified by the ban on tin mining in Wa State, Myanmar effective August 2023 which immediately sparked off a sharp increase in the global tin price. Although the increase in the price of tin as a result of this restriction was short lived, the development had sent a strong signal on the importance of empowering the upstream sector of the tin industry to ensure a sustainable supply of tin to meet the demand for this metal by various economic sectors in our country which rely on tin as the major raw material.

This year also witnessed tin metal being classified officially as a critical material by some tin producing countries such as Indonesia and Australia. Although the impact of this announcement is still not apparent, it nevertheless affirmed that the role of this unique metal will continue to remain relevant and important, especially as the world

CHAIRMAN'S STATEMENT

began to pursue the drive towards energy transition and the 4IR, which would enable mass production at the lowest possible cost by means of automation, using clean, efficient and environment friendly energy. The Government, in TIM 2021-2030, had rightly included tin as one of the five national strategic minerals which would be contributing significantly to the national economy.

When the Tin Board was initially established, Malaysia was the world's largest producer of tin, and the major objective then was to boost consumption of tin through R & D and publicity. However, the scenario has changed significantly over the years and the Tin Board has to restrategise to remain relevant in its contribution to the nation. It is realigning its priorities towards helping the nation monetise its mineral wealth, particularly the potentially huge tin resources which, based on geological information still exists in the country.

As part of this realignment of focus areas, the Tin Board had taken the initiative to organise a "Conference on the Development of Primary Tin Deposits in Malaysia" (PTC 2023) in November 2023 to revisit Malaysia's potential for the mining of primary tin deposits. With more than 200 participants from the Government, private sector and the academia who showed up, this Conference was a great success in rejuvenating the interests in developing the upstream tin industry in Malaysia. Eight technical papers were presented including two by tin industry experts from Australia.

Apart from PTC 2023, the Tin Board had been instrumental in encouraging and facilitating tin-based research activities to drive invention and innovation processes, which could further create and add value to each segment of the industry's supply chain. In 2023, the Tin Board continued with its Tin Board Research Grants Programme by awarding Research Grants worth RM10,000 each to eleven selected researchers, ten from local institutions of higher learning and one from a Government research centre.

Although the Tin Board is now giving greater focus on the upstream ecosystem of the tin industry, it has not forgotten the downstream players. The Tin Board continued to provide administrative support to the Malaysian Tin Products Manufacturers' Association (MTPMA), an association consisting of local manufacturers of tin-based products such as solder, tinplate and pewter. Apart from the abovementioned administrative support, the Tin Board had also played its role in publishing and disseminating information related to the production, characteristics and supply of tin, through the publication of the Association's Newsletter published four times a year. The Newsletter provides the latest information on the development of the local tin industry as well as being a platform for tin-based manufacturing companies to promote their products.

Going forward, the Tin Board is optimistic and confident that tin will remain a critical technology metal of the future. This is substantiated by the projected increase in demand for tin metal, especially in the energy transition sector towards the use of electricity as an energy source to replace internal combustion engine. We are also confident that the rapid development in communication technology, automation, as well as the 4IR would also drive the demand for this metal.

The Tin Board remains committed in its mission to develop the Malaysian tin resources responsibly and sustainably in helping the country to generate additional revenue sources to boost the nation's economy. The Tin Board is also committed to achieving national development goals, through sustainable development and meeting standards within the Environmental, Social and Governance (ESG) framework. We are determined to strengthen our efforts to maintain this momentum, as well as expand the reach of our network to relevant industry players in an effort to empower and add value to the entire supply chain.

Most of you may be aware that the Government is in the process of establishing a Mineral Industry Development Board through the restructuring of the Tin Board to cover other mineral commodities. This process is on-going but progress has been slow because of bureaucratic challenges. Nevertheless, the transformation of the Tin Board into a Mineral Board should be seen as a positive move that will benefit the country significantly in the long run.

I would like to end this note with a record of appreciation to all Board members for the support given to me as Chairman of the Tin Board thoughout the year. In carrying out our duties and functions, we received cooperation and assistance from Ministry of Natural Resources and Environmental Sustainability (NRES), Department of Mineral and Geoscience (JMG), Malaysian Chamber of Mines (MCOM) and professional bodies such as the Institute of Engineering (IEM), Institute of Geology (IGM), Board of Geologists (BOG), Institute of Mineral Engineering (IMEM) and others for which we would like to express our sincere appreciation. I would also like to extend my sincere appreciation to the Secretary of the Tin Board, Tn Hj. Muhamad Nor Muhamad and Secretariat staff. Without their hard work and dedication, the implementation of the Tin Board's agenda and the production of this Annual Report would not be possible.

Salam Malaysia Madani.

Dato' Seri Mohd Ajib Anuar
Chairman

MEMBERS OF THE BOARD

REPRESENTATIVE MEMBERS

(Nominated by Malaysian Chamber of Mines)

Dato' Seri Mohd Ajib Anuar, SSAP, DIMP - **Chairman**
Dato' Sri Hj. Ahmad Omar, SSAP, DIMP
Dato' Dr Ir Patrick Yong Mian Thong, DIMP
[Alternate: P. Geol. Madzlan Zam]
Hj. Johaizal Dato' Musa

(Nominated by All-Malaya Chinese Mining Association)
Dato' Chin Lean Choong, DPMP, JP
Ir Steve Zhen Xiong Loh

OFFICIAL MEMBERS

(Nominated by Yang Berhormat, Minister of Natural Resources, Environment and Climate Change (NRECC)

Muhammad Rosli Muhammad Jaafar *(until 16 July 2023)*
Undersecretary, Minerals and Geoscience Division, NRECC

Hj. Hisamuddin Termidi (*until 30 March 2023*)
Director-General, Department of Mineral and Geoscience Malaysia (JMG)
[Alternate: Datuk P.Geol. Zamri Ramli
Deputy Director General (Corporate and Mineral Economics), JMG]

Dr Nazwin Ahmad
Director, Mineral Research Centre (MRC), JMG
[Alternate: Dr Ismail Ibrahim
Senior Research Officer, MRC, JMG]

SECRETARY

Hj. Muhamad Nor Muhamad, JSM

MEMBERS OF COMMITTEES

PUBLICITY MANAGEMENT COMMITTEE

Dato' Seri Mohd Ajib Anuar, SSAP, DIMP - **Chairman**
Dato' Sri Hj. Ahmad Omar, SSAP, DIMP
Dato' Dr Ir Patrick Yong Mian Thong, DIMP
[Alternate: P. Geol. Madzlan Zam]
Dato' Chin Lean Choong, DPMP, JP
Ir Steve Zhen Xiong Loh
Hj. Johaizal Dato' Musa

AUDIT COMMITTEE

Muhammad Rosli Muhammad Jaafar (*until 16 July 2023)* - **Chairman**
Dato' Sri Hj. Ahmad Omar, SSAP, DIMP
Dato' Chin Lean Choong, DPMP, JP
Hj. Muhamad Nor Muhamad, JSM
Emil Nuruddin Che Jamaludin Mahmud - Secretary

REPRESENTATIVE MEMBERS

DATO' SERI MOHD AJIB ANUAR
Chairman
Tin Industry (Research and Development) Board

DATO' SRI HJ. AHMAD OMAR

DATO' CHIN LEAN CHOONG

DATO' DR IR PATRICK YONG MIAN THONG

HJ JOHAIZAL DATO' HJ MUSA

IR STEVE ZHEN XIONG LOH

OFFICIAL MEMBERS

MUHAMMAD ROSLI MUHAMMAD JAAFAR
(until 16 July 2023)

HJ HISAMUDDIN TERMIDI
(until 30 March 2023)

DR NAZWIN AHMAD

ALTERNATE MEMBERS

P.GEOL. MADZLAN ZAM

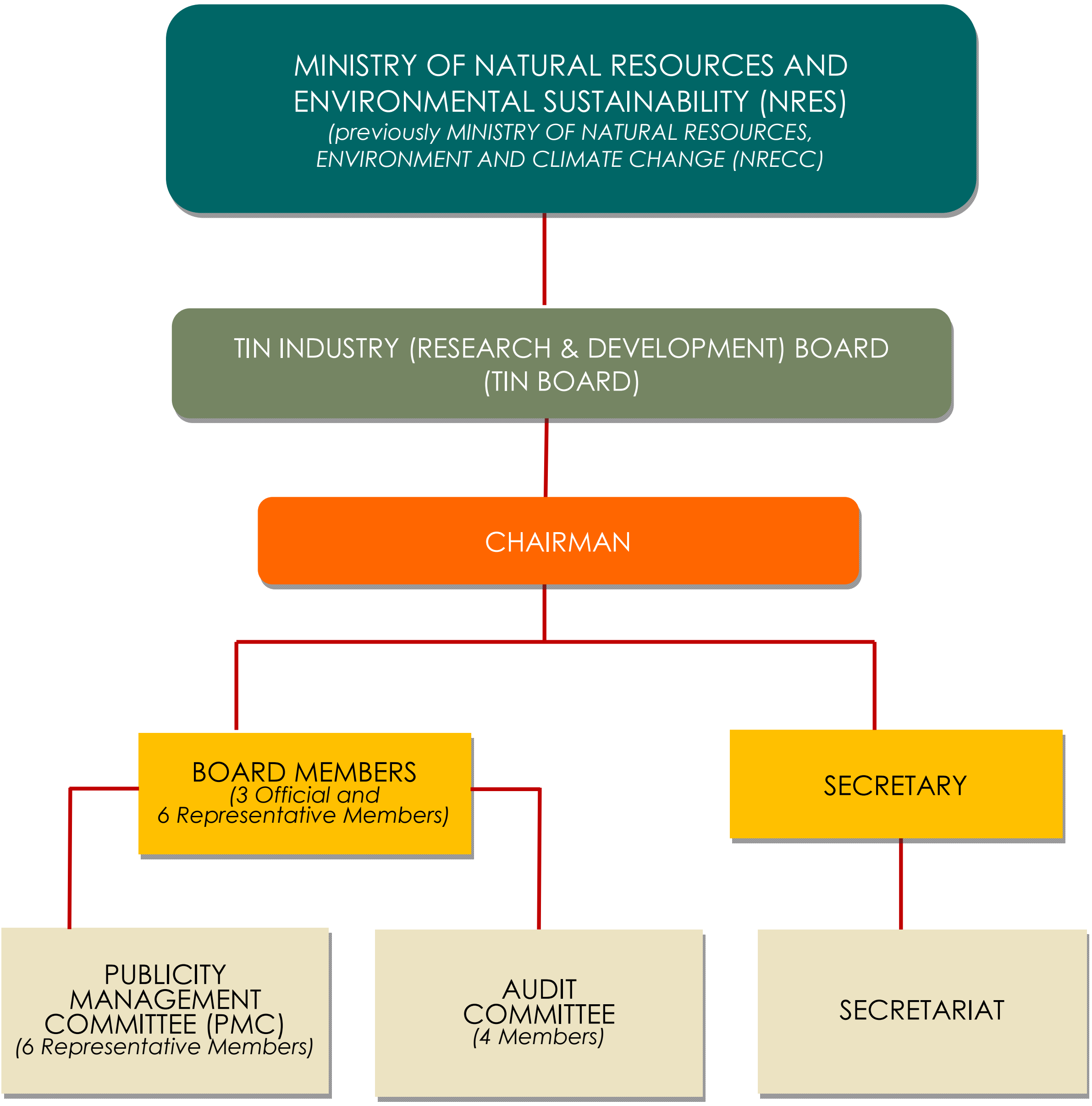
DATUK P. GEOL. ZAMRI RAMLI

DR ISMAIL IBRAHIM

SECRETARY

HJ MUHAMAD NOR MUHAMAD

ORGANISATIONAL CHART



SECRETARIAT

The Tin Board has no direct employees of its own. All secretarial, administrative and clerical functions of the Board are provided by the staff of the Malaysian Chamber of Mines (MCOM) under a cost sharing basis. The Secretariat also services The Malaysian Tin Products Manufacturers' Association (MTPMA), an organisation formed by the Tin Board as an extension to its function of advancing the interest and development of the downstream tin manufacturing sector. The Secretariat staff comprise eight senior executives and two junior administrative assistants including a Technical Consultant.

SECRETARIAT ADDRESS

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INCORPORATION

The Tin Industry (Research and Development) Board (Tin Board) was established under Section 4 of the Tin Industry (Research and Development) Fund Ordinance No.58 of 1953, and has been in operation since 1954.

In March 1991, the Ordinance was amended and gazetted as a revised legislation entitled Tin Industry (Research and Development) Fund Act No. 455 of 1953.

The Act provides for the collection of cess on export of tin from Malaysia. It also establishes a Fund into which money collected as cess is to be paid into. The Act also establishes the Tin Board to administer and manage the Fund for the purpose of funding research, development, publicity and other activities for the benefit of the Malaysian tin industry.

Effective July 2013, the tin cess collected was fixed at the rate of 40 sen per kilogramme of tin concentrates exported.

The Act also establishes the Tin Board to ***administer and manage the Fund for the purpose of funding research, development, publicity and other activities*** *for the benefit of the Malaysian tin industry.*

OBJECTIVES

1

To help develop a sustainable and fully integrated tin industry by promoting and facilitating growth and investments in the full ecosystem of the tin industry including its upstream, midstream and downstream sectors and their supply chains.

2

To undertake and facilitate R&D activities that will bring about benefits to the tin industry in Malaysia.

3

To stimulate, popularise and extend the consumption and uses of tin in the tin-based products manufacturing industry based on the metal's techno-economic advantages in order to benefit the interest of the tin industry in Malaysia.

4

To publicise and disseminate information on the production, characteristics, availability and usefulness of tin in everyday living.

5

To undertake other activities that are relevant and beneficial to the tin industry and its stakeholders.

FUNCTIONS

1

Planning and formulating appropriate strategies for the development of the local tin industry.

2

Planning and formulating integrated research, development and publicity policies for advancing the local tin industry.

3

Providing techno-economic assistance and promoting technology transfer to the local tin industry.

4

Creating and developing the tin-based products manufacturing industry within an integrated development of the local tin industry

5

Organising other support activities that would further enhance the development and pro-active image of the tin industry.

CLIENT CHARTER

1. Provide specialist advisory service on the entire spectrum of the tin industry.

2. Strengthen the close relationship between the mining industry and Government.

3. Promote and enhance the development of the tin-based manufacturing industry in Malaysia.

4. Provide courteous service as well as accurate and current information to local and foreign visitors.

5. Disseminate accurate information on the current developments in the tin industry through factual and up-to-date publications.

6. Manage efficiently the Fund containing the cess collection to ensure it is used effectively for the development of the Malaysian tin industry.

7. Ensure that all publicity, research and development (R&D) activities meet the present and future needs and requirements of the tin industry and the nation.

PUBLICITY & PUBLIC RELATIONS ACTIVITIES

All publicity and public relations activities under the Tin Board are supervised and overseen by the Publicity Management Committee (PMC). The Committee was formed pursuant to Section 6(1) of the Tin Industry (Research and Development) Fund Act 1953. Members of the PMC comprise all the six Representative Members of the Board, including its Chairman, YBhg. Dato' Seri Mohd Ajib Anuar, who was also the Chairman of the Board.

The PMC met five times during the year, concurrently with meetings of the Board, namely in January, March, July, September and November. All the meetings were held on a hybrid basis with the presence of several Board members in person at the Secretariat Conference Room and the rest of the Board members attended virtually from elsewhere. All publicity activities and programmes undertaken during the year were reported to the PMC during its meetings where they were deliberated upon and approved.

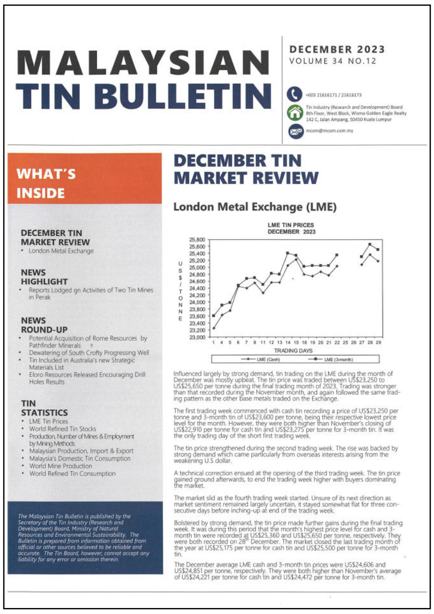
The major publicity and public relations activity programmes undertaken by the Board during the year 2023 were as follows:

- Publications;
- Receiving visitors;
- Organising and participating in conferences, forums, workshops and dialogues;
- Lending service; and
- Advisory services.

PUBLICATIONS

In accordance with one of its objectives which is to publicise and disseminate information on the production, characteristics and availability of tin, the Board had continued to produce three major publications on a regular basis, namely the Malaysian Tin Bulletin, Malaysian Press Cuttings and Malaysian Tin Products Newsletter during the year of 2023. These publications were prepared and produced in-house by the Secretariat staff before being distributed to members of the industry, the fraternity and also to members of the public free-of-charge.

PUBLICITY & PUBLIC RELATIONS ACTIVITIES



MALAYSIAN
TIN BULLETIN

DECEMBER 2023
VOLUME 34 NO.12

+603 21616171 / 21616173

Tin Industry (Research and Development) Board
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The Malaysian Tin Bulletin is published by the Secretary of the Tin Industry (Research and Development) Board, Ministry of Natural Resources and Environmental Sustainability. The Bulletin is prepared from information obtained from official or other sources believed to be reliable and accurate. The Tin Board, however, cannot accept any liability for any error or omission therein.

DECEMBER TIN MARKET REVIEW

London Metal Exchange (LME)

Influenced largely by strong demand, tin trading on the LME during the month of December was mostly upbeat. The tin price was traded between US$23,250 to US$25,650 per tonne during the final trading month of 2023. Trading was stronger than that recorded during the November month, and again followed the same trading pattern as the other base metals traded on the Exchange.

The first trading week commenced with cash tin recording a price of US$23,250 per tonne and 3-month tin of US$23,600 per tonne, being their respective lowest price level for the month. However, they were both higher than November's closing of US$22,910 per tonne for cash tin and US$23,275 per tonne for 3-month tin. It was the only trading day of the short first trading week.

The tin price strengthened during the second trading week. The rise was backed by strong demand which came particularly from overseas interests arising from the weakening U.S dollar.

A technical correction ensued at the opening of the third trading week. The tin price gained ground afterwards, to end the trading week higher with buyers dominating the market.

The market slid as the fourth trading week started. Unsure of its next direction as market sentiment remained largely uncertain, it stayed somewhat flat for three consecutive days before inching-up at end of the trading week.

Bolstered by strong demand, the tin price made further gains during the final trading week. It was during this period that the month's highest price level for cash and 3-month tin were recorded at US$25,360 and US$25,650 per tonne, respectively. They were both recorded on 28th December. The market closed the last trading month of the year at US$25,175 per tonne for cash tin and US$25,500 per tonne for 3-month tin.

The December average LME cash and 3-month tin prices were US$24,606 and US$24,851 per tonne, respectively. They were both higher than November's average of US$24,221 per tonne for cash tin and US$24,472 per tonne for 3-month tin.

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Malaysian Tin Bulletin

The Malaysian Tin Bulletin (MTB) is the primary publicity and public relations media of the Board. It is published in English on a monthly basis and circulated to both local and overseas readers. The Bulletin serves as a major source of information and reference with regard to the tin industry and its development. Each issue of the MTB includes the latest news and a review of the tin market, data on supply and demand, and latest updates pertaining to the outlook, prospects and trends in the tin industry locally, regionally and globally. It represents a useful avenue for the dissemination of relevant information on the tin industry. The MTB is available in both digital and hard copy format with some 1,000 copies being circulated per issue. The digital version of the MTB are also available online and can be downloaded from the Board's Website.

>
Malaysian Press Cuttings

The Malaysian Press Cuttings (MPC) is another useful and important media for the dissemination of the latest news and information on the industry. It comprises a compilation of newspaper and other printed media articles reproduced and circulated periodically to those in the industry and others who are likely to benefit from the news coverage. Some 100 copies are distributed to interested parties per issue.

LEMBAGA (PENYELIDIKAN DAN KEMAJUAN) PERUSAHAAN TIMAH
THE TIN INDUSTRY (RESEARCH AND DEVELOPMENT) BOARD
(KEMENTERIAN SUMBER ASLI, ALAM SEKITAR DAN PERUBAHAN IKLIM)
8th Floor, West Block, Wisma Golden Eagle Realty, Jalan Ampang, 50450 Kuala Lumpur

MALAYSIAN PRESS CUTTINGS
(FOR PRIVATE CIRCULATION ONLY)

No : 03/2023
Date : 31/05/2023
Ref : PMC 9/5/XXXVI

Lynas C&L stays six more months

Licence valid until Jan 1, says firm

By ONG HAN SEAN
newsdesk@thestar.com.my

KUANTAN: Lynas Rare Earths Ltd claims its licence to import and process lanthanide concentrate at its Malaysian operation is now valid until Jan 1 next year.

The Australian rare earth materials producer said the change was made by Science, Technology and Innovation Minister Chang Lih Kang in response to the appeals filed by Lynas under the Atomic Energy Licensing Act 1984.

However, Lynas said the minister had otherwise dismissed its other appeals.

"The licence variation allows the Lynas Malaysia cracking and leaching (C&L) plant to continue to operate until Jan 1, 2024, and will remove the requirement for a shutdown at the Lynas Malaysia plant before Jan 1, 2024.

"Lynas had applied to the minister for the removal of the conditions that limit operations at the facility, as they represent a significant variation from the conditions under which Lynas initially decided to invest in Malaysia.

"The conditions do not follow the recommendations of the Malaysian government's 2018 executive review committee report on Lynas Malaysia's operations, the Atomic Energy Licensing Board's audits of Lynas Malaysia's operations or any of the three prior independent expert scientific reviews of Lynas Malaysia's operations," the company said in a statement yesterday.

Lynas previously said it was planning for either a temporary shutdown of its operation or a period of deficient production, if licence conditions prohibiting the importing and processing of lanthanide concentrate remain effective on July 1.

This was after Chang announced in February that Lynas had been informed of the decision by the Atomic Energy Licensing Board, where its request to drop four conditions related to cracking and leaching activities, the generation of water leach purification (WLP) residues and the import of lanthanide concentrates from Australia was not considered.

This meant then that Lynas would no longer be allowed to carry out activities producing radioactive waste in Malaysia after July 2023.

On Sunday, Prime Minister Datuk Seri Anwar Ibrahim reportedly confirmed that the government had provided Lynas Malaysia with a six-month extension to fulfil the conditions of its operating licence in the country.

Meanwhile, Lynas said Malaysia offers legal avenues for reviewing the licence conditions.

"Lynas has made significant investments in its Malaysian facility and will seek review through these processes regarding the conditions to ensure that Lynas is treated fairly and equitably as a foreign direct investor and as a significant employer and contributor to the Malaysian economy," it added.

THE STAR 9/5/2023

Sustainable mining policy in the works

By BENJAMIN LEE
benlkh@thestar.com.my

PUTRAJAYA: Malaysia's current national mineral resources are valued at over RM4 trillion, and a new national mineral policy is being formulated to manage the extraction, says Datuk Seri Fadillah Yusof.

The Deputy Prime Minister said the policy would maximise national economic benefit while also ensuring the environmental and social sustainability of the country's mining operations.

Fadillah, who is also Plantation and Commodities Minister, said the policy would be developed over the next three months.

"The new policy will set a new standard operating procedure (SOP) that all mining operations for natural resources across the country must follow.

"The challenge now will be finding the balance between potential economic benefit and ensuring environmental sustainability," he said during a press conference after the second National Mineral Council meeting (MMN2) at the Prime Minister's Office yesterday.

The MMN2 involved multiple ministers, the mentri besar or chief minister of every state, a representative of Sarawak's premier, and representatives from other ministry heads, he said.

Fadillah added his ministry would work on increasing enforcement against illegal mining activities nationwide.

He said the majority of illegal mining operations involve non-radioactive rare earth elements, with most occurring in Kedah, adding that his ministry had developed a temporary SOP for mining operations in Perak.

THE STAR 9/5/2023

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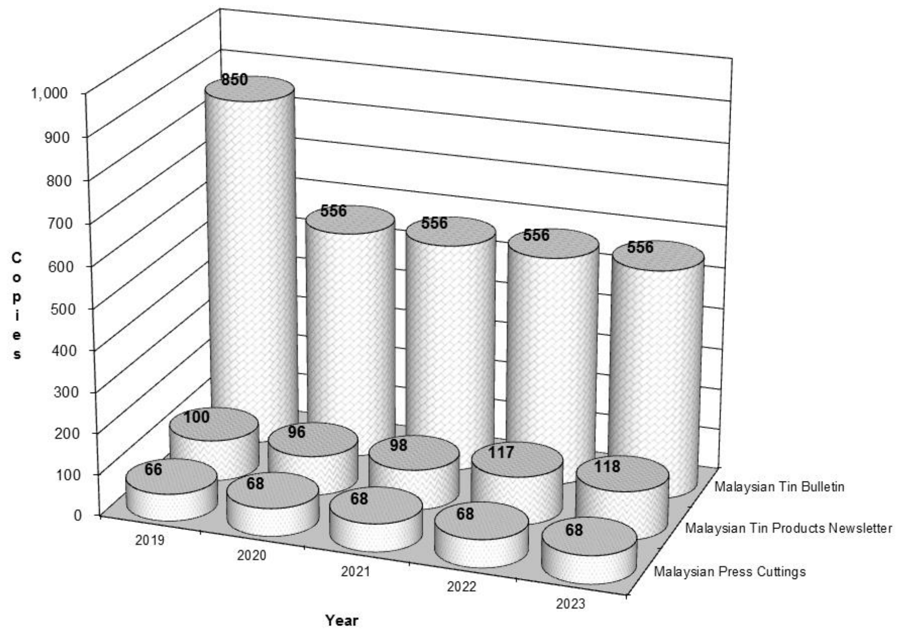
Malaysian Tin Products Newsletter

The Malaysian Tin Products Newsletter serves as the official publication of the Malaysian Tin Products Manufacturers' Association (MTPMA), an industry association serviced by the Tin Board Secretariat. It is published quarterly and each issue contains updates on the activities of the Association and its members, data and statistics pertaining to the downstream tin-based products manufacturing industry and other relevant news, locally and internationally. Available in digital and hard copy format, some 250 copies are distributed per issue. The digital version of the newsletter are also available online and can be downloaded from the Board's Website.

PUBLICITY & PUBLIC RELATIONS ACTIVITIES

Chart 1: Circulation Trend of the Tin Board's Publications (2019-2023)

Chart 1 shows the circulation trend of these three major Tin Board publications during the period from 2019 to 2023.



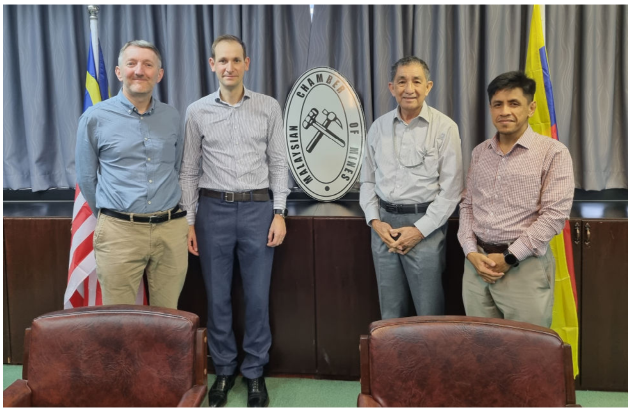
RECEIVING VISITORS

During the year under review, the Secretariat continued to receive local and foreign visitors who came to seek information on the country's mineral resource potential, exploration and mining activities, mining laws and regulations, investment opportunities, resources and reserves, employment, relevant statistical data, as well as updates on matters and issues pertaining to the development of the industry. Attending Secretariat officers would provide them with the necessary information and inputs, as well as copies of the Tin Board's publications.

The Secretariat also attended to enquiries received via telephone calls, faxes, letters, emails and also through the https://www.lpt.gov.my/ and malaysianminerals.com websites. Such inquiries were mostly from interested parties in the mineral industry including stakeholders, Government agencies, the media as well as members of the public.

The number of visitors to the Secretariat in 2023 decreased slightly compared to the previous year. Amongst the visitors to the Secretariat were representatives from international organisations such as the British Geological Survey, higher learning institutions such as Tunku Abdul Rahman University of Management and Technology (TAR UMT) as well as private sector companies who sought information on Malaysia's mineral resource industry as well as possible cooperation in the field of mining. There was also a visit by a delegation from the Chengdu Center-China Geological Survey (CD-CGS)/ China-ASEAN Geosciences Cooperation Center (CAGCC) to strengthen geoscience cooperation between China and Malaysia and to discuss the possibility of setting-up an ASEAN-China Geoscience Information Big Data Platform.

PUBLICITY & PUBLIC RELATIONS ACTIVITIES



< With visitors from British Geological Survey

^ With visitors from the CD-CGS/ CAGCC

ORGANISING AND PARTICIPATING IN CONFERENCES, FORUMS, WORKSHOPS AND DIALOGUES

In 2023, the Tin Board continued to organise or actively participated in various conferences, workshops, forums, seminars, dialogues and meetings in pursuance of its various roles which included planning and formulating appropriate strategies for the development of the local tin industry, as well as organising other support activities that would further enhance the development and pro-active image of the tin industry.

Members of the Tin Board and Secretariat staff provided strong support or were involved in events which were organised jointly with relevant Government agencies such as the Ministry of Natural Resources, Environment and Climate Change (NRECC) and subsequently Ministry of Natural Resources and Environmental Sustainability (NRES), the Department of Mineral and Geoscience (JMG) and industry organisations such as the Malaysian Chamber of Mines (MCOM), as well as various universities and institutions of higher learning aimed at advancing the development of tin and other mineral resources in Malaysia.

The main event of the year was a one-day Conference on "The Development of Primary Tin Deposits in Malaysia" held on 16 November 2023 at the Sunway Putra Hotel, Kuala Lumpur. The Tin Board had co-organised this event jointly with MCOM, in collaboration with NRECC and JMG, with the support of the Institute of Geology Malaysia (IGM), Geological Society of Malaysia (GSM), MTPMA and Board of Geologists Malaysia (BOG).

PUBLICITY & PUBLIC RELATIONS ACTIVITIES

With the theme of "*Revisiting Malaysia's Potential for Mining of Primary Tin Deposits*", the Conference was organised with the main objective of reviving interests in developing the potentially huge primary tin resources in the country.

The event was officiated by the Director General of the JMG, YBhg. Datuk P.Geol. Hj. Zamri Ramli with Tuan Hj. Shamsul Shahril Badliza Mohd Noor, Under-secretary of the Minerals and Geoscience Division (BMG) of the NRECC attending as a guest-of-honour. The Conference attracted some 204 participants from both the public and private sectors, including related government agencies, mining companies, universities and the mining fraternity.

Apart from the Welcome Remarks by the Chairman of the Tin Board and the Opening Speech by the Director General of JMG, the programme included eight technical paper presentations by experts in the exploration and mining of primary tin and processing of tin ore. The Conference concluded with a Panel Discussion on "Revitalising the Primary Tin Mining Industry in Malaysia - Issues and Challenges".

Primary Tin Conference (PTC) 2023 Programme

THURSDAY
16 NOVEMBER 2023

Time	Event	Speaker(s)
08:00	Conference Registration *(Level 9, Ballroom 2)*	
09:00	Welcome Remarks	YBhg Dato' Seri Mohd Ajib Anuar Chairman, Tin Industry (Research and Development) Board President, Malaysian Chamber of Mines
09:30	Speech & Opening Ceremony	YBhg Datuk P.Geol. Zamri Ramli Director General, Department of Mineral and Geoscience Malaysia
10:00	Refreshment Break | Networking *(Foyer)*	
Session Chairperson: P.Geol. Teoh Lay Hock		
10:30	Exploration strategies for primary tin deposits in Peninsular Malaysia.	P.Geol. Dr Teh Guan Hoe Industry Consultant, Malaysia
11:00	Sungai Lembing: Can we find another one?	Dato' P.Geol. Sia Hok Kiang Malaco Mining Sdn Bhd, Malaysia
11.30	Economic primary tin deposits, how to look for one: Our experience at RHT.	P.Geol. Madzlan Zam Rahman Hydraulic Tin Sdn Bhd, Malaysia
12:00	Revitalising Blue Tier Tinfield in Tasmania, Australia: A case study and its implications.	Dr Joe Xie Jianjiao Yunnan Tin Australia
12:30	Networking Lunch *(Level 9, Coffee House)*	
Session Chairperson: P.Geol. Teoh Lay Hock		
14:00	Recent advances in metallurgical assessment of tin ores.	Dr Shengli Zhao ALS Metallurgy Australia
14:30	Application of induced polarised and resistivity methods to investigate the extension of primary tin deposits in the Sungai Lembing Tin Mine, Kuantan, Pahang, Malaysia.	P.Geol. Dr Mohd Rozi Umor Department of Earth Sciences and Environment Faculty of Science and Technology Universiti Kebangsaan Malaysia
15:00	In search of primary tin deposits: The discovery of greisen tin in Karangan, Kulim, Kedah.	P.Geol. Fakhruddin Afif Fauzi Kedah/Perlis/Pulau Pinang State Office Department of Mineral and Geoscience Malaysia
15:30	Enhancing tin grade by removing siderite from primary tin ore.	Mr Costantine Joannes Mineral Research Centre Department of Mineral and Geoscience Malaysia
16:00	Refreshment Break | Networking *(Foyer)*	
16:30	Panel Discussion: "Revitalising the Primary Tin Mining Industry in Malaysia - Issues and Challenges"	Moderator: Assoc Prof. Ir Dr Syed Fuad Saiyid Hashim Panelists: Tuan Hj Kamaruddan Abdullah Dato' P.Geol. Sia Hok Kiang Dr Joe Xie Jianjiao P.Geol. Dr Teh Guan Hoe
17:30	Closing of Conference	

PUBLICITY & PUBLIC RELATIONS ACTIVITIES

^ *At the Conference on the Development of Primary Tin Deposits in Malaysia or Primary Tin Conference (PTC) 2023*

PUBLICITY & PUBLIC RELATIONS ACTIVITIES

Throughout the year, members of the Tin Board and Secretariat staff participated in various other forums, seminars, and workshops organised by relevant agencies on matters and issues that concerned the development of tin and the mineral resource industry in general. These events were organised mainly by related Federal and State Government agencies such as NRECC or JMG, and professional organisations such as the Institute of Geology Malaysia and Geological Society of Malaysia.

One such event was the engagement sessions on the drafting of the Third National Mineral Policy 2024 (DMN3) hosted by NRECC from 8 to 10 August 2023 at Bangi Golf Resort, Bangi, Selangor. The engagement sessions were organised to enable the Ministry to gather inputs and feedbacks from relevant stakeholders in drafting the DMN3 before tabling the policy to the Cabinet, as well as to ensure that the policy conforms with other Government policies from different ministries such as the 12th Malaysia Plan (RMK-12) and the New Industrial Master Plan (NIMP) 2030. The draft of the Third National Mineral Policy consisted of five components, 26 strategies and 74 initiatives.

During the engagement sessions, participants were invited to provide inputs and feedbacks on the draft of the policy. Among the issues raised were the concerns on the destruction of forest areas due to mining activities and their effects on Permanent Reserve Forests (PRF) and Environmentally Sensitive Areas (ESA), and the concerns related to the restoration and rehabilitation of mining areas post mining activities.

^ At the Engagement Session on the draft DMN3

Another event organised by NRECC in which the Tin Board participated was the NRECC Management Retreat 2023, which was held from 5 to 8 July 2023 at the Hatten Hotel, Melaka. The main purpose of this management retreat was to provide opportunities for agencies and departments under the Ministry to propose potential sources of additional income or revenue for the Government apart from the traditional sources.

Other activities which the Tin Board participated during the year were the 2023 Federal Budget Dialogue held on 17 January 2023 and the Engagement Session on Budget 2024 held on 14 July 2023, both hosted by the Ministry of Finance, and the Madani Economy Narrative Programmee and Budget Dialogue 2024 hosted by NRECC on 13 September 2023. At the latter event, the NRECC Minister explained NRECC's role in the Madani Narrative Economy adopted by the new unity Government.

^ At the Engagement Session on Budget 2024

PUBLICITY & PUBLIC RELATIONS ACTIVITIES

LENDING SERVICE

Lending service is an important publicity and public relations activity undertaken by the Board. During the year under review, the Board continued to lend out its collection of books, films, slides, videos and compact discs on the tin industry to mining companies, Ministries and Government agencies, universities, schools, journalists, publishers, bankers and investment analysts. The Board's collection of photographs and a variety of publications and materials on the tin mining industry including its library books were also made available for loan to all those who require these materials for special purposes, such as in the preparation of their presentations for conferences, seminars, exhibitions, etc. Also available for loan were a model of a tin dredge and a diorama of a gravel pump mine for exhibition or any other display purposes.

ADVISORY SERVICE

The Secretariat continued to receive specific inquiries throughout the year in the form of telephone calls and emails seeking advice and assistance on matters relating to tin and the mineral resource industry in Malaysia. They were duly attended to by the Secretariat staff who provided them with appropriate information, necessary advice and guidance. For inquiries where more detailed information and advice were required, the inquirers would be referred to the appropriate Government ministry or agency, such as NRES and JMG.

Other advisory services provided by Secretariat officers during the year included matters such as mining investment opportunities, mineral trade, industry contacts and networks, R&D collaboration, human capital and others concerning and related to the tin industry.

Table 1 below shows the breakdown of the major publicity and public relations activities, other than publications, undertaken by the Tin Board during the past five years.

Table 1: Breakdown of Major Publicity / PR Activities of the Tin Board

	2019	2020	2021	2022	2023
Receiving Visitors	49	20	10	20	26
Conferences / Forums, etc	16	12	18	18	15
Lending Service	19	15	12	14	12
Advisory Service	20	11	8	13	9

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

In 2023, the research, development and general purposes fund was used to support two major activities, namely, providing grants to support relevant tin-related R & D projects undertaken by researchers in local universities and sponsoring of a major Conference on the Development of Primary Tin Deposits in Malaysia.

TIN BOARD RESEARCH GRANT 2023

Although not having its own in-house R&D facilities, the Tin Board continued to facilitate R&D by providing grants to subsidise relevant research activities that would benefit the tin industry in Malaysia.

In 2023, the Secretariat received a total of 108 applications from 13 local public and private universities as well as a Government research centre for the Tin Board Research Grant 2023. From this number of applications, the Board's internal Tin Board Research Grant Committee shortlisted 23 for review by an external independent reviewer who did a thorough technical review and selected 11 applications worthy of receiving the Tin Board Research Grant 2023. Each of these researchers was given a grant of RM10,000 to help defray expenses directly related to their research.

Amongst the recipients were, three from University of Malaya (UM), two each from University of Science Malaysia (USM) and National University of Malaysia (UKM), one each from International Islamic University Malaysia (IIUM), Universiti Malaysia Perlis (UniMAP), Universiti Malaysia Kelantan (UMK) and Mineral Research Centre (PPM). The topics of research were wide-ranging. Although still mostly related to tin applications, the 2023 award list also included several projects in the upstream sector such as tin exploration, tin mine rehabilitation and enhancement of recovery from tin ore.

Recipients of Tin Board Research Grant 2023

Researchers	Institution	Research Topic
Dr Shafie Kamaruddin	IIUM	Development of an Automated Solder Joint Defect Detection System
Ts. Dr Rohaya Abdul Malek	UniMAP	New Advanced Mg-Sn-Mn Alloy as Three-Dimensional (3D) Printing Biomaterial Filament for Medical Impact
Muhamad Irman Khalif Ahmad Aminuddin	USM	Cassiterite Geochemistry of the Hulu Perak Tin Deposit: Implication For Ore-Forming Processes and Mineral Exploration
Dr Ang Wei Lun	UKM	High Performance Sno2-Graphene Electrodes for Electrochemical Oxidation Treatment of Palm Oil Mill Effluent and Wastewater Reclamation
Assoc. Prof. Dr Kumara Thevan A/L Krishnan	UMK	Carbon Sequestration Potential of Bamboo Planting in Tin Mine Rehabilitation Projects: A Survey of Existing Practices and Perceptions
Assoc. Prof. Dr Faiz Bukhari Mohd Suah	USM	Recovery of Tin from Tin Mine Tailings Water by Using a Polymer Inclusion Membrane
Assoc. Prof. Dr Ramesh Kasi	UM	Corrosion Protection Nanocomposite Coatings based on Tin Oxide (Sno2) Incorporated into Organic Resins
Datin Prof. Ir Dr Bushroa Abdul Razak	UM	Physico-Chemical Properties of Tin Dioxide Nano-Films for Antifoggiing and Self-Cleaning Applications
Assoc. Prof. Dr Tan Kong Wai	UM	Organotin Complexes of Boronic Acid as Theranostic Agents
Costantine Joannes	PPM	Enhancement of Tin Recovery from Siderite-Primary Tin Ore
Dr Wong Wai Yin	UKM	Tin Oxides Supported PT Nanocatalysts as Durable Cathode for Proton Exchange Membrane Fuel Cell Application

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

COLLABORATION WITH OTHER ORGANISATIONS AND INSTITUTIONS

The Tin Board continued to work closely with UMP by providing advice and support especially in relation to the running of their Master's programme in Mining with Mineral Technology. The Tin Board's Technical Consultant, as a member of the Faculty of Chemical & Process Engineering Technology Industry-Academic Panel (IAP), helped to review the curriculum and course structure of their M.Sc. Programme to ensure that they remained relevant to industry needs.

The Tin Board also worked closely with other government agencies particularly NRES and JMG, the latter of which undertakes research work (including tin-related research) at its Mineral Research Centre in Ipoh.

TRACKING OF TIN RESEARCH AND OTHER DEVELOPMENTS IN THE GLOBAL TIN INDUSTRY

To keep abreast with the latest developments in the global tin industry, the Tin Board continued its horizon scanning activities with the main sources of information coming from the United Kingdom-based International Tin Association (ITA), the internet and media publications. Summaries of the latest developments were presented at each Board meeting. While previously the main focus was on tin application and consumption, attention has now turned towards upstream activities relating to the supply side covering tin exploration, mining and ore processing as well as production of secondary refined tin from recycling activities.

TIN SOLDER TECHNOLOGY RESEARCHERS GROUP (TSTRG) ACTIVITIES

The TSTRG was set up by the Tin Board in 2017 as a platform for intellectual communication between the academia and the industry to advance the Malaysian tin industry through programmes relating to research and academia-industry forums. The Chairman of the TSTRG is Assoc. Prof. Ir Dr Mohd Arif Anuar Mohd Salleh from UniMAP and is assisted by several researchers from various universities in Malaysia as committee members. The Tin Board's Technical Consultant serves as Adviser and staff from the Tin Board Secretariat serve as liaison officers.

In 2023, the TSTRG was involved in two activities organised by UniMAP. The first was an International Mobility-New Colombo Plan programme which was held from 19 November to 2 December 2023. In this programme, eight students and two staff members from University of Queensland, together with 12 students from UniMAP participated in a series of activities to explore advancement in electronics manufacturing in Malaysia. The second activity was organising an International Research Talk which was held on 29 November 2023. The talk, entitled Advanced Characterisation Techniques for Material Development: Case Studies, was given by Prof. Dr Kazuhiro Nogita from University of Queensland, Australia.

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

^ Participants at the International Mobility - New Colombo Plan (NCP) Programme

^ International Research Talk by Prof Dr Kazuhiro Nogita

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

DOWNSTREAM ACTIVITIES

Another primary function of the Tin Board is to promote and support the development of the downstream tin-based manufacturing activities. In pursuing this function, the Tin Board Secretariat continued to provide administrative support to the MTPMA during the year under review. The Association, which was formed in 1989, is tasked with the responsibility of advancing the interests and development of the tin-based products manufacturing sector. As at end of 2023, membership of the Association comprised 14 companies operating in the three main downstream sub-sectors, namely solder, tinplate and pewter.

The MTPMA is managed by a nine-member Management Committee comprising representatives of member companies of the Association, which provides the strategic direction for the Association. Two Sub-Committees, namely the Newsletter Editorial Sub-Committee and the Solder Sub-Committee were formed by the Management Committee to assist in undertaking the Association's tasks, responsibilities and running of its yearly activity programmes. During the year under review, the Management Committee and its two Sub-Committees conducted four online hybrid meetings in compliance with the statutory requirements, namely in February, March, June and September. The meetings of both the Sub-Committees were held on the same day prior to the Management Committee meetings.

The Solder Sub-Committee provides a useful platform for discussions on matters of common and mutual interests amongst member companies involved in solder manufacturing. Members of the Sub-Committee have benefited from attending the meetings as they provide an avenue for reporting and exchanging of knowledge, experience and expectations of the solder market as well as other related issues and challenges confronting the tin solder industry, locally, regionally and globally.

The Newsletter Editorial Sub-Committee is tasked with overseeing the publication of the MTPMA's principal publicity and public relations media, namely the Malaysian Tin Products Newsletter. The Newsletter contains relevant news on the global and local tin-based products manufacturing industry, and provides updates concerning developments in the Association and its members. It is circulated to members of the Association, government agencies, universities and other related parties, free-of-charge. The Association continued to publish and distribute the Newsletter in 2023 on a quarterly basis. Its distribution trend for the period from 2019 to 2023 is shown in Chart 1.

The tin-based products manufacturing sector is the primary consumer of tin metal domestically. It is an important value-adding sector which also contributes to import substitution by supplying essential components to the country's overall product manufacturing industry. Domestic tin consumption by the tin-based products manufacturing sector showed a slight increase in 2023 by some 0.8% to 1,161 tonnes year-on-year. The increase was due mainly to the post Covid economic recovery which resulted in greater demand for consumer products especially white goods and electronic devices.

The solder sub-sector overtook the tinplate sub-sector as the largest domestic consumer in 2023. During the year under review, the solder sub-sector consumed 555 tonnes of tin followed by the tinplate sub-sector at 485 tonnes, and the pewter sub-sector at only 5 tonnes.

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

Chart 2: Domestic Tin Metal Consumption (2019-2023)

Chart 2 shows tin consumption by the various sub-sectors of the tin-based products manufacturing industry for the period from 2019 to 2023.

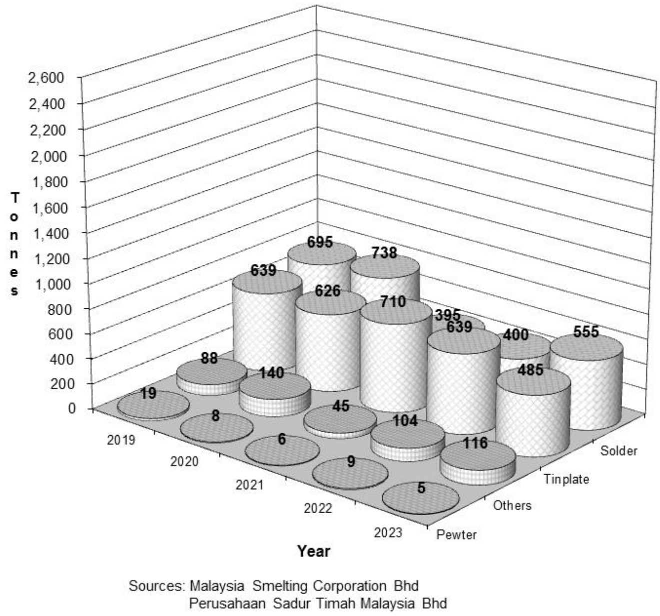
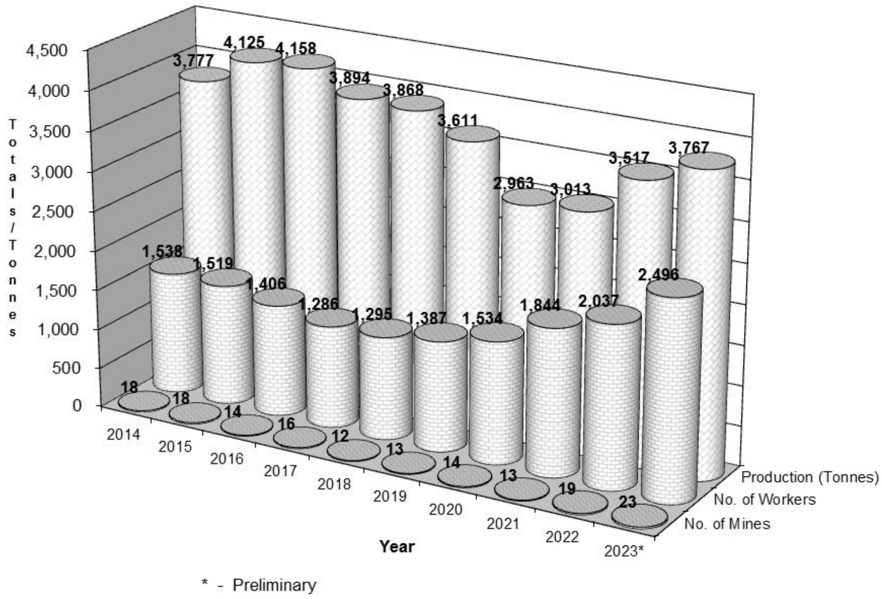


Chart 3: Malaysian Tin Mining Industry Statistics (Production, No. of Mines and No. of Workers) (2014 - 2023)

Chart 3 shows the activity trend in Malaysia's tin mining industry covering the period from 2014 to 2023.



GLOBAL TIN INDUSTRY PERFORMANCE AND OUTLOOK

The following is a report by the International Tin Association (ITA), United Kingdom, on the performance of the global tin industry in 2023 and future outlook. ITA is a not-for-profit organisation dedicated to supporting the tin industry and expanding tin use globally. Its membership comprises most of the world's major tin producers and it maintains the most comprehensive data relating to tin globally

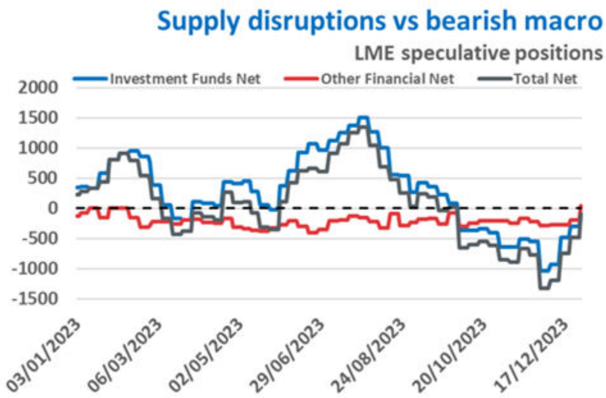
Review of Tin Industry - 2023

Speculation drives a turbulent year for tin prices

Tin prices were volatile for most of 2023 though ended as they started the year, finding a footing around the $25,000 mark. Bearish sentiment amid a weak macroeconomic outlook acted as a drag on base metal prices reflected by the speculative market, a key driver of recent tin price movements.

Throughout the year, tin had some significant speculative price support largely connected to supply disruptions, firstly in Q1 related to the political protests in Peru, and secondly in the summer linked to Myanmar's Wa State mining ban. However, speculative support subsequently reverted to short positions reflecting the underlying bearish sentiment with the speculative market for tin eventually falling to a strikingly net short position of -1325 contracts in early December. A pattern of price fluctuations and sudden price drops observed especially in Q4 were attributed more to technicals and trading activity as opposed to the weak fundamentals emphasising the recent market turbulence.

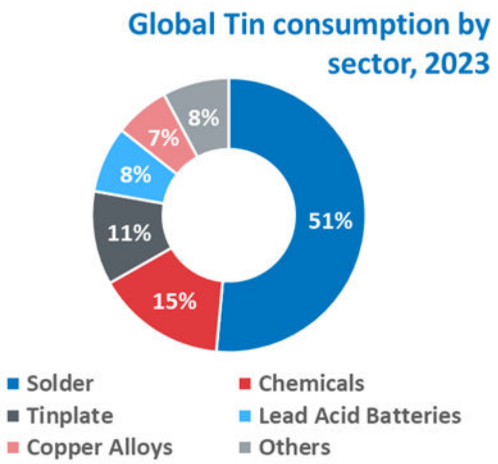
A contrasting narrative between the LME and SHFE exchanges developed in the second half of the year, as considerable LME stocks grew reaching a high of 8190 tonnes in late December reflecting persistent weak demand especially in Europe. Interestingly, the LME warehouse at Port Klang, Malaysia accounted for about 75% of the LME stock. In contrast, SHFE stocks consistently declined in the second half of the year, down 47% from August to December, reaching a low of 5077 tonnes on December 8th indicating a modest seasonal recovery in China and making clear the uneven distribution of global demand.



RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

Unbalanced demand landscape supported by Chinese technology

The tin market in 2023 was marked by weak demand, influenced by macroeconomic headwinds. However, regional variations were notable creating a globally disjointed demand picture largely supported by Chinese consumption, which saw a 3.5% growth in the demand for tin, a stark contrast to a 9.1% slump in the rest of the world. Overall, global refined tin consumption declined 2.9% to 360,400 tonnes.



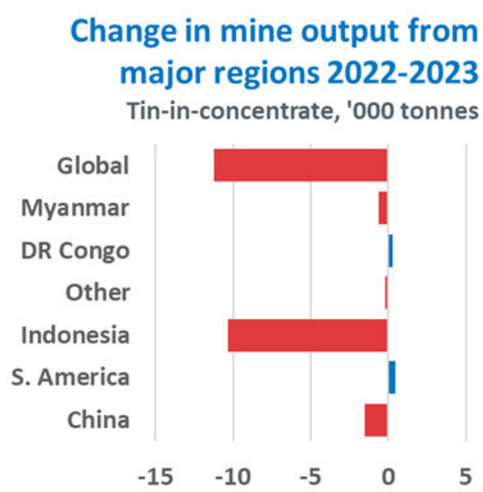
China's demand growth was largely fuelled by advancements in technology, particularly in solar and electric vehicles, and a rebound in the electronics sector in the second half of the year. China achieved more than a 50% year-on-year growth in photovoltaic module production, adding a staggering 216.9 gigawatts of solar capacity, greater than the total capacity of the US, the world's second-biggest solar market. China's EV market also performed strongly now accounting for 60% of the global market share.

Outside of China, the situation was more challenging. In Europe, inflationary pressures and weak PMI figures, particularly in Germany, significantly affected demand in sectors such as tinplate and chemicals. Globally, both markets contracted by 8% in 2023. The US displayed more resilience, avoiding a predicted recession and potentially achieving a 'soft landing' post-monetary tightening though US premiums consistently fell throughout the year indicating on-going weak demand.

Mounting supply interruptions fly under the radar

A series of supply disruptions impacted every major tin-producing region last year, most notably in South America, Myanmar, and Indonesia. Consequently, global refined tin supply is estimated to have decreased by 2.1% year-on-year in 2023, a situation somewhat overshadowed by the diminished demand.

Global mine production declined an estimated 3.9% to 285,400 tonnes in 2023 largely reflecting the reduced output from Indonesia which is estimated to have fallen by 7.9% in 2023.



Yunnan Tin retained its position as the world's top producer of refined tin, while Minsur kept second place despite being forced to suspend operations at their San Rafeal mine for more than two months from mid-January due to political protests in Peru. The situation resulted in a 54% year-on-year decline in Minsur's Q1 production.

Most notable was PT Timah's 22.6% year-on-year decline in production causing them to slip behind MSC into 5th spot. This reflects a broader downturn in Indonesian supply where challenging market dynamics unfolded including increased smelter competition and an evolving regulatory and political landscape. From June 2023, many of the smaller private smelters trading on the ICDX experienced extended delays in renewing their export licences and a noticeable migration of trade activity towards the larger JFX has become evident.

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

Resource nationalisation is increasingly becoming a common theme globally. Focus grows on Indonesia's presidential election in February 2024 and its potential implications for tin export policy. While in Brazil, a region of rising importance for tin, the newly elected President has also given a special focus to national mineral resources, launching a stringent campaign against illegal mining. A move which has also indirectly impacted legal tin mining operations, limiting feedstock availability and making licence renewals more difficult. In neighbouring Bolivia, EM Vinto maintained its position in the top 10, despite being in force majeure for much of the year.

European secondary producer, Aurubis climbed three places to seventh position increasing its production by 13% year-on-year in 2023.

2023 Top 10 Refined Tin Producers

Refined tin production (tonnes)

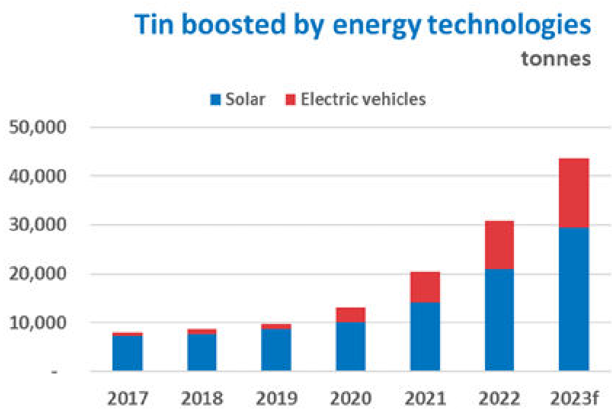
Order	Company	2022	2023	YOY Change (%)
1	Yunnan Tin (China)	77,100	80,100	*4%*
2	Minsur* (Peru)	32,700	31,700	*-3%*
3	Yunnan Chengfeng (China)	20,600	21,800	*6%*
4	Malaysia Smelting Corp (Malaysia)	18,800	20,700	*10%*
5	PT Timah (Indonesia)	19,800	15,300	*-23%*
6	Guangxi China Tin (China)	10,900	12,000	*10%*
7	Jiangxi New Nanshan (China)	10,800	9,500	*-12%*
8	Aurubis Beerse (Belgium)	8,200	9,300	*13%*
9	Thaisarco (Thailand)	9,500	9,200	*-3%*
10	EM Vinto (Bolivia)	10,300	8,800	*-15%*

Data: Provisional data reported to ITA and rounded to the nearest 100t.

**Includes production from Minsur's Brazilian subsidiary, Taboca*

Energy markets already powering tin use

Recent shifts in the energy sector present a landscape ripe with opportunities for tin. The surge in tin usage, driven predominantly by solar energy and electric vehicles, has been a silver lining against the backdrop of significant demand losses witnessed last year, particularly in China. This uptick is largely attributed to the substantial government stimulus in China, which has invigorated these sectors.



In the realm of solar energy, tin's role is notably prominent in solar ribbon, which is critical in assembling solar modules. The usage of tin in this application soared by 40.1% to 29,400 tonnes in 2023, up from 20,900 tonnes. Additionally, the electric vehicle sector contributed an estimated additional growth of 4,300 tonnes in solder use, underscoring tin's growing importance in this rapidly expanding industry.

This brisk expansion, however, has led to a mismatch in supply dynamics. Production efforts in the US and Europe are struggling to keep pace with the surplus capacity emerging from China as we head into 2024. Despite this, the outlook for tin usage remains robust, particularly towards 2030. This growth is anticipated to be more measured, influenced by further stimulus from US initiatives like the IRA regulation, albeit with some degree of tin thrifting.

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

Beyond these established uses, tin's potential in the battery sector is burgeoning. Its evaluation in lithium-ion and, notably, sodium-ion batteries is gaining traction, with expectations of commercial implementation before 2030. Additionally, other innovative uses in battery technology are emerging, such as the recent high-profile investment in a liquid tin-based thermal battery.

Moreover, a diverse array of tin energy technologies continues to advance in R&D labs globally. While tin perovskite solar materials face competition from alternative perovskites, they remain a compelling choice for cost-effective solar energy conversion. Furthermore, the increasing interest in liquid tin-methane systems for eco-friendly hydrogen production highlights tin's versatility and potential in the energy sector.

Digitalisation will hugely expand electronics

As the digital world rapidly evolves, the role of tin, particularly in solder joints, becomes increasingly crucial. These solder joints are the unsung heroes in electronics, providing the necessary connections through which every data byte travels. This is especially pertinent in the context of advancing 5G technology and the Internet of Things (IoT) implementation.

The deployment of 5G networks marks a significant leap in communication technology, offering faster speeds and more reliable internet connections. It heralds a new era of ultra-connected devices and services. As we progress through the stages of 5G implementation, from initial rollout to widespread adoption, the demand for high-quality solder and, by extension, tin, will surge.

Simultaneously, the IoT is revolutionising how we interact with our devices. From smart homes to intelligent transportation systems, the IoT relies on a myriad of interconnected devices, each requiring reliable solder joints for optimal functionality. Tin's role in these connections is indispensable for the stability and longevity of IoT systems.

Looking ahead, forecasts suggest a staggering increase in data traffic and the number of servers required to manage this surge. With the exponential growth of digital data, estimated to reach zettabytes in the coming years, the need for robust and efficient data centres is paramount. These centres will rely heavily on tin solder to maintain the integrity of countless electronic components.

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

Outlook for the Tin Industry

The tin market concluded the year in a unique position characterised by significantly low supply and demand levels ending 2023 with a modest surplus of just under 10,000 tonnes, excluding stock changes. Moving into 2024, the market appears ready to open a new chapter as supply disruptions look set to meet the beginning of a bumpy demand recovery.

The demand forecast for tin is mixed yet poised for strengthening, buoyed by an improving US economy featuring lower interest rates, sustained stimulus efforts by the Chinese government, and the continuous transition to green energy. While the broader economic landscape remains subdued, notable growth is expected in the technology sector, particularly in China. However, this optimism is tempered by potential adjustments in the Chinese solar industry, primarily due to overcapacity, accompanied by a trend towards tin thrifting. Encouragingly, the electronics sector is on a path to resurgence, with semiconductor markets forecasted to achieve a 13.1% year-on-year growth, signalling a robust recovery phase.

A turnaround is still expected to be a longer road for some badly affected tin use markets. Challenges persist in the tinplate industry, evident in the ongoing supply chain issues and highlighted by Nippon Steel's intention to acquire US Steel. Meanwhile, the chemicals sector's fortunes remain closely linked to the revival of residential construction markets in both the US and China. Though sentiment is more positive in the US, scepticism concerning the long-term effectiveness of the Chinese government's recent initiatives to revive the slumping property sector appear widespread.

On the supply side, some tightness is anticipated in Q1, especially due to the ongoing ban in Wa State and the ongoing issues surrounding Indonesian export licences and reduced output. Though these disruptions present significant risks, they are potentially manageable with other supply updates more optimistic. A resumption of mining in Wa State could pave the way for medium-term technological advancements and enhanced depth exploration. Whilst the commencement of production in upcoming African projects, such as Mpama South in the Democratic Republic of Congo and expanded production in Bolivia could contribute some supply stability. South America might see some growth, though environmental, social, and governance (ESG) challenges and ongoing political issues could limit this. Indonesia's production levels remain a critical variable to watch.

In summary, while significant challenges may persist, the tin market seems poised for a steady but rocky recovery in the coming year.

World Supply/Consumption Balances in Refined Tin

'000 tonnes

	2018	2019	2020	2021	2022	2023	2024f
Global Refined Tin Production	385.5	368.4	336.5	379.0	378.1	370.1	369.6
Global Refined Tin Consumption	392.8	367.6	361.8	389.0	371.1	360.4	381.9
Global Market Balance	**-7.3**	**0.8**	**-25.3**	**-9.9**	**6.9**	**9.7**	**-12.3**

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

OTHER DEVELOPMENTAL ACTIVITIES

The Tin Board continued to undertake and provide active support and participation in other activities and programmes that would benefit the development of tin and the mineral resource industry, going forward.

On 5 January 2023, the Tin Board, through its Chairman, acting as President of the Malaysian Chamber of Mines, decided to revisit the issue on the Government's policy to ban mining in PRF and ESA by submitting to the Minister of NRES a proposal to resolve the issue in order to enable mineral resources in those areas to be developed and increase their contributions to the national economy.

Amongst the suggestions put forward to resolve the issue was the formation of a focus discussion group (FDG) to undertake a comprehensive study on overall impact and return on value of mining in PRF and ESA based on scientific and economic data and analyses. Although an affirmative response was not immediately expected, industry players were delighted to note that on 11 September 2023, the Prime Minister annouced that the Government would be formulating a guideline for undertaking mining activities in PRF, ESA and protected areas. Meanwhile, the Tin Board has gone ahead with the formation of the FDG.

INTERNATIONAL CO-OPERATION AND NETWORKING

The Tin Board continued to provide strong support towards promoting co-operation and networking within the industry, regionally and internationally. Board members and Secretariat staff participated in various regional and global events, such as conferences, forums, seminars and workshops related to the advancement of the tin industry and the mineral resource industry in general. With the Covid-19 pandemic virtually a thing of the past, many of the programmes were held on a hybid basis and some have been conducted with full physical participation. Through such participation, meaningful collaboration, co-operation and networking with mineral-related organisations, agencies and institutions, particularly those within the ASEAN and the Asia Pacific region, were further strengthened and enhanced for the mutual benefit of everyone.

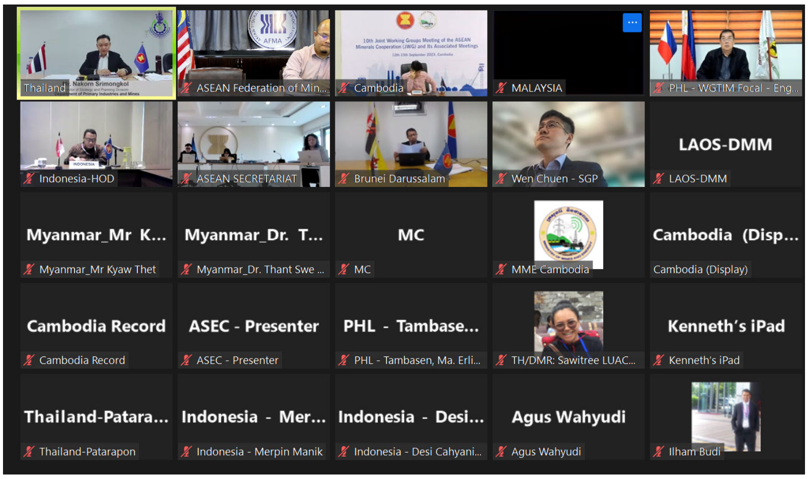
Amongst the major international and regional events that Tin Board members and Secretariat staff participated in 2023 were the 12th Liaison Officials' Meeting of the China-ASEAN Mining Cooperation Forum & Exhibition (CAMCFE) 2023, the 9th Joint Working Groups Meeting of the ASEAN Minerals Cooperation (JWG) and its Associated Meetings, and the 10th Joint Working Groups Meeting of the ASEAN Mineral Cooperation (JWG) and its Associat-

^ At the 9th JWG Meeting of ASEAN Minerals Cooperation and Its Associated Meetings

^ At the 12th Liaison Officials' Meeting of the CAMCFE 2023

RESEARCH, DEVELOPMENT & OTHER ACTIVITIES

< At the 12th CAMCFE 2023



< At the 10th JWG Meeting of the ASEAN Minerals Cooperation and its Associated Meetings

ed Meetings. All the above events except the CAMCFE 2023 were held virtually via online meeting platforms.

Although the MoU between the Tin Board and ITA signed in May 2017 had expired, Board members and Secretariat staff continued to receive ITA's forthnightly Tin in the News bulletins and also continued to participate in its Responsible Tin Supply Group online forums.

Tin Board members and Secretariat staff will continue to attend such regional and international events in the future to enable them to gain better insights, knowledge and experience on the prospects and future trends affecting the global tin industry, as well as establish and renew linkages and networking for meaningful future co-operation and collaboration.

The holding of such events provides the opportunity for the various organisations, institutions, corporations and stakeholders in the industry to be engaged in meaningful dialogue, interaction and networking and to collaborate in promoting joint efforts in trade and investments in minerals and metals, including tin. In addition, it also enables them to keep abreast with emerging technologies and the development of new applications for tin and other related minerals/ metals.

NEW SUCCESSOR BODY

The proposal to dissolve the Tin Board and its functions taken over by another organisation was first mooted in 1996. However, no real initiative to that effect was taken until 2021 when the idea of the establishment of a Mineral Industry Development Board or *Lembaga Pembangunan Industri Mineral Malaysia* (LPMM) was included in the TIM2021-2030.

During the year under review, several meetings were held to discuss the most feasible way to establish LPMM. Two main proposals were looked at. The original proposal was to upgrade and restructure the current Tin Board into a Mineral Board by broadening the scope of coverage from just tin into all mineral commodities. The second proposal would involve the merging of the functions of the Tin Board with those of JMG and then restructuring and splitting the overall functions between two proposed new entities, namely, LPMM and GeoMalaysia.

A comprehensive report on the second proposal was prepared by NRECC and JMG and presented to the Cabinet for consideration on 17 December 2021. The proposal was not accepted based on the comments from the Ministry of Finance and Public Services Department which opined that the proposal involved the creation of numerous additional posts and substantial Government funding.

On 7 April 2023, at a meeting chaired by the then Secretary general of NRECC, YBhg. Dato' Hj. Rosli Isa, there was a presentation of the original proposal which involved upgrading the current Tin Board into LPMM with minimal staff and operational budget. At another meeting held on 10 November 2023, the Tin Board Secretariat was advised that the Ministry had decided to pursue this proposal of expanding the role and functions of the Tin Board into LPMM. The Ministry is currently reviewing the draft bill of the proposed LPMM, its proposed organisational structure, estimation of the financial implications which would include a launching grant, projection of its income and operational budget to ensure LPMM is sustainable in the long term.

In the mean time, and pending the establishment of LPMM, the Tin Board remains committed in achieving the goals it was originally established for as well as assisting the Government in realising the goals that have been expressed through TIM 2021-2030.

In the mean time, and pending the establishment of LPMM, the Tin Board remains committed in achieving the goals it was originally established for as well as assisting the Government in realising the goals that have been expressed through TIM 2021-2030.

INCOME & EXPENDITURE

CESS

The Tin Board's operations are financed wholly through cess collection from the tin mining industry. It does not receive any funding support from the Federal Government. Effective from 16 July 2013, the tin cess was revised to 40 sen per kilogram of tin concentrates exported pursuant to the Tin Industry (Research and Development) (Cess) (Amendment) Order 2013 dated 28 June 2013. The tin cess collected is allocated both to the Research, Development and General Purposes Fund and to the Publicity Fund at the rate of 20 sen each.

The Research, Development and General Purposes Fund is established pursuant to Section 11(b) of the Tin Industry (Research and Development) Fund Act 1953. It finances the Tin Board's activities relating to research, development and other general purposes except publicity.

The Publicity Fund is established pursuant to Section 11(a) of the same Act. It finances all publicity and public relations activities of the Tin Board.

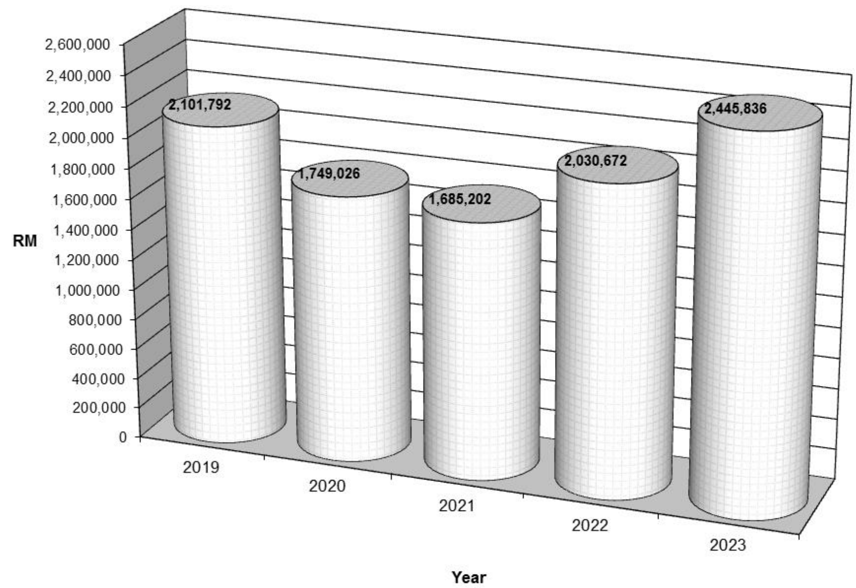
In 2023, cess collection increased by 15 per cent to RM2,445,836 from RM2,131,238 in 2022 following an increase in export of tin concentrates.

INTERESTS

Income from interests earned on the Board's fixed deposits with licensed financial institutions totalled RM134,605 in 2023 as compared to RM81,489 in 2022. Such income was also earned on the Tin Board's current accounts which in 2023 amounted to RM4,003 as compared to RM1,111 in 2022.

Chart 4: Cess Collection (2019-2023)

Chart 4 shows the trend in tin cess collection covering the last five-year period.



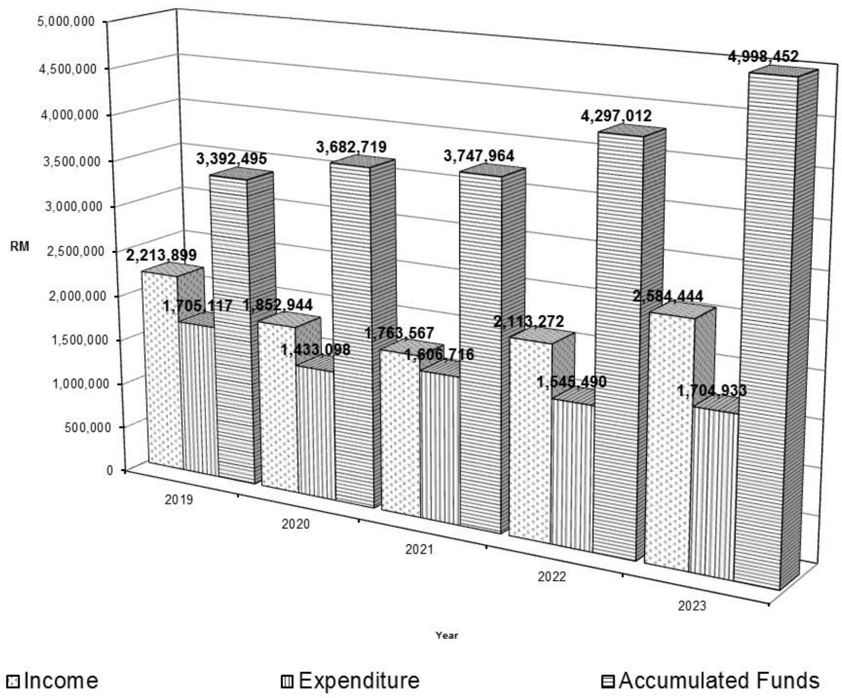
INCOME & EXPENDITURE

Overall expenditure from the Tin Board's Funds in 2023 increased from that of the previous year to RM1,704,480 from RM1,682,118. The Tin Board's Funds recorded a higher surplus before tax in 2023 of RM879,964 compared with RM531,720 in 2022.

With this surplus, and after taxation of RM167,136, the balance in the Tin Board's Accumulated Funds at end 2023 increased to RM4,998,906 from RM4,286,078 at end 2022.

Chart 5 : Consolidated Income, Expenditure & Accumulated Funds of the Tin Industry (R&D) Board (2019 - 2023)

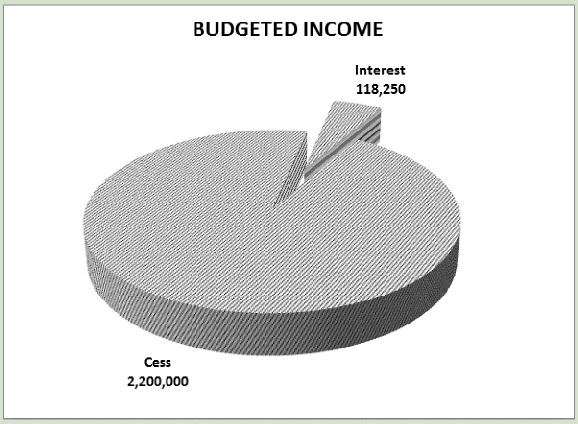
Chart 5 shows the position of the consolidated income, expenditure and accumulated balance of the Tin Board's Funds covering the period from 2019 to 2023.

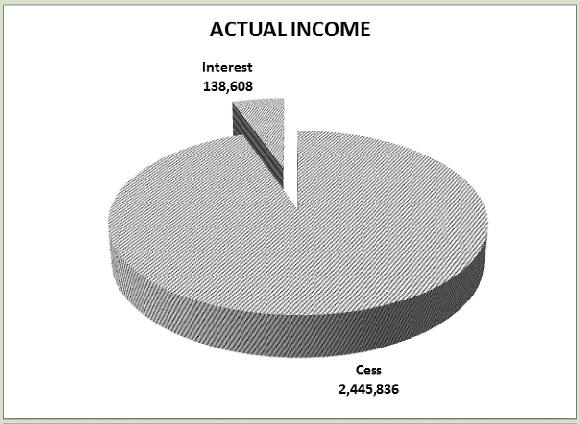


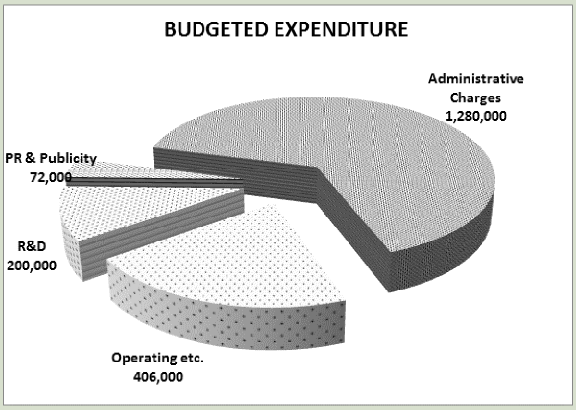
INCOME & EXPENDITURE

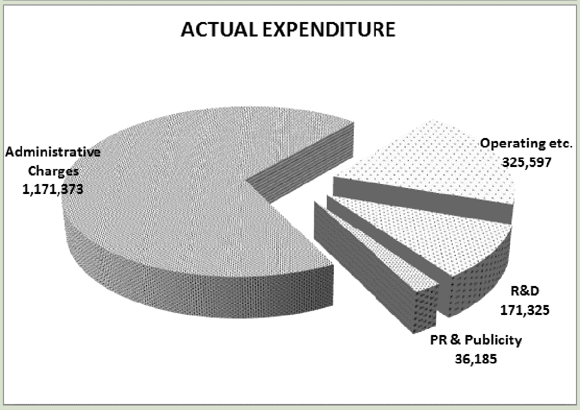
Chart 6 below shows the comparative consolidated budgeted income and expenditure against actual income and expenditure of the Tin Board for the year 2023.

Chart 6 : Tin Industry (R&D) Board Consolidated Budgeted against Actual Income and Expenditure 2023 (RM)









AUDIT COMMITTEE

The Tin Board had established an Audit Committee in accordance to the requirements specified in the Government Confidential General Circular No. 2 of 1993, and later amended vide Circular No. 3 of 1998. The Committee's primary function is to oversee the Board's financial activities with the objective of enhancing the sense of responsibility, accountability and corporate governance. It would also examine and review the Board's funding procedures, positions and internal control systems, from time to time, as and when necessary.

Members of the Committee comprise an Official Board Member, as its Chairman, and two other Representative Board Members including the Secretary.

The Board's Audit Committee met twice during the year under review, and submitted four quarterly reports pertaining to the Board's financial statements and positions including other related matters under its purview to the Board for noting and endorsement.

The Committee's primary function is to oversee the Board's financial activities with the objective of enhancing the sense of responsibility, accountability and corporate governance.

FINANCIAL STATEMENTS

CERTIFICATE OF THE AUDITOR GENERAL ON THE FINANCIAL STATEMENTS OF TIN INDUSTRY (RESEARCH AND DEVELOPMENT) BOARD FOR THE YEAR ENDED 31 DECEMBER 2023

Certificate on the Audit of the Financial Statements

Qualified Opinion

I have authorised a private audit firm pursuant to subsection 7(3) of the Audit Act 1957 *[Act 62]* to undertake an audit of the Financial Statements of The Tin Industry (Research and Development) Board. The financial statements comprise the Statements of Financial Position as at 31 December 2023 of The Tin Industry (Research and Development) Board and the Statement of Financial Position, Statement of Changes in Equity, Statement of Cash Flow and Statement of Comprehensive Income for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 49 to 54.

In my opinion, the accompanying financial statements give a true and fair view of the financial position of The Tin Industry (Research and Development) Board as at 31 December 2023, and of its financial performance and its cash flows for the year then ended in accordance with the Malaysian Private Entities Reporting Standard (MPERS) and the Tin Industry (Research and Development) Fund Act 1953 *[Act 455]* requirements.

Basis for Opinion

The audit was conducted in accordance with the Audit Act 1957 and the International Standards of Supreme Audit Institutions. My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my certificate. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Independence and Other Ethical Responsibilities

I am independent of The Tin Industry (Research and Development) Board and I have fulfilled my other ethical responsibilities in accordance with the International Standards of Supreme Audit Institutions.

Information Other than the Financial Statements and Auditor's Certificate Thereon

The Board of The Tin Industry (Research and Development) Board is responsible for the other information in the Annual Report. My opinion on the Financial Statements of The Tin Industry (Research and Development) Board does not cover the other information than the financial statements and Auditor's Certificate thereon and I do not express any form of assurance conclusion thereon.

Responsibilities of the Board for the Financial Statements

The Board is responsible for the preparation of Financial Statements of The Tin Industry (Research and Development) Board that give a true and fair view in accordance with the Malaysian Private Entities Reporting Standard (MPERS) and The Tin Industry (Research and Development) Fund Act 1953 *[Act 455]* requirements. The Board is also responsible for such internal control as the Board determines is necessary to enable the preparation of the Financial Statements of the Tin Industry (Research and Development) Board that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements of The Tin Industry (Research and Development) Board, the Board is responsible for assessing The Tin Industry (Research and Development) Board's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting.

Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the Financial Statements of The Tin Industry (Research and Development) Board as a whole are free from material misstatement, whether due to fraud or error, and to issue an Auditor's Certificate that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the International Standards of Supreme Audit Institutions will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the International Standards of Supreme Audit Institutions, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

a. identify and assess the risks of material misstatement of the Financial Statements of The Tin Industry (Research and Development) Board, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

b. obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of The Tin Industry (Research and Development) Board's internal control;

c. evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board;

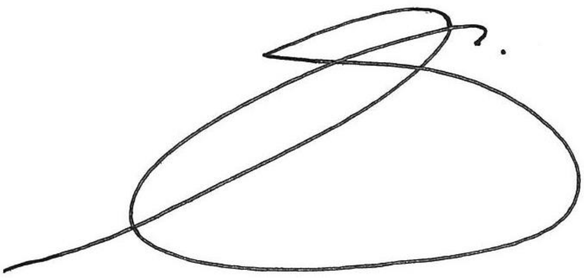
d. conclude on the appropriateness of the Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on The Tin Industry (Research and Development) Board's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my Auditor's Certificate to the related disclosures in the Financial Statements of The Tin Industry (Research and Development) Board or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of Auditor's Certificate. However, future events or conditions may cause The Tin Industry (Research and Development) Board to cease to continue as a going concern; and

e. evaluate the overall presentation, structure and content of the Financial Statements of The Tin Industry (Research and Development) Board, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

The Board has been informed regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I have identify during the audit.

Other Matters

This certificate is made solely for the Board of The Tin Industry (Research and Development) Board in accordance with the Tin Industry (Research and Development) Fund Act 1953 *[Act 455]* requirements, and for no other purpose. I do not assume responsibility to any other person for the content of this certificate.



(DATUK WAN SURAYA BINTI WAN MOHD RADZI)
AUDITOR GENERAL
MALAYSIA

PUTRAJAYA
30 OCTOBER 2024

STATEMENT BY CHAIRMAN AND A BOARD MEMBER

THE TIN INDUSTRY (RESEARCH AND DEVELOPMENT) BOARD

(ESTABLISHED UNDER THE TIN INDUSTRY (RESEARCH AND DEVELOPMENT) FUND ACT 1953)

We, Dato' Seri Mohd Ajib Anuar and Dato' Sri Hj. Ahmad Omar, being the Chairman and a Board Member of The Tin Industry (Research and Development) Board respectively, do hereby state that, in the opinion of the Board, the accompanying Financial Statements which contain the Statement of Financial Position, Statement of Comprehensive Income, Statement of Changes In Equity and Statement of Cash Flows, together with the notes to the Financial Statements, are drawn up so as to give a true and fair view of the state of affairs of The Tin Industry (Research and Development) Board as at 31 December 2023 and of the results and the changes in its financial position for the year ended on that date.

On behalf of the Board,

DATO' SERI MOHD AJIB ANUAR
CHAIRMAN

DATE: 25 JUN 2024
Kuala Lumpur

On behalf of the Board,

DATO' SRI HJ. AHMAD OMAR
BOARD MEMBER

DATE: 25 JUN 2024
Kuala Lumpur

DECLARATION BY THE OFFICER PRIMARILY RESPONSIBLE FOR THE FINANCIAL MANAGEMENT OF THE TIN INDUSTRY (RESEARCH AND DEVELOPMENT) BOARD

(ESTABLISHED UNDER THE TIN INDUSTRY (RESEARCH AND DEVELOPMENT) FUND ACT 1953)

I, Hj. Muhamad Nor Muhamad, the officer primarily responsible for the financial management and the accounting records of The Tin Industry (Research and Development) Board, do solemnly and sincerely declare that the accompanying Statement of Financial Position, Statement of Comprehensive Income, Statement of Changes in Equity and Statement of Cash Flows, together with the notes to the Financial Statements, to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Statutory Declaration Act, 1960.

Subscribed and solemnly)
declared by the above-named)
at Kuala Lumpur on this)
day of 25 JUN 2024)

HJ. MUHAMAD NOR MUHAMAD

Before me,

PESURUHJAYA SUMPAH
W 804
SHAIFUL HILMI
BIN HALIM
1 Januari 2023
Hingga
31 Disember 2025
MALAYSIA

Commissioner for Oaths
Malaysia

Unit C-6-1, Megan Avenue II
No. 12, Jalan Yap Kwan Seng
50450 Kuala Lumpur

STATEMENT OF FINANCIAL POSITION

AS AT 31 DECEMBER 2023

	NOTE	2023 RM	Restated 2022 RM
NON-CURRENT ASSETS			
Property, Plant and Equipment	3	**12,260**	14,970
CURRENT ASSETS			
Trade Receivables	4	**258,114**	334,916
Other Receivables	5	**71,130**	39,434
Fixed Deposits	6	**3,990,306**	3,886,646
Cash at Bank	7	**932,666**	124,641
Tax Recoverable		**-**	159,788
TOTAL CURRENT ASSETS		**5,252,216**	4,545,425
TOTAL ASSETS		**5,264,476**	4,560,395
EQUITY AND LIABILITIES			
EQUITY			
Accumulated Surplus		**4,998,906**	4,286,078
CURRENT LIABILITIES			
Other Payables and Accruals	8	**265,570**	274,317
TOTAL EQUITY AND LIABILITIES		**5,264,476**	4,560,395

The accompanying notes from page 49 to 54 form an integral part of the financial statements.

STATEMENT OF COMPREHENSIVE INCOME

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

	NOTE	2023 RM	Restated 2022 RM
INCOME	9	**2,445,836**	2,131,238
OTHER INCOME	10	**138,608**	82,600
TOTAL INCOME		**2,584,444**	2,213,838
EXPENDITURE			
Public Relations and Publicity	11	**36,185**	38,279
Research and Development	12	**171,325**	121,000
Administrative Charges	13	**1,171,373**	1,194,038
Office Rent	14	**167,672**	167,672
Other Operating Expenses	15	**155,015**	158,226
Depreciation	3	**2,910**	2,903
TOTAL EXPENDITURE		**1,704,480**	1,682,118
SURPLUS OF INCOME BEFORE TAX	16	**879,964**	531,720
Taxation	17	**(167,136)**	(18,734)
SURPLUS OF INCOME AFTER TAX		**712,828**	512,986

The accompanying notes from page 49 to 54 form an integral part of the financial statements.

STATEMENT OF CHANGES IN EQUITY

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

	Publicity Fund	Research Fund	Consolidated Total
	RM	RM	RM
Balance as at 1 January 2022			
(As per audited)	1,825,994	1,921,970	3,747,964
Prior year adjustments	12,564	12,564	25,128
Balance as at 1 January 2022			
(As per restated)	1,838,558	1,934,534	3,773,092
Surplus of Income for the			
year 2022 After Tax			
- As per previously reported	320,858	228,190	549,048
- Prior year adjustments	(18,031)	(18,031)	(36,062)
As per restated	302,827	210,159	512,986
Balance as at 31 December 2022			
(As per restated)	2,141,385	2,144,693	4,286,078
Balance as at 1 January 2023	2,141,385	2,144,693	4,286,078
Surplus of Income for the			
year 2023 after tax	437,382	275,446	712,828
Balance as at 31 December 2023	**2,578,767**	**2,420,139**	**4,998,906**

The accompanying notes from page 49 to 54 form an integral part of the financial statements.

STATEMENT OF CASH FLOWS

FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

	2023 RM	Restated 2022 RM
CASH FLOWS FROM OPERATING ACTIVITIES		
Surplus of Income Before Tax	**879,964**	531,720
Adjustments for:		
Interest Income	**(138,608)**	(82,600)
Depreciation	**2,910**	2,903
Cash Flows From Operations Before Working Capital Changes	**744,266**	452,023
Decrease/(Increase) in Receivables	**76,802**	(4,286)
Increase in Other Receivables	**(31,696)**	(3,671)
(Decrease)/Increase in Other Payables and Accruals	**(32,947)**	18,416
Tax refund received	**159,788**	-
Tax Paid	**(143,136)**	(114,750)
Interest Income on Cash at Bank	**4,003**	1,111
Net Cash Flows From Operating Activities	**777,080**	348,843
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of Property, Plant and Equipment	**-**	(1,300)
Interest Income on Fixed Deposits	**134,605**	81,489
Net Cash Flows From Investing Activities	**134,605**	80,189
NET INCREASE IN CASH AND CASH EQUIVALENTS	**911,685**	429,032
Cash and Cash Equivalents at the Beginning of the Year	**4,011,287**	3,582,255
Cash and Cash Equivalents at the End of the Year	**4,922,972**	4,011,287
CASH AND CASH EQUIVALENTS COMPRISE :		
Fixed Deposits	**3,990,306**	3,886,646
Cash at Bank	**932,666**	124,641
	4,922,972	4,011,287

The accompanying notes from page 49 to 54 form an integral part of the financial statements.

NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

1 GENERAL INFORMATION

The Tin Industry (Research and Development) Board (Tin Board) was established under Section 4 of the Tin Industry (Research and Development) Fund Act 1953 (Act 455). The Act provides the collection of cess on export of tin from Malaysia for the purpose of funding the operations of the Tin Board on research, development, publicity and other activities for the benefit of Malaysia's tin industry.

Since 1979, cess has been collected at the rate of 3.6377 sen per kilogramme of tin exported. As from 16 July 2013, the cess rate has been increased to 40 sen per kilogramme as per the Tin Industry (Research and Development) (Cess) (Amendment) Order 2013 dated 28 June 2013. The cess is allocated at 20 sen to each Tin Board's funds, namely the Publicity Fund and the Research, Development and General Purposes Fund (Research Fund).

The Publicity Fund was established pursuant to Section 11(a) of the Tin Industry (Research and Development) Fund Act 1953 for financing all the publicity and public relations activities of the Tin Board. The Research Fund was established pursuant to Section 11(b) of the same Act for financing the activities relating to research, development and other general purposes.

2 SIGNIFICANT ACCOUNTING POLICIES

2.1 Basis of preparation

The financial statements have been prepared under the historical cost convention and drawn up in accordance to the Malaysian Private Entities Reporting Standards (MPERS) issued by the Malaysian Accounting Standard Board (MASB) with provisions under the Act 455. The Tin Board has been granted exemption from adopting the Malaysian Public Sector Accounting Standards (MPSAS) vide a letter from the Accountant General's Department of Malaysia dated 31 December 2019.

2.2 Property, plant and equipment

Depreciation on property, plant and equipment is provided on the straight line method based on the estimated useful lives of the related assets at the following annual rates:

Furniture and Equipment	10%
Office Fixtures and Fittings	10%
Library	10%

2.3 Secretariat staff and common-user expenditure

The Tin Board has no direct employees. All its administrative, secretarial and clerical work is provided by the staff of the Malaysian Chamber of Mines (Chamber). The office space and expenditure on all common-user items are shared with the Chamber and The Kuala Lumpur Tin Market (KLTM), and are apportioned on the following percentage as revised w.e.f. 1st January 2016:

	Tin Board			
	Publicity Fund	Research Fund	Chamber	KLTM
Administrative Charges	42.5%	42.5%	10.0%	5.0%
Common-user Expenditure	42.5%	42.5%	10.0%	5.0%

Administrative charges comprise salary, housing allowance and bonus for staff, contribution to Employees Provident Fund (EPF) and Social Security Organisation (SOCSO), and consultant fee.
Common-user expenditure comprise office rental, electricity, postage and telephone, printing and stationery, general expenses, travelling expenses and subscription to publications.

The above expenses are paid initially by the Chamber and reimbursed by the Tin Board in accordance with the above sharing basis.

NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

2 SIGNIFICANT ACCOUNTING POLICIES *(CONTINUED)*

2.4 Financial instruments / Financial assets

i) Initial recognition and measurement
A financial asset or a financial liabilities in the statement of financial position when, and only when, an entity in the Tin Board becomes a party to the contractual provisions of the instruments.

On initial recognition, financial assets and financial liabilities are measured at fair value, which is generally the transaction price, plus transaction costs if the financial asset or financial liability is not measured at fair value through profit or loss. For instruments measured at fair value through profit or loss, transaction costs are expensed to profit or loss when incurred.

ii) Measurement of financial assets
For the purpose of subsequent measurement, Tin Board classifies financial assets at fair value through profit or loss.

Other than financial assets measured at fair value through profit or loss, all other financial assets are subject to review for impairment.

iii) Measurement of financial liabilities
After initial recognition, Tin Board measures all financial liabilities at amortised cost using the effective interest method, except for derivatives instruments that are liabilities, which are measured at fair value.

iv) Fair value measurements of financial instruments
The fair value of financial asset or a financial liability is determined by reference to the quoted market price in an active market, and in the absence of an observable market price, by a valuation technique.

v) Recognition of gains and losses
Fair value changes of financial assets and financial liabilities classified as at fair value through profit or loss are recognizes in profit or loss when they arise.

For financial assets and financial liabilities carried at amortised cost, a gain or loss is recognised in profit or loss only when the financial asset or financial liability is derecognised or impaired, and through the amortization process of the instrument.

2.5 Cash and cash equivalents
For the purposes of the cash flow statement, cash and cash equivalents comprise cash in the bank and fixed deposits that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

2.6 Revenue
Revenue represents cess collection on tin exported which are recognized on the accrual basis.
Interest income is recognized on the effective yield basis.

2.7 Liabilities and equity
Liabilities of the Tin Board represents other payables which are recognized on the accrual basis.
Equity represents accumulated surplus of the Tin Board's income over expenditure.

NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

2 SIGNIFICANT ACCOUNTING POLICIES *(CONTINUED)*

2.8 Income tax

The tax paid is based on taxable income for the year. The Tin Board's liability for current tax is calculated using the enacted tax rate at the end of the reporting period.

3 PROPERTY, PLANT AND EQUIPMENT

	Publicity Fund	Research Fund	Consolidated Total
COST	RM	RM	RM
Furniture and Equipment			
At 1 January 2023	39,314	27,634	66,948
At 31 December 2023	39,314	27,634	66,948
Office Fixture and Fittings			
At 1 January 2023	2,465	2,465	4,930
At 31 December 2023	2,465	2,465	4,930
Library			
At 1 January 2023	1,300	-	1,300
Addition	200	-	200
At 31 December 2023	1,500	-	1,500
Total Cost at 31 December 2023	43,279	30,099	73,378
ACCUMULATED DEPRECIATION			
Furniture and Equipment			
At 1 January 2023	36,129	20,001	56,130
Depreciation for the year	1,143	1,141	2,284
At 31 December 2023	37,272	21,142	58,414
Office Fixture and Fittings			
At 1 January 2023	985	985	1,970
Depreciation for the year	247	247	494
At 31 December 2023	1,232	1,232	2,464
Library			
At 1 January 2023	108	-	108
Depreciation for the year	132	-	132
At 31 December 2023	240	-	240
Total Accumulated Depreciation at 31 December 2023	38,744	22,374	61,118
NET BOOK VALUE			
At 31 December 2023	4,535	7,725	12,260
At 31 December 2022	5,857	9,113	14,970

NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

4 TRADE RECEIVABLES

	2023	Restated 2022
	RM	RM
Publicity Fund	**129,057**	167,458
Research Fund	**129,057**	167,458
Consolidated Total	**258,114**	334,916

5 OTHER RECEIVABLES

	2023	2022
	RM	RM
Publicity Fund	**32,127**	18,712
Research Fund	**39,003**	20,722
Consolidated Total	**71,130**	39,434

6 FIXED DEPOSITS

	2023	2022
	RM	RM
Publicity Fund	**1,999,705**	1,945,674
Research Fund	**1,990,601**	1,940,972
Consolidated Total	**3,990,306**	3,886,646

7 CASH AT BANK

	2023	2022
	RM	RM
Publicity Fund	**547,550**	67,295
Research Fund	**385,116**	57,346
Consolidated Total	**932,666**	124,641

8 OTHER PAYABLES AND ACCRUALS

	2023	Restated 2022
Other Payables	**RM**	RM
Publicity Fund	**113,957**	64,162
Research Fund	**125,513**	58,727
	239,470	122,889
Accruals		
Publicity Fund	**20,250**	74,464
Research Fund	**5,850**	76,964
	26,100	151,428
Consolidated Total	**265,570**	274,317

Included in the total other payables and accruals are:

(i) The amount of other payables for the Publicity and Research Fund of RM113,957 (2022: RM64,162) and RM125,513 (2022: RM58,727) respectively are the expenses paid initially by the Malaysian Chamber of Mines.

(ii) The amount of accruals for the Publicity and Research Fund of RM20,250 (2022: RM74,464) and RM5,850 (2022: RM76,964) respectively are the provisions for audit fee and professional fee.

9 INCOME

	2023	Restated 2022
Publicity Fund	**RM**	RM
Cess Collection on Tin Exported	**1,222,918**	1,065,619
Research Fund		
Cess Collection on Tin Exported	**1,222,918**	1,065,619
Consolidated Total	**2,445,836**	2,131,238

NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

10 OTHER INCOME

	2023	2022
Publicity Fund	RM	RM
Interest on Fixed Deposits	67,446	39,404
Interest on Current Accounts	2,033	619
	69,479	40,023
Research Fund		
Interest on Fixed Deposits	67,159	42,085
Interest on Current Accounts	1,970	492
	69,129	42,577
Consolidated Total	138,608	82,600

11 PUBLIC RELATIONS AND PUBLICITY

	2023	2022
Publicity Fund	RM	RM
Sponsorship and Donations	-	2,000
Publication "Malaysian Tin Bulletin"	30,600	30,600
Mailing of "Malaysian Tin Bulletin"	5,585	5,679
	36,185	38,279

12 RESEARCH AND DEVELOPMENT

	2023	2022
Research Fund	RM	RM
Research and Development Projects	171,325	121,000
	171,325	121,000

13 ADMINISTRATION CHARGES

	2023	Restated 2022
	RM	RM
Publicity Fund	585,571	597,019
Research Fund	585,802	597,019
Consolidated Total	1,171,373	1,194,038

14 OFFICE RENT

	2023	2022
	RM	RM
Publicity Fund	83,836	83,836
Research Fund	83,836	83,836
Consolidated Total	167,672	167,672

15 OTHER OPERATING EXPENSES

	2023	2022
Publicity Fund	RM	RM
Electricity	2,280	2,189
Postages and Telephones	5,612	5,403
Printing and Stationery	16,704	7,552
General Expenses	18,903	25,747
Subscription to Publications	1,401	3,253
Travelling Expenses	27,757	25,510
Audit Fee	3,243	3,150
	75,900	72,804
Research Fund		
Electricity	2,280	2,189
Postages and Telephones	4,979	5,184
Printing and Stationery	5,979	6,692
General Expenses	19,409	26,060
Subscription to Publications	7,178	1,379
Travelling Expenses	28,917	32,368
Audit Fee	3,243	3,150
Meeting Allowance	4,300	6,100
Professional Fee	2,830	2,300
	79,115	85,422
Consolidated Total	155,015	158,226

NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2023

16 SURPLUS OF INCOME BEFORE TAX

	2023 RM	Restated 2022 RM
Publicity Fund		
Total Income	**1,292,397**	1,105,642
Total Expenditure	**(783,014)**	(793,445)
	509,383	312,197
Research Fund		
Total Income	**1,292,047**	1,108,196
Total Expenditure	**(921,466)**	(888,673)
	370,581	219,523
Consolidated Total	**879,964**	531,720

17 TAXATION

	2023 RM	2022 RM
Estimated Current Tax	**144,000**	114,750
Over provision in prior years	**-**	(96,016)
Less provision in prior years	**23,136**	-
Tax Penalty	**-**	-
Tax Expense	**167,136**	18,734

The Tin Board's income tax is calculated at the statutory tax rate of 24% on the taxable income for the financial year.

18 RATIONALISATION PROGRAMME

The Ministry of Natural Resources and Environmental Sustainability is currently in the process of implementing a restructuring programme whereby the Tin Board will become as a new entity called the Malaysian Mineral Industry Development Board.

19 ADJUSTMENT ON STATEMENT OF FINANCIAL POSITION, STATEMENT OF COMPREHENSIVE INCOME AND STATEMENT OF CASH FLOWS

	As previously reported RM	Prior year adjustments RM	As per restated RM
Statement of Financial Position			
Asset			
Trade receivables	209,222	125,694	334,916
Liability and Equity			
Other payables and accruals	137,689	136,628	274,317
Accumulated surplus	4,297,012	(10,934)	4,286,078
		125,694	
Statement of Comprehensive Income			
Income	(2,030,672)	(100,566)	(2,131,238)
Administrative charges	1,057,410	136,628	1,194,038
		36,062	
Statement of Cash Flows			
Surplus of Income Before Tax	567,782	(36,062)	531,720
Increase in receivables	96,280	(100,566)	(4,286)
Increase in other payable and accruals	(118,212)	136,628	18,416
		-	

20 PRESENTATION OF FINANCIAL STATEMENTS

The Financial Statements for the year ended 31 December 2023 were approved by the Board of Directors via resolution on 25 June 2024.

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